

**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 /2010**

**DATE OF HEARING : 03.02.2011**

**DATE OF ORDER : 18.03.2011**

**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 2011-12.

**ORDER**

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 5<sup>th</sup> 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 hereby fixed for DISCOMs under S.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 hereby 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.oriarc.org](http://www.oriarc.org)) in order to invite suggestions/objections from the intending objectors. The public notice inviting suggestions/objections/views 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 GRIDCO, the Commission received 9 (nine) numbers of objections/suggestions/views from the following persons/associations/ institutions/ licensees.  

(1) Sri G.N. Agrawal, Convenor-cum-Gen. Secy, Sambalpur District Consumers Federation, Balaji Mandir Bhawan, Khetrajpur, Sambalpur-768003; (2) Sri Jayadev Mishra, At-N-4/98, Nayapalli, Bhubaneswar-12, Dist. Khurda; (3) Sri M.V. Rao, Resident Manager, M/s Ferro Alloys Corporation Ltd., 102-B, Kalinga Enclave, Nayapalli, Bhubaneswar-12, Khurda; (4) Mr. Bibhu Charan Swain, M/s Power Tech Consultants, 1-A/6, Swati Villa, Surya Vihar, Link Road, Cuttack-753012; (5) Sri Ramesh Chandra Satpathy, Secretary, National Institute of Indian Labour, Plot No.302 (B), Beherasahi, Nayapalli, Bhubaneswar-751012; (6) Shri R.P. Mahapatra, Retd. Chief Engineer & Member (Gen.), OSEB, Plot No.775(Pt.), Lane-3, Jayadev Vihar, Bhubaneswar; (7) Sri M.V. Rao, Utkal Chamber of Commerce & Industry Ltd., N/6, IRC Village, Bhubaneswar-15; (8) Chief Executive Officer (Comm), NESCO, WESCO & SOUTHCO, Regd. Office- Plot No.N-1/22, IRC Village, Nayapalli, Bhubaneswar-15; (9) Shri Pradeep Kumar Nath, Chief Manager (Elect), NALCO, Jayadev Vihar, Bhubaneswar. All the above named objectors were present during the hearing and their written submission was 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 World Institute of Sustainable Energy (WISE), Pune as consumer counsel for objective analysis of the licensee's Annual Revenue Requirement and Bulk Supply Price proposal. The Consumer Counsel presented its views on the matter in the hearing.
5. The date for hearing was fixed as 03.02.2011 and it was duly notified in the leading newspapers mentioning the list of the objectors. The Commission also issued notice to the Government of Orissa through 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 03.02.2011 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 14.02.2011 at 3:30 PM at its premises to discuss about the ARR applications and Bulk Supply Price proposal of the licensee. The Members of the SAC, Special Invitees, the Representative of DoE, Govt. of Orissa actively participated in the discussion and offered their valuable suggestions and views on the matter for consideration of the Commission.

**BULK SUPPLY PRICE (BSP) PROPOSAL OF GRIDCO FOR THE FY 2011-12  
(Para 8 to 39)**

8. GRIDCO Ltd. (Formerly Grid Corporation of Orissa Limited) (hereinafter called GRIDCO) is a Deemed Trading Licensee under the 5<sup>th</sup> 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, the State Utility & CTU / others. 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) proposal to the Commission for approval, before 30<sup>th</sup> November of each year for the ensuing year.

9. As a statutory requirement GRIDCO has filed an application for approval of its proposed Annual Revenue Requirement and revision of Bulk Supply Price for the FY 2011-12 to enable it to carry out its functions of bulk supply to DISCOMs and emergency supply to CGPs.

**Energy Availability to GRIDCO for FY 2011-12**

10. GRIDCO has projected energy availability of 23,689.08 MU during FY 2011-12 from different sources. The estimation for drawal of hydel power from OHPC is 5909.69 MU including 262.50 MU from Machkund and 1942.38 from Indravati; and thermal power of 2874.32 MU from OPGC, 2965.43 MU from TTPS, 1257.06 MU from State CGPs, 512.46 MU from Co-generation plants inside the State, and 6512.99 MU of Orissa share of power from Eastern Regional power stations including Tala, Chukha and Teesta hydel plants. Further, GRIDCO has proposed to procure 3357.12 MU from two IPPs namely M/s Sterlite Energy Ltd. and M/s Arati Steels during FY 2011-12 Also, GRIDCO has also proposed to procure 300 MU from Renewable Energy sources (Middle Kolab & Lower Kolab Small SHP of M/s Meenakhi Power Ltd and Samal Barrage Small Hydro Project of M/s OPCL). The station-wise details in respect of availability of power proposed by GRIDCO is given in the table below:

**Table - 1**

**Summary of Proposed Energy Availability to GRIDCO for FY 2011-12**

Stations	Availability (After transformation loss and Auxiliary Consumption) (MU)	Orissa Share %	Projection for FY 2011-12 (MU)	Approved for 2010-11
HHEP	770.45	100	770.45	
CHEP	375.21		375.21	
Rengali	564.30	100	564.30	
Upper Kolab	823.68	100	823.68	
Balimela	1171.17	100	1171.17	
<b>OHPC(Old)</b>	<b>3704.81</b>		<b>3704.81</b>	<b>3676.86</b>
Indravati	1942.38	100	1942.38	1942.38
Machhkund	262.50	50	262.50	262.50
<b>Total State hydro availability</b>	<b>5909.69</b>		<b>5909.69</b>	<b>5881.74</b>
OPGC	2,874.32	100	2874.32	2853.53

Stations	Availability (After transformation loss and Auxiliary Consumption) (MU)	Orissa Share %	Projection for FY 2011-12 (MU)	Approved for 2010-11
TTPS	2,965.43	100	2965.43	2957.32
CGPs	1257.06		1257.06	1051.00
Renewable Energy	300.00		300.00	300.00
Co-generation Plants	512.46		512.46	529.00
IPPs	3357.12		3357.12	646.23
<b>Total State availability</b>	<b>17176.08</b>		<b>17176.08</b>	<b>14218.82</b>
TSTPS Stg.-I	2,044.54	31.80	2,044.54	2145.54
TSTPS Stg.-II	1,349.38	10.00	1,349.38	1349.39
FSTPS	1,378.44	13.63	1,378.44	1464.49
KhSTPS Stg.-I	692.18	15.24	692.18	840.63
KhSTPS Stg.-II	146.45	0.60	146.45	60.72
<b>Total Central Thermal availability</b>	<b>5,610.99</b>		<b>5,610.99</b>	<b>5860.77</b>
Chukha	257.00	15.19	257.00	271.79
TALA	140.00	4.25	140.00	145.17
Teesta	505.00	23.40	505.00	507.19
<b>Total Central hydro availability</b>	<b>902.00</b>		<b>902.00</b>	<b>924.16</b>
<b>Total EREB</b>	<b>6,512.99</b>		<b>6,512.99</b>	<b>6784.93</b>
<b>Total Availability</b>	<b>23689.08</b>		<b>23689.08</b>	<b>21003.75</b>

#### Projection of Demand and Energy for DISCOMs

11. The total Simultaneous Maximum Demand (SMD) of DISCOMs for the FY 2011-12 has been projected at 3522.737 MVA per month based on the monthly highest SMD of each DISCOM during first 6 months of FY 2010-11. The average of actual SMD for first six months of 2010-11 and projection for 2011-12 as submitted by GRIDCO in its application are given in Table below.

**Table -2**  
**Projection of Simultaneous Maximum Demand for FY 2011-12**  
**(Figures in MVA)**

DISCOMs	OERC approval for FY 2010-11	Average SMD of first Six months of FY 2010-11	Projection of GRIDCO for FY 2011-12 considering the highest SMD of first Six months of FY 2010-11
CESU	972.00	1111.24	1182.87
NESCO	730.00	736.28	822.55
WESCO	971.00	949.77	1106.59
SOUTHCO	377.00	392.51	410.73
<b>TOTAL</b>	<b>3050.00</b>	<b>3189.81</b>	<b>3522.74</b>

12. In the absence of receipt of any data pertaining to projection of Energy Demand for FY 2011-12 from DISCOMs, GRIDCO has projected 22755.20 MU as the energy drawal by DISCOMs for FY 2011-12 based on their 5-year Business Plan starting from FY 2008-09, which is already approved by the Commission. Emergency Power Supply to Captive Generating Plants (CGPs) like NALCO & IMFA for FY 2011-12 has been projected at 10 MU. The actuals for first six months of FY 2010-11, projection for FY 2010-11 on pro-rata basis and projection for FY 2011-12 as submitted by GRIDCO in its BSP application are indicated in Table below.

**Table - 3**  
**Projection of Energy Sale for FY 2011-12**

(Figures in MU)

AGENCY	Actual Energy drawal from 4/10 to 09/10 (MU)	Projection for FY 10-11 on pro-rata based on first six months drawal (MU)	OERC approval for 2010-11 (MU)	Approval in the Business Plan for 2011-12 (MU)	GRIDCO Projection for FY 11-12 (MU)	% Rise in Demand (projection for FY' 10-11 vs. projection for FY' 11-12)
CESU	3630.43	7260.86	6420.0	7722.20	7722.20	6.35
NESCO	2519.76	5039.52	5122.0	5465.00	5465.00	8.44
WESCO	3143.43	6286.86	6244.0	6720.00	6720.00	6.89
SOUTHCO	1260.51	2521.02	2368.0	2848.00	2848.00	12.97
<b>TOTAL DISCOMS</b>	<b>10554.13</b>	<b>21108.26</b>	<b>20154.0</b>	<b>22755.20</b>	<b>22755.20</b>	<b>7.80</b>
IMFA	0.02	0.05	<b>10.0</b>		<b>0.50</b>	900.00
NALCO	114.38	165.89			<b>9.50</b>	-94.27
<b>TOTAL CGPs</b>	<b>114.40</b>	<b>165.94</b>	<b>10.0</b>		<b>10.00</b>	<b>-93.97</b>
<b>TOTAL SALE</b>	<b>10668.53</b>	<b>21274.20</b>	<b>20164.0</b>	<b>22755.20</b>	<b>22765.20</b>	<b>7.01</b>

**Power Procurement Projected by GRIDCO**

13. GRIDCO projected the total energy availability of 23689.08 MU and considered OPTCL transmission loss of 923.88 MU @ 3.90% for the year 2011-12. In order to meet the demand of DISCOMs and CGPs and make necessary allowance for transmission loss, GRIDCO has proposed as indicated in the table below.

**Table - 4**  
**Demand and Energy Projection for FY 2011-12**

Item	Projection for FY 2011-12
SMD for DISCOMs (MVA)	3522.74
Energy demand of DISCOMs (MU)	22755.20
Emergency Power to CGPs (MU)	10.00
Total Energy demand (MU)	22765.20
Transmission loss @ 3.90% (MU) in OPTCL system	923.88
Total Energy Requirement (MU)	23689.08
<b>Total Energy Availability (MU)</b>	<b>23689.08</b>
Excess/Shortfall of Power (MU)	0.00

### **Revenue Requirement Projected for 2011-12**

14. In its application for FY 2011-12, GRIDCO has projected to procure hydel power of 5647.19 MU from OHPC and 262.50 MU from Machkund. GRIDCO has provisionally assumed the OERC approved rates of different OHPC Power Stations for FY 2010-11 towards procurement of such energy. But the rate of energy from Machkund Joint Project has been calculated at 22.06 P/U considering Orissa share at 50%. Accordingly GRIDCO has proposed to procure the total hydel energy of 5909.69 MU from OHPC at a cost of Rs.368.24 crore with an average rate of 62.31 P/U against average rate of 62.51 P/U approved for 2010-11.
15. The power purchase cost of 2874.32 MU from OPGC @ 179.69 P/U comes to Rs. 516.48 crore for FY 2011-12. The proposed power purchase cost is based on the statement of tariff calculation furnished by OPGC to GRIDCO, which is subject to the approval of the Commission. The power purchase cost of 2853.53 MU from OPGC @ 149.04 P/U approved by the Commission for 2010-11 was Rs.425.30 crore.
16. Based on the latest NTPC petitions filed before CERC in respect of Talcher Thermal Power Station (TTPS), GRIDCO has projected to procure 2965.43 MU from TTPS with the procurement cost of Rs. 736.14 Cr. @ 248.24 P/U against 171.38 P/U approved by the Commission for 2010-11.
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. GRIDCO has filed a petition/application for reduction of rate of surplus power from CGPs / Cogeneration Plants for FY 2010-11 with a proposed tariff of Rs.2.75 / Unit for supply up to 10 MW, Rs.3.10/Unit for supply up to 50 MW & Rs.3.25/Unit for supply above 50 MW on RTC basis in a month.. Considering the above proposed rates GRIDCO has estimated to procure 1257.06 MU from CGPs at a cost of Rs. 376.35 Crore during FY 2011-12 with an average rate of 299.39 paisa/unit. Similarly, GRIDCO proposes to procure 512.46 MU from Co-generating Plants at a cost of Rs.140.93 Cr. during FY 2011-12 with an average price of Rs.2.75 / Unit.
18. GRIDCO proposes to procure 300 MU from Renewable sources during FY 2011-12 which includes 150 MU from Meenakshi Power Small Hydro and 150 MU from Samal Barrage Small Hydro projects at a price of Rs.3.20 and Rs.3.10/Unit respectively. The average tariff works out to be Rs. 3.15 per unit with the total procurement cost of Rs.94.50 Crore.
19. Pending approval of the power procurement price, GRIDCO has proposed for procurement of 3357.12 MU from two IPPs (M/s Sterlite Energy Ltd. And M/s Arati Steels) during FY 2011-12 with the total procurement cost of Rs.923.21 Crore at a price of 275 P/U which is the minimum price for CGPs proposed by GRIDCO.
20. Since the tariff for individual Stations of NTPC-ER has not yet been finalized 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 2011-12, GRIDCO has considered the Fixed Cost of the Central Thermal Stations (except KHSTPS-II) as approved by the CERC for FY 2008-09 as no fresh orders with regard to the above, is available. In case of KHSTPS-II, the AFC for FY 2011-12 has been projected at 90% of the AFC filed by NTPC at CERC for the period from 2009-10 to 2013-14, as intimated by NTPC to GRIDCO vide its letter dated 26.03.2010. In its

application, GRIDCO has indicated that any additional information regarding fixed cost of central generating stations, if available to GRIDCO before disposal of this application by the OERC, it would be submitted to the Commission. Accordingly, GRIDCO has estimated to procure 5610.99 MU from Central Sector Thermal Power Stations with a total cost of Rs.1761.41 cr. at an average rate of 313.92 P/U. Similarly, GRIDCO has projected to procure 902 MU from Chukha, Tala, Teesta-V hydro power stations with the procurement cost of Rs.165.10 Cr. at average rate of 183.04 P/U. While estimating energy drawl from Central Sector Stations, transmission loss @ 3.09% has been considered by GRIDCO.

21. The detailed cost of power purchase as furnished by GRIDCO for 2011-12 is reproduced hereunder in Table below.

**Table - 5**  
**Summary of Proposed Power Procurement Cost during FY 2011-12**

Sl. No.	Generators	Energy (MU)	Rate (P/U)	Total Cost (Rs.Cr.)	Approved rate for 2010-11 (P/U)
1	HHEP	770.45	78.80	60.71	
2	CHEP	375.21	60.87	22.84	
3	Rengali	564.30	63.73	35.96	
4	Upper Kolab	823.68	33.27	27.40	
5	Balimela	1171.17	58.50	68.52	
	<b>OHPC (Old)</b>	<b>3704.81</b>	<b>58.15</b>	<b>215.43</b>	<b>58.49</b>
6	Indravati	1942.38	75.69	147.02	75.59
7	Machhkund	262.50	22.06	5.79	21.95
<b>A</b>	<b>Total State Hydro</b>	<b>5909.69</b>	<b>62.31</b>	<b>368.24</b>	<b>62.51</b>
8	OPGC	2874.32	179.69	516.48	149.04
9	TTPS	2965.43	248.24	736.14	171.38
10	CGPs	1257.06	299.39	376.35	325.00
11	Renewable Energy Source	300.00	315.00	94.50	305.00
12	Co-generation Plants	512.46	275.00	140.93	330.00
13	IPPs	3357.12	275.00	923.21	243.54
<b>B</b>	<b>State Total (A+8+..+13)</b>	<b>17176.08</b>	<b>183.73</b>	<b>3155.84</b>	<b>145.22</b>
14	TSTPS Stage-I	2044.54	279.67	571.80	207.08
15	TSTPS Stage-II	1349.38	279.44	377.07	216.01
16	Farakka	1378.44	391.75	540.00	302.57
17	Kahalgaon-I	692.18	318.33	220.34	275.32
18	Kahalgaon-II	146.45	356.45	52.20	279.63
<b>C</b>	<b>Total availability from Central Sector Thermal Stations</b>	<b>5610.99</b>	<b>313.92</b>	<b>1761.41</b>	<b>243.54</b>
19	Chukha	257.00	184.24	47.35	183.32
20	TALA	140.00	210.04	29.40	209.12
21	Teesta-V	505.00	174.95	88.35	186.42
<b>D</b>	<b>Total availability from Central sector hydro share</b>	<b>902.00</b>	<b>183.04</b>	<b>165.10</b>	<b>189.07</b>
<b>E</b>	<b>Total EREB share (C+D)</b>	<b>6512.99</b>	<b>295.80</b>	<b>1926.51</b>	<b>236.12</b>
<b>F</b>	<b>Total energy available to GRIDCO (B+E)</b>	<b>23689.08</b>	<b>214.54</b>	<b>5082.36</b>	<b>174.58</b>

**Special Appropriation towards Past Liabilities – Power Purchase and Other Costs for FY 2011-12**

22. GRIDCO has proposed a sum of Rs.999.38 crore on account of past liabilities and uncovered expenses up to FY 2009-10 to be recovered through tariff of the FY 2011-12 as detailed in Table below.

**Table - 6**  
**Summary of proposed Special Appropriation (Rs. Crore)**

Special appropriation towards power purchase and other costs up to 31-03-2008.	298.48
Special appropriation for FY 2008-09 for Power Purchase and Other Costs	100.27
Regulatory Asset for FY 2009-10 for Power Purchase and Other Costs	169.63
<b>Sub-total</b>	<b>568.38</b>
Arrear Payment to OPGC:	109.48
Arrear Payment to NTPC (in respect of TTPS):	321.52
<b>Total</b>	<b>999.38</b>

**Interest, Financing & Other expenses**

23. GRIDCO has proposed to recover Rs.449.89 crore during the FY 2011-12 towards interest on loans and financial charges related to Power Purchase. Based on the actual expenses of Rs.3.51 crore towards employees cost during FY 2009-10 against approval of Rs.4.97 crore, GRIDCO has considered an amount of Rs.5.73 crore towards Employees Cost for the FY 2011-12. The interest, financing and other charges including administrative and general expenses cost etc. as proposed by GRIDCO is presented in Table below.

**Table - 7**  
**Interest, Financing & Other expenses for FY 2011-12**  
**(Rs. Crore)**

	<b>GRIDCO proposal for FY 11-12</b>
<b>1. Interest &amp; Financial Charges</b>	<b>449.89</b>
<b>2. Other Costs:</b>	
a. Employee Cost	5.73
b. A&G Cost	3.97
c. ERLDC, NLDC fees, ULDC and SLDC scheduling Charges	1.32
d. Repair & Maintenance Cost	0.15
<b>Sub-Total - Other Costs</b>	<b>11.17</b>
<b>3. Depreciation</b>	<b>0.20</b>
<b>Total (1+2+3)</b>	<b>461.26</b>

**Return on Equity:**

24. GRIDCO has proposed RoE of Rs.67.11 Cr @ 15.50 % on its equity capital of Rs. 432.98 Cr.

**Other Income / Miscellaneous Receipts:**

25. GRIDCO expects to earn an amount of Rs. 5.10 crore (at existing approved tariff) 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 2011-12 is summarized in the Table below.

**Table - 8**  
**Annual Revenue Requirement of GRIDCO for FY 2011-12**

(Rs. Crore)

	Item	OERC approval for 2010-11	GRIDCO's Proposal for 2011-12
a)	Power Purchase Cost	3666.85	5082.37
b)	Special Appropriation towards Past Liabilities	371.20	999.38
c)	Interest, Financing and other expenses	204.39	461.26
d)	Return on Equity	-	67.11
e)	<b>Revenue Requirement (a+b+c+d)</b>	<b>4242.44</b>	<b>6610.12</b>
f)	(-) Misc. Receipts	5.10	5.10
g)	<b>Net Revenue Requirement (e-f)</b>	<b>4237.34</b>	<b>6605.02</b>

**Proposed Revenue Earning at Existing BSP Rates:**

27. GRIDCO proposes to earn revenue of Rs 3838.06 crore during 2011-12 from the anticipated sale of 22755.20 MU to DISCOMs at the existing BSP rates for 2010-11, the details of which is given in Table below.

**Table - 9**  
**Expected Revenue for FY 2011-12 with anticipated sale to DISCOMs at Existing BSP Rates**

	Energy (MU)	Existing BSP Rate (P/U)	Amount (Rs. Cr.)
CESU	7722.20	157.00	1212.39
NESCO	5465.00	195.00	1065.67
WESCO	6720.00	194.00	1303.68
SOUTHCO	2848.00	90.00	256.32
<b>TOTAL</b>	<b>22755.20</b>		<b>3838.06</b>

**Excess / Deficit in the ARR for FY 2011-12:**

28. GRIDCO has proposed that it would suffer revenue deficit of Rs.2766.96 Crore considering the proposed ARR and the revenue to be earned from sale of the proposed energy of 22755.20 MU to DISCOMs during FY 2011-12 at the existing BSP of FY 2010-11, the details of which are shown in the Table below:

**Table - 10**  
**Excess / Deficit on Revenue Requirement for FY 2011-12**

(Rs. Crore)

	Item	GRIDCO's Proposal for 2011-12
a)	<b>Total Revenue Requirement</b>	6,610.12
b)	Less: Misc. Receipts	5.10
c)	Net Revenue Requirement	6,605.02
d)	Net Receipt from sale of power to DISCOMs (at existing tariff)	3,838.06
e)	<b>Excess(+) or Deficit(-)</b>	<b>(-) 2766.96</b>

### **Recovery of Proposed Cost in the ARR through Energy Charge during FY 11-12**

29. In order to meet the estimated deficit of Rs. 2766.96 crore, GRIDCO has submitted the application before the Commission for revision of Bulk Supply Price for the FY 2011-12. The licensee proposes to recover the Net Revenue Requirement of Rs.6605.02 crore from the Distribution Licensees through rise in BSP from the existing average energy charge of 170.25 P/U to 290.26 P/U during 2011-12.

#### **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 FPA Charges**

31. The Outstanding dues on account of over drawal charges and FPA charges payable by the four DISCOMs to GRIDCO upto September 2010 are Rs. 453.10 crore and Rs 147.29 crore respectively. The over drawal & FPA charges are to be treated as part of monthly energy charges and DISCOMs should not be eligible for rebate in case these dues are not paid by them.

##### **Rebate**

32. A rebate of 2% on monthly energy bill may be allowed in case of full payment against monthly energy bill of GRIDCO including over drawal and FPA charges, by remitting funds to the account of GRIDCO in Union Bank, Main Branch, Bhubaneswar, within two working days (except holidays under NI Act) of submission of the bill by GRIDCO. In case DISCOMs make payment for the full bill amount including over drawal and FPA charges through LC or upfront on any day within a period of 30 days of the presentation of the bill, a rebate of 1% shall be allowed. However, The DISCOMs will be entitled to the rebate of 1% as mentioned above provided the L.C. is established in favour of GRIDCO as per the terms and conditions of the Escrow Agreement entered into between GRIDCO and the DISCOMs.

##### **Surcharges for Late Payment**

33. For payment after the periods of 30 days from the date of submission of bills, the existing rate of surcharge for delayed payment @ 1.25% per month would be paid on the balance unpaid amount.

##### **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 2011-12, GRIDCO proposes to recover such additional cost of coal and oil for each month from DISCOMs in the succeeding month in proportion to their actual drawl in a particular month alongwith the BSP bill/s in line with the Commission's Order dated 20.03.2010 at Para-410 and in the manner outlined at Para-371 of RST Order dated 20.03.2010 for FY 2010-11.

### **Escrow Arrangement**

35. GRIDCO has entered into escrow agreements with the DISCOMs which are operative due to the default in payment by DISCOMs to GRIDCO towards energy dues and loan dues. GRIDCO has been directed to allow escrow relaxation to DISCOMs and priority of release of funds from the escrow account has been fixed by the Commission. In order to ensure the escrow arrangement, GRIDCO has requested the Commission to give a direction along with priority for escrow relaxation to be allowed for FY 2011-12.

### **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.

### **GRIDCO Financial Status**

37. GRIDCO is presently passing through a critical financial situation arising out of the revenue gap, actual being much higher than approved, and also non-payment of arrear dues by DISCOMs. The OERC approved revenue gap, the actual revenue gap from FY 2008-09 are as follows:

**Table - 11**

<b>(Rs. Crore)</b>		
<b>Financial Year</b>	<b>OERC Approved Gap</b>	<b>Actual Revenue Gap</b>
2008-09	(-)410.04	(-)645.25
2009-10	(-)882.85	(-)1673.70
2010-11	(-)806.15	(-)1667.21*
<b>Total</b>	<b>(-)2099.04</b>	<b>(-)3986.16</b>

\* Estimated by GRIDCO

The Debt-Equity ratio is abnormally high (17:1) and further loan are difficult to arrange on the part of GRIDCO. Therefore, GRIDCO has requested the Commission to consider and allow all costs including repayment liabilities for FY 2011-12 as given in the ARR application.

### **Carry forward of Revenue gap**

38. 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 2011-12**

39. GRIDCO has prayed the Commission to approve the following for FY 2011-12 and make the same effective from 1<sup>st</sup> April, 2011.
- i) Energy charges @ 290.26 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 fixed for a station for FY 2011-12 to be recovered on monthly basis subject to final adjustment at the end of the year.

- iv) Any excess payment made by GRIDCO towards FPA for a particular / relevant month will be levied on DISCOMs in the succeeding month in proportion to their actual drawl during the preceding month along with the BSP bills if the Fuel Surcharge Price of the particular month paid by GRIDCO exceeds by more than 5% of the approved Average Bulk Supply Price subject to maximum of 25% of the approved Average Bulk Supply Price.
- v) Rebate @ 2% / 1% as proposed above.
- vi) Delayed Payment Surcharge @1.25% per month for the period of delay beyond 30 days from date of submission of bills.
- vii) The Electricity Duty levied by the Government of Orissa and any other Statutory levy/ Duty/ Tax/ Cess / Toll etc. imposed under any law from time to time shall be charged over and above the Bulk Supply Price.

**VIEWS OF THE OBJECTORS ON BULK SUPPLY PRICE PROPOSAL FOR 2011-12 (Para 40 to 167)**

40. 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 2011-12. World Institute of Sustainable Energy (WISE), Pune 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.

41. The Commission has considered all the issues raised by the participants in their written as well as oral submissions during the public hearing. Some of the objections were found to be of general nature whereas others were specific to the proposed Revenue Requirement and Tariff filing for the financial year 2011-12. Based on their nature and type, these objections have been categorized broadly as indicated below:

**Views of Consumer Counsel**

42. WISE, Pune as consumer counsel had analyzed the application of the licensee and some of the important observations of WISE are as follows:

**Revenue Gap**

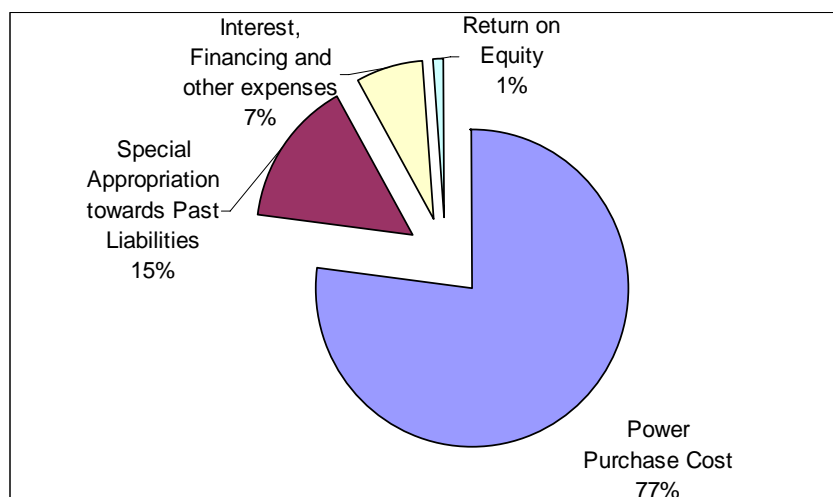
43. GRIDCO has projected a revenue gap of Rs 2766.96 Crore during FY 2011-12, with a net revenue requirement of Rs 6605.02 Crore and revenue receipts of Rs 3838.06 Crore at existing BSP. However, in the revenue requirement it has included a proposal of Rs 999.38 Crore as special appropriation towards past liabilities. In order to meet this deficit, GRIDCO has given the proposal for revision of Bulk Supply Price during the FY 2011-12. It has proposed to increase the energy charge by 70.49 per cent from the existing charge of 170.25 P/U during FY 2010-11 to 290.26 P/U during FY 2011-12. 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 2011-12 is presented in the following table.

**Table - 12**  
**Revenue Gap Projected by GRIDCO during FY 2011-12**

**(Rs Crore)**

<b>Item</b>	<b>GRIDCO's Proposal for 2010-11</b>	<b>OERC approval for 2010-11</b>	<b>GRIDCO's Proposal for 2011-12</b>	<b>% increase in Proposed 11-12 over Approved in 10-11</b>	<b>% increase in Proposed 11-12 over proposed in 10-11</b>
Power Purchase Cost	4096.09	3666.85	5082.37	38.60%	24.08%
Special Appropriation towards Past Liabilities	945.22	371.20	999.38	169.23%	5.73%
Interest, Financing and other expenses	376.00	204.39	461.26	125.68%	22.68%
Return on Equity	67.11	-	67.11		
<b>Revenue Requirement</b>	<b>5484.42</b>	<b>4242.44</b>	<b>6610.12</b>	<b>55.81%</b>	<b>20.53%</b>
Misc. Receipts	4.20	5.10	5.10		
<b>Net Revenue Requirement</b>	<b>5480.22</b>	<b>4237.34</b>	<b>6605.02</b>	<b>55.88%</b>	<b>20.52%</b>
Expected revenue	2519.61	3431.19	3838.06	11.86%	52.33%
<b>GAP</b>	<b>-2960.61</b>	<b>-806.15</b>	<b>-2766.96</b>	<b>243.23%</b>	<b>-6.54%</b>

44. The gap arises as a result of the proposal for increase in ARR during FY 2011-12 and accumulated past losses of GRIDCO on account of power purchase. The Commission should not allow GRIDCO to increase the BSP, 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.
45. Power purchase cost is the largest component (77%) of proposed ARR for FY 2011-12; followed by special appropriation (15%) and interest, financing and other expenses (7%). The detailed component of ARR is shown in figure below.



**Figure : ARR of GRIDCO for FY 2011-12**

### Pass Through of Past Losses

46. The proposal for passing through of past losses and power purchase dues to the extent of Rs 999.38 Crore, if approved, would pose burden on the general consumers of the state. The details are given in the table below. This passing through of past losses to consumers by GRIDCO should not be considered.

**Table - 13**  
**Special appropriation proposed by GRIDCO for FY 2011-12**

(Rs Crore)

Special appropriation towards power purchase and other costs up to 31-03-2008	298.48
Special appropriation for FY 2008-09 for Power Purchase and Other Costs	100.27
Regulatory Asset for FY 2009-10 for Power Purchase and Other Costs	169.63
<b>Sub-total</b>	<b>568.38</b>
Arrear Payment to OPGC:	109.48
Arrear Payment to NTPC (in respect of TTPS):	321.52
<b>Total</b>	<b>999.38</b>

47. Loan related supporting documents and utilization of loans are not matching with above figures. Commission may scrutinize the details with reconciling the earlier provisionally approved loan figures. With respect to the arrear payment to NTPC (for TTPS), the arrear arises due to difference in billed fixed cost amount and fixed cost proposed as per petition filed by NTPC in CERC. As the final decision on the petition is pending, the arrear payment to NTPC may not be approved in the ARR of 2011-12.

### Employee, R & M, A&G Expenses, Return on Equity and Interest on Loans

48. Employee cost during 2010-11 was approved at Rs.4.97 Crore. GRIDCO has projected Rs.5.73 Crore for the FY 2011-12, which is an increase of 15.29% from the approved figure for FY 2010-11.
49. GRIDCO has proposed 16.42% increase in A&G expenses from Rs.3.41 Crore approved for FY 2010-11 to Rs.3.97 Crore projected for FY 2011-12.
50. Besides, GRIDCO has proposed Rs.0.15 Crore for R&M expenses during FY 2011-12. The Commission had, however, not approved any R&M expenses proposed by GRIDCO during 2010-11. In line with the order for FY 2010-11, the Commission should disallow the same.
51. GRIDCO has proposed Rs.67.11 Crore as return on equity on its equity capital of Rs.432.98 Crore @ 15.5%. But as per Govt directives, this return may not be allowed.
52. GRIDCO has proposed Rs. 449.89 Crore as interest and financial charges in the ARR of FY 2011-12. Interest and other financial charges with respect to proposed new loan of Rs.800 Crore may not be allowed in this ARR.

**Table - 14**  
**Interest Financing and Other expenses**

	<b>GRIDCO proposal for FY 11-12</b>	<b>2009-10 Approved</b>	<b>2010-11 Approved</b>	<b>% increase approved 10-11 over 09-10</b>	<b>% increase proposed 11-12 over approved 10-11</b>
1. Interest & Financial Charges	449.89	101.62	194.69	91.59%	131.08%
2. Other Costs:					
a. Employee Cost	5.73	3.80	4.97	30.79%	15.29%
b. A&G Cost	3.97	3.03	3.41	12.54%	16.42%
c. ERLDC, NLDC fees, ULDC and SLDC scheduling Charges	1.32	1.32	1.32	0.00%	0.00%
d. Repair & Maintenance Cost	0.15	0.00	0.00		
Sub-Total - Other Costs	11.17	8.15	9.7	19.02%	15.15%
3. Depreciation	0.2	0.00	0.00		
<b>Total (1+2+3)</b>	<b>461.26</b>	<b>109.77</b>	<b>204.39</b>	<b>86.20%</b>	<b>125.68%</b>

**Energy Availability and Power Procurement Costs**

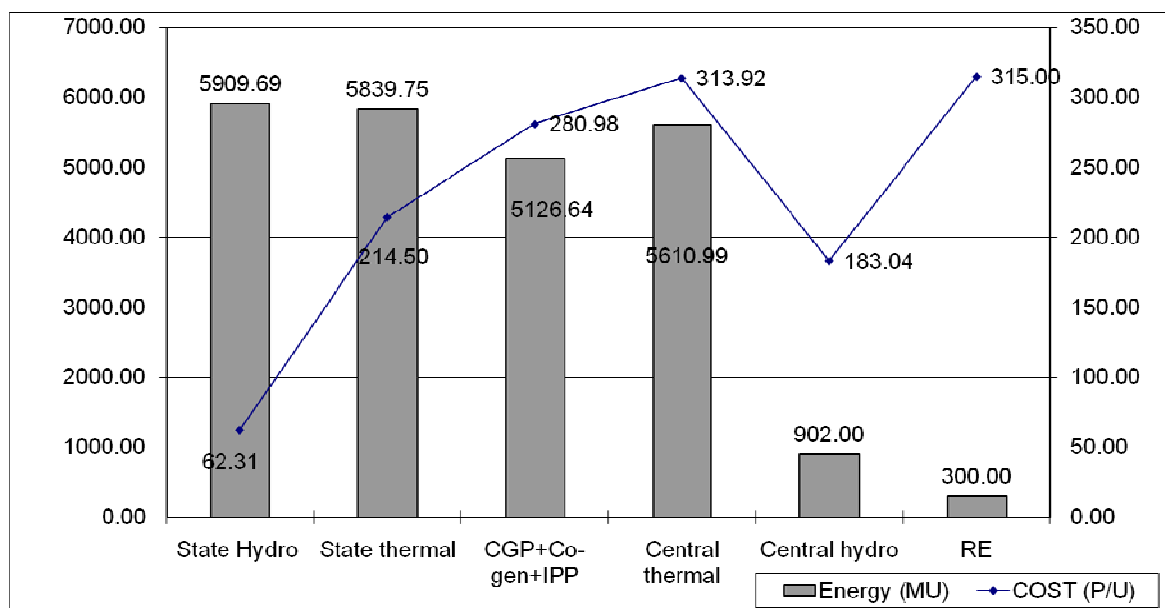
53. GRIDCO proposed to purchase 23689.08 MU from different sources in FY 2011-12. Thermal sources are major contributor (69.59%), followed by hydro (29.12%). Total energy availability is increased by 12.8% in FY 2011-12. GRIDCO has proposed to buy 3357.12 MU from IPPs, which is increased by 419% compared to FY 2010-11 approved energy availability. Similarly, energy availability from central sector reduced by 4% (see table below).

**Table - 15**  
**Energy availability of GRIDCO**

<b>Generators</b>	<b>Projection for FY 11-12 (MU)</b>	<b>Approved for FY 10-11 (MU)</b>	<b>Growth rate</b>
OHPC(Old)	3704.81	3676.86	0.76%
<b>Total State hydro availability</b>	<b>5909.69</b>	<b>5881.74</b>	<b>0.48%</b>
OPGC	2874.32	2853.53	0.73%
TTPS	2965.43	2957.32	0.27%
CGPs	1257.06	1051	19.61%
Renewable Energy	300	300	0.00%
Co-generation Plants	512.46	529	-3.13%
IPPs	3357.12	646.23	419.49%
<b>Total State availability</b>	<b>17176.08</b>	<b>14218.82</b>	<b>20.80%</b>
TSTPS Stg.-I	2,044.54	2145.54	-4.71%
TSTPS Stg.-II	1,349.38	1349.39	0.00%
FSTPS	1,378.44	1464.49	-5.88%
KhSTPS Stg.-I	692.18	840.63	-17.66%
KhSTPS Stg.-II	146.45	60.72	141.19%

Generators	Projection for FY 11-12 (MU)	Approved for FY 10-11 (MU)	Growth rate
<b>Total Central Thermal availability</b>	<b>5,610.99</b>	<b>5860.77</b>	<b>-4.26%</b>
Chukha	257	271.79	-5.44%
TALA	140	145.17	-3.56%
Teesta	505	507.19	-0.43%
<b>Total Central hydro availability</b>	<b>902</b>	<b>924.16</b>	<b>-2.40%</b>
<b>Total EREB</b>	<b>6,512.99</b>	<b>6784.93</b>	<b>-4.01%</b>
<b>Total Availability</b>	<b>23689.08</b>	<b>21003.75</b>	<b>12.79%</b>

54. GRIDCO has proposed to purchase less than one-third of total power requirement from the hydro-based stations on the basis of availability (see figure below). However, hydro sources are cheaper compared to the other sources. Hence, there is a need for proper assessment of the availability of power from hydro stations. Therefore, the Commission should assess the proper availability of power from hydro sources. 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 by GRIDCO.
55. GRIDCO has projected the energy purchase cost as Rs.5082.36 Crore, which is 38.6% higher than last year power purchase cost. The source wise quantum of power purchase and rates are given below (figure below). Overall average power purchase rate of GRIDCO is 214.54 P/U for FY 2011-12.



**Figure: Power purchase cost details of GRIDCO (FY 2011-12)**

56. For TTPS, GRIDCO has projected Rs.368.31 Crore as fixed cost, which is claimed by NTPC in the petition submitted to CERC. But as the petition is pending, Rs.200.88 Crore may be allowed as fixed cost for TTPS as determined by the Commission in earlier orders. GRIDCO has claimed U.I. overdrawal of Rs.6.38 Crore. U.I. overdrawl



for FY 2011-12 can not be judged now and so can not be considered in ARR of FY 2011-12.

57. Transmission loss and Transmission charges for Central Generating Stations (CGSs) are claimed as 3.09% and 20.17 P/U respectively by GRIDCO. Actual transmission loss of Eastern Regional System in FY 2010-11 has varied between 2% to 3%. Average transmission loss is much lower than what is claimed by GRIDCO. Transmission loss and transmission charges may be reviewed based on actual data.
58. CERC 2009 regulation has not allowed considering income tax as a part of fixed cost. As tariff orders according to CERC Regulations, 2009 are pending so the CERC approved fixed costs may be considered without taking the Income Tax as a component of fixed cost.
59. Fuel Price Adjustment (FPA) is varied widely. The percentage variation is given below. Projected FPA of FY 2011-12 over approved FPA for FY 2010-11 varied in between 53% - 134% for CGSs, whereas increase in actual six monthly average FPA is varied in between 48% - 100%. So, the FPA may be reviewed after considering the percentage rise in actual six monthly average data.

**Table - 16**  
**Fuel Price Adjustment analysis**

	<b>Approved FY 10-11 over approved FY 09-10</b>	<b>First six monthly average (FY 10-11 over FY 09-10)</b>	<b>Projection FY 11-12 over projected FY 10-11</b>	<b>Projection FY 11-12 over approved FY 10-11</b>
TSTPS Stage-I	127.24%	75.98%	74.56%	98.89%
TSTPS Stage-II	226.14%	100.09%	98.47%	134.64%
FSTPS	272.50%	66.17%	64.84%	71.49%
KhSTPS Stage-I	152.59%	47.92%	46.74%	53.68%
KhSTPS Stage-II		68.40%	67.06%	74.07%

60. Procurement from Small Hydro Projects is considered at 315 P/U. GRIDCO procures 300 MU of renewable energy (RE) from SHP only. Under OERC (Renewable and Co-generation Purchase Obligation and its Compliance) Regulations, 2010, GRIDCO has to purchase 0.1% from Solar, 1.2% from non-solar RE and 3.7% from co-generation. GRIDCO has not projected any cost towards solar power purchase, which is very costly power. GRIDCO is also not meeting the obligation of co-generation power purchase. The requirement is 876.50 MU (3.7% of total purchase of 23689.08 MU) but they have planned to purchase 512.46 MU. The RPS obligation may be reviewed by the Commission.
61. The proposed average power purchase cost is 23% higher than approved rate for FY 2010-11.

**Table - 17**  
**Comparison of power purchase rate**

<b>Generators</b>	<b>Proposed Rate for FY 2011-12 (P/U)</b>	<b>Approved rate for 2010-11 (P/U)</b>	<b>% Increase</b>
OHPC (Old)	58.15	<b>58.49</b>	-0.58%
Indravati	75.69	75.59	0.13%
Machhkund	22.06	21.95	0.50%

Generators	Proposed Rate for FY 2011-12 (P/U)	Approved rate for 2010-11 (P/U)	% Increase
<b>Total State Hydro</b>	62.31	<b>62.51</b>	-0.32%
OPGC	179.69	149.04	20.56%
TTPS	248.24	171.38	44.85%
CGPs	299.39	325.00	-7.88%
Renewable Energy Source	315.00	305.00	3.28%
Co-generation Plants	275.00	330.00	-16.67%
IPPs	275.00	243.54	12.92%
<b>State Total</b>	<b>183.73</b>	<b>145.22</b>	26.52%
TSTPS Stage-I	279.67	207.08	35.05%
TSTPS Stage-II	279.44	216.01	29.36%
Farakka	391.75	302.57	29.47%
Kahalgaon-I	318.33	275.32	15.62%
Kahalgaon-II	356.45	279.63	27.47%
<b>Central Sector Thermal Stations</b>	<b>313.92</b>	<b>243.54</b>	28.90%
Chukha	184.24	183.32	0.50%
TALA	210.04	209.12	0.44%
Teesta-V	174.95	186.42	-6.15%
<b>Central sector hydro</b>	<b>183.04</b>	<b>189.07</b>	-3.19%
<b>Total EREB share</b>	<b>295.80</b>	<b>236.12</b>	25.28%
<b>Total</b>	<b>214.54</b>	<b>174.58</b>	22.89%

#### Energy sale to DISCOMs

62. GRIDCO has projected 20.28% increase in sale of energy to DISCOMs during the FY 2011-12 over the approved quantum of FY 2010-11, as compared to increase of 6.35% over the quantum of 2010-11 (prorated projection based upon six monthly actual figure of 2010-11). But it is observed that GRIDCO has underestimated the projection of purchase by DISCOMs during FY 2011-12. While all the DISCOMs taken together projected their requirement at 23014 MU for FY 2011-12, GRIDCO has projected only 22755 MU (a lower projection of 259 MU). If the projection of demand by GRIDCO during FY 2011-12 is an underestimated one, then the actual revenue received by GRIDCO would be more and hence revenue gap would decline accordingly.

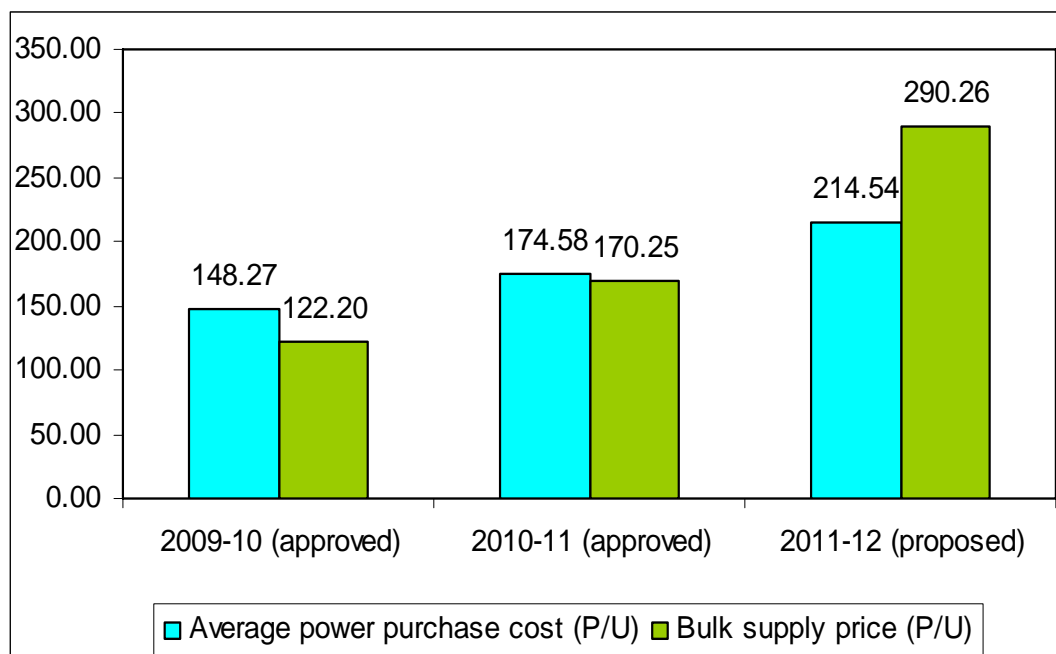
**Table - 18**  
**Energy Sale to DISCOMs**

AGENCY	Actual from 4/10 to 09/10 (MU)	Projection for FY 10-11 on pro-rata basis (MU)	OERC approval for FY 10-11 (MU)	GRIDCO Projection for FY 11-12 (MU)	Purchase projection by DISCOMs for FY 11-12 (MU)	Projection FY11-12 vs. Projection FY10-11	Projection FY11-12 vs. Approved FY10-11
CESU	3630.43	7260.86	6420	7722.2	7968	6.35%	20.28%
NESCO	2519.76	5039.52	5122	5465	5686	8.44%	6.70%
WESCO	3143.43	6286.86	6244	6720	6500	6.89%	7.62%
SOUTHCO	1260.51	2521.02	2368	2848	2860	12.97%	20.27%
TOTAL	10554.1	21108	20154	22755	23014	7.80%	12.91%

AGENCY	Actual from 4/10 to 09/10 (MU)	Projection for FY 10-11 on pro-rata basis (MU)	OERC approval for FY 10-11 (MU)	GRIDCO Projection for FY 11-12 (MU)	Purchase projection by DISCOMs for FY 11-12 (MU)	Projection FY11-12 vs. Projection FY10-11	Projection FY11-12 vs. Approved FY10-11
DISCOMS							
IMFA	0.02	0.05	10	0.5		900.00%	-95.00%
NALCO	114.38	165.89		9.5		-94.27%	
CGPs	114.4	165.94	10	10		-93.97%	
SALE	10668.5	21274	20164	22765		7.01%	12.90%

### Bulk supply price (BSP)

63. GRIDCO has proposed to increase the BSP by 70.49%, whereas the power purchase cost component would be increased by 22.89%. The BSP for 2010-11 was increased by 39.32% in last tariff order. Last three year data of BSP and average power purchase cost is given in figure below.



**Figure: Average power purchase cost and BSP of GRIDCO**

### Effect of BSP on average cost of supply of DISCOMs

64. Based upon proposed BSP of GRIDCO, the average cost of supply will increase by 36%. Power procurement cost of DISCOMs, for FY 2011-12, is taken as revised BSP proposed by GRIDCO. Other distribution cost is taken from approved figure of FY 2010-11. Net saleable energy by DISCOMs is calculated based upon following assumptions: (a) EHT and HT Consumption as proposed by DISCOMs in respective ARR and (b) T&D loss of HT - 8% and LT- 29.4%. The detailed calculation is given below.

**Table - 19**  
**Effect of BSP on average cost of supply**

<b>Parameters</b>	<b>Value</b>
Average cost of supply of DISCOMs (FY 10-11)	327.37 P/U
Bulk supply tariff proposed by GRIDCO (FY 11-12)	290.26 P/U
Sale to DISCOMs projected by GRIDCO (FY 11-12)	22755.2 MU
Power purchase cost of DISCOMs at proposed BST ( FY 11-12)	6604.92 Cr.
Distribution cost of DISCOMs (as FY 10-11 approved)	1223.59 Cr.
Projected total cost of DISCOMs (FY 11-12)	7875.49 Cr.
Net saleable unit to consumers (FY 11-12)	17534 MU
Projected Average cost of supply of DISCOMs (FY 11-12)	446 P/U
Increase in average cost of supply of DISCOMs over FY 10-11	36.38%

### **Summing Up**

65. Design of BSP for DISCOMs has direct impact on consumer tariff; therefore, the Commission may consider the following observation of Consumer Counsel related to GRIDCO ARR, energy availability from all sources may be reviewed, review of fixed charges and UI over drawl in case of TTPS, review of fixed charges and FPA in case of Central thermal stations, review of transmission loss and transmission charges in case of Central sector projects, power procurement rates from CGPs, Co-generation plants, IPPs and RE sources may be reviewed, interest on proposed new loan shall not be pass through in the ARR, R&M cost and RoE shall not be pass through in the ARR, energy sale to DISCOMs may be reviewed based on DISCOMs' submission.

### **VIEWS OF OBJECTORS**

#### **Legal Issues:**

66. GRIDCO is an intra-state trader and entitled only to a margin and the approval of ARR is not as per law. Therefore, 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.
67. 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.
68. CERC in its order dated 1st May 2006 held that GRIDCO is an intra-state trader and was entitled only to a margin and the approval of ARR is not as per law. The Hon'ble Apex Court in their judgment dated 13<sup>th</sup> august 2008 in civil appeal No. 5722 of 2006 also upheld the intra state nature of the transaction by GRIDCO.
69. GRIDCO, being a trader, 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.
70. GRIDCO is neither a generator nor distributor but merely a trader, hence the huge increase in BSP proposed by GRIDCO is not bonafied and tenable under law. Besides the huge volume of expenditure projected by GRIDCO for FY 2011-12 towards cost of power procurement, interest on loans and financial charges, employee cost, administrative and general expenses, repair and maintenance expenses, depreciation

etc are quite baseless and arbitrary. The Commission should scrutinize such expenses projected by GRIDCO before approval.

71. The Electricity Act 2003 under Section 61 (d) provides that the tariff is to be determined by the commission to recover the cost of electricity in a reasonable manner. The Act and Regulations does not permit to recover the liability through the tariff.
72. The additional cost claimed towards purchase of costly power in past years is solely on account of GRIDCO, violating the Statutory Provisions and working as per the directions of the State Govt. Earlier in Case No. 69/2009, GRIDCO has submitted the Load Generation Balance Report indicating deficit of power availability from December 2008 to June 2009. However, GRIDCO did not take any steps to obtain orders of the Commission for equitable load restriction.
73. The Commission in its Final Order dated. 19.06.2009 in Case No. 69 of 2009 has directed that the load restrictions for the EHT industries should be 15% during the evening peak hours and a maximum 10% during the rest of the hours, keeping in view the survival load level of the individual industries. This Order of the Commission was also blatantly violated by GRIDCO imposing 50% load restriction on the EHT industries.
74. 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 recoverable from the consumers.
75. DISCOMs have stalled the bulk supply prices fixed by OERC by appealing in the Appellate Tribunal. As such, the bulk supply tariff of 2006-07 is pending in the Supreme Court after Appellate Tribunal orders, and the bulk supply price of 2007-08 is pending before the Appellate Tribunal.
76. In accordance with the Order dated. 09.11.2010 of the ATE, the “Cost of Capital” should only be included in the Bulk Supply Tariff Proposal.
77. GRIDCO is no longer a transmission licensee, but only a deemed trading licensee, it is not entitled for consideration of past losses, securitization of arrears and other cost indicated in its application.
78. OPGC has not submitted its ARR and Tariff application to the Commission for the FY 2011-12. In absence of any clear cut information and scrutiny of ARR of OPGC by the Commission, the arrear power purchase dues of OPGC amounting to Rs109.48 crore should not be passed through in the ARR of GRIDCO for FY 2011-12.
79. GRIDCO should produce a report on the status of PPA signed with OPGC as per the notification of Govt. of Odisha.
80. The Commission may direct OPGC for submission of its ARR for FY 2011-12 and accordingly the power purchase cost may be approved.

#### **Simultaneous Maximum Demand**

81. In the absence of any communication from the DISCOMs, GRIDCO has projected the SMD and energy demand considering the projection approved by the Commission 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 2011-12.

**Energy Requirement & Availability:**

82. 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 2011-12 and estimate the energy requirement for the State by applying the distribution losses and transmission losses as approved by the OERC in earlier orders/projections for the year 2011-12.
83. 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.
84. 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. For the year 2011-12 GRIDCO has Projected the energy requirement of DISCOMs at 22755.20 MU. But the DISCOMs, in their respective ARR for 2011-12, have proposed to purchase 23014.37 MU of energy from GRIDCO. This discrepancy has to be corrected. The schedule of power procurement during 2011-12 should be properly planed so as to avoid procurement of unscheduled power at higher cost.
85. The Commission should determine the quantum of power procurement by GRIDCO or DISCOMs based on the T & D losses approved by the Commission in its earlier orders.
86. GRIDCO should avail opportunity for importing off-peak and surplus thermal energy from neighboring states and storing hydro energy for peak operation and irrigation demand. Such import can be supplied back during low frequency period through generation from hydro stations under ABT.
87. GRIDCO should make necessary arrangements for procurement of power through long term agreement from different IPPs in various states to meet the demand. The long term power is a cheaper power and can be easily sourced as lot of power stations are coming in a big way.

**Availability from State Stations**

88. The projection of generation given by state generating companies, OHPC and OPGC are blindly accepted by GRIDCO.
89. GRIDCO, against its proposed quantum of 5647.19 MU, can draw at least 7000 MU from OHPC Stations for FY 2011-12, which is the average generation during the period from 2006-07 to 2008-09.
90. The availability of power from state hydro stations should be considered on the basis of reservoir levels of the hydel stations in the current year, generation performance levels and past trends. Based on the past performance and reservoir levels as on 01.11.2010, the availability of power from state hydro stations would be 6811 MU in FY 2011-12 as against the GRIDCO's proposal of 5910 MU.
91. Availability of energy from Machkund could also be increased by discussing with AP, if equivalent thermal energy from Orissa can be supplied to them.

92. The licensees do not agree with the energy projections made by GRIDCO for state thermal plants and estimates that availability will be more than that projected by GRIDCO.
93. The availability of power from state thermal plants should be based on the PLF achieved by them in the available months of the current year and previous year performance. The PLF for OPGC and TTPS would be 90% and 91.5% respectively and estimated drawl would be 2997 MU and 3300 MU respectively for FY 2011-12.
94. GRIDCO may plan higher availability from OPGC and Talcher Thermal Power Station. If necessary, they can be allowed to import coal if the constraint of generation is due to coal supply.

**CGPs and Central Sector Stations:**

95. GRIDCO should discuss with NTPC and all CGPs so as to avail maximum amount of thermal energy from them for the state. This surplus can be blended with our hydro energy for the advantage of GRIDCO. If more off peak thermal energy is imported from Western Region and blended with the availability of hydro energy of about 7000 MU, it can improve the financial condition of GRIDCO. There is no other scope through which GRIDCO could reduce the energy procurement cost substantially.
96. GRIDCO may procure maximum power available from the Captive Power Plants in the State and then avail the allocation of the Central Power Stations in the merit order to meet the demand of the State Consumers.
97. Some objectors do not agree with the projections made by GRIDCO in terms of energy drawl from the Central Sector Thermal Stations. Based on 85% PLF of FSTPS, TSTPS-I, KhTPS and 90% PLF for TSTPS-II, the availability from central hydro would be 1620 MU.

**IPPs**

98. Considering 85% PLF and 10% Auxiliary Consumption the energy availability from M/s. Sterlite Energy (P) Ltd. would be 4020.84 MU against GRIDCO's proposal of 3181.97 MU.

**Generation from Renewable Energy**

99. GRIDCO, in its application, has not specifically mentioned about harnessing power from Renewable Energy sources such as Solar, Wind & Biomass etc. The Commission may entrust responsibility on GRIDCO for development of Energy from waste management.
100. Commission has been pleased to advice on solar power and no specific mention has been made by the GRIDCO in this respect so far. Same for energy from waste also.
101. The projected availability from Renewable Energy Sources by GRIDCO is agreed upon by some objectors.
102. The projection by GRIDCO for availability of energy from Co-generation plants and Renewable sources are not agreed upon by some objectors.
103. Treating the power from NINL, Arati Steel and Tata Sponge as renewable sources of energy is incorrect as these plants are not non-fossil based co-generation plants. The generation of power from Waste Heat should not be considered as Renewable Energy as these plants do utilize fossil fuel for power generation. The Commission may

separate the generation from waste heat recovery and Renewable sources, so that the developers would be encouraged to set up Biomass plants using non-fossil fuels.

104. GRIDCO should take up with major thermal power developers in Orissa to invest at least 10% of their total investment in developing renewable energy sources particularly solar and bio-gas.

#### **Total Power Availability**

105. The DISCOMs do not agree with the projected energy availability of 23689 MU as proposed by GRIDCO and estimated that the total availability of power would be 27125 MU during FY 2011-12 so as the energy requirement for the DISCOMs.

#### **Power Procurement Cost**

106. GRIDCO is entitled only to recover the Power Procurement Cost of the Generating Stations plus the Transmission losses and Transmission Tariff fixed by OERC plus marginal expenses of its establishment for arriving at BSP for DISCOMs for 2011-12.
107. The procurement of high cost power due to low hydro and constraints of generating stations are done by the consent of the State Govt. Therefore the differential amount claimed by GRIDCO towards additional power procurement cost should be subsidized by the Govt.
108. The Commission may examine / scrutinize whether cheap power is being purchased by GRIDCO to put fewer burdens to the consumers and also whether the administrative, establishment, general and legal expenses are reasonable.
109. The projection of GRIDCO in respect of power purchase cost from Small Hydro Projects of Meenakshi Power Ltd. and Orissa Power Consortium Ltd. is at lower side which is not in conformity with CERC Regulations.
110. The Commission may scrutinize the power cost projected by the state generating stations and allow the procurement from central power stations on merit order to meet the power requirement of the state for GRIDCO which becomes a major part of bulk supply price.
111. The procurement of power from sources other than OHPC, OPGC, CGPs and Central Sector stations should be done by open bidding to reduce the cost of power purchase.

#### **OHPC**

112. Some objectors propose the average tariff of OHPC stations as 56.71 P/U against the GRIDCO's projection of 62.31 P/U.

#### **OPGC**

113. 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 ARR of GRIDCO each year.
114. OPGC started commercial operation since 1994-95 and Depreciation is allowed at 7.5% as per PPA between GRIDCO and OPGC. The terms of PPA envisaged that Depreciation is to be allowed to the extent of 90% of the project cost approved for tariff purpose and therefore, depreciation has to be allowed for a maximum period of 12 years. Therefore for FY 2011-12 no depreciation is to be allowed. Similarly interest cost shall be nil and only O&M expenses, interest on working capital and return on equity is to be allowed.



115. The variable cost of 97.60 P/U in respect of OPGC, as projected by GRIDCO may not be acceptable; rather it should be 79.25 P/U as approved by the Commission in the BSP order for the FY 2010-11.
116. Total amount allowed as incentive to OPGC (calculated for generation over the normative 68.5% PLF) from FY 2004 to FY 2009, as a part of year end adjustment is Rs.123.65 Crs. and that the same should be adjusted in light of the Energy Department, Govt. of Odisha Notification dated 21st June 2008.

#### **TTPS**

117. Some objectors do not agree with the submissions made by GRIDCO estimating the Annual Fixed Charge to be Rs. 368.31 crore. They have considered the fixed costs of Rs.200.88 crore by taking into account the CERC Notification regarding the approval of tariff in respect of TTPS. The proposed UI gain of Rs.6.38 Cr. in respect of TTPS for the FY 2011-12 is also not acceptable by objectors.

#### **CGSs**

118. The fixed costs for Central Generating Stations may be considered as given in Provisional Regional Energy Accounting of Eastern Region statement.
119. 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.
120. Variable cost estimation for FY 2011-12 may be considered on the basis of OERC approval for FY 2010-11 taking central line losses @ 2.34%.

#### **FPA**

121. It may be indicated that how GRIDCO is able to establish the extent of imported coal used by OPGC & Central Thermal Stations as the variable cost increases due to the same. In addition fuel price adjustment charges in case of central stations are much more than that of OPGC. This needs discussions with NTPC.
122. The bulk increase in cost on account of FPA of the Thermal Power Stations should be properly verified by GRIDCO by appointing an engineer with experience in Thermal Power Station.
123. Some objectors submitted to consider the average FPA for the period of April-September, 2010 with an escalation of factor of 10% to arrive at the FPA for FY 2011-12. GRIDCO may be asked by the Commission for prudence check of the FPA claimed by the Central Thermal Stations and in case of any discrepancy, GRIDCO may discuss at appropriate level.
124. Some objectors submitted that the prudence of the additional cost of coal and oil bills raised by NTPC should be checked and objected by GRIDCO before ERPC and if required, GRIDCO should move to CERC against high FPA bills of NTPC from the norms. Further in the eventuality of any variation in FPA over and above the approval of the Commission, GRIDCO should follow the procedure and guidelines outlined in Appendix-7 read with the Regulations 60 of the OERC (Conduct of Business) Regulations, 2004. Therefore, after prudent check by the Commission, the FPA charges may be allowed, but not in the succeeding month as projected by GRIDCO. However, a suitable mechanism may be devised for the recovery of FPA charges directly from consumers to insulate the licensees from this burden of FPA.

### **PGCIL Charges**

125. Central sector transmission loss is projected at about 3.6% in addition to the loss of 3.9% in Orissa transmission system, total loss being 7.5%. A computer study may be conducted to establish the exact position of transmission loss.
126. GRIDCO has to furnish evidential documents for estimating the cost of regional transmission system and reasons for nil estimation of transmission charges received from open access customers. The DISCOMs estimate the PGCIL transmission charge at 15.11 p/u against the GRIDCO's projection of 20.17 p/u.

### **Employees Cost and A&G Expenses**

127. GRIDCO has proposed an amount of Rs.5.73.Cr. towards employees cost during 2011-12, but the actual expenses in FY 2009 -10 was Rs3.51 Cr against the approval amount of Rs.4.97 Cr. Thus the proposal furnished by GRIDCO is not realistic and therefore should not be accepted.
128. GRIDCO has projected the A & G expenses for FY 2011-12 at 3.97 Cr, but actual expenses under this head for FY 2009-10 was 2.58 Cr. Therefore, this increase also seems to be very high.

### **Interest on Long Term Liabilities**

129. Some objectors have estimated interest cost of GRIDCO at Rs.278.33 crore as against GRIDCO's proposal of Rs. 449.89 crore.
130. GRIDCO has shown a receipt of loan amounting to Rs.800 crore during FY 2010-11. 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.
131. A power development fund may be created by the State 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.

### **Special Appropriation**

132. 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.
133. In absence of ARR filing of OPGC, the arrear power purchase dues of OPGC should not be passed through in the ARR of 2011-12 and is liable to be rejected.
134. Repayment of past liability is a part of cash management of GRIDCO and not a part of ARR. There is no provision in the OERC (Terms and conditions for determination of Tariff) Regulation 2004, fixed by OERC for pass through of repayment of principal in the 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.
135. To repay the past liabilities, GRIDCO ought to seek a recognition of regulatory assets in a manner as per Para 5 (I) of OERC (Terms and conditions for determination of Tariff). As GRIDCO has not submitted the application for the regulatory assets, the benevolence of the OERC uncalled for.
136. The amount equivalent to the amount required to be paid by the DISCOMs to GRIDCO may be amortized as regulatory assets in the DISCOM's ARR, which in

turn will be paid to GRIDCO by DISCOMs for payment towards their outstanding dues.

137. If regulatory asset of Rs 1414.31 crore is not considered then cumulative loss will be Rs 1662.09 crore as on 31.03.2010 which contradicts with the statement that the actual revenue gap for FY 2009-10 is Rs 1673.70 crore. Therefore GRIDCO should give the actual audited figures to substantiate the above statement.

#### **Past Losses**

138. Some objectors oppose the consideration of past losses and unforeseen expenses to the extent of Rs.999.38 Crore and securitization of arrear while approving the ARR of GRIDCO, which will affect the Bulk Supply Price and in turn pose burden on the general consumers of the state while fixing the RST.
139. The past losses of GRIDCO are mostly on account of its inefficient operation and failure in collection of dues. Hence, its proposal to pass through the past losses in the ARR should not be allowed.

#### **Export of Power & UI**

140. GRIDCO may plan to import off peak thermal energy from western region by shutting down the high head hydro stations during the off peak hours and supplying more peaking energy during peak hours to the eastern region, gaining on Availability Based Tariff (ABT).
141. 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.
142. GRIDCO should undertake energy trading with different states both for long term and short term basis and expression of interest (EOI) should be invited both for procurement and sale of the power in advance so that this can be executed at the time of necessity.
143. The surplus energy for exports / UI has to be determined on the basis of the balance availability of power, after meeting the state's requirement.

#### **Revenue Gap**

144. GRIDCO has projected its ARR at Rs.6605.02 crore, out of which power purchase cost alone amounts to Rs.5082.37 crore. With existing BSP, the revenue earning would be Rs.3838.06 crore with a deficit of Rs.2766.96 Cr. i.e. a rise of 70%. This rise if allowed will bring retail supply cost to a higher level. Therefore, GRIDCO should try to import off peak energy, avail more hydro and thermal energy and sell it at a higher rate thereby generating revenue which will go to reduce the gap instead of putting the whole burden on DISCOMs.

#### **Levy of Over Drawl Charge**

145. The DISCOMs have estimated the total availability of 27,125 MU during FY 2011-12 and the total requirement of all the DISCOMs has been projected at 23,014 MU. Further, if the CGP power is approved by the Commission, there will be a surplus availability of 3166 MU with GRIDCO. Therefore no question arises for purchase of power by GRIDCO at higher cost in the eventuality of over drawal by any DISCOMs.

### **Rebate**

146. A rebate of 2% may be allowed to the Licensees for prompt payment of BSP bills within three working days excluding Sundays and Holidays as per Negotiable Instrument Act from the date of presentation of the BSP bill.

### **Other Issues**

147. Two-Part tariff structure is the present norm for purchase and sale of electricity and the OERC Distribution (Condition of Supply) Code 2004 also made provision for two-part tariff. Therefore the proposal of GRIDCO to provide Demand Charges and Energy Charges may be accepted.
148. There need not be any enhancement in BST because there is a proposal for CAPEX in the system, reservoir levels of Hydro Stations have been improved in comparison to last year, CGPs are committed to supply power. Hence, there is not much burden to purchase high cost NTPC power. Our state's share from all stations is to be properly monitored and drawn so that there will be a benefit of sale of surplus power to other states.
149. GRIDCO is required to procure more energy due to the high T& D loss in the distribution sector. The franchisee operations by distribution companies are now being planned and it is expected that in this year 2011-12 at least 4-5% T&D loss reduction could be achieved in the distribution system, thereby GRIDCO having surplus of energy which can be sold at commercial rates. GRIDCO should, for their own benefit, monitor the early completion of franchisee arrangements of DISCOMs without leaving it to them completely.
150. GRIDCO for its own benefit should co-act with OHPC to develop more new hydro power stations so that the thermal energy that is expected to be available to GRIDCO from both NTPC and new thermal stations in the 12th and 13th plan period can be profitably blended and energy could be exported in sustained manner to generate higher commercial return.
151. GRIDCO has recently concluded PPAs for Sindol Projects. It is suggested that GRIDCO may discuss with other private power developers to take up the other projects so that many more projects can be completed during 12th and 13th Plan period. GRIDCO should not depend alone on efforts of OHPC for this.
152. Any increase in BSP will have direct bearing on RST and in the past the burden of BST increase was loaded on HT and EHT consumers availing load factor incentive tariffs.
153. The commission has considered substantial increase in bulk supply price in the previous years allowing most of the claims of the GRIDCO ignoring the objections of the consumers and DISCOMs.
154. The Commission may scrutinize the ARR application of GRIDCO and reduce BSP so as to benefit the industrial consumers who are burdened with cross subsidy.
155. Some objectors requested OERC to issue directives for allocation of PPAs among DISCOMs in accordance with the National Tariff Policy (section 8.4), National Electricity Policy (clause 5.3.4) and Intra-state ABT Regulation of OERC dated 17.12.2007 (regulation 13). The capacity allocation to DISCOMs should be done on scientific basis after duly considering the electricity demand of utilities and installed generation capacity.

156. 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 their Demand or Energy Input.
157. GRIDCO is a deemed trading licensee in the state and fully owned Govt company for supply of power to the 30 lakhs consumers of Odisha through OPTCL and DISCOMs. The Commission may direct GRIDCO to give an undertaking through an affidavit that, it will supply quality power with proper voltage to all consumers of the state, which has not happened during the current year 2010-11.
158. The Commission should look into the issue of power evacuation from IPPs those are now generating power and going to generate power in the state as per the MoUs signed with GRIDCO till date. GRIDCO should intimate its planning on this issue for information of the consumers.
159. GRIDCO should intimate its plan for meeting the state demand during the year 2012, as all the village would be electrified by 31st March, 2012 under Rajiv Gandhi Gramin Bidyut Yojana and Biju Jyoti Yojana.
160. GRIDCO should produce a status report on the action taken by it, as per direction of the Commission in the Tariff Orders for FY 2009-10 & 2010-11. GRIDCO, being a Govt. owned company, should also produce the status report of other trading licensees to whom license has already been issued.
161. The erection of 132/33 KV substations is the responsibility of OPTCL but are to be properly approached by DISCOMs and GRIDCO which is not being done with sincerity.
162. 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.
163. GRIDCO is mainly responsible for the present situation of power deficit with no planning to meet the requirement of the newly coming industries in the state. The Commission has considered substantial increase in BSP in the previous years. Hence, the present proposal of GRIDCO to increase the average BSP from 170.25 p/u in the current year to 290.26 p/u for the FY 2011-12 should be outrightly rejected.
164. The proposal of GRIDCO to approve the BSP at 296.26 paise/unit for the FY 2011-12 against the existing BSP of 170.20p/u is very high, mainly due to the provision of Rs.900.00 crore for procurement of costly power. This amounts to a rise of more than 70%.
165. The proposed sale of energy to the CGPs i.e NALCO & IMFA to the tune of 10 MU @ Rs.5.10 per unit is unreasonable. This should be increased to 100 MU & the rate may be reduced accordingly particularly for these two old CGPs.
166. The maximum demand charges should not be imposed on NALCO and the purchase price from CGPs, which is now at 275 p/u, may be increased further to 350-400 P/U.
167. There should not be any hike in BST as this will lead to increase in the RST and consequently will put tremendous burden on consumers of the state.

#### **GRIDCO's RESPONSE TO THE OBJECTORS (Para 168 to 245)**

168. In response to the views of the objectors on GRIDCO's application for approval of the Annual Revenue Requirement and Bulk Supply Price for 2011-12, 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**

169. 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:
170. 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.
171. 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 an activity is tenable under the Law.
172. 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.
173. 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.
174. The Trading Margin of 4 Paise per Unit per se (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 energy. This has been accentuated and upheld by the Hon'ble Supreme Court of India in Appeal No. 5722 of 2006 (Gajendra Haldea vrs. GRIDCO & Others)
175. 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 was not limited to the period from December 2008 to

June 2009, but continued even during the later period due to poor hydrology conditions and also due to increased State demand. Therefore, the shortfall in revenue for these difficult years should be recognized and allowed as pass through in subsequent years.

176. Regarding load regulation, it is not GRIDCO but the DISCOMs and the SLDC who have not restricted the drawal of power in contravention of the Order of the OERC, for which GRIDCO was compelled to purchase high cost power through UI mechanism and also from the CGPs etc, to meet the demand. Besides, cheaper hydropower was also not available due to poor hydrology. Therefore, in view of the critical financials of GRIDCO, higher load restriction was imposed in consultation with the OERC / the Government.
177. GRIDCO is procuring maximum available power from various sources including the CGPs / Co-generation Plants at the price approved by the Commission, through UI at the lowest possible scheduled rate and through power banking in order to meet the power demand of the State. This recourse was resorted to, as the quantum of power from different Stations as approved by the Commission in the ARR & BSP Order was not available and also because of the lower availability of hydro power. Therefore, it is not correct to say that the State is facing serious power crisis solely on account of non- performance of GRIDCO. Rather, it can be said that the power crisis in the State has been mitigated to a great extent because of GRIDCO as it has procured power by incurring loans (loans amounting to Rs.1137 Crore has already been incurred during FY 2010-11 to settle the bills of generators). Hence, the expenditure incurred by GRIDCO towards power purchase cost to meet the State demand is necessarily to be recovered through the BSP.
178. GRIDCO should not only be allowed to recover the “cost of capital” (that includes the interest payable on the borrowings and also the return on equity) through the BSP but also the repayment of principal as GRIDCO does not have any assets against which depreciation would have been permitted to take care of repayment of principal. Therefore, GRIDCO submits that the cost of capital as well as principal repayment may be allowed for recovery through the BSP. With regard to the Order of Hon’ble ATE, dated 09.11.2010 on the said issue, GRIDCO has appealed before the Hon’ble Supreme Court of India.
179. The issues relating to ARR & BSP for FY 2006-07 are pending before Hon’ble Supreme Court of India in C.A. No.414/2007. Hon’ble Appellate Tribunal for Electricity has disposed off the Appeal Nos. 58 & 59 of 2007 relating to the ARR & BSP Order for FY 2007-08 vide Order dated 09.11.2010. Hon’ble Tribunal has allowed each item of expenditure as approved by OERC except the repayment of principal. GRIDCO has appealed against the Order of the ATE before the Hon’ble Supreme Court of India. Thus, both the Orders of ATE pertaining to the year 2006-07 & 2007-08 are pending before Hon’ble Supreme Court of India. In the Appeal relating to the year 2006-07 before the Hon’ble Supreme Court of India, there has been an Interim Order dated 20.04.2007 directing OERC not to proceed further. Therefore, it cannot be said that the Distribution Companies (DISCOMs) have stalled the Bulk Supply Price fixed by OERC.
180. 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 the Transfer Scheme dated 26.11.1998. Further, inadequate tariff & ARR approved by the OERC, hydrology failure during FY 2008-2009 and 2009-10 have added to the operational losses of

GRIDCO. As per the approved BSP, a revenue gap is left out in each year in the approved ARR of GRIDCO with a direction to bridge the same out of trading revenue, UI charges etc. 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 incidentally lower than the Power Purchase Cost, thus, incurring revenue deficits. As the losses have arisen out of inadequate tariff allowed by the Commission and the consequential cash deficit is met by availing loans from various banks, issuance of bonds etc., the same need to be serviced by way of recovery through BSP. Unless such costs are allowed through the BSP, GRIDCO is very likely to fall into the “Debt Trap” and its operations may come to a grinding halt.

181. The Transmission function has been hived off from GRIDCO with effect from 01.04.2005 when Orissa Power Transmission Corporation Limited (OPTCL) was formed and GRIDCO was handed over the business of transmission in terms of the Transfer Notification No. 6892 dated 09.06.2005 issued by the Govt. of Orissa under the Electricity Act, 2003. Needless to mention that GRIDCO, as a matter of historical legacy and as per the “Single Buyer Model” prevailing in the State of Orissa which is quite consistent with the Regulatory Practices and also the State Government asking GRIDCO to sign PPAs with the Developers of all forms of power to source the same to meet the State Demand, GRIDCO is carrying out the function of the Bulk Supplier of power to the DISCOMs. OERC has also clarified the status of GRIDCO and its filing of ARR & BSP Application for approval (which incidentally happens to be the power purchase price of DISCOMs) is very much within the Regulatory Framework as by doing so, the consumers of the State are assured of a better deal through an affordable Retail Supply Tariff.
182. With regard to the payment of arrear to OPGC, it is submitted that OPGC is not submitting its ARR before OERC although it has been directed to do so. However, since GRIDCO is under contractual obligation under the PPA to settle the dues of the generator, it has to pay the arrears to OPGC as it has drawn energy from this plant for supply to DISCOMs. The tariff calculations furnished by OPGC to GRIDCO is submitted to the Commission with the ARR & BSP application. The Commission may take appropriate decision in this regard based on prudence.
183. GRIDCO has submitted that the restated PPA with OPGC is in the process of finalization at the Govt. level.

#### **Simultaneous Maximum Demand and Energy Demand**

184. The total Simultaneous Maximum Demand (SMD) of all the four DISCOMs for the FY 2011-12 has been projected at 3522.74 MVA per month based on the highest monthly SMD of each DISCOM during first six months of FY 2010-11.
185. DISCOMs did not submit the above projection to GRIDCO for FY 2011-12 despite GRIDCO’s request. Therefore, GRIDCO considered the demand projection relating to DISCOMs as approved in the OERC Order dated 20.03.2010 pertaining to the 5-year Business Plan (FY 2008-09 to FY2012-13) of DISCOMs and the transmission loss (3.90% for FY 2011-12) as approved the 5-year Business Plan (FY 2008-09 to FY2012-13) of OPTCL. On other hand the projections by DISCOMs to purchase energy from GRIDCO are based on their sales projection to consumers plus the distribution loss of their system. GRIDCO does not consider distribution loss for projecting the DISCOMs’ energy demand. However, the projection of power



procurement by GRIDCO from different Stations for FY 2011-12 to meet the demand of DISCOMs is not final as the same is subject to the approval by the Commission.

### **Energy Availability and Procurement**

186. The projection by GRIDCO towards power procurement during FY 2011-12 in its ARR & BSP Application is an estimation only. The procurement of power by GRIDCO is planned in such a manner that it entails minimum cost to GRIDCO with maximum availability of energy. Further, GRIDCO is obliged to procure contracted power from the organizations as per the Power Purchase Agreement, Memorandum of Understanding (MOU) and also as per the allotment to Orissa from Central Generating Stations from time to time etc. on least cost combination basis for supply to DISCOMs.
187. GRIDCO has projected the quantum of power procurement from different sources for FY 2011-12 based on the following assumptions / factors, which are subject to prudence check by the Commission.
- (i) Projection from OHPC, OPGC & TTPS has been taken as per the generation plan submitted by them.
  - (ii) Projection from Machhkund is assumed as per the allotment.
  - (iii) Projection from Samal and Meenakhi Small HEPs has been assumed as per the PPA.
  - (iv) Projection from Central Generating Stations at different percentage of PLF has been considered based on the Energy Sent Out (ESO) during 1st six months of the current year (FY 2010-11).
  - (v) Projection from Chukha HPS & Tala HPS has been taken by considering the trend of supply during the past years.
  - (vi) Projection from Teesta HPS has been considered based on the annual saleable energy.
  - (vii) Projection from the IPPs has been taken as per the PPA.
188. GRIDCO is also committed towards harnessing surplus power from various Captive Generating Plants (CGPs) and Co-generating Plants of the State at approved/negotiated rates at the time of need, if required subject to approval by the Commission.
189. GRIDCO assumed the requirement of DISCOMs at 22755.20 MU for FY 2011-12 based on the approval of the Commission in the 5-year Business Plan of the DISCOMs. With addition of 10 MU towards emergency supply to M/s. IMFA and M/s. NALCO, the total energy projected by GRIDCO for FY 2011-12 worked out to be 22765.20 MU. After adding the transmission loss of 923.88 MU calculated @3.90% (i.e. approved percentage of transmission loss in the 5-year Business Plan of the OPTCL for 2011-12), GRIDCO projected the power procurement of 23689.08 MU during FY 2011-12, which may be considered as realistic and be accepted by the Commission instead of considering the over-estimated energy projection of 27,125 MU by the DISCOMs (WESCO, NESCO & SOUTHCO) in their objection.
190. After considering the availability from the entities / organizations in the State as well as from the Central Pool as mentioned above, there is a shortfall of 1769.52 MU for meeting the demand of DISCOMs, M/s. IMFA and M/s. NALCO including the

transmission loss. Thus, in order to meet the estimated demand of the DISCOMs, the shortfall 1769.52 MU i.e. the balancing figure is proposed to be procured from CGPs (1257.06 MU) / Co generating Plants (512.46 MU).

191. Generating Organizations like OHPC, OPGC & TTPS have submitted their Generation Plans for the FY 2011-12 with due consideration to their available capacities, planning for their scheduled maintenance and other related factors. GRIDCO can not intervene / influence in the internal planning matters of these Generating Units. Besides, 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. Thus, the projection furnished by GRIDCO for OHPC, OPGC and TTPS may be taken in to consideration.

#### **Hydro: (OHPC)**

192. The suggestion to consider at least 7000 MU from OHPC may not be considered as realistic as the projection given by OHPC based on the design energy and availability of machines which is more scientific and pragmatic. Any change by GRIDCO in the generation projection given by the generator, would be prejudicial and improper. Thus, GRIDCO considered the generation plan of 5647.19 MU (after Auxiliary Consumption & transformation loss and allocation of 5 MW to Chhatisgarh State Electricity Board), given by OHPC in its application for FY 2011-12.
193. GRIDCO is committed to harness the cheaper excess hydro power from Machhakund as and when available and also at the time of need.
194. **OPGC:** Although OPGC in its Generation Plan has stated to use 2.30% imported coal during FY 2011-12, it has not so far used imported coal in its plant.
195. **CGPs:** GRIDCO proposes to draw 1257.06 MU from different CGPs and 512.46 MU (1257.06 MU + 512.46 MU = 1769.52 MU) from Co-generating Plants considering maximum drawal up to 50 MW.
196. However, any additional availability of power is welcome as long as the same could be marketed at a remunerative price to the advantage of GRIDCO. GRIDCO is committed towards harnessing surplus power from various Captive Generating Plants (CGPs) and Co-generating Plants of the State at approved/ negotiated rates at the time of need, if required.

#### **Renewable Energy**

197. GRIDCO is to procure about 24 MU of solar power i.e. 0.10% of the total proposed power procurement of 23689.08 MU during FY 2011-12 from Solar Projects to meet its Solar Purchase Obligation (SPO). GRIDCO hopes to procure about 24 MU of Solar Energy out of which 13 MU is expected from the Solar Projects to be developed in this State as per RPSSGP scheme.
198. GRIDCO has already sign power Sale Agreement (PSA) during Jan'2011 to procure bundled power bundled with un-allocated power from NTPC Stations through new GRID connected Solar Power Project under Phase-1 of Jawaharlal Nehru National Solar Mission (JNNSM). GRIDCO is trying its best to explore possibilities to procure Solar Power for the State. If required, GRIDCO may buy Solar Renewable Energy Certificates (REC) for balance Solar Power to fulfill its SPO.

199. With regard to Bio-mass energy, GRIDCO has executed PPAs with the following seven Nos. of Biomass Power Plant Developers (total Installed Capacity is 93 MW), whose projects have been approved by the State Technical Committee (STC).

**Table - 20**

<b>Name of the Developer</b>	<b>Location</b>	<b>Installed Capacity (MW)</b>	<b>PPA executed on</b>
M/s. Rashmi Power Pvt. Ltd.	Gandhigram, Dist.: Boudh	10	23.12.2010
M/s. Satya Bio (India) Pvt. Ltd.	Digapahandi, Dist.: Ganjam	10	30.12.2010
M/s. Shalivahana Green Energy Ltd.	Nimidha, Dist.: Dhenkanal	20	30.12.2010
M/s. Prasad Bio-Energy (P) Ltd.	Therubali, Dist.: Rayagada	10	30.12.2010
M/s. Rake Power (P) Ltd.	Jhrsuguda	23	30.12.2010
M/s. AVN Power Projects (P) Ltd.	Jayapatra (V), Dist.: Kalahandi	10	30.12.2010
M/s. Andhavarapu power Projects (P) Ltd.	Dhabugaon (V) Dist.: Nawarangpur	10	30.12.2010
Star Light Energy (P) Ltd.	Bhera (Kala) Village Dist: Nuapada,	15	04.01.2011
M/s. Swarnajyoti Projects (P) Ltd.	Katapalli, Dist: Sambalpur	10	04.01.2011
	<b>Total</b>	<b>118</b>	

200. These PPAs will be submitted before the Commission for approval. GRIDCO expected to procure about 100 MU of Bio-mass energy subject approval of the Commission after commissioning of such plants.
201. 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 from waste heat recovery process..

**CGSs:**

202. While projecting the availability in the ARR & BSP Application for FY 2011-12 from various Units of the Central Generating Stations (CGSs) of NTPC, GRIDCO has considered different percentages of PLF by considering Energy Sent Out (ESO) during the 1st six months of FY 2010-11. Most of the Thermal Stations are unable to generate to the maximum because of the shortage of coal supply. Assumption of higher percentages of PLF and the consequent procurement of energy there from as suggested by the objectors on the basis of the 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 the Central Generating Stations by considering the availability of coal / raw materials. Any higher availability is always welcome provided the economics of purchase & sale of power proves to be remunerative and is within the approval of the Commission.
203. GRIDCO is committed towards harnessing surplus power from NTPC Stations and also from various Captive Generating Plants (CGPs) / Co-generating Plants of the State at approved / negotiated rates based on the need with due permission from the

Commission. Further the Govt. of Orissa also makes regular negotiations with the Govt. of India / NTPC for allocation of additional share from the Central Sector in favour of Orissa. Any additional availability of power is welcome as long as the same could be marketed at a remunerative price to the advantage of GRIDCO.

#### **Transmission Loss**

204. GRIDCO does not have any control in arresting the Central Sector Loss which occurs in the system of the CTU and is shared among the various beneficiaries of that use the CTU system to avail the power. Similarly, GRIDCO also does not have any control to reduce the losses taking place in Intra State Transmission network of OPTCL, the STU.
205. GRIDCO has projected Central Sector Loss at 3.09% for FY 2011-12 in line with the approval of OERC in the ARR & BSP Order for FY 2010-11 and for State Sector the estimated the State Transmission loss of 3.90% occurring in the network of OPTCL, the STU which has been approved by the OERC for FY 2011-12 in the 5-year Business Plan of OPTCL. This calculation of loss is based on computer study / data.

#### **Sales Projection**

206. GRIDCO generally considers the energy demand projection of the DISCOMs as submitted by them. But for FY 2011-12 GRIDCO has considered the energy requirements of DISCOMs as approved in their Business Plan (FY 2008-09 to FY 2012-13 approved by the OERC) as GRIDCO did not receive such information from the DISCOMs in time, despite its request. The projections made by DISCOMs in their application to purchase energy from GRIDCO are based on their sales projection to consumers plus the distribution loss of their system. GRIDCO does not consider distribution loss for projecting the DISCOMs' energy demand.
207. The projection of GRIDCO on power requirement of DISCOMs is not final, as the same is subject to the approval of the Commission.
208. From the past records, it is observed that the limit of drawl of power, by CGPs, usually remained within 10 MU. But in the first half of FY 2010-11, NALCO drew more emergency and back-up power from the grid as it was not able to generate enough power due to short supply of coal. GRIDCO feels that this type of situation may not arise during FY 2011-12 and accordingly, projected 10 MU of power to be drawn by CGPs like NALCO & IMFA considering the past records / trend.

#### **Power Procurement Cost**

209. GRIDCO's procurement cost is proposed considering the latest rate/ tariff applicable for each generator/station. GRIDCO has no objection on the proposal made by the objector to the Commission to scrutinize the power cost.
210. GRIDCO is contractually obliged to purchase power from the generators with whom it has Long Term Power Purchase Agreements (PPAs). However, the regime for Competitive Bidding of Power Purchase has come into effect. GRIDCO will explore such opportunities.
211. GRIDCO has no views to offer on the suggestion of the objector towards the Government subsidizing the additional cost incurred by GRIDCO towards procurement of high cost power at the time of low hydro, and constraint of the generating stations, if it has been done at the behest of the Govt.

212. OHPC tariff for FY 2011-12 would be reckoned by the Commission while approving the power purchase cost in the ARR & BSP of GRIDCO for FY 2011-12.
213. 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 TTPS based on prudence check.
214. GRIDCO has submitted to the Commission to consider the projection for CGSs which are based on the CERC Tariff Regulations, 2004, current trend of drawal for energy projection from CGSs, petitions of NTPC before Hon'ble CERC relating to approval of generation tariff of its various stations as per the new CERC Tariff Regulations, 2009, estimated central transmission loss for FY 2010-11 while approving the ARR & BSP of GRIDCO for FY 2011-12.
215. The claims raised on GRIDCO by the Thermal Stations like OPGC & the NTPC (which are Government Organizations) on account of FPA are duly audited and therefore, may be considered as reliable.
216. 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 & 2010-11 and also proposed power procurement during FY 2011-12 at a higher cost as fixed by OERC which resulted in increase of power purchase cost for FY 2011-12. Moreover, the power purchase cost from NTPC which increased due to rise in fuel price is also a factor for increasing in power purchase cost.

#### **PGCIL Transmission Charges**

217. The relevant Orders of the Hon'ble CERC pertaining to tariff applicable to the different transmission lines of PGCIL have been furnished to the Commission in course of time. Besides, Hon'ble CERC has notified the new tariff norms for the period 2009 to 2014 based on which the Commission may kindly approve the applicable PGCIL Transmission Charges and factor the same into the ARR & BSP of GRIDCO for FY 2011-12. Therefore, the projection of GRIDCO to consider PGCIL transmission charge for FY 2011-12 at 20.17 P/U, which are based on relevant supporting documents, may be considered instead of 15.11P/U as proposed by the objectors.

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

218. GRIDCO have submitted the proposal of Employee Cost, A&G Expenses and R&M Expense based on the Audited Accounts of FY 2009-10 with some increase as provided at TRF-13 (Employees Cost), TRF-14 (R&M Expenses) & TRF-15 (A&G Expenses) which are subject to prudence check and approval by the Commission.

#### **Interest on long term Liabilities**

219. The objector has estimated interest payment of Rs.278.33 Crore for FY 2011-12 based on their own assessment which may not be accepted. GRIDCO requests the Commission to compute and allow interest cost as Rs.463.28 Crore on actual basis by considering the details as submitted in the filing of GRIDCO's ARR & BSP Application for FY 2011-12.

### Past Losses

220. GRIDCO is proposing to pass through Rs.999.38 Crore of past period power purchase liabilities (Rs.568.38 Crore) and arrear payment to OPGC (Rs.109.48 Crore) & NTPC-TTPS (Rs.321.52 Crore), due to the following reasons:

- I. Due to inadequate BSP (tariff) approved by the OERC in all the years, GRIDCO has been selling power to the four DISCOMS at the approved BSP, which is much lower than the Power Purchase Cost. This evident from the following:

**Table - 21**

<b>Financial Year</b>	<b>ARR Appvd. by OERC (Rs. Crore)</b>	<b>Surplus (+) / Deficit (-) left in the ARR (Rs. Crore)</b>	<b>Appvd. Avg. BSP (P/U)</b>	<b>Appvd. Avg. Power Purchase Rate (P/U)</b>
2008-09	2486.53	(-) 94.93	122.15	127.40
2009-10	3123.10	(-) 637.69	122.20	148.27
2010-11	4242.44	(-) 806.15	170.25	174.58

GRIDCO has not been able to replenish the gap left in the ARR due to non-availability of surplus power for UI and Trading.

- II. Due to purchase of high cost power during hydrology failure in FY 2008-09 and 2009-10 which have added to the losses of GRIDCO.
- III. 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. which was not been possible during FY 2008-09, FY2009-10 and also during the current year due to non-availability of surplus power.
- IV. 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.
- V. GRIDCO does not agree that past liabilities are not a cost and hence, should not be allowed in the BSP. The liabilities has occurred as GRIDCO has purchased high cost power and provided the same to the DISCOMS and in turn, it has not been fully compensated in so far as the cost is concerned.
- VI. Due to non-payment of Overdrawal and the Year-End-Charges by DISCOMS to GRIDCO, it has contributed to ballooning of costs along with the purchase of power from costlier sources like that of CGPs / Co-Generation Plants etc. in the face of less availability of cheaper hydro power.
- VII. Although the DISCOMS are paying the current full BSP dues, they are also allowed back funds by way of escrow relaxation to the extent of their Salary and a part of their O&M Charges. GRIDCO's revenue is not sufficient to meet the bills of generators and therefore, GRIDCO has been defaulting to OHPC in payment. The current bills of generators amount to about Rs.400 Crore whereas the revenue from DISCOMS is calculated to be about Rs.300 Crore, resulting in deficit of around Rs.100 Crore every month. Since GRIDCO is not able to pay the full bills of OHPC, it has been proposed to securitize arrears of OHPC amounting to Rs.250 Crore in the present ARR & BSP Application.

- VIII. The Commission is requested to kindly take an appropriate decision on the matter of truing-up of revenue and profits of OHPC. The generating companies have benefited because of the approval of the cost plus tariff whereas GRIDCO has been suffering due to approval of inadequate BSP as compared to the higher power purchase cost, which in turn has contributed to earning of surpluses by the generating entities.
- IX. Since GRIDCO is under contractual obligation under the PPA to settle the dues of the generator, it has to pay the arrears to OPGC as it has drawn energy from this plant for supply to DISCOMs.
221. The revenue gaps that have arisen due to the above reasons, have been financed through a series of loans from banks / FIs since there is no avenue for GRIDCO to replenish such gaps from any other source. As the losses have arisen out of inadequate tariff allowed by the Commission and the consequential cash deficit is met by availing loans from various banks, issuance of bonds etc., the same need to be serviced by way of recovery through BSP. Unless such costs are allowed through the BSP, GRIDCO is very likely to fall into the “Debt Trap” and its operations may come to a grinding halt. It is not correct to say that the losses are on account of inefficient operation of GRIDCO.
222. 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 and ARR approved by OERC, hydrology failure in FY 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. 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.

#### **Export of Power & UI Income**

223. The assumption that 7000 MU of hydro power would be available to be mixed with off-peak energy from the Western Region towards planning for export during FY 2011-12 may not be considered as correct since Western and Northern Regions suffer from power deficit. It goes without saying that the cheaper power like that of OHPC is meant for the consumers of the State.
224. GRIDCO takes all suitable steps to gain through UI with the support from SLDC and thus, conscious of its responsibility in optimizing the gain to GRIDCO in the face of available opportunities. The suggestion is well accepted.
225. In the current situation of increased State Demand coupled with less availability from the hydro & other sources, there is hardly any scope for GRIDCO to export power outside the State. Therefore, the question of sale of surplus power by GRIDCO to generate additional revenue to recoup its financials does not seem prospective at least for the present.

#### **Overdrawal Charges**

226. 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**

227. The proposal in the ARR & BSP Application for FY 2011-12 with regard to payment of rebate may kindly be considered and approved to ensure prompt payment from the DISCOMs.

### **Escrow Mechanism**

228. 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.

### **BSP**

229. There was a hike of 39.32% in the Bulk Supply Price (BSP) during FY 2010-11; however, this hike has not been sufficient to recover the approved Annual Revenue Requirement of GRIDCO as the Commission has left a Revenue Gap of Rs. 806.15 Crore. GRIDCO estimates that the deficit during FY 2010-11 would be of the order of Rs.1200 Crore and that during FY 2011-12, the deficit may surge to more than Rs.1500 Crore. In fact, in order to finance the revenue gap, GRIDCO has incurred loans amounting to Rs.300 Crore during FY 2008-09, Rs.1213 Crore during FY 2009-10 and Rs.1137 Crore (as of December, 2010) during FY 2010-11. It is further expected that another Rs.600 Crore may be borrowed by the end of the current fiscal to finance the revenue shortfall in order to meet the energy demand of the DISCOMs. 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.
230. With the disappearance of surplus power scenario (due to increased State Demand coupled with less hydrology in recent years), GRIDCO does not have any scope for earning from UI & trading and as such, the only source of revenue for GRIDCO, is the BSP. Thus, with the approved BSP being less than the power purchase cost, GRIDCO's financials are now in deep trouble. As such, the revenue deficits of GRIDCO which have been financed through loans from Banks/FIs will have to be serviced entirely through the BSP.
231. The DISCOMs are paying the BSP bills since FY 2005; but they are not paying the Overdrawal and the Year-End Adjustment Charges. With less availability of cheaper power from hydro sources during FY 2008-09, FY 2009-10 and also during the current year, GRIDCO has forced to source the high cost power which along with the overdrawal & Year-End Charges, have contributed to ballooning of the costs being incurred by GRIDCO.
232. GRIDCO has projected the estimated figures of Rs.6605.02 Crore pertaining to power purchase cost based on the power purchase rates as fixed by different statutory / regulatory authorities; marginal expenses towards establishment costs and pass through of the past losses and other costs such as arrear payment to OPGC and OHPC in its Annual Revenue Requirement (ARR) & Bulk Supply Price (BSP) Application for FY 2011-12 through the and accordingly, proposed for energy charge @ 290.26 P/U during the year. Unless the current average BSP of 170.25 P/U is revised



upwards, GRIDCO will be left with a deficit of Rs.2766.96 Crore as has been calculated and shown in the ARR & BSP Application for FY 2011-12.

233. In fact, the approved BSP during earlier years has not been sufficient for GRIDCO to recover its full approved costs as may be evident from the Table given below.

**Table - 22**

Particulars (As per the OERC Approval)	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11
<b>Demand Charge (Rs./KVA/Month)</b>	<b>200</b>	<b>200</b>	<b>200</b>	<b>200</b>	<b>200</b>	<b>200</b>	<b>200</b>
<b>Energy Charge (P/U)</b>							
<b>WESCO</b>	96.50	98.82	98.02	157.25	157.25	154.00	194.00
<b>CESU</b>	92.00	85.00	79.00	101.50	101.50	101.50	157.00
<b>NESCO</b>	86.00	86.00	81.00	125.00	125.00	130.00	195.00
<b>SOUTHCO</b>	84.00	75.00	70.00	70.00	70.00	70.00	90.00
<b>ARR (Rs. Crore)</b>	1632.08	1659.53	1774.44	2041.27	2152.23	2312.11	4242.44
<b>Sale to DISCOMs (MU)</b>	<b>12469.84</b>	<b>13188.14</b>	<b>14683.00</b>	<b>17021.90</b>	<b>17620.00</b>	<b>18921.00</b>	<b>20154.00</b>
<b>Average BSP (P/U)</b>	<b>130.88</b>	<b>125.84</b>	<b>120.85</b>	<b>119.92</b>	<b>122.15</b>	<b>122.20</b>	<b>170.25</b>
<b>% Change</b>	<b>1.52%</b>	<b>-3.85%</b>	<b>-3.96%</b>	<b>-0.77%</b>	<b>1.85%</b>	<b>0.04%</b>	<b>39.32%</b>

234. The proposed ARR & BSP of GRIDCO are determined based on the Audited Accounts for the year 2008-09 & Management Accounts for FY 2009-10 and submitted along with all facts and figures in the the prescribed formats subject to prudence check and approval by the Commission.
235. It is not correct to say that the State is facing serious power crisis solely on account of non- performance of GRIDCO. Rather, it can be said that the power crisis in the State has been mitigated to a great extent because of GRIDCO as it has procured power by incurring loans (loans amounting to Rs.1137 Crore has already been incurred during FY 2010-11 to settle the bills of generators). Hence, the expenditure incurred by GRIDCO towards power purchase cost to meet the State demand is necessarily to be recovered through the BSP.
236. GRIDCO should not only be allowed to recover the “cost of capital” (that includes the interest payable on the borrowings and also the return on equity) through the BSP but also the repayment of principal as GRIDCO does not have any assets against which depreciation would have been permitted to take care of repayment of principal. Therefore, GRIDCO submits that the cost of capital as well as principal repayment may be allowed for recovery through the BSP.

#### **Fuel Price Adjustment (FPA) Charges**

237. With regard to the issue of higher FPA in case of Central Stations, the endeavour of GRIDCO, despite its constant effort to extract the related information from NTPC, has met with little success. Therefore, the issue was also taken up by the senior functionaries of GRIDCO in the ERPC Meeting held at Bhubaneswar in the recent past. GRIDCO is hopeful to get the related feedback from NTPC which could then be utilized to the benefit of GRIDCO.

238. As per the procedure laid down under Appendix-7 of the OERC (Conduct of Business) Regulations, 2004 that the licensee can claim FPA on DISCOMs if the rise in FPA is > 5% and < 25% of the average approved BSP. The excess will be passed on in next tariff (ARR & BSP) Application. Besides, the Commission has directed GRIDCO to file a Supplementary Submission by way of Additional Filing before the Commission to claim the FPA for the period from January-10 to December-10. Accordingly, GRIDCO has filed a Supplementary submission before the OERC to consider an amount of Rs.321.89 Crore towards the same as a pass through in the ARR & BSP for FY 20011-12. With regard to recovery from the end consumers, Commission is requested to kindly approve a suitable mechanism / formula for recovery of the same from the retail consumers.

### **Two-Part Tariff**

239. GRIDCO, in its earlier ARR & BSP Applications used to propose two-part tariff (BSP) consisting of the Demand Charge (intended to cover the Fixed Costs) and the Energy Charge (to cover the variable Charges). However, DISCOMs tried to take undue advantage of this practice by proposing unrealistic higher SMDs so that the approval of Energy Charge was disproportionately kept lower. In order to resolve this dispute / problem, the Commission approved recovery of the revenue requirement of GRIDCO through Energy Charge and made levy of Demand Charge conditional as given in the OERC Order dated 20.03.2010. Demand Charges @ Rs.200/- KVA/Month has also been proposed to be levied along with the Energy Charge when the actual SMDs of DISCOMs calculated on annual basis exceed the permitted SMD (i.e. 110% of the approved SMD for the concerned DISCOMs).

### **Miscellaneous Issues**

240. 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.
241. The Managing Director (MD) of GRIDCO guides the MDs / CEOs for enforcing various measures so as to reduce the loss as per targets given by OERC. However, since the majority in the Board hangs in favour of the DISCOMs, the advices of GRIDCO to be carried out, is fully dependent on the discretion of the DISCOMs.
242. With regard to the action taken for improvement in performance of Reliance Managed DISCOMs, a Case (Case No. 35 of 2005) has been filed for revocation of License of the DISCOMs before the OERC. GRIDCO has been enlisted as one of the respondents in this Case. GRIDCO has been putting forth its views before OERC with regard to the actions to be taken on the part of the investor (the Reliance Infra) and the DISCOMs to improve the state of affairs in the DISCOMs. OERC is to take a final decision on the matter.
243. As per the Bi-lateral Agreement that existed between NALCO & GRIDCO, NALCO was required to pay three times of the rate at which it supplies surplus power to GRIDCO. In such a case, NALCO would now be required to pay Rs.8.25 (Rs.2.75X3) per Unit for energy drawal. But Commission was gracious enough to allow Rs.5.10 per Unit for NALCO instead of Rs.8.25 per Unit.

244. Further, it may be appreciated that GRIDCO has all along stood with NALCO to supply adequate back-up power as & when necessary even by procuring high cost power through U.I. (Unscheduled Interchange) ranging from Rs.12.00 to Rs.16.00 per Unit when the State was reeling under acute power crisis. Otherwise, NALCO would have been compelled to stop its production with consequential loss of export commitment, profit & market share etc.
245. OHPC has planned to develop hydro projects like Sindol-I, II & III in the downstream of the River Mahanadi which are expected to be operational towards FY 2017-18. GRIDCO has signed PPA with OHPC for the same. However, the decision to develop generation projects is external to GRIDCO.

**GRIDCO'S RESPONSE TO THE QUERIES RAISED BY DIRECTOR (TARIFF) IN THE PUBLIC HEARING (Para 246 to 253)**

**Energy Demand:**

246. GRIDCO submitted that the additional requirement of power, if any, would be met by procuring the same from other short term sources like CGPs / IPPs / U.I./ Trading subject to the availability and approval of the quantum & the rate by the Commission and also pass through of such additional costs in the ARR of GRIDCO.

**Price and GCV of Coal**

247. GRIDCO submitted that the variable costs of various NTPC-ER Stations have gone up substantially for which GRIDCO is very much concerned. Since it has serious cost implications on the financials of GRIDCO, GRIDCO took up the matter several times with the NTPC to find out the reasons thereof. NTPC has tried to justify that owing to shortage of coal, NTPC Plants use high cost imported and e-auction coal which result in increase in the variable cost of power. GRIDCO, is however, not satisfied with such clarifications of NTPC officials. The recent meeting, in this regard, was held between GRIDCO & NTPC on 16.01.2010 in which NTPC was requested to provide the details of data relating to coal & oil in the prescribed format, duly certified by the Statutory Auditor.
248. Although NTPC, during the meeting, agreed to provide such information, they backed out subsequently expressing their inability to furnish the concerned data. Hence, GRIDCO has no other option but to accept these bills on provisional basis. Due to such dispute, the quarterly reconciliation between GRIDCO & NTPC has not been signed for the last one year.
249. In spite of the above, when NTPC did not take any step to supply the requisite information, GRIDCO, as a follow-up measure, continued to insist NTPC persistently to provide the above data. Pursuant to this, NTPC agreed and requested GRIDCO to hold a joint meeting on a convenient date to resolve the issues relating to coal & oil data. Accordingly, although GRIDCO formally informed NTPC to hold such a meeting several times, the last one being on 25.01.2011 to discuss and resolve the matter, NTPC expressed its inability to attend the same and did not even suggest any other convenient date. Hence, it may be construed that despite GRIDCO's best efforts, NTPC is not paying any heed to provide any details with regard to use of high cost coal in its plants.
250. Regarding the question of moving to CERC, it may be noted that NTPC is raising the bills in line with the CERC Regulation. However, GRIDCO is exploring the possibility of moving to CERC with a prayer to direct NTPC to provide relevant data

on coal and not to use high cost imported or e-auction coal without prior consent of the major beneficiaries. Further since this issue relating to the high cost of coal does not pertain to GRIDCO only, it has become a key topic of discussion in several ERPC fora in the recent past. The issue was also vehemently raised in the last ERPC and TCC Meeting held on 17.12.2010 at Bhubaneswar. After threadbare deliberation, it was decided that the matter would once again be discussed in the next OCC Meeting of ERPC and GRIDCO may submit a suitable format for obtaining monthly coal data. Accordingly, GRIDCO has submitted the required format to the ERPC for furnishing the monthly coal data. However, NTPC is also being requested to comply with the present concern of the Commission and on receipt of the relevant information from the NTPC, the same shall be submitted before the Commission.

251. The GCV of 'F' grade indigenous coal purchased from Coal India Ltd. is around 3000 Kcal. Whereas the GCV of imported (Australian /Indonesian) coal is around 6000 Kcal. In the instant case, NTPC-FSTPS uses blended coal with imported component comparatively at a higher proportion for which the coal prices as well as the GCV of coal is highest in case of this particular generator. The price of coal in case of TTPS is the least, as it happens to be a pit-head station and hardly uses any imported coal.

#### **Recovery of full ARR**

252. GRIDCO submitted the following options to reduce the impact on RST:
- (i) The Commission's approval of a lower BSP for last several years as compared to the power purchase rate / cost of GRIDCO in order to keep the retail tariff low, has in fact made GRIDCO to fall into the debt trap as the revenue deficit envisaged to be made up from the sale of surplus power through UI and trading has not materialized due to non-availability of surplus power owing to increase in the state demand and also due to availability of less hydro power. On the top of it, payment of additional FPA to NTPC further aggravates the situation. The monthly cash flow deficit of GRIDCO is around Rs 100 Crore. Therefore, keeping any gap in the ensuing ARR will push GRIDCO to a breakdown condition.
  - (ii) The Commission may direct the DISCOMS to reduce the AT&C loss as per the benchmark fixed by the Commission which will reduce the Retail Supply Tariff (RST)
  - (iii) The Commission may consider freezing Return on Equity (RoE) to the DISCOMs for sometime (as was done in case of GRIDCO) in order to keep the RST low.
  - (iv) The Commission may also kindly explore the possibility of infusion of subvention by the Government to the Sector to keep the RST low.
  - (v) The Commission may kindly consider reducing the purchase price / rate by GRIDCO from CGPs / Co-Gen Plants & IPPs etc which will go a long way in lessening of power purchase cost of GRIDCO.
  - (vi) Organizations like OHPC / OPGC have garnered enough surpluses over a period of time because of remunerative tariffs fixed for them while GRIDCO has been responsible to bear the burden of the high tariffs of these State Generators. Being important stakeholders in the Power Sector of the State, the possibility of these Organizations shouldering a part of the burden along with GRIDCO, may kindly be explored.

- (vii) The Commission, with an aim to keep the RST at lower ebb, may consider the option of leaving revenue gap in the ARR of DISCOMs.

#### **Miscellaneous Receipts**

253. M/s. NALCO and M/s. IMFA stand on a separate footing, which supply surplus power to GRIDCO as well as avail their emergency & back-up power from GRIDCO unlike other CGPs who avail their start-up and emergency power from the respective DISCOMs. Drawal of power by M/s. NALCO & M/s. IMFA usually remain within 10 MU. For example, M/s. IMFA has drawn only 0.02 MU of energy during April' 10 to September' 10 of FY 2010-11. However, due to the problems arising out of the short supply of coal, M/s. NALCO drew 114.38 MU of energy during the 1st half of FY 2010-11, which is an exception. Such exceptional situations may not be repeated. Therefore, the projection of 10 MU of energy by GRIDCO for supply as emergency & back-up power to M/s. NALCO & M/s. IMFA may be considered as proper and acceptable.

#### **VIEWS OF GOVERNMENT OF ORISSA (Para 254 to 262)**

##### **Up-Valuation of Assets**

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

##### **Power Purchase from Renewable Sources**

255. State Govt. signed 36 MoUs with private developers for installation of around 484 MW small Hydro Electric Projects. Out of these, 3 nos. of SHEPs of capacity 57 MW (Middle Kolab, Lower Kolab and Samal Barrage) have been commissioned and supplying power to the State.

##### **Capacity Addition**

256. State Govt. have signed 30 MoUs with IPPs for setting up of the Thermal Power Plants having capacity of 3800 MW out of which state share would be 6770 MW. One unit of 600 MW of Sterilite Energy has been commissioned during Aug, 2010 and other 3 units (600X3) are expected to be commissioned during the year 2011-12.

Similarly M/s Arati Steel Ltd. has commissioned 50 MW in March, 2010. Besides GMR Kamalanga Energy Ltd. (1050 MW), Ind Barath Energy (700 MW) and Maa Durga Thermal Power Company (60 MW) have progressed well for commissioning their projects by end of 2012.

##### **Revised Design Energy of OHPC**

257. With most of the Hydro Plants are being old, the design energy envisaged during the commissioning stage has come down in many cases as detailed in the study under taken by OHPC through Experts. Commission may examine this and take appropriate decision.

### **Utilization of Captive Sources**

258. The Commission may provide competitive price (Tariff) for harnessing surplus power from the CGPs keeping in view of the support provided by the Govt. to CPPs from the IPRs in such a manner that it will not transfer into higher BSP.

### **Performance of the DISCOMs on Loss Reduction**

259. Appropriate action may be initiated by the Commission against the non-performing DISCOMs for violation of the directives of the Commission as per the provisions of the Electricity Act, 2003.

### **Payments of Govt. Arrear Dues**

260. Govt. has issued instruction to all Depts. And offices under their control to clear the undisputed electricity dues by 30.09.2010. The Deptt. of Energy will also impress upon the concerned public administration to extend necessary support to the DISCOMs if such instances are brought to the notice of the Deptt.

### **CAPEX Programme**

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

### **Implementation of Intra-State Availability Based Tariff (ABT)**

262. The Commission may take appropriate steps with regard to the implementation of ABT keeping in view of the demand and supply position of the State. However, it should be kept in mind that the general consumer shall not suffer from power Regulation on account of the implementation of ABT.

### **OBSERVATIONS OF THE STATE ADVISORY COMMITTEE (SAC) (Para 263 to 276)**

263. The State Advisory Committee (SAC) constituted under Section 87 of Electricity Act, 2003 met on 14<sup>th</sup> February, 2011 to debate on the Annual Revenue Requirement and Tariff application for the FY 2011-12 of the utilities namely OHPC, GRIDCO, OPTCL, SLDC, CESU, NESCO, WESCO and SOUTHCO. The Committee inter alia observed the following issues pertaining to GRIDCO:

#### **Impact of BSP on Retail Tariff for the year 2011-12**

264. Retail tariff is dependent on the cost of hydro generation by OHPC, cost of thermal generation by OPGC, NTPC and other Central Generating Stations, cost of power procurement by GRIDCO, cost of transmission by OPTCL, expenditure required to be incurred by SLDC and the cost of distribution of the distribution companies. Even if the cost of distribution by the distribution companies is kept unchanged at the current year (2010-11), the Retail tariff is bound to increase if there is increase in the cost of generation, cost of power procurement and cost of transmission and SLDC charges.
265. While fixing the tariff, the Commission is to be guided by the provision of Section 61(h) of the Electricity Act, 2003 read with Section 86(1)(e) regarding promotion of co-generation and renewable sources of energy. As per the target fixed by the Commission for the year 2011-12, 5% of the total energy purchase by GRIDCO for

consumption in the State should be from renewable and co-generation taken together which consists of Solar 0.10%, non-solar 1.20% and co-generation 3.70%. In case the actual purchase from renewable sources falls below 5% specified for 2011-12, the obligatory entities are required to purchase the renewable certificates at higher cost. This implies that the energy to the extent of State's requirement is to be purchased apart from purchasing the renewable certificate at higher cost. This would result in higher tariff implication with the consumers.

266. The 13<sup>th</sup> Finance Commission vide Para 7.105 and have observed as under which have also to be taken into account.

*“As against the enormous financial losses indicated above, subsidies in 2007-08 were of the order of Rs.16,950 crore. Thus, there is a large and burgeoning uncovered gap. The key reasons for the increasing gap can be summarized as follows :*

- i) Inability of the state utilities to enhance operating efficiencies and reduce T&D losses adequately.*
- ii) High cost of short term power purchases. Several utilities have not planned capacity addition in time and are relying on short term purchases at high rates (an average of Rs.7.31 per kwh as compared to rs.4.52 per kwh in 2007-08). The inability to reduce T&D losses has increased the purchase levels and supply costs.*
- iii) Absence of timely tariff increases has increased the gap and has impaired utility operations further. Some states have not raised tariffs for the past eight to nine years in spite of increasing deficits.”*

**Reduction in the ratio of hydro generation to total demand vis-à-vis Tariff Implication due to Revenue Gap of GRIDCO**

267. With increase in level of consumption by the existing consumers as well as increase in the number of consumers, the State demand has increased from 12499.49 MU in 2004-05 to 20154 MU in 2010-11 whereas generation from State hydro for sale was 7087.82 MU in 2004-05 and has been reduced to 5826.12 MU in 2008-09, 4211.86 MU in 2009-10 and upto to September, 2010 it is 1769.7 MU. The contribution of low cost hydro generation to total state demand was 56.71% in 2004-05 which has been reduced to 31.04% in 2008-09 and 21.62% in 2009-10 and 16.66% in 2010-11 upto September, 2010. On the other hand actual generation from hydro sources is fluctuating and declining because of erratic rain fall and silting in the reservoirs for which GRIDCO has to purchase high cost power to meet the state demand and when the procurement cost would increase for GRIDCO it is bound to reflect in the retail tariff for the consumers. Further, since there was surplus power available for trading by GRIDCO Commission was leaving substantial gap in the ARR of GRIDCO by keeping the BSP at lower rate and consequently retail tariff was kept at a reasonable low level. But since the State has faced power deficit situation from the later part of 2008-09 , GRIDCO is not able to bridge the gap left in ARR by the Commission which is evident from the table given below:-

**Table - 23**  
**ARR GAP OF GRIDCO**

<b>Financial Year</b>	<b>Gap in ARR (Approved)</b>	<b>Actual Gap</b>	<b>Net Gap</b>
2006-07	(-) 504.52	547.55	43.03
2007-08	(-) 464.86	1052.34	587.48
2008-09	(-)410.05	528.62	118.57
2009-10	(-)882.85	(-)1673.70	(-)1673.70
2010-11	(-)806.16	(-)598.87 (Up to Sept.10)	(-)598.87 (Up to Sept.10)

*NB: Figures in the parenthesis indicate negative gap.*

268. Though Commission approved revenue gap of Rs.806.15 crore in the ARR for FY 2010-11 and fixed the average BST at 170.25 paise per unit for supply to the distribution companies, the actual gap upto September, 2010 is 598.8 crore and the cumulative gap is Rs.2430.77 crore upto September, 2010. GRIDCO has projected a gap of Rs.3088.85 crore for the year 2011-12 at the existing rate of Rs.170.25 paise/unit approved for 2010-11 and in order to bridge the gap GRIDCO has proposed BSP rate at 304.41 paise per unit for 2011-12. Hence, in order to keep the tariff rise at a reasonable level it is necessary for the State to take urgent action for expediting capacity addition to hydro power and time bound action should be taken for approval of the Detailed Project Report (DPR) of the Small and Mini Hydro Projects so that about 2000 MW of power is generated from Small and Mini hydro sources. This would also help in meeting the GRIDCO and other obligatory entities to meet their mandated purchase of prescribed percentage from renewable sources.
269. With regard to the Fuel Price Adjustment Secretary, Energy indicated that Commission may consider the additional cost of Rs.321.89 crore on account of FPA and Rs.368.31 crore on account of Fixed cost claimed by NTPC. Secretary, Energy however suggested that GRIDCO should approach CERC but payment proposed may have to be made, otherwise NTPC may resort to reduction in supply and other measures. Since, the additional cost on account of fuel price adjustment has not been factored in the tariff for 2010-11, the distribution companies are not able to recover the same from the consumers and consequently are not able to pay to GRIDCO. It may be necessary for the Commission to provide in the tariff the mechanism as to how the anticipated increase in coal and oil can be recovered through tariff as a Fuel Price Adjustment Strategy in the light of the order of the Delhi Electricity Regulatory Commission where a separate column in the new formats of the Electric Bill has been suggested which will reflect the surcharge over and above the power consumption bill. In order to avoid tariff shock in the subsequent years there is need to put in place a mechanism to recover the additional cost in shape of fuel surcharge as a separate item from the consumers in their monthly energy bills.

**Capex Programme and Counter Part Funding by the DISCOMs**

270. During the course of discussion Secretary, Energy informed that the State Govt. have decided to implement a Capex Programme of Rs.2400 crores during a period of four years starting from 2010-11 to 2013-14 for improvement of the distribution network in the State and to ensure quality supply power to the consumers. Out of this the State govt. would provide Rs.1200 crore and distribution companies would provide Rs.1200 crore as counterpart funding. Initially the budgetary support is in the shape of loan with a moratorium period of five years for principal payment and the debt



servicing repayment of loan in a period of 15 years. Rs.833.34 crore (Finance Commission Grant – Rs.500 crore + State Share Rs.166.67 crore + Gridco's share Rs.166.67 crore) can be converted to grant if the distribution companies achieve AT&C loss reduction of 3% per annum on the average. During the course of discussion it was indicated by the representative of Reliance managed distribution companies that since the past, present and future assets have been hypotheticated to GRIDCO as per the agreement they find difficulties to arrange counter part funding from financial institutions. In this connection they drew the attention of the Secretary Energy, Members of the Commission and the Members of the SAC to the direction of the Commission in their Business Plan order dated 20.3.2010 in which Commission have directed that GRIDCO should take steps to allow the Reliance managed distribution companies (WESCO, NESCO & SOUTHCO) to create first charge over the immovable assets as security to REC/PFC on the assets added after 31.3.2001. This works out to Rs.413.23 crore upto 31.3.2008 excluding the assets created out of World Bank loan. However, a note of caution was also issued by some Members that implementation of Capex programme should be closely monitored by the Secretary, Energy as well as by the Commission.

### **Capacity Addition**

271. Some members pointed out that no single MW has been added by the State Government in hydro sector since long. Unless more hydel plants come up in the State the percentage of hydro power in energy pool of the State would go down. He further brought to the notice of the Commission that in spite of availability of common infrastructural facility in Ib Thermal Power Station, OPGC has not also added any additional capacity. He pointed out that the Govt. of Orissa has not taken adequate and noticeable steps for development of renewable energy in the State of Orissa. That is why the RPO obligation set by the Commission has not been effectively complied with by GRIDCO, the sole bulk supplier in the State. About 2000 MW of capacity in the small hydro sector has been identified by the State Govt.
272. Regarding de-silting of the hydro reservoirs, Secretary, DoE, GoO stated that the Commission may consider this issue so that hydro generation can be maximized from the existing hydro generating stations. This will also help agriculture for providing irrigation. Regarding present low hydro generation he expressed that storage of water is reserved in the reservoir for maximizing generation during peak season like summer. In the meantime, state government have engaged WAPCOS to prepare design and project report for small and mini hydro projects and it is expected that the finalization of project reports for small and mini hydro stations would be expedited.
273. Regarding additional generation from thermal power in the state Secretary Energy indicated that substantial progress has been made to start Unit-III and Unit-IV of Ib valley thermal power projects and orders for procurement of equipments etc. are expected to be issued within next 6 months or so. Regarding thermal power generation by joint venture company formed by OHPC & OMC i.e., Orissa Thermal Power Corporation Ltd., (OTPCL) the proposed capacity is 2000 MW out of which Odisha is likely to get 1000 MW in the year 2014-15. There was some initial hurdle for identification of site. Now the problem has been sorted out.
274. Secretary, DoE, GoO further indicated that out of 30 IPPs with whom MOUs have been signed having expected capacity of 39000 MW (Odisha share being 7023.9 MW), 6 IPPs are expected to be commissioned during 2011-12. GRIDCO in its projection for 2011-12 has estimated 3357.12 MU from Arati Steel and Power Ltd.

(50 MW) and Sterlite Energy Limited (600 MW). Besides, GRIDCO expects 778 MU from other 4 IPPs during 2011-12 which are likely to start their generation during FY 2011-12. These are Shyam DRI Ltd., (400 MW), Maa Durga Thermal Power Capacity Ltd. (35 MW), Ind Barat Energy Ltd. (37 MW) and GMR Kamalanga Energy Ltd. (99 MW). Hence, during 2011-12 there may not be shortage of power.

#### **Levy of Surcharge on Thermal Power Stations**

275. Some members of SAC pointed out that State Govt. has signed 30 MoUs with IPPs for setting of thermal power stations for Odisha which would pollute the environment of the state. They wanted to know about the action taken by the State Govt. to prevent the disaster situation in future. Secretary, Energy indicated that perhaps a sort of surcharge may be levied not only from the new incoming IPPs but also on existing thermal power stations including the captive power generators. The proceeds to this surcharge may be utilized to provide CFA lamps to the consumers and have other energy conservation measures. This aspect needs serious consideration at different levels.
276. The Commission reiterated that it would be just and fair to all stakeholders of the power sector to ensure that while the interests of the consumers need to be protected by providing service at reasonable and affordable rates, the viability and sustainability of the power utilities is also to be ensured.

#### **COMMISSION'S OBSERVATIONS AND ANALYSIS OF GRIDCO'S PROPOSAL (Para No. 277 to 557)**

##### **Legal Status of GRIDCO Ltd. and Nature of its Application**

277. 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 SOUTHCO. 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.
278. 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, SOUTHCO 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 in to 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 3<sup>rd</sup> Proviso to S.41 & 1<sup>st</sup> 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 5<sup>th</sup> 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 Scheduled, 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 Scheduled to the Act and not because a company referred to in sub-section (2) of the S. 131 of the Act. The 5<sup>th</sup> 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 5<sup>th</sup> 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 licensee 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 5<sup>th</sup> Proviso to Sec. 14 of the Act is doubtless that of a deemed trading licensee, carrying on trading of electricity in bulk.

279. 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 price 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, inasmuch 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 factum is that the DISCOMs procure their power solely from GRIDCO.

280. 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 in S.2(71) cannot be a deemed licensee under the 5<sup>th</sup> Proviso to S.14 of the Act.
281. 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.
282. 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).
283. 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 S.49 or another trader, or even to another distributor licensed under the 6<sup>th</sup> 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.

284. GRIDCO has filed application under Sec. 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.146,147,148 & 149 of 2010 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.
285. 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 vides 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 DISCOM's and are actually being serviced by DISCOMs. The past losses, securitization of liabilities, etc are actually being serviced by DISCOMs. These liabilities can be classified as follows:
- i. 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.
  - ii. 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.

- iii. 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.
286. 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 up to that date 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 and now being incurred by DISCOMs through back-to-back payment arrangements (classification (2) and (3) 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. The creditors are not the creditors of GRIDCO, but of DISCOMs. 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.
287. 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 erstwhile 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.

288. On detailed scrutiny and examination of the Annual Revenue Requirement and Bulk Supply Price Application of GRIDCO for FY 2011-12, the written and oral submissions of the objectors, the Commission has passed the order as enunciated in the subsequent paragraphs.

#### **IB Thermal Power Station of OPGC**

289. Orissa Power Generation Corporation (OPGC) owns IB Thermal Power Station at Banharpalli in Dist. Jharsuguda with an installed capacity of 2x210 MW.
290. The Commission vide its letter No. 5373 dated 24.11. 2010 had directed OPGC to file its ARR and tariff application in respect of Ib Thermal Power Station for the FY 2011-12 in terms of Section-62 read with Section-86 of the Electricity Act 2003 in the specified tariff filling formats by 30.11.2010. OPGC vide its letter No. 2936 dated 15.12.2010 intimated the Commission that they reiterate their position communicated vide their earlier letter no.319 dated 02.02.2009 on determination of tariff for the FY 2009-10, where they have indicated that OPGC is a generating company in terms of Section-2 (28) of the Act and selling power not to a licensee but to a trader (GRIDCO), hence it is not required to submit the Annual Revenue Requirement before this Commission. Further, GRIDCO being the bulk supplier/trader is all along procuring the power from OPGC and submitting the Annual Revenue Requirement which have been considered and approved by the Commission.
291. In the aforesaid letter dated 15.12.2010, OPGC has further indicated that the amendments to Power Purchase Agreement and Tripartite Agreement as referred in their earlier letter No.3105 dated 30.11.2009 is yet to be finalized and may take some more time for execution among the counter-parties. In the said letter dated 30.11.2009 it had informed that the Tripartite Agreement is being renegotiated among the counter-parties considering the Govt. of Orissa Notification dated. 12.10.2009 modifying the earlier Notification dated 21.06.2008. On the finalization of the amendments to Power Purchase Agreement and Tripartite Agreement further course of action will be followed.
292. In this letter it has also mentioned that in view of the above, OPGC may not be required to file any further information for determination of generation tariff of Ib Thermal Power Station for the FY 2011-12 at this point of time.
293. OPGC did not file its ARR with the Commission for the year 2011-12 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 Judgment 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 Judgment 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.

294. 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 1<sup>st</sup> 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/GRIDCO 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.*

295. 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.

296. 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.

#### **Calculation of BSP for FY 2011-12**

297. The Commission, for determination and approval of the ARR of GRIDCO for FY 2011-12 continues to follow the same principles as in the previous year. For the purpose of tariff setting for FY 2011-12, 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.
298. 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 true-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 2011-12 using the following principles.
299. The cost of power purchase for GRIDCO, which constitutes more than 82.09% 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 maximized 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. The drawal IPPs have been considered as proposed by the GRIDCO.
300. 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

301. 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.
302. The Commission has scrutinised in detail the energy requirement proposed by the DISCOMs for FY 2011-12. 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 IPPs, Renewable and captive sources, some surplus energy will be available after meeting the State demand for 2011-12, 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.
303. 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 418.94 MU under UI , 99.96 MU through power banking mechanism upto September, 2010 during the current FY 2010-11 to meet the power requirement of the State.
304. 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 2011-12. Due to a rise in fuel prices, the variable charges of the generators have increased manifold.
305. 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 and revenue earned from trading to be used to bridge the gap left in the ARR.
306. Further, the Commission in its Order dtd. 23.11.2010 in Case No. 117& 118 of 2010, has fixed the price of procurement of power from CGPs and Co-generate Plants for meeting the demand of the state which was made applicable w.e.f. 10.11.2010 and would continue till 31.03.2011. However, since no further order has been issued by the Commission in this regard, the above price fixed for procurement of surplus

power from CGPs and Co-generation Plants vide OERC Order dtd. 23.11.2010 in Case No. 117& 118 of 2010 will continue until further order issued by the Commission. However, in case of any revision of price for sale of surplus power from CGPs and Co-generation plants by the Commission for FY 2011-12, the revised price shall be applicable for procurement of surplus power by GRIDCO from CGPs and Co-generation plants and any deviations/adjustment in revenue due to such price revision will be considered while taking up the approval of ARR of GRIDCO for FY 2012-13.

### **Quantum of Power Purchase**

307. 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.
308. 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 of 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.*
309. GRIDCO Ltd. as well as DISCOMs have submitted the ARR for 2011-12 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 2011-12 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 2011-12 for EHT and HT industries. The load growth for LT consumer may be met through loss reduction by distribution companies.
310. The Distribution Companies have furnished projections for FY 2011-12 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 2011-12 separately are distinctly different in their respective filings.

311. The quantum of power to be purchased for the FY 2011-12 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. 146/2010 (CESU), 147/2010 (NESCO), 148/2010 (WESCO) and 149/2010 (SOUTHCO) by following the guidelines of the Regulations quoted above. The Commission approves the quantum of power to be purchased for the FY 2011-12 relating to CESU, NESCO, WESCO and SOUTHCO as 7791 MU, 5323 MU, 6630 MU and 2733 MU respectively totaling to 22477 MU.
312. The Commission has approved 3.90% towards transmission loss in the OPTCL system for the FY 2011-12. The details of transmission loss have been furnished in the tariff order for OPTCL for the FY 2011-12 in Case no 145 of 2010.
313. 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 2011-12 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.
314. 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 100 MU for 2011-12 after considering the submission of NALCO and actual drawal of CGPs during the past years. The detailed requirement of power purchase for use within the State is projected in the table below:

**Table – 24**  
**Purchase of Power by GRIDCO for State Use for FY 2011-12**  
**(Figures in MU)**

<b>Name of the DISCOMs</b>	<b>Commission's Approval for 2010-11</b>	<b>GRIDCO's Proposal in ARR 2011-12</b>	<b>DISCOM's Proposal for 2011-12</b>	<b>Commission's Approval for 2011-12</b>
CESU	6420.00	7722.20	7968.37	7791.00
NESCO	5122.00	5465.00	5685.76	5323.00
WESCO	6244.00	6720.00	6500.00	6630.00
SOUTHCO	2368.00	2848.00	2860.00	2733.00
<b>TOTAL DISCOMs</b>	<b>20154.00</b>	<b>22755.20</b>	<b>23014.13</b>	<b>22477.00</b>
CGP	10.00	10.00		100.00
<b>TOTAL SALE</b>	<b>20164.00</b>	<b>22765.20</b>		<b>22577.00</b>
Transmission loss at EHT in MU (DISCOMs Purchase only)	839.75 (@ 4.0% Transmission loss)	923.87 (@ 3.90% Transmission loss)		912.18 (@ 3.90% Transmission loss)
<b>Total Purchase</b>	<b>21003.75</b>	<b>23689.07</b>		<b>23489.18</b>

315. The Commission is approving the energy drawal for FY 2011-12 after considering the projections made by DISCOMs and hence there should not normally be any variations from the approved drawal. The licensees should limit their 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**

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 of FY 2010-11 has been considered as the SMD of each DISCOM for FY 2011-12. Based on said premise, they have projected the total SMD for FY 2011-12 as 3522.74 MVA per month as indicated in the Table below:

**Table – 25  
SMD in MVA per month**

DISCOMs	FY 09-10 (Actual)	OERC approval for FY 2010-11	Average SMD of first Six months of FY 2010-11	Actual SMD for the Month of Sept,2010	Projection of GRIDCO for FY 2011 –12 Considering the highest SMD of first six months of FY 2010-11
<b>CESU</b>	957.94	972.00	1111.24	1182.87	1182.87
<b>NESCO</b>	692.50	730.00	736.28	822.55	822.55
<b>WESCO</b>	869.80	971.00	949.77	1106.59	1106.59
<b>SOUTHCO</b>	371.40	377.00	392.51	410.73	410.73
<b>TOTAL</b>	<b>2891.64</b>	<b>3050.00</b>	<b>3189.81</b>	<b>3522.74</b>	<b>3522.74</b>

317. 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 demand of DISCOMs for the period from April'10 to Jan'11 is furnished in a table as under:

**Table - 26  
Demand in MVA during 2010-11( upto Jan' 11)**

	CESU	NESCO	WESCO	SOUTHCO	ALL ORISSA
<b>Apr-10</b>	1,020.96	688.06	866.81	374.80	2,950.63
<b>May-10</b>	1,081.92	714.63	889.51	379.55	3,065.61
<b>Jun-10</b>	1,115.38	703.46	937.87	387.69	3,144.40
<b>Jul-10</b>	1,139.24	740.89	943.22	403.79	3,227.14
<b>Aug-10</b>	1,127.06	748.10	954.66	398.52	3,228.34
<b>Sep-10</b>	1,182.87	822.55	1,106.59	410.73	3,522.74
<b>Oct-10</b>	1,172.26	759.77	972.13	412.51	3,316.67
<b>Nov-10</b>	1,154.05	762.54	1,018.78	413.64	3,349.01
<b>Dec-10</b>	1,112.82	744.36	1,207.86	412.00	3,477.04
<b>Jan-11</b>	1,167.45	747.46	829.69	404.51	3,149.11
<b>AVG. (4/10 to 1/11)</b>	<b>1,127.40</b>	<b>743.18</b>	<b>972.71</b>	<b>399.77</b>	<b>3,243.07</b>

318. It is observed from the above table that the summation of billing demand has fluctuated from months to months and has reached a peak of 3522.74 MVA during September, 2010. The billing demand recorded in January, 2011 (3149.11 MVA) is even lower than that of September, 10 (3522.74 MVA) by about 373.63 MVA.
319. The Commission analysed the demand pattern of DISCOMs. After recasting the estimated requirement of power during the current FY 2010-11, it was observed that due to industrialization & rural electrification, there may be an additional requirement of about 981.57 MU during FY 2011-12 by the DISCOMs. Thus, for meeting this additional demand of 981.57 MU, the additional MVA requirement has been worked out to 124.50 MVA with a system power factor of 0.90. So, the Commission has estimated the Demand of the DISCOMs for FY 2011-12 taking the actual demand of Sept, 10 plus additional load growth during FY 2011-12. The total estimated demand approved by the Commission works out to 3648 MVA for DISCOMs and details are given in the table below.

**Table - 27**  
**Demand in MVA 2011-12**

DISCOMs	OERC Approval for 2010-11	Proposal by DISCOMs for 2011-12	Proposal by GRIDCO for 2011-12	Actual avg SMD during 4/10 to 01/11	Actual for Sept, 2010	Additional Load growth as estimated for 2011-12 (MU)	Additional load growth converted to MVA at 0.9 power factor	Actual for 9/09 + Additional load growth	OERC Approval for 2011-12
CESU	972.00	1366.01	1182.87	1127.40	1182.87	425.97	54.03	1236.90	1237.00
NESCO	730.00	780.00	822.55	743.18	822.55	181.16	22.98	845.53	846.00
WESCO	971.00	1100.00	1106.59	972.71	1106.59	209.15	26.53	1133.12	1133.00
SOUTHCO	377.00	460.00	410.73	399.77	410.73	165.29	20.97	431.70	432.00
<b>ALL ORISSA</b>	<b>3050.00</b>	<b>3706.01</b>	<b>3522.74</b>	<b>3243.07</b>	<b>3522.74</b>	<b>981.57</b>	<b>124.50</b>	<b>3647.24</b>	<b>3648.00</b>

320. Taking into account the SMD in different months of 2010-11 and the additional load projected by the DISCOMs the SMD for 2011-12 has been fixed at 3648 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 543).

### **Purchase of Power from Different Generating Stations**

#### **State Hydro**

321. GRIDCO's proposal and Commission's approval for 2011-12 for various stations of OHPC are given in the table below, the details of which have been dealt in Case No.143/2010 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 -28**  
**Drawal from State Hydro Stations (in MU)**

Source of Generation	FY 2010-11	FY 2011-12	
	Commission's Approval	GRIDCO's Proposal	Commission's Approval
OHPC (Old Stations)	3676.86	3704.81	3676.86
Upper Indravati	1942.38	1942.38	1942.38
Machkund	262.50	262.50	262.50
<b>Total Hydro</b>	<b>5881.74</b>	<b>5909.69</b>	<b>5881.74</b>

322. The design energy of Machkund Power Station is 525 MU. Considering Orissa share of 50% towards energy drawal from this station, the Commission approves an availability of 262.50 MU from Machkund. Commission desires that the State can draw at least 50% of Machkund generation every day. GRIDCO/OPTCL and SOUTHCO should co-ordinate to maximise the drawal from Machkund.

#### **Talcher Thermal Power Station (TTPS)**

323. 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 2965.43 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 82.0% and any deviation from normative plant availability will attract lower capacity charge or incentive payment. Taking into account the Plant availability of 82.0% & Auxiliary Consumption of 10.50%, the Commission approves the net drawl of 2957.32 MU from TTPS for the FY 2011-12.

#### **IB Thermal Power Station of OPGC**

324. Orissa Power Generation Corporation (OPGC) owns IB Thermal Power Station with an installed capacity of 2x210 MW. OPGC in its generation plan for FY 2011-12 submitted to GRIDCO had projected a net Energy sent out of 2825.74 MU based on target generation of 3150.402 MU with blending of 2.3% of imported coal & PLF of 86.90%. However, GRIDCO in its ARR submission has projected net drawal of 2874.317 MU from OPGC taking into account the PLF of 86.87% with Auxiliary Consumption of 10.31%. As per the power purchase agreement signed between GRIDCO and OPGC the auxiliary consumption is to be taken as 9.50%. Hence, the Commission approves a net drawl of 2892.49 MU from OPGC for FY 2011-12 considering 86.87 % PLF as proposed by GRIDCO and 9.50% auxiliary consumption as per PPA.

#### **Captive Generating Plants (CGPs) and Co-generation Plants**

325. OERC has approved the rates of surplus power from CGPs to be procured by GRIDCO. GRIDCO is committed towards harnessing surplus power from various Captive Generating Plants (CGPs) of the State considering maximum 49% of the generation capacity at 85 % PLF.
326. GRIDCO in its filing submitted that in view of the quantum of power procured from 14 Nos. of CGPs during the first six months of FY 2010-11, majority of CGPs are supplying power either below 5 MW or within 50 MW. Based on the average monthly injection by each of the CGPs during the first six months of FY 2010-11, GRIDCO proposes to draw 1257.06 MU from different CGPs considering maximum drawal from two CGPs (M/s. Jindal Stainless Ltd., Duburi & M/s. Vedant, Jharsuguda) upto 50 MW at the proposed rate 3.10 P/U maximum to restrict power purchase cost. The details of proposed drawl from Captive Generating Plants for FY 2011-12 are projected in the Table below.

**Table -29  
Proposed Drawl from Captive Generating Plants (CGPs)**

Sl. No.	Captive Generating Stations	Installed Capacity (MW)	Maximum surplus supply in MW to GRIDCO @ 49 % of generation at 85% PLF	Energy drawl during 2009-10 (MU)	Energy drawl during the 1st six months of 2010-11 (MU)	Average drawl in MW proposed by GRIDCO for 11-12	Energy drawl proposed for FY 2011-12 (MU)
1	NALCO	8*120=960	399.84	14.57	4.36	1.00	8.76
2	IMFA	2*54=108	44.98	187.36	34.76	7.00	61.32
3	HINDALCO	1*67.5+3*100=367.50	153.06	90.87	28.27	5.00	43.80
4	RSP	2*60+4*25=220	91.63	20.88	5.62	1.00	8.76
5	NBVL, Meramundali	1*30+1*65=95	39.57	230.77	88.84	10.00	87.60
6	Vedant, Budhipadar (Jharsuguda)	7*135=945	393.59	697.10	550.62	50.00	438.00
7	JIndal Stainless Ltd., Duburi	2*125=250	104.13	847.63	610.92	50.00	438.00
8	SCAW	1*8=8	3.33	0.00	3.29	1.00	8.76
9	Bhusan S&P, Jharsuguda	1*60+1*40+1*130+2*8 = 246	102.46	97.76	44.28	10.00	87.60
10	OCL Iron & Steel LTD	1*14=14	5.83	0.00	0.00	0.00	0.00
11	Rathi Steel & Power	1*20=20	8.33	18.53	5.52	1.00	8.76
12	Dinabandhu Power&Steel Ltd.	1*10=10	4.17	3.56	13.15	3.00	26.28
13	Maheswari	2*12=24	10.00	2.00	7.89	1.50	13.14
14	OSISL, Polasponga	1*24=24	10.00	25.04	25.84	3.00	26.28
	<b>TOTAL</b>		<b>1370.91</b>	<b>2205.47</b>	<b>1423.35</b>	<b>143.50</b>	<b>1257.06</b>

327. GRIDCO in its filing submitted that as per the direction of the Commission in their Order dated 27.06.09 in Case No. 59/2009, GRIDCO has classified 13 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.

328. These 13 nos. of Co-generating Plants shall be provisionally paid by GRIDCO at the rates as applicable to them as per the OERC Order from time to time subject to the pending final decision of the Commission with regard to the Co-generation status of these Plants in consonance with the recommendations of the Report by the Chief Electrical Inspector (CEI), Govt. of Orissa.



329. Considering the quantum of power procured from various Co-generating Plants during the first six months of FY 2010-11, GRIDCO proposes to draw around 512.46 MU of energy from these plants during FY 2011-12 limiting maximum drawal from any Co-generating Plant upto 10 MW at a rate of Rs.2.75 per unit maximum in order to restrict power purchase cost as shown in the Table below:

**Table- 30**  
**Proposed drawal from Co-Generating Plants**

Sl. No.	Co-Generation Plants	Installed Capacity (MW)	Maximum surplus supply in MW to GRIDCO @ 49% of generation at 85% PLF (MU)	Energy drawal during 2009-10 (MU)	Energy drawal during the 1st six months of 2010-11 (MU)	Average drawal in MW proposed by GRIDCO for 2011-12 (MW)	Energy drawal proposed for FY 2011-12 (MU)
1	NINL	2*19.5+1*24=62.5	26.03	71.07	34.04	7.00	61.32
2	ARATI STEEL	1*40=40	16.66	116.21	43.14	7.00	61.32
3	Tata Sponge	1*18.5+7.5=26	10.83	126.17	59.87	8.00	70.08
4	SMC Power	1*8+1*25=33	13.74	46.87	24.38	4.00	35.04
5	Pattnaik Steel, Polasponga	1*15=15	6.25	36.13	14.38	2.50	21.90
6	IFFCO	2*55=110	45.82	24.18	19.40	3.00	26.28
7	VISA Steel	2*25=50	20.83	8.60	8.86	1.00	8.76
8	VEDANTA, Lanjigarh	3*30=90	37.49	18.96	9.42	2.00	17.52
9	SHYAM DRI	1*30=30	12.50	28.78	61.79	10.00	87.60
10	BHUSAN Steel Ltd.	1* 33+1*77=110	45.82	137.95	34.28	7.00	61.32
11	Sree Mahavir Ferro Alloys.	1*12=12	5.00	31.42	8.73	1.50	13.14
12	Action Ispat	1*12=12	5.00	26.81	12.68	1.50	13.14
13	Aryan Ispat	1*18=18	7.50	29.68	30.15	4.00	35.04
	<b>Total</b>		<b>273.43</b>	<b>702.83</b>	<b>361.12</b>	<b>71.50</b>	<b>512.46</b>

330. In complying to a query, GRIDCO has submitted that the projected drawal from CGPs and Co-generation Plants during FY 2011-12 has been shown at a lower side in comparison to the actual drawal in the first six months of FY 2010-11 in view of the availability of power from recently synchronized IPPs like Sterilite Energy Ltd. (600 MW) and Arati Steel Ltd. (50 MW). However, in case GRIDCO is compelled to procure more power from CGPs / Co-generation Plants during FY 2011-12 than the projected quantum, then the same shall be done with due intimation to the Commission. Besides, GRIDCO is obliged to procure the contracted power from

entities in the State as well as from the Central Sector (as per the share of Orissa) with whom it has entered into PPAs. Incidentally, the rate of procurement from these entities is less than the rate of energy approved by the OERC for procurement of power from CGPs/Co-Gen. Plants / IPPs. Therefore, after considering the availability from the above sources, GRIDCO has projected the procurement of shortfall quantum (balancing figure) of 1769.52 MU from CGPs (1257.06 MU) and from Co-generation Plants (512.46 MU) (1257.06 MU+512.46 MU=1769.52 MU).

331. GRIDCO has further submitted that, with regard to the possibility of procurement of power from the new CGPs, it is to add that a few of the new CGPs namely, Deepak Steel and Power Limited, Bindal Sponge Iron Ltd, Jain Steel Ltd., Emami Paper Mills Ltd., Scan Steel Ltd., Viraj Steel Ltd., Sree Kajajnaath Steel Ltd. etc. have offered to sell their surplus power to GRIDCO. Hence, there is a possibility of procuring surplus power limiting to maximum 49% of the generation capacity at 85 % PLF from these CGPs at approved / negotiated rates, if required.
332. The Commission scrutinized the proposal of GRIDCO and based on the requirement for the state to be met by the DISCOMs, the Commission approves the drawal of 603.79 MU from CGPs & 512.46 MU from Co-generation Plants by GRIDCO for the FY 2011-12 for the purpose of state consumption. However, the present approval shall not be a limiting factor for drawl of power from CGPs and Cogeneration plants by GRIDCO to meet the demand of the State. GRIDCO shall inform the Commission in case of excess drawl of the power now approved for the state use. Further, the Commission also directs GRIDCO to negotiate with other CGPs & Co-generation Plants for harnessing more power for trading purposes.

#### Renewable Energy

333. GRIDCO has submitted to procure around 300 MU of renewable power from small hydro sources that would be available to GRIDCO during FY 2011-12 as given in the table below.

**Table –31  
Proposed Drawal from Renewable Energy Sources**

Renewable Energy Sources.	Date of Commercial Operation	Installed Capacity (MW)	Design Energy (MU)	Energy drawal during FY 2009-10 (MU)	Energy drawal during the 1st six months of 2010-11 (MU)	Energy Proposed for FY 2011-12 (MU)
Meenaskhi Small Hydro	14.07.2009	37	141.57	141.30	101.35	150
SAMAL Small Hydro	20.10.2009	20	113.84	14.39	36.57	150
<b>Total</b>		<b>57</b>	<b>255.41</b>	<b>155.69</b>	<b>137.92</b>	<b>300</b>

334. The generation from these SHEPs depends on the flow from the Kolab and Rengali respectively. Considering quantum of power procured during FY 2009-10 & the first 6 months of FY 2010-11 GRIDCO expects to draw around 300 MU from these two stations during FY 2011-12.

335. The Commission allows GRIDCO to purchase 300 MU of renewable energy from these two SHEPs for consumption in the state during FY 2011-12.
336. However, the Commission has already notified Renewable and Co-generation Purchase Obligation and its Compliance Regulations, 2010 on 30<sup>th</sup> September, 2010 which shall come into force from the date of publication in the Official Gazette. As per the Regulations, every Obligated Entity shall purchase not less than 5% of its total annual consumption of energy from co-generation and RE sources from 2011-12 onwards with 0.5 percentage increase every year thereafter, till 2015-16 or as reviewed by the Commission even earlier, if any. Provided that out of the RPO so specified in the year 2011-12, 0.10% shall be procured from solar energy source and shall be increased at a rate of 0.05% every year thereafter, till 2015-16 or as reviewed by the Commission even earlier, if any. The year-wise and source-wise RPO target fixed by OERC is given below:

**Table – 32**

Year	Minimum quantum of purchase in percentage (in terms of energy consumption in the State in KWH)			
	Renewable		Co-generation	Total
	Solar	Non-solar		
2011-12	-	1.0	3.50	4.5
2011-12	0.10	1.20	3.70	5.0
2012-13	0.15	1.40	3.95	5.5
2013-14	0.20	1.60	4.20	6.0
2014-15	0.25	1.80	4.45	6.5
2015-16	0.30	2.00	4.70	7.0

337. Subject to the terms and conditions contained in these Regulations, the Certificates issued under the Central Electricity Regulatory Commission (Terms and Conditions for recognition and issuance of Renewable Energy Certificate for Renewable Energy Generation) Regulations, 2010 shall be the valid instruments for the discharge of the mandatory obligations set out in these Regulations for the obligated entities to purchase electricity under RPO.
338. The Co-generation and renewable energy sources excepting roof-top Solar PV and bio-gas sources shall be connected to the State Grid at a voltage level of 132 KV or 33 KV or 11 KV subject to technical suitability determined by the licensee. The OERC, vide its order dtd. 18.11.2010 has designated OREDA as State Agency for accreditation and recommending the RE projects for registration and to undertake functions under the OERC (Renewable and Co-generation Purchase Obligation and its Compliance) Regulations, 2010.
339. In case the obligated entity fails to meet the RPO, it has to purchase renewable certificates at higher cost in addition to drawing energy at marginal cost to meet the demand of power. GRIDCO has projected to avail 512.46 MU from the co-generation plants in the State and 300 MU from Renewable sources of small hydro during the FY 2011-12. It is observed that 300 MU from Renewable Sources is just sufficient to meet the RPO fixed by the Commission. Further, GRIDCO has not projected any availability of power from solar energy sources during the FY 2011-12. Therefore, in order to comply the RPO fixed by the Commission, GRIDCO has to take up the matter with the concerned Departments of the State Govt., OREDA and EIC (Elect.)

for early implementation of RE projects in this State during FY 2011-12. Otherwise GRIDCO has to purchase renewable certificates at higher cost

**Independent Power Producers (IPPs)**

340. GRIDCO in its ARR for FY 2011-12 submitted that only one unit each of the two IPPs, M/s Sterilite Energy (P) Ltd. and M/s Arati Steels have already started supplying power to GRIDCO. M/s. Sterilite Energy Limited has signed an agreement with GRIDCO to make available the entire power from its first unit for State Consumption. With an expected PLF of 80% and Auxiliary Consumption of 10%, GRIDCO has estimated to procure 3181.92 MU from M/s. Sterilite Energy (P) Ltd. during FY 2011-12. Considering the quantum of power procured from the plants during the first six months of FY 2010-11, GRIDCO has proposed to draw 3357.12 MU from these two IPPs during FY 2011-12 as given below:

**Table - 33  
Drawal from IPPs**

Sl. No.	Name of IPP	Installed Capacity (MW)	Energy drawal during the 1st six months of 2010-11 (MU)	Average drawal in MW proposed by GRDCO proposal for 2011-12	Energy drawal proposed for FY 2011-12 (MU)
1	Arati Steels	50	100.28	20.00	175.20
2	Sterilite Energy (P) Ltd	600	46.96	363.23	3181.92
	<b>Total</b>		147.24	<b>383.23</b>	<b>3357.12</b>

341. GRIDCO has further stated that it has executed Power Purchase Agreements (PPAs) with some other IPPs, which are in various stages of implementation. Out of which the following IPPs are expected to be commissioned during 2010-11 & 2011-12 and may inject 778 MU during different months of FY 2011-12 considering 85% PLF and Auxiliary Consumption of 6.5% for Unit capacity more than 500 MW and 9% for Unit capacity less than 500 MW. Since the energy injection from the above IPPs is uncertain, GRIDCO has not considered this 778 MU in its energy availability account for the FY 2011-12.

**Table -34**

Sl. No.	Name of IPPs	Energy injection expected during FY 2011-12 (MU)
1.	M/s. Shyam DRI Power Ltd.	407
2.	M/s. Maa Durga Thermal Power Company Ltd.	35
3.	M/s. Ind-Barath Energy (Utkal) Ltd.	237
4.	M/s. GMR Kamalanga Energy Ltd.	99
	<b>TOTAL</b>	<b>778</b>

342. The Commission considered the above proposal of GRIDCO and approves 3357.12 MU to be purchased by GRIDCO from M/s. Sterilite Energy Ltd. and M/s Arati Steels during the FY 2011-12 for consumption in the state. However, depending on the requirement, cost and availability, GRIDCO may purchase more quantity of energy from these two IPPs. Further, the Commission directed GRIDCO to purchase power from other IPPs during the year 2011-12 after their commissioning. In fact, GRIDCO

may draw the full quantum of power from the IPPs as State's share as per the PPA and may like to have export earning after meeting the State's requirement.

### **Power Purchase from Central Generating Stations**

#### **Transmission Loss:**

343. 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 3.09% in the ARR for 2011-12 based on the Central Sector Transmission Loss as approved by OERC in ARR of 2010-11. In replies to the Commission's queries, GRIDCO has submitted that the Central Sector Transmission Loss for FY 2009-10 and FY 2010-11 (up to October, 10) was at a level of 2.84% & 2.3% respectively. It is observed from the data circulated by ERLDC that the weekly system loss for ER system varied from 2 % to 3 % for the current year up to 2<sup>nd</sup> Week of January 2011. 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 2009-10 was at the rate of 2.84% & the same for 2010-11 up to October, 10 was 2.3% 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 % to 3 % during the period from April, 10 to second week of January, 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 2.3% for FY 2011-12 based on average of actual loss in Central Transmission System from April to October, 2010.

#### **Central Generating Stations (CGSs)**

344. 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 Sikim. 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.
345. GRIDCO in its filing stated that none of the Central Generating Stations (CGSs) except Talcher Super Thermal Power Station-II (TSTPS-II) achieved the normative target of 85% PLF as fixed in the CERC Regulations, 2009 during first six months of FY 2010-11 in view of the shortage of coal Scenario which is still persisting and may also persist during the ensuing year. Considering the present trend of generation, GRIDCO proposes the PLF of CGSs for FY2011-12, which is the average of the PLF achieved during the first six months of FY 2010-11. The actual PLF% of CGSs for the 1st six-months of FY 2010-11 and the proposal of GRIDCO for FY 2011-12 are given in the Table below:

**Table - 35**  
**Monthly PLF (%) of Central Thermal Stations**

Stations	Apr-10	May-10	Jun-10	Jul-10	Aug-10	Sep-10	Avg. PLF	PLF proposed by GRIDCO for FY 11-12
TSTPS -I	99.19	98.73	89.22	77.82	73.02	42.91	80.15	81
TSTPS -II	100.85	95.03	84.10	75.33	72.42	85.00	85.46	85
FSTPS	50.36	86.33	87.82	87.65	81.59	88.16	80.32	80
KhSTPS -I	62.83	73.29	81.82	80.14	51.96	71.88	70.32	70
KhSTPS -II	57.60	56.19	49.06	41.56	65.72	70.41	56.76	60

346. The projection of net power procurement from each of the Central Generating Stations (CGSs) of Eastern Region for FY 2011-12 is estimated as 5610.99 MU considering the allocated share of GRIDCO, the PLF% proposed by GRIDCO as shown in the above Table, Auxiliary Consumption % as per CERC Regulations, 2009 and Central Sector Transmission Loss of 3.09% as approved by the OERC in the ARR & BSP Order for FY 2010-11.
347. Further, in reply to Commission query regarding projecting different percentage of PLF for different Central Generating Stations, GRIDCO submitted the actual PLF of last year and current year up to November 2010 as given below,

**Table- 36**  
**Actual Percentage of PLF achieved by CGSs**

STATIONS	FY 2008-09	FY 2009-10	FY 2010-11 (Upto Nov'10)	Projection for FY 2011-12
TSTPS -I	88.48	86.68	81.72	81.00
TSTPS -II	86.14	93.12	90.03	85.00
FSTPS	76.81	73.36	84.27	80.00
KhSTPS-I	80.12	68.74	73.91	70.00
KhSTPS-II	77.93	65.08	62.44	60.00

348. As per 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. The Commission has examined the Regional Energy Account (REA) of Eastern Region for the month of January 2011. It is observed that cumulative availability of FSTPS, KhSTPS-I, KhSTPS-II & TSTPS-I comes to 86.65%, 75.12%, 65.30% & 84.92% respectively. The availability only from KhSTPS-I & KhSTPS-II has not achieved the normative PLF. However, GRIDCO share from KhSTPS –II is very low i.e. 2.05% only. The coal shortage situation may not persist for the ensuing year. Taking all the factors into account the Commission does not want to deviate from the norm and consider the energy drawl from these Central Sector Thermal Stations taking 85% PLF for FY 2011-12. The Commission considers the Central Sector transmission loss @ 2.3% 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 2011-12 are given in table below:

**Table - 37**  
**Drawal From Central Thermal Generating Stations for FY-2011-12**

Central Thermal Stations	Installed Capacity (MW)	Aux. Cons. (%)	Availability considering 85% PLF & Auxiliary Consum. (MU)	GRIDCO Share (%)	GRIDCO Share (MU)	Approved estimated Share excluding Central Sector Transmission Loss of 2.30% (MU)	GRIDCO's proposal excluding Central Sector Transmission Loss of 3.09% (MU)
TSTPS –I	1000	6.50	6962.01	31.80	2213.92	2163.00	2044.54
TSTPS –II	2000	6.50	13924.02	10.00	1392.40	1360.38	1349.38
FSTPS	1600	6.94	11087.09	13.63	1511.17	1476.42	1378.44
KhSTPS –I	840	9.00	5691.72	15.24	867.42	847.47	692.18
KhSTPS – II	1500	6.50	10443.02	2.05	214.08	209.16	146.45
<b>TOTAL</b>	<b>6940</b>		<b>48107.86</b>		<b>6198.99</b>	<b>6056.42</b>	<b>5610.99</b>

**Central Hydro Generating Stations:**

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 264.10 MU for FY 2011-12 considering the average drawal of last 6 years i.e. from FY 2004-05 to 2009-10. After deducting central sector loss of 3.09%, the net availability to GRIDCO is projected at 257.00 MU for the FY 2011-12.
351. The Commission scrutinized the proposal of GRIDCO and observed that the drawal of GRIDCO from Chukha was 277.80 MU for the FY 2009-10 and during 2010-11 upto September, 2010, it comes to 188.31 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 280.46 MU from Chukka during 2010-11. The Commission's approved drawal from Chukha for the year 2010-11 is expected to be achieved by the end of the year. So the Commission approves the drawal from Chukha hydro station at 279.79 MU for FY 2011-12 considering the average drawal of last 4 years i.e. from FY 2006-07 to 2009-10. After deducting the Central Loss of 2.30%, the net drawal of GRIDCO comes to 273.36 MU for FY 2011-12.
352. **TALA:** GRIDCO has an allocated share of 4.25% i.e 43.35 MW from Tala HEP having installed capacity of 1020 MW (6X170 MW). GRIDCO proposed to draw 146.53 MU of energy from Tala HEP during FY 2011-12 by averaging previous 3 years drawal i.e. from 2007-08 to 2009-10. After deducting Central Sector Loss of 3.09%, the net availability to GRIDCO is projected as 142.01 MU during FY 2011-12.
353. The Commission accepts the proposal of GRIDCO for estimated drawal of 146.53 MU and considering central sector transmission loss of 2.30 %, approves the net drawl of 143.16 MU from Tala HEP for FY 2011-12.
354. **TEESTA:** GRIDCO in its ARR submitted that the annual design energy of Teesta-V HEP (510 MW) situated in Sikkim is 2572.67 MU. Considering 12% free energy to Home State & 1.2% of Auxiliary Consumption, the annual saleable energy of the project is 2236.78 MU. Considering the share of GRIDCO as 23.4% from the saleable

energy, GRIDCO proposes to procure 505 MU of energy during the year 2011-12 after deducting the Central Sector loss of 3.09%.The details are shown in the table below.

**Table- 38**

<b>Design Energy</b>	<b>(MU)</b>	2572.67
Energy considering 1.2% Auxiliary Consumption (MU)		2541.80
Annual Saleable Energy available after 12% free energy for home state (MU)		2236.78
GRIDCO Share (%)		23.4
Availability (MU)		523.41
<b>After deducting Central Transmission Loss @ 3.09% (MU)</b>		<b>507.23</b>
<b>Proposed drawal for FY 2011-12 (MU)</b>		<b>505.00</b>

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 design energy of 2541.80 MU less auxiliary consumption of 1.2%. After considering the central sector transmission loss of 2.30% Commission approves the net drawal of 511.32 MU from Teesta HEP during FY 2011-12.

**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 2011-12 is given in the table below:

**Table -39**  
**Quantum of Power Purchase from Various Sources for FY 2011-12**

(Figures in MU)

Sources of Purchase	Commission's Approval for State Drawl for 2010-11	GRIDCO's Proposal for 2011-12	Estimated Availability for 2011-12	Commission's Approval for State Drawl for 2011-12
<b>OHPC (OLD)</b>	3676.86-	3704.81	3704.81	3676.86
Indravati	1942.38	1942.38	1942.38	1942.38
Machhkund	262.50	262.50	262.50	262.50
<b>HYDRO (Orissa)</b>	<b>5881.74</b>	<b>5909.69</b>	<b>5909.69</b>	<b>5881.74</b>
TTPS	2957.32	2965.43	2957.32	2957.32
OPGC	2853.53	2874.32	2892.49	2892.49
CGP	1051.00	1257.06	1257.06	603.79
Co-Generation Plants	529.00	512.46	512.46	512.46
Renewable Energy	300.00	300.00	300.00	300.00
IPPs	646.23	3357.12	4135.12	3357.12
<b>TOTAL ORISSA</b>	<b>14218.82</b>	<b>17176.08</b>	<b>17964.14</b>	<b>16504.92</b>
Chukha	271.79	257.00	273.36	273.36
TALA	145.17	140.00	143.16	143.16
TEESTA	507.19	505.00	511.32	511.32
<b>HYDRO(Central)</b>	<b>924.16</b>	<b>902.00</b>	<b>927.84</b>	<b>927.84</b>
TSTPS-I	2145.54	2944.54	2163.00	2163.00
TSTPS -II	1349.39	1349.38	2360.38	1360.38



Sources of Purchase	Commission's Approval for State Drawl for 2010-11	GRIDCO's Proposal for 2011-12	Estimated Availability for 2011-12	Commission's Approval for State Drawl for 2011-12
FSTPS	1464.49	1378.44	1,476.42	1476.42
KHSTPS-I	840.63	692.18	847.47	847.47
KHSTPS -II	60.72	146.45	209.16	209.16
<b>Thermal (central)</b>	<b>5860.77</b>	<b>5610.99</b>	<b>6,056.42</b>	<b>6056.42</b>
<b>TOTAL EREB</b>	<b>6784.93</b>	<b>6512.99</b>	<b>6984.26</b>	<b>6984.26</b>
<b>TOTAL GRIDCO PURCHASE</b>	<b>21003.75</b>	<b>23689.08</b>	<b>24948.40</b>	<b>23489.18</b>

#### 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.

#### OHPC Stations

359. OHPC has submitted the application for approval of its Annual Revenue Requirement and Tariff of its individual power stations separately for the FY 2011-12 in terms of Section-62, 64 and 86 of the Electricity Act, 2003 which has registered as Case No.143/2010. The tariff approved for OHPC Stations in the said case will be considered for determination of the power procurement cost of GRIDCO in respect of all stations of OHPC.
360. Accordingly, the cost of power purchase from each of the power stations of OHPC is given in the table below:

**Table – 40**  
**Cost of Power Purchase from OHPC Stations for FY 2011-12**

Name of the Power Station	Quantum of Power Purchase for 2011-12 (MU)	Approved Average Tariff for 2011-12 (P/U)	Cost of Power Purchase for FY 2011-12 (Rs. Cr.)
Burla	677.16	89.09	60.33
Chipilima	485.10	50.07	24.29
Balimela	1171.17	71.79	84.08
Rengali	519.75	69.32	36.03
Upper Kolab	823.68	33.36	27.48
Upper Indravati	1942.38	77.21	149.97
<b>Total</b>	<b>5619.24</b>	<b>68.01</b>	<b>382.18</b>

### **Machhkund Hydro Electric Project**

361. OHPC has proposed for approval of a rate of 22.054 P/U for purchase of power of Machhkund Power Station for the year 2011-12 based on energy drawl of 262.50 MU. Orissa has to pay its share of O & M charges for the energy drawl from Machakund upto 30% and beyond 30% and upto 50% @ 8 paise/unit. With this principle, the cost of Machakund power has been projected at 22.054 P/U considering energy drawal of 262.50 MU against the approval of 21.95 P/U for FY 2010-11.
362. The Commission has taken into consideration the net amount payable by Orissa towards O&M expenses for the year 2009-10 (actual) on account of 30% share which is of the order of Rs.4.43 crore. Allowing an escalation of 5.72% per annum for the years 2010-11 and 2011-12, O&M expenses come to Rs. 4.95 crore. Taking power purchase cost of Rs. 0.84 crore towards purchase of power beyond 30% and upto 50% @ 8 paise/unit, total cost comes to Rs. 5.79 crore. Hence, the rate per unit of Machakund power comes to 22.06 paise for the year 2011-12 considering energy drawal of 262.50 MU. Accordingly, the procurement cost of Machakund Power by GRIDCO works out to be Rs.5.79 crore for an approved energy drawl 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 submitted that NTPC has filed petition (No-184/2009) for revision of fixed charges for the period from 2004 to 2009 and also filed petition (No-304/2009) for fixation of tariff as per the CERC Regulations for the period 2009-14. Both the petitions are now pending at CERC for adjudication. Considering the petition filed by NTPC, GRIDCO in its ARR application has projected the fixed cost of TTPS at Rs.368.31 cr. for 2011-12. The fixed cost per unit of energy from TTPS at normative PLF of 82% and auxiliary energy consumption of 10.5% works out to 124.20 P/U for the proposed drawal of 2965.43 MU for FY 2011-12.
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 crore for FY 2008-09. The submission of NTPC before CERC for revision of the fixed cost of TTPS for the FY 2004-09 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 crore for the FY 2011-12 as per the latest order dated 11.01.2010.
366. **Variable Charges:** GRIDCO has stated 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. GRIDCO has indicated that this rate of 46.05 P/U has been contested by NTPC in CERC forum and matter continued to be sub-judice as of now and it is expected that the rate may move upwards considering the present cost of Coal & Oil. Considering the present petition filed by NTPC for TTPS before CERC for the FY 2009-14, GRIDCO has proposed 108.64 P/U as base Variable Charge for TTPS and FPA Charge of 10.86 P/U (@ 10% of the said variable

charge ) for the FY 2011-12. Since, the variable cost of TTPS has not yet been revised by CERC, after scrutiny of the above proposal of GRIDCO, the Commission accepts the variable cost of TTPS @ 46.05 P/U for the FY 2011-12 as being claimed by NTPC at present.

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 2010-11 comes to 53.45 P/U. Considering 10% escalation over and above the average price of 53.45 P/U, the FPA comes to 58.79 P/U for FY 2011-12. The month-wise FPA as claimed by TTPS are given below:

**Table - 41**  
**Fuel Price Adjustment (FPA) OF TTPS (P/U)**

Apr-10	May-10	Jun-10	Jul-10	Aug-10	Sep-10	Average	GRIDCO proposal for FY 2011-12 considering 10% escalation over the avg.
53.55	55.72	58.73	61.83	46.40	44.45	<b>53.45</b>	<b>58.79</b>

368. GRIDCO has further stated that the proposed FPA charges are on the increasing trend due to use of costlier imported coal along with indigenous coal. This may increase further due to non-availability of indigenous coal. Hence, GRIDCO has prayed the Commission to consider a higher rate of such charges by exercising their prudence at the time of approving the ARR and BSP of GRIDCO for FY 2011-12.
369. The Commission scrutinized the proposal of GRIDCO and approves the FPA charges of 64.14 P/U for FY 2011-12 considering 20% escalation over and above the average FPA charge of 53.45 P/U in respect of TTPS.
370. **Year-end Charges:** GRIDCO has projected the year-end charges of TTPS to the tune of Rs.13.46 crore for the FY 2011-12 which includes electricity duty, charges towards water/pollution cess and UI overdrawl. GRIDCO has claimed Rs.6.96 crore towards Electricity duty, Rs.0.12 crore towards water/pollution Cess charge and Rs.6.38 crore towards UI overdrawl for FY 2011-12. The Commission on examination of the claims approves (i) Electricity duty of Rs.6.94 crore calculated @ 20 paise/unit on auxiliary consumption of the generation at 82% PLF, (ii) Water/Pollution Charge / Cess of Rs.0.12 crore. Thus, the year-end charges approved for 2011-12 come to Rs.7.06 crore. The claim for UI overdrawl is not being allowed in the tariff since the possibility of overdrawl or underdrawl can not be predicted at this moment. The year-end charges proposed by GRIDCO and approved by the Commission for the FY 2011-12 is shown in the table below:

**Table – 42**  
**Year-End Charges of TTPS (Rs. in crore)**

ITEM	OERC approval for FY 2010-11	GRIDCO's Proposal for FY 2011-12	OERC approval for FY 2011-12
Income tax	18.92	0	0
Electricity duty@ 20P/U	6.94	6.96	6.94
Water Cess / Charge	0.12	0.12	0.12
UI overdrawl	0.00	6.38	0
<b>Total (Rs. Crore)</b>	<b>25.98</b>	<b>13.46</b>	<b>7.06</b>
<b>ESO(MU)</b>	<b>2957.32</b>	<b>2965.43</b>	<b>2957.32</b>
<b>Per unit cost P/U</b>	<b>8.78</b>	<b>4.54</b>	<b>2.39</b>

### **Orissa Power Generation Corporation (OPGC)**

371. OPGC has not filed its ARR application with OERC for the year 2011-12 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 2011-12 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 2011-12 as proposed by GRIDCO is Rs.165.84 crore. After scrutiny, the Commission approves the estimated fixed cost of Rs.165.84 crore for the FY 2011-12 considering 8% escalation on the O&M expenses over FY 2010-11.
373. **Variable Charges:** GRIDCO has proposed variable charges in respect of IB Thermal Power Stations at 97.61 P/U for 2011-12. The Commission after detailed scrutiny accepts the proposal of GRIDCO and approves the variable charges at 97.61 P/U for IB Thermal Power Stations for the FY 2011-12.
374. **Year-end Charges:** GRIDCO has proposed year-end charges of Rs.51.54 crore on account of land tax, water cess, electricity duty, income tax, incentive payable to OPGC, Electrical Inspection Fees, SOC & MOC for SLDC, ERPC charges and cost of environmental protection equipment installation.
375. **Income Tax:** GRIDCO has claimed Rs.35.81 crore towards Income Tax payment for FY 2011-12. The Commission on examination of the claims observed that the actual payment made in the monthly bills on account of Income Tax comes around Rs.3.58 crore per month. Hence, the total annual payment made on this account is estimated at Rs.42.96 crore for 2009-10. However, the Commission provisionally approves Rs.35.81 crore towards income tax payment for 2011-12 as proposed by GRIDCO subject to change after actual payments are made.
376. **Electricity Duty:** The Commission approves Electricity duty of Rs.5.76 crore @ 20 P/U on auxiliary consumption of the generation at 86.87% PLF.
377. **Incentive:** Incentive of Rs.7.68 crore is approved for generation over and above normative generation of 80% PLF for the year 2011-12 in line with the notification dtd. 21.06.2008 of Govt. of Orissa regarding settlement of dispute of OPGC.
378. GRIDCO has claimed Rs.0.38 crore towards SOC and MOC of SLDC, Rs.0.15 crore towards ERPC charges and Rs.0.70 crore towards cost of environment protection equipment installation for the FY 2011-12. The Commission approves these expenses to be included in the year-end charges.
379. Thus, the total estimated year-end charges approved for FY 2011-12 is Rs.51.54 crore which is shown in table below.

**Table –43**  
**Year-end Charges of OPGC**

<b>(Rs. crore)</b>			
<b>ITEM</b>	<b>OERC approval for 2010-11</b>	<b>Proposed year end charges for 2011-12</b>	<b>OERC approval for 2011-12</b>
Income Tax	12.00	35.81	35.81
Water Cess & Water Charges	0.76	0.76	0.76
Tax and Cess on Land	0.13	0.13	0.13
Electricity duty @20P/U	5.99	5.76	5.76
Incentive	6.34	7.68	7.68
Electricity Inspection Fees	0.17	0.17	0.17
SOC and MOC of SLDC	-	0.38	0.38
ERPC Charges	-	0.15	0.15
Environment Protection Equipment Installation	-	0.70	0.70
<b>Total</b>	<b>25.39</b>	<b>51.54</b>	<b>51.54</b>

**Captive Generation Plants (CGPs) and Co-generation Plants**

380. GRIDCO has stated that the Commission in its Interim Order dated 28.10.2009 in Case Nos. 06/09 to 20/09 has 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 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 for different slabs of quantum of power supply. GRIDCO has filed a petition/application to the Commission for reduction of the rate of surplus power from CGPs and Co-generation plants for the FY 2010-11 with a proposed incremental tariff of Rs.2.75 per unit for supply up to 10 MW, Rs. 3.10 per unit for supply up to 50 MW and Rs. 3.25 per unit for supply above 50 MW on RTC basis in a month.
381. GRIDCO has further stated that considering the quantum of power procured from various CGPs and Co-generating Plants during the first six months of FY 2010-11, it is observed that majority of CGPs and Co-generating Plants are supplying power either below 5 MW or within 50 MW at best. Based on the average monthly injection by each of the CGPs and Co-generation plants during the 1<sup>st</sup> six months of FY 2010-11, GRIDCO has proposed to draw 1257.06 MU from different CGPs and 512.46 MU from the Co-generation plants for the FY 2011-12. Thus, GRIDCO has proposed to procure 1257.06 MU of power at a cost of Rs.376.35 Crore from the CGPs and 512.46 MU of power at a cost of Rs.140.93 Crore from the Co-generation Plants during FY 2011-12 considering the rate proposed in their aforesaid petition filed before the Commission.
382. The Commission scrutinized the above proposal of GRIDCO for procurement of surplus power from CGPs and Co-generation Plants. In view of the scarcity situation prevailing in the State for supply of electricity in the State arising out of low generation of hydro power and other factors, the Commission on 15.10.2009 had reviewed the working arrangement approved by the Commission for sale of surplus power by the CGPs to GRIDCO. The Commission in its order dtd.28.10.2009 had stipulated the price of surplus power from CGPs and Co-Generating Plants w.e.f. 01.11.2009 as under.

**Table - 44**

<b>Supply Quantum per Month</b>	<b>Power purchased from CGPs</b>	<b>Power purchased from Co-Generating Plants</b>
Supply upto 3.6 MU per month (~ 5 MW Avg. and below)	Rs.3.10 per KWh	Rs.3.20 per KWh
Incremental energy above 3.6 MU/month and upto 36 MU/month (~ above 5 MW and upto Avg. 50 MW)	Rs.3.40 per KWh	Rs.3.40 per KWh
Incremental energy above 36 MU/month and upto 72 MU/month (~ above 50 MW and upto Avg. 100 MW)	Rs.3.70 per KWh	Rs.3.70 per KWh
Incremental energy beyond 72 MU/month (above ~ 100 MW)	Rs.4.05 per KWh	Rs.4.05 per KWh

383. Due to crash of UI price as well as the short-term trading price in Power Exchanges, the Commission had heard the matter on 09.11.2010 based on GRIDCO's filing vide case No. 117& 118 of 2010 and stipulated the rates for Captive/Co-generation Plants supplying their surplus Firm Power to GRIDCO w.e.f. 10.11.2010 as under:

**Table -45**

<b>Supply Quantum per Month</b>	<b>Supplying 100% surplus Firm Power to GRIDCO</b>	<b>Supplying 60% &amp; above surplus Firm Power to GRIDCO and balance export through Open access.</b>
Supply upto 7.3 MU per month (~ 10 MW Avg. and below)	Rs.2.75 per KWh	Rs.2.75 per KWh
Incremental energy above 7.3 MU/month and upto 36 MU/month (~ above 10 MW and upto Avg. 50 MW)	Rs.3.10 per KWh	Rs.3.00 per KWh
Incremental energy beyond 36 MU/month (above ~ 50 MW)	Rs.3.25 per KWh	Rs.3.20 per KWh
Any injection over the implemented schedule at a frequency of 50.20 Hz and above	Free Power to State Grid	Free Power to State Grid
who would supply inadvertent power/ infirm power within the Operating Frequency Band of 49.50 to 50.18 HZ	paid at the pooled cost of State hydel power which is 62.51 Paise/KWh for FY 2010-11	paid at the pooled cost of State hydel power which is 62.51 Paise/KWh for FY 2010-11

384. The Commission observed that the above revised price fixed for the surplus power from Captive/Co-generation Plants, vide OERC Order dtd. 23.11.2010 in Case No. 117& 118 of 2010, was applicable w.e.f. 10.11.2010 and would continue till 31.03.2011. However, since no further order has been issued by the Commission in this regard, the above price fixed for procurement of surplus power from CGPs and Co-generation Plants vide OERC Order dtd. 23.11.2010 in Case No. 117& 118 of 2010 will continue until further order issued by the Commission. Hence, the Commission provisionally accepts the same procurement price of surplus power from CGPs and Co-generation Plants as was fixed in its aforesaid Order dtd.23.11.2010 for calculation of ARR of GRIDCO for the FY 2011-12. However, in case of any revision of price for sale of surplus power from CGPs and Co-generation plants by the

Commission for FY 2011-12, the revised price shall be applicable for procurement of surplus power by GRIDCO from CGPs and Co-generation plants and any deviations/adjustment in revenue due to such price revision will be considered while taking up the approval of ARR of GRIDCO for FY 2012-13.

385. Accordingly, for the FY 2011-12, the cost of power purchase from CGPs comes to Rs.167.71 crore for the approved energy drawal of 603.79 MU at an average price of 277.76 P/U and the power procurement cost from Co-generation Plants comes to Rs.140.93 crore for the approved energy drawal of 512.46 MU at an average price of 275 P/U. The Commission approves the same for the FY 2011-12. Further, the Commission directs that changes, if any, due to the CGP pricing policy notified on 14.03.2008 and order dt.23.11.2010, 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. In its ARR for FY 2011-12, GRIDCO has projected to procure 150 MU from Meenakhi Small Hydro Electric Project @ Rs.3.20 per unit and 150 MU from Samal Small Hydro Electric Project @ Rs.3.10 per unit during FY 2011-12. The total procurement cost of this 300 MU Renewable Energy amounts to Rs 94.50 crore with an average tariff of Rs 3.15 per unit.
387. The Commission in its Order dated 14.01.2011 in Case no. 166 of 2010 have approved a provisional rate of Rs.3.64 per unit towards procurement of power by GRIDCO from M/s PTC India Ltd. in respect of saleable power of 88% (i.e excluding free power of 12% to the state) from Middle Kolab and Lower Kolab Small Hydro Electric Projects of Meenakhi Power Ltd. Similarly in its Order dated 14.01.2011 in Case no. 101 of 2009 and 138 of 2010, the Commission had approved a provisional rate of Rs.3.64 per unit towards procurement of power by GRIDCO from M/s PTC India Ltd. in respect of saleable power of 88% (i.e excluding free power of 12% to the state) from Samal Small Hydro Electric Project of M/s Orissa Power Consortium Ltd. The above rates fixed by the Commission for the SHEPs 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 approved in the aforesaid orders for procurement of Renewable Energy from these Small Hydro Electric Projects. Accordingly, the cost of power purchase from the said small hydel sources during FY 2011-12 comes to Rs.96.10 Cr. at an average rate of 320.32 P/U for procurement of 300 MU as approved by the Commission.

#### **IPPs**

388. GRIDCO 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 has proposed for procurement of 3181.92 MU from M/s Sterlite Energy Ltd. during the FY 2011-12 at a rate of 275 P/U which is the minimum price / rate proposed for surplus power from CGPs. Similarly, GRIDCO has proposed to procure 175.20 MU from M/s Arati Steels Ltd. at the same rate. The procurement cost of total 3357.12 MU from these two IPPs is thus, estimated at Rs.923.21 crore.
389. In the reply to the Commission's query GRIDCO has stated that IPPs have tied up for supplying 25% of power to the State. The balance power is expected to be sold

outside. Being an Inter-State Project, the tariff is supposed to be determined by CERC. However, in case of M/s. Sterlite Energy Ltd. (SEL) & M/s. Arati Steels Ltd. (ASL), it has not been so because of the following reasons:

- Incidentally, the 1st Unit of Sterilite Energy Ltd. (SEL) which has a capacity of 600 MW (i.e. 25% of SEL's total Installed Capacity of 2400 MW) is dedicated to the State. M/s. SEL is arranging a split bus system so that the entire generation from the said generating unit is made available to the State. The tariff for this dedicated unit is to be determined by the OERC.
- The other three units of 600 MW each of M/s. SEL shall be interconnected to PGCIL system and the tariff for these units shall be determined by CERC.
- Thus, in so far as procurement of power by GRIDCO from the 1st unit (dedicated to the State) is concerned, there is no need to move to CERC for determination of tariff.
- The tariff for procurement of power from M/s. Aarti Steel limited (ASL) is to be decided through mutual negotiation between ASL and GRIDCO as per the interim Order of OERC dated 18.08.2010. Therefore, there is no need to move to CERC.
- With regard to filing of application for approval of tariff before CERC, it appears that M/s. Arati Steels Ltd. & M/s Sterlite Energy Ltd. have not applied for the same.
- GRIDCO in its ARR and BSP Application for FY 2011-12 has projected a provisional tariff @ 275 P/U towards procurement of power from M/s. SEL and M/s. ASL considering the projected procurement rate of 275 P/U from CGPs / Cogeneration Plants pending determination of tariff by the OERC.

390. The Commission observed that GRIDCO has filed a petition with the Commission for seeking approval of the Commission to the PPA dated 28.09.2006 and the amended PPA dated 20.08.2009 between M/s Sterlite Energy & GRIDCO which has been registered as Case No.117 of 2009. The final order of the Commission is awaited.

391. Pending the finalization of the above order, the Commission considered the submissions of GRIDCO and provisionally accepts the price of 275.00 P/U for procurement of power from the IPPs as proposed by GRIDCO for FY 2011-12. Accordingly, the power procurement cost for the approved drawal of 3357.12 MU from M/s Sterlite Energy Ltd. and M/s Arati Steel Ltd. comes to Rs.923.21 crore at the price of 275.00 P/U. The Commission provisionally approves the same for the FY 2011-12 till the finalization of tariff of these IPPs by the appropriate Commission. Further, the Commission directs that deviations/adjustment in revenue, if any, after finalization of tariff shall be accounted for in the truing up exercise, if need arises.

#### **Central Generating Stations**

392. **Chukha:** GRIDCO has stated that the procurement cost of power from Chukha for FY 2011-12 has been calculated based on the rate fixed by MoP/GOI, which was 155 P/U w.e.f. 01.04.2008. Further, trading margin @ 4 paise/unit has to be added to the above rate 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 184.24 paise/unit for 2011-12 including PGCIL transmission Charge of 20.17 P/U and Central



Transmission Loss of 3.09%. Thus, the power purchase cost of 257 MU from Chhuka Hydro Station @ 184.24 P/U has been worked out by GRIDCO to Rs.47.35 crore for FY 2011-12.

393. The Commission scrutinized the application of GRIDCO and approves the rate of 181.38 paise/unit inclusive of central transmission loss @ 2.30% and applicable transmission charges for the power procurement from Chukka for FY 2011-12. So the cost for Chukka power comes to Rs.49.58 crore for the approved drawal of 273.36 MU for FY 2011-12. The details are given in Table below.

**Table - 46**

	<b>GRIDCO's Proposal for FY 2011-12</b>	<b>Commission's Approval for FY 2011-12</b>
Net Energy Drawal (MU)	257.00	273.36
Energy Charge (P/U)	159.0	159.0
Energy Charge incl. Tr. Loss (P/U)	164.07 (C.T.L. of 3.09%)	162.74 (C.T.L. of 2.30%)
Cost of Tr. charge incl. Loss (P/U)	20.17	18.63
<b>Total Rate (P/U)</b>	184.24	181.38
<b>Cost of Chukka Power (Rs. Crore)</b>	47.35	49.58

394. **TALA:** GRIDCO has stated that the procurement cost of both primary and secondary energy from TALA for FY 2011-12 has been calculated @ 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 210.04 P/U for 2011-12 considering Central Transmission Loss of 3.09% and PGCIL transmission charge of 20.17 P/U. Thus, the power purchase cost for Tala Hydro Station has been worked out by GRIDCO to Rs.29.40 crore for 140 MU @ 210.04 P/U for FY 2011-12.
396. Submission of GRIDCO was examined. The average rate per unit of TALA power is worked out to 206.97 P/U inclusive of central transmission loss of 2.30% and applicable transmission charge for FY 2011-12. The total cost of Tala power comes to Rs.29.63 crore for the approved drawal of 143.16 MU for FY 2011-12 and the same is approved by the Commission. The details are given in Table below.

**Table -47**

	<b>GRIDCO Proposal for 2011-12</b>	<b>Commission's Approval for 2011-12</b>
Net Energy Drawal MU	140.00	143.16
Energy Charge (P/U)	184.00	184.00
Energy Charge incl. Tr.Loss (P/U)	189.87 (C.T.L. of 3.09%)	188.33 (C.T.L. of 2.30%)
Cost of Tr charge incl. Loss (P/U)	20.17	18.63
<b>Total Rate (P/U)</b>	210.04	206.97
<b>Cost of Tala Power (Rs. in Crore)</b>	29.40	29.63

397. **TEESTA:** GRIDCO has stated that CERC vide its Order dated 05.01.2010 fixed tariff @ 150.00 P/U on the scheduled saleable energy, which is applicable from the date of Commercial Operation. Considering 3.09% Central Sector Transmission Loss and the PGCIL Transmission Charges of 20.17 P/U, the tariff is estimated to 174.95 (P/U). Thus, the effective power purchase cost for 505 MU from Teesta-V HEP comes to Rs.88.35 Crore for FY 2011-12.
398. After due scrutiny, the Commission approves the average rate per unit of TEESTA power at 172.17 P/U inclusive of central transmission loss of 2.30% and applicable transmission charge for FY 2011-12. The total cost of Teesta power comes to Rs.88.03 crore for the approved drawal of 511.32 MU during FY 2011-12. The details are given in Table below.

**Table - 48**

	<b>GRIDCO Proposal for FY 2011-12</b>	<b>Commission's Approval for FY 2011-12</b>
Net Energy Drawal MU	505.00	511.32
Energy Charge (P/U)	150.00	150.00
Energy Charge incl. Tr. Loss (P/U)	154.78 (C.T.L. of 3.09%)	153.53 (C.T.L. of 2.30%)
Cost of Tr. charge incl. Loss (P/U)	20.17	18.63
<b>Total Rate (P/U)</b>	174.95	172.17
<b>Cost of Teesta Power (Rs. in Crore)</b>	88.35	88.03

**Central Sector Thermal Power Stations:**

399. GRIDCO in its ARR filing stated that NTPC has submitted its application for approval of tariff for its different Stations as per CERC Terms and Conditions of Tariff Regulations, 2009. Since the tariff for individual Stations of NTPC-ER has not yet been finalized by CERC, 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, except KhSTPS-II, in the tariff proposal for FY 2011-12 as no fresh Orders in this regard is available as on date. Thus, the additional impact as per the new Regulations has not been considered in the power procurement cost of NTPC Stations. However, in case of KhSTPS-II, the AFC for the FY 2011-12 has been projected as Rs.1070.469 Cr. which is 90% of the AFC (Rs.1189.41 Cr.) filed by NTPC at CERC on 16.11.2009 for the period 2009-10 to 2013-14.
400. The Fixed Cost considered by GRIDCO for different Central Sector Stations for FY 2011-12 is given below.
- TSTPS Stage-I - The Fixed Cost for TSTPS Stage-I, for FY 2011-12 is projected as Rs.421.04 Crore consisting of Annual Fixed Cost of Rs.397.30 Crore and Rs. 23.74 Crore towards Income tax, which is reckoned as Additional Capacity Charge.
  - TSTPS Stage-II - The Fixed Cost For TSTPS Stage-II, for FY 2011-12 is projected as Rs. 883.62 Crore consisting of Annual Fixed Cost of Rs.863.50 Crore and Rs. 20.12 Crore towards Income tax, which is reckoned as Additional Capacity Charge.
  - FSTPS - The Fixed cost of FSTPS for FY 2011-12 is projected as Rs.528.17 Crore consisting of the annual fixed cost of Rs.518.36 Cr. plus claim of income tax of Rs.9.81 Cr. in the form of Additional Capacity Charge.

- KhSTPS Stage-I - The Fixed Cost of KhSTPS Stage-I is projected as Rs. 283.79 Crore at 70% projected PLF including claim of Income Tax of Rs.6.95 Cr. in the form of Additional Capacity Charge for FY 2011-12 prorating the Annual Fixed Cost claim of Rs. 316.39 Crore by NTPC.
  - KhSTPS Stage-II - The Fixed Cost of KhSTPS Stage-II for FY 2011-12 is projected as Rs.802.93 Crore prorating the 90% of Annual Fixed Cost claim of NTPC i.e. Rs.1070.469 Cr. at 60% projected PLF plus claim of Income Tax of Rs.0.08 Cr. in the form of Additional Capacity Charge.
401. Due to implementation of ABT, GRIDCO is to pay about Rs.387.52 Crore as Capacity Charge (Fixed Charge) towards its share from NTPC Stations irrespective of the drawl from these Stations during FY 2011-12. The apportionment of Fixed Costs has been made as per the share of GRIDCO in the pool. With inclusion of Central Transmission Loss (CTL) of 3.09%, the projected Fixed Cost applicable to GRIDCO for its share of energy drawal from different Stations are shown in the Table below:

**Table-49**  
**Projected Fixed Cost of CGS by GRIDCO for FY 2011-12**

Central Thermal Stations	Fixed Cost as approved by CERC for FY 2008-09 (Rs. Cr.)	Fixed cost claimed by NTPC as per REA for Sept' 10 (Rs. Cr.)	Fixed Cost projected by GRIDCO for FY 2011-12 (Rs. Cr.)	GRIDCO share (%)	GRIDCO F.C share for FY11-12 (Rs. Cr.)	GRIDCO's Proposed drawal for FY11-12 after C.S. Loss of 3.09% (MU)	Fixed Cost (P/U)
<b>TSTPS -I</b>	397.30	397.30	421.04	31.80	133.89	2044.54	65.49
<b>TSTPS -II</b>	863.50	863.50	883.62	10.00	88.36	1349.38	65.48
<b>FSTPS</b>	518.36	518.36	528.17	13.63	71.99	1378.44	52.23
<b>KhSTPS-I</b>	316.39	316.39	283.79	15.24	43.24	692.18	62.48
<b>KhSTPS-II *</b>	1070.47	1070.47	802.93	2.05	16.46	146.45	112.40
<b>TOTAL</b>	<b>3166.02</b>	<b>3166.02</b>	<b>2919.56</b>		<b>353.95</b>	<b>5610.99</b>	63.08

\* The fixed cost of KHSTPS-II is based on 90% of the NTPC filing before CERC.

402. The Commission observed that 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 true-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 Tariff Orders already issued by CERC for these stations and also the Commission does 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.
403. **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 stations is shown in table below:

**Table -50**  
**Fixed Cost of Central Thermal Stations for 2011-12**

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 3.09% (P/U)	Commission's approval for Fixed Cost for 2011-12 (Rs. In Cr.)	Estimated energy Drawal (MU)	Commission's approval including Central Tr. Loss of 2.30% (P/U)
<b>TSTPS -I</b>	397.30	31.80	133.89	65.49	126.34	2163.00	58.41
<b>TSTPS -II</b>	957.96	10.00	88.36	65.48	95.80	1360.38	70.42
<b>FSTPS</b>	518.36	13.63	71.99.	52.23	70.65	1476.42	47.85
<b>KhSTPS- I</b>	316.39	15.24	43.25	62.48	48.22	847.47	56.90
<b>KhSTPS-II</b>	1070.47*	2.05	16.46	112.40	21.94	209.16	104.92

(\*) NTPC in its letter dated 26.03.2010 has intimated all constituent member of eastern region (including GRIDCO) that the unit-III of KHSTPS-II was declared under commercial operation with effect from 20.03.2010. The tariff petition as per tariff Regulations 2009 was filed before CERC on 20.03.2010 for allowing provisional tariff. The capacity charges for all three units KHSTPS filed before CERC was Rs.1189.41 Crore per annum. Till the tariff is determined by CERC, NTPC would be provisionally billed 90% of the above capacity charges. The amount provisionally billed by NTPC will be subject to adjustment as and when final tariff is determined by CERC along with interest at SBI PLR rate as per Tariff Regulations 2009.

404. The Commission observed that CERC has not yet issued the tariff order for KHSTPS-II taking all the three units together and NTPC is billing to GRIDCO based on the 90% of the revised capacity charge filed before CERC i.e. on Rs.1070.47 Crore per annum in respect of KHSTPS-II. Hence, the Commission provisionally accepts the said capacity charge of Rs.1070.47 Crore for KHSTPS-II while determining the ARR of GRIDCO for the FY 2011-12.

405. **Variable Charges:** GRIDCO stated that variable charges based on the CERC notification for 2008-09 has been considered for 2011-12 for all the Central Thermal Stations except KHSTPS-II as the CERC has not yet notified individual tariff for the NTPC-ER Stations based on CERC Regulations 2009. In case of KHSTPS-II the variable cost of 125.37p/u has been calculated at 90% of the variable cost filed by NTPC in their tariff petition for the period 2009-14. The Commission accepts the variable charges as proposed by GRIDCO as those are in accordance with the CERC notification and the variable cost of KHSTPS-II is based on the principle adopted for determining the fixed charges. However, the variable cost per unit changes as the Commission accepts a Central Transmission Loss of 2.30 % instead of 3.09% as proposed by GRIDCO. The proposed and approved variable charges of Central Thermal Stations are indicated in the table below.

**Table -51**  
**Variable Charges of Central Thermal Power Stations**

Stations	Variable Cost as per CERC order (excluding central transmission loss) (P/U)	GRIDCO's Proposal for 2011-12 (Including Central Tr. Loss of 3.09%) (P/U)	Variable Cost Approved by the Commission for 2011-12 (Including Central Tr. Loss of 2.30%) (P/U)
TSTPS –I	41.10	42.41	42.07
TSTPS –II	58.73	60.60	60.11
FSTPS	98.57	101.71	100.89
KhSTPS –I	108.50	111.96	111.06
KhSTPS –II	125.37 *	129.37	128.32

\* The variable cost of KHSTPS-II Stations are considered as 90% of the NTPC filing before CERC.

**Fuel Price Adjustment (FPA)**

406. GRIDCO in its ARR application has proposed 11% escalation in FPA over the average FPA of first six months of FY 2010-11, considering the hike in prices of coal by 11% and the Govt. of India (GoI) instruction to use costlier imported coal to the extent of 30% by the Central Thermal Generating Stations. With Central Transmission Loss of 3.09%, the FPA projection for FY 2011-12 is shown in the Table below:

**Table- 52**  
**Fuel Price Adjustment (FPA) (P/U)**

Central Thermal Stations	OERC approval for 2010-11 (factoring central Loss) (P/U)	Average FPA of 1st six months of FY 2010-11 (P/U)	Projection for 11-12 considering 11% escalations over the average of 1st six months of FY 2011-12 excluding C.S. Loss of 3.09% (P/U)	Projection for FY 2011-12 including Central Transmission Loss of 3.09% (P/U)
TSTPS -I	74.17	128.80	142.97	147.52
TSTPS -II	54.27	111.17	123.40	127.34
FSTPS	125.83	188.39	209.11	215.78
KhSTPS -I	78.86	105.81	117.45	121.19
KhSTPS -II	53.61	81.47	90.44	93.32

407. Actual bills submitted by NTPC to GRIDCO are scrutinized 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, 2010 to January, 2011 are given in the table below:

**Table –53**  
**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-10	29,207.80	3,125.77	173.14	32,888.56	2,336.51	109.87	85.28	26,470.55	1,757.68	107.02	89.39
May-10	29,207.80	3,159.86	175.60	33,422.36	2,110.50	93.30	69.43	29,034.45	1,827.23	111.24	93.62
Jun-10	29,207.80	3,383.80	170.31	33,422.37	2,675.03	134.56	123.28	29,192.16	2,188.54	152.72	134.93

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
Jul-10	29,207.80	3,009.09	177.04	33,422.36	2,234.16	105.04	80.77	28,744.81	1,827.97	140.19	122.56
Aug-10	29,207.80	4,093.25	208.37	33,336.74	1,987.12	87.73	64.00	28,463.33	1,693.05	134.62	117.00
Sep-10	29,711.62	4,254.29	208.78	33,654.32	2,096.89	91.06	66.16	29,646.44	1,647.13	127.17	109.54
Oct-10	29,711.62	4,281.19	207.63	33,336.75	2,096.89	90.99	67.15	29,873.76	1,691.72	116.02	98.39
Nov-10	29,711.62	4,082.25	190.58	33,262.97	1,972.49	75.36	52.13	29,884.11	1,647.12	109.56	91.93
Dec-10	29,711.62	4,197.39	188.80	33,262.97	1,901.08	82.41	58.88	29,198.99	1,583.81	108.45	90.82
Jan-11	29,711.62	4,374.80	195.28	33,262.97	1,976.66	98.56	74.58	30,249.47	1,893.39	129.70	112.08
Avg from 4/10 to 1/11	29,431.72	3,731.88	190.52	33,334.38	2,156.74	97.09	74.49	28,945.40	1,762.69	123.22	105.58

408. From the above table it is found that the FPA rates for FSTPS are varied from 170.31 p/u to 208.78 p/u, for KhSTPS-I, it varies from 75.36 p/u to 134.56 p/u, for KhSTPS-II, it varies from 52.13 p/u to 123.28 p/u, for TSTPS-I, it varies from 107.02 p/u to 152.72 p/u and for TSTPS-II, it varies from 89.39 p/u to 134.93 p/u for the period from April, 2010 to January, 2011. That means the FPA rates have varied erratically. Hence it is difficult to assess the actual FPA rates for the ensuing year 2011-12.
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 same trend may continue during the year 2011-12. Considering the above, the Commission estimated the FPA rate for FY 2011-12 considering 20% escalation over actual FPA for January 2011 to meet the variations as against an escalation of 11% proposed by GRIDCO as indicated in Table below.

**Table - 54**  
**Fuel Price Adjustment Charges of CGSs for 2011-12**

(Figs in Paise/Unit)

Stations	GRIDCO's proposal (excluding central Tr. Loss )	Actual FPA for Jan,11 (excluding central Tr. Loss )	Approval of the Commission with an escalation of 20% (excluding central Tr. Loss )	Approval of the Commission including central Tr. Loss of 2.30%
TSTPS -I	142.97	129.70	155.65	159.31
TSTPS -II	123.40	112.08	134.50	137.66
FSTPS	209.11	195.28	234.34	239.86
KHSTPS - I	117.45	98.56	118.27	121.05
KHSTPS - II	90.44	74.58	89.49	91.60

410. In case of any further variation in FPA during 2011-12 over and above 20% assumed by the Commission, the same may be recovered 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 Adjustment Charges:** GRIDCO has proposed the year-end adjustment charges for FY 2011-12 in line with the actual for FY 2009-10 and for FY 2010-11 (Apr'10 to Sept'10) with the projected CS loss of 3.09%. The details of such YEA Charges are furnished in Table below:

**Table-55****Year-end Adjustment Charges of Central Sector Stations**

<b>Central Thermal Stations</b>	<b>Energy (MU)</b>	<b>OERC approval for FY 2010-11 including Central Sector Loss @ 3.09 % (P/U)</b>	<b>Actual for FY 2009-10 (Rs. Crore)</b>	<b>Actual for FY 2010-11 (upto Sept'10) (Rs. Crore)</b>	<b>Projection for FY 2011-12 with CS Loss of 3.09% (Rs. Crore)</b>	<b>Projection for FY 2011-12 including Central Sector Loss @ 3.09 % (P/U)</b>
<b>TSTPS -I</b>	2044.54	12.35	8.08	1.791	8.337	4.08
<b>TSTPS -II</b>	1349.38	11.07	7.65	2.284	7.889	5.85
<b>FSTPS</b>	1378.44	7.54	2.49	0.000	2.567	1.86
<b>KhSTPS -I</b>	692.18	7.81	1.70	0.021	1.750	2.53
<b>KhSTPS -II</b>	146.45	1.01	0.17	0.002	0.175	1.20
<b>Total</b>	<b>5610.99</b>		<b>20.08</b>	<b>4.098</b>	<b>20.719</b>	<b>3.69</b>

412. The Commission scrutinised the above proposal of GRIDCO and adopted the following principles for the purpose of calculation of the year-end adjustment charges for the FY 2011-12.
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 2010-11 in their monthly bills as an Additional Capacity Charge. Accordingly GRIDCO has considered the Income tax as additional capacity charge and included the same in the fixed cost of the central generating stations. Such addition of Income-Tax in capacity charge has not backed by any order/Regulations. In a reply to the Commission's query, GRIDCO in its filing dt.15.01.2011 and subsequent submission has submitted a statement showing the details of Year-end adjustment charges payable by GRIDCO to NTPC for 2009-10 and 2010-11 (upto Dec,10). The Commission provisionally accepts for recovery of Income-Tax through Year End Adjustment Charges. The amount as proposed by GRIDCO in its filing dtd. 15.01.2011 and subsequent submission on actual payment towards Income-tax for the FY 2010-11 (upto Dec, 10) is prorated for the entire year and the same is considered towards year-end adjustment charges in the ARR of GRIDCO for FY 2011-12.
414. Electricity duty for TSTPS Stage-I and Stage-II has been calculated @ 20 paise/unit on the normative auxiliary consumption for FY 2011-12.
415. The Commission has considered generation at PLF of 85% for FY 2011-12 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 2009-10 and 2010-11 (upto Nov, 10). The Commission approves the payments towards water cess for FY 2011-12 as per the claim in NTPC bills for FY 2009-10.
417. Accordingly, the year-end charges approved by the Commission including central transmission loss are given in the table below.

**Table – 56**  
**Approved Year-end Charges for 2011-12 (Paise/Unit)**

<b>Central Thermal Stations</b>	<b>GRIDCO's Proposal Including Central Sector Loss @ 3.09%</b>	<b>Commission's Approval Including Central Sector Loss @ 2.30%</b>
TSTPS -I	4.08	15.84
TSTPS -II	5.85	14.73
FSTPS	1.86	9.91
KHSTPS - I	2.53	11.18
KHSTPS - II	1.20	1.56

**Transmission Charge for PGCIL System**

418. GRIDCO in its ARR application submitted that Transmission charges of PGCIL are being determined applying the norms and principles laid down by CERC from time to time. As per the present practice, PGCIL Transmission Charge is levied applying the weighted average of percentage share allocation of the constituents on the fixed cost of PGCIL i.e known as Postage Stamp Method / Uniform Sharing Method.
419. CERC vide its Order dtd 15.06.2010 have published a Regulation known as CERC (Sharing of Inter State Transmission Charges and Losses) Regulation, 2010 which shall be commenced from 01.11.2011 and shall remain in force for 5 years from the date of commencement unless reviewed earlier or extended by the Commission. According to the Regulation specified above, PGCIL Charges shall be levied applying a new methodology known as Hybrid Methodology, which shall be sensitive to distance, direction as well as quantum of power flow using load flow studies. The sharing of ISTS Transmission Charges shall be based on the technical and commercial information provided by various customers to the evaluating agency known as Implementing agency which shall calculate the point of connection charges for every customer (such as generator or demand customer) using the aforesaid method. The point of connection charges shall be Rs/MW/Month. This point of connection charges shall be determined for each season for peak and off peak conditions for various block of months such as, (i) April to June, (ii) July to September, (iii) October to November, (iv) December to February, (v) March.
420. The Implementing Agency (NLDC) is collecting data from various designated customers following which 'point connection' charges shall be determined for every zone. For the first two years, 50% of the transmission charges shall be recovered through Hybrid methodology and the balance 50% shall be recovered on Uniform Charge Sharing method.
421. The new proposed methodology is to be implemented from 01.01.2011 and at this stage, it is not possible for GRIDCO to evaluate the PGCIL Transmission Charge on the proposed methodology of sharing as it involves entirely a new concept. For the reason mentioned, GRIDCO have calculated the PGCIL Transmission Charge for the ensuing Year by applying the present Postage Stamp Method.
422. The total Annual Fixed Charge of PGCIL for the ensuing year including incentive has been considered which comes to Rs.737.45 Crore which is the updated Annual Tariff as approved by CERC for the year 2008-09. The total Annual Tariff consists of Rs 720.382 Crore for Regional System and Rs. 17.07 Crore for Inter regional System. An



- amount of Rs.2.151 Crore is exclusively borne by GRIDCO towards the charges of ICT-II at Baripada; the Transmission Charges for total Asset becomes Rs107.41Crore.
423. Besides, GRIDCO proposes to pay an amount of Rs 15.80 Crore toward ULDC charges in accordance with the Tariff Order dtd. 28.07.09 of Hon'ble CERC.
424. GRIDCO proposes to pay an amount of Rs. 8.12 Crore towards Year End Charges on account of Additional Fixed Charge (Income Tax) amounting Rs. 6.28 Crore and floating rate of interest amounting Rs. 1.84 Crore. GRIDCO have already paid an amount of Rs 4.95 Crore on account of claim of Additional Fixed Charge (Income tax) calculated at MAT rate for FY 2009-10. Hence, GRIDCO have projected an amount of Rs 6.28 Crore. on account of additional fixed charge at the MAT rate of FY 2010-11. Further floating rate of interest is being claimed by PGCIL and considering the raising trend of interest rates, GRIDCO proposes an amount of Rs 1.84 Crore for ensuing year.
425. Further, as per the new Regulation there shall be no differentiation in point connection charges between long term, medium term and short term Customers. The Regulation is silent on the methodology of disbursement from the revenue earned from the Short term customers (which is presently on % weighted average share allocations). The revenue earned from the additional medium term open access shall be used in truing up of Yearly Transmission Charge for the next financial year. Hence considering above facts, revenue earned from short-term customer is taken as nil.
426. With above facts, the Transmission Charges payable by GRIDCO for ensuing year comes to Rs.131.36 Crore. Considering energy drawal of 6512.99 MU from Central Sector and allowing 3.09% of CTU loss, per unit PGCIL Transmission Charge including loss comes to 20.17 P/U.
427. The Commission observed that 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. 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,2011 Regional Energy Account, GRIDCO has to pay a weighted average of 14.095% share of the fixed cost towards Regional Transmission System and 21.755% for inter-regional transmission system as PGCIL transmission charges.
428. The Commission examined the monthly bill for January, 2011 produced by PGCIL to GRIDCO and found that it has claimed Rs.710.375 crore as annual fixed cost towards transmission charges for regional transmission systems and Rs. 14.831Crore 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 2011-12. Further in the regional energy accounting prepared by ERPC has shown availability of PGCIL regional transmission system as 99.977% and for inter-regional transmission system as 100%.So the Annual fixed cost for PGCIL transmission system taking the incentive in to account for regional

transmission system comes to Rs.724.71 Crore and for inter-regional transmission system comes to Rs. 15.13 Crore.

429. Accordingly the fixed cost component payable to GRIDCO to PGCIL towards Central Transmission Charges comes to Rs.107.63 crore comprising of Rs.102.15 cr. (i.e. 14.095% of Rs.724.71 crore) towards regional transmission system and Rs.3.29 crore (i.e. 21.755% of Rs.15.13 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 2011-12.
430. GRIDCO has shown a sum of Rs.8.12 crore as year-end adjustment charges comprising Income-Tax of Rs.6.28 crore, and FERV & Interest paid for Floating rate of interest incurred for 2004-2009 at Rs.1.84 crore.
431. The Commission examined the Income-Tax paid by GRIDCO to PGCIL and observed GRIDCO has paid an amount of Rs.4.95 crore towards income tax for the FY 2009-10 and projected an amount of Rs. 6.28 Crore for the year 2011-12 taking MAT Rate for FY 2009-10. The Commission approves an amount of Rs.4.95 crore for 2011-12 as year end charges based on actual payment of GRIDCO for FY 2009-10.
432. The Commission scrutinized the amount filed by GRIDCO under the head year-end charges of Rs.1.84 crore towards FERV and differential interest paid for floating rate of interest incurred for the period from 2004 to 2009. The Commission approves the same amount i.e Rs. 1.84 Crore as differential interest for the ensuing year 2011-12.
433. After totaling all the items, the Commission approves an amount of Rs.6.79 crore towards year-end adjustment charges of PGCIL for 2011-12 as against Rs. 8.12 Crore claimed by GRIDCO.
434. 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.10.59 crore towards state sector ULD and communication charges and also an amount of Rs.5.14 crore towards central sector ULD and communication charges totaling to Rs.15.73 crore/Year on GRIDCO for the purpose. Hence, the Commission provisionally accepts the aforesaid claim of PGCIL and allows pass through of Rs.15.73 crore in the tariff for 2011-12.
435. GRIDCO submitted that the revenue earned from the additional medium term and short-term open access shall be used in truing up of Yearly Transmission Charge for the next financial year due to uncertainty and adaptation of new methodology. The Commission accepts the proposal of GRIDCO.
436. Taking all the above cost into account the Commission approves the PGCIL transmission charge payable by GRIDCO including the Central Sector Loss for the year 2011-12 comes to 18.63 P/U. The details of total cost towards PGCIL transmission charges is indicated in the table below:

**Table - 57**  
**PGCIL Transmission Charges for FY 2011-12**

	<b>GRIDCO's Proposal</b>	<b>Commission's Approval</b>
Regional Transmission System (Rs. crore)	705.975	710.375
Inter-Regional Transmission system chargeable to Eastern Region (Rs. crore)	14.831	14.831
Bi-Lateral Transaction (ICT –II at Baripada Substation )	2.151	2.151

	<b>GRIDCO's Proposal</b>	<b>Commission's Approval</b>
Regional Transmission System including incentive (Rs. crore)	720.38	724.71
Inter-Regional Transmission system chargeable to Eastern Region including incentive (Rs. crore)	17.07	15.13
Bi-Lateral Transaction (ICT –II at Baripada Substation ) including incentive	2.151	2.19
<b>Total annual tariff with inventive</b>	<b>739.60</b>	<b>742.03</b>
GRIDCO's Share form Regional Tr. System (Rs. crore) (14.095%)	101.57	102.15
GRIDCO's Share form Inter-Regional Tr. System (Rs. crore) (21.755%)	3.71	3.29
Bi-Lateral Transaction (ICT –II at Baripada Substation )	2.15	2.19
<b>Sub-Total</b>	<b>107.44</b>	<b>107.63</b>
GRIDCO's Share for Year end charge (Rs. crore)	8.12	6.79
ULD and communication charges	15.80	15.73
<b>Total annual Transmission Charge Payable by GRIDCO for Central Transmission System (Rs. crore)</b>	<b>131.36</b>	<b>130.15</b>
Net Energy Drawl by GRIDCO (MU)	6512.99	6,994.26
<b>PGCIL Tr. Charge including central loss (P/U)</b>	<b>20.17</b>	<b>18.63</b>

437. Taking all the above cost into account the summary of power purchase from Central Generating Stations and its cost for GRIDCO are given table below.

**Table - 58**

Generating Stations	Energy MU	Fixed Cost P/U	Variable Cost P/U	FPA P/U	yr. End charge P/U	Total rate P/U	Cost Rs. Crore	PGCIL Tr. Charge P/U	Total rate incl. PGCIL Tr. P/U
Chukka	273.36		162.74			162.74	44.49	18.63	181.38
Tala	143.16		188.33			188.33	26.96	18.63	206.96
Teesta	511.32		153.53			153.53	78.50	18.63	172.16
<b>Sub total Hydro</b>	<b>927.84</b>					<b>161.61</b>	<b>149.95</b>	<b>18.63</b>	<b>180.25</b>
TSTPS-I	2,163.00	58.41	42.07	159.31	15.84	275.63	596.20	18.63	294.27
TSTPS-II	1,360.38	70.42	60.11	137.66	14.73	282.92	384.88	18.63	301.56
FSTPS	1,476.42	47.85	100.89	239.86	9.91	398.51	588.37	18.63	417.14
KHSTPS-I	847.47	56.90	111.06	121.05	11.18	300.19	254.40	18.63	318.82
KHSTPS-II	209.16	104.92	128.32	91.60	1.56	326.40	68.27	18.63	345.03
<b>Sub Total Thermal</b>	<b>6,056.43</b>					<b>312.41</b>	<b>1,892.12</b>	<b>18.63</b>	<b>331.05</b>
PGCIL Tr.charge for GRIDCO						<b>18.63</b>	<b>130.15</b>		
<b>Total Central Sector</b>	<b>6,984.27</b>					<b>311.02</b>	<b>2,172.22</b>		
<i>NB: The Rate are includes Trans,ission Loss of 2.30%.</i>									

438. 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 2011-12 are given in the table below:

**Table - 59**  
**GRIDCO's Proposal & Commission's Approval for 2011-12**

Generators	GRIDCO's PROPOSAL FOR 2011-12			COMMISSION'S APPROVAL FOR 2011-12		
	Energy	Total Rate	Total cost	Energy	Total Rate	Total cost
	MU	P/U	Rs.in Cr.	MU	P/U	Rs.in Cr.
HYDRO (OLD)	3,704.81	58.15	215.43	3,676.86	63.15	232.19
Indravati	1,942.38	75.69	147.02	1,942.38	77.21	149.97
Machakund	262.50	22.06	5.79	262.50	22.06	5.79
<b>Total Hydro</b>	<b>5,909.69</b>	<b>62.31</b>	<b>368.24</b>	<b>5,881.74</b>	<b>65.96</b>	<b>387.96</b>
OPGC	2,874.32	179.69	516.49	2,892.49	179.22	518.39
TTPS (NTPC)	2,965.43	248.24	736.14	2,957.32	180.50	533.80
IPPs	3,357.12	275.00	923.21	3,357.12	275.00	923.21
CGPs	1,257.06	299.39	376.35	603.79	277.76	167.71
Co-Generation Plants	512.46	275.00	140.93	512.46	275.00	140.93
Renewable Sources	300.00	315.00	94.50	300.00	320.32	96.10
<b>TOTAL STATE</b>	<b>17,176.08</b>	<b>183.74</b>	<b>3,155.85</b>	<b>16,504.92</b>	<b>167.71</b>	<b>2,768.08</b>
CHUKHA HPS	257.00	184.24	47.35	273.36	181.38	49.58
Tala HPS	140.00	210.04	29.41	143.16	206.97	29.63
Teesta-V HPS	505.00	174.95	88.35	511.32	172.17	88.03
<b>Total Central Hydro</b>	<b>902.00</b>	<b>183.04</b>	<b>165.11</b>	<b>927.84</b>	<b>180.25</b>	<b>167.24</b>
TSTPS -I	2,044.54	279.67	571.80	2,163.00	294.27	636.51
TSTPS -II	1,349.38	279.44	377.07	1,360.38	301.56	410.23
FSTPS	1,378.44	391.75	540.00	1,476.42	417.14	615.88
KhTSPS -I	692.18	318.33	220.34	847.47	318.82	270.19
KhTSPS -II	146.45	356.45	52.20	209.16	345.03	72.17
<b>Total Central Thermal</b>	<b>5,610.99</b>	<b>313.92</b>	<b>1,761.41</b>	<b>6,056.42</b>	<b>331.05</b>	<b>2004.97</b>
<b>Total Central Sector</b>	<b>6,512.99</b>	<b>295.80</b>	<b>1,926.52</b>	<b>6,984.26</b>	<b>311.02</b>	<b>2172.22</b>
<b>TOTAL GRIDCO</b>	<b>23,689.07</b>	<b>214.55</b>	<b>5,082.37</b>	<b>23,489.18</b>	<b>210.32</b>	<b>4,940.30</b>

**Rebate for Prompt Payment from the Generators**

439. 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.
440. 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's Finance

441. During FY 2011-12 GRIDCO has projected an amount of Rs.5.73 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 - 60**

(Rs. cr.)

	2010-11 (Approved)	GRIDCO's proposal for 2011-12
Basic pay	1.86	2.32
DA	0.61	1.39
HRA	0.22	0.29
Medical reimbursement	0.09	0.23
Others	0.25	0.76
Terminal benefit	0.56	0.80
30% proposed hike	-	NIL
Arrear 6 <sup>th</sup> Pay	1.38	-
Total	4.97	5.73

442. GRIDCO has submitted its audited annual account upto 2009-10. But for determining the base figure for Basic Pay plus GP, Commission relied on the data as actual salary drawn during August to December, 2010. The components of Basic Pay plus GP out of the total salary drawn is depicted below:

**Table - 61**

(Rs. lakh)

Month	Basic + GP
8/2010	13.49
9/2010	13.57
10/2010	13.37
11/2010	13.05
12/2010	13.10

443. Average of the above five months figure is Rs.13.31 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 2011-12 works out to 164.51 lakh or 1.65 cr.
444. The present rate of DA as notified by Govt. of Orissa is 45% with effect from 01.07.2010. 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 @5%, the annual average DA is evaluated around 55% for the financial year 2011-12.
445. In respect of other major expenditures such as medical allowance, house rent allowance the following principle has been adopted:
- |                       |   |                         |
|-----------------------|---|-------------------------|
| Medical reimbursement | - | 5% of (Basic Pay + GP)  |
| House rent allowance  | - | 15% of (Basic Pay + GP) |
446. For the financial year 2011-12, GRIDCO claimed an amount of Rs.0.70 cr. towards terminal benefit. Commission approves the terminal benefit at Rs.0.70 crore after due scrutiny.
447. Summary of employees cost proposed by GRIDCO and approved by Commission for the year 2011-12 is shown in following table:

**Table -62**

(Rs. cr.)

	<b>Approved for 2010-11</b>	<b>GRIDCO's Proposal (2011-12)</b>	<b>Commission's Approval (2011-12)</b>
Basic Pay + GP	1.86	2.32	1.65
DA	0.61	1.39	0.91
HRA	0.22	0.29	0.25
Medical Allowance	0.09	0.23	0.08
Others	0.25	0.80	0.62
Terminal benefit	0.56	0.70	0.70
Arrear/Proposed hike during 2009-10	1.38	-	-
<b>Total</b>	<b>4.97</b>	<b>5.73</b>	<b>4.21</b>

448. Thus against Rs.4.97 crore approved for 2010-11, the employee cost for 2011-12 is now approved at Rs.4.21 crore.

#### **Repair and Maintenance Expenses**

449. GRIDCO claimed an amount of Rs.0.15 cr. towards repair and maintenance of vehicle, furniture and other equipments for FY 2011-12. In line with the earlier order, Commission disallows the same.

#### **Administrative and General Expenses**

450. During FY 2011-12 GRIDCO has projected an amount of Rs.3.97 cr. towards A & G expenses. The audited accounts for 2009-10 revealed an amount of Rs.2.58 cr. under the head A & G expenses which includes an amount of Rs.1.00 cr. towards licence fee. Thus actual A & G expenses excluding licence fee works out to Rs.1.58 cr. for 2009-10. Factoring in the inflation for 2010-11 and 2011-12 at the rate of 5.5%, 9.4% respectively, the A & G cost for 2011-12 works out to Rs.1.83 cr. excluding licence fee of Rs.1.00 cr. Thus total expenses under A & G head including licence fee is estimated at Rs.2.83 cr. which is approved by the Commission for FY 2011-12.

#### **ERLDC, NLDC and ULDC fees**

451. GRIDCO estimated an amount of Rs.1.32 cr. under this head for 2011-12. In line with earlier order Commission approves the same.

#### **Interest on Loan**

452. During financial year 2011-12, GRIDCO has estimated an amount of Rs.449.89 cr. towards interest on loans including finance and other charges and probable interest on securitized dues to OHPC. On scrutiny of the figure in format TRF-3 as well as electronic copy submitted by the licensee it is found that GRIDCO has availed Rs.300 cr. during 2008-09, Rs.1213.00 cr. during 2009-10 and proposed to avail new loan of Rs.1737.00 cr. during 2010-11. Except these loans availed by GRIDCO as mentioned above, all the other loans are old loans inherited by GRIDCO at the time of demerger of GRIDCO in to GRIDCO and OPTCL .Subsequently in reply to Commission's query and queries of Director (Tariff) during hearing GRIDCO stated that during FY 2009-10 GRIDCO has availed loan of Rs.1213 cr. from different commercial banks. Out of this amount Rs.313 cr. has been availed by utilizing the Govt. guarantee of Rs.1000 cr. issued in favour of GRIDCO by Govt. of Orissa.

453. For the FY 2010-11 GRIDCO has already availed Rs.1137 cr. from different banks and financial institutions till 31.12.2010 to meet the revenue gap and proposes to borrow another Rs.600 cr. during remaining part of the FY 2010-11 utilising the Govt. Guarantee. In another submission viz. reply to Director (Tariff) query at the time of hearing GRIDCO stated that by end of January, 2011, the quantum of borrowing is already increased to Rs.1147 cr.

454. Further GRIDCO in its reply to query made an additional submission that the loans availed by GRIDCO are under floating rate of interest. In the meantime during December, 2010, most of the banks have raised their interest rates for which GRIDCO will be required to bear additional financial burden due to higher interest impact.

Accordingly, the total interest impact for FY 2011-12 as submitted by GRIDCO has been revised from Rs.449.89 cr. (submitted at the time of tariff filing) to Rs.463.28 cr. (submitted in compliance to the Commission's query on ARR for 2011-12).

A table showing loan position of GRIDCO as on 31.03.2012 is depicted below:

**Table –63**

**(Rs. Crore)**

Sl No	Particulars	Rate of Interest	OB as on 01-04-09	2009-10				2010-11			2011-12		Interest due for the year
				Principal				Principal			Principal		
				Principal	Addition	Repayment	CB as on 31-3-10	Addition	Repayment	CB as on 31-3-11	Repayment	CB as on 31-3-12	
<b>A</b>	<b>Govt. Loans</b>												
1	State Govt.(WCL)	13.00%	120.00	-	-	120.00	-	-	120.00	10.00	110.00	15.60	
2	St.Govt (OPGC Adj.)	10.50%	42.54	-	-	42.54	-	-	42.54	2.84	39.70	4.47	
3	NTPC (Govt.Bonds)	8.50%	827.16	-	-	827.16	-	-	827.16	110.29	716.87	70.31	
	<b>Sub total</b>		<b>989.70</b>	<b>-</b>	<b>-</b>	<b>989.70</b>	<b>-</b>	<b>-</b>	<b>989.70</b>	<b>123.13</b>	<b>866.57</b>	<b>90.38</b>	
<b>B</b>	<b>Govt. Guaranteed Loans &amp; Bonds</b>												
	<b>B.I - Prior to 31-12-2009</b>												
4	Union Bank of India- I	8.25%	12.35	-	12.35	-	-	-	-	-	-	-	
5	Allahabad Bank - I	8.25%	7.12	-	3.57	3.55	-	3.55	-	-	-	-	
6	Allahabad Bank - II	8.25%	39.27	-	10.84	28.43	-	10.72	17.71	10.72	6.99	1.06	
7	Allahabad Bank - III	8.25%	26.19	-	7.00	19.19	-	7.14	12.05	7.14	4.91	0.72	
8	Dena Bank - I	8.25%	31.53	-	20.04	11.49	-	11.49	-	-	-	-	
9	Dena Bank - II	8.25%	54.08	-	11.52	42.56	-	11.52	31.04	11.52	19.52	2.11	
10	Andhra Bank_I	10.00%	28.54	-	7.35	21.20	-	7.14	14.05	7.14	6.91	1.08	
11	Syndicate Bank	8.25%	29.99	-	10.00	19.99	-	10.00	9.99	9.99	-	0.45	
12	Karnataka Bank_I-50cr	9.50%	9.08	-	4.56	4.52	-	4.52	-	-	-	-	
13	Bond IB/99 (OHPC)	8.50%	20.00	-	20.00	-	-	-	-	-	-	-	
14	Bond (NTPC) 342.85 Crs.	10.00%	24.33	-	24.33	-	-	-	-	-	-	-	
	<b>Sub total (B.I)</b>		<b>282.49</b>	<b>-</b>	<b>131.56</b>	<b>150.92</b>	<b>-</b>	<b>66.09</b>	<b>84.84</b>	<b>46.51</b>	<b>38.33</b>	<b>5.42</b>	
	<b>B.II - After 31-12-2009 (out of Rs.1000 cr.)</b>												
15	Dena Bank - III	9.75%	-	100.00	-	100.00	-	-	100.00	1.67	98.33	9.75	
16	Uco Bank -III (100 cr)	9.50%	-	100.00	0.01	99.99	-	-	99.99	2.80	97.19	9.52	
17	Uco Bank -IV (200 cr)	9.50%	-	113.00	-	113.00	87.00	-	200.00	5.56	194.44	19.05	
18	Canara-III - 200 cr TL	9.40%	-	-	-	-	200.00	-	200.00	-	200.00	18.85	

Sl No	Particulars	Rate of Interest	OB as on 01-04-09	2009-10				2010-11			2011-12		Interest due for the year
				Principal				Principal			Principal		
				Principal	Addition	Repayment	CB as on 31-3-10	Addition	Repayment	CB as on 31-3-11	Repayment	CB as on 31-3-12	
19	Bank of India 100cr_I	9.50%	-	-	-	-	100.00	-	100.00	-	100.00	9.53	
20	Bank of India 200cr_II	9.50%	-	-	-	-	200.00	-	200.00	-	200.00	19.05	
21	Cental Bank_I - 100 cr	9.00%	-	-	-	-	100.00	-	100.00	-	100.00	9.02	
22	Syndicate Bank_II -200 cr	9.25%	-	-	-	-	200.00	-	200.00	-	200.00	18.50	
	<b>Sub total (B.II)</b>		-	<b>313.00</b>	<b>0.01</b>	<b>312.99</b>	<b>887.00</b>	-	<b>1,199.99</b>	<b>10.03</b>	<b>1,189.96</b>	<b>113.28</b>	
	<b>Sub total (B.I+B.II)</b>		<b>282.49</b>	<b>313.00</b>	<b>131.58</b>	<b>463.91</b>	<b>887.00</b>	<b>66.09</b>	<b>1,284.82</b>	<b>56.54</b>	<b>1,228.29</b>	<b>118.70</b>	
<b>C</b>	<b>Other Loans &amp; Bonds</b>												
23	Union Bank of India- III	9.25%	62.73	-	14.56	48.17	-	14.29	33.88	14.29	19.60	2.54	
24	Union Bank of India- IV	10.50%	81.71	-	17.02	64.69	-	16.67	48.02	16.67	31.35	4.25	
25	Union Bank STL - V	9.25%	-	100.00	-	100.00	-	-	100.00	-	100.00	9.28	
26	Union Bank TL-VI	9.25%	-	200.00	0.21	199.79	-	36.85	162.94	40.20	122.74	13.40	
27	Andhra Bank_II	10.25%	-	200.00	-	200.00	-	21.67	178.33	40.00	138.33	16.45	
28	Karnataka Bank_II-100cr	9.50%	-	100.00	0.00	100.00	-	8.33	91.67	25.00	66.67	7.64	
29	Uco Bank -I (200 cr)	10.00%	200.00	-	38.89	161.11	-	66.67	94.44	66.67	27.78	6.41	
30	Uco Bank -II (100 cr)	10.00%	100.00	-	2.80	97.20	-	33.60	63.60	33.60	30.00	4.83	
31	Canara-I - 100 cr TL	10.00%	-	100.00	-	100.00	-	23.10	76.90	25.20	51.70	6.55	
32	Canara-II - 100 cr TL	10.00%	-	100.00	-	100.00	-	15.03	84.97	20.04	64.93	7.60	
33	Kalinga GB -50 cr	10.00%	-	50.00	0.00	50.00	-	-	50.00	5.00	45.00	4.91	
34	Karur V Bank-I - 50 cr	10.00%	-	50.00	-	50.00	-	-	50.00	4.17	45.83	4.94	
35	Karur V Bank-II - 50 cr	10.00%	-	-	-	-	50.00	-	50.00	-	50.00	5.01	
36	Bond PF/99 (P.Trust)	8.00%	113.37	-	-	113.37	-	-	113.37	97.89	15.48	9.07	
37	Proposed Loan for Revenue Gap	10.00%	-	-	-	-	800.00	-	800.00	-	800.00	80.00	
	<b>Sub-Total</b>		<b>557.80</b>	<b>900.00</b>	<b>73.48</b>	<b>1,384.32</b>	<b>850.00</b>	<b>236.20</b>	<b>1,998.12</b>	<b>388.71</b>	<b>1,609.40</b>	<b>182.89</b>	
	<b>TOTAL - A+B+C</b>		<b>1,829.98</b>	<b>1,213.00</b>	<b>205.06</b>	<b>2,837.93</b>	<b>1,737.00</b>	<b>302.29</b>	<b>4,272.64</b>	<b>568.38</b>	<b>3,704.26</b>	<b>391.96</b>	
<b>D</b>	<b>Finance &amp; Other Charges</b>												
38	Int. on Average Overdraft p.m (LC)	10.00%										17.50	
39	Guarantee Commission	0.50%										10.42	
40	Rebate & other Finance Charges											-	
41	Proposed interest on Securitised dues to OHPC	8.00%										30.00	
<b>E</b>	<b>Grand Total (A+B+C+D)</b>		<b>1,829.98</b>	<b>1,213.00</b>	<b>205.06</b>	<b>2,837.93</b>	<b>1,737.00</b>	<b>302.29</b>	<b>4,272.64</b>	<b>568.38</b>	<b>3,704.26</b>	<b>449.89</b>	

From the above table, it is revealed that for the year 2009-10 GRIDCO has availed Rs.1213 cr. of loan to meet deficit situation in cash flow attributable to procurement of power at high cost.

455. The audited account for the FY 2009-10 were scrutinized and it is found that GRIDCO during FY 2009-10 posted a loss of Rs.146.53 cr. after making a provision of Rs.1414.31 cr. towards regulatory asset. In note to the accounts GRIDCO stated



that pursuant to OERC order dtd.20.03.2010 in Case No.144/2009 considering revenue requirement, the revenue gap of Rs.1414.31 cr. to be allowed to be recovered in future tariff determination over a period of 6 years with effect from 2010-11 for which the company has already incurred and accounted for the cost as “Regulatory Asset” and has carried forward the same under the head loans and advance (Schedule-9) to be adjusted against future tariff over a period of 6 years.

The Commission in its last tariff order addressed the following:

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

456. The actual net cash deficit after the completion of the FY 2009-10 works out to Rs.1414.31 cr. which is exhibited in Annexure-I of the filing made by GRIDCO for the FY 2011-12. The relevant portion of the Annexure-I is reproduced below:

Table - 64

(Rs. Crore)

Particulars	GRIDCO estimated Regulatory Assets in line with OERC consideration for FY 2009-10
<b>Opening Balance</b>	(64.11)
<b>Cash Inflow from DISCOMs :</b>	
WESCO	960.83
NESCO	599.39
SOUTHCO	161.13
CESU	698.31
<b>Sub-Total</b>	<b>2419.67</b>
<b>From UI, Trading &amp; Other:</b>	
UI Charges	76.37
Trading	0.78
ICCL & Nalco	129.07
<b>Sub-Total</b>	<b>206.22</b>
<b>From Other Source:</b>	
OPTCL TC from DISCOMs	-
Loan	-
Misc.	140.19
OD Availed	-
<b>Sub-Total</b>	<b>140.19</b>
<b>Total Cash Inflow</b>	<b>2766.07</b>
<b>Cash Outflow:</b>	
Power Purchase	3720.60
OPTCL Wheeling Charge (DISTCOs, NALCO & ICCL)	-
Employees Cost	3.74
Admn. & General Expenses	10.03
Loan Repayment	245.16
Interest & Financial Charges	131.27
Misc	5.47
OD Paid	-
<b>Total Cash Outflow</b>	<b>4116.27</b>
<b>Closing Balance</b>	<b>(1414.31)</b>

In view of the above, Commission feels it is justified to approve Rs.1414.31 cr. as regulatory asset to be amortised over a period of six years from 2010-11. Hence Commission feels it prudent to allow interest on loan value of Rs.1213.00 cr. availed during 2009-10 to meet the shortfall in power purchase cost for the year 2009-10.

457. In financial year 2010-11, GRIDCO has availed Rs.1137.00 cr. of loan till end of December, 2010 and propose to avail for additional loan of Rs.600 cr. during remaining part of the financial year 2010-11. GRIDCO in its filing have stated that during the current FY 2010-11 there is a huge gap between the average BSP approved by OERC (170.25 p/u) and actual power cost upto September, 2010 (203.59 p/u). Further, GRIDCO has to pay loan dues. GRIDCO has estimated a revenue gap of Rs.1757.58 cr. during FY 2010-11. In line with last year's order, GRIDCO request the

Commission to consider and approve the regulatory gap shortfall as regulatory assets for allowing the same in future tariff and its amortization over a specified period to enable GRIDCO to account for the same and reduce its book loss. If this is not allowed further loan will not be available to GRIDCO because of adverse credit rating.

To bridge the cash gap for the FY 2010-11, GRIDCO has availed term loans of Rs.1137.00 cr. till end of December, 2010 and another Rs.10.00 cr. during January, 2011 totaling Rs.1147.00 cr. by the end of January, 2011.

458. The cash flow statement upto January, 2011 of FY 2010-11 submitted by GRIDCO in reply to the queries of Director (Tariff) at the time of hearing was examined. Abstract of the cash flow is depicted in table below:

**Table - 65**

A.		<b>Inflow</b>	<b>Amount (Rs. cr.)</b>
	1.	Revenue from DISCOMs excluding Transmission charges	2750.14
	2.	Revenue from UI charges, trading, ICCL, NALCO	415.78
	3.	Miscellaneous income	32.35
		<b>Total:</b>	<b>3198.27</b>
<b>B.</b>		<b>Outflow</b>	
	1.	Power Purchase Bill including UI and wheeling charges	3923.52
	2.	Employees Cost	3.56
	3.	A&G expenses	7.39
	4.	Interest on loan repayment	388.14
	5.	Miscellaneous	2.23
		<b>Total</b>	<b>4324.84</b>
		Gap	(-)1136.57
		Add opening cash balance	(-)171.98
		Net cash deficit	(-)1298.55

459. In FY 2010-11 of the BSP order (vide Para-492), Commission left a gap of Rs.806.15 cr. 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.1298.55 cr. (upto January, 2011). Commission treats the entire amount of Rs.1298.55 cr. for the time being as regulatory asset which may be revised after audited data are available. This amount will be amortized over a period of six years from the FY 2012-13. Keeping the above facts in view, Commission feels it justified to allow the interest impact on the loan amount of Rs.1147.00 cr. proposed by GRIDCO during the FY 2011-12.
460. As discussed in above para, GRIDCO proposed to avail a loan of Rs.1737.00 cr. on account of power purchase dues during the FY 2010-11 out of which it has already availed Rs.1147.00 cr. by the end of January, 2011. For the balance amount of proposed new loan of Rs.590.00 cr. the Commission will allow interest as and when it is actually received by GRIDCO. Further, Commission will undertake truing up exercise for the FY 2010-11 after receipt of the audited account from GRIDCO and the same will be given effect in the tariff order for FY 2012-13. For the present no interest on loan amount of Rs.590.00 cr. is allowed in the ARR of 2011-12.

461. Except the loans availed during the FY 2008-09, 2009-10 and 2010-11, all the other loans are old loans inherited by GRIDCO at the time of de-merger of GRIDCO into GRIDCO and OPTCL. In the above para Commission discussed the impact of interest on loans availed during the FY 2009-10 & 2010-11. As regards FY 2008-09, GRIDCO availed loan of Rs.300 cr. to meet the deficit in the cash flow attributable to unfavorable hydro position resulting in procurement of power at a higher cost. On this loan, Commission has allowed interest during FY 2010-11 (vide para 455 of BSP order 2010-11). In line with earlier orders of the Commission, Commission allows interest on the loan amount of Rs.300 cr. during FY 2011-12.
462. As regards old loans inherited by GRIDCO as discussed above, Commission allows interest on such loans excepting loans from State Govt. and Pension Trust Bond.
463. The Commission in its letter No.460 dtd.22.03.2005 had advised the State Govt. in terms of Section 86 of the Electricity Act, 2003 to keep in abeyance the up-valuation of assets as well as moratorium on debt servicing to the State Government loans for a period of another five years beyond FY 2005-06 i.e. till FY 2010-11 as the sector has not so far turned around. The Govt. was reminded on the matter vide Commission's letter No.1968 dt.16.12.2005 to accept its recommendations in order to avoid a tariff shock to the consumers. The projected additional liability on this account could have an adverse impact on the consumer tariff. Based on the recommendation of the Commission, Govt. vide its Notification No.R&R-I-15/2009/81, Dtd.06.01.2010, have extended the concession and stipulation as indicated below:
- “(i) The bonds issued by GRIDCO and OHPC, to the State Government, consequent upon revaluation of assets shall not carry any interest for further period of five years from FY 2006-07 to FY 2010-11.*
  - (ii) The additional equity share, allotted to the State Government based on revaluation of assets, should not earn any Return on Equity for a further period of five years from FY 2006-07 to FY 2010-11.*
  - (iii) Both GRIDCO/OPTCL and OHPC would be entitled to depreciation on the revalued (pre-92) assets.*
  - (iv) Both GRIDCO/OPTCL and OHPC shall repay the principal amount of the loan amount actually taken from the State Government along with the interest as per the terms and condition of loan other than those attributable to the revaluation of assets.*
  - (v) The State Government investment actually made in Upper Indravati project, excluding the normative equity, should yield return to the State Government with effect from FY 2010-11 after clearance of loan liabilities of PFC. However, interest at the rate of 7% should be charged and paid on this investment from FY 2006-07 onwards.*
  - (vi) Returns on equity on the old Hydro Power Plants may be allowed to OHPC, in respect of new projects commissioned after 01.4.1996”.*
464. Since there was some omissions and commission and addition of new stipulations in the notification dtd.06.01.2010, in deviation of the notification dt.29.01.2003 read with notification dt.06.05.2003, the Commission in their letter no.3235 dtd.27.01.2010 has suggested for amendment of the notification dt.06.01.2010 of the State Govt.

465. Since the Kanungo Committee had recommended keeping in abeyance the up-valuation of assets, moratorium on debt servicing etc. till the sector as a whole turn-around and since the benefits of proposed investment by State Govt. and DISCOMs would be felt only after few years, the Commission have already advised the State Govt. to take the following steps vide their letter No.DIR (T)-344 / 2008 (Vol-III) - 4440 dated 19.7.2010.:
- (i) GRIDCO/OPTCL and OHPC would be entitled to depreciation on the assets prior to revaluation, calculated at pre-92 norms notified by Govt. of India, as per the direction of Hon'ble High Court of Orissa.
  - (ii) Moratorium on debt servicing by GRIDCO and OHPC to the State Govt. loans would be allowed till the power sector turns-around except the amount in respect of loan from the World Bank to the extent the State Govt. is required to pay to the Govt. of India.
  - (iii) GRIDCO & OHPC shall not be entitled to any RoE till the sector become viable on cash basis. The State Govt. investment actually made in Upper Indravati Project, excluding the normative equity, should yield return to the State Govt. with effect from FY 2010-11 after clearance of loan liabilities of PFC. However, interest at the rate of 7% should be charged and paid on this investment from FY 2006-07 onwards. Return on Equity on the old Hydro Power Plants may be allowed to OHPC, in respect of new projects commissioned after 01.04.1996.
466. The concessions/Govt. support, indicated above are subject to the following stipulations:
- i) The State owned utilities viz. OHPC, GRIDCO and OPTCL earning accounting/book profit are made to utilize the same for capital investment, servicing of Govt. loan and payment of dividend.
  - ii) The Private Distribution Companies are to service the State Govt. loan relating to World Bank and APDRP assistance passed on to them through an enforceable mechanism approved by OERC.
467. The Commission vide letter No.JT(FN)-175/5678 dtd.27.12.2010 requested the State Govt. to issue the amended notification as suggested above so that this would appropriately be reflected while determining the Annual Revenue Requirement of the distribution licensees for the year 2011-12. In the said letter it was also mentioned that in the absence of specific communication in this regard by 31.01.2011 the Commission would assume the extension of the benefit notified on 29.01.2003 and 06.5.2003 till the sector as a whole turns around.
468. In the meantime, the Department of Energy, Govt. of Orissa vide letter No.R&R-II-1/2011/1728 dtd.28.02.2011 endorsed the views of the Govt. on this aspect which is reproduced below:
- Keeping in Abeyance the Upvaluation of Assets, Moratorium of Debt Services etc.**
469. The suggestions of the Commission to keep the support of Govt. in the matter of keeping in abeyance the effect of upvaluation of assets of GRIDCO/OPTCL and OHPC, allowing the moratorium and debt services to the State Govt. till the sector turns around and not allowing ROE to GRIDCO/OPTCL and OHPC till the sector becomes viable on cash basis has not been agreed to by the Govt. in Finance

Department. However, steps have been taken on the other recommendations of the Hon'ble Commission and will be placed before the cabinet for approval.

470. Commission on this issue would like to observe that the entire power sector has not yet come out of the deficit situation on cash basis, on account of exorbitant rise in power purchase cost due to increase in fuel price and other statutory expenses such as employee cost. Further, the Commission feels that the effect of upvaluation has a cascading effect in increase in price of energy which ultimately would have to be borne by consumers through higher tariff. This issue has also been referred to Inter-Ministerial Committee formed by the State Govt. In view of above and in view of Kanungo Committee recommendation, the Commission again advises Govt. of Orissa to reconsider keeping in abeyance the effect of up-valuation till the sector is viable on cash basis.
471. Hence, Commission does not consider interest on State Govt. loan as a pass through in the revenue requirement of GRIDCO for the FY 2011-12.
472. With the above observation, interest liability for the FY 2011-12 proposed by GRIDCO and approved by Commission is depicted in the table below :

**Table – 66**

**(Rs. Crore)**

Sl. No.	Particulars	Rate of interest as on 31.12.10	2011-12	
			Interest due for the year as per the revised proposal of GRIDCO	Approval
<b>A. Existing Loan as on 01.4.2008</b>				
1	State Govt. (WLC)	13.00%	15.60	-
2	State Govt. (OPGC Adj.)	10.50%	4.47	-
3	NTPC (Govt. Bonds)	8.50%	70.31	70.31
4	Union Bank of India-I	8.25%	-	-
5	Union Bank of India-III	10.25%	2.81	2.81
7	Union Bank of India-IV	11.50%	4.66	4.66
8	Allahabad Bank-I	8.25%	-	-
9	Allahabad Bank-II	8.25%	1.06	1.06
10	Allahabad Bank-III	8.25%	0.72	0.72
11	Dena Bank-I	8.25%	-	-
12	Dena Bank-II	8.25%	2.11	2.11
13	Andhra Bank-I	10.25	1.11	1.11
14	Syndicate Bank	8.25%	0.45	0.45
15	Karnataka Bank	9.75%	-	-
16	OHPC (Rs.50 cr.)	8.50%	-	-
17	Pension Trust Bond	8.00%	9.07	-
18	NTPC (Rs.342.85 cr.)	10.00%	-	-
	<b>Sub Total</b>		<b>112.37</b>	<b>83.23</b>
<b>B. Loan availed during FY 2008-09 to meet the Revenue Deficit</b>				
19	Uco Bank-I (200 cr.)	10.50%	6.73	6.73
20	Uco Bank-II (100 cr.)	10.50%	5.08	5.08
	<b>Sub Total</b>		<b>11.81</b>	<b>11.81</b>
<b>C. New Loan availed during FY 2009-10 to meet the Revenue Deficit</b>				
21	Union Bank of India-V-100 cr.	10.25%	10.28	10.28
22	Union Bank of India-VI-200 cr.	10.25%	14.85	14.85
23	Andhra Bank-II-200 cr.	10.50%	16.85	16.85
24	Canara-I-100 cr.	10.75%	7.04	7.04
25	Canara-II-100 cr.	10.75%	8.17	8.17
26	Kalinga GB-50 cr.	10.50%	5.16	5.16
27	Kaur Vysya Bank-50 cr.	10.50%	5.19	5.19

Sl. No.	Particulars	Rate of interest as on 31.12.10	2011-12	
			Interest due for the year as per the revised proposal of GRIDCO	Approval
28	Karnataka Bank-II-100 cr.	10.00%	8.04	8.04
29	Uco Bank III- 100 cr.	10.00%	10.03	10.03
30	Uco Bank IV- 113.00 cr. (Sanctioned Rs.200 cr.)	10.00%	20.05	20.05
31	Dena Bank III- 100 cr.	10.00%	10.00	10.00
	<b>Sub Total</b>		<b>115.66</b>	<b>115.66</b>
<b>D New Loan availed during FY 2010-11 (upto January, 2011) to meet the Revenue Deficit</b>				
	Uco Bank IV-87 cr. (Sanctioned Rs.200 cr.)	10.00%	<b>Included in item 30</b>	<b>Included in item 30</b>
	Bank of India-I-100 cr.	10.00%	<b>10.03</b>	<b>10.03</b>
	Bank of India-II-200 cr.	10.00%	<b>20.05</b>	<b>20.05</b>
	Central Bank-I-100 cr.	10.00%	<b>10.03</b>	<b>10.03</b>
	Karur Vysya Bank-I-50 cr.	10.50%	<b>5.26</b>	<b>5.26</b>
	Canara Bank-III-200 cr.	9.9%	<b>19.85</b>	<b>19.85</b>
	Syndicate Bank-II-200 cr.	9.75%	<b>19.55</b>	<b>19.55</b>
	Allahbad Bank-IV-200 cr.	9.75%	<b>19.75</b>	<b>19.75</b>
	Union Bank-VII- 10 cr.	10.40%	-	-
	Proposed New Loan-600 cr.	10.00%	<b>60.00</b>	-
	<b>Sub Total</b>		<b>164.52</b>	<b>104.52</b>
<b>E</b>	<b>Finance &amp; Other Charges</b>			
	Interest on average over draft	10.00%	<b>17.50</b>	-
	Guarantee Commission	0.5%	<b>11.42</b>	<b>11.42</b>
	Proposed interest on securitized dues to OHPC	8%	<b>30.00</b>	-
	<b>Sub Total</b>		<b>58.92</b>	<b>11.42</b>
<b>F</b>	<b>Grand Total (A+B+C+D+E)</b>		<b>463.28</b>	<b>326.64</b>

### Special Appropriation

473. GRIDCO has proposed special appropriation of Rs.999.38 cr. during FY 2011-12 under the following heads.

**Table -67**

**(Rs. in Crore)**

Special appropriation towards power purchase and other costs upto 31-03-2008	298.48
Special appropriation for FY 2008-09 for Power Purchase and Other Costs	100.27
Regulatory Asset for FY 2009-10 for Power Purchase and Other Costs	169.63
<b>Sub Total</b>	<b>568.38</b>
Arrear Payment to OPGC	109.48
Arrear Payment to NTPC (in respect of TTPS)	321.52
<b>Total</b>	<b>999.38</b>

474. Regarding Special Appropriation towards power purchase and other costs upto 31-03-2008 GRIDCO has proposed Rs.298.48 cr. as a pass through in the ARR of 2011-12. On scrutiny of TRF-3 it is found that the above amount of Rs.298.48 cr. includes repayment liability of State Govt. loan, NTPC Bond, Pension Trust Bond and other loans, the break up of which are given below:

**Table -68****(Rs. in Crore)**

State Govt.	12.84
NTPC Bond	110.29
Pension Trust Bond	97.89
Union Bank of India III	14.29
Union Bank of India IV	16.67
Allahbad Bank II	10.72
Allahbad Bank III	7.14
Dena Bank II	11.52
Andhra Bank I	7.14
Syndicate Bank	9.99
<b>Total</b>	<b>298.48</b>

475. All the loans stated above are old loans as on 01.04.2008. Commission had given approval in their securitization order dtd.20.07.2006 and approved the repayment schedule, except loans from State Govt. and Pension Trust Bond, the details of which are given in table below:

**Table – 69****(Rs. Cr.)**

<b>Financial Year</b>	<b>Repayment approved for liquidation of power purchase dues</b>
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
<b>Total Repayment Amount</b>	<b>2693.17</b>

476. As seen from the above table during FY 2011-12, Commission had approved an amount of Rs.146.82 cr. towards repayment of loan. In line with the order, Commission allows Rs.146.82 cr. of loan repayment towards special appropriation as against an amount of Rs.298.48 cr. claimed by the licensee.
477. Regarding special appropriation for FY 2008-09 for Power Purchase and Other Costs amounting Rs.100.27 cr. claimed by GRIDCO, Commission finds that GRIDCO during 2008-09 availed a loan of Rs.300 cr. from Uco Bank to meet the deficit in cash flow of GRIDCO. The repayment due for such loan pertaining to 2011-12 is Rs.100.27 cr. Commission in para 463 of the BSP order 2010-11 has given approval to the above loan and allowed the repayment of loan in the ARR of 2010-11. In line with the earlier orders, Commission allows Rs.100.27 cr. towards special appropriation for FY 2011-12.
478. GRIDCO in para 9.01 of the filing requested the Commission to allow Rs.174.69 cr. towards special appropriation and special appropriation of past liability towards



power purchase cost of FY 2009-10 as against the regulatory asset of Rs.1414.31 cr. To bridge the cash deficit of Rs.1414.31 cr. upto 31.03.2010, GRIDCO has availed Rs.1213.00 cr. term loan from different Commercial Banks, during FY 2009-10 and the balance in FY 2010-11. In order to amortize the above amounts of regulatory asset over a period of six year as stipulated by the Hon'ble Commission, GRIDCO proposes to the Hon'ble Commission that the cash deficit of FY 2009-10 managed by availing loans may be approved and allowed in tariff orders in addition to other costs and regulatory assets as mentioned below:

**Table - 70**  
**(Rs. in Cr.)**

<b>Year</b>	<b>Loan Repayment</b>
FY 2010-11	99.92
FY 2011-12	174.69
FY 2012-13	325.75
FY 2013-14	328.71
FY 2014-15	284.71
FY 2015-16	200.53
<b>Total</b>	<b>1414.31</b>

In the same para GRIDCO pointed out that although actual repayment for the FY 2010-11 amounts to Rs.104.98 cr., Commission had allowed Rs.99.92 cr. towards repayment of principal for FY 2010-11. Taking into consideration the shortfall of Rs.5.06 cr. (Rs.104.98-Rs.99.92) for FY 2010-11 and repayment due of Rs.169.63 cr. for 2011-12 GRIDCO request the Commission to allow Rs.174.69 cr (Rs.169.63 + Rs.5.06) as special appropriation.

479. Commission in above para recognized the regulatory asset of Rs.1414.31 cr. and allowed amortization of the same over a period of six years. Hence, Commission approves the amount of Rs.174.69 cr. towards special appropriation for FY 2011-12.

**Arrear payment to OHPC:**

480. GRIDCO in its submission stated that OHPC has been insisting on payment of outstanding dues towards power purchase and has requested for securitisation of the same. As GRIDCO is not in a position to pay the dues of OHPC, it has agreed for securitizing/ converting the outstanding dues for an amount of Rs.250.00 crore out of the total dues of about Rs.300.00 crore. As per the arrangement agreed with OHPC the amount of Rs. 250.00 crore will carry interest @ 8% per annum payable monthly with effect from 01-10-2010 subject to approval of Hon'ble Commission in the ARR of GRIDCO. The principal will be payable after a moratorium period of three years and over a period of seven year by way of 83 equal monthly installment of Rs. 3.00 crore each and the last installment of Rs. 1.00 crore.
481. GRIDCO requests Commission to approve the securitization/conversion of outstanding energy dues of OHPC for Rs. 250.00 crore and allow interest for the period from 01-10-2010 to 31-03-2012 amounting to Rs. 30.00 crore.
482. In this regard Commission is of the opinion that GRIDCO may file detailed document separately with the Commission for scrutiny, only after which Commission will pass necessary orders. For the present the interest of Rs.30.00 cr. proposed by GRIDCO is disallowed in the ARR for the FY 2011-12.

**Arrear Payment to OPGC:**

483. Pursuant to the settlement approved by the State Government, GRIDCO will execute agreement amending the PPA and Tripartite Agreement, which shall be submitted to the Commission for approval. In line with the said settlement, GRIDCO will be liable to pay Rs.109.48 Crore to OPGC towards arrear dues, at the end of the F.Y. 2008-09, which were held up because of the dispute with regard to the tariff norms applicable for procurement of power from OPGC. Detail year-wise statements along with the abstract of receivables of OPGC are enclosed as Annexure-III herewith for reference. For the last two financial year, the Commission's observations have been that the arrear dues of OPGC shall be considered after approval of the amended PPA. However, it is to place before the Commission now that the draft amendment of the PPA & the Tripartite Agreement have been finalized and forwarded to the State Government for their approval. Once the approval from the Government is received, the agreement will be signed and the amended PPA shall be filed jointly by OPGC & GRIDCO before the Commission for their consent/ approval. GRIDCO, therefore, submits to the Commission that subject to the approval of the Amended Agreements by the Commission, the arrear power purchase dues amounting to Rs.109.48 Crore may be allowed in the ARR during the FY 2011-12 as Pass Through. OPGC is insisting on payment of the above amount to be utilized for 3<sup>rd</sup> and 4<sup>th</sup> units.
484. In this connection Commission is of the view that dues of OPGC will be considered after approval of amended agreement. Hence, the amount claimed by GRIDCO is not allowed as a pass through in the ARR at present.

**Arrear payment to NTPC in respect of TTPS:**

485. In addition to the projected power procurement cost, GRIDCO has to pay NTPC the differential amount arising out of the difference in the fixed costs for the period from 2004-05 to 2009-10, as per filing of petition (No. 184/ 2009 & 304/ 2009) before CERC by NTPC and the present billing. It is expected that the pending petitions are to be disposed by CERC soon and as such GRIDCO now submits that the said differential amount (Rs.321.52 Cr) may please be allowed as a pass-through expense for the year 2011-12. A table showing year-wise differential amounts, which is supposed to be paid by GRIDCO to NTPC, is given below:

**Table- 71**  
**F.C Arrears of TTPS (NTPC)**

<b>Description</b>	<b>2004-05</b>	<b>2005-06</b>	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>	<b>2009-10</b>	<b>2010-11</b>	<b>Total</b>
F.C. Billed by NTPC (Rs. Cr.)	186.87	193.38	195.73	199.38	200.88	200.88	200.88	<b>1378.00</b>
F.C due by NTPC as per filling before CERC (Rs. Cr.)	188.35	195.67	198.69	207.67	217.39	338.57	353.18	<b>1699.52</b>
Differential amount to be paid by GRIDCO to NTPC (Rs. Cr.)	1.48	2.29	2.96	8.29	16.51	137.69	152.30	<b>321.52</b>

In this connection, Commission is of the view that the differential amount claimed by GRIDCO shall be considered as a pass through only after CERC passes order on the petition of NTPC. Pending such decision the amount claimed by GRIDCO is not allowed as a pass through expenses for the year 2011-12.

**Excess payment made towards FPA for NTPC Stations**

486. GRIDCO in its additional submission on 28.01.2011 stated that OERC in order dtd. 01.01.2011 in case No.156, 157 & 158 of 2010 directed GRIDCO to raise the issue of FPA charges from January, 2010 till date including detailed calculation considering price of coal and oil, GCV of coal and oil through additional filing before the ensuing tariff proceeding and not to raise the bills against DISCOMs any further. Accordingly, GRIDCO submitted the FPA charge incurred by it with detailed calculation considering the price of coal and oil, GCV of coal and oil from January, 2010 to December, 2010. Based on the above calculation the summary of excess payment made towards FPA for NTPC stations (NTPC-ER and NTPC-TTSPS drawal) over and above the FPA approved in the ARR by Commission for the period from January, 2010 to December, 2010 which works out to Rs.321.89 cr. for drawal of 9564.087 MU of energy as shown in table below:

**Table- 72**

Month	Units billed by the Generator (ESO) i.e. drawal by GRIDCO	FPA claimed by the generator	FPA claimed by the generators i.e. actual FPA paid by GRIDCO	FPA calculated on ESO as per OERC approval	Excess/Less payment made by GRIDCO over and above OERC approval
	(Qn)	(Pbn)	(Pbn x Qn)	(Pn x Qn)	(PbnQn – PnQn)
	(MU)	(P/u)	(Rs.Cr.)	(Rs. Cr.)	(Rs. Cr.)
TTPS	3327.68	49.58	164.98	147.47	17.51
TSTPS-I	2254.17	109.22	246.20	148.48	97.72
TSTPS-II	1537.70	91.45	140.62	72.16	68.46
FSTPS	1524.93	176.18	268.67	157.56	111.11
KhSTPS-I	782.05	94.49	73.90	50.21	23.69
KhSTPS-II	137.56	71.06	9.77	6.38	3.40
<b>Total</b>	<b>9564.09</b>	<b>94.54</b>	<b>904.15</b>	<b>582.26</b>	<b>321.89</b>

From the above table it is observed that GRIDCO has actually paid Rs.904.15 cr. towards FPA as against the approved amount of Rs.582.26 cr. From the detailed month-wise bills attached, it is found that the period of bill is from January, 2010 to December, 2010. The bill figure for the Month of January, February & March, 2010 is already accounted for in the audited figure for the FY 2009-10. The truing up exercise has already undertaken upto the FY 2009-10, for which Commission has allowed the regulatory asset to be amortised over a period of six years and accordingly made necessary provision in the ARR for the FY 2011-12. Therefore, it will be proper to exclude the differential billing amount for January, February and March, 2010 which works out to Rs.88.22 cr. for calculation of FPA. Therefore, the differential amount of FPA from April, 2010 to December, 2010 of the FY 2010-11 works out to Rs.233.67

cr. (Rs.321.89-Rs.88.22). Prorating the same for a period of 12 months of the FY 2010-11 Commission approves an amount of Rs.311.56 cr. towards excess payment made by GRIDCO on FPA.

487. In view of the above, Commission allows the following amount towards special appropriation for past liabilities towards power purchase and other cost.

**Table - 73**

(Rs. in Cr.)

	<b>Proposed by GRIDCO</b>	<b>Approved by Commission</b>
Special appropriation towards power purchase and other costs upto 31-03-2008	298.48	146.82
Special appropriation for FY 2008-09 for Power Purchase and Other Costs	100.27	100.27
Regulatory Asset for FY 2009-10 for Power Purchase and Other Costs	169.63	174.69
<b>Sub Total</b>	<b>568.38</b>	<b>421.78</b>
Arrear Payment to OPGC	109.48	-
Arrear Payment to NTPC (in respect of TTPS)	321.52	-
<b>Total</b>	<b>999.38</b>	<b>421.78</b>
Excess payment made towards FPA for NTPC Station	<b>321.89</b> <b>(additional submission)</b>	<b>311.56</b>

**License fee for use of water for generation of Electricity:**

488. As per the gazette notification dt.01.10.2010 OHPC has to pay Rs.0.01/kwh as license fee on water used for generation of electricity from all Hydro Electric Projects to the tune of Rs.5.676 cr. is to be reimbursed to OHPC by GRIDCO, based on design energy. The details of payment is summarized in the table below:

**Table - 74**

(Rs. Cr.)

<b>Description</b>	<b>RHEP</b>	<b>UKHEP</b>	<b>BHEP</b>	<b>HHEP</b>	<b>CHEP</b>	<b>UIHEP</b>	<b>Total</b>
License fee for consumption of water for generation of electricity	0.525	0.838	1.183	0.684	0.49	1.962	5.676

Since, the above calculation is based on design energy of Hydro Projects, the actual generation from OHPC Power Stations may be considered for reimbursement of licence fee paid to Govt. of Orissa from GRIDCO. OHPC has proposed for approval of the above expenses.

Accordingly, the Commission has examined the proposal of OHPC and approves the reimbursement of license fee for use of water for generation of electricity based on the actual generation from OHPC power stations @Rs.0.01 per Kwh.

**Electricity Duty on Auxiliary Consumption**

489. 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 raised by OHPC. GRIDCO will make payment accordingly within 30 days of receipt of bills.

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 by GRIDCO through separate billing. The Commission approves the same.

### ARR & Tariff Application Fees and related Publication Expenses

490. 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.0.27 cr. from GRIDCO towards ARR and tariff application fees and related publication expenses. The Commission approves the said amount of Rs.0.27 cr. as pass through in the ARR of GRIDCO.

### SLDC Charges

491. The Commission, while determining the ARR and Fees & Charges of SLDC for the FY 2011-12 in Case No. 150/2010, 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 8688.81/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.1.76.cr. for the FY 2011-12, 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.1.76cr. as pass through in the ARR of GRIDCO for the FY 2011-12 towards power purchase related cost of OHPC.

The details of ED on auxiliary consumption, license fee for use of water for generation of electricity and SLDC charges for FY 2011-12 of OHPC are summarized in the table below:

**Table - 75**

(Rs. Cr.)

Component of Costs	RHEP	UKHEP	BHEP	HHEP	CHEP	UIHEP	Total
ED on Auxiliary Consumption	0.05	0.08	0.12	0.07	0.05	0.20	<b>0.57</b>
License fee for use of water for generation of electricity	0.525	0.832	1.183	0.684	0.49	1.962	<b>5.676</b>
Application fees and publication expenses							<b>0.27</b>
SLDC charges for the FY 2011-12							<b>1.76</b>
<b>Total</b>							<b>8.276 or 8.28</b>

### Truing up for GRIDCO

492. In the last tariff order, Commission had undertaken truing up exercise of GRIDCO upto FY 2008-09 based on the audited accounts. Now audited accounts upto FY 2009-10 is available. A table showing truing up exercise upto FY 2009-10 is depicted below.

Table – 76

(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	118.57	-158.20
2009-10	<b>-1006.67</b>	<b>348.83</b>	<b>-657.84</b>	<b>-882.85</b>	<b>-1540.69</b>	<b>-1698.89</b>

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

- Power Purchase cost is allowed on actual basis.
- Employees cost is allowed on actual basis
- R&M cost is allowed on actual basis.
- A&G cost is allowed as per actuals subject to the limit approved in the ARR.
- Interest on loan amount is allowed on actual basis except interest on loan from State Govt.
- 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.
- 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.

494. The above table on truing up exercise reveals that GRIDCO at the end of FY 2009-10 landed in a deficit gap of Rs.1698.89 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 ARR of different years vis-a-vis actual amount paid by DISCOMs are shown in table below:

Table – 77

		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

		WESCO	NESCO	SOUTHCO	CESU	Total
	2009-10	0.00	0.00	19.00	151.00	170.00
	<b>Total:</b>	<b>110.49</b>	<b>147.72</b>	<b>82.82</b>	<b>312.23</b>	<b>653.26</b>
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
	2009-10	2.00	0.00	9.69	80.50	92.19
	<b>Total:</b>	<b>58.40</b>	<b>198.14</b>	<b>25.08</b>	<b>112.97</b>	<b>394.59</b>
	Default (B-A)	(-52.09)	+.50.42	(-)57.74	(-)199.26	(-)258.67

495. Considering the above default amount of Rs.258.67 core, the net deficit would be Rs.1957.56 crore (Rs.1698.89 cr. + Rs.258.67 cr.) by the end of FY 2009-10. The Commission had already recognised an amount of Rs.1414.31 cr towards regulatory asset as mentioned in above para and allowed amortization over a period of six years.
496. As regards receivable audit Commission has passed the order on 14.01.2011 and passed the following directions:
- i. The Commission decides in-principle to consider the following receivable as bad debt completely:
    - (a) Receivables of all LD/permanently disconnected consumers.
    - (b) Receivables of ghost consumers
  - ii. Licensees are directed to furnish consumer-wise list of all LD, PDC and ghost consumers in a soft copy along with hard copy duly certified by concerned SDOs and respective auditors.
  - iii. The list should be submitted to the Commission on or before 28.02.2011.
  - iv. The final truing up exercise in respect of bad debt shall be carried out after the licensees submit the data within the scheduled date as stated above.
497. The DISCOMs have not yet submitted the relevant document certified by the auditors yet. Hence Commission will consider the amount of bad debt to be given effect in truing up exercise after it is received from the concerned DISCOMs. For the present, Commission considers the truing up exercise as provisional.

### **Return on Equity**

498. For the FY 2011-12 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%. GRIDCO, submitted that GoO Notification dtd.06.01.2010 regarding RoE is not applicable for FY 2011-12, hence Commission may allow RoE as per National Tariff Policy and OERC Tariff Regulation. In this connection, Commission would like to observe the following:

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

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

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

- (viii) *Both GRIDCO/OPTCL and OHPC would be entitled to depreciation on the revalued (pre-92) assets.*
- (ix) *Both GRIDCO/OPTCL and OHPC shall repay the principal amount of the loan amount actually taken from the State Government along with the interest as per the terms and condition of loan other than those attributable to the revaluation of assets.*
- (x) *The State Government investment actually made in Upper Indravati project, excluding the normative equity, should yield return to the State Government with effect from FY 2010-11 after clearance of loan liabilities of PFC. However, interest at the rate of 7% should be charged and paid on this investment from FY 2006-07 onwards.*
- (xi) *Returns on equity on the old Hydro Power Plants may be allowed to OHPC, in respect of new projects commissioned after 01.4.1996”.*
499. Since there was some omissions and commissions and addition of new stipulations in the notification dtd.06.01.2010, in deviation of the notification dt.29.01.2003 read with notification dt.06.05.2003, the Commission in their letter no.3235 dtd.27.01.2010 has suggested for amendment of the notification dt.06.01.2010 of the State Govt.
500. Since the Kanungo Committee had recommended keeping in abeyance the up-valuation of assets, moratorium on debt servicing etc. till the sector as a whole turn-around and since the benefits of proposed investment by State Govt. and DISCOMs would be felt only after few years, the Commission have already advised the State Govt. to take the following steps vide their letter No.DIR(T)-344 / 2008 (Vol-III) - 4440 dated 19.7.2010.:
- (i) GRIDCO/OPTCL and OHPC would be entitled to depreciation on the assets prior to revaluation, calculated at pre-92 norms notified by Govt. of India, as per the direction of Hon’ble High Court of Orissa.
- (ii) Moratorium on debt servicing by GRIDCO and OHPC to the State Govt. would be allowed till the power sector turns-around except the amount in respect of loan from the World Bank to the extent the State Govt. is required to pay to the Govt. of India.
- (iii) **GRIDCO & OHPC shall not be entitled to any RoE till the sector become viable on cash basis. The State Govt. investment actually made in Upper Indravati Project, excluding the normative equity, should yield return to the State Govt. with effect from FY 2010-11 after clearance of loan liabilities of PFC. However, interest at the rate of 7% should be charged and paid on this investment from FY 2006-07 onwards. Return on Equity on the old Hydro Power Plants may be allowed to OHPC, in respect of new projects commissioned after 01.04.1996.**
501. The above concessions/Govt. support, indicated above are subject to the following stipulations:
- i) The State owned utilities viz. OHPC, GRIDCO and OPTCL earning accounting/book profit are made to utilize the same for capital investment, servicing of Govt. loan and payment of dividend.



- ii) The Private Distribution Companies are to service the State Govt. loan relating to World Bank and APDRP assistance passed on to them through an enforceable mechanism approved by OERC.
502. The Commission vide letter No.JT(FN)-175/5678 dtd.27.12.2010 requested the State Govt. to issue the amended notification as suggested above so that this would be appropriately reflected while determining the Annual Revenue Requirement of the distribution licensees for the year 2011-12. In the said letter it was also mentioned that in the absence of specific communication in this regard by 31.01.2011 the Commission would assume the extension of the benefit notified on 29.01.2003 and 06.5.2003 till the sector as a whole turns around.
503. In the meantime, the Department of Energy, Govt. of Orissa vide letter No.R&R-II-1/2011/1728 dtd.28.02.2011 endorsed the views of the Govt. on this aspect which is reproduced below:

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

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

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

Keeping in view of the above, Commission does not consider allowing return on equity to GRIDCO for the FY 2011-12.

#### **Miscellaneous Receipt**

505. GRIDCO during FY 2011-12 expects to earn an amount of Rs.5.10 cr. (at the existing approved tariff) from proposed sale of 10 MU emergency power to long term customers like NALCO and ICCL as per MU signed with these entities. The Commission in its Retail Supply Tariff order for the FY 2011-12 has fixed the rate of 6.40 p/u for emergency power to long term customers like NALCO and ICCL etc. at a proposed sale of 100 MU. Accordingly, the total earning of GRIDCO on this account comes to Rs.64.00 cr. and Commission approves the same for the FY 2011-12.

#### **Receivables from DISCOMs**

506. GRIDCO in its filing submitted that during the current financial year the DISCOMs have not paid any amount towards arrear dues as directed by Hon’ble Commission in the BSP order dtd.20.03.2010 (Para No.486). The Commission has also directed DISCOMs in different tariff orders for payment of arrear dues by DISCOMs to

GRIDCO, which have not been complied by all DISCOMs. Since, the amounts are considered in ARR of GRIDCO, the non-payment by DISCOMs has affected the finance of GRIDCO. The following table as filed by the GRIDCO indicates detailed position of arrear approved in ARR of different years vis-a-vis actual amount paid by DISCOMs

**Table - 78**

		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
	2009-10	0.00	0.00	19.00	151.00	170.00
	<b>Total:</b>	<b>110.49</b>	<b>147.72</b>	<b>82.82</b>	<b>312.23</b>	<b>653.26</b>
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
	2009-10	2.00	0.00	9.69	80.50	92.19
	<b>Total:</b>	<b>58.40</b>	<b>198.14</b>	<b>25.08</b>	<b>112.97</b>	<b>394.59</b>
	Default (B-A)	(-52.09)	.+50.42	(-)57.74	(-)199.26	(-)258.67

507. In this regard the Commission observes that regarding securitization of outstanding dues the Commission in their Business Plan order dtd.20.7.2006 and in securitization order dated 01.12.2008 finalised the securitized amount as on 31.3.2005. The Commission considered this date as cut-off date since after such period the DISCOMs started paying 100% of current BST bill to GRIDCO in full without any default.
508. The securitization order of the Commission dtd.01.12.2008 finalized the following amounts as on 31.3.2005 to be discharged by the respective DISCOMs to GRIDCO in 120 monthly (maximum) equal installments starting from FY 2006-2007 and ending in 2015-16. This is shown in the table below:

**Table - 79**

(Rs. in crore)

A. Loan Balance	WESCO	NESCO	SOUTHCO	CESU
Principal	138.46	94.64	134.36	307.61
Interest	60.31	41.05	58.43	162.86
Sub-total (A)	198.77	135.69	192.79	470.47
<b>B. Outstanding BST dues with DPS</b>				
Opening balance as on 01.04.99	46.18	41.66	26.50	80.16
Arrear from 01.04.99 to 31.03.05	118.41	194.83	47.19	605.20
DPS on above	58.72	87.20	32.02	526.41
Sub-total (B)	223.31	323.69	105.71	1211.77
<b>Grand Total (A+B)</b>	<b>422.08</b>	<b>459.38</b>	<b>298.50</b>	<b>1682.24</b>

509. From the year 2006-07 to 2009-10, Commission in their RST order have determined the amounts over and above the current BST bills to be adjusted against the securitization of BST dues. Since the starting year of securitization is from the FY 2006-07, any excess amount paid by DISCOMs over and above 100% BST bill during 2005-06 and before shall be adjusted fully towards amortization of principals and

interests of NTPC Bond. A statement showing the amount approved by the Commission in the ARR from 2006-07 to 2009-10 and the amount paid by the licensee over and above the 100% current BST bills, adjustment against the securitized amount, adjustment against NTPC Bond and balance default amount is given in Table below.

**Table – 80**

		<b>WESCO</b>	<b>NESCO</b>	<b>SOUTHCO</b>	<b>CESU</b>	<b>Total</b>
<b>A.</b>	<b>Amount approved by Commission</b>					
	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
	2009-10	0.00	0.00	19.00	151.00	170.00
	<b>Total:</b>	<b>110.49</b>	<b>147.72</b>	<b>82.82</b>	<b>312.23</b>	<b>653.26</b>
<b>B.</b>	<b>Amount paid by DISCOMs (C+D)</b>					
	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
	2009-10	2.00	0.00	9.69	80.50	92.19
	<b>Total:</b>	<b>58.40</b>	<b>198.14</b>	<b>25.08</b>	<b>112.97</b>	<b>394.59</b>
<b>C.</b>	<b>Amount to be adjusted against securitized dues</b>					
	2006-07	36.83	41.36	-	-	78.19
	2007-08	4.40	41.36	9.53	-	55.29
	2008-09	-	65.00	5.86	32.47	103.33
	2009-10	2.00	-	9.69	80.50	92.19
	<b>Total</b>	<b>43.23</b>	<b>147.72</b>	<b>25.08</b>	<b>112.97</b>	<b>329.00</b>
<b>D.</b>	<b>Amount to be adjusted against NTPC Bond</b>					
	2006-07	<b>15.17</b>	<b>18.48</b>	-	-	<b>33.65</b>
	2007-08	-	<b>16.22</b>	-	-	<b>16.22</b>
	2008-09	-	<b>15.72</b>	-	-	<b>15.72</b>
	2009-10	-	-	-	-	-
	<b>Total</b>	<b>15.17</b>	<b>50.42</b>	-	-	<b>65.59</b>
<b>E.</b>	<b>Default (A-C) in securitization amount</b>					
	<b>2006-07</b>	<b>0.00</b>	<b>0.00</b>	<b>31.91</b>	<b>0.00</b>	<b>31.91</b>
	<b>2007-08</b>	<b>32.43</b>	<b>0.00</b>	<b>22.38</b>	<b>43.23</b>	<b>98.04</b>
	<b>2008-09</b>	<b>36.83</b>	<b>0.00</b>	<b>(-) 5.86</b>	<b>85.53</b>	<b>116.50</b>
	<b>2009-10</b>	<b>(-) 2.00</b>	<b>0.00</b>	<b>9.31</b>	<b>70.50</b>	<b>77.81</b>
	<b>Total</b>	<b>67.26</b>	<b>0.00</b>	<b>57.74</b>	<b>199.26</b>	<b>324.26</b>

- (i) As revealed from the table above, except NESCO, all the three DISCOMs have not complied with the direction of the Commission on payment of outstanding dues mentioned in tariff orders of different years. These outstanding amount approved by the Commission in different tariff orders are to be adjusted against the total outstanding dues mentioned in para 20 of the securitisation order of 01.12.2008. Commission, therefore, directs the defaulting DISCOMs to ensure payment of outstanding dues that falls short of the amount approved by the Commission in different years by the end of

2011-12 by taking systematic steps to collect the arrears outstanding as on 01.04.2010 and as on 01.04.2011.

- (ii) Over and above the amount paid by the DISCOMs as mentioned in the above table, the following amounts resulting to downward revision in BST in 2007-08 as computed by GRIDCO are to be adjusted against securitized dues.

**Table - 81**

**(Rs. Crore)**

WESCO	88.31
NESCO	3.32
SOUTHCO	11.07
CESU	93.37
<b>Total</b>	<b>196.07</b>

- (iii) Taking into consideration of the above amount a table showing dues as per OERC Order dtd. 01.12.2008 payment and adjustment made upto 31.03.2010 and balance amount outstanding as on 31.03.2010 is depicted below:

**Table - 82**

Sl. No.	Particulars	WESCO	NESCO	SOUTHCO	REL Total	CESU	Grand Total
<b>1.</b>	<b>BST</b>						
	OB 01.04.1999	46.18	41.66	26.50	<b>114.34</b>	80.16	<b>194.50</b>
	From 01.04.1999 to 31.03.2005	118.41	194.83	47.19	<b>360.43</b>	605.20	<b>965.63</b>
	<b>Sub-Total</b>	<b>164.59</b>	<b>236.49</b>	<b>73.69</b>	<b>474.77</b>	<b>685.36</b>	<b>1160.13</b>
<b>2.</b>	<b>DPS on Above</b>	<b>58.72</b>	<b>87.20</b>	<b>32.02</b>	<b>177.94</b>	<b>526.41</b>	<b>704.35</b>
<b>3.</b>	<b>Loan</b>						
	Principal	138.46	94.64	134.36	<b>367.46</b>	307.61	<b>675.07</b>
	Interest	60.31	41.05	58.43	<b>159.79</b>	162.86	<b>322.65</b>
	<b>Sub-total</b>	<b>198.77</b>	<b>135.69</b>	<b>192.79</b>	<b>527.25</b>	<b>470.47</b>	<b>997.72</b>
<b>4.</b>	<b>Outstanding as on 31.03.2005 vide OERC Order dtd. 01.12.2008 (1+2+3)</b>	<b>422.08</b>	<b>459.38</b>	<b>298.50</b>	<b>1179.96</b>	<b>1682.24</b>	<b>2862.20</b>
<b>5.</b>	Downward revision of BST in 2007-08 adjusted against securitized dues	88.31	3.32	11.07	102.7	93.37	196.07
<b>6.</b>	Payment by DISCOMs over and above the current BST from 2006-07 to 2009-10	43.23	147.72	25.08	216.03	112.97	329.00
<b>(i)</b>	2006-07	36.83	41.36	-	78.19	-	78.19
<b>(ii)</b>	2007-08	4.40	41.36	9.53	55.29	-	55.29
<b>(iii)</b>	2008-09	-	65.00	5.86	70.86	32.47	103.33
<b>(iv)</b>	2009-10	2.00	-	9.69	11.69	80.50	92.19
<b>7.</b>	<b>Sub-Total (5 +6)</b>	<b>131.54</b>	<b>151.04</b>	<b>36.15</b>	<b>318.73</b>	<b>206.34</b>	<b>525.07</b>
<b>8.</b>	<b>Balance (4-7)</b>	<b>290.54</b>	<b>308.34</b>	<b>262.35</b>	<b>861.23</b>	<b>1475.90</b>	<b>2337.13</b>

- (iv) Therefore, the Commission reiterates that directions given vide order dtd.01.12.2008 relating to securitization of receivables of GRIDCO as on 31.03.2005 must be scrupulously followed by the DISCOMs.
- (v) As regards re-securitization of NTPC Bond the final decision will be taken after the pronouncement of the judgment of Hon'ble Supreme Court of India in this matter vide CA No. 759/2007 and taking into account the recommendation of the Inter-Ministerial Committee.

**Re-securitisation of NTPC Power Bonds.**

- 510. WESCO, NESCO and SOUTHCO in their filing have submitted to allow the differential interest (12.5% p.a - 8.5% p.a) of Rs.13.64, Rs.32.80 and Rs 30.68 Crores respectively on the bond amount from 1<sup>st</sup> October 2000 to 31<sup>st</sup> March 2007 in the ARR of FY 2011-12.
- 511. WESCO, NESCO & SOUTHCO in their filing have submitted that the matter of power bond has been taken up by the Commission in the RST appeal for FY 2006-07 filed (759 of 2007) before the Hon'ble Supreme Court. They have further submitted that GRIDCO may be directed to realize the settlement amount from the DISCOMs only after adjustment of past payment as per Bond subscription Agreement and directions of the Commission in this regard. As the Bonds were issued on behalf of GRIDCO to securitize the NTPC dues, after settlement of bond dues, GRIDCO should not be allowed to profiteer at the cost of consumer of Orissa. The licensees have submitted that the dispute on power bond between the licensees can be settled by the Commission since it has sole jurisdiction to be decided on the dispute under provisions of Electricity act, 2003 and OER Act, 1995. Further Hon'ble ATE while disposing the appeal no. 52, 53 & 54 of 2007 filed by WESCO, NESCO & SOUTHCO, directed for recovery of actual interest i.e @12.5%. The licensees have accordingly filed to allow the differential interest between 12.5% p.a and 8.5% p.a on the bond amount from 1<sup>st</sup> October, 2000 to March, 2007 in the ARR for FY 2011-12.
- 512. The Hon'ble ATE in appeal No. 52, 53 and 54 of 2007 filed by WESCO, NESCO and SOUTHCO aggrieved over the approval of their ARR and for determination of Retail Supply Tariff in respect of FY 2007-08 have pronounced following judgement dated 8<sup>th</sup> November, 2010 with regard to issue of interest on NTPC Bonds. The extract of the same judgement is reproduced below:

*“37. Our findings are summarized as under*

- (i) *The first issue is interest on NTPC bonds. The Appellants issued bonds worth Rs.400 crores in favour of GRIDCO to be assigned to NTPC in terms of the Minutes of Tripartite Meeting dated 24.10.2000 at an interest rate of 12.5% to scrutinize the outstanding payments to NTPC. Subsequently, in September, 2001, Government of India announced the Scheme of One Time Settlement of dues of Central PSUs wherein tax free bonds were to be issued to Central PSUs on relaxed terms and carrying an interest of only 8.5% while GRIDCO securitized its own outstandings to NTPC under the One Time Settlement Scheme of Government of India at an interest rate of 8.5% and also subsequently finally settled the outstandings by one time cash payment, the Bonds issued by the Appellants continued to carry interest of 12.5%. The State Commission took the matter with Government of Orissa seeking its views and decision on securitization of bonds of Rs.400 cr. of the Appellants under One*

*Time Settlement Scheme. There is however no response from Government of Orissa. Only GRIDCO informed that their negotiation with NTPC on the issue are still underway. In spite of the fact that GRIDCO has been charging interest @12.5% from the Appellants for last many years the State Commission has been allowing interest rate of 8.5% on NTPC bonds in the ARR of the Appellants. In the impugned Order also interest rate of 8.5% has been allowed. This Tribunal in its Judgement dated 13.12.2006 relating to the FY 2006-07 decided this issue in favour of the Appellants and directed the State Commission to allow interest @12.5% on NTPC bonds in the ARR of the Appellants as a pass through. We are of the view that whatever interest cost is paid by the Appellants to GRIDCO should be allowed as pass through in the ARR of the Appellants. This point is decided in favour of the Appellants.”*

513. The Commission has taken note of the observation made by the Hon’ble ATE in the said order while approving the ARR of Licensee for FY 2011-12. The Commission in this regard have preferred Civil Appeal against the above judgement of the Hon’ble ATE before the Hon’ble Supreme Court in the appeal, CA no. D 4688 of 2011.

514. The Commission has dealt this issue in the tariff order for FY 2009-10, the relevant extract of which is quoted below:

*“In this regard the Commission has dealt extensively in earlier RST order for FY 2008-09 in para 379 to 391. A final decision in the matter will be taken after the pronouncement of the judgement by Hon’ble Supreme Court of India in this matter vide CA No. 759/2007. As such, the Commission does not consider any interest towards the same for the FY 2009-10.”*

515. In view of the case being sub-judice in the Hon’ble Supreme Court in CA No.759/2007 and CA no. D 4688 of 2011, Commission has not considered any interest towards re-securitisation of NTPC Power Bonds for FY 2011-12. Further since the inter-ministerial committee constituted vide Govt of Orissa notification no. PPD-TH-14/10/ 933 dated 06/02/2010 in seized of the issue and at present the three DISCOMs are not paying any interest to GRIDCO on NTPC Bond, therefore there is no need to burden the consumers on this account, until a final settlement is made between GRIDCO and Reliance Managed DISCOMs.

516. However Commission in their Business plan order dated 20.03.2010 has given the following direction with regard to NTPC bond. The relevant extract of the said order is reproduced below:

*“70. Commission find that, WESCO, NESCO and SOUTHCO, in their audited accounts for the year 2006-07 and 2007-08 have not shown any liability towards the Bond, which were earlier appearing in the audited accounts upto FY 2005-06. In this connection the comments of the Auditor SRB Associates, Chartered Accountant for the FY 2006-07 is mentioned below:*

*“Refer to Note no. B.10 of Schedule – 20 for redemption of power Bond made during the year. GRIDCO has not agreed to the payment / adjustment effected by the Company in respect of Power Bonds on the ground that redemption of Power Bonds by way of adjustment is not in terms of the Subscription Agreement dated 25<sup>th</sup> September, 2001 and Bond Certificates. Resultantly, there is over/under statement of “Payable/Receivable – Bond and other Adjustment with GRIDCO” to that extent.”*

*Therefore, Commission is of the opinion that since the matter is sub-judice in the Apex Court. WESCO, NESCO and SOUTHCO are directed to reflect the same in their audited accounts, till the case is finalized.”*

517. Further Commission in para 85 of the Business Plan order (sub para iii, iv and vi) have given the following directions

- iii) *GRIDCO should take steps to allow the DISCOMs (WESCO, NESCO and SOUTHCO) to create, first charge over the immovable asset as security to REC / PFC on the assets added after 31.3.2001. This works out to Rs.413.23 cr. Upto 31.3.2008excluding assets created out of World Bank loan (Rs.532.04 cr – Rs.118.81 cr).*
- iv) *Both GRIDCO and DISCOMs shall mutually identify the assets created after 31.03.2001 for Rs.413.23 crore upto 31.3.2008 that are to be hypothecated against the loan to be availed from the financial institutions such as REC & PFC. The assets created during 2008-09 and that may be created thereafter can also be hypothecated.*
- vi) *The Reliance managed DISCOMs are directed to make provision for the GRIDCO power Bond of Rs.400 crore in their Balance sheet till the matter is decided by Supreme Court (Para – 70).*

518. Pending the decision of Honble’ Supreme Court in the above matter both GRIDCO and DISCOMs (WESCO, NESCO and SOUTHCO) are directed to comply with the orders dated 20.03.2010 of the Commission as above (Business Plan order for 2008-09 to 2012-13).

**Receivables from other States and Govt. Departments**

519. GRIDCO in its filing has mentioned an amount of Rs.296.53 cr. as receivable from different sources.

**Table - 83**

	<b>Rs. in Cr.)</b>
i) Govt. Departments	91.71
ii) PSUs/ULB	113.49
iii) MPSEB	71.78
iv) IMFA (ICCL)	19.55
<b>Total</b>	<b>296.53</b>

520. GRIDCO in its submission stated that the dues from Govt. departments and PSUs are carried over in the accounts of GRIDCO although they are the consumers of DISCOMs pursuant to Transfer Notification dtd.25.11.1998. The DISCOMs have not yet collected the outstanding dues nor have provided the detailed status of these consumers and also the outstanding dues as per the customers ledger. The dues from MPSEB and IMFA are under litigation and not yet settled. GRIDCO is not likely to receive any amount from these parties during FY 2011-12. In view of this, receivables from parties other than DISCOMs may not be considered in the ARR of GRIDCO for FY 2011-12. Commission accepts the submission made by GRIDCO.

521. Finally summary of the ARR approved for 2011-12 for GRIDCO is given below:

**Table – 84**  
**Revenue Requirement of GRIDCO for FY 2011-12**

(Rs. cr.)

		<b>2010-11</b>	<b>2011-12</b>	
<b>A</b>	<b>Expenditure</b>	<b>Approved</b>	<b>Proposed</b>	<b>Approved</b>
	Cost of Power Purchase	3666.85	5082.37	4940.30
	Employee costs	4.97	5.73	4.21
	Repair & Maintenance	-	0.15	-
	Administrative and General Expenses	3.41	3.97	2.83
	Depreciation		0.20	-
	Other expenses (ERLDC Charges)	1.32	1.32	1.32
	Interest Chargeable to Revenue	194.69	449.89	326.64
	Sub-Total	3871.24	5543.63	5275.30
	Less: Expenses capitalized	-	-	
	<b>Total expenses (Total of A)</b>	<b>3871.24</b>	<b>5543.63</b>	<b>5275.30</b>
<b>B</b>	<b>Special appropriation</b>			
	Carry forward of Previous Losses	266.39	568.38	421.78
	Repayment of principal for the loan availed during FY 2009-10	99.92		
	Arrear payment of OPGC	-	109.48	-
	Reimbursement towards OHPC	4.89		8.28
	Power Purchase related cost of TTPS (NTPC)	-	321.52	
	Excess payment made towards FPA for NTPC Station			311.56
	<b>Total of B</b>	<b>371.20</b>	<b>999.38</b>	<b>741.62</b>
<b>C</b>	<b>Return on Equity</b>	<b>-</b>	<b>67.11</b>	<b>-</b>
	<b>TOTAL (A+B+C)</b>	<b>4242.44</b>	<b>6610.12</b>	<b>6016.92</b>
D	Less Miscellaneous Receipt	5.10	5.10	64.00
E	Less receivable from DISCOMs	-		
F	Less receivable from outside States	-	-	
G	Total Revenue Requirement	4237.34	6605.02	5952.92
H	Expected Revenue (Full year) from DISCOMs	3431.19	3838.06 (at existing BSP)	5206.87 (at the approved BSP)
<b>I</b>	<b>GAP (+/-)</b>	<b>(-) 806.15</b>	<b>(-) 2766.96</b>	<b>(-)746.05</b>

522. From the above table, it is found that GRIDCO after meeting all expenses would still be left with a negative gap of Rs.746.05 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. In the RST order dated 18.03.2011 in case No.146, 147, 148 & 149 of 2010 vide para 524 the Commission has directed DISCOMs to ensure payment of outstanding dues that falls short of the amount approved by the Commission in different years by the end of 2011-12 by taking systematic steps to collect the arrears outstanding as on 01.04.2010 and as on 01.04.2011. The Commission hereby directs the DISCOMs that out of the arrear outstanding as on 01.04.2011, CESU, WESCO, NESCO & SOUTHCO should collect Rs.250 crore, Rs.225 crore, Rs.225 crore and Rs.125 crore respectively during 2011-12. Out of the said arrear 50% would be paid towards the defaulted securitized dues as



mentioned in table 80 by CESU, WESCO and SOUTHCO. In case of NESCO 50% of the arrear collected may be made against balance securitized dues of Rs.308.34 crore as on 31.03.2010 shown in table-82.

### **Bridging the gap in the account of GRIDCO**

523. The Commission had approved for procurement of 21,003.75 MU energy by GRIDCO from different sources at an estimated cost of Rs.3666.85 crore for the year 2010-11 at an average power purchase price of 174.58 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 2010-11 was 170.25 paise per unit. The gap between the revenue realization and the revenue requirement of GRIDCO for 2010-11 was approved at Rs.806.15 crore. The gap was supposed to be bridged by earning from trading of power, UI, recovery of arrears from DISCOMs over and above the current BSP and subvention from Government. Shortfall if any after such adjustment shall be recognized as regulatory assets and carrying cost thereof shall be passed unto the ARR for the FY 2011-12 onwards. The Commission also advised Government to consider to provide a special budgetary support to GRIDCO to enabling it to pay the power purchase cost to the generators in time and release the full amount of R&M expenditure to DISCOMs. In the current year upto January, 2011, GRIDCO landed in a net cash deficit of Rs.1298.55 (Para 459) as per the data submitted by GRIDCO in its cash flow statement upto January, 2011. The Commission treats the same as Regulatory Asset provisionally. This figure may be revised after the audited data for the year 2010-11 are available to the Commission and the same will be amortized over a period of six years starting from FY 2012-13.
524. Taking into account the requirement of energy projected by GRIDCO and the DISCOMs for the year 2011-12, the Commission has approved 23489.18 MU of energy for purchase by GRIDCO from different generators based on least cost criterion for the year 2011-12. Based on the cost of generation determined for the generators, the average power purchase cost per unit comes to 210.32 paise. Thus, the cost of procurement of power by GRIDCO from the generators for the year 2011-12 comes to Rs.4940.30 crore. After taking into account the salary cost, interest payment and A&G expenses, ERLDC charges of Rs.335.00 crore, Special Appropriation towards repayment of loans amounting to Rs.421.78 cr., reimbursement towards OHPC amounting to Rs.8.28 crore and that of excess payment made towards FPA for NTPC stations amounting Rs.311.56 crore, net revenue requirement works out to Rs.6016.92 crore. Against this, revenue realization anticipated from DISCOMs at the approved bulk supply price of 231.65 paise/unit comes to Rs.5206.87 crore for the FY 2011-12. After taking into account the Misc. Revenue of Rs.64.00 crore, there will be a gap of Rs.746.05 crore for the year 2011-12. The 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 recognized as regulatory asset and carrying cost thereof shall be passed on to the ARR for the FY 2012-13 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.

525. Based on normative parameters for most generating stations and GRIDCO projection for CGP, Co-generation and IPP power, the total availability is estimated at 24948.40 MU. After deducting the state requirement of 23489.18 MU, there is a surplus of 1459.22 MU which GRIDCO can trade. The quantum of surplus may be more if drawal from CGPs, Co-generation plants and IPPs is maximized.
526. 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 Orissa 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.

#### **Design for Bulk Supply Pricing Philosophy**

527. 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 is 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. The demand of Orissa is in increasing trend due to rise in demand on account of rapid industrialization and massive rural electrification envisaged under Rajeev Gandhi Grameen Vidyut Yojana (RGGVY) and Biju Gramya Jyoti Yojana (BGJY). The surplus scenario is fast diminishing.
528. 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 54.4% & 56.3% respectively, in case of CESU & SOUTHCO it is 44.0% & 30.4% respectively.

529. 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, SOUTHCO is entirely dependent on low-voltage consumers, mostly domestic, for its revenues.
530. Now the power scenario in the state is in neck to neck situation i.e the generation in the state is just to meet the demand. In the coming years 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 2011-12 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. Further in case the power available from IPPs as proposed by GRIDCO are materialized and the surplus power from CGPs & Co-generation Plants are made available to GRIDCO then there is an ample scope to GRIDCO to trade the surplus power in the market to bridge the gap in the ARR from the revenue earning.
531. The average cost of power purchase by GRIDCO during 2010-11 (upto September, 2010) has been increased to 208.49 paise per unit as against the Commission's approval of 174.58 P/U for FY 2010-11. This rise in cost of power has been largely due to higher coal and oil prices, low hydro generation and growing mis-match between demand and supply of power. The Commission after due scrutiny has now approved the average power purchase cost of 210.32 P/U for FY 2011-12 which is 35.74 P/U more from 2010-11 approval .
532. 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.
533. 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.
534. 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.

535. 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.
536. 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.
537. 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.
538. 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 SOUTHCO 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 2011-12. 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.
539. Around 27.5% 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.

#### **Determination of Demand and Energy Charges**

540. 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.
541. 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.
542. 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 2011-12. 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.
543. Some of the objectors are vehement in their approach that like HT and EHT class of consumers, 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 2011-12. 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**

544. GRIDCO had proposed energy charge @ 304.41 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.

545. The Commission has determined the revenue requirement of DISCOMs for FY 2011-12 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 2011-12 considering the approved BSP are given below:

WESCO	-	(+) 16.34
NESCO	-	(+) 18.20
SOUTHCO	-	(+) 11.29
CESU	-	(+) 7.20

546. 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 – 85**  
**Bulk Supply Price and Quantum of Energy for 2011-12**

Name of the DISCOM	Quantum of Energy (MU)	Bulk Supply Price (P/U)	Revenue from Bulk Supply Price (Rs. Crore)
CESU	7,791.00	219.00	1,706.23
NESCO	5,323.00	262.00	1,394.63
WESCO	6,630.00	262.00	1,737.06
SOUTHCO	2,733.00	135.00	368.96
<b>Total</b>	<b>22,477.00</b>	<b>231.65</b>	<b>5,206.87</b>

547. As against GRIDCO's total net revenue requirement of Rs.5952.92 crore after adjustment of miscellaneous receipts of Rs.64.00 crore, it will recover only Rs.5206.87 crore through energy charge for the year 2011-12 from DISCOMs and will leave a negative gap of Rs.746.05 crore. The treatment of this gap has already been discussed vide Para 523 to 526.

#### **Charges for Overdrawl of Energy**

548. 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 on provisional basis at the highest OERC approved power purchase rate fixed for a station for the FY 2011-12 (which includes transmission charges & transmission loss) on a monthly basis instead of the normal differential BSP applicable to the respective DISCOMs subject to final year-end adjustment considering the highest power purchase rate/cost including the rate(s) of energy drawn through UI route of the month plus transmission charges and transmission loss.

549. The Availability Based Tariff has been implemented in the Eastern Region with effect from 1<sup>st</sup> 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 2011-12 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**

550. 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**

551. 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**

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

**Implementation of Intra-State ABT**

553. OERC (Intra-State ABT) Regulation, 2007 was published in Orissa Gazette on 14.02.2008. As per Regulation 1 (III), OERC (Intra-State ABT) Regulation, 2007 is in force from 14.02.2008 i.e. the date of publication in the Official Gazette.
554. The Commission would decide shortly the exact date of implementation of Intra-State ABT (Phase-I) for commercial settlement of UI & Reactive Energy Account.

**Harnessing Power from Renewable Energy Sources**

555. OERC, in its Renewable and Co-generation Purchase Obligation and its Compliance Regulations, 2010 notified on 30<sup>th</sup> September 2010, has fixed 5% of the total purchase from renewable and co-generation sources for the year 2011-12 (solar – 0.10 %+ non-solar – 1.20 %+ Co-generation – 3.70%). This would go on increasing by 0.5% per annum to reach 7% in 2015-16 (solar- 0.30%+ non-solar- 2.00% + Co-generation- 4.70%). In case the actual purchase from renewable sources falls below the percentage specified by the Commission, the obligated entities are required to purchase the renewable certificates at higher cost. This implies that energy required to meet the existing requirement is to be purchased at a higher cost apart from purchase of Renewable Energy Certificates (RECs). This would result in higher tariff implication to the consumers. In order to avoid or minimize such higher tariff implication it is necessary to exploit the existing potential from small and mini hydro projects where there is possibility of exploiting around 2000 MW from such sources. Further GRIDCO has to take up the matter with the State Govt. and OREDA for early implementation of Renewable Projects (particularly Solar, Biomass and SHP those are in the pipe line) in the state during FY 2011-12 in order to meet the RPO. GRIDCO has also to make reasonable endeavour to purchase maximum quantum of power available from Co-generation plants in order to avoid purchase of RE certificates.
556. The Bulk Supply Price in respect of GRIDCO as indicated in Para 546 will become effective from 1<sup>st</sup> April, 2011 and shall continue until further orders.
557. The application of GRIDCO in Case No.144/2010 is disposed of accordingly.

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

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

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