

BEFORE THE ODISHA 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 2015-16 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, is engaged in 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**').

In due recognition of the vital position that GRIDCO plays in ensuring power supply 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 the Government Notification No. PPD-II-2/05 (pt) 7947, Bhubaneswar dated 17.08.2006 **Evidential Document (ED-I)**. Besides, being the successor Organization to the erstwhile Odisha 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.

It is further submitted that GRIDCO like State Designated Agencies do exist in other States in some form or the other like Corporate Entities or Committees or Empowered Committees and such institutions have been mandated by the respective State Governments to fulfill the State's power requirement. As such, GRIDCO's existence as the State Designated Entity to procure

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

power on behalf of the State for bulk supply to the DISCOMs for onward retail sale to the final consumers in the State is consistent with the provisions of the Act.

Besides, it will be relevant 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 & 23.03.2012 for FY 2012-13 has extensively dealt with the issues relating to the "Legal Status" of GRIDCO and concluded that 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 Odisha 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 2015-16 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 2015-16 is grouped as follows:

- 1.1 STATE HYDRO STATIONS
(OHPC-Old Stations, Upper Indravati & Machhkund)**
- 1.2 STATE DEDICATED THERMAL STATIONS
(OPGC & TTPS)**
- 1.3 CENTRAL THERMAL GENERATING STATIONS
(TSTPS-I & II, FSTPS-I,II & III & KhSTPS-I&II, Barh-I&II).**
- 1.4 CENTRAL HYDRO GENERATING STATIONS
(Tala, Teesta & Chukha)**

1.5 RENEWABLE ENERGY SOURCES:

(a) SOLAR ENERGY:

(Rajratan, SN Mohanty, MGM, Molisati, Mahavir, PAN TIME, Joy Iron & Steel, Abacus, NTPC & NVVN Bundled Power Alex Green Energy Ltd., ACME Odisha Solar Power Pvt. Ltd., and Solar Energy Corporation of India)

(b) NON-SOLAR:

(i) **SMALL / MINI HYDRO RENEWABLE ENERGY**
(Meenakshi & Samal)

(ii) **BIO-MASS ENERGY**
(M/s. Shalivahan Green Energy Pvt. Ltd. & M/s. Octant Industries Ltd.)

(iii) **ENERGY FROM CO-GENERATION PLANTS**

1.6 INDEPENDENT POWER PRODUCERS (IPPS)

(Sesa Sterlite Ltd. (SSL), GMR Kamalanga Ltd. (GKEL), Jindal India Thermal Power Ltd. (JITPL) & Naba Bharat Venture Ltd. (NBVL))

1.7 CAPTIVE GENERATING POWER PLANTS.

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 such as Drinking Water, Irrigation, Flood Control and Power Generation. As per the Govt. of Odisha letter No.1430 dated 19.02.2010 (**ED-II**), Power Generation is considered as **4th** in order of importance / priority in the list after fulfilling the requirement of water for Drinking, Irrigation and Flood Control. Therefore, generation of hydropower is not directly related to the grid demand but depends on other factors like drinking water & irrigation requirement and Flood control.

Considering the better hydrology with good reservoir levels at almost all hydro Stations during the first six months of the current year from April'14 to Sept.'14, GRIDCO has received **3987.902 MU** of energy (**3842.618 MU from OHPC Units and 145.284 MU from Machhkund** Joint HE Project of Odisha & Andhra Pradesh). While GRIDCO cherishes that this healthy trend in hydro power generation should continue during the ensuing period of FY 2015-16, other factors like availability of machines etc. are also crucial determinants of hydro power generation.

Hydro generating Units of Burla and Chiplima are taken as separate entities with effect from 01.04.2010 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 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 Chhattisgarh State Electricity Board (CSEB), 16.60 MU of energy is deducted from the supply of power from Hirakud Power Station.

Following the request of GRIDCO, OHPC has furnished its Generation Plan for FY 2015-16 vide their letter No.OHPC-HQ-Tech-PM-4/2012 (Vol-III)/11263 Dated 29.10.2014 **(ED-III)**.

In the said letter, OHPC has estimated the annual generation of 5751 MU for FY 2015-16 considering the inflow for the last seven years and irrigation requirement. Accordingly, GRIDCO projects the availability of energy from hydro stations of OHPC as **5676.89 MU** after deducting 0.50% towards transformation loss and 0.50% towards Auxiliary consumption and 5 MW (equivalent to 16.60 MU) share allocation to CSEB.

The details of projected drawal of energy (**5676.89 MU**) from the OHPC Stations during FY 2015-16 is indicated in the Table below.

Power Procurement from OHPC for FY 2015-16 (Energy in MU)

Power House	Design Energy (MU) (Including loss)	GRIDCO Share (%)	Actual Drawal during FY 2013-14 (After Loss)	OERC Approval for FY 2014-15 (After Loss)	Actual Drawal during 1st Six Months (April'14 to Sept.,14) (MU)	Generation Programme submitted by OHPC for FY15-16 (Including Loss of 1%) (MU)	GRIDCO Projection for FY15-16 (After 0.5% Trans. Loss, 0.5% Aux. Cons.& 5 MW allocation to CSEB) (MU)
HHEP	684.00	100*	669.36	677.16	308.35	686.00	662.54
CHEP	490.00	100	295.20	485.10	137.86	300.00	297.00
Rengali	525.00	100	885.47	519.75	595.90	700.00	693.00
Upper Kolab	832.00	100	852.31	823.68	399.09	834.00	825.66
Balimela	1183.00	100	1631.96	1171.17	729.78	1184.00	1172.16
Sub-Total	3714.00	100	4334.31	3676.86	2170.98	3704.00	3650.36
Upper Indravati	1962.00	100	2445.11	1942.38	1671.64	2047.00	2026.53
Total	5676.00		6779.41	5619.24	3842.618	5751.00	5676.89

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

The above projections are based on normal monsoon conditions. It is submitted that any failure of monsoon will result in less ESO (Energy Sent Out) of cheaper hydro power from OHPC which in turn is likely to cause financial misery for GRIDCO. GRIDCO therefore submits that the Hon'ble Commission may take cognizance of this fact and accordingly, approve availability of hydro power based on normal conditions. It is submitted that any gain / loss due to the magnitude of availability of hydro power will be adjusted during the truing-up exercise.

➤ **Machhkund:**

Machhkund Powerhouse, which is a 50:50 Joint Venture Project of the Government of Andhra Pradesh and Odisha, is also under the control of OHPC. The Design Energy of Machhkund HPS is considered as **525 MU** by OHPC. With Odisha having a share of 50%, procurement by GRIDCO from this Station is estimated at **262.50 MU** for FY 2015-16.

Thus, the total estimated availability from OHPC Old Stations, Upper Indravati and Machhkund is estimated as **5939.39 MU (3650.36 MU from OHPC Old Stations + 2026.53 MU from Upper Indravati + 262.50 MU from Machhkund HPS).**

It has been observed that the failure of hydrology has been common during last couple of years except for last two years i.e. FY 2013-14 & FY 2014-15 resulting in power crisis for the State. Although, during the last two years, the Rain God has been favourable leading to better hydrology in almost all Hydro Stations in the State; but at the same time, the nature especially, the occurrence of the "Phailin" during FY 2013-14" and "the Hud-Hud during FY 2014-15" in Odisha have inflicted extensive damage to the electrical transmission and distribution network in the southern districts of the State which may affect the availability of overall hydro power to a great extent since Hydro Stations like Balimela, Upper Kolb, Upper Indravati and Machhkund are situated in such areas.

1.2 STATE DEDICATED THERMAL STATIONS:

➤ **Odisha Power Generation Corporation Limited (OPGC):**

OPGC has submitted the Generation plan and tentative Tariff Statement for Financial Year 2015-16 **(ED-IV)** considering use of 100% domestic coal. As per the generation plan based

on use of domestic coal, net drawal from OPGC during FY 2015-16 shall be **2780.060 MU** after deducting Auxiliary Consumption @ **10.38% (321.963MU)** from the projected generation of **3102.023 MU** at a **PLF of 83.49%**(against their assumption of 84.08%).

However, based on the normative auxiliary energy consumption of **8.5% (263.672 MU)** (as per the Terms and Conditions of for Determination of Generation Tariff) Regulation, 2014 and **PLF of 85.24%** on projected generation of **3102.023MU** during FY 2015-16 by OPGC, GRIDCO has worked out net drawal (ESO) of **2838.351 MU** from OPGC during FY 2015-16 considering use of domestic coal only.

Proposed Power procurement from OPGC for FY 2015-16

Name of Thermal Stations	Installed Capacity (MW)	Aux. Cons (%)	PLF Assumed (%)	Generation (MU)	Aux. Cons (MU)	Energy Sent Out (ESO) (MU)
OPGC	420	8.5	85.24	3102.023	263.672	2838.351

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

TTPS (NTPC), has submitted the projection of Gross Energy Availability from TTPS to GRIDCO during FY 2015-16 **(ED-V)** to be **3550 MU** at a Plant Load Factor (PLF) of **88.10%**. Considering Normative Auxiliary Consumption of **10.50%**, the Net Energy (Ex-Bus) to be available to GRIDCO during FY: 2015-16 works out to be **3177.25 MU** as indicated in the Table below:

Proposed Power procurement from TTPS for FY 2015-16

Name of Thermal Station	Installed Capacity (MW)	Aux. Cons (%)	PLF Assumed (%)	Generation (MU)	Aux. Consumption (MU)	Energy Sent Out (ESO) (MU)
TTPS	460	10.50	88.10	3550	372.75	3177.25

1.3 CENTRAL THERMAL GENERATING STATIONS (CGSs):

Hon'ble Central Electricity Regulatory Commission (CERC) vide Notification dated 21.02.2014 published the CERC (Determination of Terms & Conditions of Tariff) Regulations, 2014 (In short, CERC Tariff Regulations, 2014) effective from 01.04.2014 to 31.03.2019. Chapter-8 of the aforesaid Regulation stipulates the, "NORMS OF OPERATION" and Clause-36 deals with the norms & operation for Thermal Generating Stations. Further, Clause 36 (A) of the aforesaid Regulation reads as "Normative Annual Plant Availability Factor (NAPAF)" which stipulates as under:

“(a), “All Thermal Generating Stations, except those covered under clauses (b), (c), (d), & (e)-85%

Provided that in view of shortage of coal and uncertainty of assured coal supply on sustained basis experienced by the generating stations, the NAPAF for recovery of fixed charges shall be 83% till the same is reviewed.”

The above provision shall be reviewed based on actual feedback after 3 years from 01.04.2014.”

Based on the above provision of CERC Tariff Regulations, 2014, NTPC has been raising bills on 83% NAPAF for recovery of Fixed Charges from 01.04.2014 onwards.

Considering the Plant Availability Factor for the months from April’14 to Sept’14, the actual Cumulative Availability % of power from CGSs for the 1st six-months of FY 2014-15 (April’14 to September’14) varies from 74.29% to 86.89% as may be seen from the Table below. However, based on the afore-said new CERC Tariff Regulations, 2014, GRIDCO proposes a Normative Annual Plant Availability Factor (**NAPAF**) of **83%** for the NTPC-ER Stations for FY 2015-16 as per the bills raised by NTPC at present.

Cumulative Availability % of CGSs for the 1st six-months of FY 2015-16

Stations	Apr-14	May-14	Jun-14	Jul-14	Aug-14	Sep-14	Cumulative Availability %	Cumulative Availability % (NAPAF%) proposed for CGSs by GRIDCO for FY 2015-16 (As per CERC Tariff Regulations, 2014)
TSTPS Stage-I	93.19	96.89	90.49	85.99	49.72	54.50	78.46	83
TSTPS Stage-II	97.92	97.75	74.60	71.11	85.18	94.79	86.89	83
FSTPS-I&II	89.68	84.90	75.18	77.17	70.06	65.87	77.14	83
FSTPS-III	37.86	92.91	78.86	85.34	76.73	74.02	74.29	83
KhSTPS St-I	95.08	77.31	75.60	78.51	91.52	94.84	85.48	83
KhSTPS St-II	96.42	95.64	80.87	57.47	62.72	66.93	76.68	83

The projection of net power procurement from the Central Thermal Generating Stations (CGSs) of Eastern Region (ER) for FY 2015-16 is estimated as **7546.98 MU** considering the allocated share of GRIDCO, NAPAF of 83%, Auxiliary Consumption as per the CERC Tariff Regulations, 2014 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 **31.97%** (including Dadri Thermal Power bundled with Solar Power) from TSTPS Stage-I (1000 MW), Auxiliary Consumption of **5.75%** (as per the CERC Tariff Regulations, 2014 in force for the period 2014-19 and the Petition filed by NTPC), proposed **NAPAF of 83%** and the Central Transmission Loss of **2.39%**, the availability to GRIDCO from TSTPS Stage-I for FY 2015-16 is estimated as **2138.42 MU** as indicated below:

Projected Power Procurement from TSTPS-I for FY 2015-16

Central Thermal Stations	Installed Capacity (MW)	Aux. Cons (%)	Based on NAPAF% as per Para 36 (A) of CERC Regn.,2014 & / Cum. Present Availability (%)	Net availability (ESO) (MU)	GRIDCO Share (%)	Ex-bus Availability (MU)	GRIDCO share after C.S. Trans. Loss of 2.39% (MU)
TSTPS Stg.-I	1000	5.75	83	6,852.73*	31.97	2,190.78	2,138.42

* $[(1000 \times 0.83) \times 0.9425] \times 8.76 = 6852.73$ MU

➤ **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 **5.75%** (as per the CERC Tariff Regulations, 2014 in force for the period 2014-19 and the Petition filed by NTPC before the CERC), proposed **NAPAF of 83%** and Central Transmission Loss of **2.78%**, the availability to GRIDCO from TSTPS Stage-II for FY 2015-16 is estimated at **1322.44 MU** in indicated in the Table below:

Projected Power Procurement from TSTPS-II for FY 2015-16

Central Thermal Stations	Installed Capacity (MW)	Aux. Cons (%)	Based on NAPAF% as per Para 36 (A) of CERC Regn.,2014 & / Cum. Present Availability (%)	Net availability (ESO) (MU)	GRIDCO Share (%)	Ex-bus Availability (MU)	GRIDCO share after C.S. Trans. Loss of 2.78% (MU)
TSTPS Stg.-II	2000	5.75	83	13,705.46	10.00	1,370.55	1,332.44

➤ **Farakka Super Thermal Power Station (FSTPS-I&II):**

Considering GRIDCO's Share allocation of **13.81%** (including equivalent Dadri Thermal Power) from FSTPS-I&II (Installed Capacity: 1600 MW), Normative **NAPAF of 83%**, Auxiliary Consumption @ **6.47%** (as per the CERC Tariff Regulations, 2014 in force for the period 2014-19 and the Petition filed by NTPC before the CERC) and Central Transmission Loss of **2.10%**, the availability to GRIDCO from FSTPS-I & II is estimated as **1470.92 MU** for FY 2015-16. The projection is given in the Table below:

Projected Power Procurement from FSTPS-I & II for FY 2015-16

Central Thermal Stations	Installed Capacity (MW)	Aux. Cons (%)	Based on NAPAF% as per Para 36 (A) of CERC Regn., 2014 & / Cum. Present Availability (%)	Net availability (ESO) (MU)	GRIDCO Share (%)	Ex-bus Availability (MU)	GRIDCO share after C.S. Trans. Loss of 2.10% (MU)
FSTPS-I & II	1600	6.47	83	10,880.61	13.81	1,502.48	1,470.92

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

GRIDCO was allotted 100.90 MW (83.1 MW + 17.80 MW) from unallocated share by the Ministry of Power, Govt. of India vide the Order Dated 09.12.2010 from Farakka Super Thermal Power Station Stage-III (FSTPS-III). However, the above additional 17.80 MW of power of GRIDCO from unallocated quota of FSTPS-III was withdrawn earlier during July '13 by the Ministry of Power (MOP) and allocated to other beneficiary.

Further, GRIDCO, in order to meet the additional power demand of State, had another 50 MW allotment from this Power Plant through a Supplementary Power Purchase Agreement dated 20.08.2012 for period of 24 months from September, 2012 to August, 2014. With increased availability of power from other sources, the Supplementary Power Purchase of 50 MW has been surrendered by GRIDCO w.e.f. 01.09.2014 & the same has been allocated to other beneficiary, namely, Assam Power Distribution Company Ltd. The relevant copy of the letter of the Eastern Region Power Committee (ERPC) bearing letter No. ERPC/COM-I/Share2014/Fax No.243 Dtd. 28.08.2014 is enclosed as **ED-VI** to this effect.

In view of the above, current allotment of GRIDCO from FSTPS -III is only 83.10 MW with a share of 16.874% including equivalent Dadri Thermal Power. Thus, the projected power procurement from FSTPS-III is considered as **566.02 MU** with a NAPAF of 83%, Auxiliary Consumption of 5.75% (as per the CERC Tariff Regulations, 2014 in force for the period

2014-19 and the Petition filed by NTPC before the CERC) and C.S. Loss of 2.10% as indicated in the following Table:

Projected Power Procurement from FSTPS-III for FY 2015-16

Central Thermal Stations	Installed Capacity (MW)	Aux. Cons (%)	Based on NAPAF% as per Para 36 (A) of CERC Regn.,2014 & / Cum. Present Availability (%)	Net availability (ESO) (MU)	GRIDCO Share (%)	Ex-bus Availability (MU)	GRIDCO share after C.S. Trans. Loss of 2.10% (MU)
FSTPS-III	500	5.75	83	3,426.36	16.87	578.16	566.02

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

Considering Odisha Share allocation of **15.40%** from KhSTPS-I (Installed Capacity: 840 MW), **NAPAF** of **83%**, Auxiliary Consumption of **9%** (as per the CERC Tariff Regulations, 2014 in force for the period 2014-19 and the Petition filed by NTPC before the CERC) and Central Transmission Loss of **2.08%**, the energy availability to GRIDCO from KHSTPS-I is estimated at **838.09 MU** for FY 2015-16 as estimated in the Table below:

Projected Power Procurement from KhSTPS-I for FY 2015-16

Central Thermal Stations	Installed Capacity (MW)	Aux. Cons (%)	Based on NAPAF% as per Para 36 (A) of CERC Regn.,2014 & / Cum. Present Availability (%)	Net availability (ESO) (MU)	GRIDCO Share (%)	Ex-bus Availability (MU)	GRIDCO share after C.S. Trans. Loss of 2.08% (MU)
KhSTPS Stg.-I	840	9.00	83	5,557.80	15.40	855.89	838.09

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

Considering Odisha share allocation of 2.24 % (including equivalent Dadri Thermal Power) from KhSTPS-II (Installed Capacity: 1500 MW), proposed NAPAF of **83%**, Auxiliary Consumption of **5.75%** (as per the CERC Tariff Regulations, 2014 in force for the period 2014-19 and the Petition filed by NTPC before the CERC) and Central Transmission Loss of **2.08%**, the availability to GRIDCO from KHSTPS-II is estimated at **225.19 MU** for FY 2015-16 as given below:

Projected Power Procurement from KhSTPS-II for FY 2015-16

Central Thermal Stations	Installed Capacity	Aux. Cons	Based on NAPAF% as per Para 36 (A) of CERC Regn., 2014 & / Cum. Present Availability (%)	Net Availability (ESO)	GRIDCO Share	Ex-bus Availability	GRIDCO share after C.S. Trans. Loss of 2.08%
	(MW)	(%)	(%)	(MU)	(%)	(MU)	(MU)
KhSTPS Stg-II	1500	5.75	83	10,279.09	2.24	229.98	225.19

➤ **Barh Super Thermal Power Station-Stage-I & II (Barh-I&II):**

Ministry of Power (MoP), Govt. of India vide Order Dated 31.07.2012 notified allocation of power from Barh STPS Stage-I (1980 MW i.e. 3x660 MW) and Barh STPC Stage-II (1320 MW i.e. 2x660 MW) of NTPC in Bihar. Copy of the relevant Letter Dated July 03, 2012 of the MoP, Govt. of India is enclosed as **ED-VII**.

As per the aforesaid Order, GRIDCO has 12.57% share allocation from Barh-I ERPC vide their letter dtd. 14.11.2014 intimated COD of Unit-IV (one unit) of Barh Stage-I from 00:00 hrs of 15.11.2014.

In the meantime, NTPC has already filed a Petition before the CERC for determination of tariff for the period 2014-19. It is understood from the Petition that the 2nd Unit of Barh Stage-II would be commercially operated from 30.06.2015. Hence, considering the weighted average installed capacity of the Barh-I & II, 83% NAPAF, Auxiliary Consumption of 5.75%, and transmission loss of 2.08% (equivalent to that of Kahalgaon) and Odisha share allocation of 12.57%, the energy available to GRIDCO during 2015-16 is calculated as 975.90 MU.

Projected Power Procurement from Barh STPS Stations for FY2015-16

Central Thermal Stations	Weighted Avg. Installed Capacity (MW)	Aux. Cons. (%)	Based on NAPAF% as per Para 36 (A) of CERC Regn., 2014 & / Cum. Present Availability (%)	Net Availability (ESO) (MU)	GRIDCO Share (%)	Ex-bus Availability (MU)	GRIDCO share after the applicable C.S. Tr. loss (MU)
Barh STPS-I & II	1157*	5.75	83	7,928.61	12.57	996.63	975.90**

* $\{[(1320 \text{ MW} \times 275 \text{ days}) + (660 \text{ MW} \times 90 \text{ days})] / 365\} = 1157 \text{ MW}$

** $\{(1157 \text{ MW} \times 0.83 \times 0.9425 \times 8.76) \times 0.1257\} \times 0.9792 = 975.90 \text{ MU}$

Thus, considering the above drawal from each of the individual NTPC-ER Stations, the proposed drawal of **7546.98 MU** from Central Thermal Generating Stations of ER, NTPC for FY 2015-16 are tabulated in the Table below:

Availability of Power from Central Generating NTPC Stations FY-2015-16							
Central Thermal Stations	Installed Capacity (MW)	Aux. Cons (%)	Based on NAPAF% as per Para 36 (A) of CERC Regn., 2014 & / Cum. Present Availability (%)	Net Availability (ESO) (MU)	GRIDCO Share (%)	Ex-bus Availability (MU)	GRIDCO share after the applicable C.S. Tr. loss (MU)
TSTPS Stg.-I	1000	5.75	83	6,852.73	31.97	2,190.78	2,138.42
TSTPS Stg-II	2000	5.75	83	13,705.46	10.00	1,370.55	1,332.44
FSTPS-I&II	1600	6.47	83	10,880.61	13.81	1,502.48	1,470.92
FSTPS-III	500	5.75	83	3,426.36	16.87	578.16	566.02
KhSTPS Stg-I	840	9.00	83	5,557.80	15.40	855.89	838.09
KhSTPS Stg-II	1500	5.75	83	10,279.09	2.24	229.98	225.19
Barh STPS-I & II	1157*	5.75	83	7,928.61	12.57	996.63	975.90
TOTAL				58,630.66		7,724.45	7,546.98

* Weighted Average Installed Capacity.

1.4 CENTRAL HYDRO GENERATING STATIONS:

➤ Chukha Hydro Electric Project (HEP) (Bhutan):

Chukha Hydro Electric Project (HEP), Bhutan has an installed capacity of 336 MW (4x84 MW). GRIDCO has a share allocation of **15.19%** from Eastern Region (ER) allocation of 270 MW in Chukha HEP. Based on the average drawal over the last 6 years from FY 2008-09 to FY 2013-14 and considering Central Transmission Loss of **2.10%**, GRIDCO proposes to draw 263.19 MU; say, **263 MU** from Chukha during the FY 2015-16. The details are shown in the Table below.

Proposed Drawal from Chukha HEP for FY 2015-16

Financial Year	Drawal by GRIDCO (MU)
2008-09	283.37
2009-10	277.80
2010-11	278.49
2011-12	260.39
2012-13	237.58
2013-14	275.413
Total drawal for the last 6 years	1613.04
Average drawal for the last 6 years	268.84
Proposal after deducting Central Transmission Loss@ 2.10%	263.19
Proposed drawl (MU), Say, (Rounded off)	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) that has Installed Capacity of 1020 MW. GRIDCO proposes to draw **142.00 MU** during FY 2015-16 considering the last 5 years' average drawal i.e. from FY 2009-10 to FY 2013-14 and Central Transmission Loss of **2.10%**. The details are shown in the Table below:

Proposed Drawal from Tala HEP for FY 2015-16

Financial Year	Drawal by GRIDCO (MU)
2009-10	141.29
2010-11	151.56
2011-12	144.79
2012-13	131.76
2013-14	153.82
Total drawal for 5 years	723.21
Average drawal for 5 years	144.64
Proposal after deducting central Transmission Loss @ 2.1% (MU)	141.61
Proposed Drawal (MU), Say; (After Rounding off)	142.00

➤ **Teesta –V HEP (Sikkim):**

The Annual Design Energy of Teesta-V HEP (Installed Capacity: 510 MW) situated in Sikkim is 2572.70 MU. After factoring for 12% free energy to the Home State, Sikkim & **1.20%** towards Auxiliary Consumption, the annual saleable energy of the project is estimated as 2236.808288 MU. Considering the share of GRIDCO as **23.40%** of the saleable energy, GRIDCO proposes to procure **512.42 MU, say, 513 MU (rounded off)** of energy during the year 2015-16 after deducting the Central Sector loss of **2.10%**. The details are shown in the Table below:

Proposed Drawal from Teesta HEP for FY 2015-16

Design Energy	(MU)	2572.7
Annual saleable Energy available considering 1.20% Auxiliary energy consumption and 12% free energy for home state	(MU)	2236.80
GRIDCO Share	(%)	23.40
Availability	(MU)	523.41
Proposal After deducting Central Transmission Loss @ 2.10%.	(MU)	512.42
Proposed drawl for FY 2015-16; Say, (After Rounding Off)	(MU)	513.00

The details of proposed drawal of energy by GRIDCO from Central Hydro Generating Stations (other than NTPC Thermal Stations) for FY 2015-16 is given in the Table below:

Proposed Drawal by GRIDCO from Central Hydro Stations during FY 2015-16

Central Generating Stations other than NTPC Stations.	Installed Capacity (MW)	GRIDCO Share of installed capacity (%)	GRIDCO Share of installed capacity (MW)	GRIDCO Proposal for FY 2015-16 considering drawal trend during past years & after applicable C.S. loss (MU)
Chukha HEP	4*84=336 ER Allocation=270 MW	15.19	41.013	263.00
Tala HEP	6*170 = 1020	4.25	43.35	142.00
Teesta-V HEP	3*170=510	20.59 (Equivalent to 23.40% of Saleable Energy)	105.019	513.00
TOTAL				918.00

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

It is submitted that the Hon'ble OERC has mandated GRIDCO to meet the Renewable energy (both solar and non-Solar) Purchase Obligation (RPO) for the years from 2011-12 to 2015-16 in terms of the Para 3 (l) of the Commission's Order dated 30.09.2010 in Case No. 59 of 2010 (**ED-VIII**). As per this Order, GRIDCO is required to purchase renewable energy @7.00 % (consisting of 0.30 % as Solar Energy, 2.00 % towards Non-Solar energy and 4.70 % as energy from Co-generation Plants) of the total projected energy requirement for FY 2015-16. The relevant para along with the Table from the OERC Order dated 30.09.2010 in Case No. 59/2010 is reproduced below:

Extracted from OERC Order Dated 30.09.2014 In Case No. 59/2010:

".....Accordingly, the year and source wise RPO would be as below:

Year-wise target	Minimum quantum of purchase in percentage (in terms of energy consumption in the State in KWH)			
	Renewable		Co-generation	Total
	Solar	Non-solar		
2009-10 (Actual)	-	0.80	3.45	4.25
201-11	-	1.0	3.5	4.5
2011-12	0.1	1.2	3.70	5.0
2012-13	0.15	1.40	3.95	5.5
2013-14	0.20	1.60	4.20	6.0
2014-15	0.25	1.80	4.45	6.5
2015-16	0.30	2.00	4.70	7.0

....."

Based on the above RPO as specified in the OERC Order dated 30.09.2010, the proposed procurement of Solar and Non- Solar energy for FY 2015-16 is indicated below:

Proposed Procurement of Renewable Energy during FY 2015-16

Particulars	RPO for FY 2015-16 as per OERC Order Dtd. 30.09.2010 in Case No. 59 /2010		Renewable Energy Proposed by GRIDCO for FY 2015-16 (in the net Energy requirement of 26166.00 MU)
	Percentage (%)	Quantum (MU)	Quantum (MU)
A. Solar Energy	0.30	78.50	127.00
B. Non-Solar Energy		0.00	
B.1. (Bio Mass & SHEP)	2.00	523.32	480.00
B.2. Co-Generation Energy	4.70	1229.80	1224.62
Total	7.00	1831.62	1831.62

It is expected that Shortfall or surplus towards RPO would be adjusted through procurement of energy from Biomass and / or Co-generation sources.

(a) Solar Energy:

GRIDCO is hopeful to procure **127 MU** from:

- (i) **8 Nos.** of Solar PV Projects of 1 MW capacity each commissioned in the State under 'Rooftop PV and Small Solar Power Generation Programme' (RPSSGP) guidelines of MNRE, GoI (**13 MU**);
- (ii) **15 MW** Solar capacity as per the Power Sale Agreement (PSA) executed with NTPC Vidyut Vyapar Nigam Limited (NVVNL) on 12th January 2011 under 'New Projects Scheme' under Phase-1 of Jawaharlal Nehru National Solar Mission (JNNSM) where Solar capacity bundled with equal capacity of thermal capacity from the unallocated quota of the NTPC Coal Based Stations is available to GRIDCO (**25 MU**), and;
- (iii) 10 MW Solar capacity from NTPC as per the PPA executed with them on 26.04.2011 to procure Solar power each from 5 MW Dadri Solar PV project at U.P. & 5 MW Faridabad Solar PV Project at Haryana (**17 MU**);
- (iv) Besides, **8 MU** will be made available to GRIDCO by December 2013 from the 5 MW Solar PV Project developed by M/s Alex Green Energy Ltd. under OREDA State Scheme at Patnagarh, Bolangir District.
- (v) **42 MU** from the 25 MW SPV Project to be developed by M/s. ACME Odisha Solar Power Private Ltd. at Bolangir District under OREDA State Scheme, Phase-2.

- (vi) **30 MW** Solar Capacity allocated to GRIDCO under Viable Gap Funding (VGF) Scheme under JNNSM Phase-II is expected to be commissioned by the second half of FY 2015-16. Around **22 MU** is expected to be available to GRIDCO during FY 2015-16.

GRIDCO is trying its best to explore the possibilities to procure more Solar Power for the State in order to increase the share of renewable energy in the overall energy basket of the State.

Thus, GRIDCO proposes to procure **127 MU** of Solar power during FY 2015-16 as given in the Table below:

Proposed Drawal of Solar Power during FY 2015-16

Sl. No.	Solar RE Sources	Energy Proposed for FY 2015-16 (MU)
1.	8 Nos. of Solar PV projects of 1 MW each under RPSSGP	13.00
2.	15 MW from NVVN through 'New Projects scheme' under JNNSM, Phase-1	25.00
3.	10 MW through NTPC from 5 MW Solar PV project at Dadri & Faridabad	17.00
4.	5 MW from M/s Alex Green Energy Ltd. through OREDA State Scheme	8.00
5.	25 MW from M/s. ACME Odisha Solar Power Private Limited	42.00
6.	30 MW through Solar Energy Corporation of India (SECI) under JNNSM, Phase –II, Batch-I	22.00
	Total	127.00

(b) NON-SOLAR:

(i) Small / Mini Hydro Electric Projects:

Considering the quantum of 336.57 MU of energy procured during FY 2013-14, drawal of 184.31 MU during the first six months of FY 2014-15 and the present availability of water, GRIDCO proposes to draw around **320 MU** of renewable energy from **Small Hydro Sources (Meenakshi & Samal SHEPs)** during FY 2015-16 as given below:

Proposed Drawal from Meenakshi & Samal SHEP for FY 2015-16

Sl. No.	Name of the SHEPs	Installed Capacity (MW)	Energy drawal during FY 2013-14 (MU)	Energy drawal during the 1st six months of 2014-15 (MU)	Proposed Energy procurement for FY 2013-14 (MU)
1.	Meenaskhi Small Hydro	37	243.45	128.86	210.00
2.	SAMAL Small Hydro	20	93.12	55.45	110.00
	Total		336.57	184.31	320.00

(ii) Energy from Bio-Mass:

It is submitted that the Biomass Plant belonging to M/s. Shalivahan Green Energy Ltd., Hyderabad located at Nimidha, Dhenkanal supplying renewable energy to GRIDCO was out of operation since January, 2013. It is expected that the plant will be fully operational in FY 2015-16.

Besides, another 60 MU is proposed to be procured as Biomass Energy from the up-coming Biomass Plant of M/s Octant Industries at Sambalpur which is expected to be commissioned during early part FY 2015-16.

In view of the above, GRIDCO proposes to draw around **160 MU** from the Bio-mass Projects for the FY 2015-16.

Proposed Biomass Energy during FY 2015-16

Sl. No.	Name of the Bio-Mass Plant	Proposed Energy procurement for FY 2015-16 (MU)
1.	M/s Shalivahan Green Energy Ltd.	100.00
2	M/s. Octant Industries Ltd.	60.00
	Total	160.00

(iii) Proposed Drawl from Co-Generation Plants:

GRIDCO proposes to procure **1224.62 MU** (being the differential energy from total RPO quantum of 1831.62 MU after deducting the energy from Solar, SHEP and Bio-mass energy) from Co-Generation Plants during FY 2015-16 which may be considered as Renewable Energy as, such energy is generated from waste heat.

In line with the above estimation, the procurement of energy from Non-Solar sources during FY 2015-16 are given as under:

Projected Procurement of Non-Solar Energy during FY 2015-16

Sl. No.	Renewable Energy Sources.	Energy Proposed for FY 2015-16
		(MU)
	NON-SOLAR	
1	Meenaskhi Small Hydro	210.00
2	SAMAL Small Hydro	110.00
A.	Total	320.00
B.	M/s. Shalivahana Green Energy Ltd. – Biomass Energy	100.00
C	M/s. Octant Industries Ltd. – Biomass Energy	60.00
D	Energy from Co-Gen. Plants	1224.62
E	Total (A+B+C+D)	1704.62

Thus, GRIDCO hopes to procure **1831.62 MU of Renewable Energy (RE)** consisting of **Solar (127 MU), Non-Solar Energy (SHEP & Biomass = 480 MU, Co-Gen. Energy = 1224.62 MU)** as given in the Table below:

Projected Procurement of Renewable Energy (Solar & Non-Solar) for FY 2015-16

Sl. No.	Renewable Energy Sources	Energy Proposed for FY 2015-16
		(MU)
	NON-SOLAR	
1	Meenaskhi Small Hydro	210.00
2	SAMAL Small Hydro	110.00
A.	Total	320.00
B.	Shalivahana Green Energy Ltd.	100.00
C.	Octant Industries Ltd.	60.00
D	Energy from Co-Gen. Plants	1224.62
E	Total (A+B+C+D)	1704.62
F	SOLAR RE Sources	127.00
G	Total (D+E) (NON-SOLAR & SOLAR)	1831.62

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 Purchase Obligation (RPO) of 7.00 % consisting of 0.30 % of Solar Energy, 2.00 % of Non-Solar Energy and 4.70 % of Co-Generation Energy during FY 2015-16 in terms of the OERC Order Dated 30.09.2010 in Case No. 59 of 2010, the availability of such energy has been posing a constraint.

It is submitted that the generation of renewable energy is slowly picking up in the State and GRIDCO is committed to harness such energy as and when available.

1.6 Independent Power Producers (IPPs):

IPP projects with which GRIDCO has executed Power Purchase Agreements (PPAs) are in various stages of implementation. So far the following Generating Units of different IPPs have been declared to be commercially operational on the dates mentioned against respective IPPs:

Sl. No.	Name of IPP	Location of the project	Installed capacity (MW)	Odisha share (MW)	Date of Commercial Operation
1.	M/s. Sesa Sterlite Ltd., Patto, Panaji, Goa	Brundamal, Jharsuguda	4x600 (2,400)	600	# 1: 30-03-2011 # 2: 10-11-2010 # 3: 19-08-2011 # 4: 26-04-2012
2.	M/s. GMR Kamalanga Energy Ltd., Bengaluru	Kamalanga, Dhenkanal	3x350 (1,050)	263	# 1: 30-04-2013 # 2: 11-11-2013 # 3: 25-03-2014
	TOTAL		3,450	863	

N.B. The Order of Hon'ble Commission, in Case No. 29 of 2010, wherein the status the 50 MW Unit of M/s. Aarti Steels Ltd. was held to be that of CGP, has been set aside, vide the Order dated 17-10-2014 in Appeal No. 159 of 2013 at Hon'ble ATE, New Delhi. However, Hon'ble APTEL has not deliberated on the status of the 50 MW Unit and remanded to Hon'ble Commission to determine tariff as per the directions given in the Order dated 17-10-2014 *ibid*.

- (a) It is to be mentioned here that, Unit No. 2 of M/s. Sesa Sterlite Ltd. (SSL) is State dedicated & connected to OPTCL / STU System through 220 kV VAL – Budhipadar D/C lines. Other Units, viz., Unit Nos. # 1, # 3 & # 4 are connected to PGCIL/CTU System through LILO of 400 kV Rourkela – Raigarh Ckt-I. In the event, Unit No. # 2 is not in operation, SSL supplies the State's share of power, either by connecting any other Unit to OPTCL/STU system or through PGCIL/CTU for which the PoC Losses and Charges are borne by SSL. Further, GRIDCO has been contesting before APTEL regarding the transmission capacity of the existing 220 kV VAL-Budhipadar Double Circuit line which is sub-judice at present.
- (b) Regarding the IPP of M/s. GMR Kamalanga Energy Ltd. (GKEL), all its three Units (Unit Nos. # 1, # 2 & # 3 each of 350 MW capacity) are connected to STU/OPTCL System through LILO of 400 kV Kaniha – Meramundali Ckt-I. With the present connectivity GKEL can inject only 550 MW as permitted by ERLDC. Therefore, GRIDCO can avail the State's share of 25% of the power sent out through OPTCL System.
- (c) In case of M/s. Jindal India Thermal Power Ltd. (JITPL), one Unit of 600 MW has been commissioned on 28-03-2014 through 400 kV JITPL – Angul (PG) D/C lines.

However, the commercial operation of the said Unit is yet to be achieved. Unit No. 2 of JITPL is also at advanced stage of commissioning. Although, the Units of JITPL are connected to CTU, as per the PPA with GRIDCO, JITPL shall bear the CTU Charges, along with losses for supply of State's entitlement of 14%/12% at variable cost.

- (d) It is to be further mentioned here that, one number of 64 MW Unit of M/s. Nava Bharat Ventures Ltd. (NBVL), Khargaprasad, Dhenkanal has been commissioned on 26-02-2013 through 132 kV NBVL – Kharagprasad D/C lines.

The details of generating Units of different IPPs which are expected to be commissioned during the balance period of 2014-'15 are furnished below:

IPP Units expected to be commissioned during the current FY 2014-'15

Sl. No.	Name of IPPs	Location	Installed Capacity	Odisha Share		Expected date of Commissioning
			(MW)	(%)	(MW)	
1.	M/s. Jindal India Thermal Power Ltd.	Derang, Talcher, Dist. Angul	600	12	72.0	# 2: Dec, 2014
2.	M/s. Ind-Barath Energy (Utkal) Ltd.	Sahajbahal, Dist. Jharsuguda	700	12	84.0	# 1: Dec, 2014 # 2: Mar, 2015
3.	M/s. Maa Durga Thermal Power Company Ltd.	Tangi, Dist.: Cuttack	60	12	7.2	# 1 & 2: Mar, 2015
	Total		1360		163.2	

- Note:**
1. In the event of allocation of Coal Block(s), the Odisha share shall be 14%.
 2. The above commissioning schedules are indicative only.
 3. GRIDCO reserves the first right to procure all the infirm power from these IPPs at Variable Cost (i.e. Energy Charges).

GRIDCO restricts its proposed procurement of power only from the existing IPPs or IPPs already commissioned, viz., SSL, GKEL, NBVL and JITPL.

- (i) **Proposed Procurement of Power from the existing as well as already commissioned IPPs, i.e., SSL, GKEL, NBVL & JITPL:**

(a) Sesa Sterilite Limited (SSL):

Considering the Generation Plan submitted by SSL, GRIDCO proposes to procure about **4,199.00 MU** of energy from SSL during FY 2015-'16. The Generation Plan of SSL is attached as **ED-IX**.

(b) GMR Kamalanga Energy Ltd. (GKEL):

Based on the tentative generation plan submitted by GKEL (**ED-X**), GRIDCO proposes to procure about **1,798.00 MU** of energy from GKEL based on average ex-bus capacity of 900 MW, average capacity allocated for GRIDCO 225 MW.

(c) Nava Bharat Ventures Ltd. (NBVL)

GRIDCO is entitled for 12% of the power sent out from the power station of NBVL. Considering the Generation Plan submitted by NBVL, GRIDCO proposes to procure about **54.00 MU**, which is 12% of total export energy of 453.63 MU. The Generation Plan of SSL is attached as **ED-XI**.

(d) Jindal India Thermal Power Ltd. (JITPL)

GRIDCO is entitled for 12% of the energy sent out from the Power Station of JITPL. GRIDCO proposes to procure about **1,002.00 MU** from JITPL (based on Installed Capacity of 1,200 MW, Annual PLF of 85%, Central Transmission loss of 2.62% (provisional) and Auxiliary Energy Consumption of 6%).

The proposal of GRIDCO on procurement of power from IPPs is furnished below in the following Table:

Proposed Power Procurement from IPPs during FY 2015-16

IPPs	Proposed Drawal by GRIDCO for FY 2015-16 (MU)		
	At F.C. + V.C.	AT V.C.	TOTAL
Sesa Sterilite Ltd.	3,905	294	4,199.00
GMR Kamalanga Energy Ltd.	1,798	-	1,798.00
Nava Bharat Ventures Ltd.	-	54.00	54.00
Jindal India Thermal Power Ltd.	-	1,002.00	1,002.00
Total	5,703	1,350	7,053.00

1.7. Captive Generating Power Plants (CGPs):

In view of adequate availability of power due to State share in the various existing & Up-coming Power Plants in the State, GRIDCO has not proposed any procurement from CGPs. However, procurement from these sources may be resorted to depending upon exigencies / force majeure conditions.

2. Summary of Energy Availability to GRIDCO for FY 2015-16:

Based on the above projections, the energy availability from all sources to GRIDCO for FY 2015-16 is estimated as **29,304.60 MU**, which is indicated in the following Table:

SUMMARY OF ENERGY AVILBITY TO GRIDCO FOR FY 2015-16

Stations	Availability (After transformation loss and Auxiliary Consumption) (MU)	Share %	Projection for FY15-16 (MU)
HHEP	662.54	100	662.54
CHEP	297.00	100	297.00
Rengali	693.00	100	693.00
Upper Kolab	825.66	100	825.66
Balimela	1172.16	100	1172.16
OHPC(Old)	3650.36	100	3650.36
U. Indravati	2026.53	100	2026.53
Sub-Total OHPC	5676.89	100	5676.89
Machhkund	262.50	100	262.5
Total State Hydro Availability	5939.39	100	5939.39
OPGC	2838.35	100	2838.35
TTPS	3177.25	100	3177.25
Small Hydro Renewable Energy	320.00		320.00
Biomass Energy	160.00		160.00
Solar Energy	127.00		127.00
CGPs			0.00
Co-generation Plants	1224.62		1224.62
IPPs	7053.00		7053.00
Total State Availability	20839.61		20839.61
TSTPS Stg.-I	2138.42	31.97	2138.42
TSTPS Stg.-II	1332.44	10.00	1332.44
FSTPS-I&II	1470.92	13.81	1470.92
FSTPS-III	566.02	16.87	566.02
KhSTPS Stg.-I	838.09	15.40	838.09
KhSTPS Stg.-II	225.19	2.24	225.19
Barh STPS.-I & II	975.90	12.57	975.90
Total Central Thermal Availability	7546.98		7546.98
Chukha	263.00	15.19	263.00
TALA	142.00	4.25	142.00
Teesta	513.00	23.4	513.00
Total Central Hydro Availability	918.00		918.00
Total EREB	8464.98		8464.98
Total Availability	29304.60		29304.60

3. Energy Demand of DISCOMs and CGPs:

GRIDCO requested the four Distribution Companies (DISCOMs) to submit their Energy Requirement and Simultaneous Maximum Demand (SMD) for FY 2015-16 for estimation and formulation of the Annual Revenue Requirement & Bulk Supply Price Application for FY 2015-16. It is submitted that the requisite information initially furnished by the four DISCOMs, were subsequently modified over phone on 27.11.2014. Accordingly, as per the confirmation

obtained over phone on 27.11.2014, the final figures relating to energy projection in respect of **CESU, WESCO, NESCO and SOUTHCO are quoted as 9401 MU, 7500 MU, 5625 MU and 3630 MU**, respectively.

Energy Projections relating to Emergency Sales to CGPs like NALCO & IMFA (with whom GRIDCO has Long Term Agreements) were earlier being made as 100 MU per annum during the last couple of years which was later reduced to 10 MU based on their diminished actual drawal. During the first six months of the current year i.e. from April, 2014 to September, 2014, the drawal by NALCO as well as IMFA has been NIL MU. However, in order to take care of power requirement due to exigencies, 10 MU of Emergency Sales and Back-up Power to NALCO & IMFA have been projected during the ensuing FY 2015-16.

The details of the power sale **(26,166.00 MU)** consisting of sale to the DISCOMs **(26,156 MU)** and that to the CGPs like NALCO & IMFA **(10 MU)** during FY 2015-16 are projected as follows:

Projected Energy Demand of DISCOMs and CGPs for FY 2015-16

DISCOMs	Actual from April' 2014 to Sept'14	Projection for 2014-15 on pro rata basing on 1st six months consumption	OERC approval for DISCOMs Energy Requirement during FY 2014-15	GRIDCO's Projection of Energy Requirement of DISCOMs for FY 2015-16
	(MU)	(MU)	(MU)	(MU)
CESU	4383.50	8767.00	9040.00	9401.00
NESCO	2501.18	5002.37	5330.00	5625.00
WESCO	3556.90	7113.81	6820.00	7500.00
SOUTHCO	1617.26	3234.52	3340.00	3630.00
TOTAL DISCOMS	12058.85	24117.70	24530.00	26156.00
NALCO & IMFA	0.00	0.00	10.00	10.00
TOTAL SALE	12,058.85	24,117.70	24,540.00	26,166.00

4. Simultaneous Maximum Demand (SMD) of DISCOMs:

Based on the request of GRIDCO, the DISCOMs submitted their estimation of SMD earlier for FY 2015-16 but subsequently, modified the same over phone on 27.11.2014 and 28.11.2014. Accordingly, the final projections of SMD for FY 2015-16 given by the DISCOMs over phone on the above dates were taken by GRIDCO. The SMD projection given by R-Infra DISCOMs on 27.11.2014 were; **NESCO:940 MVA, WESCO:1250 MVA, SOUTHCO:600 MVA. On 28.11.2014**, CESU indicated its SMD projection for FY 2015-16 to be **1657 MVA**

which was taken as 10% increase over the present SMD of 1506 MVA (as indicated over phone).

However for the purpose better appreciation of the actual SMDs of DISCOMs that occurred during the 1st half of current FY 2014-15, are furnished below:

Actual SMD of DISCOMs for FY 2014-15(April, 2014 to September, 2014)

DISCOMs	Apr-14	May-14	Jun-14	Jul-14	Aug-14	Sep-14	Total of Six Months	Avg. SMD of DISCOMs for Apr'14-Sept.'14	Highest SMD of DISCOMs for Apr'14-Sept.'14
CESU	1368.87	1385.89	1371.76	1339.98	1304.34	1365.49	8136.33	1356.06	1385.89
NESCO	857.94	851.66	837.76	854.68	810.93	828.25	5041.23	840.20	857.94
WESCO	1207.01	1182.70	1209.35	1159.36	1127.82	1190.73	7076.97	1179.50	1209.35
SOUTHCO	533.13	527.14	531.97	530.49	507.598	530.46	3160.77	526.80	533.13
TOTAL	3966.95	3947.39	3950.84	3884.50	3750.69	3914.92	23415.30	3902.55	3986.31

The above being the actual and the highest SMDs during FY 2014-15, given below are the OERC approval for FY 2014-15 along with the final projection of SMDs furnished by the DISCOMs for FY 2015-16 on 27th & 28th, November, 2014, based on which GRIDCO has made the projection of SMDs in respect of the DISCOMs for FY 2015-16 as under:

DISCOM-WISE Projection of SMDs for FY 2015-16

DISCOMs	OERC approval for 2014-15	Highest SMD (MVA per month) recorded during FY 2014-15 (Apr.'14 to Sept'14)	DISCOMs Projection of SMD for FY 2015-16	GRIDCO's Projection of SMD of DISCOMs for FY 2015-16
	(MVA/Month)	(MVA/Month)	(MVA/Month)	(MVA/Month)
CESU	1490.00	1385.894	1657.00	1657.00
NESCO	870.00	857.94	940.00	940.00
WESCO	1100.00	1209.353	1250.00	1250.00
SOUTHCO	560.00	533.125	600.00	600.00
TOTAL	4020.00	3986.313	4447.00	4447.00

GRIDCO respectfully submits before the Hon'ble Commission to suitably determine and approve the SMDs for each of the DISCOMs for FY 2015-16 keeping in view of their actual SMDs during FY 2014-15, the likely load growth in the near future as the projection of SMD given by the DISCOMs for FY 2015-16, seem to be on the higher side.

5. Transmission Loss:

Transmission Loss in the State Transmission Utility (STU) i.e. OPTCL System for the year FY 2015-16 is projected as **3.75%**. This is based on the actual losses occurring in the Intra State Transmission System of Odisha Power Transmission Corporation Limited (OPTCL), the State Transmission Utility (STU) during the first six months (April 14 to Sept. '14) of the current FY 2014-15. GRIDCO considers the same transmission loss of 3.75% while projecting the energy requirement of the State for FY 2015-16.

6. Energy Demand & Availability:

It is submitted that the total projected Energy Demand by GRIDCO has been taken as **26,166.00 MU** for FY 2015-16 consisting of the estimated energy requirement for sale to DISCOMs as **26,156.00 MU** and that of the Emergency Sale to M/s. NALCO & M/s. IMFA as **10 MU**. Considering **1019.45 MU** towards Transmission Loss (@ **3.75%**, procurement of energy to the tune of **27,185.45 MU** (26166.00 MU + 1019.45 MU) will be required. The energy requirement vis-a-vis the availability to GRIDCO for supply to the State is estimated below in the following Table:

Projected Energy Requirement of GRIDCO for FY 2015-16

Sl. No.	Particulars	Projection for FY 2015-16 (MU)
1	Energy Demand of DISCOMs (26156.00 MU) & CGPs 10 MU)	26166.00
2	Transmission Loss @ 3.75%	1019.45
3	Energy Required to be purchased by GRIDCO to meet the power demand of DISCOMs & CGPs	27185.45
4	Available Energy	29304.60
5	Surplus Energy*	2119.14

*The estimated surplus energy of about 2119.14 MU is proposed to be utilised for power trading @ 400 P/U. Surplus revenue if any from Trading of power is proposed to be utilised towards reducing cumulative losses of GRIDCO.

7. POWER PROCUREMENT COSTS:

7.01 OHPC:

GRIDCO has not received the projected tariff for FY 2015-16 from OHPC although the Organization forwarded the generation plan for FY 2015-16. The OERC approved costs for different OHPC Stations for the FY 2014-15 are therefore considered along with the likely

payout towards **Electricity Duty (ED) & Water Cess** to the Government for projection of the same for FY 2015-16. As per Odisha Gazette Notification Dtd.01.10.2010, OHPC has to pay 1 Paise per Kwh as Licence Fee (Water Cess) on the water used for generation of electricity from all hydro projects which is calculated to the tune of **Rs.5.75 Crore** for the FY 2015-16 as per the generation plan submitted by OHPC.

In line with the Hon'ble Commission's approval of reimbursement of annual **SLDC Charges** by OHPC from GRIDCO for FY 2014-15 (@Rs.8237.46/MW/annum) consisting of System Operation Charges (SOC) (@Rs.6446.71/MW/annum) & Market Operation Charges (MOC) (@Rs.1790.75/MW/annum), GRIDCO proposed the same rates of SOC & MOC Charges and factored the same in the projected power procurement cost from OHPC. Based on such estimation, GRIDCO proposes an amount of Rs.1.67 Crore towards SOC & MOC Charges in the proposed tariff of OHPC for FY 2015-16. At the same time, GRIDCO respectfully submits that the rate of energy as decided / approved by the OERC in the ARR of OHPC for FY 2015-16 would be made applicable to GRIDCO for FY 2015-16.

Accordingly, the projected quantum of power procurement, Rate and Cost for FY 2015-16 by GRIDCO from OHPC Stations are projected in the Table below:

PROJECTED POWER PROCUREMENT & COST FOR FY 2015-16 FROM OHPC

Name of the Power Stations	GRIDCO Projection for FY 2015-16 (OHPC Gross Projection)	GRIDCO Projection for FY 2015-16 (After Loss)	Annual Fixed Cost approved for FY 2014-15	ED on Aux. Consumption	Water Cess	SLDC Charges (SOC & MOC)	Total Projected Cost	Rate
	(MU)	(MU)	(Rs. Cr.)	(Rs. Cr.)	(Rs. Cr.)	(Rs. Cr.)	(Rs. Cr.)	(P/U)
HHEP	686.00	662.54	86.43	0.07	0.69	0.23	87.41	131.93
CHEP	300.00	297.00	23.31	0.03	0.30	0.06	23.70	79.80
Rengali	700.00	693.00	56.18	0.07	0.70	0.21	57.16	82.48
U. Kolab	834.00	825.66	41.05	0.08	0.83	0.26	42.23	51.15
Balimela	1184.00	1172.16	103.31	0.12	1.18	0.42	105.03	89.61
Sub-Total	3704.00	3650.36	310.28	0.37	3.70	1.18	315.53	86.44
U. Indravati	2047.00	2026.53	156.20	0.20	2.05	0.49	158.95	78.43
Total	5751.00	5676.89	466.48	0.58	5.75	1.67	474.48	83.58

7.02 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.7.20 Crore** for FY 2013-14 as available from the bills of APGENCO **(ED-XII)**.

Out of 262.50 MU of Odisha share, 157.50 MU is being procured (i.e. 30% of 525.00 MU) by paying O&M charges & balance energy is procured @ **8 P/kwh** pursuant to the Agreements executed between Odisha and APGENCO. Accordingly, the GRIDCO proposes to procure power of 262.50 MU at an estimated tariff of **33.86 P/U** involving a cost of **Rs.8.89 Crore** from Machhkund HEP for FY 2015-16 as shown in the Table below.

Power Procurement, Tariff & Cost from Machhkund Hydro Station

Particulars	Projection for 2015-16
Installed Capacity (MW)	114.50
Design Energy available both for Andhra Pradesh & Odisha (MU)	525.00
Expected Energy drawal by Odisha (50%) (MU) (A)	262.50
Energy Drawal against O&M Exp. (30%) (MU)	157.50
Purchase of Power upto 20% as per Supplementary Agreement (MU)	105.00
O&M Escalation factor @ 5.72% for for each year (1.0572*1.0572)	1.118
Particulars	(Rs. in Cr.)
1. O&M Exp (Odisha share of Actual O&M Exp for 2013-14 for Rs 7.20 Crsx1.118)	8.05
2. Purchase Cost (105 MUx0.08) for balance 20% share	0.840
Total Annual Expenditure (1 + 2)	8.89
Tariff (Paise/Kwh) (B)	33.86
Cost of Machhkund Power (Ax B) (Rs. Crore)	8.89

7.03 Talcher Thermal Power Station (TTPS):

As per the final Tariff Order dated 15-05-2014 in Petition No.304 of 2009 **(ED-XIII)** the year wise Annual Fixed Charges for the period 2009-10 to 2013-14 have been fixed by the CERC. Further, NTPC-TTPS has filed the Tariff Petition for the period 2014-19 as per the CERC Tariff Regulations, 2014 before the CERC. However, NTPC-TTPS is currently claiming the Monthly Fixed Charges as per the Annual Fixed Charge (AFC) as applicable for FY 2013-14 provisionally i.e. **Rs.373.5929 Crore**.

Based on the Petition filed by NTPC-TTPS for fixation of Tariff for the period from 2014-19, the Fixed Cost of TTPS is projected as **Rs.398.2111 Crore** for FY 2015-16. Accordingly, the Fixed Cost per Unit of energy from TTPS at projected PLF of **88.10%** and Aux. Energy Consumption of **10.50%** works out to **125.33 P/U** for the proposed drawal of **3177.25 MU** for FY 2015-16.

Energy Charges:

As per the final Tariff Order by the CERC dated 15-05-2014 in Petition No. 304 of 2009 in consonance with the CERC Tariff Regulations, 2009, the Base Energy Charge for TTPS has been fixed as 108.475 P/U. Further, in the said Tariff Order, it has been mentioned that NTPC-TTPS is entitled to compute and recover the energy charges in accordance with Clause 21(6)(a) of the CERC Tariff Regulations, 2009. Accordingly, NTPC-TTPS is claiming the Energy Charges every month based on the Price and GCV of Coal and Oil for that month.

However, taking into account the ever-increasing trend of cost of fuels, GRIDCO has considered **20% escalation** over and above the monthly highest Energy Charge of **131.30 P/U** during April'14 to September'14 and thus, proposes **157.56 P/U** towards projected Energy Charges for FY 2015-16. The details are tabulated below:

Fuel Price Adjustment (FPA) OF TTPS								(in P/U)
Apr-14	May-14	June-14	July-14	Aug-14	Sept-14	Monthly Average Energy Charge	Monthly Highest Energy Charge	GRIDCO's proposal for FY: 2015-16 considering 20% escalation on 131.30 P/U
111.5	109.8	116.0	124.8	128.8	131.3	120.0	131.3	157.56

Year End Adjustment (YEA) Charges:

The Year-end Adjustment (YEA) Charges for FY 2015-16 is projected as **Rs.22.80 Crore**. This is based on pro-rated assessment of the actual charges paid by GRIDCO during the period from April-14 to Sept-14 (FY 2014-15), the details of which are furnished in the **Table** below:

YEAR END ADJUSTMENT CHARGES OF TTPS**(Amount in Rs. Crore)**

ITEM	OERC Approval for FY-14-15	Actual for (Apr-14 to Sept-14)	GRIDCO Projection for FY 2015-16 (Pro-rated)
Electricity Duty @20P/U	7.7	3.92	7.84
Water Cess / Charge	0.24	0.123	0.246+
Incentive	2.74	2.5202	5.0404
UI Charges	0.38	0.1885	0.377
SLDC charges	10.5	4.6486	9.2972
Total	21.56	11.4003	22.8006
Energy Sent Out (ESO) (MU)	3105.65	1659.169	3177.25
Per Unit Cost of TTPS (P/U)	6.94	6.87	7.18

It is further submitted that as per the norms of tariff for the period 2009-14, NTPC-TTPS is not claiming any Income Tax reimbursement in its current bills. It is submitted that, as per the new CERC Tariff Regulations, 2014, the Income Tax component is to be included in Pre-Tax Return on Equity (RoE) @ 23.41% instead of RoE @ 15.50% post-tax. GRIDCO has projected the Annual Fixed Charge for FY 2015-16 in line with the submission of NTPC in its Tariff Petition for the Control Period, FY 2014 to FY 2019.

The total Projected Power Procurement Cost from NTPC-TTPS during FY 2015-16 is estimated at **Rs.921.62 Crore** at an estimated price of **290.07 Paise / Unit** which is shown below:

Proposed Power Procurement & Cost of TTPS for FY 2015-16		
Projected Power Procurement from TTPS	(A)	3177.25
Capacity Charge	(P/U)	125.33
Energy Charge	(P/U)	157.56
YEA	(P/U)	7.18
Total Rate	(B) (P/U)	290.07
Projected Power Procurement from TTPS	(A x B) (Rs. Cr.)	921.62

7.04 Odisha Power Generation Corporation Limited (OPGC):

As the SLP filed by OPGC before the Hon'ble SCI has been withdrawn and based on the same stay has been vacated by the Hon'ble SCI vide its order dated 14.02.2013, approval of PPA has come under the jurisdiction of OERC. And thus as per the State Govt. Notification dated 21.06.2008 the Amendment PPA in respect of PPA dated 13.08.1996 signed on 19.12.2012 and Amendment with respect to the TPA dated 18.10.1998 signed on 06.09.2012 as well as the ESCROW Agreement dated 30.11.98. has been filed before the Hon'ble Commission in case No. 13 of 2002 for regulatory approval..

The Hon'ble Commission has been determining the tariff for procurement of power from Unit #1 & #2 of OPGC by GRIDCO till FY: 2014-15, based on the tentative tariff projections and generation plan submitted by OPGC on request by GRIDCO, in line with the provisions of subsisting PAA dated 13.08.1996(in respect of Unit#1 & #2) as well as the Government Notifications dated 21-06-08 and 12.10.09. However, the day to day transaction of power sale and purchase is being done based on the mutually agreed tariff(variable cost and fixed

cost) determined by the parties , in line with the provisions of PPA as well as the Task Force Notification dated 21.06.2008.

It is to be mentioned here that while determining the tariff for FY: 2014-15 as per the proposal submitted by OPGC, GRIDCO has requested OPGC to file the same before Hon'ble Commission for approval to which OPGC did not comply. Thus, in order to carry out the energy transaction GRIDCO has accepted the mutually agreed provisional tariff for FY: 2014-15 subject to regulatory approval by OERC. GRIDCO had further requested OPGC to file the ARR for FY: 2015-16 to which they have intimated to await the order of Hon'ble OERC on the joint application filed as per the settlement notified by the Govt. of Odisha. Accordingly, GRIDCO vide its letter dated 28-10-2014 **(ED-XIV)** has intimated Hon'ble Commission to take appropriate action in this regard. Thus, in view of the jurisdiction of Hon'ble Commission to determine the tariff of a generating company (here OPGC) supplying electricity to a distribution licensee i.e. DISCOMs of the State (here through GRIDCO) by invoking Section 62(1)(a) and 86(1)(b), GRIDCO hereby proposes the tentative tariff of OPGC in its ARR application for FY:2015-16 after detail scrutiny of the tentative tariff submitted by OPGC.

It may be mentioned here while approving the tariff for FY: 2015-16 of OPGC, the Hon'ble Commission has directed that the bulk purchase price based on tariff determined by it, shall be applicable to sale of OPGC's power to GRIDCO under the single buyer model. Thus, the tariff has been worked out by considering the Energy Sent Out to be **2838.351MU** at **85.24%** PLF and Normative Auxiliary Consumption of **8.5%** (as per the Terms and Conditions of for Determination of Generation Tariff) Regulation,2014.

Year-End Adjustment (YEA) Charges:

The total Year-End Charges for FY: 2015-16 is projected as **Rs.50.51Crores**, the details of which are furnished in the Table below:

Year-end Adjustment (YEA) Charges of OPGC

ITEM	OERC approval for FY:2014-15	GRIDCO Projection for FY:2015-16
	(Rs. Cr.)	(Rs. Cr.)
Water Tax and Cess	7.00	2.42
Electricity Duty@20 P/U	5.59	5.57
Income Tax:	37.07	37.07
Incentive:	0	4.54
Rent and Cess (Land)	0.15	0.15
Electricity inspection fees	0.17	0.17
SOC & MOC of SLDC	0.38	0.34
ERPC charges	0.15	0.0
Fuel Price Adjustment(FPA)	0.0	0.0
Total	50.51	50.26
Projected Power Procurement from OPGC (MU) as per GRIDCO (considering normative APC of 9.5%)	2663.74	2838.351
YEA per unit(P/U)	18.96	17.70

Note: It is to be mentioned here that, the aforementioned projection of Year End Charges for FY: 2015-16 is as per the projection submitted by OPGC in its tentative tariff calculation sheet for FY: 2015-16 except ERPC Charges and FPA claims which has not been considered by GRIDCO. Further, expenditure towards ESP,CHP,EPE, ash pond C with HDPE lining and Ash utilisation and ash utilisation expenses have not been taken into consideration as projected by OPGC in its tentative tariff calculation. GRIDCO submits that such expenditures shall be subject to scrutiny after accordance of regulatory approval of amended PPA (of Unit #1 and #2) by the Hon'ble Commission. Regarding, FPA claims, it is to be mentioned here that in the FY: 2014-15, OPGC has not yet claimed the half yearly Fuel Price Adjustments till date.

Considering the aforementioned facts, the power purchase cost from OPGC for **2838.351MU @ 210.84 P/U** comes to **Rs.598.43Crores** for FY 2015-16 which is shown below:

Projected Power Procurement Cost from OPGC during FY 2015-16

Projected Power Procurement from OPGC		2838.351
Fixed Cost	(Rs. Cr.)	200.314
Fixed Charge	(P/U)	71.55
Variable Charge	(P/U)	122.57
FPA	(P/U)	0.0
YEA	(P/U)	17.70
Total Rate	(P/U)	210.84
Projected Power Procurement from OPGC (Rs. Cr.)		598.43

7.05 Central Hydro Generating Stations (NHPC Stations):

- Chukha HEP (Bhutan):**

In the present ARR and BSP Application for FY 2015-16, GRIDCO considers 184 P/U as the rate for Chukka power as claimed by Chukha HEP in its bill served to GRIDCO for September-2014. Copies of the Office Memorandum of Ministry of External Affairs, Govt. of India Dated 20.02.2014 along with the PTC letter No. FC/23851 Dated 21.02.2014 to this effect, are enclosed as **ED-XV** & **ED-XVI**, respectively. Considering Central Transmission Loss @ 2.10% and PGCIL Transmission Charge @ **32.09 P/U**, the effective power purchase cost from Chukha Hydro Station for 263 MU works out to **Rs.57.87 Crore @ 220.04 P/U** for FY 2015-16 as shown in the Table below:

Proposed Power Purchase & Cost from Chukha HEP during FY 2015-16

Proposed Energy Drawal	(MU)	263.00
Energy Charge including PTC INDIA charge of 4 P/U	(P/U)	184.00
Energy Charge including CTU Loss of 2.10%	(P/U)	187.95
Cost of Trans. Charge including Trans. Loss of 2.62%	(P/U)	32.09
Total Rate	(P/U)	220.04
Cost of Chukha power	(Rs. Crore)	57.87

- Tala Hydro Electric Project (HEP) (Bhutan):**

GRIDCO considers 202 P/U as the rate for Tala power as claimed in the bill served to GRIDCO from 24.11.2011 during FY2014-15. Considering Central Sector Transmission Loss @ **2.10%** and the PGCIL Transmission Charge @ **32.09 P/U**, the effective power purchase cost from Tala HEP for **142.00 MU** comes to **Rs. 33.86 Crore @ 238.42 P/U** for FY **2015-16**, The same is shown in the Table below:

Proposed Power Purchase & Cost from Tala HEP during FY 2015-16

Proposed Energy Drawal	(MU)	142.00
Energy Charge including PTC INDIA charge of 4 P/U	(P/U)	202.00
Energy Charge including Tr. Loss of 2.10%	(P/U)	206.33
Cost of Trans. Charge	(P/U)	32.09
Total Rate	(P/U)	238.42
Cost of TALA HPS Power	(Rs. Crore)	33.86

- **TEESTA-V HEP (Sikkim) :**

NHPC has been claiming Additional Arrear sum (**Rs.50.82 Crore**) (**Annexure-1**) towards revision in AFC tariff, FERV & Tax for Teesta-V HEP as per the CERC Order Dated 23.01.2014 in Petition No.27/GT/2013. GRIDCO has already paid the bill amount excluding surcharge amount of Rs. 1.04 Crore calculated upto 18.09.2014. The Energy Charge Rate (ECR) being claimed by NHPC-Teesta in the present bills is 132.30 P/U. This is evident from the recent bill for the month of September, 2014 which is enclosed as **ED-XVII**. It is submitted that the ECR in case of Teesta Station constitutes 50% of the Total Charge i.e. ECR & the Fixed Charge. Thus, the Fixed Charge for Teesta Station works out to be 132.30 P/U and the Total Charge is calculated to be 264.60 P/U **and** after factoring 2.10% Central Sector Loss, the Rate is derived as 270.28 P/U.

Further with addition of the proposed PGCIL Charges @ **32.09 P/U** the proposed rate for Teesta works out to be **302.37 P/U (270.28 P/U + 32.09 P/U)**. Thus, the effective power purchase cost from Teesta-V HEP for **513 MU** comes to **Rs. 155.12 Crore @ 302.37 P/U** for FY 2015-16, which is shown in the Table below:

Proposed Power Purchase & Cost from Teesta during FY 2015-16

Proposed Energy Drawal	(MU)	513.00
Modified Energy charge Rate (As per the NHPC bill)	(P/U)	264.60
Energy Charge including Trans. Loss of 2.10%	(P/U)	270.28
Cost of Trans. Charge	(P/U)	32.09
Total Rate	(P/U)	302.37
Cost of TEESTA Power	(Rs. Crore)	155.12

**Summary of Availability of Power and Cost of Central Hydro Generating Stations
(Other than NTPC Stations)**

Central 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	PGCIL charge (P/U)	Total Rate	Purchase Cost
			(P/U)		(P/U)	(Rs. Cr.)
Chukha HEP	263.00	184.00	187.95	32.09	220.04	57.87
Tala HEP	142.00	202.00	206.33	32.09	238.42	33.86
Teesta-V HEP	513.00	264.60	270.28	32.09	302.37	155.12
TOTAL	918.00				268.89	246.84

Thus, the projected net drawal from Central Hydro Stations of Chukka, Tala & Teesta is estimated as **918 MU @ 268.89 P/U with total projected cost of Rs.246.84 Crore for FY 2015-16.**

7.06 Fixed Cost of Central Sector Stations:

It is submitted that the Capacity Charge (Fixed Cost) of respective NTPC Stations are being claimed as per the relevant Tariff Order / Regulations approved by the CERC applicable from time to time.

NTPC have filed Petitions before the CERC as per the new CERC (Terms and Conditions of Tariff) Regulations, 2014 for determination of Fixed Cost for its various Generating Stations which is pending before the CERC. However, the Capacity Charges of the relevant NTPC Stations are now being billed on GRIDCO by applying the Fixed Cost already determined by the Central Commission as per the earlier CERC (Terms and Conditions of Tariff) Regulations, 2009 valid for the period from 2009 to 31st March 2014. Such Orders based on which NTPC raises the current bills on GRIDCO are enclosed as **(ED-XVIII for TSTPS-I, ED-XIX for TSTPS-II, ED-XX for FSTPS-I&II, ED-XXI for FSTPS-III , ED-XXII for KhSTPS-I, and ED-XXIII for KhSTPS-II, respectively.**

Tariff Petitions have already been filed by NTPC before Hon'ble CERC for determination Fixed as well as Variable Cost as per the new CERC (Terms and Conditions of Tariff) Regulations, 2014. Such Petitions may be finalised at any point of time, whereby the revised Tariff including the Fixed Cost as per the new Regulation may be approved by the CERC. Accordingly, GRIDCO has considered the revised Fixed Cost as per the new CERC Tariff Regulations, 2014. The copies of the different Petitions of NTPC Stations filed before the CERC in this regard, are enclosed as **(ED-XXIV for TSTPS-I, ED-XXV for TSTPS-II, ED-XXVI for FSTPS-I&II, ED-XXVII for FSTPS-III , ED-XXVIII for KhSTPS-I, ED-XXIX for KhSTPS-II and ED-XXX for Barh STPS-I & II, respectively.**

➤ NTPC-Barh Super Thermal Power Station-Stage-I & II (Barh-I&II):

It is submitted that the Barh-I (660 MW) of NTPC Station has been operational from November 15, 2014 and as per the Petition filed by NTPC before the CERC, Unit-2 (660 MW) is going to be commissioned from June, 2015. GRIDCO is allotted 12.57% share from this Station. It is proposed to procure 975.90 MU from this Station as per Odisha's entitlement.

As per the Petition filed by NTPC for its Barh-I & II Station, the weighted Average Fixed Cost for FY 2015-16 is projected at Rs.1315.286 Crore ((90 days x Rs.851.3519 crore+275 days x Rs.1467.1194)/365). Considering GRIDCO share of 12.57%, the per unit Fixed Charge payable comes to **169.42 P/U**. Further, the projected **Energy Charge Rate** by NTPC in the Petition is 385.36 P/U. Considering 20% increase over the ECR of 385.36 P/U, the ECR for FY 2015-16 is taken as **462.44 P/U**. Hence, the landed cost of the power to GRIDCO including CTU Charge 32.09 P/U comes to **663.94 P/U** (169.42+462.44+32.09 P/U) for FY 2015-16.

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 is worked as **Rs.820.67 Crore** which is shown in the Table below:

Projected Fixed cost of CGS NTPC -ER Stations for FY2015-16

Central Thermal Stations	Annual Fixed Cost for FY2014-15 as per CERC Order (Rs. Cr.)	Annual Fixed Cost projected by GRIDCO for FY 2015-16 (Filed by NTPC) (Rs. Cr.)	GRIDCO Share (%)	GRIDCO F.C. share for FY15-16 at normative availability of 83% (Rs. Cr.)	GRIDCO's Proposed drawal for FY15-16 after C.S. Loss (MU)	Fixed Cost (P/U)
TSTPS Stage -I	583.601	611.738	31.97	195.570	2138.420	91.450
TSTPS Stage -II	1113.100	1135.160	10.00	113.520	1332.440	85.190
FSTPS-I&II	941.582	975.847	13.81	134.750	1470.920	91.610
FSTPS-III	586.62	563.699	16.87	95.120	566.020	168.050
KhSTPS-I	552.844	579.059	15.40	89.170	838.090	106.400
KhSTPS-II	1261.550	1216.080	2.24	27.210	225.190	120.820
Barh STPS-I & II (Operational from 15th Nov.'14)	-	1315.29	12.57	165.33	975.90	169.42
TOTAL	5039.297	6396.873		820.67	7546.98	108.74

Based on the above, the Projected Fixed Charge for FY 2015-16 for TSTPS-I, TSTPS-II, FSTPS-I&II, FSTPS-III, KhSTPS-I, KhSTPS-II & Barh-I & II are claimed as **91.45 P/U, 85.19 P/U, 91.61 P/U, 168.05 P/U, 106.40 P/U, 120.82 P/U and 169.42 P/U**, respectively.

➤ Energy Charge Rate of Central Thermal Stations (Except Barh-I&II):

As per the CERC Tariff Regulation, 2009-14, the cost of Secondary Fuel Oil (SFO) was included in fixed cost of the Thermal Central Generating Stations (CGS). However, as per the new CERC Tariff Regulations, 2014-19, the Energy Charges of CGS Stations shall now

include both charges towards Primary as well as Secondary Fuel Oil (SFO) & shall be payable by every beneficiary for the total energy scheduled to be supplied to each of such beneficiaries during the Calendar month on ex-Power Plant basis

At present, NTPC is raising bills as per the previous Regulations, 2009-14. However, since NTPC has already filed Tariff Petition before the CERC based on the new Tariff Regulations, 2014-19, GRIDCO has recasted the Energy Charge Rate (ECR) already claimed by NTPC as per new Regulation for the months from April'14 to September'14.

For its drawal during FY 2015-16, GRIDCO has projected the Energy Charge Rate (ECR) from various NTPC Stations by applying 20% hike on the Weighted Average ECR recasted on the basis of New CERC Tariff Regulations, 2014-19 of respective Stations during first six months of FY 2014-15, as shown below:

Projected Energy Charge Rate (ECR) of NTPC Stations for FY 2015-16

Central Thermal Stations	Weighted Avg. ECR of 1st six months of FY 2014-15 as per the NTPC bills in terms of Old CERC Tariff Regulations, 2009. (P/U)	Weighted Avg. ECR of NTPC Stations recasted by GRIDCO as per the New CERC Tariff Regulations, 2014-19 (P/U)	Projection for FY 2015-16 (20% hike over Wtd. Avg. ECR of 1st six months of 2014-15) calculated as per New Regulation (P/U)
TSTPS Stage-I	147.82	146.46	175.75
TSTPS Stage-II	145.86	144.06	172.87
FSTPS-I&II	302.11	300.41	360.49
FSTPS-III	333.95	297.72	357.26
KhSTPS Stage-I	266.85	265.00	318.00
KhSTPS Stage-II	249.99	251.40	301.68
Barh-I&II		385.36	462.44

➤ **Energy Charge Rate in respect of NTPC-Barh-I&II Station:**

GRIDCO proposes to procure 975.90 MU of energy from Barh-I&II Station as per its share of 12.57%. However, the Energy Charge Rate (ECR) of the Station based on the Petition of NTPC-Barh-I&II filed before CERC is stated to be 385.36 P/U. With escalation of ECR by 20% for FY 2015-16, the projected ECR is taken as 462.44 P/U in respect Barh-I & II.

Based on the above, the Projected ECR for FY 2015-16 for TSTPS-I, TSTPS-II, FSTPS-I&II, FSTPS-III, KhSTPS-I, KhSTPS-II & Barh-I & II is derived as **175.75 P/U, 172.87 P/U, 360.49 P/U, 357.26 P/U, 318.00 P/U, 301.68 P/U and 462.44 P/U**, respectively.

Year-end Adjustment Charges of Central Sector (C.G.) Stations:

Since NTPC has filed Petitions before the CERC as per the provision of the new CERC Tariff Regulation 2014-19, the **Year-end Adjustment Charges (YEA)** has to be projected without considering the FPA which is now a part of the ECR (Energy Charge Rate). In fact, the cost of Secondary Fuel Oil (SFO) is already included in the ECR calculation. The total **Year-end Adjustment Charges (YEA)** for FY 2015-16 for C.G. Stations are projected in line with the actual for FY 2013-14 and for FY 2014-15 (Apr'14 to Sept'14) along with the projected C.S. loss without considering FPA of Secondary fuel oil.

Year-end Adjustment Charge (YEA) in respect of Barh-I&II (Started operation from 15.11.2014) has been proposed as **NIL** as there was no drawal of energy from this Station by GRIDCO during FY 2014-15.

The details of YEA Charges are furnished in the **Table** below:

ACTUAL YEAR-END CHARGES FOR THE YEAR 2013-14				
Central Generating Stations	Water/ Pollution Cess (Rs. Crore)	Electricity Duty (Rs. Crore)	SOC & MOC Charges (Rs. Crore)	TOTAL (Rs. Crore)
TSTPS Stage-I	0.11	3.51	0.59	4.21
TSTPS Stage-II	0.06	1.76	0.28	2.10
FSTPS-I&II	0.96	0.00	0.34	1.30
FSTPS-III	0.00	0.00	0.32	0.32
KhSTPS Stage-I	0.06	0.00	0.23	0.29
KhSTPS Stage-II	0.01	0.00	0.06	0.06
Total	1.20	5.27	1.82	8.28

YEAR-END CHARGES FOR THE YEAR 2014-15 (April'14 to Sept.'14)

Central Generating Stations	WATER CESS (Rs. Crore)	ELECTRICITY DUTY (Rs. Crore)	SOC & MOC Charges (Rs. Crore)	Total (Rs. Crore)
TSTPS-I	0.03	1.55	0.18	1.76
TSTPS-II	0.02	0.62	0.09	0.74
FSTPS-I & II	0.21	0.00	0.11	0.32
FSTPS-III	0.00	0.00	0.08	0.08
KHTPS-I	0.01	0.00	0.06	0.07
KHTPS-II	0.10	0.00	0.02	0.11
TOTAL	0.37	2.17	0.53	3.08

Based on the YEA Charges as given above for FY 2013-14 and that for FY 2014-15 (April'14 to Sept.'14), GRIDCO projects the YEA Charges in respect of various NTPC Stations for FY 2015-16 as under:

PROJECTED YEAR-END CHARGES PAYABLE FOR THE YEAR 2015-16

Central Thermal Stations	Energy (MU)	OERC approval for FY 2014-15 including Central Sector Loss (P/U)	Actual for FY 2013-14 (Rs. Crore)	Actual for FY 2014-15 (Actual Apr'14-Sept'14) (Rs. Crore)	Projection for FY2015-16 with CS Loss (Rs. Crore)	Projection for FY2015-16 including Central Sector Loss (P/U)
TSTPS Stage-I	2138.42	4.35	4.21	1.76	4.31	2.02
TSTPS Stage-II	1332.44	4.29	2.10	0.74	2.91	2.19
FSTPS-I&II	1470.92	3.82	1.30	0.32	1.33	0.90
FSTPS-III	566.02	1.68	0.32	0.08	0.32	0.57
KhSTPS Stage-I	838.09	3.6	0.29	0.07	0.30	0.35
KhSTPS Stage-II	225.19	2.01	0.06	0.11	0.07	0.29
Barh-I&II*	0.00	0.00	0.00	0.00	0.00	0.00
Total	6571.09		8.28	3.08	9.24	1.41

* Drawal of 975.90 MU from Barh-I&II has not been factored in YEA Charges as this Station became operational only w.e.f. 15.11.2014. Therefore, the YEA has been calculated only on 6571.09 MU sans proposed drawal from Barh-I & II.

Going by the above presumptions, the Projected Power Procurement Cost from different Central Sector Thermal Generating Stations (NTPC-ER Stations) is calculated as **Rs.3196.46 Crore for 7546.98 MU** as furnished in the following Table:

Projected Power Procurement and Cost from different CGSs for FY 2015-16							
Generators	Energy	F.C	ECR	Yr. E. A.	Trans. Charge	Total Rate	Total Cost
	(MU)	(P/U)	(P/U)	(P/U)	(P/U)	(P/U)	(Rs. Crore)
TSTPS Stage -I	2,138.42	91.45	175.75	2.02	32.09	301.31	644.33
TSTPS Stage -II	1,332.44	85.19	172.87	2.19	32.09	292.34	389.53
FSTPS-I& III	1,470.92	91.61	360.49	0.90	32.09	485.09	713.54
FSTPS-III	566.02	168.05	357.26	0.57	32.09	557.97	315.83
KhSTPS-I	838.09	106.40	318.00	0.35	32.09	456.84	382.88
KhSTPS-II	225.19	120.82	301.68	0.29	32.09	454.88	102.44
Barh STPS -I&II	975.90	169.42	462.44	0.00	32.09	663.94	647.94
Total	7,546.98					423.54	3,196.46

7.07 PROCUREMENT COST FROM CGPs / CO-GENERATION PLANTS:

It is submitted that the projected procurement of energy by GRIDCO (29,304.60 MU) from various available sources being sufficient i.e. surplus of about 2119.14 MU, to meet the requirement (26,166.00 MU including the requirement of 26,156.00 MU towards DISCOMs & 10 MU for CGPs, namely, NALCO & IMFA & Transmission Loss @ 3.75% of 1019.45 MU), there may not be any need to procure power from the Captive Generating Plants (CGPs) only except for force majeure conditions. However, GRIDCO will try to harness renewable energy from the Co-Generation Plants in order to fulfil its obligation towards the RPO. The rate of procurement of power from Co-Generation sources has been proposed @ 275 P/U in line with the approval by the Hon'ble OERC during FY 2014-15.

Based on the procurement projection of **1224.62 MU @275 P/U** from Co-Generation sources, the estimated power procurement cost is calculated as **Rs. 336.77 Crore** for FY 2015-16.

(C) RENEWABLE ENERGY:**➤ Solar Energy:**

GRIDCO has signed Power Sale Agreement (PSA) with NTPC Vidyut Vyapar Nigam Limited (NVTNL) during January 2011 to procure solar power bundled with equivalent quantum of thermal power from the unallocated quota of the NTPC Coal Based Stations under 'New Projects Scheme' under Phase-1 of Jawaharlal Nehru National Solar Mission (JNNSM). 20 MW Solar capacities have been allocated to GRIDCO in the said Scheme.

As stated above, GRIDCO is hopeful to procure 127 MU of Solar Power against the Solar Power Obligation (SPO) of **78.50 MU @ 0.30 %** of the projected Energy Requirement of **26,166.00 MU** for FY 2015-16. While the approved rates of Solar Energy for FY 2014-15 have been proposed for 5 MW Solar power from Faridabad (8.50 MU @ 935 P/U for Rs.7.9475 Crore), the rate for 5 MW Solar Power from Dadri has been taken as 1294 P/U (8.50 MU @1294 P/U for an amount of Rs.10.999 Crore) to be applicable for FY 2015-16. Apart from this, GRIDCO also proposes to procure 13 MU from 8 Nos. of 1 MW SPV Projects @ 628 P/U under RPSSGP Scheme, 25 MU @1070 P/U through NVVN under New Project Scheme, 8 MU Solar Power @700 P/U from M/s. Alex Green Energy Pvt. Ltd. and 42 MU Solar Power @728 P/U from M/s. ACME Odisha Solar Power Pvt. Ltd. under OREDA State Scheme. Besides, 22 MU of Solar Power through Solar Energy Corporation of India Ltd.

(SECI) under JNNSM, Phase-II, Batch-1 @ 550 P/U at a cost of Rs.12.10 Crore is also proposed for procurement during FY 2015-16.

Accordingly, the estimated procurement of **127 MU** of solar power during FY 2015-16 will be around **Rs.102.14 Crore @ at an average proposed rate of 804.25 P/U**.

The details of projected procurement and cost of Solar Power by GRIDCO for FY 2015-16 is given in the Table below:

Proposed Procurement & Cost of Solar Power during FY 2015-16

Sl. No.	Solar RE Sources	Energy Proposed for FY 2015-16 (MU)	OERC Approved Rates for FY 2014-15 (P/U)	Proposed Rates for FY 2015-16 (P/U)	Estimated Total Cost for FY 2015-16 (Rs. Cr.)
1	8 Nos. of Solar PV projects of 1MW each under RPSSGP*	13	628	628	8.164
2	20 MW through NVVN under 'New Projects scheme' under JNNSM, Ph-1	25	1272	1070	26.75
3	10 MW through NTPC from 5 MW Solar PV projects at Dadri & Faridabad	17	1039	8.50 MU @1294 P/U 8.50 MU @935 P/U	18.95
4	5 MW from M/s Alex Green Energy Ltd. through OREDA State scheme	8	700	700	5.6
5.	25 MW from ACME Odisha Solar Power Private Ltd.	42		728	30.576
5.	30MW through Solar Energy Corporation of India (SECI) under JNNSM, Phase –II, Batch-I	22		550	12.10
	Total	127		804.25	102.14

➤ **NON-SOLAR RENEWABLE ENERGY**

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

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

GRIDCO proposes to procure 320 MU of energy from Small Hydro Electric Project (SHEP) of M/s. Meenakshi Power Limited (M/s. MPL) and M/s. Odisha Power Consortium Limited (M/s. OPCL). The rate of procurement has been fixed at 364 Paise per unit. Considering the PTC trading margin of 4 Paise per kWh for 100% of power supplied by these Stations to GRIDCO, the tariff rate applicable for power purchase from these Stations shall be 368 Paise per Unit (364+4 P/U).

During FY 2015-16, GRIDCO proposes to procure around **210 MU** from Meenakshi Hydro Power and **110 MU** of energy from SAMAL Small Hydro (M/s. OPCL) (**Total: 320 MU**) at a price of 368 P/U involving an outgo of **Rs.77.28 Crore & Rs. 40.48 Crore**, respectively, totalling to about **Rs.117.76 Crore**.

✓ **BIO-MASS ENERGY:**

- ✓ The Biomass Energy generator i.e. M/s. Shalivahan Green Energy Ltd. may likely to restart its generation in the very near future. Hence, GRIDCO projects to procure around 100 MU of Bio-mass energy @ 60 % PLF @ 532 P/U for an amount of **Rs.53.20 Crore** during FY 2015-16.
- ✓ The 10 MW Biomass Power Project developed by M/s. Octant Industries Ltd. at Sambalpur is expected to be commissioned by first quarter of 2015-16. GRIDCO is hopeful to procure around 60 MU of Biomass Energy @566 P/U for an amount of **Rs.33.96 Crore** from the above Project.
- ✓ Thus, the total Projected Biomass Energy of **160 MU** is proposed to be procured at a cost of **Rs.87.16 Crore @ 544.75 P/U** during FY 2015-16.
- ✓ GRIDCO submits that shortfall, if any, may be either made up through additional procurement of renewable energy from Co-Generation Plants or considered to be carried forward to the next financial year so that when such energy is available, GRIDCO will fulfil the cumulative requirement for both the years FY 2015-16 & 2016-17.

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

As stated above, GRIDCO is required to procure Co-Gen. Energy of **1224.62 MU** although the requirement is 1229.80 MU @ **4.70 %** of the net energy requirement of 26166.00 MU in the State for FY 2015-16. The availability of Co-Gen. energy in Odisha is being possible due to existence of a number of CGPs having Co-Generation facilities.

GRIDCO hopes to procure above quantum of 1224.62 MU of renewable energy from Co-Generation sources at a cost of **Rs. 336.77 Crore @ 275 P/U** from the various Co-generation Plants located in the State. In fact, most of the CGPs in Odisha have the provision to generate co-gen. energy from waste heat.

Thus, the proposed quantum of procurement & Cost of **Non-Solar** Renewable Energy for FY 2015-16 is estimated as **1704.62 MU** at an approximate cost of **Rs. 541.69 Crore** at the average rate of **317.78 P/U** as given below:

Proposed Procurement & Cost of Non-Solar Renewable Energy for FY 2015-16

Sl. No.	Renewable Energy Sources.	Energy Proposed for FY 2015-16	Rate	Total Cost
		(MU)	(P/U)	(Rs. Crore)
a.1	Meenaskhi Small Hydro	210.00	368	77.28
a.2	SAMAL Small Hydro	110.00	368	40.48
a.	Total	320.00	368	117.76
b.	Shalivahana Green Energy Ltd.	100.00	532	53.20
c.	Octant Industries Ltd.	60.00	566	33.96
d.	Energy from Co-Gen. Plants	1224.62	275	336.77
e.	Total (a+b+c+d)	1704.62	317.78	541.69

- Considering the above proposal, GRIDCO estimates to procure **1831.62 MU** of renewable energy from Solar and Non-Solar sources at a cost of **Rs. 643.83 Crore @ 351.51 P/U** on an average, as per the details given below:

The details are exhibited in the Table below:

Proposed Procurement & Cost of Non-Solar Renewable Energy for FY 2015-16

Sl. No.	Renewable Energy Sources.	Energy Proposed for FY 2015-16	Proposed Rate	Estimated Total Cost
		(MU)	(P/U)	(Rs. Crore)
A.	NON-SOLAR			
a.1	Meenaskhi Small Hydro	210	368	77.28
a.2	SAMAL Small Hydro	110	368	40.48
a.	Total	320	368	117.76
b.	Shalivahana Green Energy Ltd.	100	532	53.20
c.	Octant Industries Ltd.	60	566	33.96
d.	Energy from Co-Gen. Plants	1224.62	275	336.77
e.	Total (a+b+c+d)	1704.62	317.78	541.69
B.	SOLAR RE SOURCES	127	804.25	102.14
g.	Total (A+B) (NON-SOLAR & SOLAR)	1831.62	351.51	643.83

(D) Projected Power Procurement & Cost from Existing IPPs:**(i) Projected Power Procurement & Cost from Existing IPPs:**

- **Sesa Sterlite Ltd. (SSL):**

It is to be mentioned here that Appeal No. 25 of 2013 has been filed by Sesa Sterlite Ltd. (SSL) against the Final Tariff Order in respect of SSL for the period 2009-10 to 2013-14 passed by the Hon'ble OERC, vide its Order Dated 12-06-2013 (in Case Nos. 117 of 2009, 31 of 2010 and 56 of 2012). Further, the Tariff Petition filed by SSL for FY 2014-15,

admitted as Case No.95 of 2013, is yet to be listed for hearing by the Hon'ble Commission. However, pending disposal of the aforementioned Appeal and the Tariff Petition filed for FY 2014-15 by SSL, the Hon'ble Commission in the ARR Order of GRIDCO for FY 2014-15 has fixed a provisional tariff of 207 P/kWh towards procurement of power by GRIDCO from the said IPP which is consisted of Fixed Charge component of 92 P/U and Energy Charge of 115 P/U. Keeping the Fixed Charge of 92 P/U constant and increasing the Variable Charge by 10% in line with the OERC approval for FY 2014-15 over the Variable Charge for FY 2013-14 in the ARR & BSP Order for FY 2014-15 and rounding it off, the proposed Variable Charge for FY 2015-16 is calculated as **125 P/U**.

Accordingly, GRIDCO proposes to procure energy of 4199.00 MU (3905 MU at Full Cost and 294 MU at Energy Charge Rate) from SSL during 2015-16 at the following Rates given below:

Fixed Charge (92 P/U) + Energy Charges (125 P/U)	:217 per kWh (Full Cost)
Energy Charge Rate (ECR)	:125 per kWh

In the meantime, the Hon'ble OERC has notified the OERC Generation Tariff Regulations, 2014 for the 5-year Control period 2014-19 applicable for all the Intra State Generating Stations located in Odisha. As per the Terms and Conditions of the Consolidated PPA dated 19-12-2012 between SSL (earlier SEL) and GRIDCO, SSL shall provide to GRIDCO, 25% of the power sent out at the tariff, approved by the OERC, i.e., at Fixed Charge plus Variable Charge and 7% of the power sent out at Variable Charge. As Unit No. 2 of M/s. SSL is dedicated to the State, 7% of the power available from the same, i.e., **294 MU** (600x8.76x.85x.94x.07) shall be paid at Variable / Energy Charges of 125 P/U and the balance **3905 MU** at Total Rate of 217 P/U i.e. Fixed Charges plus Variable / Energy Charges. GRIDCO, thus, proposes to procure from SSL **3,905 MU** [(600x8.76x.85x.94)-294] at an estimated cost of **Rs.847.385 Crore** and **294MU** at an estimated cost of **Rs. 36.75 Crore**.

Therefore, the total Projected Power Procurement Cost of **4199.00 MU** from SSL works out to **Rs.884.14 Crore** at an average rate of **210.56 P/kWh** during FY 2015-16.

- **GMR Kamalanga Energy Ltd. (GKEL):**

As per the Terms and Conditions of the PPA dated 05-01-2011 executed with GKEL, GRIDCO is entitled for 25% of the power sent out at the Tariff to be determined by the Hon'ble OERC. Further, the power generated in excess of 80% PLF shall be made available to the State at Variable Cost. Based on the tentative Generation Plan furnished by GKEL, GRIDCO proposes to procure **1,798 MU** from them during FY 2015-16. It may be noted here that, the IPP has not clearly mentioned whether the said quantum is inclusive of power generated beyond 80% PLF or not.

Regarding determination of tariff in respect of the IPP of GKEL, it is to be mentioned here that CERC, vide its Order dated 03-1-2014 in Petition No-77/GT/2013, has passed the Judgement that, the Central Commission has the jurisdiction to determine the tariff of the IPP which falls under the category of "Composite Scheme". Against the said CERC Order, GRIDCO has filed an Appeal being Appeal No. 74 of 2014 before the Hon'ble APTEL, New Delhi questioning the maintainability of the Order. The matter is now sub-judice before the Hon'ble Tribunal.

Further, GKEL, vide its letter No. GKEL/BBSR/GRIDCO/2014-15/4507 Dated 27.10.2014, **(ED-X)** without submitting the detailed break-up, has proposed, a provisional tariff of 459 P/kWh consisting 224 P/kWh towards Fixed Charge and 235 P/kWh towards Variable / Energy Charge. The proposed Tariff by GKEL, on the face of it, seems to be very much on the higher side.

Since the proposed tariff by GKEL is quite on the higher side and the final tariff is yet to be determined by the appropriate Commission, it is proposed to procure 1798 MU of energy from GKEL during FY 2015-16 at an interim provisional price of 275 P/U in line with the approval of Hon'ble Commission for FY 2014-15. However, any power supplied beyond 80% PLF shall be procured at an Energy Charge of 125 P/U. Thus, the total proposed procurement cost from GKEL for **1798 MU @275 P/U** is worked to be **Rs.494.45 Crore** for FY2015-16.

- **Nava Bharat Ventures Ltd. (NBVL)**

As per the Terms and Conditions of the PPA dated 31-10-2014 executed with NBVL, GRIDCO is entitled for 14% of the power sent out at Variable Cost, to be determined by

the Hon'ble OERC, if coal block is allocated within the State. Otherwise, NBVL shall supply 12% of the power sent out at Variable Cost / Energy Charge. As reported by NBVL, the coal shall be purchased from MCL through linkage only. The IPP has been informed to file an Application before the Hon'ble State Commission for determination of Variable / Energy Charge in respect of supply of power to GRIDCO at the earliest as they are expected to commission their one No. of 64 MW Unit in the near future. Pending approval of the tariff by the Hon'ble Commission, GRIDCO proposes to procure the entitled State share of power @12% from NBVL at the **provisional Variable / Energy Charge rate of 125 P/kWh** as proposed in case of other IPPs like SSL, GKEL & JITPL subject to approval of final tariff by the Hon'ble OERC.

It is submitted that NBVL has furnished ex-bus availability of 453.63 MU during FY 2015-16 vide their letter No. NBVL/IPP(O)/SLDC/2014/3020 Dated 05.11.2014 **(ED-XI)**. As per the PPA signed GRIDCO, NBVL is required to supply energy @12% of ex-bus availability i.e. about 54 MU at the provisional ECR of 125 P/kWh as applicable to similarly placed IPPs like SSL.

Accordingly, the total proposed procurement cost from NBVL for 54 MU @125 per kWh is calculated to be **Rs.6.75 Crore** for FY2015-16.

- **Jindal India Thermal Power Ltd. (JITPL)**

As per the Terms and Conditions of the PPA dated 05-01-2011 executed with JITPL, GRIDCO is entitled for 14% of the power sent out at Variable Cost, to be determined by the Hon'ble Commission, if coal block is allocated within the State. Otherwise, JITPL shall supply 12% of the power sent out at Variable Cost. As reported by JITPL, the coal shall be purchased from MCL through linkage only. Further, they have filed an application on 08-03-2014 before the Hon'ble OERC for approval of Energy Charge Rate (ECR) of 180.37 P/kWh for FY2013-14 and 2014-15. The said Petition is yet to be listed for hearing. Pending disposal of the said Petition by the Hon'ble Commission, GRIDCO proposes to procure the power from JITPL at a provisional ECR of **125 P/U** as proposed in case of other IPPs like SSL, GKEL & NBVL subject to the approval of final tariff by the Hon'ble OERC.

Accordingly, the total proposed procurement cost from JITPL for 1002 MU @**125 / kWh** is calculated to be **Rs.125.25 Crore** for FY2015-16.

The above projection with regard to power procurement & cost from IPPs during FY 2015-16 is summarised in the following Table:

Projected Power Procurement & Cost from IPPs during FY 2015-16:

IPPs	Quantity (MU)	Rate (P/U)	Cost (Rs. Crore)
M/s. Sesa Sterlite Ltd. (3905 MU at full cost 217 P/U and 294 MU at Variable Cost of 125 P/U)	3,905.00	217	847.39
	294	125	36.75
SUB-TOTAL (SSL)	4,199.00	210.56	884.14
M/s. GMR Kamalanga Energy Ltd.	1,798.00	275	494.45
M/s. Nava Bharat Ventures Ltd. (NBVL)	54	125	6.75
M/s. Jindal India Thermal Power Ltd. (JITPL)	1,002.00	125	125.25
TOTAL (SSL + GKEL + NBVL + JITPL)	7,053.00	214.18	1,510.59

It is submitted that the rate of 217 P/U (F.C. + V.C.) and 125 P/U (Energy Charge/Variable Cost) respectively for procurement of energy from the IPPs is being projected based on 10% escalation & rounding off of Energy Charge of SSL provisionally fixed for FY 2014-15 by the Hon'ble Commission, in view of pending Cases/Applications/Appeals/Petitions on tariff determination before different legal forums.

8.0 PGCIL Transmission Charges:

(i) PGCIL Transmission Charges:

Transmission Charges of PGCIL (Power Grid Corporation of India Ltd., also referred to as the CTU, the Central Transmission Utility) are being determined by applying the norms and principles as laid down by the Hon'ble CERC from time to time. Hon'ble CERC vide their Order dtd. 15.06.2010 have published a Regulation known as CERC (Sharing of Inter State Transmission Charges and Losses) Regulation, 2010 (as amended from time to time) which has been effective 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 shared 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 (IA) which shall calculate the **Point of Connection Rates** for every customer (such as generator or demand customer) using the aforesaid method. The **Point of Connection (PoC) Rates** shall be on

Rs./MW/Month basis. PoC Rates are being determined by the Implementing Agency in every three months i.e. quarterly for the period from April to June, July to September, October to December and January to March for which Orders are being published by the CERC for the specified period from time to time. CERC vide their Order Dtd. 28.03.2014 have furnished the Slab PoC Rates for the period April '14 to June '14 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 CERC Order Dtd. 28.03.2014 is enclosed at **Annexure-2**.

It has been specified in the Clauses of 11(4), (5), (6), (7) of the CERC Regulation Dtd. 15.06.2010 that the CTU Bill for levy of PoC Charges shall be calculated in the following manner;

- 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 at the approved injection and withdrawal quantum for a beneficiary at the applicable PoC rate; **(Bill #1)**
- **The second part** of the bill shall recover charges for Additional Approved Medium Term Open Access; **(Bill #2)**
- **The third part** of the bill shall be used to adjust any variations in interest rates, FERV, rescheduling of commissioning of transmission assets as allowed by the Commission for any ISTS Licensees; **(Bill #3)**
- **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, **(Bill #4)**

Accordingly, GRIDCO received Bill # 1 amounting to **Rs. 23.30 Crore** for the month of April'14 for the approved LTA of 1185.67 MW. Basing on the Bills received during April'14 to Sept'14 and taking PoC Charges of Barh TPS II for the FY 2015-16 into account, GRIDCO proposes to pay an amount of **Rs 324.47 Crore** for the ensuing year 2015-16.

GRIDCO has not been receiving any Bill towards the **Second Part of Bill** (i.e. for recovery of charges for Additional Approved Medium Term Open Access) due to absence of additional Medium Term Open Access.

PGCIL is also furnishing the deviation bills as per the provision mentioned in the Regulation which is based on deviation from our approved withdrawal. However, considering the bills received for the last six months and prorating the same for a year, GRIDCO proposes an amount of **Rs. 0.05 Crore** payable towards **Bill #4** for the ensuing year (FY 2015-16).

The **Third Part of the Bill** which is basically Year-end Adjustment in nature, has been received by GRIDCO on Quarterly basis. GRIDCO received a bill of **Rs.3.75 Crore** towards **Bill # 3** for the period from Jan'14 to Mar'14 and Rs. 12.05 Crore for the period from Apr'14 to Jun'14. Assuming the same amount to be received for the entire year, GRIDCO proposes **Rs.31.60 Crore towards Bill #3** for the ensuing year 2015-16.

- **ULDC & Communication Charges:**

Further, GRIDCO is paying for **ULDC and Communication Charges** amounting to **Rs.3.87 Crore** for the period from Apr'14 to Sep'14 basing on which GRIDCO proposes to pay an amount of **Rs.7.75 Crore** for the ensuing year i.e. FY 2015-16.

- **Short-Term Open Access Charges:**

It is submitted that GRIDCO has received a total of **Short-Term Open Access (STOA) Charges amounting to Rs. 19.01 Crore** for the period from April'14 & Sept'14. Accordingly, GRIDCO proposes a receivable of **Rs.38.02 Crore** (Rs.19.01Cr.x2) **towards STOA Charges for the ensuing year, 2015-16.**

Besides the above bills, PGCIL is also raising the bills frequently for the Pre-PoC period basing upon the CERC Orders revised from time to time. During April'14 to Sept'14, GRIDCO has received Non-PoC bills amounting to Rs. 0.49 Cr. Considering aforesaid bills, GRIDCO proposes to pay an amount of Rs. 0.98 Crore ((Rs.0.49 Cr.x2) for the ensuing Tariff Period for the bills pertaining to Pre-PoC period.

With the above facts, the Transmission Charges payable by GRIDCO for the ensuing year comes to **Rs. 326.83 Crore**. Considering energy drawal of **10,459.34 MU** (Gross Energy of 7724.45 MU from NTPC-ER Thermal Stations, plus 1798 MU from GKEL plus 936.89 MU from Central Hydro Stations) and after allowing **2.62% of CTU loss**, the per unit PGCIL Transmission Charge including loss to works out to **32.09 P/U**. The same is tabulated below:

Projected PGCIL Transmission Charges for FY 2015-16

Particulars	GRIDCO's Projection for FY 2015-16 (Rs. Crore)
Transmission charge payable by GRIDCO for 2013-14 towards First Bill Bill#1	324.47
Deviation Charges proposed towards Bill #4	0.05
Year End Charges proposed towards Bill #3	31.60
ULD and Communication Charges	7.75
Bills pertaining to Supplementary Transmission Charges	0.98
less: allocable to Short Term Customers	38.02
Net amount payable by GRIDCO towards Transmission Charges	326.83
Energy Drawal by GRIDCO before Central Sector Loss (MU)	10459.34
PGCIL Transmission Charge (P/U)	31.25
Weighted Average Central Sector Transmission Loss (%)	2.62%
PGCIL Transmission Charge including loss (P/U)	32.09

- **Projection of POSOCO Charges (SOC & MOC):**

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) from the various beneficiaries such that;

- Annual Charges towards System Operation function shall comprise of 80% of the Annual Charges;
- Annual Charges towards Market Operation function shall comprise the balance 20% of the Annual Charges;
- The ratio of allocation of Annual Charges to System Operation Charges (SOC) and Market Operation Charges (MOC) 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 (SOC) & Market Operation Charges (MOC) claimed by the ERLDC.

Further, Hon'ble CERC vide Order dtd. 08.03.2011 have determined the ERLDC Charges (POSOCO portion) for the Control Period from 01.04.2009 to 31.03.2014. Relevant portion of the CERC Order is placed at **Annexure-3** for kind reference.

In conformity with the aforesaid CERC Order, Annual Charges approved by CERC for the FY 2013-14 = Rs. 43.7453 Crore.

As per the Regulation, System Operation Charges payable by users is 80% of Annual Charges approved by CERC which comes to Rs. 34.99624 Crore.

Similarly, Market Operation Charge payable by Users is 20% of Annual Charges approved by CERC which comes to Rs. 8.74906 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.

Considering the bills received during April'14 to Sept'14 and prorating the same for a year, GRIDCO proposes for payment of an amount of **Rs.3.38 Crore** towards SOC & MOC of ERLDC for the ensuing year 2015-16.

Projected POSOCO SOC & MOC for FY 2015-16

Particulars	GRIDCO's Projection for FY 2015-16 (Rs. Crore)
Net amount payable by GRIDCO towards POSOCO Charges	3.38
Energy drawal by GRIDCO before Central Sector Loss (MU)	10459.34
PGCIL Transmission Charge (P/U)	0.32
Weighted Average Central Sector Transmission Loss %	2.62%
PGCIL Transmission Charge including loss (P/U)	0.33

9.00 Implementation of Intra State ABT, its impact and suggestions by GRIDCO:

Following direction of the Hon'ble Commission vide its Interim Order Dtd. 07.02.2012 in Case No. 2 of 2012, the implementation of Intra State ABT in Odisha was started with effect from 01.04.2012. However, the implementation was kept limited to GRIDCO and the four DISCOMs without the Intra State generators participating in the process.

At the outset, it is submitted that the Intra State ABT in its current form in Odisha suffers from the following defects:

- The implementation of the present Intra State ABT mechanism instead of fulfilling the objective of grid security and stability in letter and spirit, has in fact, become a commercial tool which is being mis-utilized by the DISCOMs to defraud and deprive GRIDCO of its legitimate dues;
- There is no recovery mechanism available to the SLDC to enforce collection of UI / ABT related dues from the DISCOMs;

DISCOMs taking advantages of the frequency based energy pricing, are making intentional variations in their actual vrs. scheduled energy drawal to derive maximum financial mileage irrespective of fair business practices whereby GRIDCO is put to financial losses. Consumers also suffer because of avoidable power cut.

As is well-known, ABT is a "Zero-Sum Equation" where the incentive to be shared should be equal to the penalty collected from the various participating stakeholders. On the contrary, Hon'ble Commission at Para 2(g) of its Order Dated 05.04.2013 in Case No.40 / 2013 has spelt out that the Intra State ABT is not a Zero-Sum Game which reads as under:

“....Para-2(g)

It is clarified that only Phase-I of Intra-ABT has been implemented in the State which is not a zero sum game as Generators are not covered. Therefore, any capping of UI charges payable or receivable by DISCOMs is not appropriate.....”

However, in the instant case of GRIDCO and the DISCOMs, GRIDCO is a member of Inter State as well as Intra State ABT mechanism while DISCOMs are only a part of the latter. The State generators including private ones have been kept out of the Intra State ABT system and thus, are not subjected to incentive / penalty mechanism arising out of Intra State ABT process. The implementation of intra State ABT mechanism, thus, being half-way through and the DISCOMs adopting preferential as well as tactical approach to selectively varying their energy drawal, GRIDCO is subjected to huge financial losses as it is not able to recover the same from DISCOMs while paying the full cost of energy to Generators.

In fact, taking advantage of implementation of the Intra State ABT-Phase-I (wherein the Intra State Generators are yet to be brought under the ABT & UI mechanism), the DISCOMs furnished their schedule much in variation of their actual drawal which at times were varied to the extent of more than 100% against the allowable limit of 5% as per Clause No. 8 (d) of Intra State ABT Regulations, 2007. In the process, GRIDCO suffered heavily to meet the demand of DISCOMs by drawing costly thermal power.

Thus, in order to safeguard its interest and to get the necessary clarification from the Hon'ble OERC with regard to billing of scheduled energy and the corresponding overdrawal by the DISCOMs, GRIDCO filed an Application before the Hon'ble Commission, being Case No.40/2013 before the Hon'ble OERC. However, Hon'ble Commission instead of hearing the Case through Public hearing, preferred to dispose off the matter through a Joint Meeting of the Stakeholders comprising the DISCOMs and GRIDCO on 01.02.2014 by way of circulation of the Minutes of the Meeting dated 01.02.2014 and the Order Dated 05.04.2014 in Case No. 40of 2013, simultaneously. In fact, the OERC Order dated 05.04.2014 and the Minutes Dated 01.02.2014 were issued concurrently stating that GRIDCO has agreed to the arrangement / directives issued by the Commission for sharing / payment of UI Charges. It is submitted that GRIDCO did not concur fully to such views of the Hon'ble Commission and therefore, filed a Review Petition before the OERC, being Case No.40/2014 explaining how the DISCOMs

have derived financial mileage in unfair manner to the disadvantage of GRIDCO. However, Hon'ble OERC dismissed the Review Petition vide its Order dated 10.10.2014 stating that the said Review Petition of GRIDCO was an Appeal in disguise.

Subsequently, with GRIDCO expressing its grief before the OERC because of such an Order of the Hon'ble Commission, the OERC agreed to hear the grievances and accordingly fixed a Joint Meeting of the affected stakeholders like the DISCOMs, SLDC and GRIDCO under the chairmanship of the Hon'ble Technical Member of the Commission on 10.11.2014. However, even after prolonged discussion, arguments and counter arguments from all the sides, when there was no definite outcome during the Meeting, the Hon'ble Technical Member, OERC directed all the stakeholders to furnish the actual / real time data for the last three months in order to facilitate the Commission to take an appropriate decision on the matter.

Being aggrieved by the afore-said Orders dated 05.04.2014 and Dated 10.10.2014, GRIDCO approached the Hon'ble OERC for redressal of its grievances. Pursuant to the such a prayer of GRIDCO, Hon'ble OERC conducted a Joint Meeting of DISCOMs consisting of the GRIDCO, SLDC & the four DISCOMs on 10.11.2014 presided by the Hon'ble Technical Member, OERC. Since a consensus decision could not be reached in the Meeting, Hon'ble Commission directed to submit the Realtime Energy Drawal Data on UI / Deviation Settlement mechanism for the last three months in order to facilitate the Hon'ble Commission to give its verdict on the matter.

It is submitted that as the matter stands today, the implementation of ABT in its present form, has been inimical to GRIDCO.

GRIDCO therefore earnestly submits before the Hon'ble Commission to fix Intra State UI / Deviation Settlement Charges involving all the concerned Stakeholders in such a way that it will be possible for GRIDCO to recover the dues of the generators from the BSP revenue charged to the DISCOMs, without resorting to borrowing.

10.00 Summary of Power Procurement Costs:

Based on the above, the estimated Power Procurement Quantity, Cost and the effective rate for FY 2015-16 are summarized in the Table given below:

PROPOSED SUMMARY OF POWER PURCHASE & COST FOR FY 2015-16			
Stations	Availability (After Transformation Loss and Auxiliary Consumption) (MU)	Rate (P/U)	Total Cost (Rs. Crore)
HHEP	662.54	131.93	87.41
CHEP	297.00	79.80	23.70
Rengali	693.00	82.48	57.16
Upper Kolab	825.66	51.15	42.23
Balimela	1172.16	89.61	105.03
OHPC(Old)	3650.36	86.44	315.53
Indravati	2026.53	78.43	158.95
Sub-Total OHPC	5676.89	83.58	474.48
Machhkund	262.50	33.86	8.89
Total State Hydro Availability	5939.39	81.38	483.36
OPGC	2838.35	210.84	598.44
TTPS	3177.25	290.07	921.61
Small Hydro Renewable Energy	320.00	368.00	117.76
Biomass Energy (Shalivahan Energy Ltd.)	100.00	532.00	53.20
BioMass Energy (Octatnt Industries Ltd.)	60.00	566.00	33.96
Solar Energy	127.00	804.25	102.14
CGPs	0.00	275.00	0.00
Co-generation Plants	1224.62	275.00	336.77
IPPs	7,053.00	214.18	1,510.59
Total State Availability	20839.61	199.52	4157.83
TSTPS Stg.-I	2138.42	301.31	644.33
TSTPS Stg.-II	1332.44	292.34	389.53
FSTPS-I&II	1470.92	485.09	713.54
FSTPS-III	566.02	557.97	315.83
KhSTPS Stg.-I	838.09	456.84	382.88
KhSTPS Stg.-II	225.19	454.88	102.44
Barh-STPS-I&II	975.90	663.94	647.94
Total Central Thermal Availability	7546.99	423.54	3196.47
Chukha	263.00	220.04	57.87
TALA	142.00	238.42	33.86
Teesta	513.00	302.37	155.12
Total Central Hydro Availability	918.00	268.89	246.84
Total EREB	8464.99	406.77	3443.31
SoC & MOC Charges			3.38
Total	29304.60	259.50	7604.52

11.00 PASS THROUGH OF ARREAR DUES PAID / TO BE PAID DURING FY 2015-16:

GRIDCO proposes that the following expenses may please be considered for Pass Through in the approval of ARR & BSP for FY 2015-16 of GRIDCO by the Hon'ble Commission.

11.01 ARREAR PAYMENT TO NTPC IN RESPECT OF TTPS:

Arrear payment to NTPC in respect of TTPS:

Hon'ble CERC vide its Order dated 15-05-2014 in Petition No 304 of 2009 has pronounced the Final Tariff Order in respect of TTPS and thus the Annual Fixed Charges for the Financial Years 2009-10 to 2013-14 has been revised respectively. Based on the said Order, NTPC-TTPS had raised the Arrear Bill for an amount of **Rs.740.7249 Crore** (i.e. Principal of Rs.564.5170 Crore + interest of Rs.176.2079 Crore) in June-2014 pertaining to the period 2009-10 to 2013-14 to be paid in 6 equal monthly installments. However, after discussion with NTPC, the installment period has been extended to 18 months **(ED-XXXI)** and GRIDCO had already paid an amount of Rs.200 Crore (five Installments each consisting of **Rs.41.11Crore**) till November-14. It is submitted that by the time the Hon'ble Commission shall pronounce the ARR & BSP Order pertaining to GRIDCO for FY 2015-16, GRIDCO would have paid about **Rs. 411.10 Crore** towards Arrear along with interest. Till September-14, GRIDCO has paid interest amount of **Rs. 28.85 Crore** on the balance arrear amount payable in installments.

Apart from the above, at present, NTPC-TTPS is claiming the Monthly Fixed Charges @ **Rs.373.5929 Crore** provisionally (i.e. Annual Fixed Charges fixed for FY 2013-14 vide CERC Order dated 15-05-2014 in Petition No 304 of 2009) **(ED-XIII)**, the Hon'ble Commission (OERC) in its ARR & BSP Order for FY 2014-15 dated 22-03-2014 for GRIDCO has allowed Annual Fixed Cost of **Rs. 214.639 Crore** provisionally subject to Final Tariff Order by the CERC. Since, the Final Tariff Order has now been passed by CERC in respect of NTPC-TTPS, it is humbly submitted to allow the differential Fixed Charges against FY 2014-15 amounting to **Rs.158.9539 Crore (i.e. Rs.373.5929 Crore- Rs.214.639 Crore)** as pass through in the ARR of GRIDCO for FY2015-16.

Further, as per the fresh Petition filed by NTPC before CERC (**ED-XXXII**) in the matter of determination of tariff for the Control Period 2014-19 in respect of TTPS, the year-wise Differential Fixed Charges, which GRIDCO may be required to pay to NTPC subject to Final Tariff Order (based on it), is given below for kind appreciation of the Hon'ble OERC:

Fixed Cost Arrears of TTPS (NTPC)						
Description	2014-15	2015-16	2016-17	2017-18	2018-19	TOTAL
F.C. Billed by NTPC provisionally (Rs. Crore) i.e. @AFC for FY:14-15	373.593	373.593	373.593	373.593	373.593	1867.96
F.C due by NTPC as per filling before CERC (Rs. in Crore)	377.523	398.211	422.527	443.316	461.646	2103.22
Differential amount to be paid by GRIDCO to NTPC (Rs. Crore)	3.9298	24.6182	48.9339	69.7233	88.0531	235.258

Thus, out of the total arrear amount of **Rs. 235.258 Crore** as shown above, the Hon'ble Commission may consider to allow **Rs.28.548 Crore** (i.e.Rs.3.9298 Crores+Rs.24.6182 Crore) as pass through of differential arrear against FY: 2014-15 and 2015-16 in respect of NTPC-TTPS in the ARR & BSP for FY 2015-16 subject to modification as per Final Tariff Order for the period 2014-19. Therefore, GRIDCO humbly submits before the Hon'ble Commission to allow an arrear amount of **Rs.956.35 Crore** as pass through in the ARR for GRIDCO for FY 2015-16 as detailed below:

Figures in Rs. Crore		
Sl. No.	Description	Arrear Amount
1	Arrear amount towards differential Annual Fixed Charges for the period 2009 to 2014.	740.00
2	Arrear amount towards differential Annual Fixed Charges for the FY:2014-15	158.95
3	Differential Annual Fixed Charges for FY:2014-15 & 2015-16 as per petition filed by NTPC before CERC for the period 2014-19	28.55
4	Interest Charges Paid by GRIDCO till Sept-14	28.85
	TOTAL AMOUNT	956.35

It is to be mentioned here that GRIDCO in its various ARR applications for previous years had submitted that in order to avoid tariff shock, GRIDCO proposes for recovery of Pass Through in respect of TTPS in a staggered manner. However, the Hon'ble Commission in the ARR & BSP Order for FY 2014-15 has categorically observed that it will consider the arrear amounts only

after the Central Commission (CERC) passes the final order on the Petition of NTPC i.e. Petition No. 304/2009 which has now been disposed off by the CERC vide its Order dated 15-05-2014.

It is submitted that pursuant to the notification of CERC Order 15-05-2014 in Petition No.304/2009, GRIDCO filed a Review Petition before the Hon'ble OERC U/s. 94 (f) and U/s 62(4) of the Electricity Act, 2003 read with Regulation 70(1) of the OERC (Conduct of Business) Regulations, 2004 for review of ARR & BSP Order of GRIDCO for FY 2014-15 dated 22-03-2014 to consider and approve the pass through of Fixed Cost Arrear of Rs.899.68 Crore comprising of Arrear FC of TTPS from FY 2009-10 to FY 2013-14 (**Rs.740.7249 Cr.**) and Addl. AFC for FY 2014-15 (**Rs.158.9539 Cr.**) in the ARR & BSP for FY 2014-15 by way of an interim revision during FY 2014-15. The Petition of GRIDCO was admitted as Case No-57 of 2014, Hon'ble OERC after hearing the matter on 28.10.2014, rejected the Review Petition vide its Order Dated 05.11.2014 with an observation that the actual impact of pass through / arrears would be taken care of in the true-up exercise.

It is further submitted that NTPC had already raised the total claim of arrear amount i.e. Rs.740 Crores (principal plus interest) on GRIDCO payable in six equal monthly installments. However, after mutual discussion, the payment of said arrears has been extended to 18 installments starting from June, 2014 without prejudice to GRIDCO's right to file appeal before any legal forum. As GRIDCO has been making payment to NTPC through short-term borrowing, GRIDCO prays before the Hon'ble Commission to allow the repayment of the relevant loan along with interest in the approval of subsequent ARRs & BSPs.

Further, it is submitted that GRIDCO has filed an appeal before APTEL, New Delhi against the CERC Tariff Order dated 15-05-2014 in Petition No-304 of 2009 which has been admitted as Appeal No-180 of 2014. Similarly, GRIDCO has also filed a Writ Petition before Hon'ble Odisha High Court against the CERC Tariff Regulation, 2009 in the matter of high normative O & M expenditures and relaxed norms of operation of Thermal Power Plant of TTPS. Both the Applications of GRIDCO are now sub-judice before the respective Forums.

11.02: Arrear payment to NTPC in respect of other Stations (TSTPS-I&II, KhSTTS-I&II, FSTPS-I, II & III):

It is submitted that GRIDCO has paid Rs.29.60 Crore towards arrear bills relating to revision in AFC, Tax, FERV and ULDC Charges pertaining to different NTPC Stations of TSTPS-I&II, KhSTTS-I&II, FSTPS-I,II & III) for the period from Oct'13 to Sept'14 which are detailed below:

(1) TSTPS-I	-	Rs.6,28,02,840/-
(2) Tstps-II	-	Rs. 5,36,14,726/-
(3) KHSTPS-I	-	Rs 1,77,30,735/-
(4) KHSTPS-II	-	Rs1,03,32,936/-
(5) FSTPS-I&II	-	Rs4,97,31,102/-
(6) FSTPS-III	-	Rs 10,17,47,696/-

Total : Rs.29,59,60,035, Say; Rs.29.60 Crore

The detailed item-wise Arrear Charges of the said Stations are furnished hereunder:

DETAILS OF ARREAR BILLS RECEIVED & PAID BY GRIDCO FROM NTPC DURING OCT'13 TO AUG'14		
Name of the Station	Type of Bill	Amount Claimed (Rs.)
TSTPS-I	ULDC (2009-14)	18,390,282.00
	DEFERRED TAX LIABILITY (13-14)	43,786,112.00
	INCOMETAX (Mar'97)	626,446.00
	SUB-TOTAL	62,802,840.00
TSTPS-II	ULDC (2009-14)	9,826,614.00
	DEFERRED TAX LIABILITY (13-14)	43,788,112.00
	SUB-TOTAL	53,614,726.00
KHSTPS-I	ULDC (2009-14)	8,195,559.00
	DEFERRED TAX LIABILITY (13-14)	4,026,433.00
	INCOMETAX (94-97)	5,508,743.00
	INCOMETAX (2008-09)	10,544,369.00
	SUB-TOTAL	17,730,735.00
KHSTPS-II	ULDC (2009-14)	1,444,450.00
	FERV (Mar'14)	8,888,486.00
	SUB-TOTAL	10,332,936.00
FSTPS-I&II	ULDC (2009-14)	13,938,058.00
	DEFERRED TAX LIABILITY (13-14)	9,679,932.00
	FERV (13-14)	803,409.00
	INCOMETAX (05-06)	10,390,186.00
	INCOMETAX (06-07)	4,152,499.00
	INCOMETAX (08-09)	10,767,018.00
	SUB-TOTAL	49,731,102.00
FSTPS-III	ULDC	120,697.00
	Capacity Charge Revision (12-13)	101,626,999.00
	SUB-TOTAL	101,747,696.00
TOTAL		295,960,035.00

Say, Rs. 29.60 Crore

Hon'ble Commission may kindly approve payment of these arrears which have already been paid to NTPC.

11.3. Arrear payment of Rs.50.82 Crore in respect of Teesta-V HEP NHPC - Teesta:

It is submitted that on account of Hon'ble CERC Order Dated 23.01.2014 in Petition No.27/GT/2013 filed by NHPC, Faridabad (Relevant Extracts of CERC Order Dated 23.01.2014 is attached as **Annexure-4**), NHPC-TEESTA, through Supplementary Bills (**Annexure-1**), raised additional **Arrears of Rs.47.10 Crore** and **Late Payment Surcharge of Rs.3.72 Crore**, total amounting to **Rs.50.82 Crore** on GRIDCO on account of revision of Tax, FERV and revision in the Annual Fixed Cost for the period from 2008-09 to FY 2013-14. The details are given in the following Table:

NHPC LTD - TEESTA**(Amt. in Rs. Crore)**

SL. No.	Invoice No.	Particulars	Period	Previous Balance	Arrear Billed	Late Payment Surcharge	TOTAL
1	NH/GRIDCO/210 Dtd. 30.05.2014	Suppl. bills for revision of Tax	2008-09	59.56	-2.15	0.48	57.89
2	NH/GRIDCO/209 Dtd.13.05.2014	Suppl. bills for FERV	2013-14	51.08	8.48	0.48	60.04
3	NH/GRIDCO/207 Dtd.22.04.2014	Suppl. bills for revision in AFC Tariff	2013-14	53.00	0.43	0.55	53.98
4	NH/GRIDCO/206 Dtd.22.04.2014	Suppl. bills for revision in AFC Tariff	2012-13	48.39	4.62	0.55	53.55
5	NH/GRIDCO/205 Dtd.22.04.2014	Suppl. bills for revision in AFC Tariff	2011-12	40.70	7.68	0.55	48.94
6	NH/GRIDCO/204 Dtd.22.04.2014	Suppl. bills for revision in AFC Tariff	2010-11	29.90	10.81	0.55	41.26
7	NH/GRIDCO/203 Dtd.22.04.2014	Suppl. bills for revision in AFC Tariff	2009-10	12.66	17.24	0.55	30.45
8	Total			295.30	47.10	3.72	346.12
9	Total Amount of Arrear including Late Payment Surcharge (Rs.47.10 Cr. + Rs.3.72 Cr.) now being claimed.						50.82

Although the above amount of Rs.50.82 Crore was claimed by GRIDCO in the Review Petition, bearing Case No. 57/2014 against ARR & BSP Order for FY 2014-15, Hon'ble OERC vide Order dated 05.11.2014 decided to allow the same in the Truing-up Exercise. Accordingly, the above amount of Rs.50.82 Crore is now being claimed for pass through in the ARR & BSP for FY 2015-16.

11.04 Arrear Charges Paid in respect of PGCIL Charges:

GRIDCO claimed an amount of Rs.164.97 Crore upto 30.08.2013 towards payment of PoC arrear charges of PGCIL for pass through in the ARR & BSP Application for FY 2014-15 out of which Hon'ble OERC, vide Para-284 of the ARR & BSP Order for FY 2014-15, allowed Rs.149.81 Crore.

Accordingly, GRIDCO submits that the balance amount of **Rs.15.16 Crore** (Rs.164.97 Cr.- Rs.149.81 Cr.) towards PoC Arrear Charges payable to PGCIL by GRIDCO may be passed through in the ARR & BSP for FY 2015-16

SUMMARY OF PROPOSED PASS THROUGH EXPENSES IN THE ARR & BSP FOR FY 2015-16

The total amount of **Rs.1051.93 Crore** as detailed above, have been proposed for Pass Through in the ARR & BSP Application for FY 2015-16 as per the particulars given below:

Summary of Proposed Pass Through Expenses Relating to Power Purchase Cost in ARR & BSP for FY 2015-16

Particulars	Amount in Rs. Crore
(i) Arrear in respect of TTPS (Differential AFC Arrears from FY 2009-10 to FY 2013-14 of Rs.740.00 Cr., Arrear amount towards Differential Annual Fixed Charges for the FY:2014-15 of Rs.158.95 Cr., Differential Annual Fixed Charges for FY:2014-15 & 2015-16 as per petition filed by NTPC before CERC for the period 2014-19 amounting to Rs.28.56 Cr. and Interest Charges Paid by GRIDCO till Sept-14 amounting to Rs.28.85 Crore)	956.35
(ii) Arrear paid to NTPC Stations (TSTPS-I&II, KhSTPS-I&II, FSTPS-I,II & III) for the period from October'13 to Sept'14:	29.60
(ii) Arrear POC Charges in respect of PGCIL	15.16
(iii) Arrear of Teesta-V in respect of revision of AFC, FERV & Tax	50.82
Total amount proposed for pass Through in the ARR & BSP for FY 2014-15	1051.93

12.00 SPECIAL APPROPRIATION FOR LOAN & INTEREST TOWARDS PAST POWER PURCHASE LIABILITIES:

During past years, GRIDCO availed loans to meet the cash deficit arising mainly due to power purchase liabilities because of the following reasons:

- The actual power cost turned out to be more than the corresponding OERC approval;
- Huge revenue deficits being left by the Hon'ble Commission year after year in the ARR in the face of no or inadequate surplus power available for trading resulting in galloping deficits in the accounts of GRIDCO;
- DISCOMs failing to pay even the current BSP dues and also not clearing the outstanding dues including loans and securitized dues etc.

(Rs. Crore)

FY	Actual Power Pur. Cost (P/U)	Appd. Power Pur. Cost (P/U)	Approved BSP (P/U)	Approved Gap	Profit/(loss) in P&L Accounts	Loan Repayment	BSP Dues defaulted by DISCOMs	Total Cash Deficit	Loan availed to meet deficit
2008-09	151	127	122	410.05	98.14	374.26	163.94	440.06	300.00
2009-10	197	148	122	882.85	(1560.84)	205.06	164.22	1,930.12	1213.00
2010-11	198	175	170	806.15	(587.86)	328.15	297.01	1,213.02	1640.71
2011-12	228	210	232	746.05	(936.81)	382.40	269.74	1,588.95	864.16
2012-13	237	236	271	700.58	31.79	777.69	590.01	745.90	943.83
2013-14	214	229	265	707.60	59.24	1006.57	167.30	1,704.64	483.50
2014-15 (upto Sept-14)	214	227	263	884.18	-	519.36	86.91	606.27	500.00
Total				5137.46	(2896.34)	3593.49	1739.13	8228.96	5945.21

It may be observed that in order to meet the cash deficit of **Rs.8229 Crore**, GRIDCO has availed loans of about **Rs. 5945 Crore** and the balance shortfall (about **Rs.2284 Crore**) was met by way of defaulting in the payment of interest on State Govt. loan, Govt. of Odisha (NTPC) Bond, and also by postponing the payment of power purchase dues to the generators and to some extent, from realization of securitized dues.

As per the Tariff Policy, depreciation on Fixed Assets shall be utilized for repayment of principal component of Loan. In case of GRIDCO, there is virtually no fixed assets and hence, no depreciation is available in the hands of GRIDCO to meet the cash deficit arising due to the afore-mentioned reasons. It has been almost customary practice by the Hon'ble Commission during past years to leave huge deficits in the ARR of GRIDCO with a direction to recoup such deficits by way of sale of surplus power through Trading / UI and realization of outstanding securitized dues from the DISCOMs. However, except for no / marginal fulfillment of such observations of the Commission, the general trend has been that

GRIDCO is ending up with huge deficits at the end of each year as mentioned above. Faced with such critical financial crisis together with the responsibility of ensuring adequate power supply to the State as the Designated Entity, GRIDCO therefore has no other alternatives at its disposal other than to avail loans in order to keep supplying power in the greater interest of public at large in Odisha.

Under the circumstances, GRIDCO submits that the loans as well as the interest of GRIDCO may be considered by the Hon'ble Commission for pass through of the same in the ARR & BSP. GRIDCO therefore, proposes repayment of Principal (all the Loans) amounting to **Rs.882.05 Crore** in the proposed ARR & BSP Application for FY 2015-16 for approval by the Hon'ble Commission, under the head “**Special Appropriation of Expenses**” (calculated as **Rs.2368.38 Crore**) as per the details given below

Special Appropriation claimed by GRIDCO

(Amount in Rs. Crore)

Particulars	Loan Repayment Dues	Interest Dues	Total
State Govt. Loan	160.38	315.84	476.22
NTPC-GoO Special Bonds (Rs.1102.87 Crore)	771.80	238.30	1010.10
Sub-total	932.18*	554.14	1486.32
Bank Loans	882.06	-	882.06
Total	1814.24	554.14	2368.38

* Govt. Loan of Rs.932.18 Crore have been proposed to be deferred.

12.01 Bank Loan:

As already explained in above, GRIDCO availed **Rs.5945 Crore** term loans to meet the revenue gap. In absence of any other alternatives, GRIDCO prays the Hon'ble Commission to allow repayment of such statutory dues to the banks / FIs amounting to **Rs.882.06 Crore** in the BSP for 2015-16 towards Special Appropriation as detailed in **OERC Form F-2**.

12.03 State Govt. loan:

The general trend during all the previous years has been that the Hon'ble Commission is not allowing the repayment of the State Govt. loans as well as the interest thereon as GRIDCO has not been able to service such loans because of its critical financials. Besides, GRIDCO is also not able to service the securitized Govt. of India NTPC Bonds (Rs.1102.87 Crore) for the last six years due to similar reasons. The Govt. of Odisha in turn has been servicing the Gol Power Bonds in order to avoid deduction of equal amount from the Central Plan Assistance.

It may be relevant to mention here that based on the request to defer the servicing of loan dues of the Govt. owing to its bad financial position, Hon'ble Commission in the ARR & BSP Order for FY 2014-15 dated 22.03.2014 at **Para 289** has directed GRIDCO to defer the payment of the Govt. dues till the financial turnaround of GRIDCO. Keeping in line with such directions of the Hon'ble Commission and the Govt. of Odisha servicing the Gol Power Bonds, GRIDCO proposes the following in order to reduce its financial burden as well as to avoid tariff shock to the consumers of the State although Govt. of Odisha in their letter No.28966 dated 13.10.2014 has asked GRIDCO to pay the outstanding dues of Govt. of India NTPC Power Bonds at the earliest.

- Repayment of NTPC-GOI Bond dues will continue to be paid by the Govt. of Odisha;
- Repayment of dues to Govt. of Odisha by GRIDCO will be kept in abeyance;

GRIDCO therefore proposes deferment of repayment of Govt. dues of **Rs.1486.32 Crore** as indicated in the table above towards servicing of Govt. loans / Bonds. Further, the details are also furnished in **OERC Form F-2**.

13.00 Summary of Other Expenses:

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

13.01 Interest & Financial Charges:

OHPC requested GRIDCO to securitize the energy dues of OHPC outstanding against GRIDCO for Rs.619.00 Crore upto 31.03.2013. GRIDCO in its 155th Meeting of Board of Directors held on 15.09.2014 approved the securitized dues of OHPC for Rs.619.00 Crore payable @ 8% simple interest per annum over a period of ten years including moratorium of three years starting from 01.04.2014 onwards on monthly rest basis. Based on the approval of the Board, GRIDCO proposes additional interest of Rs.99.04 Crore payable to OHPC for the period of FY 2014-15 and FY 2015-16. Accordingly, the total interest on loans and financial charges are related to Power Purchase is estimated to be **Rs.493.13 Crore** including **Rs.7.75 Crore** towards Guarantee Commission and Rs.99.04 Crore towards proposed interest on OHPC dues as exhibited at **OERC Form F-2**.

13.02 Employees Cost:

Taking into account the men in position, GRIDCO proposes **Rs.5.97 Crore** towards employees cost for FY 2015-16 as furnished in **OERC Form F-9**.

13.03 Repair & Maintenance Expenses:

GRIDCO proposes **Rs.0.30 Crore** towards the repair maintenance expenses of vehicle, furniture & office equipment and annual maintenance charges (AMC) of computers for FY 2015-16. The details of such expenses are annexed in **OERC Form F-10**.

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

For the FY 2015-16, GRIDCO proposes **Rs. 5.50 crore** towards A&G Expense including License Fees of Rs.1.25 Crore and ERPC membership Fees of 15 Lakhs and another Rs.1 lakh towards ERPC Fund. The details are annexed in **OERC Form F-11**.

13.05 Depreciation: (TRF-23):

GRIDCO has proposes **Rs.0.42 Crore** towards the depreciation on Fixed Assets (vehicle, furniture and office equipments etc) for FY 2015-16. The detail calculation of depreciation is annexed in **OERC Form F-13**.

Summary of other Costs / Expenditures of GRIDCO:

Based on the above projections, GRIDCO proposes to incur about **Rs.505.32 Crore** towards expenses on account of interest, employees cost, A&G expenses etc.

(Rs. in Crore)	
Particulars	GRIDCO proposal for FY 2014-15
1. Interest & Financial Charges (OERC Form F-2)	493.13
2. Other Costs:	
a. Employee Cost (OERC Form F-9)	5.97
b. A&G Cost (OERC Form F-11)	5.50
c. Repair & Maintenance Cost(OERC Form F-10)	0.30
Sub-Total	11.77
3. Depreciation	0.42
Total (1+2+3)	505.32

14.00 Return on Equity:

It is submitted that the Government of Odisha provided additional equity **(ANNEXURE-4)** to GRIDCO amounting to **Rs.143.73 Crore**. By addition of this amount, the total paid-up equity of GRIDCO is increased to **Rs.576.71 Crore**. GRIDCO proposes **Rs.92.27 Crore** towards Return on Equity (R-o-E) @**16.00%** on its **Equity Capital of Rs.576.71 Crore** in line with Tariff Policy and OERC Tariff Regulations which will improve the long-term financial health of GRIDCO.

15.00 Other Income/ Miscellaneous Receipts:

GRIDCO expects to earn an amount of **Rs.6.70 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.

16.00 Receivable from DISCOMs and Others:**A. Securitized dues:**

Hon'ble Commission in their Order dated 01.12.2008 considered securitization of power purchase dues amounting to **Rs.2862.20 Crore** recoverable from the four DISCOMs in 120 installments ending with FY 2015-16. However, the DISCOMs have failed to oblige the payment of **Rs.1771.96 Crore** of the securitized dues by 31.03.2013 out of which the major outstanding of **Rs.1149.23 Crore** relate to CESU. In spite of repeated directives from the Hon'ble Commission, the DISCOMs have defaulted in payment of the afore-said dues. Non-realization of the dues seriously affects the cash flow of GRIDCO. Hon'ble Commission may kindly consider the financial difficulties of GRIDCO and accordingly, like to issue orders for recovery of the overdue amount alongwith the balance dues in suitable installments from the DISCOMs so that the dues will be realized by GRIDCO within the terminal year 2015-16 in line with the Hon'ble Commission's Order dated 01.12.2008. The details of the dues are furnished below for kind perusal of the Hon'ble Commission:

Outstanding Securitized Dues payable by DISCOMs to GRIDCO
(Rs. in Crore)

Particulars	Securitized dues payable by 31-03-2013	Amount paid & Adjusted by 31-03-2014	Unpaid as on 31-03-2013
WESCO	337.92	127.38	210.54
NESCO	367.68	156.01	211.67
SOUTHCO	239.04	38.52	200.52
CESU	1345.92	196.69	1149.23
Total	2290.56	518.60	1771.96

B. Rs. 400.00 Crore Bond Dues:

Apart from securitized dues, the DISCOMs have failed to honour the OERC order dated 29-03-2012 read with corrigendum Order dated 30.03.2012 against the Bond dues of Rs.308.45 Crore. In the said order Hon'ble OERC had directed the REL managed DISCOMs to pay Rs.50 Crore by the end of April 2012 and at least @Rs.10 Crore per month w.e.f. May 2012 so that the entire amount shall be cleared by the end of FY 2012-13 or else the order will stand non-est. The R-Infra managed DISCOMs have paid Rs.62 Crore by 31-10-2014, besides payment of Rs.50 Crore in March 2012 leaving a balance of Rs.196.45 Crore. Hon'ble Commission may kindly issue suitable directive for resolving the issue and compliance of the Commission's Order.

C. Non-Payment of BSP Dues and Year-end Adjustment Bills by the DISCOMs:

Since FY 2011-12, onwards, the DISCOMs have started defaulting in payment of current BSP Bills in addition to the year-end adjustment bills payable to GRIDCO. Because of such failure of DISCOMs, the revenue deficit faced by GRIDCO has widened to unmanageable levels leading to severe cash crunch. Consequently, GRIDCO's financials has received serious jolt. GRIDCO prays Hon'ble Commission to prevail upon the DISCOMs to make regular payment of BSP and other dues of GRIDCO.

The outstanding BSP & YEA dues payable by DISCOMs are as under:

Outstanding Dues relating to Current BSP and Year end Adjustment bills of DISCOMs payable to GRIDCO

Particulars	(Amount Rs. Crore)				
	WESCO	NESCO	SOUTHCO	CESU	TOTAL
BSP Bills- 2011-12	210.48	53.74	5.52	-	269.74
BSP Bills- 2012-13	265.06	324.95	-	-	590.01
BSP Bills- 2013-14	17.39	57.87	92.04	-	167.30
BSP Bills- 2014-15 (upto Sept-14)	11.82	7.01	62.41	5.67	86.91
Sub Total	504.75	443.57	159.97	5.67	1113.96
Year end Adj. Bills- 2008-09	69.08	-	36.72	58.14	163.94
Year end Adj.Bills-2009-10	-	87.47	32.81	43.94	164.22
Year end Adj.Bills-2010-11	46.80	22.65	60.24	167.32	297.01
Sub Total	115.88	110.12	129.77	269.40	625.17
Grand Total	620.63	553.69	289.74	275.07	1739.13

From the above, it is observed that for the FY 2011-12 to FY 2014-15 (upto September-14), DISCOMs are yet to pay Rs.1113.96 Crore. In order to bridge the gap arising from non realization of dues from DISCOMs, GRIDCO has availed Rs.500 Crore term loan from OMC limited with due permission of Govt. of Odisha in order to meet the deficit.

17.0 Annual Revenue Requirement of GRIDCO for FY 2015-16:

The Net Annual Revenue Requirement of GRIDCO for the FY 2015-16 is estimated as **Rs.9281.74 Crore** based on the following Costs as given in the Table below:

Proposed Annual Revenue Requirement of GRIDCO for FY 2015-16		
Particulars		GRIDCO Projection for FY 2015-16 (Rs. Crore)
Power Purchase cost		7604.52
The Interest & Financing Charges,		493.13
Employees Cost		5.97
A&G and R&M Expenses		5.50
R & M Expenses		0.30
Depreciation		0.42
Return on Equity		92.27
Sub Total		8202.12
Proposed Pass Through Expenses		
(I) Arrears in respect of TTPS	956.35	
(II) Arrear PoC Charges payable to PGCIL	15.16	
(III) Arrear towards Teesta V	50.82	
(IV) Arrear paid to NTPC-ER Stations from Oct'13 to Sept.'14	29.6	
Total Amount proposed for pass Through in the ARR & BSP for FY 2015-16		1051.93
Special Appropriation		
State Govt. Loans of Rs.932.18 Crore Deferred)		
NTPC-GoO Special Bonds (Deferred)		
Bank / Commercial Loans	882.06	
Sub Total : Special Appropriation		882.06
Gross Revenue Requirement		10136.10
Less: (i) Miscellaneous Receipts from Emergency & Back-up Power Sale to NALCO & IMFA		6.70
Less: (ii) Revenue from proposed Trading of Surplus Power of 2119.14 MU @ 400 P/kWh		847.66
Net Revenue Requirement to be recovered from DISCOMs		9281.74

19.0 Revenue of **Rs.6882.82 Crore** will be earned by GRIDCO from sale of proposed energy of **26,156.00** MU to DISCOMs during FY 2015-16 at the existing BSP Rate for FY 2014-15. The detail is shown in table below:

Estimated Revenue during FY 2015-16 at the Existing BSP for FY 2014-15

DISCOMs	Energy (MU)	Existing BSP Rate (P/U)	Amount (Rs. Crore)
CESU	9401	265	2491.27
NESCO	5625	280	1575
WESCO	7500	286	2145
SOUTHCO	3630	185	671.55
TOTAL	26156		6882.82

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

It is submitted that GRIDCO will suffer Revenue Deficit of **Rs.2398.92 Crore** considering the proposed net ARR of **Rs.9281.74 Crore** and the revenue of **Rs. 6882.82 Crore** to be earned by GRIDCO from sale of the proposed energy of **26,156.00 MU** to DISCOMs for FY 2015-16 at the existing BSP Rate for FY 2014-15, the details of which are shown in the Table below:

Revenue Requirement (Excess / Deficit) with the existing BSP

ITEM	GRIDCO projection for FY 2015-16 (Rs. Crore)
Total Revenue Requirement	10136.10
Less (i) Misc. Receipt from Emergency sale of Power to NALCO & IMFA	6.70
Less: (ii) Revenue from proposed Trading of Surplus Power of 2119.14 MU @ 400 P/kWh	847.66
Net Revenue Requirement to be recovered from DISCOMs	9281.74
Revenue Receipt from DISCOMs at the existing BSP	6882.82
Gap i.e. Surplus / Deficit (-)	- 2398.92

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.2398.92 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, 2015**.

Design of Bulk Supply Price to meet the proposed Annual Revenue Requirement for FY 2015-16:

1) Energy Charge:

GRIDCO proposes to recover the net Revenue Requirement of **Rs.9281.74 Crore (against Rs.9452.88 Crore proposed during last FY 2014-15)** through Energy Charge only from the DISCOMs. The proposed Uniform BSP for recovery of the above proposed Net ARR (after deducting the Miscellaneous Receipts of Rs.854.36 Crore) is derived as **354.86 P/U**.

2) Demand Charge:

GRIDCO proposes that the Demand Charges may be levied @ Rs.250/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:

Pursuant to the Orders passed by the Hon'ble OERC, GRIDCO allows rebate to DISCOMs in order to encourage timely payment of BSP dues in terms of the BSP Agreement entered between GRIDCO and the DISCOMs. Timely payment of bills / dues support the cash flow and limit the dependence on working capital loans and consequent savings due to interest payout is passed on to the DISCOMs as rebate. Sometimes, the DISCOMs do not pay the full amount claimed under a bill in time compelling GRIDCO to avail overdrafts to settle and / or deferring the dues of the generators towards power purchase. Consequentially, it results in payment of interest to the banks / FIs or loss of rebate that GRIDCO could have earned through timely payment of dues to the generators. In order to avert such difficulties, it is proposed to modify the entitlement of rebate as under:

- i.) A rebate of 2% will be allowed to DISCOMs on full payment of the amount raised in the bill within two working days of serving of the bills on the DISCOMs excluding holidays under the Negotiable Instrument (NI) Act in any manner to the satisfaction of GRIDCO.

- ii.) A rebate of 1% will be allowed to the DISCOMs on full payment of amount raised in the bill within 30 (thirty) days of serving of the bills on the DISCOMs in any manner to the satisfaction of GRIDCO.
- iii.) No rebate will be allowed for part payment of bill and / or the amount raised in the bill is not fully paid within the due date for entitlement of rebate.
- iv.) No rebate will be allowed, if the DISCOMs have not cleared the BSP dues of earlier months/years. The policy may be made effective from FY 2011-12 onwards.

5) Escrow Arrangement:

GRIDCO has entered into Escrow Agreements with the DISCOMs towards Payment Security Mechanism. GRIDCO has been directed to allow escrow relaxation to DISCOMs and the priority order of appropriation of funds from the escrow account has been fixed by the Hon'ble Commission in its BSP Order dated 22-03-2014 for FY 2014-15.

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 escrow relaxation and drawal of funds from the escrow account only after the earlier amount of relaxation has been drawn and the above details of previous month are submitted to GRIDCO.

In order to ensure the proper escrow arrangement, Hon'ble Commission may consider to give a direction to the above effect for escrow relaxation to be allowed by GRIDCO for FY 2015-16.

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) Carry forward of Revenue gap:

GRIDCO prays that the proposed Annual Revenue Requirement & Bulk Supply Price be made applicable from 1st April 2015. However, in case of a gap between the approved revenue requirements for FY 2015-16 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 amount of **Rs.1051.93 Crore** as requested (since all the arrears are payable during FY 2015-16) and accordingly, approve the ARR and Bulk Supply Price (BSP) for FY 2015-16 as proposed in this Application and make the same effective from **1st April 2015**;
- (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;
- (V) to suitable frame and approve the Intra State UI / Deviation Settlement Mechanism / Rates as well as in a manner by which GRIDCO will be in a position to recover its dues payable to the generators from the BSP Bills charged to the DISCOMs;

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

**BY THE APPLICANT
THROUGH**

Bhubaneswar

November 29, 2014

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

BEFORE THE ODISHA ELECTRICITY REGULATORY COMMISSION

BHUBANESWAR

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

BEFORE THE ODISHA 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 2015-16 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 55 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 29, 2014

DEPONENT

Proposed Bulk Supply Price Schedule of GRIDCO for carrying out Bulk Supply Activity for 2015-16

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:

The entire Annual Revenue Requirement for FY 2015-16 is proposed to be recovered through proposed Energy Charge @ **354.86 P/U** only.

b) Demand Charge:

The Demand Charges @ Rs.250/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 License (DISCOMs) during a **month** over and above the approved energy quantum (**Approved MU for FY 2015-16 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 2015-16 (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. / Deviation Settlement 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:

- I. A rebate of 2% will be allowed to DISCOMs on full payment of the amount raised in the bill within two working days of serving of the bills on the DISCOMs excluding holidays under the Negotiable Instrument (NI) Act to the satisfaction of GRIDCO.
- II. A rebate of 1% will be allowed to the DISCOMs on full payment of amount raised in bill within 30 (thirty) days of serving of the bills on the DISCOMs excluding holidays under the Negotiable Instrument (NI) Act to the satisfaction of GRIDCO.
- III. No rebate will be allowed for part payment of bill and / or the bill is not fully paid within the due date of entitlement of rebate.
- IV. No rebate may be allowed unless the outstanding bill(s) is / are cleared by 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.