

**BEFORE THE ORISSA ELECTRICITY REGULATORY COMMISSION
BHUBANESWAR**

Case No.....
Filing No.....

IN THE MATTER OF : An Application for approval of Annual Revenue Requirement (ARR) and determination of Bulk Supply Price (BSP) for the Financial Year 2012-13 under Section 86(1) (a) & (b) and all other applicable provisions of the Electricity Act, 2003 read with relevant provisions of OERC (Terms and Conditions for Determination of Tariff) Regulations, 2004, and OERC (Conduct of Business) Regulations, 2004, and other related Rules and Regulations.

AND

IN THE MATTER OF : GRIDCO Ltd., Janpath, Bhubaneswar

.....**Applicant**

The Humble Applicant above named MOST RESPECTFULLY SHOWETH:

GRIDCO Limited (hereinafter called as "GRIDCO") is a Deemed Trading Licensee under 5th Proviso to Section 14 of the Electricity Act, 2003. GRIDCO, a wholly State owned Company, carries out the business of purchase of electricity in bulk from various generators located inside Odisha and the State share of power from the Central Generators for supply in bulk to the four Electricity Supply Companies (hereinafter called as 'DISCOMs').

Considering the crucial role that GRIDCO plays in supply of power to the State, the Govt. of Odisha notified GRIDCO as the "**State Designated Entity**" to sign the Power Purchase Agreements (**PPAs**) for procurement of all forms of power from different generators as per Notification No. PPD-II-2/05 (pt) 7947, Bhubaneswar dated 17.08.2006 (enclosed as **Evidential Document (ED-I)**). Besides, being the successor Organization to the erstwhile Orissa State Electricity Board (OSEB), GRIDCO continues the functions of bulk purchase and sale of power in the interest of the State under the "Single Buyer Model", as a matter of historical legacy.

In this context, it will be worthwhile to mention here that Hon'ble Commission in the Annual Revenue Requirement (ARR) & Bulk Supply Price (BSP) Order date 18.03.2011 for FY 2011-12 has extensively dealt with the issues relating to the "Legal Status" of GRIDCO and concluded that

Note:- Evidential Documents (EDs) are attached in Volume-II of this Application.

the continuance of GRIDCO is sustainable in Law and essential in the overall interest of Odisha and Power Sector in particular.

Under the existing Bulk Supply Agreements between the DISCOMs and the GRIDCO, the DISCOMs are to purchase power from GRIDCO at a regulated price to be determined by the Hon'ble Orissa Electricity Regulatory Commission (hereinafter called as 'OERC' or the "Commission"). Hon'ble Commission is empowered under the Electricity Act, 2003 (hereinafter called 'the Act') to determine the procurement price of power of the DISCOMs. This Price incidentally happens to be the Bulk Supply Price at which GRIDCO supplies power to the DISCOMs. Thus, as a statutory requirement, GRIDCO is required to submit its Annual Revenue Requirement (ARR) before Hon'ble OERC for determination of the procurement price of the DISCOMs. Further, as provided in the OERC (Conduct of Business) Regulations, 2004, OERC (Term and Condition for Determination of Tariff) Regulations, 2004 as amended upto May, 2011 and other related Regulations and as per the 86 (1) (a) & (b) and other applicable provisions of the Electricity Act, 2003, GRIDCO is also required to submit its Annual Revenue Requirement (ARR) before 30th November of each year for the ensuing year.

Accordingly, GRIDCO submits its Annual Revenue Requirement for FY 2012-13 in the following paragraphs before the Hon'ble Commission for kind consideration and approval.

1.ENERGY AVAILABILITY:

It is submitted that GRIDCO purchases power from the various State Generating Stations as well as the Odisha Share from the Central Sector Stations. The estimated availability of energy from different generating stations for FY 2012-13 are grouped under different heads as given below:

- 1.1 STATE HYDRO STATIONS.**
- 1.2 STATE THERMAL STATIONS.**
- 1.3 CENTRAL THERMAL GENERATING STATIONS.**
- 1.4 CENTRAL HYDRO GENERATING STATIONS.**
- 1.5 RENEWABLE ENERGY SOURCES:**
 - (a) NON-SOLAR:**
 - (i) SMALL / MINI HYDRO RENEWABLE ENERGY**
 - (ii) BIO-MASS ENERGY**
 - (iii) ENERGY FROM CO-GENERATION PLANTS**
 - (b) SOLAR ENERGY**
- 1.6 CAPTIVE GENERATING STATIONS / CO-GENERATING POWER PLANTS.**

1.7 INDEPENDENT POWER PRODUCERS (IPPS)

1.8 PROCUREMENT THRU' UI/ POWEREXCHANGE/ SHORT-TERM OPEN ACCESS

1.1 STATE HYDRO STATIONS:

OHPC Hydro Stations:

OHPC owns & operates six hydro stations namely Hirakud, Chiplima, Rengali, Upper Kolab, Balimela and Upper Indravati Hydro Electric Project (UIHEP). These Hydro Stations are Multi Purpose Projects mandated to fulfil the manifold objectives of drinking water, irrigation, flood control and power generation. As per the Govt. of Odisha letter No.1430 dated 19.02.2010 placed at **ED-II**, power generation is considered as the 4th priority after meeting the water requirement for drinking & irrigation as well as flood control. During the last few years, hydro generation is monitored strictly to meet the irrigation need. If there is irrigation requirement, hydro generation is not made available even though there is grid demand. In such a situation, projection of hydropower availability becomes complex in nature. Till end of October, 2011, GRIDCO has received only 3850 MU i.e. 68% of Design Energy of 5676.00 MU.

As per the directives of Hon'ble Commission in their Order dated 20.03.2010 relating to the ARR of OHPC for FY 2010-11, the Units of Burla and Chiplima are considered as separate entities with effect from 01.04.2010. The Design Energy of Burla and Chiplima as approved by Hon'ble Commission are 684 MU and 490 MU, respectively. Considering 5 MW power supply from Hirakud Hydro Electric Project (HHEP) to Chhatisgarh State Electricity Board (CSEB), 16.60 MU of energy is deducted from the supply made from Hirakud Station.

It is submitted that in response to GRIDCO's request, OHPC has furnished its Generation Plan for FY 2012-13 **(ED-III)**. Accordingly, GRIDCO projects the availability of energy from hydro stations of OHPC as **5611.55 MU** after deducting 0.50% towards transformation loss and 0.50% towards Auxiliary consumption and 5 MW share allocation to CSEB.

The details of projected drawal of energy from the OHPC Stations during FY 2012-13 is shown in the Table below.

Power Procurement From OHPC for FY 2012-13

Power House	Design Energy (MU)	GRIDCO Share %	Generation Programme submitted by OHPC for FY12-13 (MU)	GRIDCO Projection for FY 12-13 (after 0.5% Trans. Loss, 0.5% Aux. Cons.& 5 MW allocation to CSEB) (MU)
HHEP	684.00	100*	792.00	767.48
CHEP	490.00	100	360.00	356.40
Rengali	525.00	100	582.00	576.18
Upper Kolab	832.00	100	802.00	793.98
Balimela	1183.00	100	1185.00	1173.15
Sub-Total	3714.00	100	3721.00	3667.19
Upper Indravati	1962.00	100	1964.00	1944.36
Total	5676.00		5685.00	5611.55

* There is 5 MW allocation from HPS i.e. 16.60 MU in favour of CSEB.

As indicated earlier, GRIDCO has drawn 3850 MU from OHPC Stations upto October, 2011. The projected drawal during November, 2011 to March, 2012 comes to 1095 MU as per Generation Plan submitted by OHPC. Hence during the FY 2011-12, the total hydro availability excluding Machhkund is expected to be 4945 MU as against the approval of 5619.24 MU in the ARR for FY 2011-12 by the Hon'ble OERC. So, there will be a shortfall of 674 MU hydro energy in the year 2011-12. Further, the energy availability during April, 2012 to June, 2012 will be very less i.e. 530 MU as indicated in the Generation Plan placed at **ED-III**. The shortage of hydropower will have adverse impact on the power position of the State as well as the financial condition of GRIDCO.

1.1.2 Machhkund:

Machhkund Powerhouse, which is a 50:50 Joint Venture Project of the Govt. of A.P. and Odisha, is also under the control of OHPC. The Design Energy of Machhkund HPS is considered by OHPC is **525 MU**. With Odisha having a share of 50%, procurement by GRIDCO from this Station is estimated at **262.50 MU** for FY 2012-13.

Thus, the total estimated availability from OHPC Old Stations, Upper Indravati and Machhkund is estimated as **5874.05 MU (5611.55+262.50 MU)**. This is below the "Design Energy" of 5939.00 MU (5676 MU+262.50 MU). It has been observed that the failure of hydrology has

been very common during last couple of years resulting in power crisis for the State. This is apparent from the reservoir level positions of various hydro stations as on November, 15,2011:

Comparative Reservoir Levels of the Hydro Stations of OHPC

Name of the Power House	FRL	MDDL	Reservoir Level as on November 15, 2011	This day of the previous year i.e. on November 15, 2010
BURLA	630 ft.	590 ft.	626.81 ft.	629.54 ft.
CHIPLIMA	*****	*****	*****	*****
RENGALI	123.5 M	109.72 M	122.78 M	118.63 M
UPPER KOLAB	858 M	844 M	849.17 M	856.18 M
UPPER INDRAVATI	642 M	625 M	629.98 M	639.60 M
BALIMELA	1516 ft.	1440 ft.	1464.10 ft.	1507.90 ft.
MACHHKUND	2750 ft.	2685 ft.	2745.00 ft.	2748.50 ft.

As may be observed, the hydro stations like Upper Kolab, Upper Indravati, Balimela and Machhkund are almost in depleting stages even though the rainy season is already over. Because of such low reservoir position, it is estimated that the availability from hydro sources is expected to be reduced to the extent indicated above.

GRIDCO further submits that the drawal from OHPC during previous years has also been less than the Design Energy for the last consecutive years as given below:

(Drawal in MU)

Particulars	Design Energy of OHPC including Machhkund	FY 2009-10	FY 2010-11	FY 2011-12 (Till Sept.'11)
Drawal from OHPC	5938.50	4056.07	4874.37	3576.93

As may be observed, irregular monsoons in recent years has resulted in less generation and consequent less drawal of hydro energy from OHPC as compared to the design energy and drawal during the earlier years (when hydrology failure was not there) which leads to payment of higher fixed cost per unit to OHPC. It is therefore submitted that GRIDCO may be allowed to recover any additional cost on the account of lesser drawal of hydro energy as compared to the design energy in the proposed ARR & BSP for FY 2012-13.

1.2 STATE THERMAL STATIONS:

- **Orissa Power Generation Corporation Limited (OPGC):**

OPGC has submitted the generation plan for Financial Year 2012-13 **(ED-IV)**. Based on the Plan, GRIDCO proposes net drawal of **2864.824 MU** from OPGC during 2012-13, after deducting Auxiliary Consumption @ **10.313%** (329.42 MU) from the projected Generation of **3194.239 MU** at a **PLF of 86.82%**.

Proposed Power procurement from OPGC for FY 2012-13

Name of Thermal Stations	Installed Capacity (MW)	Aux. Cons (%)	PLF Assumed (%)	Generation (MU)	Aux. Cons (MU)	Energy Sent Out (ESO) (MU)
OPGC	420	10.313	86.82	3,194.24	329.42	2,864.824

➤ **Talcher Thermal Power Station (TTPS) of NTPC:**

Based on the Revised Central Electricity Regulatory Commission (CERC) Tariff Norms applicable from FY 2009 to 2014, the net energy (Ex-bus) availability from TTPS to GRIDCO has been projected at **2957.32 MU** at a normative availability / **Plant Load Factor (PLF) of 82.00%** after deducting **Auxiliary Consumption of 10.50%**.

Proposed Power procurement from TTPS for FY 2012-13

Name of Thermal Stations	Installed Capacity (MW)	Aux. Cons (%)	PLF Assumed (%)	Generation (MU)	Aux. Cons (MU)	Energy Sent Out (ESO) (MU)
TTPS	460	10.50	82.00%	2,957.32	100.00	2,957.32

1.3 CENTRAL GENERATING STATIONS (CGSs):

Considering the cumulative PLF of different Generating Stations for the first six months of FY 2011-12 and the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009, Chapter-4, "NORMS OF OPERATION", Clause-26, GRIDCO proposes a Normative Annual Plant Availability Factor (**NAPAF**) of **85%** (i.e. normative PLF) for the following NTPC Stations for FY 2012-13.

The actual PLF% of CGSs for the 1st six-months of FY 2011-12 are given in the Table below:

Stations	PLF% of Central generating Stations							PLF% proposed for CGSs by GRIDCO for FY 2012-13 (As per CERC Tariff Regulations, 2009)
	Apr-11	May-11	Jun-11	Jul-11	Aug-11	Sep-11	Avg. PLF%	
TSTPS Stage-I	85.50	94.96	70.01	43.56	75.85	96.57	77.74	85
TSTPS Stage-II	101.92	101.69	94.98	68.52	75.44	75.91	86.41	85
FSTPS	64.58	76.71	89.61	94.66	74.68	66.98	77.87	85
KhSTPS St-I	64.65	88.36	74.44	76.24	87.86	92.82	80.73	85
KhSTPS St-II	76.81	62.06	49.79	66.21	44.45	54.54	58.98	85

The projection of net power procurement from the Central Thermal Generating Stations (CGSs) of Eastern Region for FY 2012-13 is estimated as **6032.60** MU considering the allocated share of GRIDCO, NAPAF of 85%, Auxiliary Consumption as per the CERC Tariff Regulation, 2009 and the Central Sector Transmission Loss specific to each of the Stations, as per the Point of Connection (PoC) Methodology. The details of power procurement from each of the Central Thermal Generating Stations (CGSs) are explained in the following paragraphs and Tables below:

➤ **Talcher Super Thermal Power Station (TSTPS) - Stage-I:**

Considering GRIDCO's share of **31.80%** from TSTPS Stage-I (1000 MW), Auxiliary Consumption of **6.50%**, proposed **85% PLF** and Central Transmission Loss of **2.29%**, the availability to GRIDCO from TSTPS Stage-I for FY 2012-13 is estimated as **2163.22 MU**.

Central Thermal Stations	Installed Capacity (MW)	Aux. Cons (%)	PLF% proposed as per Para 26 (I) of CERC Regn.-2009 Availability (%)	Net availability (ESO) (MU)	GRIDCO Share (%)	Ex-bus Availability (MU)	GRIDCO share after C.S. Trans. Loss (MU)
TSTPS Stg-I	1000	6.50	85	6,962.01	31.80	2,213.92	2,163.22

➤ **Talcher Super Thermal Power Station (TSTPS) – Stage-II :**

Considering GRIDCO's share of 200 MW of power from TSTPS Stage-II (10% of Installed Capacity of 2000 MW), Auxiliary Consumption of **6.50%**, proposed **85% PLF** and Central Transmission Loss of **3.515%**, the availability to GRIDCO from TSTPS Stage-II for FY2012-13 is estimated at **1343.46 MU**.

Central Thermal Stations	Installed Capacity (MW)	Aux. Cons (%)	PLF% proposed as per Para 26 (I) of CERC Regn.-2009 Availability (%)	Net availability (ESO) (MU)	GRIDCO Share (%)	Ex-bus Availability (MU)	GRIDCO share after C.S. Trans. Loss (MU)
TSTPS Stg-II	2000	6.50	85	13,924.02	10.00	1,392.40	1,343.46

➤ **Farakka Super Thermal Power Station (FSTPS):**

Considering GRIDCO's Share allocation of **13.63%** from FSTPS (Installed Capacity: 1600 MW), Normative **PLF of 85%**, Auxiliary Consumption @ **6.93%** and Central Transmission Loss of **2.575%**, the availability to GRIDCO from FSTPS is estimated as **1472.38 MU** for FY 2012-13.

Central Thermal Stations	Installed Capacity (MW)	Aux. Cons (%)	PLF% proposed as per Para 26 (I) of CERC Regn.-2009 Availability (%)	Net availability (ESO) (MU)	GRIDCO Share (%)	Ex-bus Availability (MU)	GRIDCO share after C.S. Trans. Loss (MU)
FSTPS	1600	6.93	85	11,087.99	13.63	1,511.29	1,472.38

➤ **Kahalgaon Super Thermal Power Station-Stage-I (KhSTPS-I) :**

Considering Odisha Share allocation of **15.24%** from KhSTPS-I (Installed Capacity: 840 MW), proposed **85% PLF**, Auxiliary Consumption of **9%** and Central Transmission Loss of **2.58%**, the energy availability to GRIDCO from KHSTPS-I is estimated at **844.98 MU** for FY 2012-13.

Central Thermal Stations	Installed Capacity (MW)	Aux. Cons (%)	PLF% proposed as per Para 26 (I) of CERC Regn.-2009 Availability (%)	Net availability (ESO) (MU)	GRIDCO Share (%)	Ex-bus Availability (MU)	GRIDCO share after C.S. Trans. Loss (MU)
KhSTPS Stg-I	840	9.00	85	5,691.72	15.24	867.31	844.98

➤ **Kahalgaon Super Thermal Power Station-Stage-II (KhSTPS-II):**

Considering Odisha share allocation of 2.05 % from KhSTPS-II (Installed Capacity: 1500 MW), proposed **85% PLF**, Auxiliary Consumption of **6.50%** and Central Transmission Loss of **2.575%**, the availability to GRIDCO from KHSTPS-II is estimated at **208.57 MU** for FY 2012-13.

Central Thermal Stations	Installed Capacity (MW)	Aux. Cons (%)	PLF% proposed as per Para 26 (I) of CERC Regn.-2009 Availability (%)	Net availability (ESO) (MU)	GRIDCO Share (%)	Ex-bus Availability (MU)	GRIDCO share after C.S. Trans. Loss (MU)
KhSTPS Stg-II	1500	6.50	85	10,443.02	2.05	214.08	208.57

The proposed drawal of **6032.60 MU** from Central Thermal Generating Stations of ER, NTPC are tabulated in the Table below:

Availability of Power from Central Generating NTPC Stations							
Central Thermal Stations	Installed Capacity (MW)	Aux. Cons (%)	PLF% proposed as per Para 26 (I) of CERC Regn.-2009 Availability (%)	Net availability (ESO) (MU)	GRIDCO Share (%)	Ex-bus Availability (MU)	GRIDCO share after C.S. Trans. Loss (MU)
TSTPS Stg-I	1000	6.50	85	6,962.01	31.80	2,213.92	2,163.22
TSTPS Stg-II	2000	6.50	85	13,924.02	10.00	1,392.40	1,343.46
FSTPS	1600	6.93	85	11,087.99	13.63	1,511.29	1,472.38
KhSTPS Stg-I	840	9.00	85	5,691.72	15.24	867.31	844.98
KhSTPS Stg-II	1500	6.50	85	10,443.02	2.05	214.08	208.57
TOTAL				48,108.75		6,199.01	6,032.60

1.4 CENTRAL HYDRO GENERATING STATIONS:

➤ Chukha (Bhutan):

Chukha HEP which is located in Bhutan, has an installed capacity of 336 MW (4x84 MW) wherein GRIDCO has a share allocation of **15.19%** from Eastern Region (ER) allocation of 270 MW. Based on the average drawal over the last 6 years from FY 2005-06 to FY 2010-11 and factoring for Central Transmission Loss of **2.29%**, GRIDCO proposes to draw **263 MU** from Chukha during the FY 2012-13. The details are shown in the Table below.

Proposed Drawal from Chukha for FY 2012-13

Financial Year	Drawal by GRIDCO (MU)

2005-06	222.76
2006-07	280.72
2007-08	277.26
2008-09	283.37
2009-10	277.80
2010-11	278.49
Total drawal for 6 years	1620.40
Average drawal for 6 years	270.07
Proposal after deducting Central Transmission Loss@2.29%. (MU)	263.88
Proposed drawl (MU)	263.00

➤ **Tala HEP (Bhutan):**

At present GRIDCO has a share of **4.25%** which is equivalent to allocation of **43.35 MW** from Tala HEP (Bhutan) having Installed Capacity of 1020 MW. GRIDCO proposes to draw **143 MU** during FY 2012-13 considering the last 4 years' average drawal i.e. from FY 2007-08 to FY 2010-11 after the Central Transmission Loss of **2.29%**. The details are shown in the Table below.

Proposed Drawal from Tala for FY 2012-13

Financial Year	Drawal by GRIDCO (MU)
2007-08	136.076
2008-09	162.236
2009-10	141.290
2010-11	151.56
Total drawal for 4 years	591.16
Average drawal for 4 years	147.79
Proposal after deducting central Transmission Loss @ 2.29% (MU)	144.41
Proposed Drawal (MU)	143.00

➤ **Teesta –V HEP (Sikkim):**

The annual design energy of Teesta-V HEP (Installed Capacity: 510 MW) situated in Sikkim is 2572.67 MU. After factoring for 12% free energy to Home State & **1.2%** towards Auxiliary Consumption, the annual saleable energy of the project is estimated as 2236.78 MU. Considering the share of GRIDCO as **23.4%** of the saleable energy, GRIDCO proposes to procure **510 MU** of energy during the year 2012-13 after deducting the Central Sector loss of **2.58%**. The details are shown in the Table below.

Proposed Drawal from Teesta for FY 2012-13

Design Energy	(MU)	2572.67
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Annual saleable Energy available considering 1.2% Auxiliary energy consumption and 12% free energy for home state	(MU)	2236.78
GRIDCO Share	(%)	23.4
Availability	(MU)	523.41
Proposal After deducting central Transmission Loss @ 2.58%.	(MU)	509.93
Proposed drawl for FY 2012-13	(MU)	510.00

The details of GRIDCO's proposed drawal for FY 2012-13 from Central Sector Generating Stations other than NTPC Stations are given in the Table below:

Proposed Drawal by GRIDCO from Central Hydro Stations during FY 2012-13

Central Generating Stations other than NTPC Stations.	Installed Capacity (MW)	GRIDCO Share of installed capacity (%)	GRIDCO Share of installed capacity (MW)	GRIDCO Share (MU)	Availability after C.S. Tr. loss (MU)	GRIDCO Proposal for FY 2012-13 considering drawal trend during past years & after applicable C.S. loss (MU)
Chukha HEP	4*84=336 ER Allocation=270MW	15.19	41.013	360.26	352.01	263.00
Tala HEP	6*170 = 1020	4.25	43.350	380.78	372.06	143.00
Teesta-V HEP	3*170=510	20.59	105.019	922.39	898.59	510.00
TOTAL				1663.43	1,622.66	916.00

1.5 RENEWABLE ENERGY SOURCES: (NON-SOLAR & SOLAR)

(a) NON-SOLAR:

(i) Small / Mini Hydro Renewable Energy:

Considering the quantum of power procured during FY 2010-11, drawal during the first six months of FY 2011-12 and the availability of water, GRIDCO proposes to draw around 300 MU of renewable energy from **Small Hydro Sources** during FY 2012-13 as given below:

Proposed Drawal from Meenakshi & Samal SHEP for FY 2012-13

Sl. No.	Name of the SHEPs	Installed Capacity (MW)	Energy drawal during the 1st six months of 2011-12	Proposed Energy procurement for FY 2012-13

			(MU)	(MU)
1.	Meenaskhi Small Hydro	37	119.419	150.00
2.	SAMAL Small Hydro	20	40.64944	150.00
	Total		160.06844	300.00

(ii) Energy from Bio-Mass:

GRIDCO proposes to procure 122 MU of renewable energy from Bio-Mass Plant being developed by M/s. Shalivahan Green Energy Limited, Hyderabad at Nimidha in the District of Dhenkanal.

SI No.	Name of the Bio-Mass Plant	Proposed Energy procurement for FY 2012-13 (MU)
1.	M/s. Shalivahan Green Energy Ltd.	122.00

(iii) Energy from Co-Generation Plants:

GRIDCO proposes to procure **621.96 MU** of energy from Co-Generation Plants during FY 2012-13 which may be considered as Renewable Energy. The details of such procurement are given below:

Sl. No.	Co-Generation Plants	Installed Capacity (MW)	Co-Gen. Energy drawal during 2010-11 (MU)	Co-Gen. Energy drawal during the 1st six months of 2011-12 (MU)	Average Co-Gen. drawal in MW proposed by GRIDCO for 2012-13 (MW)	Co-Gen. Energy drawal proposed for FY 2012-13 (MU)
1	NINL	62.5	73.951	50.49	11.5	100.74
2	Arati Steel	40	22.126173	13.11	3	26.28
3	Tata Sponge	26	126.224	49.435	11.5	100.74
4	SMC Power	33	18.239467	2.866137	0.5	4.38
5	Pattnaik Steel & Alloys	15	17.350795	5.030073	1	8.76
6	IFFCO	110	26.191892	8.332028	2	17.52
7	VISA Steel	50	24.571544	101.16	23	201.48
8	VAL, Lanjigarh	90	20.2393	13.155	3	26.28
9	Shyam Metalics & Energy	30	58.576807	13.037563	3	26.28
10	Bhusan Steel	110	103.069156	33.805392	7.5	65.70
11	Shree Mahavir Ferro Alloys.	13.6	3.862092	0.91141	0.5	4.38
12	Action Ispat	37	8.476671	3.277925	1	8.76
13	Aryan Ispat	18	35.004773	7.754913	2	17.52
14	Rathi Steel & Power	20	5.879523	2.486121	0.5	4.38

15	Orissa Sponge Iron	36	40.3798	4.8229	1	8.76
	Total		584.14	309.67	71.00	621.96

(b) Solar Energy:

GRIDCO hopes to procure 13 MU from 8 Nos. of Solar PV Projects of 1 MW capacity each under Rooftop PV and Small Solar Power Generation Programme (RPSSGP) in the State.

Besides, GRIDCO has signed Power Sale Agreement (PSA) with NTPC Vidyut Vyapar Nigam Limited (NVTNL) during January 2011 to procure solar power bundled with thermal power from the unallocated quota of the Upcoming Coal Based NTPC Stations through 'New Grid connected Solar Power Project' Scheme under Phase-1 of Jawaharlal Nehru National Solar Mission (JNNSM). 20 MW Solar capacity has been allocated to GRIDCO in the said scheme which is expected to be available during January 2012. GRIDCO has also executed PPA with NTPC on 26.04.2011 to procure 10 MW of power from 2 Nos. of Solar PV projects of 5 MW each (Dadri Solar PV project of U.P. & Faridabad Solar PV Project of Haryana) which is expected to be available during FY 2012-13. GRIDCO is trying its best to explore the possibilities to procure Solar Power for the State.

Thus, GRIDCO proposes to procure 46 MU of Solar power during FY 2012-13 as given in the Table below:

Proposed Drawal of Solar Power During FY 2012-13

Sl. No.	Solar RE Sources	Energy Proposed for FY 2012-13 (MU)
1	8 Nos. of Solar PV projects of 1 MW each under RPSSGP	13
2	20 MW from NVTNL through 'New Projects' scheme under JNNSM	33
	Total	46

Thus, GRIDCO expects to procure **1089.96 MU** of **Renewable Energy (RE)** consisting of Solar & Non-Solar Energy as given in the following Table below:

Sl. No.	RE Sources	Energy Proposed for FY 2012-13 (MU)
A.	Non-Solar RE	
(i)	Small Hydro Electric Project (SHEP)	300.00
(ii)	Energy from Bio-Mas	122.00
(iii)	Energy from Co-Generation Plants	621.96
	Sub-Total (Non-Solar RE)	1043.96

B.	Solar RE	46.00
C.	Total (Solar & Non-Solar RE)	1089.96

It is submitted that although GRIDCO is willing to purchase the required quantum of Renewable Energy consisting of Solar & Non-Solar Energy in order to fulfil its Renewable Energy Purchase Obligation (RPO), availability of such energy has become a constraint. As a result, GRIDCO in order to fulfil the RPO mandate may be required to purchase Renewable Energy Certificates (REC), if any which would entail a much higher cost to GRIDCO as per the prevailing market price. GRIDCO prays the Hon'ble Commission to allow such additional costs in the ARR & BSP for FY2012-13.

1.6 Captive Generation Plants (CGPs) / Captive Co-Generation Plants:

GRIDCO is committed towards harnessing surplus power from various Captive Generating Plants (CGPs) / Co-generation Plants of the State considering maximum 49% of the generation capacity at 85% PLF. In fact, recently, GRIDCO has requested some of the CGPs, basing on their capability as well as the past trend of surplus power supply to GRIDCO, to maximize their generation so as to supply their surplus power to GRIDCO, keeping in view of the dismal reservoir level of the Hydro Power Stations of OHPC in the Southern part of the State of Odisha. Further, GRIDCO has offered to pay at the rate of the slab price fixed by the Commission to all CGPs with effect from 16.11.2011.

As there is no difference in the rates of surplus power from CGPs and the Co-generation Plants, GRIDCO has put them under one group for consideration of its ARR for the year 2012-13, so far as the quantum of power to be procured from the CGPs as well as the power procurement cost of such power is concerned. However, data regarding Co-generation Plants are also provided separately for consideration of other aspects like Renewable Energy Purchase Obligation (RPO) etc. Considering the quantum of power procured from 29 Nos. of CGPs / Co-generation Plants during the first six months of FY 2011-12, it is observed that majority of CGPs/ Co-generation 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/ Co-generation Plants during the first six months of FY 2011-12, GRIDCO proposes to draw **1743.24 MU (including 621.96 MU of energy from Co-Generation Plants)** from different CGPs / Co-generation Plants during the FY 2012-13.

The details of proposed drawl from Captive Generating Plants / Co-generation Plants for FY 2012-13 are projected in the Table below:

Proposed Drawl from Captive Generating Plants (CGPs) & Co-generation Plants

Sl. No.	CGPs/ Co-generation Plants	Installed Capacity	Energy drawl during 2010-11 (MU)	Energy drawl during the 1st six months of 2011-12 (MU)	Average drawl in MW proposed by GRDCO for 12-13	Energy drawl proposed for FY 2012-13 (MU)
1	NALCO, Angul	1200	6.89	15.66	3.5	30.66
2	IMFA, Choudwar	108	47.5632	1.684169	0.5	4.38
3	HINDALCO	367.5	56.224	10.149	2.5	21.9
4	RSP	220	20.285	9.460999	2	17.52
5	NBVL, Meramundali	95	176.7144	59.428008	13.5	118.26
6	VAL, Jharsuguda	1215	690.3615	85.257142	19.5	170.82
7	JIndal Stainless Ltd., Duburi	250	906.282	76.175193	17.5	153.3
8	Narbheram Power & Steel	8	11.07266	4.0295	1	8.76
9	Bhusan Power & Steel Jharsuguda	376	112.803	60.479	14	122.64
10	Rathi Steel & Power	20	13.8542	6.455	1.5	13.14
11	Maheswari Ispat	24	10.53016	4.093	1	8.76
12	Orissa Sponge Iron	36	40.3798	4.8229	1	8.76
13	NINL	62.5	73.951	50.492	11.5	100.74
14	Arati Steel	40	85.372	46.35104	10.5	91.98
15	Tata Sponge	26	126.224	49.435	11.5	100.74
16	SMC Power	33	50.15468	6.029281	1.5	13.14
17	Pattnaik Steel & Alloys	15	34.2895	8.3389	2	17.52
18	IFFCO	110	38.874	16.016	3.5	30.66
19	VISA Steel	50	24.57154	101.16	23	201.48
20	VAL, Lanjigarh	90	20.2393	13.155	3	26.28
21	Shyam Metalics & Energy	30	118.2803	24.998	5.5	48.18
22	Bhusan Steel	110	129.627	44.428	10	87.6
23	Sree Mahavir Ferro Alloys.	13.6	18.34603	3.4438	1	8.76
24	Action Ispat	37	24.56325	8.35032	2	17.52
25	Aryan Ispat	18	62.0563	24.2226	5.5	48.18
26	Maithan Ispat	30		5.882	1.5	13.14
27	Jindal Steel & Power	135		113.93583	26	227.76
28	MSP Metalic	25		12.236693	3	26.28
29	Jain Steel & Power	8		2.069427	0.5	4.38
	TOTAL	4752.60	2899.51	868.24	199.00	1743.24

* Total Quantum of 1743.24 MU includes 621.96 MU of Energy from Co-Generation Plants.

1.7 Independent Power Producer (IPPs):

IPPs with whom GRIDCO has executed Power Purchase Agreements (PPAs) are in various stages of implementation. The details of generating Units of different IPPs which are expected to be commissioned during 2012-'13 are furnished below:

IPPs to be commissioned during FY 2012-13

Sl. No.	Name of IPP	Unit No.	Location	Capacity (MW)	Share (MW)	Expected Commissioning Date
1.	M/s. Maa Durga Thermal Power Company Ltd.	1	Tangi, Cuttack	30	3.6	April, 2012
2.	- do -	2	- do -	30	3.6	June, 2012
3.	M/s. Ind-Barath Energy (Utkal) Ltd.	1	Sahajbahal, Jharsuguda	350	42	January, 2013
4.	M/s. GMR Kamalanga Energy Ltd.	1	Kamalanga, Dhenkanal	350	87.5	July, 2012
5.	M/s. GMR Kamalanga Energy Ltd.	2	Kamalanga, Dhenkanal	350	87.5	November, 2012
6.	- do -	3	- do -	350	87.5	February, 2013
	Total			1460	311.70	

The above commissioning schedules are indicative only. Since the energy injection from the above IPPs is uncertain, the proposed procurement from these Plants may be considered as an estimation only.

➤ **Proposed Power Procurement From IPPS For FY 2012-13:**

GRIDCO proposes to procure **3556.92 MU** from the existing Independent Power Producers (IPPs) like M/s. Sterilite Energy Limited, M/S Ararti Steels Limited and Upcoming IPPs like M/s. Ind-Barath Energy Ltd., M/s. GMR Kamalanga Energy Ltd and M/s. Maa Durga Thermal Power Limited during the FY 2012-13. However, if any other Up-Coming Generating IPPs are commissioned, GRIDCO shall also procure its share.

The details of proposed procurement from different IPPs for FY 2012-13 are furnished below:

(i) Procurement from Sterilite Energy Limited & Ararti Steels Limited:

(a) Sterilite Energy Limited:

M/s. Sterilite Energy Limited (SEL) is setting up capacity for 2400 MW (4x600 MW) out of which three generating Units each having 600 MW capacity (3x600=1800 MW) of M/s. Sterilite Energy Ltd. (SEL)) have been commissioned so far. The State has got a share of 25% at total

cost and 7% at variable cost from M/s. SEL. Until all the Units are commissioned, the Unit No.2 is dedicated to the State & connected to the STU i.e. the OPTCL System. However, due to constraint in the Transmission Line, GRIDCO is not able to draw more than 350 MW.

It is submitted that GRIDCO proposes to procure about **2612.57 MU** of energy (equivalent to about to GRIDCO's Share of **350 MW of power at 85% PLF** from M/s. Sterilite Energy Ltd. during FY 2012-13.

(b) M/s. Ararti Steels Limited:

With regard to M/s. Aarti Steels Ltd. (ASL), only one Unit of 50 MW capacity has been commissioned. It is to state that as no Coal Block / Linkage is allocated to ASL, resulting in high cost of generation for which GRIDCO is not inclined to procure the entire generation from ASL. However, GRIDCO shall procure its share of 12% from ASL at variable cost which is taken as 40 MU for FY 2012-13 at a PLF of 85% and Auxiliary Consumption of 10%.

Thus, GRIDCO proposes to procure **2652.57 MU** of energy from the existing IPPs of M/s. Sterilite Energy Ltd. and M/s. Arati Steels Ltd. as per the details given below:

(i) Proposed Energy Drawal from M/s. Arati Steels Ltd. & M/s. Sterilite Energy Ltd. during FY 2012-13

Sl. No.	Name of IPP	Installed Capacity (MW)	State Share (%)	Energy drawal proposed for FY 2012-13 (MU)	Remarks
1	M/s. Arati Steels Ltd.	50	12%	40.00	State Quota of 12% power at variable cost.
2	M/s. Sterilite Energy Ltd.	1800	32% or 100% of one unit which ever is higher	2612.57	350 MW is projected considering evacuation constraint.
	Total			2652.57	

(ii) Procurement from Ind-Barath Energy (Utkal) Ltd. & GMR Kamalanga Energy Ltd.:

Based on the future date of commissioning, it is expected that M/s. Ind-Barath Energy (Utkal) Ltd. (IBEUL), M/s. GMR Kamalanga Energy Ltd. (GKEL) and M/s. Maa Durga

Thermal Power Company Ltd. may inject 71.15 MU, 790.52 MU and 42.69 MU, respectively during FY 2012-13 considering 85% PLF and Auxiliary consumption of 9%, the details of which are given below:

(ii) Procurement from M/s. Ind-Barath Energy Ltd. & M/s. GMR Kamalanga Energy Ltd. during FY 2012-13

Sl. No.	Name of IPP	Installed Capacity (MW)	State Share (%)	Energy drawal proposed for FY 2012-13 (MU)	Remarks
1.	M/s. Ind-Barath Energy (Utkal) Ltd.	350	12	71.15	Supply of power considered for 3 months from its commissioning.
2.	M/s. GMR Kamalanga Energy Ltd.	350	25	790.52	Supply of power considered from. one plant supplying for 5 months and the other plant for 9 Months and another Unit for 2 months, depending upon their commissioning.
3	M/s. Maa Durga Thermal Power Company Ltd.	30x2 =60	12%	42.69	Supply of power considered from. one plant supplying for 6 months and the other plant for 9 Months depending upon their commissioning.
	Total			904.35	

Based on above projections, GRIDCO hopes to procure a total of **3556.92 MU** from the IPPs during FY 2012-13 as given below:

Procurement from M/s. SEL, M/s. ASL, M/s. IBEUL, M/s. GKEL & M/s. MTPCL during FY 2012-13

Sl. No.	Name of IPP	Energy drawal proposed for FY 2012-13 (MU)	Remarks
(i)	M/s. Arati Steels Ltd. & M/s. Sterilite Energy Ltd.	2652.57	State Share of 12% power at variable cost from M/s. Arati Steel Ltd. & State Share of 25% from M/s. Sterilite Energy Ltd. at the Generation Cost considering the evacuation constraint.
(ii)	M/s. Ind-Barath Energy (Utkal) Ltd., M/s. GMR Kamalanga Energy Ltd. & M/s. MTPCL	904.35	Supply of power considered from: <ul style="list-style-type: none"> ➤ M/s. IBEUL: 1st Unit- For 3 months, ➤ M/s. GKEL: 1st Unit- For 9months, 2nd Unit- For 5 months & 3rd Unit-For 2months

			➤ M/s. MTPCL: 1st Unit-For 12months. 2nd Unit-For 9months
	Total	3556.92	

NB: It may kindly be noted that the procurement from CGPs / Co-generating Plants / IPPs are only indicative and GRIDCO reserves the right to vary the procurement quantum and the rates depending upon actual situation including its financials.

1.8 PROCUREMENT THRU' UI / POWEREXCHANGE / SHORT-TERM OPEN ACCESS:

It is submitted that considering the availability of 24412.96 MU from all the above sources, GRIDCO will still require another 474.62 MU to meet the energy requirement of the DISCOMs and the Emergency Sale to CGPs like NALCO & IMFA. GRIDCO hopes to procure this quantum through Unscheduled Interchange (UI) \ Power Exchange \ Short Term Open Access so that the State does not suffer from power crisis.

1.9 Summary of Energy Availability to GRIDCO for FY 2012-13:

➤ The energy availability from all sources to GRIDCO for FY 2012-13 is estimated as **24887.58 MU**, which is tabulated in the following Table:

Summary of Energy Availability to GRIDCO for FY 2012-13

Stations	Availability (After Transformation loss and Auxiliary Consumption) (MU)	Share %	Projection for FY 12-13 (MU)
HHEP	767.48	100	767.48
CHEP	356.40	100	356.4
Rengali	576.18	100	576.18
Upper Kolab	793.98	100	793.98
Balimela	1173.15	100	1173.15
OHPC (Old)	3667.19	100	3667.19
Indravati	1944.36	100	1944.36
Sub-Total OHPC	5611.55	100	5611.55
Machhkund	262.50	100	262.5
Total State hydro availability	5874.05	100	5874.05

OPGC	2864.82	100	2864.82
TTPS	2957.32	100	2957.32
Small Hydro Renewable Energy	300.00		300
Biomass Energy	122.00		122
Solar Energy	46.00		46
Co-generation Plants	621.96		621.96
CGPs	1121.28		1121.28
IPPs	3556.92		3556.92
Total State availability	17464.35		17464.35
TSTPS Stg.-I	2163.22	31.8	2163.22
TSTPS Stg.-II	1343.46	10	1343.46
FSTPS	1472.38	13.63	1472.38
KhSTPS Stg.-I	844.98	15.24	844.98
KhSTPS Stg.-II	208.57	2.05	208.57
Total Central Thermal Availability	6032.61		6032.61
Chukha	263.00	15.19	263
TALA	143.00	4.25	143
Teesta	510.00	23.4	510
Total Central Hydro Availability	916.00		916
Total EREB	6948.61		6948.61
Total Availability	24412.96		24412.96
Shortfall to be procured thru.' UI / Trading / Short Term Open Access	474.62		474.62
Total Requirement / Procurement	24887.58		24887.58

2. Energy Demand of DISCOMs and CGPs:

GRIDCO requested the four Distribution Companies (DISCOMs) to submit their Energy Demand and Simultaneous Maximum Demand (SMD) for FY 2012-13 for consideration in the Annual Revenue Requirement & Bulk Supply Price Application for FY 2012-13. It is submitted that Hon'ble Commission in their Order dated 20.03.2010 in Case Nos. 41, 42, 43 of 2010 and 22 of 2008 approving the 5-year Business Plan of DISCOMs from FY 2008-09 to FY 2012-13, approved a quantum of 23520.60 MU as the energy requirement of DISCOMs during FY 2012-13. However, the DISCOMs submitted their Energy Requirement of 23931.85 MU for FY 2012-13 on 25th / 26th November, 2011.

Considering the fact that the Energy & Demand Projections furnished by GRIDCO and the DISCOMs in their respective ARR and Tariff Applications differed during earlier years and Hon'ble Commission's remarks to make such projections identical both by the GRIDCO & the DISCOMs, GRIDCO went by the energy projection figures of DISCOMs as furnished vide letter (In case of CESU, the submission was thru' the letter dated 25.11.2011) / E-mails (NESCO & SOUTHCO submitted the projections thru' E-mails on 26.11.2011) / telephone (WESCO indicated its projections over Telephone) on 26.11.2011).

The total projections indicated by the DISCOMs for FY 2012-13 works out to be 23931.85 MU. Besides, Emergency Sale of 10 MU has been estimated for CGPs like NALCO & IMFA with whom GRIDCO has Long Term Agreements.

Thus, it is proposed that GRIDCO will sell 23941.85 MU to the DISCOMs and CGPs (NALCO & IMFA) during the FY 2012-13.

The Projection of energy requirement of DISCOMs & the CGPs for FY 2012-13 are given as under:

Estimated Energy Requirement of the DISCOMs and of the CGPs for FY 2012-13

AGENCY	Actual from 4/1 to 9/11 (MU)	Projection for 2011-12 on pro-rata basing on first six months consumption (MU)	Approval in Business Plan of DISCOMs for 2011-12 (MU)	DISCOMs Projection on Review Meeting on 31.10.2011 before OERC (MU)	DISCOMs' Revised Projection on 25/26.11.2011 to GRIDCO (MU)	GRIDCO Projection for FY 2012-13 (MU)	% Rise in Demand (FY'11-12 vs. projection for FY 2012-13)
1	2	3	4	5	6	7	8=((6-3)/3)%
CESU	3809.36	7618.72	7868.10	8640.18	8532.67	8532.67	12.00
NESCO	2586.26	5172.52	5769.50	5453.48	5469.18	5469.18	5.74
WESCO	3159.06	6318.12	6800.00	6777.30	6500.00	6500.00	2.88
SOUTHCO	1412.84	2825.68	3083.00	3350.00	3430.00	3430.00	21.39
TOTAL	10967.52	21935.04	23520.60	24220.96	23931.85	23931.85	9.10

DISCOMS							
IMFA	9.74	19.48	-				
NALCO	161.14	322.28	-			9.50	
TOTAL CGPs	170.88	341.76	-			10.00	
TOTAL SALE	11138.40	22276.80	23520.60		23931.85	23941.85	7.47

As may be observed, the proposed energy requirement suggested by the DISCOMs on 25th / 26th November, 2011 represents an increase of about **9.1%** increase over the pro-rated energy consumption for FY 2011-12 & about **6.5%** increase $\{((23931.85 \text{ MU} - 22477 \text{ MU}) / 22477 \text{ MU}) \times 100\}$ over the Hon'ble Commission's approval of 22477 MU towards DISCOMs' drawal from GRIDCO for FY 2011-12.

3. **Simultaneous Maximum Demand (SMD):**

- The average Simultaneous Maximum Demand (SMD) of DISCOMs during first six months for FY 2011-12 is **3304.85 MVA** per month. However, the DISCOMs in the presentation on 31.10.2011 made before the Hon'ble OERC indicated much higher SMDs as 4102.251 MVA for FY 2012-13. Similarly, on November, 25 & 26, 2011, the DISCOMs intimated a revised combined SMDs of 4008 MVA per month which also seemed to be much higher as compared to the actual occurring in the Distribution System.

Projection SMDs of DISCOMs for FY 2012-13

(As per the DISCOMs' Presentation made on 31.10.2011 before OERC)

DISCOMs.	SMD (MVA per Month) (As per the DISCOMs' Presentation made on 31.10.2011 before OERC)	SMD (MVA per Month) (As per the DISCOMs' Intimation on 25th/26 th November, 2011 to GRIDCO)
CESU	1385.16	1400
NESCO	950.00	948
WESCO	1217.091	1100
SOUTHCO	550.00	560
TOTAL	4102.251	4008

GRIDCO, however, did not consider both the above projections of SMDs made by the DISCOMs which are considered to be extremely high and not realistic.

- In order to make the projection of SMD more pragmatic, GRIDCO, instead, considered the highest SMD of each DISCOM occurring during the first six months for FY 2011-12 as the SMD of each DISCOM for FY 2012-13. Based upon said premise, the total SMDs for FY 2012-13 is projected as **3412.43 MVA** which is shown in the Table below:

Projection of SMD of DISCOMs (MVA per Month) for FY 2012-13

DISCOMs	Apr-11	May-11	Jun-11	Jul-11	Aug-11	Sep-11	Average SMD of each DISCOMs during 1st 6 months of FY 2011-12	Highest SMD of each DISCOM during first six months i.e. Projection of SMDs for FY 2012-13
CESU	1193.22	1152.43	1174.1	1147.51	1135.74	1161.43	1160.74	1193.22
NESCO	833.76	809.20	818.45	761.45	801.16	784.81	801.47	833.76
WESCO	887.40	904.61	943.79	938.59	892.60	915.71	913.78	943.79
SOUTHCO	439.88	425.06	426.93	439.54	441.65	400.11	428.86	441.65
TOTAL	3354.26	3291.3	3363.27	3287.09	3271.15	3262.06	3304.86	3412.43

Copies of the presentation made on 31.10.2011 and that furnished on 25/26th November, 2011 on energy & SMD requirement by each of the DISCOMs are enclosed herewith as **ED-V(a)** (CESU), **ED-VI(a)** (NESCO), **ED-VII(a)** (WESCO) & **ED-VIII(a)** (SOUTHCO) and **ED-V(b)** (CESU), **ED-VI(b)** (NESCO), **ED-VII(b)** (WESCO) & **ED-VIII(b)** (SOUTHCO), respectively.

4. Transmission Loss:

- The Transmission Loss in the State Transmission Utility (STU) i.e. OPTCL System for the year FY 2012-13 is projected as 3.80%, based on the approval by the Hon'ble OERC in the 5-year Business Plan of Orissa Power Transmission Corporation Limited (OPTCL) for FY 2012-13. GRIDCO considers the same while projecting the energy requirement of the State.

5. Energy Demand & Availability:

The energy demand of DISCOMs and Emergency Sale to M/s. NALCO & M/s. IMFA is estimated as 23941.85 MU. Considering 945.73 MU towards Transmission Loss (@ 3.80%), procurement of 24887.58 MU (23941.85 MU + 945.73 MU) will be required. The energy requirement vis-a-vis the availability is given in the following Table:

Sl. No.	ITEMS	Projection for FY 2012-13 (MU)
1	Energy Demand of DISCOMs (23931.85 MU) & CGPs 10 MU)	23941.85
2	Transmission Loss @ 3.80%	945.73
3	Energy Required to be purchased by GRIDCO to meet the power demand of DISCOMs & CGPs	24887.58
4	Available Power for supply to the DISCOMs & the CGPs	
5	Shortfall of power	0.00

6. POWER PROCUREMENT COSTS:**6.01 OHPC :**

➤ So far GRIDCO has not received the projected tariff for FY 2012-13 from OHPC. The OERC approved rates for different OHPC Stations for the FY 2011-12 are considered along with the likely payout towards **Electricity Duty (ED) & Water Cess** to the Government. As per Odisha Gazette Notification Dtd.01.10.2010, OHPC has to pay 1 Paisa per Kwh as Licence Fee (Water Cess) on water used for generation of electricity from all hydro projects which is calculated to the tune of Rs.5.69 Crs. for the FY 2012-13 as per the generation plan submitted by OHPC. The rate as would be decided once the ARR of OHPC, would be adopted for projection of Revenue Requirement for FY 2012-13. Accordingly, the projected quantum of power procurement, Rate and Cost for FY 2012-13 from OHPC Stations are given in the Table below:

Power Procurement Cost for OHPC Stations							
Name of the Power Stations	GRIDCO Projection for FY 2012-13 (OHPC Gross Projection) (MU)	GRIDCO Projection for FY 2012-13 (After Loss) (MU)	Annual Fixed Cost approved for FY 2011-12 (Rs. Crs.)	ED on Aux. Consumption (Rs. Cr.)	Water cess Paid to Govt. (Rs. Crore)	Total Projected Cost (Rs. Cr.)	Rate (P/U)
HHEP	792.00	767.48	60.33	0.08	0.792	61.20	79.74
CHEP	360.00	356.40	24.29	0.04	0.360	24.69	69.26
Rengali	582.00	576.18	36.03	0.06	0.582	36.67	63.64
Upper Kolab	802.00	793.98	27.48	0.08	0.802	28.36	35.72
Balimela	1185.00	1173.15	84.08	0.12	1.185	85.38	72.78
Sub-Total	3721.00	3667.19	232.21	0.37	3.72	236.30	64.44
Upper Indravati	1964.00	1944.36	149.97	0.20	1.964	152.13	78.24
Total	5685.00	5611.55	382.18	0.57	5.69	388.43	69.22

6.02 Machhkund:

➤ As per the CERC Tariff Regulations, 2009, the cost of O&M expenditure of Hydro Stations shall be escalated @ 5.72%. The actual O&M cost for Machhkund HEP is Rs 6.45 Crore for FY 2010-11 as available from the bills of APGENCO.

Out of 262.50 MU of Orissa share, 157.50 MU is being procured (i.e. 30% of 525 MU) by paying O&M charges & balance energy is procured @ **8P/kwh** pursuant to the Agreements executed between Orissa and APGENCO. Accordingly, the proposed power procurement tariff and cost from Machhkund HEP for FY 2012-13 are shown in the Table below.

Power Procurement, Tariff & Cost from Machhkund Station

Particulars	Projection for FY 2012-13
Installed Capacity (MW)	114.5 MW
Design Energy Available both for Andhra Pradesh & Orissa (MU)	525 MU
Expected Energy Drawal by Orissa (50%) (MU) (A)	262.5 MU
Energy Drawal against O&M Exp. (30%)(MU)	157.5MU
Purchase of power upto 20% as per supplementary Agreement	105 MU
O&M Escalation factor @ 5.72% for each year (1.0572*1.0572)	1.11767184
Particulars	(Amount in Rs. Crore)
1. O&M Exp. (Orissa share of actual O&M for FY 2010-11 for Rs.6.45 Cr. x 1.11767184)	7.21
2. Purchase Cost (105*0.08) for balance 20%	0.840
3. Total Expenditure	8.05
4. Tariff (Paise/kwh) (B)	30.66
5. Cost of Machhkund Power (AXB)	8.05

6.03 Talcher Thermal Power Station (TTPS):

Hon'ble CERC in the Order dated 09.02.2010 in Petition No. 31 / 2008 fixed the Annual Fixed Cost of TTPS as Rs.200.88 Crore basing on which TTPS is claiming the Annual Fixed Cost @ Rs. 200.88 Crore in the bill submitted for September-2011 which is also approved for FY 2011-12 by the Hon'ble Commission (OERC) in the ARR & BSP Order dated 18.03.2011.

In the meantime NTPC-TTPS has filed Petition (No. 184 / 2009) for revision of fixed charges for the period 2004-2009 and also filed Petition (No. 304/ 2009) for fixation of tariff as per the new CERC Tariff Regulation for the period 2009-14. Both the Petitions are now pending before the Hon'ble Central Electricity Regulatory Commission (CERC) for adjudication. The summary of the fixed charges, for the period 2004-2009 and the tariff for the period 2009-14, as projected by NTPC-TTPS in the above said Petitions are enclosed **(ED-IX & ED-X)**, respectively for ready reference.

Considering the above Petitions filed by TTPS, the **Fixed Cost of TTPS** is projected as **Rs.381.69 Crore** for FY 2012-13. Thus, the **Fixed Cost per Unit** of energy from TTPS at a normative **PLF of 82.00%** and **Aux. Energy Consumption of 10.50%** works out to **129.066 P/U** for the proposed drawal of **2957.32 MU** for FY 2012-13. We are considering their projected Annual Fixed Cost of Rs.381.69 Crore as per the Application without prejudice to our right to contest the same before the Hon'ble CERC on valid grounds.

➤ **Variable Charges and FPA Charges:**

As per the latest CERC Order in consonance with the old CERC Tariff Regulations, 2004, NTPC is presently claiming the Base Variable Charge for TTPS @ 46.05 P/U. Hon'ble CERC has not yet come out with any rates to be applicable for the period 2009-14 Tariff Period. It may be noted that the above rate of 46.05 P/U has been contested by NTPC and the matter continued to be sub-judice as of now. It is expected that the rate may move upwards considering the present trend of increasing cost of fuel (Coal & Oil).

The average Fuel Price Adjustment (FPA) Charge as claimed by TTPS for first six months of FY 2011-12 comes to **54.473 P/U**. However, taking into account the ever-increasing trend of cost of fuels, GRIDCO has considered **20% escalation** over and above the monthly highest FPA of 63.05 P/U and thus, proposes **75.66 P/U** towards **FPA** for **FY 2012-13**. The details are tabulated below:

Fuel Price Adjustment (FPA) OF TTPS							(P/U)
Apr-11	May-11	Jun-11	Jul-11	Aug-11	Sep-11	Monthly highest FPA	GRIDCO proposal for FY 2012-13 considering 20% escalation on 63.05 P/U
63.05	59.71	48.14	55.49	51.49	48.71	63.05	75.66

Considering the above, the Variable Charge now claimed and the proposed FPA amounts to 46.05 P/U and 75.66 P/U, respectively.

Considering the Present Petition submitted by NTPC in Petition No. 304/09 for approval of tariff of TTPS (NTPC) for the 2009-14 Tariff Period, relevant Base Energy Charge calculations are enclosed herewith for reference (**ED- XI**),

It may be noted here that, due to short supply of linkage coal / indigenous coal, TTPS is also depending on costlier imported coal & thus, the above mentioned FPA charges may likely to increase further in future which may be allowed to be recovered through the tariff.

Therefore, Hon'ble OERC may kindly consider to approve the higher rate of such charges for TTPS at the time of approving the ARR and BSP Order of GRIDCO for FY 2012-13 after a comprehensive analysis of fuel cost of various Thermal Stations.

Year End Adjustment (YEA) Charges:

The Year-end Adjustment (YEA) Charges for FY 2012-13 is projected as **Rs. 20.13 Crore** based on first six months of the actual charges paid by GRIDCO for FY 2011-12, the details of which are furnished in the **Table** below:

Year-End-Charges (YEA) of TTPS

(Amount in Rs. Crore)

ITEM	OERC approval for FY 2011-12	Actual (Apri'11 to Sept'11)	GRIDCO Projection for FY 2012-13
Income Tax			0*
Electricity duty@20P/U	6.94	3.33	6.66
Water/Pollution Cess Charge	0.12	0.06	0.12
Incentive:	0	4.60	9.19
U.I. Overdrawal	0	2.08	4.16
Total	7.06	10.066	20.13
ESO (MU)	2957.32		2,957.32
Per Unit cost of TTPS (P/U)	2.39		6.81

***Note:** As per the new CERC Tariff Regulations, 2009, the Income Tax component is to be included in Pre-Tax Return on Equity (RoE) @ 23.41% instead of RoE @ 15.50% post-tax.

The total projected power procurement cost from NTPC-TTPS during FY 2012-13 is estimated at **Rs. 761.76 Crore** at a price of **257.58 Paise / Unit** which is shown below:

Proposed Power Procurement & Cost of TTPS for FY 2012-13

Projected Power Procurement from TTPS (A)	(MU)	2957.32
Capacity Charge	(P/U)	129.07
Variable Charge	(P/U)	46.05
FPA	(P/U)	75.66
YEA	(P/U)	6.81
Total Rate (B)	(P/U)	257.58
Projected Power Procurement from TTPS (A x B)	(Rs. Cr.)	761.76

6.04 Orissa Power Generation Corporation Limited (OPGC):

➤ As per **Sec. 62** of the Electricity Act, 2003, Hon'ble OERC shall determine the generation tariff of OPGC. However, Clause 12.4 of Power Purchase Agreement (PPA) subsisting between GRIDCO and OPGC provides that tariff shall be determined based on the operational and financial norms as amended from time to time. Based on the said provision, OPGC is taking a plea that they are not amenable to the jurisdiction of Hon'ble OERC and has raised the matter before Hon'ble Orissa High Court. Although Hon'ble Orissa High Court rejected their stand, OPGC has challenged the same before Hon'ble Supreme Court of India. In an Interim Order, Hon'ble Supreme Court have stayed the proceedings of the Hon'ble OERC for approval of the PPA.

Further, Hon'ble OERC have been advising OPGC, every year, to furnish the ARR under Section 62(2) of the Electricity Act, 2003. However, OPGC has not been filling its ARR before the Hon'ble Commission under the plea that it has been selling power not to any Distribution Company but to GRIDCO, which is now a Trader.

OPGC insisted for determination of tariff based on the norms prevailing at the time of execution of PPA. GRIDCO did not accept the proposal, as it is contrary to the provisions of the PPA and thereafter, referred the matter to the Govt. of Odisha (GoO) for a decision. The Govt. of Odisha constituted a Task Force for resolution of the dispute. The Task Force submitted their recommendations to the State Govt. and accordingly Govt. of Orissa have taken important decisions vide Notification No. OPGC-8/2007 7216/E, Bhubaneswar dated 21.06.2008 **(ED- XII)**, and another Notification on 12.10.2009 (No.10061) **(ED-XIII)** (affecting certain modification to Clause No. 5(a) of the earlier Notification dated 21.06.2008 (No. 7216)) for settlement of the dispute, to which both GRIDCO and OPGC have to abide by before taking up any future course of action.

It is to mention here that, the necessary Power Purchase Agreement (PPA) between OPGC and GRIDCO regarding procurement of 50% of total power generation from the upcoming 3rd and 4th Unit (2X660MW) of OPGC has been executed on 4th January, 2011 **(ED-XIV)**. In case, the 4th Unit is not commissioned within six months of commissioning of the 3rd Unit minimum power to be shared with State / GRIDCO from the expansion Units of OPGC, would be 450MW. Further, as per the provision of the said PPA, the generation tariff for the power to be procured from 3rd and 4th Unit shall be based on the norms of the CERC Tariff Regulations fixed from time to time.

The Board of Directors of GRIDCO have accepted the Settlement Principles approved by the Govt. of Odisha and steps are being taken to execute the amended Power Purchase Agreement (for 1st and 2nd Unit of OPGC) as well as the Tripartite Agreement. The amended PPA and the Tripartite Agreement once executed will be jointly filed before the Hon'ble Commission for approval.

The Hon'ble Commission, had earlier provisionally determined the tariff for sale of OPGC's power to GRIDCO for the FY 2010-11 & 2011-12, based on the parameters of the subsisting PPA as well as the Government Notifications dated 21-06-2008 and 12.10.2009 basing on the information made available to them by GRIDCO. However, the said tariff is subject to change in accordance with Hon'ble Court Orders or otherwise.

OPGC has submitted a Statement of Tariff Calculation for the year 2012-13 **(ED-XV)** to GRIDCO, wherein OPGC proposes Fixed Cost as **Rs.177.9157165 Crore** and **Variable Cost** as **134.994370 P/U**. It may be mentioned here that OPGC has projected tariff for FY 2012-13 considering use of blended coal consisting of 96.2% of domestic coal and 3.8% of imported coal. Thus, GRIDCO has worked out the tariff by considering the Normative Auxiliary Consumption of 9.5% on the station generation of 3194.239 MU (as submitted in the Generation Plan for 2012-13 by OPGC).

Year-end Adjustment (YEA) Charges:

The total Year-end Charges for FY 2012-13 is projected as Rs. **56.795 Crore**, the details of which are furnished in the **Table** below:

Year-end Adjustment (YEA) Charges of OPGC

ITEM	OERC approval for FY 11-12	GRIDCO Projection for FY 12-13
	(Rs. Cr.)	(Rs. Cr.)
Water Cess & Water Charges	0.76	5.04
Electricity Duty@20 P/U	5.76	5.75
Income Tax:	35.81	34.58
Incentive:	7.68	7.591
Rent and Cess (Land)	0.13	0.134
Electricity inspection fees	0.17	0.17
SOC & MOC of SLDC	0.38	0.38
ERPC charges	0.15	0.153
Env. Protn. Equip. Installation	0.7	3.0
Total	51.54	56.79509
Projected Power Procurement from OPGC (MU) (Considering Normative Auxiliary Consumption of 9.5%)	2853.47	2,890.79
YEA Per Unit (P/U)	18.06	19.65

Considering the proposal submitted by OPGC, the power purchase cost from OPGC for **2864.824 MU @ 229.69 P/U** comes to **Rs. 658.01 Crore** for FY 2012-13 which is shown below:

Projected Power Procurement Cost from OPGC during FY 2012-13

Projected Power Procurement from OPGC	(MU)	2864.824
Fixed Cost	(Rs. Cr.)	177.92
Fixed Charge	(P/U)	61.55
Variable Charge	(P/U)	134.99
FPA	(P/U)	13.50
YEA	(P/U)	19.65
Total Rate	(P/U)	229.69
Projected Power Procurement from OPGC (Rs. Cr.)		658.01

6.05 Central Generating Stations other than NTPC Stations.

➤ **Chhuka:**

GRIDCO considers 159 P/U as claimed in the bill served to GRIDCO for September-2011 in the present tariff application for FY 2012-13. Considering Central Transmission Loss @ 2.29% and PGCIL transmission charge @ 33.578 P/U, the effective power purchase cost from Chukha Hydro Station for 263 MU works out to **Rs. 51.63 Crore** for FY 2012-13 which is shown in the Table below:

Proposed Energy Drawal	(MU)	263.00
Energy Charge including PTC INDIA charge of 4 P/U	(P/U)	159.00
Energy Charge including Trans. Loss of 2.29%	(P/U)	162.73
Cost of Trans. Charge including Trans. Loss of 2.29%	(P/U)	33.58
Total Rate	(P/U)	196.30
Cost of Chukha power	(Rs. Crore)	51.63

➤ **Tala HEP (Bhutan):**

GRIDCO considers 184 P/U as claimed in the bill served to GRIDCO for September-2011 in the present BSP application for FY 2012-13. Considering **2.29%** Central Sector Transmission Loss and the PGCIL Transmission Charges of **33.578 P/U**, the effective power purchase cost from Tala HEP for 143 MU comes to **Rs.31.73 Crore** for FY 2012-13, which is shown in the Table below.

Proposed energy drawal	(MU)	143.00
Energy Charge including PTC INDIA charge of 4P/U	(P/U)	184.00
Energy Charge including Tr. Loss of 2.29%	(P/U)	188.31
Cost of Trans. Charge including Tr. Loss of 2.29%	(P/U)	33.58
Total Rate	(P/U)	221.89
Cost of TALA HPS Power	(Rs. Crore)	31.73

➤ **Teesta-V Hydro Project:**

CERC vide its Order dated 05.01.2010 **(ED-XVI)** fixed tariff @ 150.00 P/U on the scheduled saleable energy, which is applicable from the date of Commercial Operation. Considering **2.58%** Central Sector Transmission Loss and the PGCIL Transmission Charges of 33.578P/U, the effective power purchase cost from Teesta-V HEP for **510 MU** comes to **Rs. 95.65 Crore** for FY 2012-13, which is shown in the Table below:

Proposed Energy Drawal	(MU)	510.00
Energy Charge	(P/U)	150.00
Energy Charge including Trans. Loss of 2.58%	(P/U)	153.97
Cost of Trans. Charge including Trans. Loss of 2.58%	(P/U)	33.58
Total Rate	(P/U)	187.55
Cost of TEESTA Power	(Rs. Crore)	95.65

**Summary of availability of Power and cost of Central Hydro Generating Stations
(Other than NTPC Stations)**

Central Hydro Generating Stations (other than NTPC Stations)	Projected GRIDCO share of availability after C.S. Tr. loss (MU)	Rate before C.S. Loss (P/U)	Rate including loss (P/U)	PGCIL charge (P/U)	Total Rate (P/U)	Purchase Cost (Rs. Cr.)
Chukha HEP	263.00	159.00	162.73	33.58	196.30	51.63
Tala HEP	143.00	184.00	188.31	33.58	221.89	31.73
Teesta-V HEP	510.00	150.00	153.97	33.58	187.55	95.65
TOTAL	916.00				195.42	179.01

6.6 Central Sector Thermal Stations:

Hon'ble CERC have finalised the Terms and Conditions of Tariff Regulations, 2009 for the 5-year period starting from April 01, 2009 to March 31, 2014. NTPC has submitted its applications for approval of tariff for different Stations. Pending finalization of tariff, Hon'ble CERC approved 95% of tariff projection made by NTPC. Accordingly, GRIDCO considers it prudent to take the Fixed Cost as approved by Hon'ble CERC which are enclosed as **(ED-XVII for TSTPS-I, ED-XVIII for TSTPS-II, ED-XIX for FSTPS, ED-XX for KhSTPS-I and ED-XXI for KhSTPS-II)**. However the CERC Orders are provisional subject to finalisation of tariff of different Stations by the Hon'ble Central Commission. The considered AFCs for different Stations are based on 95% of the Annual Fixed Costs applied by the NTPC in their Tariff Applications.

➤ **Fixed Cost of Central Sector Stations:**

The Fixed Cost considered by GRIDCO for different Central Sector Stations for FY 2012-13 is given below.

GRIDCO is to pay about **Rs.509.59 Crore** as Capacity Charge (Fixed Charge) towards its share from NTPC Stations at normative availability of 85%, irrespective of the drawl from these Stations during FY 2012-13.

The apportionment of Fixed Costs has been made as per the share of GRIDCO in the pool. With inclusion of Central Transmission Loss (CTL), the **projected Fixed Cost** applicable to GRIDCO for its share of energy drawal from different Stations are shown in the Table below:

Projected Fixed Cost of CGS NTPC-ER Stations for FY 2012-13

Central Thermal Stations	Annual Fixed cost for FY 2011-12 as per CERC Order in (Cr.)	Annual Fixed Cost projected by GRIDCO for FY 2012-13 (Rs. Cr.)	GRIDCO Share (%)	Gridco F.C. share for FY12-13 at Normative Availability of 85% (Rs. Cr.)	GRIDCO's Proposed drawal for FY12-13 after C.S. Loss of (MU)	Fixed Cost (P/U)
TSTPS Stage -I	540.7305	551.7790	31.80	175.47	2163.22	81.11
TSTPS Stage -II	1092.0155	1101.5915	10.00	110.16	1343.46	82.00
FSTPS	827.3222	873.6172	13.63	119.07	1472.38	80.87
KhSTPS-I	507.5660	525.0464	15.24	80.01	844.98	94.70
KhSTPS-II	1166.8375	1214.0620	2.05	24.89	208.57	119.33
TOTAL	4134.47	4266.10		509.59	6032.60	84.47

➤ **Energy Charge Rate of Central Thermal Stations:**

It is submitted that the method of calculation of Energy Charges Rates of Central Sector Stations has undergone change from FY 2009-10. Previously, the Variable Charges or Energy Charges of CGS Stations included both the Charges towards Coal and **Secondary Fuel Oil (SFO)** and the same were recovered in two components such as; (i) **Base Energy Charges** and, (ii) **Fuel Price Adjustment Charges (FPA)**.

However, this concept has been changed with the implementation of CERC Tariff Regulations, 2009-14.

As per the new Regulation, monthly Energy Charges are being recovered on actual basis and it includes only the Coal Expenditures. Since, such recovery is on actual expenditure basis and there is no concept of Base Energy Charges, there is no concept of FPA too. Further, the SFO expenditures are no more recovered in variable charges on monthly basis. Now SFO Expenditures are included in the Annual Fixed Cost. However, at the year-end, there is an Annual FPA towards actual SFO expenditures.

GRIDCO, has adopted the revised concept of calculation of Energy Charge Rate (ECR) while projecting its drawal from various NTPC-ER Stations which is given below:

Energy Charge Rate (ECR) of NTPC Stations

Central Thermal Stations	Cumulative ECR of 1st six month of FY 2011-12 (Rs.)	Projection for FY 12-13 (30% hike over cumulative ECR of 1st six month of 2011-12) (Rs.)*
TSTPS Stage-I	2.25	2.92
TSTPS Stage-II	2.23	2.91
FSTPS	3.69	4.80
KhSTPS Stage-I	2.91	3.78
KhSTPS Stage-II	2.69	3.50

***The Escalation of 30% is based on Weighted Average of actual % of escalation of NTPC Central Sector Stations between April'11 to Sept'11.**

It may be relevant to mention here that the increase in ECR is attributable to abnormal hikes in the prices of coal which, in fact, is the consequence of decontrol of coal price by the Govt. of India. Coal India took the advantage of de-control policy of the Govt. and resorted to determine coal prices driven by market imperatives in place of the Cost plus concept in a bid to earn abnormal profit. As the coal prices are passed on to the beneficiaries by the Generators resulting in increase of cost of power, GRIDCO sought for information under RTI Act-2005 on dtd. 28.04.2011 **(ED-XXII)** from M/s. Coal India Ltd. (CIL).

On 1st Sept'2011, M/s. Coal India Ltd. submitted the replies **(ED-XXIII)** to our query which stated that **the pricing of coal is completely decontrolled w.e.f. 01.01.2000** and CIL had been fixing the price of raw coal produced by its subsidiary companies including NEC with approval of its Board and the pricing of raw coal so fixed from time to time is based on:

- To offset the impact of increase in input cost for production of coal due to the upward movement of AICPI and WPI and revision of wages cost.
- Import parity pricing for higher grades of non-coking coal.
- **Market Driven Price** forming the benchmark for fixing the coal price for supply to deregulated sector.

On receipt of the above reply, GRIDCO again sought for information on details of calculation of fixation of 'F' & 'G' grade coal of MCL and of other subsidiaries along with the copy of the decision of Board of M/s. CIL in respect of decision of price hikes under the RTI Act **(ED-XXIV)**. Till date, the reply from CIL is awaited.

Year-end Adjustment Charges of Central Sector Stations:

The total **Year-end Adjustment Charges (YEA)** for FY 2012-13 for C.G. Stations are projected in line with the actual for FY 2010-11 and for FY 2011-12 (Apr'11 to Sept'11) with the projected CS loss. The details of such YEA Charges are furnished in **Table** below:

Year-end Adjustment Charges of Central Sector Stations

Central Thermal Stations	Energy (MU)	OERC approval for FY 2011-12 including Central Sector Loss (P/U)	Actual for FY 2010-11 (Rs. Crore)	Actual for FY 2011-12 (upto Sept'11) (Rs. Crore)	Projection for FY 2012-13 with CS Loss (Rs. Crore)	Projection for FY 2012-13 including Central Sector Loss (P/U)
TSTPS Stage-I	2163.22	15.84	5.58	2.460	5.708	2.64
TSTPS Stage-II	1343.46	14.73	3.12	1.396	3.189	2.37
FSTPS	1472.38	9.91	2.49	0.000	2.550	1.73
KhSTPS Stage-I	844.98	11.18	1.37	0.000	1.397	1.65
KhSTPS Stage-II	208.57	1.56	0.032	0.000	0.033	0.16
Total	6032.60		12.58	3.856	12.877	2.13

Based on the above presumptions, the Projected Power Procurement Cost from different C.G. Stations are furnished in the following Table:

Projected Power Procurement & Cost from different C.G. Stations for FY 2012-13

Generators	Energy (MU)	Fixed Cost (F.C.) (P/U)	Energy Charge Rate (ECR) (P/U)	Yr. E. A. Charges (P/U)	Trans. Charge (P/U)	Total Rate (P/U)	Total Cost (Rs.Crore)
TSTPS Stage -I	2,163.22	81.11	292.22	2.64	33.58	409.55	885.94
TSTPS Stage -II	1,343.46	82.00	290.55	2.37	33.58	408.50	548.80
FSTPS	1,472.38	80.87	480.15	1.73	33.58	596.33	878.02
KhSTPS-I	844.98	94.70	377.91	1.65	33.58	507.84	429.11
KhSTPS-II	208.57	119.33	349.86	0.16	33.58	502.92	104.89
Total	6,032.60	84.47	351.71	2.13	33.58	471.90	2,846.77

6.7 PROCURE MENT COST FROM CGPs/ CO-GENERATION PLANTS:

➤ Hon'ble OERC vide their order dated 23.11.2010 in Case no. 117/118 of 2010 have approved the rates of Rs.2.75/3.10/3.25 for CGPs / Co-generation Plants not availing any open access and Rs.2.75/3.00/3.20 for CGPs/ Co-generation Plants who have opted for supplying 60% and above of their surplus power to GRIDCO after availing Open Access upto 40% of their surplus power. It has been clarified by the Hon'ble Commission in its various orders that the rate of surplus power fixed for GRIDCO to procure power from CGPs/ Co-generation Plants is an indicative upper limit and GRIDCO has to negotiate an appropriate rate within/ below that limit considering the Commission's directives. As such, GRIDCO had been procuring power @ Rs.2.75 (Flat)/ Unit from the CGPs/ Co-generation Plants from the month of November 2010 and onwards on the basis of Letter of Intent (LoI) to that effect issued by GRIDCO to the CGPs/ Co-generation Plants. However, to maximize the generation from the CGPs/ Co-generation Plants so as to supply their surplus power to GRIDCO, GRIDCO has offered to pay at the rate of the aforesaid slab price fixed by the Commission to all CGPs/ Co-generation Plants with effect from 16.11.2011. As such, GRIDCO proposes to procure **1743.24 MU** of power at a cost of **Rs.496.95 Cr.** (including energy of 621.96 MU at a cost of Rs.176.03 Crore from Co-Generation Plants) during FY 2012-13 considering the aforesaid rate fixed by the Hon'ble Commission. The details are given in the Table below:

A: Proposed Procurement & Cost from Captive Generating Plants & Co-Generation Plants:

Sl. No.	CGPs/ Co-generation Plants	Installed Capacity	Energy drawal during 2010-11 (MU)	Energy drawal during the 1st six months of 2011-12 (MU)	Average drawal in MW proposed by GRDCO for 12-13	Energy drawal proposed for FY 2012-13 (MU)	Rate (P/U)	Cost (Rs. Crore)
1	NALCO, Angul	1200	6.89	15.66	3.5	30.66	275	8.4315
2	IMFA, Choudwar	108	47.5632	1.684169	0.5	4.38	275	1.2045
3	HINDALCO	367.5	56.224	10.149	2.5	21.9	275	6.0225
4	RSP	220	20.285	9.460999	2	17.52	275	4.818
5	NBVL, Meramundali	95	176.7144	59.428008	13.5	118.26	275/310	33.5946
6	VAL, Jharsuguda	1215	690.3615	85.257142	19.5	170.82	275/310	49.8882
7	Jlndal Stainless Ltd., Duburi	250	906.282	76.175193	17.5	153.3	275/310	44.457
8	Narbheram Power & Steel	8	11.07266	4.0295	1	8.76	275	2.409

9	Bhusan Power & Steel Jharsuguda	376	112.803	60.479	14	122.64	275/310	34.9524
10	Rathi Steel & Power	20	13.8542	6.455	1.5	13.14	275	3.6135
11	Maheswari Ispat	24	10.53016	4.093	1	8.76	275	2.409
12	Orissa Sponge Iron	36	40.3798	4.8229	1	8.76	275	2.409
13	NINL	62.5	73.951	50.492	11.5	100.74	275/310	28.1634
14	Arati Steel	40	85.372	46.35104	10.5	91.98	275/310	25.4478
15	Tata Sponge	26	126.224	49.435	11.5	100.74	275/310	28.1634
16	SMC Power	33	50.15468	6.029281	1.5	13.14	275	3.6135
17	Pattnaik Steel & Alloys	15	34.2895	8.3389	2	17.52	275	4.818
18	IFFCO	110	38.874	16.016	3.5	30.66	275	8.4315
19	VISA Steel	50	24.57154	101.16	23	201.48	275/310	59.3928
20	VAL, Lanjigarh	90	20.2393	13.155	3	26.28	275	7.227
21	Shyam Metalics & Energy	30	118.2803	24.998	5.5	48.18	275/310	13.3298
22	Bhusan Steel	110	129.627	44.428	10	87.6	275	24.09
23	Sree Mahavir Ferro Alloys.	13.6	18.34603	3.4438	1	8.76	275	2.409
24	Action Ispat	37	24.56325	8.35032	2	17.52	275	4.818
25	Aryan Ispat	18	62.0563	24.2226	5.5	48.18	275	13.2495
26	Maithan Ispat	30		5.882	1.5	13.14	275	3.6135
27	Jindal Steel & Power	135		113.93583	26	227.76	275/310	67.5396
28	MSP Metalic	25		12.236693	3	26.28	275	7.227
29	Jain Steel & Power	8		2.069427	0.5	4.38	275	1.2045
	TOTAL	4752.60	2899.51	868.24	199.00	1743.24	285	496.95

GRIDCO humbly prays the Hon'ble Commission to kindly consider to first fix the procurement price from the CGPs / Co-Generation Plants for FY 2012-13 and incorporate the same in the ARR & BSP and also evolve a mechanism so that GRIDCO does not suffer from any deficit due to any midterm upward revision in the prices of power from such sources including any other sources.

(C) RENEWABLE ENERGY:

➤ **NON-SOLAR RENEWABLE ENERGY**

➤ **SMALL / MINI HYDRO / BIO-MASS ENERGY / ENERGY FROM CO-GENERATION PLANTS**

✓ **ENERGY FROM SMALL / MINI HYDRO (SHEP):**

Hon'ble Commission in their Order dated 19.05.2011 in Case No. 17 / 2011, have directed that the 12 % power if supplied to GRIDCO free of cost, then the balance 88% power generated will cover the cost of the project. The tariff for the 100% of power supplied by M/s. Orissa Power Consortium Limited (M/s. OPCL) and M/s. Meenakshi Power Limited (M/s. MPL) has been fixed at Rs. 3.64 per unit. Considering the PTC trading margin of 4 paise per kWh for 100% of power supplied by these Stations to GRIDCO, the total tariff applicable for power purchase from these Stations shall be Rs.3.68 per unit (Rs. 3.64+Rs. 0.04).

During FY 2012-13, GRIDCO proposes to procure around 150 MU each (**Total:300 MU**) from Meenakshi Hydro Power and SAMAL Small Hydro (M/s. OPCL) at a price of 368 P/U involving an outgo of Rs.55.20 Crore each, totalling to about **Rs.110.40 Crore**.

✓ **BIO-MASS ENERGY:**

Besides, GRIDCO hopes to procure **122 MU** of renewable energy from Bio-Mass sources viz.; M/s. Shalivahan Green Energy Ltd. @ 487 P/U at a cost of **Rs.59.41 Crore**; thus making total purchase of 422 MU @ 402.40 P/U at a cost of Rs.169.81 Crore.

Proposed Procurement & Cost of Non-Solar Renewable Energy for FY 2012-13

Sl. No.	Renewable Energy Sources.	Energy Proposed for FY 2012-13 (MU)	Rate (P/U)	Total Cost (Rs. Crore)
A.1	Meenaskhi Small Hydro	150.00	368.00	55.20
A.2	SAMAL Small Hydro	150.00	368.00	55.20
A.	Total	300.00	368.00	110.40
B.	Shalivahana Green Energy Ltd	122.00	487.00	59.41
C.	Total (A+B)	422	402.40	169.81

✓ **ENERGY FROM CO-GENERATION PLANTS:**

GRIDCO also hopes to procure **621.96 MU** of renewable energy from Co-Generation Plants at a cost of **Rs.176.03 Crore** as per the details given below:

Proposed Procurement & Cost of Energy from Co-Generation Plants for FY 2012-13

Sl. No.	Co-Generation Plants	Installed Capacity (MW)	Co-gen. Energy drawal during 2010-11 (MU)	Co-gen. Energy drawal during the 1st six months of 2011-12 (MU)	Average Co-gen. drawal in MW proposed by GRDCO for 2012-13 (MW)	Co-gen. Energy drawal proposed for FY 2012-13 (MU)	Rate (Rs/U)	Cost (Rs. Crore)
1	NINL	62.5	73.951	50.492	11.5	100.74	2.75/3.10	28.1634
2	Arati Steel	40	22.126173	13.108093	3	26.28	2.75/3.10	7.2708
3	Tata Sponge	26	126.224	49.435	11.5	100.74	2.75/3.10	28.1634
4	SMC Power	33	18.239467	2.866137	0.5	4.38	2.75	1.2045
5	Pattnaik Steel & Alloys	15	17.350795	5.030073	1	8.76	2.75	2.409
6	IFFCO	110	26.191892	8.332028	2	17.52	2.75	4.818
7	VISA Steel	50	24.571544	101.16	23	201.48	2.75/3.10	59.3928
8	VAL, Lanjigarh	90	20.2393	13.155	3	26.28	2.75	7.227
9	Shyam Metalics & Energy	30	58.576807	13.037563	3	26.28	2.75/3.10	7.2708
10	Bhusan Steel	110	103.069156	33.805392	7.5	65.7	2.75	18.0675
11	Sree Mahavir Ferro Alloys.	13.6	3.862092	0.91141	0.5	4.38	2.75	1.2045
12	Action Ispat	37	8.476671	3.277925	1	8.76	2.75	2.409
13	Aryan Ispat	18	35.004773	7.754913	2	17.52	2.75	4.818
14	Rathi Steel & Power	20	5.879523	2.486121	0.5	4.38	2.75	1.2045
15	Orissa Sponge Iron	36	40.3798	4.8229	1	8.76	2.75	2.409
	Total		584.14	309.67	71.00	621.96	2.83	176.03

Thus, the proposed quantum of procurement & Cost of Non-Solar Renewable Energy for FY 2012-13 is estimated as **1043.96 MU** at an approximate cost of **Rs.345.84 Crore** at the average rate of **331.28 P/U** as given below:

Proposed Procurement & Cost of Non-Solar Renewable Energy for FY 2012-13

Sl. No.	Renewable Energy Sources.	Energy Proposed for FY 2012-13 (MU)	Rate (P/U)	Total Cost (Rs. Crore)
A.1	Meenaskhi Small Hydro	150.00	368.00	55.20
A.2	SAMAL Small Hydro	150.00	368.00	55.20
A.	Total	300.00	368.00	110.40
B.	Shalivahana Green Energy Ltd	122.00	487.00	59.41
C.	Energy from Co-Gen. Plants	621.96	283.02	176.03
D.	Total (A+B+C)	1043.96	331.28	345.84

➤ **Solar Energy:**

GRIDCO has signed Power Sale Agreement (PSA) with NTPC Vidyut Vyapar Nigam Limited (NVVNL) during January 2011 to procure solar power bundled with thermal power from the

unallocated quota of the Upcoming Coal Based NTPC Stations through 'New Grid connected Solar Power Project' Scheme under Phase-1 of Jawaharlal Nehru National Solar Mission (JNNSM). 20 MW Solar capacity has been allocated to GRIDCO in the said scheme which is expected to be available during January 2012. Also GRIDCO has executed PPA with NTPC on 26.04.2011 to procure 10 MW power from 2 Nos. of Solar PV projects of 5 MW each (Dadri Solar PV project of U.P. & Faridabad Solar PV Project of Haryana) which is expected to be available during FY 2012-13. GRIDCO is trying its best to explore the possibilities to procure Solar Power for the State. It is submitted that GRIDCO may opt to buy the Solar Renewable Energy Certificates (RECs) for the procurement of balance Solar Power to fulfil the SPO under RPO target, If required so.

The details of projected procurement and cost of Solar Power by GRIDCO for FY 2012-13 is given in the Table below:

Proposed Procurement & Cost of Solar Power during FY 2012-13

Sl. No.	Solar RE Sources	Energy Proposed for FY 12-13 (MU)	Rate (P/U)	Total Cost (Rs. Cr.)
1	8 Nos. of Solar PV projects of 1MW each under RPSSGP *	13	628	8.164
2	20 MW from NVVN through 'New Projects' scheme under JNNSM	33	474	15.642
	Total	46	517.52	23.806

*The details of such Solar Projects are placed herewith as **ED-XXV** .

➤ Considering the above proposal, GRIDCO estimates to procure **1089.06 MU** of renewable energy from Non-Solar and Solar sources at a cost of **Rs.369.05 Crore @ 339.14 P/U** on an average, as per the details given below:

Proposed Procurement & Cost of Non-Solar & Solar Renewable Energy for FY 2012-13

Sl. No.	Renewable Energy Sources.	Energy Proposed for FY 2012-13 (MU)	Rate (P/U)	Total Cost (Rs. Crore)
1	Meenaskhi Small Hydro	150.00	368.00	55.20
2	SAMAL Small Hydro	150.00	368.00	55.20
A.	Total	300.00	368.00	110.40
B.	Shalivahana Green Energy Ltd.	122.00	487.00	59.41
C	Energy from Co-Gen. Plants	621.96	283.02	176.03
D	Total (A+B+C)	1043.96	331.28	345.84
E	Solar RE Sources	46	517.52	23.81
F	Total (D+E)	1089.96	339.14	369.65

(D IPPs (M/s. Sterilite Industries Ltd. & M/s. Arati Steels Ltd.):

➤ Pursuant to the terms of PPA executed with M/s Sterilite Energy Ltd. and submitted with the Hon'ble OERC for approval, the cost of power procurement by GRIDCO shall be at a rate as may be approved by Hon'ble OERC. Pending approval of the power procurement cost, GRIDCO proposes a provisional rate of 275 P/U towards power procurement from M/s. Sterilite Energy Ltd. as approved by the Hon'ble Commission for FY 2011-12. GRIDCO, thus, proposes to procure **2612.57 MU** (considering supply of 350 MW at a PLF of 85%) equivalent to 350 MW at a cost of **Rs.718.46 Crore @ 275 P/U**.

However, a rate of **175 P/U** as **variable cost** is proposed for procurement of **40 MU** from ASL towards **State share of 12% energy** which will entail a cost of **Rs.7.00 Crore** to GRIDCO.

(E) Upcoming IPPs [M/s. Ind-Barath Energy (Utkal) Ltd. (IBEUL)], [M/s. GMR Kamalanga Energy Ltd. (GKEL)] and [M/s. Maa Durga Thermal Power Company Ltd. (MTPCL)]:

➤ Pending approval of the power procurement cost, GRIDCO proposes a provisional rate of 175 P/U as variable cost towards State share (12%) of power from IBEUL. With addition of 34 P/U towards CTU transmission charges, the proposed rate becomes 209 P/U. Thus, the power procurement cost to GRIDCO will be around **Rs. 14.87 Crore** for proposed procurement of **71.15 MU** from IBEUL **@ 209 P/U** during FY 2012-13.

➤ Similarly, pending approval of the power procurement cost, GRIDCO proposes a provisional rate of 275 P/U towards State share (25%) of power from GKEL. With addition of 34 P/U towards CTU transmission charges, the proposed rate becomes **309 P/U**. Thus, the power procurement cost to GRIDCO will be around **Rs. 244.27 Crore** for proposed procurement of **790.52 MU** from GKEL **@ 309 P/U** during FY 2012-13.

➤ Similarly, GRIDCO proposes a provisional rate of 175 P/U towards State share (12%) of power from GKEL. Thus, the power procurement cost to GRIDCO will be around **Rs. 7.47 Crore** for proposed procurement of **42.69 MU** from GKEL **@ 175 P/U** during FY 2012-13. The details are given in the Table below:

Power Procurement from IPPs & Cost during FY 2012-13

Sl. No.	Name of IPPs	Energy drawal proposed for FY 2012-13 (MU)	Rate (P/U)	Cost (Rs Crore)
1	Arati Steels	40.00	175.00	7.00
2	Sterilite Energy (P) Ltd	2612.57	275.00	718.46
(A)	SubTotal	2652.57	273.49	725.46
3	M/s. Ind-Barath Energy (Utkal) Ltd.	71.15	209.00	14.87
4	M/s. GMR Kamalanga Energy Ltd.	790.52	309.00	244.27
5	M/s. Maa Durga Thermal Power Co. Ltd.	42.69	175.00	7.47
(B)	SubTotal	904.35	294.81	266.61
	Total	3556.92	278.91	992.07

NB: It may kindly be noted that the procurement from CGPs / Co-generating Plants / IPPs are only indicative and GRIDCO reserves the right to vary the procurement quantum and the rates depending upon situation including its financials.

It is submitted that the rate of 275 / 175 P/U for procurement of energy from IPPs is projected as per prevailing provisional price. Hon'ble OERC may kindly go into the details of determining the realistic procurement prices of power from such sources and evolve a mechanism for pass through of any additional cost through the ARR & BSP of the year so that GRIDCO does not suffer from cash crunch on account of low BSP for being carried over to the later year/s.

6.07 PROCUREMENT THRU' UI / POWEREXCHANGE / SHORT-TERM OPEN ACCESS:

As earlier stated, GRIDCO will be required to procure 24887.58 MU during FY 2012-13 to meet the estimated energy requirement of 23941.85 MU of the DISCOMs and towards the Emergency Sale to CGPs like NALCO & IMFA at the projected transmission loss of 3.80%. However, the estimated availability from the above sources will be to the extent of 24412.96 MU leaving a shortfall of 474.62 MU. GRIDCO, therefore, hopes to meet this shortfall quantum of 474.62 MU by arranging procurement from other sources like; through Unscheduled Interchange (UI) \ Power Exchange or Spot Market \ Power Banking \ Short Term Open Access, as may be feasible, so that the State does not suffer from power crisis.

It is estimated that GRIDCO will be required to pay around **Rs. 213.58 Crore @ 450 P/U for the shortfall quantum of 474.62 MU** during the FY 2012-13.

7.00 PGCIL Transmission Charges:

➤ Transmission charges of PGCIL are being determined applying the norms and principles laid down by the CERC from time to time. Hon'ble 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 has been effected from 01.07.2011 and this shall remain in force for 5 years from the date of commencement unless reviewed earlier or extended by Hon'ble 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 (PoC) Charges shall be on **Rs./MW/Month** basis. Subsequently, CERC Vide its Order Dtd. 29.06.11 have furnished the Slab PoC Rates for NEW Grid & SR Grid as well as the PoC Loss Slabs for the NEW Grid as well as the SR Grid. Copy of the aforesaid order Dtd. 29.06.11 is enclosed as **Annexure-1**.

As specified in clause 11(4), (5), (6), (7) of the Regulation Dtd. 15.06.2010;

- ✓ The **first part** of the CTU bill shall recover charges for use of the transmission assets of ISTS Licensees based on the Point of Connection methodology;
- ✓ **The second part** of the bill shall recover charges for Additional Approved Medium Term Open Access;
- ✓ **The third part** of the bill shall be used to adjust any variations in interest rates, FERV, rescheduling of commissioning of transmission asserts as allowed by the Commission for any ISTS Licensees;
- ✓ **The fourth part** of the bill shall be a Deviation bill which shall charge the Designated Customer for deviation from the sum of the Approved withdrawal/injection,

Accordingly, PGCIL served its first bill based upon PoC on 03.08.2011 amounting to Rs. 15.62,15,730/- as per the approved PoC Rates by CERC in the Order Dtd. 29.06.11. In the aforementioned bill, GRIDCO is billed at the approved injection / drawal PoC Rates for its Long Term Access. PGCIL is also furnishing the deviation bills as per the provision mentioned in the Regulation which is the Transmission Charges basically UI in nature & can not be predicted by GRIDCO at any point of time. Hence GRIDCO has not considered the payables / receivables on account of Deviation Bills. The Third Part of Bill has not yet been received by GRIDCO and expected to be received at any point of time. Considering the variation in MAT

Rate from 11.33% considered earlier to 19.931% applicable now, GRIDCO has already paid Rs 5.96 Crore for variation in the MAT Rate.

Hence, GRIDCO proposes Rs.6 Crore on account of variation in the interest rates for the ensuing Year.

Proposal for YEA Charges payable to PGCIL during FY 2012-13			
ITEM	Claimed by PGCIL (Rs. Crore)	Admitted by GRIDCO (Rs. Crore)	Considered by GRIDCO (Rs. Crore)
A. Variation in Interest Rates			
FY 2009-10, 10-11 & 11-12 (Claimed MAT Rate)	5.96	5.96	
Proposed for FY 2012-13 (for Assets of NEW Grid)			6
B. FERV			
C. Re-scheduling of Commissioning of Assets			
Total Year End Charges proposed for FY 2012-13			6

GRIDCO have received a total of Short-Term Open Access Charges amounting to Rs. 4.51 Crore for the months of July-11 & Aug-11. Considering the uncertainty in earning the revenue, GRIDCO proposes Rs.4.51 Crore to be received for the ensuing year 2012-13.

GRIDCO has paid an amount of Rs 7,99,28,752/- towards ULDC Charges from April, 2011 to October, 2011 (for period of 7 months). Accordingly, GRIDCO proposes to pay an amount of Rs 13.702 Crs. for the ensuing year 2012-13.

With the above facts, the Transmission Charges payable by GRIDCO for ensuing year is comes to **Rs.202.66 Crore**. Considering energy drawal of 6199.01 MU from Central Sector and allowing 2.64% of CTU loss, the per unit PGCIL Transmission Charge including loss to **33.578 P/U**; Say, **34 P/U**.

Projected PGCIL Transmission Charges for 2012-13	
	GRIDCO's Projection for FY 12-13 (Rs. Crore)
Transmission charge payable by GRIDCO for 2012-13 towards First Bill	187.459
Year End Charges proposed towards Bill 3	6.00
ULD and Communication Charges (Rs. Crore)	13.702
less: allocable to short term customers	4.51
Net amount payable by GRIDCO towards Transmission Charges (Rs. Crore)	202.66
Energy drawal by GRIDCO (MU)	6199.010
PGCIL Transmission Charge (P/U)	32.69
Transmission Loss %	2.64

PGCIL Transmission Charge including loss (P/U)	33.578
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➤ **Projection of Payment of ERLDC Fees and Charges consisting of System Operation Charges (SOC) and Market Operation Charges (MOC) by GRIDCO for the 2012-13:**

In exercise of powers conferred under Section 178 of the Electricity Act 2003, Hon'ble CERC vide its Order dtd. 18.09.2009 have framed a Regulation known as CERC (Fees & Charges of Regional Despatch Centres and other related matters) Regulations, 2009.

In conformity with the above Regulation, Eastern Regional Load Despatch Centre (ERLDC) shall levy and collect Fees and Charges from the users towards its System Operation Charges (SOC) and Market Operation Charges (MOC) such that;

- (I) **Annual Charges towards System Operation function shall comprise of 80% of the Annual Charges;**
- (II) **Annual Charges towards Market Operation function shall comprise the balance 20% of the Annual Charges;**
- (III) **The ratio of allocation of Annual Charges to System Operation Charges and Market Operation Charges may be reviewed by the Commission from time to time as stated in the Clause 20 of the afore-said Regulation.**

GRIDCO, being the "State Designated Entity" under the "Single Buyer Model" has the Odisha Share allocation from the Central Sector Generating Stations in its favour and thus comes under the category of Distribution Licensee / Buyers and hence, liable to pay the System Operation Charges & Market Operation Charge claimed by the ERLDC.

Further, Hon'ble CERC vide Order dtd. 08.03.2011 have determined the ERLDC Charges (POSCO portion) for the Control Period from 01.04.2009 to 31.03.2014. Relevant portion of CERC Order is placed at **ED- XXVII** for kind reference.

In conformity with the aforesaid CERC Order, **Annual Charges approved by CERC for the FY 2012-13 = Rs. 35.0173 Crore.**

As per Regulation, **System Operation Charges payable by users is 80% of Annual Charges** approved by the CERC which comes to **Rs. 28.01384 Crore.**

Similarly, **Market Operation Charge Payable by Users is 20% of Annual Charges** approved by CERC which comes to **Rs. 7.00346 Crore**.

As per **the CERC Regulation 22 (i)**, Fees & Charges of RLDC, System Operation Charges shall be collected from the users as per the percentage apportionment indicated below:

- **Distribution Licensees & Buyers** : **45%;**
- **Generating Stations & Sellers** : **45%**
- **Transmission Licensees** : **10%**

As per the CERC Regulation 22(4) of Fees and buyers shall be collected in proportion to the sum of their allocation and Contracted Capacities, as the case may be, as on the last day of the month prior to the billing of the month.

Similarly, as per **the Regulation 23(i) of fee and charges of RLDC, Market Operation Charges** shall be collected equally from all the users except Inter-State Transmission Charges.

- In view of above and considering the allocation of GRIDCO as well as allocation of ER for the month of September, 2011 which are 1094 MW and 5031.02 MW respectively, **the SOC payable by GRIDCO for 2012-13 is Rs. 2.74 Crore** ($28.01384 * 1094.24 / 5031.02 * .45$)
- Right now, there are 17 numbers of Users excepting Transmission Licensees, to pay the **Market Operation Charges (MOC)**. In view of above, **the MOC payable by GRIDCO for the year 2012-13 is Rs. 0.41Crore.**
- **Hence, the total projected SOC & MOC payable by GRIDCO to ERLDC is calculated as Rs.3.15 Crore (Rs.2.74 Crore + Rs.0.41 Crore) for the ensuing year 2012-13 and this sum have been factored in this Application.**

8.00 Summary of Power Procurement Costs:

Based on the above, the estimated Power Procurement Quantity, Cost and the effective rate for FY 2012-13 are summarized in the Table given below:

PROPOSED SUMMARY OF POWER PURCHASE & COST FOR FY 2012-13

Stations	Availability (After Transformation Loss and Auxiliary Consumption) (MU)	Rate (P/U)	Total Cost (Rs. Crore)
HHEP	767.48	79.74	61.20
CHEP	356.40	69.26	24.68
Rengali	576.18	63.64	36.67
Upper Kolab	793.98	35.72	28.36
Balimela	1173.15	72.78	85.38
OHPC(Old)	3667.19	64.44	236.30
Indravati	1944.36	78.24	152.13
Sub-Total OHPC	5611.55	69.22	388.43
Machhkund	262.50	30.66	8.05
Total State Hydro Availability	5874.05	67.50	396.48
OPGC	2864.82	229.69	658.02
TTPS	2957.32	257.58	761.75
Small Hydro Renewable Energy	300.00	368.00	110.40
Biomass Energy	122.00	487.00	59.41
Solar Energy	46.00	517.52	23.81
CGPs	1121.28	286.21	320.92
Co-generation Plants	621.96	283.02	176.03
IPPs	3556.92	278.91	992.07
Total State availability	17464.35	200.34	3498.88
TSTPS Stg.-I	2163.22	409.55	885.95
TSTPS Stg.-II	1343.46	408.50	548.80
FSTPS	1472.38	596.33	878.02
KhSTPS Stg.-I	844.98	507.84	429.11
KhSTPS Stg.-II	208.57	502.92	104.89
Total Central Thermal Availability	6032.61	471.90	2846.78
Chukha	263.00	196.30	51.63
TALA	143.00	221.89	31.73
Teesta	510.00	187.55	95.65
Total Central Hydro Availability	916.00	195.42	179.01
System Operation Charges & Market Operation Charges payable to ERLDC			3.15
Total EREB	6948.61	435.91	3028.94
Total Availability	24412.96	267.39	6527.82
Shortfall to be procured thru.' UI / Trading / Short Term Open Access	474.62	450.00	213.58
Total Requirement / Procurement	24887.58	270.87	6741.40

9.00 PASS THROUGH OF ARREAR DUES PAID/TO BE PAID DURING FY 2011-12:

GRIDCO proposes that the expenses which have already been incurred or to be incurred till FY 2011-12 may please be considered for Pass Through in the approval of ARR & BSP for FY 2012-13 of GRIDCO by the Hon'ble Commission.

It is submitted that GRIDCO proposes for **Pass Through of such expenses** amounting to **Rs.634.96 Crore** consisting of **Govt. Guarantee Commission (Rs.34.34 Crore)**, **Arrear Payment to OHPC towards Water Cess (Rs.2.19 Crore)**, **Arrear Payment to OPGC (Rs.109.48 Crore)** and **Arrear Estimation of NTPC-TPPS till FY 2011-12 as per its filing before the Hon'ble CERC (Rs.488.95 Crore)**, as per the details given below:

9.01 Govt. Guarantee Commission: GRIDCO has availed loans from banks with Govt. Guarantee as loan security, where guarantee fees @0.5% is payable for each year. The outstanding Guarantee Commission upto FY 2011-12 is **Rs.34.34 Crore** and for the FY 2012-13, the amount will be **Rs.10.14 Crore**. It is submitted that since Rs.10.14 Crore is reflected in TRF-3 and therefore, **Rs.34.34 Crore** is proposed as Pass Through in the ARR & BSP for FY 2012-13.

9.2 Arrear payment to OHPC:

As per Odisha Gazette Notification Dtd.01.10.10 OHPC has to pay Rs.0.01/Kwh (1 Paise per Unit) as License Fee (Water Cess) on water used for generation of electricity from all hydro projects from October, 2010 onwards. Accordingly, OHPC have raised Water Cess bill of its Stations from October, 2010 onwards for reimbursement from GRIDCO in the month of March'11 by which time the process of ARR & BSP determination for FY 2011-12 was already over. Therefore, the amount (**Rs.2.19 Crore**) which has been paid to OHPC towards Water Cess from October, 2010 to March, 2011 could not be reflected in the ARR of GRIDCO FY2011-12. Hence, GRIDCO submits before Hon'ble OERC to allow the Arrear payment of **Rs.2.19 Crore** to OHPC on account of Water Cess from Oct'10 to March'11 in the ARR & BSP to be approved for the FY 2012-13, as tabulated below:

**Month-wise Water Cess Claim of OHPC Stations from 10/10 to 03/11
& Payment made by GRIDCO**

(All fig in Rs.)

Station	Burla	Rengali	Balimela	UKHEP	CHEP	UIHEP	TOTAL
Oct'10	707890	96872	586584	500808	955410	8239480	
Nov'10	263500	70456	836600	483648			
Dec'10	335780	78760	1116473	436008			
Jan'11	342900	136552	1377150	617772			
Feb'11	251160	169424	1089116	651432			
March'11	344230	174632	1084020	743712	219940		
Total	2245460	726696	6089943	3433380	1175350	8239480	21910309

Say: Rs. 2.19 Crore**9.03 Arrear Payment to OPGC:**

Pursuant to the settlement approved by the State Government, GRIDCO was required to execute agreement amending the Power Purchase Agreement (PPA) and Tripartite Agreement, which shall be submitted to the Hon'ble Commission for approval. In line with the said settlement, GRIDCO is 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-2** herewith for reference. However, the Hon'ble Commission has observed that the arrear dues of OPGC shall be considered after approval of the amended PPA during the last two Financial Years.

However, it is to place before the Hon'ble Commission, now, that the draft amendment of the PPA & the Tripartite Agreement have been finalized and shall be signed with OPGC shortly. Once the PPAs are signed, GRIDCO and OPGC shall jointly file the same before Hon'ble Commission for approval. However, in the mean time, as per its Board of Directors (BoD) Resolution, GRIDCO has been paying the arrears of **Rs.109.48 Crore** in installments which shall be completed in December'11.

GRIDCO has so far paid Rs.100.92 Crore to OPGC towards the said arrear as of November, 2011 and the balance of Rs.8.56 Crore will be paid during the month of December, 2011 as the last installment to square up the entire dues.

GRIDCO, therefore, submits to the Hon'ble Commission that pending the approval of the Amended Agreements by the Hon'ble Commission, the arrear power purchase dues amounting to **Rs.109.48 Crore** may be allowed in the ARR of GRIDCO during the FY 2012-13 as Pass Through, as the arrear dues shall be paid in toto by GRIDCO by Dec'11 i.e. during FY 2011-12.

9.04 Arrear payment to NTPC in respect of TTPS:

In addition to the projected power procurement cost, GRIDCO has to pay to the NTPC, the differential amount arising out of the difference in the Fixed Costs for the period from FY 2004-05 to 2009-10, as per filing of Petition (No. 184/ 2009 & 304/ 2009) before the Hon'ble CERC by NTPC and the present billing. It is expected that the pending petitions are to be disposed by the CERC soon and as such, GRIDCO now submits that the said differential amount of **Rs.488.95 Crore** may please be allowed as a pass-through expense till the year 2011-12 in the approval of ARR & BSP for FY 2012-13. A Table showing year-wise differential amount, which is supposed to be paid by GRIDCO to NTPC, is given below:

Fixed Cost Arrears of TTPS (NTPC)									
Description	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	Total
F.C. Billed by NTPC (Rs. Cr.)	186.87	193.38	195.73	199.38	200.88	200.88	200.88	200.88	1578.88
F.C due by NTPC as per filing before CERC (Rs. Cr.)	188.35	195.67	198.69	207.67	217.39	338.57	353.18	368.31	2067.83
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	147.43	488.95

9.8 SUMMARY OF PROPOSED PASS THROUGH EXPENSES:

The total amount of **Rs.634.96 Crore** as detailed above, have been proposed for Pass Through in the ARR & BSP Application for FY 2012-13 as per the particulars given below:

Summary of amounts proposed for Pass through:

(Rs. in Crore)	
Outstanding Govt. Guarantee Commission	34.34
Arrear Payment to OHPC towards License Fee for Water Cess	2.19
Arrear Payment to OPGC	109.48
Arrear Payment to NTPC-TTPS	488.95
Total	634.96

10.00 SPECIAL APPROPRIATION OF REPAYMENT OF PRINCIPAL:

As per the Tariff Policy, depreciation on Fixed Assets shall be utilized for repayment Principal component of Loan. In case of GRIDCO, there are virtually no fixed assets and hence, no

depreciation is available in the hands of GRIDCO for utilization towards repayment of loan. Further, the loans are incurred to finance the revenue shortfall in the business operations of GRIDCO.

Having no other alternatives available for repayment of Principal, GRIDCO proposes repayment of Principal (all the Loans) under the head “**Special Appropriation of Expenses**” in the proposed ARR & BSP Application for FY 2012-13 for an amount of **Rs. 1580.66 Crore** for approval by the Hon’ble Commission

10.01 Revenue Gap of GRIDCO in the ARR vis-à-vis the Actual:

While approving the Annual Revenue Requirement and Bulk Supply Price for the period from the FY 2008-09 to FY 2010-11, Hon’ble OERC has left an aggregate **Revenue Gap of Rs.2,099.05 Crore** with a directive to bridge the same from earnings through Trading, UI, Recovery of Arrear Dues from DISCOMs over & above the current BSP and subvention from the Govt. of Odisha, if any. However, it is submitted that, after the Annual Accounts were finalized for respective years, the **actual aggregate Revenue Gap became Rs. 2,050.55 Crore.**

Further, the total **Year-End Adjustment (YEA)** Bills raised by GRIDCO during last three financial years was **Rs.625.17 Crore**. Although these bills were raised in due conformity with the respective ARR & BSP Orders passed by the Hon’ble OERC, the DISCOMs did not honour the same; as a result, the **actual aggregated revenue gap increased to Rs. 2,675.72 crore.**

Non-availability of surplus power due to increase in demand of the State because of massive rural electrification and rapid industrialization coupled with hydrology failure during last few years along with increase in the cost of power, have made GRIDCO cash-strapped.

Consequent upon hydrology failure for successive years, GRIDCO had to purchase power from other non-hydro sources at higher costs to meet the State Demand. **The mix of hydro and non-hydro power** has been changed over the years. Added to this, there has been

steep rise of **coal prices** during the above period as a result of which the cost per unit of power purchased from NTPC has increased by 27% (Rs.1.84 P/U to Rs.2.33 P/U) during the period 2010-11. Due to above stated reasons; the procurement cost of power has adversely affected the financials of GRIDCO.

Further, it is submitted that during the last three financial years, while approving the BSP, the Hon'ble Commission had allowed the following power purchase cost which is much lower than the actual power purchase cost incurred by GRIDCO. A comparative position is given below.

Financial Year	OERC Approved Power Cost		Actual Power Cost		Additional Power Cost	
	Amounts (Rs. Crore)	Paise per Unit (P/U)	Amounts (Rs. Crore)	Paise per Unit (P/U)	Amounts (Rs. Crore)	Paise per Unit (P/U)
2008-09	2351.76	127	3027.13	151	675.37	24
2009-10	3123.10	158	4127.32	197	1004.22	39
2010-11	3666.85	175	4522.71	198	855.86	23
Total	9141.71	154	11677.16	183	2535.45	28

In its mandated to ensure un-interrupted power supply to the State and to avoid imminent Power Regulation, **GRIDCO borrowed Rs.3,153.71 Crore from Banks mainly with the Govt. Guarantee Support** in order to pay to the generators. Out of the total borrowings, **Rs. 907.47 Crore** was utilized towards repayment of past loans resulting in net availability of loan of **Rs.2,246.24 Crore**. The balance deficit of cash flow were addressed through availing Over-Draft at high rates of interest, deferring payments to Govt. towards loans, and deferring payment of Power Purchase Dues etc.

It may be appreciated that GRIDCO has taken the borrowings, as the only recourse to address the Cash Deficit as no other alternatives were available for funding the same, including any subvention from the Government. A summarized position of Cash Deficit, the Loans & Borrowings availed by GRIDCO is given below:

Status of Financials of GRIDCO

Financial Year	OERC Approved Gap (Rs. Cr.)	Actual Gap in P&L Account (Rs. Cr.)	Year-end-Adjustment Bills Considered in Accounts but not paid by DISCOMs (Rs. Cr)	Actual Gap without considering Year-end- Adjustment Bills (Rs. Cr.)	Amount of Loan Availed (Rs. Cr.)
1	2	3	4	5=3-4	6
2008-09	(410.05)	98.14	163.94	(65.80)	300.00
2009-10	(882.85)	(1560.84)	164.22	(1725.06)	1213.00
2010-11	(806.15)	(587.85)	297.01	(884.86)	1640.71
Total	(2099.05)	(2050.55)	625.17	(2675.72)	3153.71

The Cash Deficit arising from non-recovery of costs has been managed by GRIDCO under the following heads:

Sl. No.	Sources of Funding	Amounts (Rs. in Crore)
1	Net Loan Availed (Rs.3153.71-Rs.907.47)	2246.24
2	Overdraft Availed	86.16
3	Deferment of Interest on GoO Bond (NTPC)	140.62
4	Deferment of Interest on Govt. Loan	60.21
5	Deferment of Guarantee Fees	15.33
6	Deferment of Power Purchase Dues (CGPs) & etc.	127.99
	Total	2675.72

10.02 Bank Loan:

As already explained in above referred Para GRIDCO availed Rs.3,153.71 crore term loans to meet the revenue gap. In absence of availability of depreciation, **Rs.518.16 Crore** may be considered in the BSP for 2012-13 towards Special Appropriation as detailed in TRF 3.

10.3 State Govt. loan:

- A. Loan:** The Govt. loan dues payable by GRIDCO was kept in abeyance for a period of five years upto FY 2005-06 vide Govt. of Odisha Notification No. 1068/R&R-I-2/2002 Dated 29.01.2003 and subsequently deferred to FY 2010-11 vide Notification No R&R-I-15/2009/81 Dated 06.01.2010.

On account of various loans, the dues payable to Govt. of Odisha by GRIDCO are as follows:

Particulars	Original Loan Amount	(Rs. in Crore)			
		Outstanding Dues till FY 2011-12		Dues for FY 2012-13	
		Principal	Interest	Principal	Interest
State Govt. (WCL)	120.00	110.00	203.01	10.00	15.60
State Govt. (OPGC Adj.)	42.54	31.98	52.63	2.84	4.47
NTPC (Govt. Bonds)	1102.87	330.86	219.10	110.29	76.49
Total		472.84	474.74	123.13	96.56

In absence of further approval for deferment of dues, repayment of loan and payment of interest to Govt. up to FY 2012-13 is proposed in this ARR & BSP Application. Hon'ble Commission may kindly consider the same by way of **Special Appropriation in the Tariff**.

- C. CPA Adjustment:** The Govt. of Odisha provided support to the extent of **Rs.196.17 Crore** towards the amount deducted by the Central Govt. from the **Central Plan Assistance (CPA)** over the period from 1997-98 to 1999-00. Pursuant to the decision taken in the Meeting held on 13-08-2004, the amount was likely to be adjusted from the Arrear Energy Charges Payable by the Govt. Departments amounting to **Rs.123.23 Crore**. However, the Govt. of Odisha in the Notification Dated 25.06.2011 (Enclosed as **ED-XXVIII**) converted these amounts towards loan carrying interest @ 10% to 12%. The total financial implications on this account including interest upto 31-03-2011 amounts to **Rs. 433.90 Crore**. It is submitted that GRIDCO has requested the Govt. of Odisha for adjustment of the same

against receivables of GRIDCO. However, it is yet to be accepted by the Govt. of Odisha. Hence, the amount of **Rs.433.90 Crore** may be considered to be allowed in the proposed ARR for FY 2012-13.

(Rs. in Crore)

Sanction Order No & Date	Loan Amount	Rate of Interest (%)	Interest upto 31-03-2011	Total Dues
28846/25.06.2011	3.93	12.00	6.61	10.54
28849/25.06.2011	43.98	10.50	60.03	104.01
28840/25.06.2011	79.98	10.00	95.98	175.96
28843/25.06.2011	68.28	10.00	75.11	143.39
Total	196.17		237.73	433.90

10.4 TOTAL AMOUNT CLAIMED UNDER “SPECIAL APPROPRIATION”:

Considering the above GRIDCO proposes **Rs.1580.66 Crore** towards Special Appropriation for principal repayment for the financial year 2012-13 as detailed below.

Amount proposed for Special Appropriation in the ARR & BSP for FY 2012-13:

(Rs. in Crore)

State Govt. Loans	154.81
NTPC-GoO Special Bonds (Rs.1102.87 Crore)	441.16
Pension Trust Bond	32.63
Bank Loans	518.16
Sub Total	1146.76
CPA Adjustment	433.90
Total	1580.66

11.00 Summary of Other Expenses:

The proposed expenditures under other components excluding the cost of power procurement are grouped as under:

11.01 Interest & Financial Charges:

The Interest on loans and financial charges are related to Power Purchase and is estimated to be **Rs.546.90 Crore**. Statement of loans and repayment thereof is enclosed as **TRF-3** for kind perusal and approval by the Hon'ble Commission.

11.02 Employees Cost:

GRIDCO incurred Rs.3.31 Crore towards employee cost for F.Y 2010-11. Based on the actual expenses of FY 2010-11, GRIDCO proposes **Rs.4.88 Crore** towards employees cost for **FY 2012-13** details are annexed in **TRF-13**.

11.03 Repair & Maintenance Expenses:

GRIDCO proposes **Rs.0.25 Crore** towards the repair maintenance expenses of vehicle, furniture & office equipments and annual maintenance charges (AMC) of computers for FY 2012-13. The details of such expenses are annexed in **TRF-14**.

10.04 Administrative and General Expenses (A & G Expenses):

GRIDCO has proposes **Rs.3.89 crore** towards A & G Expenses for **FY 2012-13** as detailed in **TRF-15**.

10.05 ERLDC, NLDC and ULDC Fees:

It is submitted that Fees and Scheduling Charges are leviable by the respective Load Despatch Centres like ERLDC (Eastern Regional Load Dispatch Centre) and NLDC (National Load Dispatch Centre) and State Load Despatch Centre (SLDC) Scheduling Charges from the grid beneficiaries like M/s. GRIDCO Limited (GRIDCO). The proposed expenditure under this head is **Rs. 1.32 Crore** for FY 2012-13 excluding the **SOC & MOC of Rs.3.15 Crore** payable to ERLDC which has been separately considered under the proposed Power Purchase Cost from the Central Pool.

10.6 Depreciation: (TRF-23):

GRIDCO has proposes **Rs.0.22 Crore** towards the depreciation on Fixed Assets (vehicle, furniture and office equipments etc) for FY 2012-13. The detail calculation of depreciation is annexed in **TRF-23**.

Summary of other Costs / Expenditures of GRIDCO:

Based on the above projections, GRIDCO proposes to incur about **Rs.557.46 Crore** towards expenses on account of interest, employees cost, A&G expenses and ERLDC fees etc.

(Rs. in Crore)	
Particulars	GRIDCO proposal for FY 12-13
1. Interest & Financial Charges (TRF-3)	546.90
2. Other Costs:	
a. Employee Cost	4.88
b. A&G Cost	3.89
c. ERLDC, NLDC fees, ULDC and SLDC scheduling Charges	1.32
d. Repair & Maintenance Cost	0.25
Sub-Total - Other Costs	10.34
3. Depreciation	0.22
Total (1+2+3)	557.46

11.00 Return on Equity:

GRIDCO proposes **Rs. 67.11 Crore** towards Return on Equity (RoE) @**15.50%** on its **Equity Capital of Rs.432.98 Crore** in line with **National** Tariff Policy and OERC Tariff Regulations which will improve the long-term financial health of GRIDCO.

12.00 Other Income/ Miscellaneous Receipts:

GRIDCO expects to earn an amount of **Rs.6.40 Crore** (at existing approved tariff) from proposed emergency sale of 10 MU to Long Term Customers like NALCO and IMFA as per the MOU signed with these entities.

13.00 Receivable from DISCOMs toward Securitized dues and Others:

A. Securitized dues: The Commission in its order dated 01.12.2008, directed DISCOMs for payment of Rs. Crore by 31-03-2011. The DISCOMS have defaulted in payment of Rs.747.63 crore as against the said order. Hon'ble Commission may direct DISCOMs to make regular payment of such dues along with defaulted dues for improving cash flow scenario of GRIDCO.

(Rs. in Crore)			
Particulars	Securitized dues payable by 31-03-2011	Amount paid by 31-03-2011	Outstanding as on 31-03-2011
WESCO	211.20	210.48	0.72
NESCO	229.80	222.70	7.10
SOUTHCO	149.40	38.15	111.25
CESU	841.20	212.64	628.56
Total	1431.60	683.97	747.63

B. Rs. 400.00 Crore Bond dues: Apart from securitized dues, the DISCOMs have failed to honour the dues payable against the Rs. 400 Crore Bonds issued to NTPC as detailed below:

(Rs. in Crore)			
Particulars	Principal	Interest upto 31-03-2011	Outstanding as on 31-03-2011
WESCO	103.00	66.88	583.08
NESCO	167.00	167.44	334.44
SOUTHCO	130.00	146.23	276.23
Total	400.00	380.55	780.55

C. Year-end-Adjustment (YEA) Bills etc.: Besides the above, the DISCOMs have also not paid the YEA Bills raised by GRIDCO in line with the Orders passed by the Hon'ble Commission from time to time and other dues including the amount towards the Deferred Credit, receivables under the Transfer Scheme etc. amounting to **Rs.987.83 Crore**.

Besides the above, GRIDCO has the following Receivables as per its Accounts.

			(Rs. in Crore)
I)	Govt. Departments.	-	91.71
II)	PSUs / ULB	-	113.49
III)	MPSEB	-	71.78
IV)	IMFA (ICCL)	-	19.55
Total			<u>296.53</u>

The dues from Govt. Departments and PSUs are carried over in the Accounts of GRIDCO although they are the consumers of DISCOMs pursuant to the Transfer Notification Dated 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 has not received or is not likely to receive any amount from these parties during FY 2011-12.

In view of this, receivable from parties other than DISCOMs may not be considered in the ARR of GRIDCO for FY 2012-13.

14.0 Annual Revenue Requirement of GRIDCO for FY 2012-13:

The Net Annual Revenue Requirement of GRIDCO for the FY 2012-13 is estimated as **Rs.9575.19 Crore** based on the following Costs as given in the Table below:

Proposed Annual Revenue Requirement of GRIDCO for FY 2012-13

Particulars	GRIDCO Projection for FY 2012-13 (Rs Crore)
Power Purchase cost	6,741.40
The Interest & Financing Charges,	546.90
Employees Cost	4.88
A&G Expenses	3.89
R & M Expenses	0.25
Depreciation	0.22
ERLDC charges	1.32
Return on Equity	67.11
Sub Total	7,365.97
Proposed Pass Through Expenses	
• Outstanding Govt. Guarantee Commission (Rs.34.34 Crore)	
• Pass Arrear payment to OHPC towards Water Cess @ 1P/U) (Rs.2.19 Cr.)	
• Pass Through of Arrear Payment to OPGC (Rs.109.48 Crore)	
• Arrear payment to TTPS (Rs. 488.95 Crore)	
Sub-Total of Pass Through Expenses	634.96
Special Appropriation	
• State Govt. Loans (Rs.154.81 Crore)	
• NTPC-GoO Special Bonds (Rs. 441.16 Crore)	
• Pension Trust Bond (Rs.32.63 Crore)	
• Bank Loans (Rs.518.16 Crore)	
• Sub-Total Loans (Rs.1146.76 Crore)	
• Payment towards CPA Adjustment (Rs.433.90 Crore)	
Sub Total : Special Appropriation	1580.66
Gross Revenue Requirement	9,581.59
Less Miscellaneous Receipts	6.40
Net Revenue Requirement to be recovered from DISCOMs	9,575.19

15. Revenue of Rs. **5467.63 Crore** will be earned by GRIDCO from sale of proposed energy of **23931.85** MU to DISCOMs for FY 2012-13 at the existing BSP Rate for FY 2011-12. The detail is shown in table below:

DISCOMs	Energy (MU)	Existing BSP Rate (P/U)	Amount (Rs. Crore)
CESU	8532.67	219.00	1868.65
NESCO	5469.18	262.00	1432.93
WESCO	6500.00	262.00	1703.00
SOUTHCO	3430.00	135.00	463.05
TOTAL	23931.85		5467.63

16.0 Revenue Requirement (Excess / Deficit) with the existing BSP:

GRIDCO will suffer Revenue Deficit of **Rs.4107.56Crore** considering the ARR proposed and the revenue of Rs.5467.63 Crore to be earned by GRIDCO from sale of the proposed energy of **23931.85 MU** to DISCOMs for FY 2012-13 at the existing BSP Rate for FY 2011-12, the details of which are shown in the Table below:

ITEM	GRIDCO projection for FY 2012-13 (Rs. Crore)
Total Revenue Requirement	9,581.59
Less Misc. Receipt from sale of Power to CGPs	6.40
Net Revenue Requirement to be recovered from DISCOMs	9,575.19
Revenue Receipt from DISCOMs at the existing BSP	5,467.63
Gap i.e. Surplus / Deficit (-)	-4,107.56

Proposal for Revision of Bulk Supply Price

GRIDCO, with its present Bulk Supply Price Structure, cannot meet its current costs as it results in deficit of **Rs.4107.56 Crore**. In order to meet this deficit, GRIDCO humbly submits the present ARR & BSP Application before Hon'ble Commission praying for revision of Bulk Supply Price to be effected from **1st April, 2012**.

Design of Bulk Supply Price to meet the proposed Annual Revenue Requirement for FY 2012-13:**1) Energy Charge:**

GRIDCO proposes to recover the net Revenue Requirement of **Rs.9575.19 Crore** through Energy Charge only from the DISCOMs @ **400.10P/U** showing an increase of **72.72%** from the existing average BSP of **231.65 P/U** which is shown in the Table below:

Net Revenue Requirement to be recovered from DISCOMs (Rs. Crore)		9,575.19
Energy Sale to DISCOMs	(MU)	23931.85
Proposed Average Bulk Supply Price	(P/U)	400.10
Existing BSP	(P/U)	231.65
% Rise over existing Average BSP of 231.65 P/U		72.72%

2) Demand Charge:

GRIDCO proposes that the Demand Charges may be levied @ Rs.200/KVA/Month from DISCOMs. When the actual SMDs of DISCOMs in a month exceeds the permitted Monthly SMDs (110% of the approved SMD), the DISCOMs will be billed by GRIDCO and paid by DISCOMs on provisional basis towards the excess SMD to take care of monthly variations. However, such Charges will be adjusted at the end of the year if the actual Annual SMD

remains within the Permitted Annual SMD i.e. 110% of the approved Annual SMD. If not, the Demand Charges for the excess SMDs may be levied at the above proposed rate.

3) Rebate for Timely Payment:

As per the present BSP order for FY 2011-12, for payment of bills through a Letter of Credit/ upfront by cash within two working days a rebate of 2% shall be allowed. If the payments are made by a mode other than through a letter of credit but within a period of one month of presentation of bills, by the Distribution Licensee, a rebate of 1% shall be allowed.

The DISCOMs have not renewed or opened the L.C. in favour of GRIDCO for negotiation of bills. In practice GRIDCO is not in a position to negotiate the bills within two working days as upfront payment are made by DISCOMs at the fag of the day by branch transfer in Union Bank of India. In order to obviate the difficulty, it may be proposed to modify the rebate for timely payment as under:

- i.) A rebate of 2% will be allowed in case DISCOMs make the full payment against monthly energy bill including over drawal & 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.
- ii.) In case DISCOMs make payment for the full bill amount including over drawal and FPA charges, if any, 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.
- iii.) 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 between GRIDCO and the DISCOMs.

5) Escrow Arrangement:

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 Hon'ble Commission in its BSP order dated 20-03-2010 and subsequent order dated 12-04-2010.

The relaxation has to be allowed out of the current revenue and arrear collections of DISCOMs to be deposited in the escrow account. The details of deposit of current revenue and arrear revenue in the escrow account and its appropriation on a month-to-month basis needs to be furnished by DISCOMs to GRIDCO. DISCOMs will be allowed for release of funds from the escrow account only after the earlier amount of relaxation has been drawn and the above details are submitted to GRIDCO.

In order to ensure the escrow arrangement Hon'ble Commission may give a direction to the above effect along with priority for escrow relaxation to be allowed by GRIDCO for FY 2012-13.

6) Surcharges for Late Payment:

The Surcharge for delayed payment of bulk power supplies bills i.e., payment after the periods of 30 days from the date of submission of bills, may be retained at 1.25% per month.

7) Fuel Price Adjustment (FPA):

Hon'ble Commission in GRIDCO BSP Order dated 18.03.2011 at Para-410 had passed Order to recover such additional cost of coal and oil over and above 20% in accordance with the procedure and guide lines out in Appendix-7 read with the Regulation-60 of the OERC (Conduct of Business) Regulations, 2004 and in the manner outlined in Para-371 of the RST Order dated 20.03.2010 for FY 2010-11.

It is observed that NTPC Generating Stations are claiming higher Energy Charges every month as compared to the approved Energy Charges. This happens due to use of high cost imported coal and increase in price of indigenous coal. GRIDCO is paying the excess amount claimed by NTPC but unable to pass on the same in BSP for which it experiences considerable cash crunch.

It is submitted that Hon'ble Commission may kindly consider to approve a mechanism such that any additional cost on account of the fuel related related costs or the like or due to upward midterm revision of procurement price over and above the approval by the Commission, may be passed on down the line so that GRIDCO does not suffer from any deficit or cash crunch.

Therefore, GRIDCO proposes to recover such additional cost of coal for each month of FY 2012-13 from DISCOMs in the succeeding month in proportion to their actual drawl in a particular month along with the BSP bill/s in line with Hon'ble Commission's Order dated 18.03.2011 at Para-410.

8) Carry forward of Revenue gap:

GRIDCO prays that the proposed Bulk Supply Price of **400.10 P/U** be made applicable from 1st April 2012. However, in case of a gap between the approved revenue requirements for FY 2012-13 and the revenue realized, the Commission may kindly approve to carry forward the gap for adjustment during the future years.

Prayer

Under the circumstances, GRIDCO humbly prays the Hon'ble Commission:

- (I) to consider Pass Through of the amount to the extent requested and accordingly approve the ARR and Bulk Supply Price (BSP) for FY 2012-13 of GRIDCO as proposed in this Application and make the same effective from **1st April 2012;**
- (II) to allow carry forward of the additional cost, if any, for recovery in the future BSP;
- (III) to allow recovery of the additional cost/s due to overdrawal of energy, Fuel Price Adjustment (FPA) / Fuel Surcharge Adjustment (FSA) etc. or on account of any other statutory increase/s, significant rise in the fuel cost etc. if any, be passed on to GRIDCO on account of the OERC / CERC / Tribunal / Court Orders, as surcharge during the year;
- (IV) to allow recovery of any cost/s due to the Electricity Duty/ Water Cess levied by the Government of Odisha and any other Statutory levy/ Duty/ Tax/ Cess / Toll etc. which shall be charged over and above the Bulk Supply Price, if any, be passed on to GRIDCO imposed under any relevant law from time to time, as surcharge during the year;

for which, GRIDCO, as is duty bound, shall ever pray.

**BY THE APPLICANT
THROUGH**

**Bhubaneswar
November , 2011**

**Director (F&CA)
GRIDCO Limited**

**BEFORE THE ORISSA ELECTRICITY REGULATORY COMMISSION
BHUBANESWAR**

Case No.....
Filing No.....

IN THE MATTER OF : An Application for approval of Annual Revenue Requirement (ARR) and determination of Bulk Supply Price (BSP) for the Financial Year 2012-13 under Section 86(1) (a) & (b) and all other applicable provisions of the Electricity Act, 2003 read with relevant provisions of OERC (Terms and Conditions for Determination of Tariff) Regulations, 2004, and OERC (Conduct of Business) Regulations, 2004, and other related Rules and Regulations.

AND

IN THE MATTER OF : GRIDCO Ltd., Janpath, Bhubaneswar

.....**Applicant**

Affidavit verifying the Application

I, Shri Bibhu Prasad Mohapatra, aged about 52 years, S/o Shri Sarangdhar Mohapatra, Director (Finance & Corporate Affairs), GRIDCO do hereby solemnly affirm and say as follows:

I am the Director (Finance & Corporate Affairs) of GRIDCO Ltd., the applicant in the above matter and am duly authorised to make this affidavit on its behalf.

The statements made in the foregoing Paragraphs of this ARR & BSP Application herein now are based on information and I believe them to be true.

Bhubaneswar

November , 2011

DEPONENT

Annexure-A

**Proposed Bulk Supply Price Schedule of GRIDCO for carrying out
Bulk Supply Activity for 2011-12**

Bulk Supply Price:

This Bulk Supply Price (BSP) is applicable for supply of power to Distribution and Retail Supply Licensees. The total charges shall be calculated by summation of following charges stated in Para (a) to (g) below as applicable:

a) Energy Charge:

Energy Charge @ **400.10 P/U** only would be levied to recover the entire Annual Revenue Requirement.

b) Demand Charge:

The Demand Charges @ Rs.200/KVA/Month would be levied from DISCOMs only when the actual SMDs of DISCOMs in a month exceeds the permitted monthly SMDs (110% of the approved SMD), to take care of monthly variations subject to year-end adjustment (YEA) within the Permitted Annual SMD i.e. 110% of the approved Annual SMD.

c) Over Drawal and Year End Charges:

Although the Over Drawal and Year End Charges payable by DISCOMs are presently billed on month-to-month basis as per the Orders of the Hon'ble Commission, but the same remain unpaid by the DISCOMs. GRIDCO proposes that any excess drawal of energy by a Distribution and Retail Supply Licensee (DISCOMs) during a **month** over and above the approved energy quantum (**Approved MU for FY 2012-13 X No. of days of the relevant month / 365 days**) would be payable on provisional basis at the highest OERC approved Power Purchases Rate fixed for a Station for FY 2012-13 (which includes transmission charges and transmission loss) on a monthly basis instead of the normal differential BSP applicable to the respective DISCOMs subject to final Year End Adjustment (YEA) considering the highest Power Purchases rate/ cost including the rate/s of energy drawn through U.I. Route of the month plus transmission charges and transmission loss.

d) Fuel Price Adjustment (FPA):

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** which will be passed on to consumers in the same month along with their normal energy bills served to the consumers at a rate which will be arrived at by considering their approved monthly sale quantum to the consumers (approved quantum for the financial year/12 months).

e) Rebate:

On payment of the monthly bill, the Retail and Distribution licensees (DISCOMs) shall be entitled to a rebate of:

- A rebate of 2% will be allowed in case DISCOMs make the full payment against monthly energy bill including over drawal & 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.
- 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 between GRIDCO and the DISCOMs.

f) Delayed Payment Surcharge:

The monthly charges as calculated above together with other charges and surcharge on account of delayed payments, if any, shall be payable within 30 days from the date of bill. If payment is not made within the said period of 30 days, delayed payment surcharge at the rate of 1.25% (One point two five percent) per month shall be levied pro-rata for the period of delay from the due date, i.e. from the 31st day of the bill, on the amount remaining unpaid (excluding arrears on account of delayed payment surcharge).

g) Duty and Taxes:

The Electricity Duty levied by the Government of Odisha 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.