

**ODISHA ELECTRICITY REGULATORY COMMISSION
BIDYUT NIYAMAK BHAWAN
PLOT NO. 4, CHUNOKOLI, SHAILASHREE VIHAR,
CHANDRASEKHARPUR, BHUBANESWAR-751021**

**Present: Shri U. N. Behera, Chairperson
Shri A. K. Das, Member
Shri S. K. Parhi, Member**

CASE NO.76 OF 2017

**Date of Hearing : 06.02.2018
Date of Order : 22.03.2018**

IN THE MATTER OF: Application for approval of Aggregate Revenue Requirement (ARR) and Determination of Bulk Supply Price (BSP) of GRIDCO Ltd., under Section 86(1) (a) & (b) and other applicable provisions of the Electricity Act, 2003 read with OERC (Terms and Conditions for Determination of Tariff) Regulations,2004 and OERC (Conduct of Business) Regulations, 2004, for the year 2018-19.

ORDER

Section 86(1) (b) of the Electricity Act, 2003 requires the Commission to determine the procurement price structure for distribution Utilities operating in the State of Odisha. Under the existing Bulk Supply Agreements with GRIDCO Ltd. (in short GRIDCO), the Distribution Utilities of Odisha are under obligation to purchase power solely from GRIDCO. In determining the procurement price, the Commission has to hear not only the buyers (Distribution Utilities) but also the seller (GRIDCO Ltd.). No meaningful hearing of GRIDCO is possible unless GRIDCO files its Aggregate Revenue Requirement and expected revenue. GRIDCO Ltd. has done so. The Commission has taken the filing of GRIDCO Ltd. into consideration even though GRIDCO Ltd. as a deemed trading licensee under the 5th Proviso to Section 14 of the Electricity Act, 2003 (hereinafter referred to as “the Act”) is outside the purview of Section 62 of the said Act. The prices at which GRIDCO Ltd. supplies power to the Distribution Utilities has been regulated and made same as the procurement price fixed for the distribution Utilities under Section 86(1)(b) of the Act. The bulk supply prices fixed for the Utilities would not be applicable for supply of surplus power by GRIDCO to any other person anywhere even after satisfying the requirements of the distribution Utilities of Odisha. The price at which GRIDCO Ltd. would supply power to distribution Utilities of Odisha has to be determined with reference to the

Aggregate Revenue Requirement (ARR) of GRIDCO Ltd. Hence GRIDCO Ltd. was called upon to file its Aggregate Revenue Requirement (ARR) for ensuing Financial Year i.e. for FY 2018-19.

PROCEDURAL HISTORY (Para 2 to 7)

2. The Commission directed GRIDCO Ltd. to publish its Aggregate Revenue Requirement (ARR) and determination of Bulk Supply Price (BSP) application in the approved format in two leading and widely circulated daily newspapers, one in odia and one in English. The matter was also posted on the Commission's website (www.orierc.org) in order to invite objections/suggestions from the intending objectors. The said public notice was published in the leading daily newspapers, Commission's website and GRIDCO Ltd.'s website. The Commission directed GRIDCO Ltd. to file its rejoinder to the objections filed by the various objectors before the Commission and to serve copy to them.
3. In response to the aforesaid public notice in respect to the Aggregate Revenue Requirement (ARR) and BSP application of the GRIDCO Ltd. for FY 2018-19, the Commission received 13 nos. of objections/ suggestions from the following persons/ associations/ institutions/ licensees: -
 1. Sri G.N. Agrawal, Convenor-cum-Gen. Secy., Sambalpur District Consumers Federation, Balajee Mandir, Khetrajpur, Sambalpur-768003,(2) M/s. Ferro Alloys Corporation Limited, (FACOR), GD-2/10, Chandrasekharapur, Bhubaneswar-751023,(3) Shri Ramesh Ch. Satpathy, Secretary, National Institute of Indian Labour & President Upobhokta Mahasangha, Plot No.302(B), Beherasahi, Nayapalli, Bhubaneswar-751012, (4) Sri Ananda Kumar Mohapatra, Power Analyst, S/o- Jachindranath Mohapatra, Plot No. L-II/68, SRIT Colony, Budharaja, Ps-Ainthapali, Dist-Sambalpur-768004,(5) M/s. Adhunik Metalika Limited, IPICOL House, 3rd Floor, Annexe Building, Janapath, Bhubaneswar-751022, (6) North Odisha Chamber of Commerce and Industry (NOCCI), Ganeswarpur Industrial Estate, Januganj, Balasore-756019, (7) M/s. Swain & Sons Power Tech Pvt. Ltd., At-K-8/82, Kalinga Nagar, Ghatikia, Bhubaneswar-751003, (8) M/s. Confederation of Captive Power Plants of Odisha (CCPPO), Regd. Office at- IMFA Office, Bomikhal, Bhubaneswar-10, (9) M/s. Vedanta Limited, At-Bhurkhamunda, Po-Kalimandir, Dist-Jharsuguda, Odisha-768202, (10) Shri Alekha Chandra Mallick, S/o. Late Sri Harekrushna Mallick, VR-13, Unit-VI, Bhubaneswar, Khurda, (11) M/s. Visa Steel Limited,

Kalinganagar Industrial Complex, At/Po-Jakhpura-755026, Dist-Jajpur, Odisha, (12) Shri R. P. Mahapatra, Retd. Chief Engineer & Member (Gen.), Plot No-775 (P), Lane-3, Jayadev Vihar, Bhubaneswar-751013,(13) Odisha Power Generation Corporation Ltd., Zone-A, 7th Floor, Fortune Towers, Chandrasekharpur, Bhubaneswar-751023,(14) Special Secretary to Govt., Department of Energy, Govt. of Odisha, Bhubaneswar.

The applicant submitted its reply to issues raised by the various objectors during hearing of the above case.

4. In exercise of the power conferred under S.94(3) of the Electricity Act, 2003, in order to protect the interest of the consumers of Odisha, the Commission appointed to World Institute of Sustainable Energy (WISE), Pune, as Consumer Counsel for objective analysis of the licensee's Aggregate Revenue Requirement (ARR) and Bulk Supply Price proposal for FY 2018-19. The Consumer Counsel-WISE, Pune presented its views on the matter in the hearing.
5. The date for hearing was fixed as 06.02.2018 at 11.00 AM and it was duly notified in the leading newspaper mentioning the list of the objectors, time and place of hearing. The Commission had also issued individual notice to the objectors and the applicant for hearing of the above matter on 06.02.2018. The Commission also issued notice to the Department of Energy, Government of Odisha informing them about the date, time and place of hearing and requesting to send its authorized representative to take part in the proceeding.
6. In its consultative process, the Commission conducted a public hearing at its premises on 06.02.2018 and heard the Applicant, Objectors, Consumer Counsel and the Representative of Dept. of Energy, Govt. of Odisha at length. The following persons were participated in the hearing process.

1. Shri Hemant Sharma, CMD, GRIDCO Ltd.2. Sri Ananda Kumar Mohapatra, Power Analyst, S/o-Jachindranath Mohapatra, Plot No. L-II/68, SRIT Colony, Budharaja, Ps-Ainthapali, Dist-Sambalpur-768004, the authorized representative of Sri G.N. Agrawal, Convenor-cum-Gen. Secy, Sambalpur District Consumers Federation, Balaji Mandir Bhawan, Khetrajpur, Sambalpur-768003 and also for self, 3. Shri M.V.Rao, Resident Manager & Power of Attorney Holder of M/s. Ferro Alloys Corporation LTD., (FACOR), GD-2/10, Chandrasekharpur, Bhubaneswar-751023, 4. Sri

S.Satyakam, Advocate on behalf M/s. Vedanta Ltd., 5. Sri Bibhu Charan Swain, the authorized representative of North Odisha Chamber of Commerce and Industry (NOCCI), Ganeswarapur Industrial Estate, Januganj, Balasore-756019 and on behalf of M/s. Swain & Sons Power Tech Pvt. Ltd., At-K-8/82, Kalinga Nagar, Ghatikia, Bhubaneswar-751003, M/s. Adhunik Metalika Limied, IPICOL House, 3rd Floor, Annexe Building, Janapath, Bhubaneswar-751022, M/s. Visa Steel Ltd., Kalinganagar Industrial Complex, Jajpur, 6. Shri R.P.Mahapatra, Retd.Chief Engineer& Member (GEN), OSEB, Plot No. 775 (Pt), Lane-3, Jayadev Vihar, Bhubaneswar-13, 7. Shri Ramesh Ch. Satpathy, Secretary, National Institute of Indian Labour & President, Upobhokta Mahasangha, Plot No.302(B), Beherasahi, Nayapalli, Bhubaneswar-751012, 8. Sri Rutwik Mishra,Dy.G.M.(Corporate Monitoring Group), M/s.OPGC Ltd., Zone-A, 7th Floor, Fortune Towers, Chandrasekharapur, Bhubaneswar-23, 9. Sri Alekh Chandra Mallick, S/o. Sri Harekrushna Mallick, VR-13, Unit-6, Bhubaneswar, Khurda, 10. Sri Sidharth Sankar Panda, President, CCPPO, 11.Ms. Niharika Pattanayak, ALO, DoE,GoO. The written notes of submissions filed in the above case were taken in to consideration by the Commission.

7. The Commission convened the State Advisory Committee (SAC) meeting on 20.02.2018 at 10.30 AM in the Conference Hall of the OERC on Bulk Supply Price proposal of the licensee for FY 2018-19. The Members of the SAC, Special Invitees, the Representative of Department of Energy, Govt. of Odisha actively participated in the discussion and offered their valuable suggestions and views on the matter for consideration of the Commission.

PROPOSAL OF GRIDCO ON ARR AND BULK SUPPLY PRICE (BSP) FOR THE FY 2018-19 (Para 8 to 24)

8. According to the applicant, GRIDCO Limited (hereinafter called as GRIDCO) is a Deemed Trading Licensee under the 5th Proviso to Section 14 of the Electricity Act, 2003 and carries out the business of Bulk Supply of electricity to the four Electricity Distribution & Supply Utilities (hereinafter called as 'DISCOMs') in the State of Odisha by utilizing the transmission network of OPTCL, the State Transmission Utility (STU) and others. 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. Accordingly, GRIDCO continues to procure

power from various generators located inside Odisha and the State share from central generators for supply the same to DISCOM Utilities. Under the existing Bulk Supply Agreements between the DISCOM Utilities and the GRIDCO, the DISCOM Utilities are required to purchase power from GRIDCO at a regulated price to be determined and approved by the Commission. The Commission is empowered under the Electricity Act, 2003 to determine the procurement price of power of the DISCOM Utilities. This procurement price incidentally happens to be the Bulk Supply Price at which GRIDCO supplies power to the DISCOM Utilities. Moreover, GRIDCO also supplies emergency power to the Captive Generating Plants (CGPs) and trades the surplus power available, if any, from time to time. Thus, as a statutory requirement, as provided in the OERC (Conduct of Business) Regulations, 2004 and other related Regulations and as per Section 86 (1) (a) & (b) and other applicable provisions of the Electricity Act, 2003, GRIDCO is required to submit its Aggregate Revenue Requirement (ARR) before OERC for determination of the procurement price of the DISCOM Utilities. In this above backdrop, GRIDCO has filed an application for approval of its proposed Aggregate Revenue Requirement and revision of Bulk Supply Price for the FY 2018-19 to enable it to carry out its functions of bulk supply to DISCOM Utilities and emergency supply to CGPs.

Projection of Demand and Energy

9. The Simultaneous Maximum Demand (SMD) of DISCOM Utilities for the FY 2018-19 has been projected at 4996 MVA per month and is on the higher side because of the “Saubhagya Scheme” of the Centre, under which it is planned to supply power to each household in the State. GRIDCO has projected 26566 MU as energy requirement for FY 2018-19, consisting of 26561 MU for the energy consumption of DISCOM Utilities and 5 MU for Emergency Power Supply to Captive Generating Plants (CGPs) like NALCO and IMFA.

Power procurement projected by GRIDCO

10. GRIDCO has projected procurement of energy to the tune of 27,458.40 MU considering energy demand of 26566 MU and transmission loss of 892.40 MU @ 3.25%.

Table -1**Demand and energy projection of GRIDCO for FY 2018-19**

Particulars	Projection for FY 2018-19
SMD for DISCOM Utilities (MVA per month)	4996
Energy Demand of DISCOM Utilities (MU)	26561.00
Emergency Power to CGPs (MU)	5.00
Transmission Loss @ 3.25% (MU)	892.40
Energy Required to be purchased by GRIDCO to meet the power demand of DISCOM Utilities & CGPs (MU)	27458.40
Available Energy (MU)	27458.40

Power Purchase Cost Projected for FY 2018-19

11. The detailed cost of power purchase as furnished by GRIDCO for FY 2018-19 is reproduced hereunder in Table below.

Table -2**Summary of Proposed Power Procurement Cost during FY 2018-19**

Stations	Availability (After Transformation Loss and Auxiliary Consumption) (MU)	Rate (P/U)	Total cost (Rs.Cr.)
HHEP	661.55	150.23	99.38
CHEP	309.87	85.31	26.44
Rengali	759.33	82.96	62.99
Upper Kolab	754.38	62.99	47.52
Balimela	1175.13	84.36	99.13
OHPC(Old)	3660.26	91.65	335.47
Indravati	1943.37	79.49	154.48
Sub-Total OHPC	5603.63	87.43	489.94
Machhkund	262.50	79.76	20.94
Total State Hydro	5866.13	87.09	510.88
OPGC	2913.49	230.11	670.43
TTPS	3376.07	318.37	1074.85
Small Hydro Renewable Energy	320.00	368.94	118.06
Biomass Energy (Shalivahan Energy Ltd.)	80.00	578.00	46.24
Biomass Energy (Octant Industries)	30.00	566.00	16.98
Wind Energy	22.00	353.00	7.77
Solar Energy	680.00	537.94	365.80
CGPs	0.00	275.00	0.00
Co-generation Plants	0.00	275.00	0.00
IPPs	4974.82	300.06	1492.74
Total State	18262.51	235.66	4303.75

Stations	Availability (After Transformation Loss and Auxiliary Consumption) (MU)	Rate (P/U)	Total cost (Rs.Cr.)
TSTPS Stg.-I	2229.92	326.46	727.97
TSTPS Stg.-II	1371.85	308.17	422.76
FSTPS-II&III	1552.63	422.68	656.26
FSTPS-III	622.30	494.72	307.86
KhSTPS Stg.-I	884.27	406.24	359.22
KhSTPS Stg.-II	271.69	396.29	107.67
Barh-STPS-II	1349.23	495.03	667.91
Total Central Thermal	8281.89	392.38	3249.66
Chukha	262.00	290.84	76.20
TALA	139.00	277.57	38.58
Teesta	513.00	292.88	150.25
Total Central Hydro	914.00	289.97	265.03
Total EREB	9195.89	382.20	3514.69
SOC & MOC Charges			2.20
GRAND TOTAL	27458.40	284.82	7820.65

Pass through of arrear dues paid / to be paid during FY 2018-19

12. GRIDCO proposes to consider pass through of expenses, already incurred or to be incurred in the ARR for the FY 2018-19. These expenses amount of Rs.293.71 Crore consisting of arrear of Rs.19 Crore in respect of TTPS for differential AFC for the period from October 2016 to March 2017, arrear of Rs. 94 Crore in respect of NTPC towards purchase of power from FSTPS-III for the period from April, 2017 to September, 2017, differential arrear of Rs. 171.33 Crore paid to M/s. GKEL-IPP for FY 2014-15, 2015-16 & 2016-17 and arrear of Rs.1.50 Crore towards reactive energy charges along with Transmission & Scheduling Charges of Rs.7.88 Crore paid for availing Solar Power from outside during FY 2016-17.

Special Appropriation for Loan and Interest towards Past Power Purchase Liabilities

13. GRIDCO has proposed the special appropriation of Rs. 832.04 Crore towards principal repayment of Bank and Inter Corporate Loans for recovery through the ARR and BSP for FY 2018-19 and proposed deferment of the balance amount of Rs. 1986.97 Crore related to repayment of Govt. dues and securitized dues payable to OHPC.

Interest, Financing and Other expenses

14. GRIDCO has proposed to incur about Rs.441.51 Crore during the FY 2018-19 towards expenses on account of Interest on Loans, Employees Cost, A&G Expenses, R&M, Depreciation etc. as shown in the table below.

Table -3

Interest, Financing & Other expenses for FY 2018-19 (Rs. Crore)

Particulars	GRIDCO proposal for FY 2018-19	
1. Interest & Financial Charges		417.28
2. Other Costs:		
a. Employee Cost	14.26	
b. A&G Cost	8.59	
c. Repair & Maintenance Cost	0.28	
	Sub-Total	23.13
3. Depreciation		1.10
	Total (1+2+3)	441.51

15. Proposed Interest and Financial Charges have been considered as Rs.417.28 Crore after considering deferment of interest of Rs. 106.05 Cr. payable to the State Govt. and interest of Rs. 49.52 Cr. on securitized dues payable to OHPC during FY 2018-19.
16. Proposed employees cost of Rs.14.26 Crore for FY 2018-19 has been computed considering an indexing factor of 2.57 hike in the Basic pay and Grade Pay as per the 7th Pay Commission recommendation as approved by the State Government.

Other Income / Miscellaneous Receipts

17. GRIDCO expects to earn an amount of Rs. 3.48 Crore during FY 2018-19 (at existing approved rate of 695 P/U) from the proposed emergency power sale of 5 MU to long term customers like NALCO and IMFA.

Receivable from DISCOM Utilities and other parties

18. DISCOM Utilities have defaulted in payment of Rs.2135.23 crore towards securitized dues (as on 31.03.2017), Rs.664.27 crore towards Year-end-Adjustment (YEA) Bills (FY 2007-08 to FY 2010-11) and Rs. 4182.42 crore towards BSP bills (upto September, 2017). Further, Rs.195.36 crore is outstanding against three erstwhile R-Infra managed DISCOM Utilities as on 31.03.2017 towards the dues of Rs.400.00 crore Bond.

Aggregate Revenue Requirement (ARR)

19. The proposal for Aggregate Revenue Requirement of GRIDCO for FY 2018-19 is summarized in the Table below.

Table -4

Proposed Aggregate Revenue Requirement of GRIDCO for FY 2018-19(Rs. Crore)

Particulars		GRIDCO Projection for FY 2018-19
Power Purchase cost		7820.65
Interest & Financing Charges		417.29
Employees Cost		14.26
A&G Expenses		8.59
R & M Expenses		0.28
Depreciation		1.10
Sub Total		8262.17
Proposed Pass Through Expenses		
• Arrear of TTPS (Differential AFC from Oct.'16 to Mar.'17)	19.00	293.71
• Arrear of NTPC (FSTPS-III) (Apr'17 to Sept'17)	94.00	
• Arrear of M/s. GKEL (FY 2014-15, 2015-16 & 2016-17)	171.33	
• STU & Scheduling Charges paid for availing Solar Power from outside during FY 2016-17	7.88	
• Arrear towards Reactive Energy Charges paid to ER Pool from Sept'17 to Oct.'2017	1.50	
Special Appropriation		
State Govt. Loans & Interest (Rs.182.61 Crore) (Deferred)		
NTPC-GoO Special Bonds & Interest (Rs.904.79 Crore)(Deferred)		
OHPC Securitized Dues & Interest (Rs.137.76 Crore) (Deferred)		
Repayment of Bank / Commercial Loans	832.03	
Sub Total :Special Appropriation		832.03
Gross Revenue Requirement		9387.91
Less: Miscellaneous Receipts from Emergency & Back-up Power Sale to NALCO & IMFA		3.48
Net Revenue Requirement to be recovered from DISCOM Utilities		9384.42

Proposed Revenue Earning at Existing BSP

20. GRIDCO estimates to earn revenue of Rs 7362.97 Crore during FY 2018-19 from the anticipated sale of 26561 MU to DISCOM Utilities at the existing BSP for 2017-18; the details of which is given in Table below.

Table -5
Expected Revenue for FY 2018-19 at Existing BSP for FY 2017-18

DISCOM Utilities	Energy (MU)	Existing BSP (P/U)	Amount (Rs. Crore)
CESU	9354.00	274	2562.40
NESCO	6307.00	301	1898.02
WESCO	7200.00	301	2166.85
SOUTHCO	3700.00	199	735.71
TOTAL	26561.00		7362.97

Excess / Deficit in the ARR for FY 2018-19

21. GRIDCO has proposed that it would suffer revenue deficit of **Rs.2021.46 Crore** considering the proposed net **ARR of Rs. 9384.42 Crore** and the revenue of **Rs.7362.97 Crore** to be earned from sale of the proposed energy of **26561 MU** to DISCOM Utilities during FY 2018-19 at the existing BSP for FY 2017-18; the details of which are shown in the Table below.

Table -6
Excess / Deficit on Revenue Requirement for FY 2018-19

ITEM	GRIDCO Projection for FY 2018-19 (Rs. Crore)
Total Revenue Requirement	9387.91
<i>Less:</i> Misc. Receipt from Emergency sale of Power to NALCO & IMFA	3.48
Net Revenue Requirement to be recovered from DISCOM Utilities	9384.42
Revenue Receipt from DISCOM Utilities at the existing BSP	7362.97
Gap i.e. Surplus / Deficit (-)	-2021.46

Proposal for Revision of Bulk Supply Price

22. In order to meet the estimated deficit of Rs. 2021.46 Crore, GRIDCO has prayed before the Commission for upward revision of Bulk Supply Price for the FY 2018-19. GRIDCO proposes to recover its estimated net Revenue Requirement of Rs. 9384.42 Crore from the DISCOM Utilities by way of two alternative methods i.e. either through existing single part BSP and levy of conditional demand charges or through two part BSP consisting of both energy charges and demand charges.

In the existing single part BSP method, GRIDCO proposes to recover the estimated Net Revenue Requirement of Rs.9384.42 crore from the DISCOM Utilities through

Energy Charge at the average BSP of 353.32 P/U and on levy of a conditional demand charge Rs. 250/KVA/Month only when their actual SMD in a month exceeds the permitted monthly SMD (110% of the approved SMD), to take care of monthly variations subject to Year-End Adjustment within the permitted annual SMD i.e. 110% of the approved annual SMD.

In the alternative method, GRIDCO proposes to recover the estimated Net Revenue Requirement of Rs.9384.42 crore from the DISCOM Utilities by recovering fixed cost through demand charges (Rs/kVA/Month) and variable cost through energy charges (P/U) as shown in the table below.

Table - 7
Proposed two part BSP (demand and energy charges) for FY 2018-19

Particulars	Unit	Fixed Cost	Variable Cost
Power purchase Cost	Rs. Crore	3499.54	4614.81
Finance Costs	Rs. Crore	1249.32	0.00
Misc. Costs	Rs. Crore	24.23	0.00
Less Misc. Receipts	Rs. Crore	0.00	-3.48
Total	Rs. Crore	4773.09	4611.33
Demand charges (related to fixed cost)	Rs/kVA/Month	955.38	
Energy charges (related to variable cost and energy sale to DISCOM Utilities of 26561 MU)	P/U		173.61

Summary of Tariff Filing for FY 2017-18

23. GRIDCO has prayed to the Commission to approve the following for FY 2018-19 and make the same effective from 1st April, 2018.
- i) The Pass Through amount of Rs.293.71 Crore as requested in the ARR application for FY 2018-19 and accordingly, approve the ARR and Bulk Supply Price (BSP) for FY 2018-19 as proposed.
 - ii) The proposed average Bulk Supply Price (BSP) @353.32 P/U to recover the net revenue requirement of Rs. 9384.42 Crore from the DISCOM Utilities.
 - iii) Demand Charges @Rs. 250/KVA/Month, when actual SMD exceeds the permitted monthly SMD.
 - iv) Charges for over-drawal of energy at a cost of highest OERC approved Power Purchases Rate fixed for a Station for FY 2018-19 to be recovered on monthly

basis subject to final adjustment at the end of the year 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;

- v) Any excess payment made by GRIDCO towards FPA for a particular / relevant month will be levied on DISCOM Utilities 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;
- vi) Rebate for Timely Payment:
- A rebate of 2%, in case the DISCOM Utilities make full payment of the current month's BSP dues within two working days (excluding holidays under NI Act) of serving of the BSP invoice by GRIDCO.
 - A rebate of 1%, in case DISCOM Utilities make payment of the current month's BSP dues in full within a period of 30 days of serving of the BSP invoice by GRIDCO.
 - A rebate of 2% on the amount of current month's BSP dues partly paid by the DISCOM Utilities within two working days (excluding holidays under NI Act) and 1% on the balance current BSP dues, if paid within a period of 30 days of serving of the BSP invoice by GRIDCO.
 - No rebate, if the DISCOM Utilities have not paid any amount of the current month's BSP dues within a period of 30 days of serving of the BSP invoice by GRIDCO.
- vii) Delayed Payment Surcharge @1.50% per month for the period of delay beyond 30 days from date of submission of bills.
- viii) 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.
- ix) To suitable frame and approve the Intra State UI / Deviation Settlement Mechanism & Rates 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 DISCOM Utilities.

24. During the hearing, the licensee-GRIDCO was allowed at the outset to give a power point presentation regarding its ARR and BSP application for the FY 2018-19. World Institute of Sustainable Energy (WISE), Pune appointed as consumer counsel put up certain queries and objections regarding ARR and BSP filing of GRIDCO. The objectors also made observations and suggestions regarding the submission of the licensee. Based on their nature and type, these objections/observations have been categorized broadly as indicated here under.

VIEWS OF THE OBJECTORS AND CONSUMER COUNSEL ON THE BULKSUPPLY PRICE PROPOSAL FOR FY 2018-19 (Para 25 to 82)

Consumer Counsel

25. Design of BSP for DISCOM Utilities has direct impact on consumer tariff; therefore, WISE, the Consumer Counsel has made the following observations on the ARR of GRIDCO for consideration of the Commission. WISE has stated to review the energy availability from all sources along with the power purchase arrears claimed by GRIDCO in respect of various power stations; not to consider the high cost power purchase from central thermal stations and finalise the procurement strictly based on merit order despatch principle; to review the energy procurement from renewable energy projects for meeting the RPO target set by the Commission; to review the transmission loss and transmission charges in case of central sector projects; to suitably determine the power procurement rates for IPPs; to verify the proposed pass through expenses & special appropriation and repayment of loans; not to allow interest on proposed new loan; and to verify the actual employee cost, R&M cost, A&G cost and trading income of GRIDCO.

Views of Objectors

Legal Issues:

26. GRIDCO is an Electricity Trader under Section 14(c) of EA, 2003 and is therefore entitled to 'Trading Margin'. Therefore, determination of ARR and BSP is not in accordance with the provisions of the Statute. The Commission may only determine a 'Trading Margin' without taking into account the past losses and interest liabilities.

27. GRIDCO should implement fair practices while proposing the ARR, considering the allowable trading margin and extra charges should not be passed to the consumers.

Availability of power

28. Projections of GRIDCO on availability from power from various sources need to be properly scrutinized. The Commission should examine the contradictory proposals of GRIDCO & OPTCL in procuring power for state use.
29. Power availability of OHPC may be considered based on the actual performance previous years.
30. GRIDCO should consider higher PLF of 90% for OPGC in its proposed procurement plan for FY 2018-19.
31. GRIDCO should collect details information of CGPs generating power in Odisha and plan for procurement of their surplus power. GRIDCO may be advised to procure maximum power available from the captive power plants in the state and then avail the allocation of Central Power Stations in merit order to meet the power requirement of the State Consumer.
32. Some Objectors stated that the Commission may scrutinize the projections given by GRIDCO regarding power availability from generating stations and CGPs in the state and also proposed procurement of high cost power from central sector stations. GRIDCO may be directed to purchase specified quantum of power from CGPs in Odisha at the rate approved by Commission, after looking into the present cost of generation.
33. GRIDCO should justify its action of not buying cheaper power from a state based CGPs and proposing to buy much costlier power from NTPC. GRIDCO may purchase costlier power from NTPC only in the event of facing power deficit and after having exhausted all other avenues such as hydro power, CGPs etc.
34. GRIDCO has proposed to source power from Barh-STPS I & II, which is costlier and not permitted earlier.
35. GRIDCO take up the matter with NTPC/NVVN with justification to bundle the solar power with cheaper thermal power.
36. GRIDCO ought to opt for more power banking arrangements with captive generators where the captive generators can bank surplus power with the GRIDCO and received

banked power when its own captive unit is producing less or no power. Power purchase from CGPs may lead to various economical and operational benefits and therefore, GRIDCO should be directed to procure cheaper, reliable power from CGPs.

37. GRIDCO proposed to procure power from 3 IPPs and excludes 2 IPPs (Ind-Barath and NBVL) indicating that GRIDCO has no intent to trade surplus power as generated in territory of Odisha. GRIDCO should maximize drawl from state IPPs and intimate why other IPPs have not yet generated power for meeting the state demand.
38. GRIDCO to furnish generation details on the date of declaration of COD of M/s Vedanta/Sterlite with confirmation letter from ERLDC/SLDC.
39. M/s. Vedanta Ltd has stated that due to force majeure like breach of ash pond and series of uncontrollable hurdles in power generation from Unit II, they have not been able to provide consistent supply to GRIDCO in the current financial year. However, they are committed to supply power to GRIDCO by procuring from IEX and other alternative sources including VL- CPP 1215 MW.
40. GRIDCO has a major stake in the renewable power generation programme of Odisha whereas OREDA is the nodal agency. OREDA has not been a party to these tariff proceedings. Moreover, GEDCOL is functioning under 100% stake of OHPC but its performance is very poor. In the above backdrop, the Commission to prevail over the above authorities so as to meet the target mentioned in RPO Policy of Govt of Odisha.
41. In the past, the Commission had directed GRIDCO to explore possibilities to purchase renewable power to meet RPO, as fixed by OERC. The Commission had also directed to encourage renewable power producers in order to reduce the burden on consumers of the state on account of RECs. But GRIDCO has failed to carry out above orders. The Commission may issue practice direction to harness RE generation in the state and bring about economical and social change in the power sector.
42. GRIDCO should also furnish details about RPO/SPO shortfall and action taken in this regard.
43. GRIDCO has to produce the list of IPPs/ Hydro / Mini Hydro power stations those are going to generate power during the FY 2018-19.
44. GRIDCO has proposed to procure only 26561 MU for FY 2018-19 which seems very less in the prevailing conditions, therefore GRIDCO should resubmit the proposal for

power purchase & trading in Odisha. Alternatively, the Commission may revise the power procurement proposal of GRIDCO for reliable power supply to the state consumers.

45. GRIDCO should segregate the transmission loss, power station-wise, for the interest of the state and the Commission may take necessary action for passing actual transmission loss after energy audit in the state transmission network.
46. Actions taken by GRIDCO for injection of power in W3 network for maximizing drawal of state entitlements & trading in appropriate forum along with decisions should be placed.

Power purchase cost

47. OHPC in its ARR application has projected for higher tariff than the tariff proposed by GRIDCO for OHPC power. GRIDCO should discuss with OHPC to reduce the price claimed in its ARR application for FY 2018-19.
48. The Commission may take into record the coal degradation order of MCL and determine the generation tariff of OPGC & other power procurement cost of GRIDCO for greater interest of state.
49. In the backdrop of grant of interim stay order over the application of CERC Tariff Regulations by Odisha High Court, GRIDCO cannot propose power purchase cost from Central Generating Stations (CGSs) based on the Regulations of CERC. The Commission may recalculate the power purchase cost per unit from TTPS-NTPC power station like previous years.
50. GRIDCO should not buy costlier power from NTPC and should surrender the State quota from Central Sector Projects. GRIDCO should submit the status of matter and action taken so far by GRIDCO and State Govt. for surrendering the allotted state quota from CGSs. The Commission may direct GRIDCO to buy cheaper power from IPPs, CGPs and power exchanges through open access instead of costlier power from the central sector.
51. Details of power procurement from NTPC stations located outside State and actions taken by GRIDCO to ascertain the estimated tariff from up-coming generating stations should be furnished.

52. GRIDCO should furnish details on payment of trading margin with PTC on the saleable power only from the SHEPs of OPCL and Meenakshi Power Ltd.
53. M/s. Vedanta Ltd. has requested the Commission to grant the provisional power procurement rate of 297 Paise/kWh for FY 2018-19 till the pronouncement of tariff order by the Commission in respect of M/s. Vedanta Ltd in case of 95/2013 and 38/2016.
54. M/s. Vedanta Ltd has requested to the Commission to increase its tariff on account of additional capital expenditure for installation of FGD system to comply with revised MOEF & CC Environment norms as per Environment (Protection) Amendment Rules, 2015 and to allow increment on coal cost as variable charge for the energy supplied to GRIDCO.
55. GRIDCO should be directed to go for effective calculation with efficient manner to achieve the power procurement cost as low as possible so that the final cost of power to consumers should be affordable.

Employees' cost

56. GRIDCO is to justify the claim of abnormal increase in employees' cost for the FY 2018-19 and to share details of their present staff and future employee projection for next 2 years.
57. GRIDCO is not functioning as a model employer and not deploying fair HR practices. GRIDCO should take steps in appointing full time heads and efficient staff to work more efficiently.

Depreciation, A&G and R&M Expenses

58. GRIDCO is to justify its claim of A&G, R&M and depreciation cost for FY 2018-19 and the reason for exceeding the approved A&G, without obtaining necessary approval of the Commission. GRIDCO has also to furnish a detailed statement on the book value of net worth and equity.

Loan / Pass through Expenses

59. The inefficiencies and non-performance of GRIDCO has led to huge deficits, which GRIDCO has proposed to manage through loans and submits to consider the same as a pass through in its ARR. The commission should not allow the loan component as pass through expenses.

60. The Govt of Odisha is the owner of GRIDCO and therefore any loss incurred by GRIDCO has to be borne by the State Govt. and no burden should be borne by the consumers of the state towards the loan availed by GRIDCO for its inefficiencies.
61. GRIDCO has to produce the details of per unit rate of power purchased from the central thermal and central hydro power stations per month since April'2017 to December'2017. The high cost power purchased by GRIDCO should not be allowed as it will be a burden on customers ultimately.

Revenue gap and BSP

62. GRIDCO has proposed an increase of 76.11 P/U as compared to previous year's BSP. This will lead to increase of 60-70 P/U in tariff to all categories of consumers. The Commission need to properly scrutinize the power procurement proposal of GRIDCO and disallow procurement of costlier energy from central sector stations.
63. Any increase in BSP will have direct bearing on retail supply tariff and the burden of the increase in BSP was loaded on EHT & HT consumers. The Commission may look into the increasing gap of RST & BSP every year.
64. The Commission may analyze and examine the new proposed method for determination of BSP i.e. 'Dual price' and see the feasibility of extending it to the entire state.
65. The Commission should verify, check and analyze the reason behind the downward trend of BSP proposal of GRIDCO for ensuing year FY 2018-19 as well as to consider new methods of BSP billing, keep a check on false corruption practices.

Other issues

66. GRIDCO should submit its audited balance sheet, business plans, performance related documents so that one can give comments on its truing up, determination of ARR and approval of BSP.
67. GRIDCO should submit detailed statements on procurement of power from CGPs along with energy bills served by CGPs and other renewable based power plants.
68. GRIDCO collects revenue at its own defined rate, as under injection charges, from CGPs who do not maintain scheduled delivery of power in order to allow commercial clearances to CGPs for open access power sale. The commission should check whether GRIDCO can collect the same without approval from the Commission.

69. GRIDCO also needs to submit details about the amount collected from individual CGPs and to state that if it is the part of ARR.
70. GRIDCO may be directed to have proper coordination & relation with all stakeholders as well as with the State Government, in particular Department of Energy, Irrigation and Power and Finance. Further, GRIDCO may discuss in multilateral fora for connectivity with Myanmar and Bangladesh ensuring cross border trading which may maximize IPP generations.
71. GRIDCO may be directed to get metering done at all the substations in order to keep track of losses at different transmission level.
72. GRIDCO should produce details for what steps it has taken to develop more solar and mini hydro power projects in state.
73. GRIDCO should produce MOU signed with IPPs who will be generating power from the year 2018-19 and should also produce the amount receivable from different DISCOMs till Dec'2017.
74. GRIDCO has to produce the details of Escrow relaxation to different DISCOMs month wise since 1st April 2015 to till January 2017.
75. GRIDCO should prepare a plan to reduce ATC loss up to 15% in each utility and should plan to purchase low cost power.
76. GRIDCO has to produce the details outstanding against different govt. consumers and private industries till 31st Dec 2017 along with action taken report.
77. GRIDCO should produce year wise status report of power trading to outside of the state since 2008-09 till date Dec 2017 month wise.
78. GRIDCO may explain the reason behind for not being able to trade surplus power available in state from IPPs and CPPs in the interest of the state.
79. The Commission should issue necessary directions to the licensees to discharge duties and responsibilities towards each other to avoid any allegation and cross allegation for the interest of the state.
80. GRIDCO may be directed to publish its Annual Accounts and the trued up orders on the website in order to maintain transparency while estimating tariff for the ensuing year on the interest of the consumers of the state.

81. Tariff determination should be necessarily guided by the Electricity Act'2003 stating Multi-Year Tariff (MYT) Principles in addition to the other guidelines to give an element of certainty and thereby re-implement MYT principle, that a mandate of ACT & Policies in determining tariff, charges, fees etc,
82. The Commission may look into the principles and rules behind implication of Rebate & DPS allowed / levied.

GRIDCO's RESPONSE TO THE OBJECTORS (Para 83 to 133)

83. In response to the views of the objectors on its application, GRIDCO had filed rejoinders as follows;

Legal issues

84. GRIDCO is a Deemed Trading Licensee under 5th Proviso to Section 14 of the Electricity Act, 2003. Further, being a wholly State owned Undertaking, GRIDCO is engaged in the business of purchase of electricity in bulk from various generators located in & outside Odisha and the State share of power from the Central Generators for supply in bulk to the four Electricity Distribution Utilities (hereinafter called as "DISCOM Utilities") in the State of Odisha. GRIDCO's legal existence and the nature of its business have been upheld by OERC in multiple occasions, particularly in the ARR & BSP Order for FY 2012-13 and subsequently thereafter. Therefore, the issue of trading margin for GRIDCO as raised by the objectors may not be considered.
85. Moreover, regarding applicability of Trading Margin of 4 P/U as raised by some objectors, GRIDCO has stated that it is relevant to Inter State Power Traders, hence not applicable to GRIDCO as the power trading by GRIDCO is Intra-State in nature. In fact, such status of GRIDCO has been upheld by the Hon'ble Supreme Court of India in Appeal No. 5722 of 2006 (Gajendra Haldea vrs. GRIDCO & Others).
86. Further, GRIDCO has stated that ARR & BSP order dated 18.03.2011 (2011-12) & dated 23.03.2012 (2012-13) of OERC has strongly recommended for continuance of GRIDCO as on essential entity in the Odisha power sector as it fulfils the public interest of the State.

Availability of power

87. Power purchase projection by GRIDCO is based upon projection made by the four DISCOM Utilities which also includes the proposed sales under the Saubhagya

Scheme and addition of the transmission loss of the Intra State Transmission System of OPTCL. GRIDCO can't alter the proposal made by the four DISCOM Utilities on its own. However, the quantum of power requirement for DISCOMs is to be decided by the Commission in the ARR & RST order and Transmission Loss to be approved for OPTCL.

88. GRIDCO is obliged to procure the contracted power from the generators as per the Power Purchase Agreements, Memorandum of Understanding (MOUs) and as per the allotment made from the Central Generating Stations from time to time based on Least Cost Combination of power purchase for supply to the DISCOM Utilities. GRIDCO has followed the Merit Order Principle whereby the power purchase costs are kept at minimum. Considering the above, GRIDCO has projected its quantum of power procurement from different sources for 2018-19 to meet the anticipated demand of the Long Term Customers like the DISCOM Utilities, M/s. IMFA and M/s. NALCO etc. under the following conditions;

- Anticipated generation from OHPC, OPGC and TTPS etc. has been taken as per the generation plan submitted by these generators and also in line the OERC (Generation Tariff) Regulations, 2014.
- Energy availability from the IPP has been considered based on the PPA and their actual generation and supply of power to GRIDCO during the current year. If at all the IPPs shall commence generation of power, then GRIDCO shall procure power from these IPPs as per the State entitlement and accordingly, the impact of procurement of such power requested to be considered in the Truing-up exercise.
- Normative Annual Plant Availability Factor (NAPAF) of 85% has been considered as per the CERC Regulations in respect of projection of power procurement from Central Generating Stations.

89. OHPC and OPGC have filed their ARR & Generation Tariff Application for FY 2017-18 for approval by the Commission. Whatever Energy and Tariff are approved by the Commission will be accepted by GRIDCO.

90. Surplus power from CGPs is not firm in nature; hence, GRIDCO has not proposed definite quantum of power to be procured from CGPs which is essentially meant for captive consumption. GRIDCO has been following Merit Order Power Procurement

as a matter of Policy in order to keep the procurement cost at the minimum. Accordingly, GRIDCO may resort to sourcing power from CGPs provided the economics of power procurement works out in GRIDCO's favour and also depending on the power supply & demand configurations of the State and the exigency conditions justifying such procurement from CGPs.

91. In addition, drawal of firm power from the Generators with whom PPAs have been signed, has to be sourced in order to economize the procurement cost; otherwise the liability of payment of fixed cost remains with GRIDCO irrespective of any energy drawal. The projected power procurement of about 27458 MU of energy during FY 2018-19 from such firm sources exceeds the required projected demand of the DISCOM Utilities for the consumption within the State and therefore, there is no room left for any procurement of infirm power from CGP Sources.
92. GRIDCO has also not completely ruled out outsourcing of power from CGPs etc., rather willing to purchase power from any source/s including the CGPs in emergency / force majeure conditions provided the economics of power procurement is worked out in GRIDCO's favour. Power procurement from CGPs is almost non-existent during FY 2017-18 and whatever little power is procured, has been only through inadvertent injections by the CGPs without any scheduling. Therefore, it may not be possible to furnish any energy bills / documents to this effect.
93. GRIDCO has been in the practice of procuring power through Power Exchanges including the IEX on "as and when required" basis when such procurement works out to be commercially more lucrative than the costly power from Central Sector Power Stations.
94. GRIDCO is procuring the available power from three IPPs out of five, which have come up in the State and is closely monitoring the progress of other IPPs. Despite GRIDCO's best efforts these IPPs did not supply the required quantum of power to GRIDCO. Therefore, relying on the power supply from IPPs for higher quantum may be paved to be dangerous.
95. M/s. Vedanta Ltd. (IPP) is obligated under the approved consolidated power purchase agreement to supply power to GRIDCO. During FY 2017-18, the supply has been quite abysmal, as most of the time the IPP Unit (#2) remained out of operation. The exact reason of outage of Unit#2 has not been officially communicated to GRIDCO

till date. Further, M/s. Vedanta Ltd had grossly failed to comply to the direction of the Commission at Para 35(c) of their order dated 27th January, 2016 in Case No.21 of 2015. The generation from the converted CGP units has been quite consistent and substantial which were exhausted / utilised for meeting the smelter load of VAL-SEZ. The entitlement of GRIDCO from M/s. Vedanta Ltd. is minimum 30% of energy sent out and the upper limit of entitled power of State depends upon generation from the IPP-Unit#2. But, it could be seen that in none of the month of FY 2016-17, M/s. Vedanta Ltd has generated full ex-bus capacity of Unit#2 (600MW), even normative generation could not be achieved at 85% PLF which works out to be 345 MU/month. Further, M/s. Vedanta Ltd ought to have supplied power from the converted CGP Units to GRIDCO to fulfil the conditions laid down in the said order. Similarly, actual power supply by M/s Vedanta Ltd. during the current FY 2017-18 (upto Nov'2017) is only 646.22 MU against GRIDCO's entitlement of 1900.50 MU. Thus, for meeting the real time demand of the State, GRIDCO had to resort on other sources of power to meet the gap in power availability created by non-supply of entitled power by the IPPs, specifically M/s. Vedanta Ltd.

96. The availability of Renewable energy is a constraint; however, GRIDCO is committed to procure as much renewable energy as possible subject to their availability to meet the RPO target. GRIDCO has been complying to the State Designated Renewable Energy Agency, OREDA with regard to periodic compliances on Renewable energy. RPO compliance status of GRIDCO from FY 2015 -16 onwards is given below.

Table-8
RPO compliance status of GRIDCO

Period	RPO target in MU	RPO (MU) met by GRIDCO	Shortfall in MU	Capacity required in MW
2015-16 (from Sept' 15 onwards)	415.59	242.12	173.47	100
2016-17	1059.39	528.88	530.51	200
2017-18 (up to Nov' 17)	1104.75	440.87	663.88	300

97. GRIDCO has already fulfilled the Solar RPO and the Solar backlog up to FY 2015 – 16 specified by OERC from the surplus quantum procured. GRIDCO is buying Solar power of 138 MW at present from the projects within the State and also from outside the State through MNRE Schemes and State schemes. Also 270 MW Solar capacities

through SECI VGF Scheme will be commissioned in the State in FY 2017 -18. Due to delayed commissioning of the several non-Solar Projects and non- implementation of the 6 nos. of SHEPs and 8 nos. of Biomass projects with whom GRIDCO had executed PPA in 2006 & 2010 respectively, the specified non-Solar RPO could not be met. Due to this fact, the Commission was kind enough to carry forward the RPO target of FY 2011 -12 & FY 2012 -13 to FY 2013 -14& FY 2014 -15, respectively. The prayer of GRIDCO to carry forward the non-complied RPO target of FY 2015 - 16 is pending before the Commission. To fulfil the RPO target, GRIDCO has planned for Solar capacity addition of around 2200 MW and non- Solar capacity addition of around 550 MW by FY 2019 -20 as per the Odisha RE Policy notified in November 2016. However, it is proposed to procure renewable power amounting 248.50 MW from various Non-Solar sources in and around FY 2018-19, which includes 71 MW from 5 nos. of SHEPs, 16 MW from Biomass Projects, 150 MW from wind and 11.5 MW from MSW waste to energy project.

98. OERC in their Order dated 19.05.2011 in Case nos. 17 & 24 of 2011 has clarified that 12 % free power is not applicable to the SHEPs of M/s OPCL & M/s Meenakshi Power Ltd. as the entire generation is utilised in the State only. So in this case saleable power is 100 % where PTC is taking the trading margin on account of the 3 nos. of SHEPs of M/s OPCL & M/s Meenakshi Power Ltd.
99. GRIDCO welcomes the views of maximizing the procurement of low cost power from all available sources and to trade the surplus power to earn additional revenue, subject to availability of such power. GRIDCO, while undertaking the Power Trading Activities, utilizes the suggestions / recommendations made in the Electricity Demand Forecasting and Development of Power Trading Strategy”Report wherever feasible and also exercises prudence / judgement in order to avoid / minimize the physical and financial risks associated with Power Trading Activity.
100. Purchase / Sale of power should be made through Power Exchange(s) to return the banked power received through Power Banking may not hold good because return of power of any fixed quantum over the required agreed period may not be available through Power Exchange(s) at favorable price as well as quantity.

Power purchase cost

101. The fact that GRIDCO overcharges the rate of power procurement from different Stations / sources, is not correct since the Commission is going to approve the related costs, only after due scrutiny and exercise of prudence.
102. GRIDCO, as far as possible, adopts the Merit Order Power Procurement Principle coupled with sourcing the low cost power in order to ensure low power tariff for the State consumers. Besides, GRIDCO also undertakes trading of surplus power as and when available in order to maximize surplus earning to help in reducing the burden of power tariff on the consumers of the State. However, due to depressed power market during recent times, the scope for earning any surplus revenue through power trading has been limited to a considerable extent. Nevertheless, GRIDCO is hopeful that with the State share of additional power flowing into GRIDCO's basket in future, Odisha Power Sector will turn around for better.
103. The suggestion to keep the power purchase rate below the Solar Energy Rate of SECI may not be practically possible as tariff in respect of the power stations are determined by the Commission based on the relevant principles and regulations in place.
104. OHPC and OPGC have filed their applications before the Commission for determination of tariff for FY 2018-19. The ARR & Tariff Applications of OHPC and OPGC for FY 2018-19 will be subjected to the regulatory scrutiny and approval through a due process of Public Hearing. GRIDCO will only pay them at the tariff approved by the Commission and not as per their projected tariff.
105. All the stake holders including GRIDCO and Govt. of Odisha have raised the issue of supply of low GCV coal in comparison to corresponding grade of coal in different forums. Because of the joint initiatives of stake holders, MCL vide Notification dated 7th April'2017 has revised the grade of Coal w.e.f 1st April'2017. The determination of GCV on 'as received' basis has been challenged by GRIDCO in Appellate Tribunal for Electricity (ATE). Further, GRIDCO has also been impleaded in another related writ petition filed by NTPC at Delhi High Court. GRIDCO has also challenged CERC order dated 25.01.2016 in Petition No 283/GT/2014 before ATE.
106. GRIDCO is bound by various legal covenants (like Long Term Power Purchase Agreements – PPAs) to purchase power from the entitled sources. However, GRIDCO

along with the Government of Odisha, has been following up with the Centre since 2012, for de-allocation of high cost NTPC-Barh-Power; but till date due to non-availability of any prospective buyer(s) for diversion of Odisha share of power from Barh Station to any other willing States. However, it is a matter of relief that persistent efforts by the State Government and GRIDCO resulted in de-allocation of Odisha share of 155 MW of costly thermal power from New Nabi Nagar Thermal Power Station of NTPC and re-allocation of the same in favour of Uttar Pradesh w.e.f. 07.01.2016.

107. However, GRIDCO has considered purchasing power from Barh-II under the scenario of reduction of variable cost due to use of leakage coal by Barh STPS and projection of less quantum of IPP power. GRIDCO, as a first measure to reduce the power purchase cost, has always been trying to surrender the schedule power from Barh STPS, but in case of forced scheduling under minimum technical generation, GRIDCO has no other option but to avail & utilize the power inside the State including under the conditions of less State Hydro Generation. In fact, GRIDCO had to pay for all the dues including the energy charges and fixed charges as a beneficiary as per the PPA and the relevant Rules in force.
108. With regard to the impact of PoC, GRIDCO is raising the issue in various relevant Forums in order to upkeep the interest of the State prior to finalization of various Transmission Projects. Such views / suggestions of GRIDCO are given due weightage. In so far as the burden of transmission charges are concerned, it is increasing in course of time because of consideration of System Stability, Reliability due to N-1 & N-2 criteria.
109. In respect of short supply by M/s Vedanta, as agreed in the Minutes of Meeting dated 1st Nov, 2016, it is supposed to compensate at highest ISGS rate for the shortfall quantum of power. However, in spite of raising debit notes, M/s. Vedanta Ltd is yet to make any payment in this regard. M/s. Vedanta Ltd is neither honouring the Commission's order nor the agreed terms of the Minutes of Meeting. Whereas, the effort made to supply power from other sources has neither been significant in quantum nor consistent.
110. M/s. Vedanta Ltd for the first time is submitting various expenditures to be incurred towards compliances of environment norms, installation of FGD installation, which

are capital in nature can be considered duly in the truing up exercise subject to submission of all supporting documents along with sufficient justifications. Moreover, M/s. Vedanta Ltd did not file any such matters/issues in the tariff petition No. 95 of 2013 pertaining to the control period 2014-19. Therefore, these matters may not be considered along with the ARR application of GRIDCO for FY2018-19.

111. The Commission may direct M/s. Vedanta Ltd to furnish consolidated statement of details of coal procured from MCL as per the Fuel Supply Agreement but not used for generation of power from its IPP Unit during FY2017-18. Generation from the IPP Unit (#2) is either abysmal or nil since May-2017. Above all, the Commission may direct M/s. Vedanta Ltd for firm commitment of supply of State entitlement of power to GRIDCO, as per its assurance given in its application for conversion of its IPP Units to CGPs.
112. Present power market (Power Exchanges) is extremely subdued where both low volumes and low prices are order of the day which leaves very little room for GRIDCO to earn any surplus revenue from Power Trading.

Employee cost

113. The Accounts of GRIDCO including the expenses towards Employees Cost are being audited as per the statutory provisions of the Companies Act. The details of projection of GRIDCO towards Employees Cost is in consideration of an Indexing factor of 2.57 times hike in the basic pay and grade pay as per the 7th Pay Commission Report which has already been implemented by the State Government.

A&G, R&M and depreciation

114. The projected A&G expenses of about Rs. 8.59 Crore, which includes terminal benefits etc., are minimal forming 0.095% of its ARR and so, A&G expenses are minimum by any standards.
115. Proposed R&M Expenses are based on realistic assessments and hence, may be approved by the Commission.
116. GRIDCO deserves to get Return on Equity @16% on its paid-up Equity as per the relevant Regulations in place like any other Utility. Allowance of RoE is very important as it will enable GRIDCO to service the huge loan liabilities in absence of any depreciation (as GRIDCO does not have any assets) which otherwise would have

helped it to service the loan liabilities from the depreciation cost; which is a pseudo non-cash expenditure and such benefits are enjoyed by any other Utility / Licensee in the State Power Sector.

Loan / pass through expenses

117. Due to default on the part of DISCOMS to pay the BSP dues in time along with previous outstanding, the working capital requirement of GRIDCO increases as result of which GRIDCO is compelled to avail loan from various Banks/FIs.
118. GRIDCO may be allowed recovery of its legitimate dues including past loans and dues as the same have been incurred and the power sourced by GRIDCO has been consumed in the State. GRIDCO is an Organization manned by a handful of employees where the entire expenses of Rs.24.23 Crore (excluding Power Purchase cost, loan & Interest expenses etc.) which is only a fraction of 0.26% of its proposed ARR. The un-controllable proposed Power Purchase Cost and allied costs including Pass Through expenses and Interest pay-out is more than 90% of the proposed net ARR for FY 2018-19 which in all fairness, should be allowed to GRIDCO.

Revenue gap and BSP

119. The approval and fixation of average Bulk Supply Price (BSP) of GRIDCO and the recovery of BSP are decided by the Commission based on the relevant Principles & Provisions under the Act and Regulations framed there under along with the prudence exercised by the Commission and it is decided independently through a consultative as well as public hearing.
120. BSP proposals of GRIDCO has never been high. Rather the approved ARR always been inadequate to take care of the Aggregate Revenue Requirement of GRIDCO. In fact, the Commission has been leaving uncovered revenue gaps / Revenue Deficits while approving the ARR & BSP of GRIDCO over the years. Further, the approved BSP also falls short of the requirement for which GRIDCO has been experiencing revenue deficits and therefore, borrowing year after year in order to recoup the shortfall in revenue.

Other issues

121. GRIDCO, as the bulk supply is always in co-ordination with all the power generators from whom power is being sourced, the System operator i.e. SLDC, the Transmission

Utilities and the DISCOM Utilities. With formation of the National Grid and maintenance of desirable frequency band to ensure Grid stability, the power supply is being monitored on real-time basis. GRIDCO, as a responsible Stake-holder, has been performing its duty diligently so as to maximize economic energy drawal for the State in due co-ordination and consultation with all other stakeholders connected with the Odisha Power Sector.

122. Truing Up exercise is a continuous process which has already been carried out up to FY 2014-15 based on the audited accounts. The audited accounts for FY 2015-16 have already been submitted before OERC to facilitate the Truing Up exercise for FY 2015-16. However, the audit of accounts for FY 2016-17 is completed but the report of C&AG is awaited. On receipt of report from C&AG and after approval of the Board of Directors and AGM, the same will be submitted before the Commission for Truing-Up exercise. In absence of audited accounts, the authenticated un-audited account was submitted in compliance to OERC queries.
123. The issue of Business Plan of GRIDCO has been discussed in the past, but consciously could not be taken up further considering the fact that GRIDCO is an Aggregator with its role as State Designated Entity to facilitate power procurement on behalf of the DISCOMs in the State. Thus, GRIDCO to have a separate Business Plan of its own will be self-inflicting in nature and therefore has been shelved in the greater interest of the public of the State.
124. GRIDCO being a Govt. owned undertaking, the Statutory Auditor is appointed by C&AG for conducting Statutory Audit. The Internal Auditor is appointed with the approval of Audit Committee. The fees of Internal Auditors are decided commensurate to the scope of work by the Audit Committee.
125. GRIDCO follows 3T policy of the Govt. in true letter and spirit. Had this not been in practice, GRIDCO with skeleton staff could not have been managed the responsibility of power supply business of the state valued at around about Rs.9,000 Crore. The transparency in the power sector is obvious due to the fact that the sector operates under regulated regime where the public is part of the process and also stakeholders.
126. The main problem occurs at the distribution level where the distribution companies fail in their duties to pay for the power purchased from GRIDCO, while GRIDCO is obliged to pay to the generator in full in time or else the state is liable to come under

power regulation. Even, though the DISCOM Utilities owed about Rs 3,000Crore of BSP outstanding payable to GRIDCO, GRIDCO has been continuously supplying power to the DISCOM Utilities by absorbing the financial burden itself. Accordingly, GRIDCO takes care of the public interest without any harmful negative impact of power regulation.

127. An amount of Rs 6624.23 Crore is receivable from four DISCOMs on different head of accounts (taking into Nov'2017 BSP and payment up to 25th Jan'2018) as detailed in the table below. To ensure the recovery of dues of GRIDCO, the revenue of DISCOMs are Escrowed with Union Bank of India. As DISCOM's performance is not satisfactory, sufficient fund are not flowing into Escrow account for realization of outstanding dues of GRIDCO. However, DISCOMs performance is being monitored at different level to improve their operational and commercial efficiency and improve flow of funds.

Table-9
Receivables from four DISCOMs by GRIDCO

Particulars	WESCO	NESCO	SOUTHCO	CESU	Total
BSP dues	1198.18	694.16	546.49	564.08	3002.91
SLDC UI	306.64	177.32	77.13	388.04	949.13
Securitized dues	294.70	303.37	259.98	1277.18	2135.23
Rs.400 Cr NTPC Bond	--	48.91	146.45	--	195.36
Transfer scheme receivable	12.10	6.74	29.91	118.85	167.60
Cash support	--	--	--	174.00	174.00
Total	1811.61	1230.50	1059.96	2522.15	6624.23

128. Because of huge outstanding of DISCOMs, they are not entitled to draw any amount for the employee cost and R&M cost from the ESCROW account. To avoid labour unrest, disruption in power supply and overall interest of the State Power Sector, GRIDCO is allowing Escrow Relaxation for employee cost and limited amount towards R&M expenses. GRIDCO is allowing rebate and levying DPS on DISCOM Utilities in accordance to the directions of the Commission in different orders.
129. CMD, GRIDCO is the Administrator of WESCO Utility, NESCO Utility & SOUTHCO Utilities and also acting as the Chairman of CESU Board. At Government level, number of initiatives are under implementation to improve the operational as

well as commercial efficiency of DISCOM Utilities in long run. Government of Odisha is going to sign an agreement with four DISCOM Utilities under UDAY Scheme for improvement of operational efficiency. Under the UDAY Scheme detailed benchmark operational parameters have been fixed in order to bring down the AT&C loss to the benchmark level. Government of Odisha/GRIDCO will monitor each operational parameter regularly.

130. The year-wise status of Power Trading undertaken by GRIDCO from FY 2008-09 to FY 2017-18 (Up to Decemehr'17) is furnished in the table below.

Table-10
Power Trading by GRIDCO from FY 2008-09 to FY 2017-18 (April-Dec.'17)
(Provisional)

Year ⇔	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18 (Apr'17-Dec.'17)
Energy (MU)	34.88	0.90	64.20	40.33	810.68	1565.42	974.71	384.74	321.10	187.59
Power Trading (Rs. Crore)	24.43	0.79	32.05	15.82	414.59	664.60	448.107	155.11	89.33	44.57

131. In addition to “Technical Clearance” from OPTCL, SLDC, “Commercial Clearance” from GRIDCO (the State Designated Utility authorized by the State Government for purchase of power from all sources and receive the State’s Central Sector share) also required for the following reasons:-

- a. As per the mechanism of power flow through open access by any embedded entity of the State, the quantum of power scheduled through open access is being deducted from GRIDCO’s share of Central Sector schedule and that quantum is being scheduled to the State where the buyer is located, even if there is less or no injection by the injecting utility (Open Access Customer or Generator. To address this type of situation, GRIDCO has to either purchase power from other sources to meet the State’s requirement or overdraw from the Grid by paying deviation charges, which cause an additional financial burden.
- b. Since the Open Access seller is responsible for the financial loss, GRIDCO has adopted a compensatory mechanism between the Open Access seller (Generator) & GRIDCO.

- c. Had there been Intra State ABT implemented in complete shape in the State (it is implemented only between GRIDCO & DISCOMs.), the Open Access customer would have been levied deviation charges for any deviation of injection / drawal from the schedule.
- d. The inter-state and intra-state deviations can't be equated as a zero sum mechanism, due to the capping arrangement adopted in the CERC DSM Regulations. So, to protect the interest of the consumer of the state, GRIDCO is asking for compensation from the CGPs towards under injection during Open Access at the rate of "BSP rate+ Re.1/-" or "DSM rate (including Add. Charge)+ Re.1/- " which- ever is higher. The CGPs, going for Open Access have already accepted the terms and conditions issued by GRIDCO towards under injection by them during Open Access transaction.

As such, a clearance from GRIDCO is being asked for selling of power by CGPs to ensure the existence of compensatory arrangement as described above so that the State Consumers are not penalized through penalty imposed on GRIDCO due to under injection by CGPs during open access transaction.

- 132. GRIDCO being a Bulk Purchaser of power from various generators and an Intermediary Bulk Supplier of power to the four DISCOM Utilities in the State, there does not remain enough scope with GRIDCO to take steps for energy conservation. However, Energy Conservation is an effective tool can be best practised in the retail segment by the DISCOM Utilities and also within the domain of the Generators.
- 133. Inter-State Transmission Systems / Networks are established in the National level basing on the deliberation made in the Standing Committee Meeting at Regional level (started recently) & subsequent approval in the Standing Committee on Power System Planning, conducted by the Central Electricity Authority. The consideration, in this regard, is significantly based on strengthening of the system/evacuation of power and removal of congestion as a whole.

COMMISSION'S OBSERVATIONS & ANALYSIS OF GRIDCO'S PROPOSAL (Para -134 to 321)

Legal Status of GRIDCO

- 134. The legal status of GRIDCO has been clarified by the Commission in its ARR and BSP order for FY 2011-12 and 2012-13 vide orders dtd.18.03.2011 and 23.03.2012

respectively. That GRIDCO is a valid legal entity has also been upheld by the Hon'ble Supreme Court of India in Civil Appeal No. 5722 of 2006 (Gajendra Haldia Vrs. GRIDCO and Others). GRIDCO, by acting as a Single Buyer State designated entity, has been ensuring supply of cheap and quality power to the DISCOM Utilities which ultimately protects the interest of the consumers. It acts as a shock absorber and protects DISCOM Utilities from possible Power Regulation by the Generator(s) due to any immediate cash-flow problem. Therefore, the Commission has appropriately recognized GRIDCO as a "Deemed Trading Licensee". Under such circumstances we view that trading margin is not applicable to GRIDCO which sells power to the DISCOM Utilities inside the State of Odisha by procuring power on payment of the power purchase cost to all the suppliers. The Commission notes the concerns of the objectors and exercises due prudence in allowing ARR to the entity as applicable in similarly place situations.

135. On detailed scrutiny and examination of the Aggregate Revenue Requirement and Bulk Supply Price Application of GRIDCO for FY 2018-19 and subsequent rejoinders filed by them, the written and oral submissions of the objectors, the Commission now decides as follows.

Principle followed for approval of ARR for FY 2018-19

136. The Commission, for determination and approval of the ARR of GRIDCO for FY 2018-19, continues to follow the same principles as in the previous year along with the principles laid down in its terms and conditions for determination of tariff and continues to be guided by the provisions of the Tariff Policy as well as other statutory notifications and directives, while giving due considerations to the complexities of the Odisha Power Sector.
137. Tariff determination involves adoption of various assumptions and principles to arrive at the individual ARR components for the next financial year and hence, is in the nature of reasonable and prudent estimation. The actual turn of events may be different and this will be considered in the truing-up exercise. The Commission, as in the previous years, has continued to determine the ARR for the FY 2018-19 using the following principles.
138. The cost of power purchase for GRIDCO, which constitutes about 94% of the total cost structure, has been considered on a merit-order basis, with state hydro generation

as per design energy and state thermal generation being computed based on the generation plan submitted by OPGC and the cost being considered as per norms of OERC Regulations. Availability from the Eastern Region CGSs has been considered as per the allocation of shares in these stations and the applicable CERC tariff. The drawal from IPPs, CGPs, Cogeneration Plants and energy from renewable sources have been considered based on the proposal of GRIDCO, the requirement of the state and legal obligations.

139. All the liabilities of the DISCOM Utilities payable to GRIDCO are in a back-to-back arrangement with various lenders, financial institutions and GRIDCO continues to service these liabilities, even though the DISCOM Utilities have not been able to meet their payment obligations to GRIDCO in full and in time during the previous years. The servicing cost (corresponding interest charges on these liabilities) appropriately pruned in circumstances forms a part of the BSP and is being paid by GRIDCO.
140. Following the separation of the transmission business and given to OPTCL along with related assets, liabilities and personnel w.e.f. 01.04.2005, GRIDCO does not possess any asset on its books. It continues, however, to carry the burden of past liabilities, accumulated over a period of time to service the operational losses and non-payment of dues by the DISCOM Utilities in time. The Commission has, over the last few years, recognized these liabilities to be serviced from the sector. GRIDCO also does not have the benefit of depreciation provisions to meet these debt obligations. Keeping in line with our earlier orders, to avoid a huge additional burden being passed on to the retail consumers, the Commission has provided for the servicing a substantial part of debt liabilities from the non-core activities of GRIDCO, namely earnings from export of power and un-scheduled interchange charges, after meeting the requirement of DISCOM Utilities.
141. The Commission has scrutinised in detail the energy requirement proposed by the DISCOM Utilities for FY 2018-19. Based on the energy availability, the Commission is of the view that after drawal of power from all state-owned generating stations both Thermal and Hydro, the state's share from central generating stations, and drawal from IPPs, Renewable and captive co-generation sources, some surplus energy will be available after meeting the State demand for FY 2018-19, which has been calculated on normative loss basis. The quantum of surplus energy may be increased /reduced

based on hydrology and/or projected drawal from IPPs and central sector, if not materialized as estimated for the ensuing year on normative basis.

Quantum of Power Purchase

142. GRIDCO as a deemed trading licensee procures power from the generating stations inside and outside the State to meet the requirements of the consumers of the State. The power purchased by GRIDCO is transmitted through the OPTCL system and supplied to the DISCOM Utilities.
143. GRIDCO Ltd. as well as DISCOM Utilities have submitted their ARR applications for FY 2018-19 to the Commission for approval. In their applications, the Distribution Companies have furnished projections for drawal of power from GRIDCO during FY 2018-19 and GRIDCO has projected the total power purchase to be made from the Generators after considering the requirement of distribution companies, emergency requirement of industries owning CGPs and the energy loss in OPTCL transmission system. The figures filed by GRIDCO and DISCOM Utilities in their ARR applications on quantum of energy drawl by DISCOM Utilities from GRIDCO are examined and estimated by the Commission based on the quantum of present drawl of power and expected additional load growth during FY 2018-19.
144. The quantum of power to be purchased by the four Distribution Utilities during the FY 2018-19 has been assessed and approved by the Commission while determining their Revenue Requirement and Tariff in Case Nos. 82/2017 (CESU), 79/2017 (NESCO), 80/2017 (WESCO) and 81/2017 (SOUTHCO), following the provisions in the existing Regulations. The Commission has approved the quantum of power to be purchased for the FY 2018-19 relating to CESU, NESCO, WESCO and SOUTHCO as 9070 MU, 6140 MU, 7120 MU and 3660 MU respectively adding up to 25990 MU.
145. The Commission has approved 3% transmission loss in the OPTCL system for the FY 2018-19 and has provided the same in the OPTCL tariff order for the FY 2018-19 passed in Case no 77 of 2017.
146. Having determined the quantum of power purchase for the DISCOM Utilities, the Commission has estimated the quantum of energy lost on account of transmission at EHT within the State for delivery to the DISCOM Utilities. The Commission has taken into account the sale of emergency power to CGPs and approves the same at 10

MU for 2018-19 after considering the submission of GRIDCO vis-a-vis actual drawal of CGPs during the first six months of the current FY 2017-18. The details on the estimated requirement of power purchase for use within the State is indicated in the table below:

Table –11
Purchase of Power by GRIDCO for State Use for FY 2018-19
(In MU)

Name of the DISCOMs	Commission's Approval for FY 2017-18	GRIDCO's Proposal in ARR for FY 2018-19	Commission's Approval for FY 2018-19
CESU	8850.00	9354.00	9070.00
NESCO	5680.00	6307.00	6140.00
WESCO	7090.00	7200.00	7120.00
SOUTHCO	3520.00	3700.00	3660.00
TOTAL DISCOMs	25140.00	26561.00	25990.00
CGP	5.00	5.00	10.00
TOTAL SALE	25145.00	26566.00	26000.00
Transmission loss at EHT in MU (DISCOMs Purchase only)	906.63 (@ 3.50% Transmission loss)	892.40 (@ 3.25% Transmission loss)	803.81 (@ 3.00% Transmission loss)
Total Purchase	26051.63	27458.40	26803.81

147. The Commission has approved the energy drawal by the DISCOM Utilities for FY 2018-19 considering their present drawal pattern and the projections made by them for additional load growth. Hence there should not be any variations from the approved drawal. The DISCOM Utilities need to plan their drawal in consultation with GRIDCO keeping in view the deviation settlement mechanism and actual reduction in losses.

Simultaneous Maximum Demand (SMD) in MVA

148. GRIDCO in its filing has submitted that the projection of the SMD is taken by GRIDCO as the SMD projection (MVA/Month) for FY 2018-19. The total estimated SMD for the FY 2018-19 is derived as 4996 MVA per month through summation of the SMD projected by the four DISCOM Utilities i.e. (CESU-1896 MVA/month, WESCO-1350 MVA/month, NESCO-1100 MVA/month & SOUTHCO-650 MVA/month). The details of SMD approved by the Commission for FY 2017-18, highest actual SMD occurring during first 6-months of FY 2017-18 and the projection for FY 2018-19 are given below:

Table – 12
DISCOM-WISE Projection of SMD for FY 2018-19

DISCOM Utility	OERC approval for 2017-18	Highest SMD recorded during FY 2017-18 (Apr.'17 to Sept'17)	(MVA/Month)	
			DISCOMs Projection of SMD for FY 2018-19	GRIDCO's Projection of SMD of DISCOMs for FY 2018-19
CESU	1620.00	1487.11	1896	1896
NESCO	920.00	912.41	1100	1100
WESCO	1350.00	1204.05	1350	1350
SOUTHCO	590.00	587.36	650	650
TOTAL	4480.00	4190.94	4996	4996

149. However, GRIDCO has submitted that the SMDs projected for FY 2018-19 is shown on the higher side because of the “Saubhagya Scheme” of the Centre under which it is planned to supply power to each household in the State contributing to enhanced load growth during FY 2018-19. The Commission may suitably determine and approve the SMDs for each of the DISCOM Utilities for FY 2018-19 keeping in view their actual SMDs during FY 2018-19 and the likely load growth in the ensuing year.
150. The Commission observed that Bulk Supply Price (BSP) contains a component of demand charge which is calculated on the basis of average system demand of the distribution companies. In its ARR application, GRIDCO has considered the simultaneous maximum demand as furnished by DISCOM Utilities to GRIDCO. The Commission, from the RST application of DISCOM Utilities, observed their monthly demand for the period from April' 17 to Dec' 17 as given in the table below:

Table - 13
Demand in MVA during 2017-18 (Upto Dec' 17)

	CESU	NESCO	WESCO	SOUTHCO	ALL ODISHA
Apr-17	1444.00	860.37	1291.54	569.34	4165.25
May-17	1483.00	866.80	1239.96	579.06	4168.82
Jun-17	1487.00	814.45	1185.70	551.96	4039.11
Jul-17	1373.00	776.51	1513.66	587.36	4250.53
Aug-17	1373.00	813.97	1344.35	582.75	4114.07
Sep-17	1406.00	912.41	1780.35	562.17	4660.93
Oct-17	1366.00	868.71	1869.45	545.11	4649.27
Nov-17	1238.00	856.20	1642.29	555.63	4292.12
Dec-17	1182.00	706.10	1731.58	547.53	4167.21
Average (4/17 to 12/17)	1372.44	830.61	1510.98	564.55	4278.59

151. It is observed from the above table that the summation of demand has fluctuated from month to month and has reached a peak of 4660.93 MVA in the month of Sept, 2017. However, the sum of the maximum demand for each DISCOM Utilities comes to

4856.22 (CESU-1487.00+ NESCO-912.41 + WESCO-1869.45 + SOUTHCO-587.36) during the period from April to December, 2017.

152. The Commission analyzed the demand pattern of DISCOM Utilities during the current FY 2017-18 (upto December, 2017) and observed that the Average SMD of the DISCOM Utilities has reduced in case of CESU, NESCO and SOUTHCO Utilities and it has substantially increased in case of WESCO Utility, from the approved SMD for the FY 2017-18. After recasting the estimated requirement of power, it is observed that due to rural electrification and load growth, there is likely increase of additional requirement of about 1472.04 MU by the DISCOM Utilities during FY 2018-19. Thus, the matching MVA requirement is worked out to be 186.71 MVA. So, the Commission has estimated the Demand of the DISCOM Utilities for FY 2018-19 taking the maximum demand during April, 2017 to December, 2017 plus the estimated demand on account of additional load growth during FY 2018-19. Accordingly, the total estimated demand is 5042.94 MVA for all the DISCOM Utilities combined. However, the WESCO Utility has projected the SMD of 1350 MVA for the ensuing year 2018-19 considering the past record and additional load growth in their area of supply. Hence, the Commission while determining the SMD for DISCOM Utilities has limited the SMD of WESCO Utility at 1350 MVA. The details of estimation of SMD for the DISCOM Utilities are given in the table below:

Table - 14
Demand in MVA 2018-19

DISCOMs	OERC Approval for 2017-18	Proposal by DISCOMs for 2018-19	Proposal by GRIDCO for 2018-19	Average SMD during 4/17 to 12/17	Maximum SMD during 4/17 to 12/17	Additional Load growth as estimate -ed for 2018-19 (MU)	Additional load growth converted to MVA at 0.9 power factor	Maximum SMD during 4/17 to 12/17 + Additional load growth in MVA	OERC Approval for 2018-19
CESU	1620.00	1896.38	1896.00	1372.44	1487.00	727.49	92.27	1579.27	1580.00
NESCO	920.00	1000.00	1000.00	830.61	912.41	626.28	79.44	991.85	990.00
WESCO	1350.00	1350.00	1350.00	1510.98	1869.45	(-) 74.15	(-) 9.40	1860.05	1350.00
SOUTHCO	590.00	650.00	650.00	564.55	587.36	192.42	24.41	611.77	610.00
All Odisha	4480.00	4896.38	4896.00	4278.59	4856.23	1472.04	186.71	5042.94	4530.00

Note : For estimation purpose Diversity Factor is taken as unity.

153. Considering the SMD in different months of 2017-18 and the additional load projected by the DISCOM Utilities, the SMD for 2018-19 has been fixed at 4530

MVA, within which the DISCOM Utilities are likely to operate subject to an overdrawing of maximum 10% in a month.

Purchase of Power from Different Generating Stations

State Hydro

154. The details of energy available to GRIDCO from various power stations of OHPC have been dealt in Case No.74/2017 while determining the tariff and revenue requirement of OHPC, where the Commission has considered the existing design energy of OHPC power stations for the purpose. GRIDCO's proposal and Commission's approval on drawal of energy from OHPC stations for the FY 2018-19 are given in the table below.

**Table –15
Drawal from State Hydro Stations (in MU)**

Source of Generation	FY 2017-18	FY 2018-19	
	Commission's Approval	GRIDCO's Proposal	Commission's Approval
OHPC (Old Stations)	3676.86	3660.26	3676.86
Upper Indravati	1942.38	1943.37	1942.38
Machhkund	262.50	262.50	262.50
Total Hydro	5881.74	5866.13	5881.74

155. The design energy of Machhkund Power Station is 525 MU. Considering Odisha share of 50% towards energy drawal from this station, the Commission approves an availability of 262.50 MU from Machhkund. The Commission desires that the State should draw at least 50% of Machhkund generation every day in a planned and economical manner. GRIDCO/OPTCL and SOUTHCO should co-ordinate to maximise the drawal from Machhkund in consultation with Government of Odisha whenever necessary.

IB Thermal Power Station of OPGC

156. Orissa Power Generation Corporation (OPGC) owns IB Thermal Power Station at Banharpalli in Dist. Jharsuguda with an installed capacity of 2x210 MW at present. In its ARR application for FY 2018-19, GRIDCO has projected to draw the net energy of 2913.49 MU from OPGC based on the normative auxiliary energy consumption of 8.5% and PLF of 87.02%. However, OPGC has filed an application before the Commission for determination of generation tariff of its 2x210 MW Ib Thermal Power Station at Banharpalli, Jharsuguda for FY 2018-19 which has been registered in Case No.75 of 2017. The Commission, in its order passed in Case No.75 of 2017,

has considered net energy of 2912.82 MU for drawal by GRIDCO during the FY 2018-19 considering auxiliary consumption of 9% and PLF of 87% based on the provisions of OERC Generation Tariff Regulations, 2014. The same has been considered for determination of ARR and BSP of GRIDCO for FY 2018-19.

Talcher Thermal Power Station (TTPS)

157. Talcher Thermal Power Station having installed capacity of 460 MW is owned and operated by NTPC, but its generation is fully dedicated to the State. The net energy availability from TTPS has been projected at 3376.07 MU by GRIDCO considering PLF of 93.61% and Auxiliary Consumption of 10.50%. Based on the submission of GRIDCO, the Commission approves the net drawal of 3376.07 MU from TTPS for the FY 2018-19, taking into account the projected PLF of 93.61% and Auxiliary Consumption of 10.50%.

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

158. In its filing GRIDCO has proposed not to procure power from the CGPs and Co-generation Plants during the FY 2018-19 for State consumption. However, GRIDCO has submitted that procurement of power from CGP sources may be resorted to depending upon the relative economics and/or under exigencies/force majeure conditions. Many of the objectors stated that since the CGPs of our state are having adequate surplus capacity, GRIDCO should procure power from CGPs for state consumption in an economical rate decided by the Commission instead of procuring high cost power from Central Thermal Generating Stations. In a reply to the Commission's query GRIDCO has stated that in a power deficit situation during the current year, they have approached to CCPPO to make available their surplus power for state consumption. But the CCPPO opined that the CGPs in the state could supply only 100 MU of power in totality subject to fulfilment of mutually agreed terms. The mutually agreed terms as referred to by the CCPPO would pose difficulty to GRIDCO as far as the rates of procurement from CGPs are concerned and any higher rates of procurement from CGPs would prove to be un-economical for GRIDCO. On the issue of procurement of costly power from NTPC Thermal Plants, GRIDCO has stated during the hearing that it has to pay the fixed cost to the central thermal generating stations and their variable cost has come down as compared to the existing CGP price of 275 P/U. Hence, it may not be always economical to GRIDCO purchase CGP

power instead of purchasing power from central thermal stations. Further the available surplus power from CGPs is not firm in nature and also there is availability of State share of power from various existing and up-coming Power Plants in the State. In view of the above, GRIDCO has not proposed any definite quantum of power for procurement from CGPs / Co-Gen. Plants during FY 2018-19 for State consumption.

159. Considering the objections/suggestions of the objectors as well as the submissions of GRIDCO, the Commission observe that contribution of CGPs in industrial growth, maintaining voltage profile and meeting the shortages cannot be ignored. There is scope for drawal of power particularly when the marginal cost of such power is low compared to the IPPs. Hence, the Commission advise GRIDCO to purchase available surplus power from the CGPs and Co-generation plants for state consumption in case of excess state demand or shortfall in drawal from other sources as approved by Commission. Further, the Commission also directs GRIDCO to purchase the available surplus power from CGPs and Co-generation plants at a negotiable price for trading purposes after meeting the state demand subject to commercial viability.

Renewable Energy

Small Hydro Sources:

160. GRIDCO has proposed to procure 320 MU of renewable energy from small hydro sources that would be available to GRIDCO during FY 2018-19 as given in the table below.

Table – 16

Proposed Drawal from Small Hydro Sources for FY 2018-19

Sl. No.	Name of the SHEPs	Installed Capacity (MW)	Energy drawal during the 1st six months of 2017-18 (MU)	Proposed Energy procurement for FY 2018-19 (MU)
1.	Meenaskhi Small Hydro	37	127.62	220.00
2.	SAMAL Small Hydro	20	46.44	100.00
	Total		174.06	320.00

161. The Commission approves the above proposal of GRIDCO and allows GRIDCO to purchase 320 MU of renewable energy from these two SHEPs for consumption in the state during FY 2018-19.

Bio-mass Energy:

162. GRIDCO in its ARR application had proposed to purchase only 110 MU of renewable energy from biomass sources during the FY 2018-19 i.e. 80 MU from the 20 MW plant of M/s. Shalivahan Green Energy Ltd. and 30 MU from the 10 MW plant of M/s. Swarnajyothi Agrotech & Power Limited (formerly M/s. Octant Industries Limited), which is likely to be commissioned by August, 2018. In a reply to the Commission's query, GRIDCO has submitted that as per the latest status report of the 10 MW plant of M/s. Swarnajyothi Agrotech and Power Ltd., the developer is yet to get the balance financing to complete the project as their main lender Power Finance Corporation Limited did not release the same. They are arranging balance loan from other possible sources. As substantial investment has been made from the project the rest project work will be completed after arranging the balance loan amount. Hence, the developer has requested to extend the project commissioning period upto December, 2019.
163. Considering the above, the Commission observed that the 10 MW plant of M/s. Swarnajyothi Agrotech and Power Ltd. would not be commissioned during the FY 2018-19. Hence the Commission approves only 80 MU of biomass energy to be procured by GRIDCO from the 20 MW plant of M/s. Shalivahan Green Energy Ltd. during the FY 2018-19.

Wind Energy:

164. In its submission GRIDCO had stated that they have executed an agreement with PTC on 20.07.2017 to avail 50 MW wind power allotted through SECI under the "1000 MW ISTS connected wind power projects scheme" of MNRE, Govt. of India where CTU charges and losses are waived off for life time of the wind power plant. 50 MW wind power has been allocated to GRIDCO from M/s. Ostro Kutch Wind Pvt. Ltd. located in Kutch District of Gujarat at the applicable tariff of 353 p/Kwh, out of which 346 p/Kwh will be to the account of Wind Energy Developer and 7 p/Kwh is the trading margin to M/s. PTC India Ltd. GRIDCO is expected to procure 22 MU of wind power from this 50 MW wind capacity during the FY 2018-19 since the wind plant is scheduled to be commissioned during December, 2018 and operate with a PLF of 20% as per the agreement. The Commission approves the same and allows GRIDCO to procure the proposed 22 MU wind power during the FY 2018-19.

Solar Energy:

165. In its submission, GRIDCO has proposed to procure 680 MU of Solar Energy from the following sources during the FY 2018-19.
- (i) 13 MU from 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.
 - (ii) 34 MU from 20 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 quantum of thermal capacity from the unallocated quota of the NTPC Coal Based Stations available to GRIDCO.
 - (iii) 17 MU from 10 MW Solar capacity as per the PPA executed with NTPC on 26.04.2011 to procure Solar power from both 5 MW Dadri Solar PV project in U.P. and 5 MW Faridabad Solar PV Project in Haryana.
 - (iv) 8 MU from the 5 MW Solar PV Project developed by M/s. Alex Green Energy Ltd. under OREDA State Scheme at Patnagarh in Bolangir district.
 - (v) 42 MU from 25 MW Solar PV Project developed by M/s ACME Odisha Solar Power Pvt. Ltd. in Bolangir district under OREDA State Scheme Phase-II.
 - (vi) 116 MU from 70 MW Solar Capacity allocated to GRIDCO through SECI under Viability Gap Funding (VGF) Scheme under JNNSM Phase-II, Batch-1.
 - (vii) 450 MU from 270 MW capacity Solar PV Projects allocated to GRIDCO through SECI under Viability Gap Funding (VGF) Scheme under JNNSM Phase-II, Batch-IV.
166. GRIDCO has submitted that it is trying its best to explore the possibility 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. The proposal of GRIDCO for procuring solar energy during the FY 2018-19 is summarised in the Table below :

Table – 17
Drawal of Solar Power during FY 2018-19

Sl. No.	Solar RE Sources	Energy for procurement during FY 2018-19 (MU)
1.	8 Nos. of Solar PV projects of 1 MW each under RPSSGP	13.00
2.	20 MW Bundled Power from NVVN through 'New Projects scheme' under JNNISM, Phase-I	34.00
3.	10 MW through NTPC from Solar PV projects at Dadri & Faridabad of 5 MW each	17.00
4.	5 MW from M/s Alex Green Energy Ltd. under OREDA State Scheme , Batch-I	8.00
5.	25 MW from M/s ACME Odisha Solar Power Pvt. Ltd. under OREDA State Scheme Batch-II	42.00
6.	70 MW through Solar Energy Corporation of India (SECI) under VGF Scheme under JNNISM, Phase –II, Batch-I	116.00
7	270 MW through SECI under VGF Scheme under JNNISM, Phase –II, Batch-IV	450.00
	Total	680.00

167. The Commission approves the above proposal of GRIDCO to procure 680.00 MU from Solar RE Sources. Thus, the total procurement of Renewable Energy during FY 2018-19 from Solar, Bio-mass, wind and Small Hydro Sources comes to 1102.00 MU, which is approved by the Commission for State use. The source-wise power procurement from Renewable Energy sources are indicated in the Table below:

Table – 18
Drawal from Renewable Energy Sources during FY 2018-19

Sl. No.	RE Sources	Energy approved for Procurement during FY 2018-19 (MU)	Percentage w.r.t. the total estimated drawl of DISCOMs (%)	RPO fixed in the Regulation for FY 2018-19 (%)
A.	Non-Solar			
(i)	Small Hydro Electric Project (SHEP)	320.00	1.23	
(ii)	Energy from Bio-mass	80.00	0.31	
(iii)	Wind Energy	22.00	0.08	
	Sub-Total (Non-Solar)	422.00	1.62	5.00
B.	Solar	680.00	2.62	4.50
C.	Total (Solar & Non-Solar)	1102.00	4.24	9.50

(*) *Sale of power to DISCOMs including emergency power supply to CGPs has been estimated at 26000 MU.*

168. The Commission observed that the estimated sale of power to DISCOMs including emergency power supply to CGPs is 26000 MU for state consumption and the estimated quantum of energy available to GRIDCO from Renewable Sources in total

is 1102 MU. With procurement of renewable energy of this magnitude GRIDCO will not be able to meet even 50% of the Renewable Purchase Obligation (RPO) fixed by the Commission for the FY 2018-19. In reply to the Commission's query GRIDCO has submitted that they are making sincere attempts to procure more solar power for the state in order to increase the share of renewable energy in the overall energy basket. GRIDCO has executed PPA with many renewable project developers. Non-solar projects of around 248.50 MW capacity are in the pipeline in Odisha and expected to be available within next two years. Besides, GRIDCO has agreed to avail the total solar capacity of 4 MW Solar Rooftop Project on the 199 numbers of non-residential government buildings in the twin city of Cuttack and Bhubaneswar which is expected to be available by the 1st quarter of FY 2018-19. Further, GRIDCO will also avail 300 MW solar power from the sanctioned 1000 MW solar park project for which DPR has been submitted to MNRE for approval and bidding in this respect is expected by March, 2018. GRIDCO will also avail 8 MW solar capacity to be developed on the un-utilized lands of OPTCL Grid Sub-stations for which DPR has been prepared. The tendering process is under way. Further, procurement of 200 MW Solar Power through e-bidding reverse auction process in line with MoP guidelines dtd.03.08.2017 is under consideration. GRIDCO is also taking up with NEEPCO for implementation of 200 MW solar PV project in Odisha. GRIDCO is exploring all possibilities and hopeful to fulfil its RPO as specified by the Commission in near future.

169. The Commission observed that in past GRIDCO has also submitted to purchase renewable energy from different new sources to fulfil the RPO and some of them has not yet been materialized. Therefore, the Commission directs GRIDCO to be proactive so that the proposed renewable energy projects are commissioned in scheduled time. GRIDCO should explore all possibilities to purchase renewable power from some other sources to meet the RPO fixed by the Commission for FY 2018-19. GRIDCO should also make efforts to encourage renewable power producers and facilitate them for setting up of renewable power plants, sources of which are available in our State, in order to reduce the burden on the consumers of the State on account of purchase of RECs as per RPO Regulations.

Independent Power Plants (IPPs)

170. In its application GRIDCO has submitted that out of the 5 nos. of commercially commissioned IPPs in the State, GRIDCO is presently procuring State entitlement of power from 3 nos. of IPPs (namely, M/s. Vedanta Ltd., M/s. GKEL & M/s. JITPL) as per the provisions of Power Purchase Agreements. Hence, GRIDCO restricts its proposed quantum of procurement of power only from these IPPs. GRIDCO has indicated that procurement of power from other two IPPs (namely, M/s. Ind-Barath Energy (Utkal) Ltd and M/s. NBVL) has not yet started. There is less likelihood of commencement of supply of power by these two IPPs in view of various problems /difficulties associated with evacuation system, coal linkage, coal handling system, metering issues etc. and therefore, energy drawal from the two IPPs has not been considered in the present ARR & BSP Application for FY 2018-19. Based on the above proposal of GRIDCO, the Commission does not consider any procurement of power from the IPPs of M/s. Ind-Barath Energy (Utkal) Ltd and M/s. NBVL during the FY 2018-19 for State consumption. However, the Commission direct that when these IPPs will be in operation, GRIDCO should avail State share power from them at variable cost for State consumption by reducing the schedule of high cost power.

M/s. Vedanta Ltd.

171. In its submission, GRIDCO has stated that the quantum of power to be procured from M/s. Vedanta Ltd-IPP shall be as per Para 35 (c) of the Commission's Order dated 27.01.2016 passed in Case No.21 of 2015 i.e. 25% +5% (instead of 7% due to de-allocation of coal blocks). GRIDCO has requested the IPPs to submit their Generation Plan and Tentative Tariff proposal for FY 2018-19. In response, all the IPPs except M/s. Vedanta Ltd. furnished their Tentative Generation Plan to GRIDCO. In absence of the Tentative Generation Plan by M/s. Vedanta Ltd., GRIDCO has projected the energy drawal from this IPP on normative basis. The normative generation from the Unit#2 i.e. the IPP Unit of M/s. Vedanta Ltd. at 85% PLF and after 6% auxiliary energy consumption is 4200 MU (600X0.94 X0.85X8.76). Besides, 5% of total normative Energy Sent Out from the thermal plant (i.e. three converted CGPs unit and one IPP Unit) has been taken at normative PLF of 85% and auxiliary energy consumption of 6% which is equal to 840 MU i.e. (2400X.94X0.85X8.76). While 4200 MU needs be supplied at total rate consisting of Energy Charge Rate (ECR) and Fixed Charge Rate, 840 MU will be supplied at Energy Charge Rate (ECR) in line

with the provisions of consolidated Power Purchase Agreement dated 19.12.2012. Therefore, the total normative quantum of power towards State entitlement from the M/s. Vedanta Ltd., works out by GRIDCO to be 5040MU.

172. However, GRIDCO has further submitted that the IPP has not been complying to the Commission's Order dated 27.01.2016 passed in Case No.21 of 2015. The actual supply of power from M/s. Vedanta Ltd.-IPP during the 1st six months of FY 2017-18 (April'17 to Sept.'17) is only 596.54 MU and the total quantum expected to be supplied during the whole year of FY 2017-18 would be 1193.09 MU (Pro-rated). The supply of power to GRIDCO by M/s. Vedanta Limited has been quite erratic and is abysmally low in gross violation to the assurance given by the M/s. Vedanta Ltd. that has been duly recorded in the Commission's Order dated 27.01.2016 in Case No.21 of 2015. Because of such act of M/s. Vedanta Ltd., the entire State is passing through serious power crisis and simultaneously, GRIDCO is also undergoing severe financial strain due to purchase of high cost power to partially compensate the energy gap created by M/s. Vedanta Ltd. in the power supply position of the State. Therefore, GRIDCO has prayed the Commission to direct M/s. Vedanta Ltd to supply State entitlement of power to GRIDCO without any default. On the eventuality of the IPP failing to supply the State entitlement, it may be directed to explore other routes for arranging power supply to the State so that the GRIDCO does not fail in its duty to meet its mandate of supplying power to the consumers of the State through the DISCOM Utilities.
173. The Commission scrutinised the above proposal of GRIDCO and observed that as per the Commission's order dated 27.01.2016 passed in Case No-21/2015, the Unit-II (600 MW) of the 4x600 MW power plant of M/s. Vedanta Ltd. will continue to remain as IPP and must remain connected to STU as state dedicated unit and the other three Units – I, III & IV of the power plant are converted to Captive Generating Plant w.e.f. 01.04.2015. The quantum of power supply to GRIDCO towards state entitlement should be 25% at full cost and 7% / 5% (depending upon the allotment of coal block within the state) at variable cost of the total energy sent out of the power station as per the PPA in force. The power supply to GRIDCO must be 25% plus 7%/5% of the total energy sent out from the power station or total ex-bus generation from Unit-II whichever is higher. Such quantum of power supply should not be disturbed at any point of time. M/s Vedanta Ltd. had given assurance that in case of

low or no generation in Unit-II, it shall meet its commitment in the PPA from the converted CGP units and its pricing shall be as per the relevant IPP Regulations of the Commission. GRIDCO should secure compliance of orders in State interest. The Commission further observed that as per the OERC (Terms and Conditions of Determination of Generation Tariff) Regulations, 2014, the normative PLF is 85%. Considering PLF of 85% and auxiliary consumption of 6%, the energy availability from the State dedicated Unit-II of the thermal power plant of M/s. Vedanta Limited comes to 4199.54 MU which will be purchased by GRIDCO at the tariff determined by the Commission and energy availability towards 5% State entitlement is 839.91 MU to be purchased at variable cost. Accordingly, the state share of energy from this power plant is computed to be 5039.45 MU. The Commission approves same quantum of energy for procurement by GRIDCO from the thermal power plant of M/s. Vedanta Ltd. during the FY 2018-19 for State consumption.

M/s GMR Kamalanga Energy Ltd.

174. GRIDCO has submitted that based on the terms and conditions of the PPA dated 04.01.2011 executed with M/s GMR Kamalanga Energy Ltd. (M/s GKEL), GRIDCO is entitled for 25% of the energy sent out from the 4x350 MW Thermal Power Plant (IPP) at the tariff to be determined by the CERC. Further, the power generated in excess of 80% PLF shall be made available to the State at variable cost. Only three nos. of generating units of this power plant have been commissioned till date. GRIDCO has submitted that the tariff projected by M/s. GKEL for FY 2018-19 is on the higher side. However, considering the State's requirement coupled with low supply of power by M/s. Vedanta Ltd and keeping in view of the principle of Merit Order Procurement, GRIDCO intends to procure 1840 MU (1050X0.25X0.9425X.85X8.76) at 85% PLF and 5.75% Auxiliary Energy Consumption during FY 2018-19 which equals to the State entitlement of power @25% from the IPP.
175. The Commission observed that as per the PPA with M/s. GKEL the State share is 25% of the energy sent out and the power generated in excess of 80% PLF shall be made available to the State at variable cost. But the PPA between GRIDCO and M/s. GKEL has not yet been vetted by the Commission. Since the IPP of M/s. GKEL is supplying power to more than one state, its tariff is to be determined by CERC. As per CERC norms normative plant availability factor is 85%, hence net generation at 85%

availability comes to 7368.75 MU. Considering 25% state share, energy available to GRIDCO comes to 1842.19 MU. Hence, the Commission approves 1842.19 MU to be procured from this IPP during the FY 2017-18 for State consumption.

M/s Jindal India Thermal Power Ltd.

176. GRIDCO has submitted that the IPP of M/s Jindal India Thermal Power Limited (M/s. JITPL) is of the capacity of 3x600 MW, out of which two units have been commercially operated. As per PPA with M/s JITPL, GRIDCO is entitled for 12% (as there was de-allocation of coal blocks by the Hon'ble Supreme Court of India) of the power sent out at Variable Cost to be determined by the Commission. At present JITPL is declaring schedule to ERLDC for supply of power to GRIDCO from its two no. of units on short term basis i.e. day ahead basis. GRIDCO submitted that in case of M/s. JITPL the State entitlement of 12% of Energy Sent Out (ESO) largely depends upon the availability of its Generating Units since M/s. JITPL is having linkage coal in respect of State entitlement from Unit#1 only. However, during first six months of FY 2017-18 the IPP has supplied only 87.78 MU to GRIDCO. The shortfall in supply of power by M/s. JITPL is due to the coal problems. Since the Commission, in the last ARR & BSP Order, had approved supply of 503.60 MU of power by M/s. JITPL to GRIDCO during FY 2017-18, GRIDCO has projected procurement of same quantum of Power i.e. 504 MU (rounded off) during FY 2018-19 even though this seems to be an optimistic projection.
177. The Commission observed that out of the 1200 MW (2X600 MW) of M/s JITPL, considering the State share of 12%, PLF of 85% and auxiliary consumption of 6%, energy availability to the State from this IPP is estimated to be 1007.89 MU. The Commission advises GRIDCO to purchase full quantum of energy towards State share from the said IPP during FY 2018-19 as this energy is available at the variable cost only and also there is coal linkage in respect of State entitlement from Unit#1. Hence, the Commission approves 1007.89 MU for procurement by GRIDCO from M/s JITPL during the FY 2018-19 for State use.
178. The Commission has estimated the total availability of 7889.53 MU towards State share of energy from the IPPs within the State those are presently supplying power to GRIDCO and approves the same to be purchased by GRIDCO during the FY 2018-19 for consumption in the State. The Commission has observed that GRIDCO has

proposed very less quantum of energy drawal from the IPPs, which is less than the State entitlement as per the agreement stating that the IPPs are not supplying the State share of power unilaterally. The Commission direct GRIDCO to take up the matter with the State Government and secure compliance of law through all available options. In fact, GRIDCO should draw the full quantum of State's share of power from the IPPs as per the PPA for State use and also to have export earnings after meeting the State's requirement, if commercially viable. However, depending on the requirement, cost and availability, GRIDCO may purchase more quantum of energy from the IPPs in the event of non-availability of energy from other sources and/or increase in state demand than the estimation. The proposal of GRIDCO and approval of the Commission in respect of purchase of power from the IPPs during the FY 2018-19 is as indicated in the table below.

Table - 19
Power Procurement from the IPPs during FY 2018-19

IPPs	Proposal of GRIDCO (MU)	Availability estimated by the Commission as per Orders / PPA (MU)	Approval of the Commission (MU)
Vedanta Limited	2630.82	5039.45	5039.45
GMR Kamalanga Energy Ltd.	1840.00	1842.19	1842.19
Jindal India Thermal Power Ltd.	504.00	1007.89	1007.89
Total	4974.82	7889.53	7889.53

Power Purchase from Central Generating Stations

179. Odisha has been allocated shares in all the NTPC stations located in the Eastern Region as well as from the Chukha and Tala Hydro Electric Projects in Bhutan and Teesta Hydro Electric Project in Sikim. The entitlement from these stations is based on share allocation made by the CEA/MoP from time to time. The energy accounting from these stations is done on a monthly basis as per the ABT based Regional Energy Accounts (REA) prepared by the Eastern Regional Power Committee.

Central Transmission Loss:

180. The constituents of power utilities of the Eastern Region share the losses occurring in the Central Transmission System as per the Point of Connection (PoC) Methodology. As per the Inter-state transmission charges sharing Regulation (POC Regulation), total transmission loss of the CTU is to be divided equally among the injectors

(Generators) and Drawees (Beneficiaries). The loss component attributable to Generators is regarded as the “Injection Loss”. In the instant case, since the Generators are different, their injection losses are different based on the load flow study conducted by NLDC. These losses are determined on weekly basis and are published in NLDC site. Similarly, GRIDCO being a beneficiary has to bear the “withdrawal loss” towards the central sector drawal. This is also determined by NLDC based on load flow study for the withdrawal zone Odisha on weekly basis and published in their website. GRIDCO has entered into agreements with ISGSs to draw power on cost plus basis. Therefore, GRIDCO is bearing the injection losses of these stations in addition to its withdrawal losses. In the ARR filling for 2018-19, GRIDCO has projected different percentage of transmission loss in the Eastern Region Power System for power procurement from different Central Generating Stations. The station-wise losses have been arrived at by GRIDCO, based upon the injection loss and withdrawal loss data for the month of September, 2017 as available from the NLDC Website.

181. The Commission scrutinized the proposal of GRIDCO on Central Transmission Losses with reference to the figures published in NLDC site and it is observed that the scheduled PoC loss in the eastern regional system varies from week to week for Odisha injection and Odisha withdrawal. After scrutiny, the Commission considered the transmission loss for drawal of power from individual central generating stations based upon the injection loss and withdrawal loss data of September, 2017 as proposed by GRIDCO (based on NLDC data), for estimation of power purchase cost of GRIDCO for the FY 2018-19, which is given below:

Table - 20
Percentage of System Loss considered for Central Stations

Name of power stations	Central Transmission Loss proposed by GRIDCO for FY 2018-19 taking the losses of the month of Sept.'2017 (%)	Central Transmission Loss considered by the Commission for FY 2018-19 (%)
TSTPS -I	1.760	1.760
TSTPS -II	2.260	2.260
FSTPS- I, II & III	1.760	1.760
KHSTPS - I &II	1.514	1.514
Barh- II	1.510	1.510
Chhuka & Tala	2.010	2.010
Teesta-V	2.010	2.010

Central Hydro Generating Stations

182. **Chukha:** Odisha has been assigned a share of 15.19% from ER allocation of 270 MW out of the installed capacity of 336 MW (4x84 MW) of Chukha Hydro Electric Project, Bhutan. GRIDCO has projected the drawl of 267.56 MU from Chukha for FY 2018-19 considering the average drawal of last 6 years i.e. from FY 2011-12 to 2016-17. Deducting central sector loss of 2.01%, the net availability to GRIDCO is projected at 262.00 MU for the FY 2018-19.
183. The Commission scrutinized the above proposal of GRIDCO and observed that the drawal of GRIDCO from Chukha during the period from FY 2011-12 to 2016-17 were 260.39 MU, 237.58 MU, 275.41 MU, 247.41 MU, 272.39 MU & 312.17 MU respectively, which varies from 237.58 MU during FY 2012-13 to 312.17 MU during the FY 2016-17. With the above variations, the Commission approves the drawl from Chukha hydro station at 267.56 MU for FY 2018-19 considering the average drawal of last 6 years i.e. from FY 2011-12 to 2016-17 as proposed by GRIDCO. After deducting the Central Loss of 2.01%, the net drawal of GRIDCO comes to 262.18 MU for FY 2018-19.
184. **TALA:** GRIDCO has an allocated share of 4.25% i.e 43.35 MW from Tala HEP, Bhutan having installed capacity of 1020 MW (6X170 MW). GRIDCO has proposed to draw 139.00 MU of energy from Tala HEP during FY 2018-19 by averaging previous 6 years drawal i.e. from FY 2011-12 to 2016-17. After deducting Central Sector Loss of 2.01%, the net availability to GRIDCO is projected as 139.00 MU for FY 2018-19. After scrutiny, the Commission accepts the proposal of GRIDCO and approves the net drawal of 138.80 MU from Tala Hydro Power Station during FY 2018-19 considering the Central Sector Loss of 2.01%.
185. **TEESTA:** GRIDCO in its ARR application has submitted that Teesta-V HEP having installed capacity of 510 MW is situated in Sikkim and Odisha has a share of 23.40% of the saleable energy from this power station. The annual design energy of Teesta-V HEP is 2572.67 MU. Considering 12% free energy to Home State & 1.20% of Auxiliary Consumption, the annual saleable energy of the project is 2236.81 MU. Further, considering Odisha share of 23.40% of the saleable energy, GRIDCO proposes to procure net energy of 513.00 MU during FY 2018-19 after deducting the Central Sector loss of 2.01%.

186. The Commission scrutinized the proposal of GRIDCO with reference to Regional Energy Account (REA) prepared by ERPC. It is observed that the GRIDCO is entitled to get a share of 20.59% on the total generation less auxiliary consumption. So the Commission estimates a drawal of 523.36 MU considering the share of 20.59% from annual saleable energy of 2541.808 MU i.e. the design energy less auxiliary consumption @ 1.20%. Considering the central sector transmission loss of 2.01%, the Commission approves the net drawl of 512.84 MU from Teesta HEP during FY 2018-19 as shown in the table below.

Table - 21

Design Energy less aux. (MU)	2541.83
GRIDCO Share (%)	20.59
Availability (MU)	523.36
Net energy available after deducting Central Transmission Loss @ 2.01% (MU)	512.84

Central Thermal Generating Stations

187. GRIDCO has submitted that Clause 36 (A) of CERC (Determination of Terms & Conditions of Tariff) Regulations, 2014 effective from 01.04.2014 to 31.03.2019 stipulates “Normative Annual Plant Availability Factor (NAPAF)” 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.”

188. However in the meantime, the Tariff Orders of all the Central Thermal Stations except Barh-II for the period 2014-19 have already been pronounced by the Hon’ble CERC. In these Orders, Hon’ble CERC have stated that in view of shortage of domestic coal supply, the target Plant Availability was then allowed as 83% for 3 years from FY 2014-15 to FY 2016-17. Now that this period is over, the PLF is considered as 85% for FY 2017-18 and FY 2018-19 in terms of the Regulation 36 (A)(a) of the CERC Tariff Regulations, 2014. Due to aforesaid reasons GRIDCO has projected energy drawal from NTPC stations at 85% availability. The actual Plant Availability for the

months from April'17 to Sept'17 and the percentage of Cumulative Availability of power from CGSs for the 1st six-months of FY 2017-18 submitted by GRIDCO varies from 76.85% to 96.61% as given in the table below.

Table-22
Cumulative Availability of CGSs for the 1st six-months of FY 2017-18 &
Proposed Cumulative Availability for FY 2018-19

Stations	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Cumulative Availability (%)	Cumulative Availability % (NAPAF%) proposed for CGSs by GRIDCO for FY 2018-19
TSTPS Stage-I	83.96	82.17	84.87	86.75	88.46	89.73	85.99	85
TSTPS Stage-II	91.29	84.81	91.69	83.08	72.83	80.99	84.05	85
FSTPS-I&II	57.53	73.91	79.46	83.77	83.08	83.00	76.85	85
FSTPS-III	97.39	97.76	95.88	96.98	96.80	94.79	96.61	85
KhSTPS St-I	96.89	95.59	88.69	89.46	90.74	91.36	92.12	85
KhSTPS St-II	96.08	97.35	96.24	96.53	97.23	92.45	96.00	85
Barh STPS –II.	100.00	96.75	96.87	93.95	89.48	83.79	93.47	85

189. Further, GRIDCO has mentioned that, as far as practically, they are avoiding drawal of State share of costly thermal power from NTPC Stations viz., FSTPS-I, II III, Barh-II as energy drawal from these stations was not allowed by the Commission in the ARR of FY 2017-18. However, huge energy deficit in the State arising due to significant low generation by the IPPs, such as, M/s. Vedanta Ltd. & M/s. JITPL, has forced GRIDCO to purchase power from NTPC Generating Stations during the year 2017-18 to meet the State Demand. GRIDCO has mentioned that the shortfall of energy drawal from IPPs to the tune of 2076 MU is being compensated mostly by drawal from State Hydro (856 MU) and Central Thermal Stations (938 MU) (during April'17 to Sep'17). Even drawal from high cost Thermal Stations like FSTPS-III and Barh-II (to the tune of 676 MU) was resorted to as a matter of necessity although drawal from such high Cost Stations was not allowed by the Commission during the approval of ARR of 2017-18. GRIDCO is forced to draw from high cost Stations to fulfill the power demand of the State as a matter of inevitability.

190. Hence, in view of less drawal from IPPs, GRIDCO has projected to draw power from all of the Central Generating Stations at 85% of availability in order to meet the power

demand of the State during the ensuing FY 2018-19. It is further to mention that the Variable Charge i.e. Energy Charge Rate (ECR) of Central Thermal Generating Stations is found to be going in a reducing trend for past few months. The ECR witnessed by GRIDCO for all Thermal Generating Stations from Apr'17 to Oct'17 is given as below:

Table-23
Energy Charge Rate for Central Generating Stations for the period Apr'17 to Oct'17
(In P/U)

Name of the Station	April'17	May'17	Jun'17	July'17	Aug'17	Sept'17	Oct'17	Weighted Average ECR for 7 Months
FSTPS-I & II	277.5	288.2	271.8	252.3	274.6	248.2	239.4	262
FSTPS-III	278.5	289.3	275.3	254.2	276.9	249.7	241.5	266
KHSTPS-I	232.9	228.6	269.2	232.1	221.3	212.4	213.9	226
KHSTPS-II	222.7	218.5	257.4	221.8	211.5	203	204.5	213
TSTPS-I	191.7	199.5	171.3	141.9	135.6	144.7	130.2	157
TSTPS-II	191.7	199.5	171.3	141.9	135.6	144.7	130.2	160
BARH-II	245.2	244.2	241.2	220.1	226.3	224.4	231.1	233
Total Weighted Average ECR for the Period								201

191. GRIDCO has further stated that as per the prevailing Regulations in force, GRIDCO has to bear the Fixed Cost as per the percentage share allocation from the respective Stations even if it has not requisitioned any power from such high cost Stations unless such share of power is allocated in favour some other beneficiary(ies). At present, the average rate of Fixed Charges for all Central Generating Stations at normative drawal is 107 P/Unit as given in the Table below:

Table-24
Fixed Charge Rate for Central Generating Stations at Normative Drawal

Name of the Station	Fixed Cost per Annum for FY 2017-18 (as billed by NTPC)	Generation at Normative Availability (Ex-Bus)	Fixed Charge Rate at Normative Drawal
	(Rs. Crore)	(MU)	(P/U)
FSTPS-I & II	949	11143	85
FSTPS-III	512	3509	146
KHSTPS-I	586	5692	103
KHSTPS-II	1162	10527	110
TSTPS-I	655	7018	93
TSTPS-II	963	14036	69
BARH-II	1727	9264	186
Total	6555	61188	107

192. GRIDCO has submitted that the rate for procurement (excluding CTU loss & CTU Transmission Charges) for the normative drawal of power is derived as 308 P/U (201 P/U+107 P/U) (excluding loss) which is less than the price of 382 P/U (Purchase Rate of 275 P/U from CGPs + 107 P/U towards Fixed Charge Rate of CGSs) towards procurement of power from the CGPs by surrendering state share of power from Central Generating Stations. CTU Charges are payable like the Fixed Cost irrespective of surrender of power as the same is based on allocation. Further, purchase of power from Short Term Power Market may not be a feasible option to meet the deficit as neither the present rate of 300 P/U (with CGSs' Fixed Charge Rate of 107 P/U, the effective rate comes to 407 P/U) is favourable nor there is any certainty of availing the required deficit quantum from such infirm market. The above comparative rates are derived on normative basis for CGS Stations, the Fixed Charge Rate (FCR) of which is very likely to go up in case of surrender of power or non-drawal of power from such Stations.
193. Further, GRIDCO has considered the projected energy availability from Barh STPS-II of NTPC as per the share allocation in favour of Odisha since the same is yet to be cancelled by the Ministry of Power, Govt. of India despite continuous follow-up by GRIDCO and the Govt. of Odisha with the Central Government. In this regard, MoP, Govt. of India has already published a Notification vide letter dated 08.09.17 in addition to the earlier Notifications dated 31.08.2015 and 17.05.2016 seeking willingness from other States to avail such surrendered power of Odisha. However, till now no alternative buyer has offered any willingness to purchase the power from Barh STPS-II, and hence, de-allocation in favour of Odisha is yet to take effect. Therefore, GRIDCO has considered energy drawal from Barh STPS-II.
194. In view of the above difficulties and uncertainties of power availability from infirm sources like CGPs and the Short-term Power Market coupled with the consequential negative economics of procuring power from such outside sources, GRIDCO has proposed to draw full quantum of power at 85% availability from the Central Generating Stations by considering the relevant allocated share in favour of Odisha as derived from the Regional Energy Account (REA) of Eastern Regional Power Committee (ERPC), 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 losses considered Station-wise

during estimation of energy drawal have been arrived at based upon the injection loss and withdrawal loss data for the month of Sept'17 as available from the NLDC Website. Considering the above parameters, GRIDCO has proposed the total energy drawal of 8281.89 MU from Central Thermal Generating Stations of Eastern Region for FY 2018-19 as given in the Table below:

Table-25

Availability of Power from Central Generating NTPC Stations FY-2018-19

Central Thermal Stations	Installed Capacity (MW)	Aux. Cons (%)	Based on NAPAF% as per Para 36 (A) of CERC Regn.,2014	Net Availability (ESO) (MU)	GRIDCO Share (%)	Ex-bus Availability (MU)	Central Trans. Loss (%)	GRIDCO share after the applicable C.S. Trans. Loss (MU)
TSTPS Stg.-I	1000	5.75	85	7,017.86	32.34	2,269.87	1.760	2,229.92
TSTPS Stg.-II	2000	5.75	85	14,035.71	10.00	1,403.57	2.260	1,371.85
FSTPS-I&II	1600	6.47	85	11,142.79	14.18	1,580.44	1.760	1,552.63
FSTPS-III	500	5.75	85	3,508.93	18.05	633.44	1.760	622.30
KhSTPSStg-I	840	9.00	85	5,691.72	15.77	897.86	1.514	884.27
KhSTPSStg-II	1500	5.75	85	10,526.78	2.62	275.87	1.514	271.69
Barh STPS-II (Unit-IV)	1320	5.75	85	9,263.57	14.79	1,369.92	1.510	1,349.23
TOTAL				61,187.36		8,430.98		8,281.89

195. The Commission observed that in the ARR & BSP order of GRIDCO for FY 2017-18, the Commission had not approved any drawal of power from FSTPS- III and approved a part drawal from FSTPS-I & II for State consumption keeping in view the higher energy charge rate of these stations and availability of low cost power from other sources. But State share of fixed cost of these central power stations was allowed by the Commission in the ARR of GRIDCO. Further, the Commission had also not allowed any drawal of high cost power from Barh STPS for State consumption for the FY 2017-18 and share of fixed cost of this station was also not allowed. GRIDCO, in its application, has stated that in view of less drawal from IPPs, GRIDCO is constrained to draw power from all of the Central Generating Stations in order to meet the power demand of the State. Further, the CGSs and ISGSs are directed by the concerned Regional Load Despatch Center (RLDC) to operate their Unit(s) at or above the technical minimum on account of Grid security or fewer

schedules given by the beneficiaries. Hence, GRIDCO has no other option to procure costly power from NTPC stations unless state share is de-allocated.

196. The Commission examined the submissions of GRIDCO and observed that as per the CERC Tariff Regulations, 2014, the NAPAF of the Central Thermal generating stations is fixed at 85%. Hence, for the purpose of computation of availability of power from these power stations NAPAF should be considered at 85%. However as per the IEGC, the generators should run at technical minimum limit of the generating unit, in case of lower schedule for drawal by the beneficiaries and difficulty in maintaining the safe grid operation. In case the scheduled generation falls below the technical schedule, the concern CGS or ISGS shall have the option to go for reserve shutdown. Here, in order to draw less energy from some of the central generating stations due to their higher energy charges, GRIDCO should claim for reserve shutdown of the generating unit(s) of STPS instead of accepting the forced scheduling of power from these stations. Therefore, direct GRIDCO to insist on economical drawal from the power stations and should avoid forced injection of power to the Grid at higher cost which is ultimately loaded on the consumers. However, the Commission has assessed the availability of power from the central generating stations considering the NAPAF of 85% and drawal of GRIDCO for state consumption based on the requirement.
197. The Commission further observed that GRIDCO is purchasing bundled solar power which includes thermal power from the unallocated quota of the NTPC stations. Hence, the share of thermal power purchase by GRIDCO from NTPC station increases accordingly. The state share of power from ER-NTPC stations inclusive of the said bundle thermal power has been considered by the Commission based on the REA for the month of January'2018. Considering the Central Sector transmission loss provisionally as stated earlier and NAPAF of 85% as per CERC Regulations, the details of availability of power from Central Thermal Stations, estimated for the FY 2018-19 and GRIDCO's drawal as per requirement are given in the table below:

Table - 26
Drawal From Central Thermal Generating Stations for FY-2018-19

Central Thermal Stations	Installed Capacity (MW)	Aux. Cons. (%)	Availability considering 85% PLF & Auxiliary Consum. (MU)	GRIDCO Share (%)	GRIDCO Share (MU)	Central Trans. Loss (%)	Estimated Share excluding Central Sector Transmission Loss (MU)	GRIDCO's proposal excluding Central Sector Transmission Loss (MU)
TSTPS –I	1000	5.75	7017.86	32.344	2269.87	1.760	2229.92	2,229.92
TSTPS –II	2000	5.75	14035.71	10.000	1403.57	2.260	1371.85	1,371.85
FSTPS-I& II	1600	6.47	11142.94	14.184	1580.47	1.760	1552.65	1,552.63
FSTPS-III	500	5.75	3508.93	17.150	601.77	1.760	591.18	622.30
KhSTPS –I	840	9.00	5691.72	15.775	897.86	1.514	884.27	884.27
KhSTPS–II	1500	5.75	10526.78	2.621	275.86	1.514	271.69	271.69
TOTAL	7440		51923.94		7079.41		6901.56	6932.65

NTPC-Barh Super Thermal Power Station-Stage- II

198. The Commission in ARR & BSP order for the FY 2015-16 had directed GRIDCO and the State Government to take up the matter with Ministry of Power, Govt. of India for immediate de-allocation of power to the State of Odisha from Barh-II STPS of NTPC because of the high cost of power of this power station and availability of low cost power from other sources. Again in the ARR & BSP order for the FY 2016-17, the Commission had also directed both GRIDCO and the State Government to expedite the matter with Ministry of Power, Govt. of India for earliest de-allocation of power to the State of Odisha from Barh-II STPS of NTPC or appeal before CERC/APTEL for reduction of tariff of this power station. In the said order GRIDCO was also advised to explore legal options in the event this effort of does not materialise. Further, in the ARR & BSP order for the FY 2017-18 the Commission had observed that the price of power from this new generating station is very high as compared to that available from IPPs and other sources inside the State and directed GRIDCO to approach appropriate forum (Court of law or Commission) for reduction of capital cost through VGF or any other means citing availability of better and cheaper power from other sources in the State to the reduce burden on consumers or take steps for de-allocation of the power from Barh-II. The Commission had also suggested that the Government may consider bearing the burden of fixed cost of this power station till a settlement is reached.
199. In the reply to the Commission's query GRIDCO has stated that in the absence of exit clause in the PPA and obligation to pay huge fixed cost without availing power from upcoming NTPC stations located outside the State, GRIDCO sought legal opinion and

the likely implication of termination of PPAs with NTPC for Barh and other upcoming NTPC Stations located outside the State except North Karanpura. In this regard, the legal opinion furnished by Mr.R.K.Mehta, Advocate, SCI is as follows:

- *In the event, a Generating Station is not commissioned within a reasonable time after execution of PPA for the project, the beneficiary/procurer must be entitled to terminate the PPA notwithstanding the fact that there is no provision under the contract for termination of PPA.*
- *Similar principle is applied, in case the price at which power is to be made available under the Agreement becomes unduly exorbitant, unaffordable, uneconomical and adverse to the interest of the consumers of the State.*

200. After obtaining legal opinion, the matter of review of PPA for upcoming NTPC Stations were put forth before 168th and 169th meeting of BoD of GRIDCO, where non-approval Fixed Cost by the Commission in respect of Barh-II in the ARR of FY 2016-17 and 2017-18 was discussed and it was suggested that for pursuing de-allocation, members advised to make comprehensive analysis with respect to demand and supply position and tariff of new capacity which will replace Barh-II and Barh-I keeping in view the long term implication of this proposal. Pursuant to the suggestion of BoD, GRIDCO is actively considering to appoint a consultant to do the realistic demand forecast vis-à-vis realistic availability of power based on the PPAs made by GRIDCO such that the replacement of Barh STPS-II power could be done. Again, the hearing for the tariff of Barh STPS-II for the period 2014-19 has not yet been scheduled in CERC since the matter of Commercial operation date of Unit-IV which was challenged by GRIDCO is now pending before APTEL. GRIDCO would rightly put forth its views on capital cost during the time of hearing at CERC.

201. In view of the above, like previous years, the Commission does not consider drawal of power from Barh STPS-II for State use during the FY 2018-19 and direct GRIDCO and the State Government again to expedite the matter for de-allocation or reduction of cost through above stated options.

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

202. As mentioned above, the total estimated availability of power from different sources comes to 30317.68 MU. However, the total power requirement for drawal by DISCOMs for State use comes to 26803.81 MU. Since, the least cost power is

available, costly power from certain Central Thermal Generating Stations has not been considered in the ARR of GRIDCO for consumption inside the State. However, GRIDCO may trade this power if commercially viable and earn some revenue to bridge the past gap. Hence, taking the least cost power procurement for the state from different generating stations, the Commission approves quantum of purchase for FY 2018-19 as given in the table below:

Table – 27

Quantum of Power Purchase from Various Sources for FY 2018-19

(Figures in MU)

Sources of Purchase	Commission's Approval for State Drawl for 2017-18	GRIDCO's Proposal for 2018-19	Estimated Availability for 2018-19	Commission's Approval for State Drawl for 2018-19
HYDRO (OLD)	3,676.86	3660.26	3,676.86	3,676.86
Indravati	1,942.38	1943.37	1,942.38	1,942.38
Machakund	262.50	262.50	262.50	262.50
Total Hydro	5,881.74	5866.13	5881.74	5,881.74
OPGC	2861.50	2913.49	2912.82	2912.82
TTPS (NTPC)	3162.93	3376.07	3376.07	3376.07
IPPs	7060.49	4974.82	7889.53	7889.53
CGPs	-	-	-	-
Co-Generation Plants	-	-	-	-
Small Hydro	320.00	320.00	320.00	320.00
Biomass Energy	80.00	110.00	80.00	80.00
Wind Energy	-	22.00	22.00	22.00
Solar Energy	363.00	680.00	680.00	680.00
TOTAL STATE	19,729.66	18262.51	21,162.17	21,162.17
CHUKHA HPS	256.52	262.00	262.18	262.18
Tala HPS	140.51	139.00	138.80	138.80
Teesta-V HPS	512.11	513.00	512.84	512.84
Total Central Hydro	909.14	914.00	913.82	913.82
TSTPS-I	2218.42	2229.92	2229.92	2229.92
TSTPS-II	1363.95	1371.85	1371.85	1371.85
FSTPS-I & II	679.09	1552.63	1552.65	-
FSTPS-III	-	622.30	591.18	-
KhTPS-I	880.76	884.27	884.27	854.37
KhTPS-II	270.61	271.69	271.69	271.69
Barh STPS-II	-	1349.23	1340.13	-
Total Central Thermal	5,412.83	8281.89	8241.69	4727.83
Total Central Sector	6,312.97	9195.89	9155.51	5641.65
TOTAL GRIDCO	26051.63	27458.40	30317.68	26803.81

Power Procurement Cost

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

OHPC Stations

204. OHPC has submitted the application for approval of its Annual Revenue Requirement and Tariff of its individual power stations separately for the FY 2018-19 in terms of Section 62, 64 and 86 of the Electricity Act, 2003 which has been registered as Case No.74/2017. The tariff approved for OHPC Stations in the said case will be considered for determination of the power procurement cost of GRIDCO in respect of all stations of OHPC.
205. Accordingly, the cost of power purchase by GRIDCO from each of the power stations of OHPC is given in the table below:

Table – 28

Cost of Power Purchase from OHPC Stations for FY 2018-19

Name of the Power Station	Quantum of Power Purchase for 2018-19 (MU)	Approved Average Tariff for 2018-19 (P/U)	Cost of Power Purchase for FY 2018-19 (Rs. Cr.)
Burla	677.16	151.01	102.255
Chipilima	485.10	55.19	26.775
Balimela	1171.17	85.91	100.615
Rengali	519.75	122.82	63.835
Upper Kolab	823.68	58.32	48.040
Upper Indravati	1942.38	80.36	156.084
Sub-Total	5619.24	88.55	497.604
Machhkund	262.50	75.34	19.778
Total	5881.74	87.96	517.382

IB Thermal Power Station of OPGC

206. OPGC has also filed its ARR & Tariff application before OERC for determination of Generation Tariff of its 2x210 MW Ib Thermal Power Station for the year 2018-19, which has been registered as Case No.75 of 2017. The Commission in its order passed in Case No.75 of 2017 has determined the capacity charge of 74.08 P/U and energy charge of 131.18 P/U for the said power station of OPGC. Hence the cost of power

purchase for procurement of 2912.82 MU from OPGC comes to Rs.597.89 crore at an average rate of 205.26 P/U.

Talcher Thermal Power Station (TTPS)

207. GRIDCO has submitted that CERC Tariff Order dated 14.05.2014 in Petition No.304 of 2009, in respect of Tariff of TTPS-NTPC for the period from 2009-10 to 2013-14, had been challenged by both NTPC and GRIDCO before APTEL which were admitted as Appeal No.175/2014 and 180/2014 respectively and are sub-judice at present. Further, a case has been filed against CERC Order dtd. 26.09.2016 (Petition no 334/GT/2014) before the Hon'ble APTEL in the matter of non-carrying out of R&M phase-IV works on TTPS Stage-II by NTPC inspite of in-principle approval given by the CERC vide Order dtd. 07.06.2013 in Petition No. 212/2010. Further, the Writ Petition i.e. W.P. (C) No.18695 of 2014 filed by GRIDCO against CERC Regulation, 2009 before the Hon'ble Odisha High Court is also sub-judice at present. Now the Tariff Petition No. 334/GT/2014 filed by NTPC in respect of TTPS for the period 2014-19 as per the CERC Tariff Regulations, 2014, has been disposed of by CERC vide Order dated 26.09.2016. Earlier NTPC has challenged the CERC (Terms and Conditions of Tariff) Regulations, 2014 before Hon'ble Delhi High Court in W.P. (C) No.1641 of 2014 and GRIDCO has become a party to it. GRIDCO has also filed a Writ Petition against the said Regulations before the Hon'ble Odisha High Court which has been admitted as W.P. (C) No.12122 of 2015 and Hon'ble Odisha High Court vide Order dated 03.11.2015 had granted an interim stay on the said CERC Regulations, 2014.
208. **Fixed Charges:** Pending the aforesaid petitions at different judicial Forums, NTPC-TTPS, at present, is claiming the Monthly Fixed Charges as per the Annual Fixed Charge determined in CERC Tariff Order dated 26.09.2016 passed in Petition No.334 of 2014 in respect of NTPC-TTPS for the period from 2014-19. As per the said Order, the Annual Fixed Charges of TTPS is fixed as Rs.445.48 Crore for FY 2018-19 considering the cost towards total moisture correction in GCV. Accordingly, GRIDCO has worked out the Fixed Cost per Unit of energy from TTPS as 131.95 P/U for FY 2018-19 at the projected PLF of 93.61 % and Aux. Energy Consumption of 10.50% for the proposed energy drawal of 3376.07 MU.

209. After scrutiny of the submissions of GRIDCO, the Commission observed that Talcher Thermal Power Station (TTPS) is owned and operated by NTPC and tariff for this generating station is determined by Central Electricity Regulatory Commission (CERC). The CERC vide its Order dated 26.09.2016 passed in Petition No. 334/GT/2014 has determined the Annual Fixed Charge (AFC) of Rs.444.71 Crore for FY 2018-19 in respect of TTPS (NTPC). Hence, the Commission considers the fixed cost of TTPS at Rs.445.48 crore for the FY 2018-19 considering the cost towards total moisture correction in GCV as per the CERC order. Accordingly, the fixed charge per unit comes to 131.95 P/U for drawal of 3376.07 MU from TTPS during the FY 2018-19.

Energy Charges:

210. GRIDCO has submitted that as per the CERC Tariff Order dated 26.09.2016 in Petition No 334 of 2014 in consonance with the CERC Tariff Regulations, 2014, the Base Energy Charge for TTPS has been fixed as 110.187 Paise/kWh. 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 Regulation 21(6) (a) of the Tariff Regulations, 2014. Accordingly, NTPC-TTPS is claiming the Monthly Energy Charges every month as per the Energy Charge Rate (ECR) worked out from the landed price and GCV of coal and oil for that month and considering the operational parameters laid down in CERC Tariff Regulation, 2014. However, based on the trend of ECR as claimed by TTPS-NTPC during April, 2017 to October, 2017, GRIDCO has considered 5% escalation over and above the Monthly Average Energy Charge of 167.37 P/U and thus, proposes 175.74 P/U towards ECR for FY 2018-19 as given in the table below.

Table-29
Energy Charge Rate (ECR) of TTPS (in P/U)

Apr-17	May-17	June-17	July-17	Aug-17	Sept-17	Oct-17	Monthly Average Energy Charge	Monthly Highest Energy Charge	GRIDCO's proposal for FY 2018-19 considering 5% escalation on 167.37 P/U
167.7	171.9	168.0	163.9	170.5	168.9	158.5	167.37	171.9	175.74

211. The Commission scrutinized the proposal of GRIDCO and observed that NTPC-TTPS is entitled to compute and recover the energy charges as per Clause 21(6) (a) of the

said Regulations. Accordingly, NTPC-TTPS is claiming the Energy Charges every month based on the Price and GCV of Coal and Oil etc. for that month. Considering the data on coal and oil price and GCV of Coal etc. from the monthly bills of last eight months i.e. from April, 2017 to November, 2017 as claimed by NTPC in respect of TTPS, the average energy charge rate is computed at 166.04 P/U. Hence, for the purpose of computation of ARR & BSP of GRIDCO for the FY 2018-19, the Commission provisionally approves the energy charge rate of 166.04 P/U for drawal of energy from TTPS.

212. **Year-end Adjustment Charges:** GRIDCO has projected the year-end adjustment charges of TTPS to the tune of Rs.36.07 crore for the FY 2018-19 based on the pro-rated assessment of actual charges paid by GRIDCO during 1st six months of the FY 2017-18, which includes electricity duty, charges towards water cess, UI charges, SLDC charges and incentive. The Commission on examination of the claims provisionally approves (i) Electricity duty of Rs. 21.78 crore calculated @ 55 paise/unit on auxiliary consumption of the generation at 93.61 % PLF, (ii) Water Charge / Cess of Rs.0.12 crore, (iii) SLDC Charges of Rs.0.36 Crore and (iv) Rs.15.53 Crore towards incentive on excess generation beyond the normative PLF. The claim for UI Charges is not being allowed in the tariff since the possibility of overdrawl or underdrawl cannot be predicted at this moment. Thus, the total year-end charges approved for 2018-19 comes to Rs.37.79 crore. The year-end charges proposed by GRIDCO and approved by the Commission for the FY 2018-19 is shown in the table below:

Table – 30
Year-End Charges of TTPS for FY 2018-19

ITEM	OERC approval for FY 2017-18	GRIDCO's Proposal for FY 2018-19	OERC approval for FY 2018-19
Electricity duty	11.13	18.37	21.78
Water Cess / Charge	0.16	0.12	0.12
UI overdrawl	0.00	1.08	0.00
SLDC charges	0.36	0.30	0.36
Incentive	4.87	16.20	15.53
Total (Rs. Crore)	16.53	36.07	37.79
ESO (MU)	3162.93	3376.07	3376.07
Per unit cost (P/U)	5.22	10.68	11.19

213. After taking into account all the above estimated cost, the approved tariff for TTPS power comes to 309.18 P/U comprising of fixed cost @ 131.95 P/U, energy charges @ 166.04 P/U and year end charges @ 11.19 P/U. Hence, the total power procurement cost from NTPC-TTPS during FY 2018-19 is estimated at Rs.1043.83 Crore for the approved drawl of 3376.07 MU.

Captive Generation Plants (CGPs) and Co-generation Plants

214. GRIDCO has proposed not to procure any power from the CGPs and Co-generation Plants during the FY 2018-19 in view of adequate availability of power due to State's share in various existing and up-coming Power Plants in the State. GRIDCO has further indicated that procurement of power from CGPs may be resorted to depending upon exigencies / force majeure conditions. However, the Commission has directed GRIDCO to purchase the available surplus power from CGPs and Co-generation plants at the existing ceiling rate fixed by the Commission for trading purposes after meeting the state demand subject to commercial viability. In case of any revision in CGP price for FY 2018-19 the revised price shall be applicable and any adjustment in revenue due to such price revision will be considered in the truing up exercise.

Power Purchase from Renewable Energy Sources

Small Hydro

215. In its ARR application for FY 2018-19, GRIDCO has proposed to procure 220 MU from Meenakhi Small Hydro Electric Project of M/s. MPL and 100 MU from Samal Small Hydro Electric Project of M/s. OPCL at an average rate of 368.93 P/U during FY 2018-19. The total procurement cost of this 320 MU of energy from small hydro sources has been estimated at Rs.118.06 crore.
216. The Commission in its Order dtd.19.05.2011 passed in Case Nos.17 & 24 of 2011 have fixed 368.00 P/U (inclusive of 4 P/U as trading margin of PTC) towards procurement of power by GRIDCO from PTC in respect of drawal from Lower Kolab & Middle Kolab SHEPs of M/s.MPL. Similarly, the Commission vide its order dated 04.02.2016 passed in Case No. 15/2015 have fixed 371.00 P/U (inclusive of 4 P/U as trading margin of PTC) towards procurement of power by GRIDCO from PTC in respect of drawal from Samal Barrage SHEP of M/s. OPCL. The Commission has approved procurement of 220 MU from Lower Kolab & Middle Kolab SHEPs of M/s.MPL and 100 MU from Samal Barage SHEP of M/s. OPCL by GRIDCO for the

ensuing year 2018-19. Accordingly, the Commission approves Rs.118.06 Cr towards procurement of total 320 MU of energy at an average rate of 368.94 P/U from the said small hydel sources during FY 2018-19.

Bio-mass Energy

217. The Commission has approved 80 MU to be procured by GRIDCO from the Biomass plant of M/s. Shalivahana Green Energy Ltd., which was commissioned during the FY 2011-12 i.e. during the control period from FY 2010-11 to 2012-13. Hence the tariff of this biomass plant will be governed by the order of the Commission dtd.01.03.2014 passed in Case No. 16/2013 where the tariff for Biomass energy has been re-determined for the control period 2010-11 to 2012-13 based on the variable cost determined for the control period FY 2013-14 to 2015-16. Thereafter, variable cost of energy from biomass sources has not been revisited by the Commission. Therefore, the Commission would like to consider the variable cost of biomass energy determined for the FY 2015-16 to be applicable for the FY 2018-19 towards procurement of power by GRIDCO from the Biomass plant of M/s. Shalivahana Green Energy Ltd. Accordingly the Commission approves cost of Rs. 46.24 Crore at the provisional rate of 578 P/U for procurement of 80 MU of Biomass energy from M/s. Shalivahana Green Energy Ltd. for the purpose of computation of ARR of GRIDCO for the FY 2018-19.

Wind Energy

218. GRIDCO has expected an availability of 50 MW Wind power by the end of December 2018 through M/s PTC India Ltd. during the FY 2018-19. Considering export of power from January 2019 to March 2019, GRIDCO is hopeful to procure around 22 MU of Wind Energy @ 353 P/U for an amount of Rs. 7.766 Crore. Since the wind power is available at the proposed cheaper rate, the Commission approves the proposal of GRIDCO and allows procurement of 22 MU Wind energy by GRIDCO for State consumption during the FY 2018-19 @ 353 P/U with the cost of Rs. 7.77 Crore.

Solar Energy

219. GRIDCO has proposed to procure 680 MU of solar energy from different sources at the total cost of Rs. 365.80 Cr. with an average rate of 537.94 P/U during the FY 2018-19 as indicated in the Table below:

Table -31
Procurement & Cost of Solar Power during FY 2018-19

Sl. No.	Solar RE Sources	Energy (MU)	Rate (P/U)	Total Cost (Rs. Cr.)
1	8 Nos. of Solar PV projects of 1 MW each under RPSSGP	13	628	8.16
2	20 MW from NVVN through 'New Projects scheme' under JNNSM, Phase-1	34	1065	36.21
3	5 MW through NTPC from Solar PV project at Dadri	8.5	1294	11.00
4	5 MW through NTPC from Solar PV project at Faridabad	8.5	935	7.95
5	5 MW from M/s Alex Green Energy Ltd. through OREDA State Scheme	8	700	5.60
6	25 MW from M/s ACME Odisha Solar Power Pvt. Ltd.	42	728	30.58
7	70 MW through Solar Energy Corporation of India (SECI) under JNNSM, Phase –II, Batch-I	116	550	63.80
8	270 MW through Solar Energy Corporation of India (SECI) under JNNSM, Phase-II, Batch-IV	450	450	202.50
	Total	680	537.94	365.80

220. The Commission has scrutinized the above proposal of GRIDCO along with the energy bills raised by the solar generators in recent past and approves the same for the computation of ARR of GRIDCO for the FY 2018-19. Accordingly, the procurement cost comes to Rs. 365.80 crore at an average rate of 537.94 P/U for procurement of total 680 MU of solar power during the FY 2018-19.
221. The Commission, in the above paragraphs, has approved a purchase of 1102 MU from renewable energy sources (both solar and non-solar) during the FY 2018-19 based on the proposal of GRIDCO and availability of the same. But such available quantum of renewable energy is inadequate to meet the RPO fixed by the Commission for FY 2018-19. In its submission GRIDCO has stated that they have planned to procure renewable energy from different other sources during the ensuing year for meeting the RPO. It is to mention here that in the ARR of GRIDCO for the FY 2016-17, the Commission had allowed a corpus of Rs.30 Cr. to be utilized in exigency exclusively

for purchase of renewable power in case of any shortfall of fund for purchase of the same. Since during the FY 2016-17 GRIDCO had not procured more than the approved quantum of Renewable Energy, the corpus amount of Rs. 30 Cr. was not utilized. Hence, in the tariff order for the FY 2017-18, the Commission had directed GRIDCO to utilise the said Rs.30 Cr. towards purchase of additional quantum of renewable energy during the current year 2017-18. But from the submission of GRIDCO it is observed that GRIDCO has procured only 431.89 MU of renewable energy (both solar and non-solar) upto the month of December, 2017 against the approval of 763 MU for the FY 2017-18. It appears that GRIDCO may not be able to purchase the approved quantum of renewable energy by the end of the current FY 2017-18. Hence, the aforesaid amount of Rs.30 Cr. might have not been utilized in the current year for procurement of additional quantum of renewable energy over and above the approved quantum. Therefore, the Commission directed GRIDCO to utilise the said amount of Rs.30 Cr. towards purchase of additional quantum of renewable energy during the ensuing FY 2018-19.

Independent Power Plants (IPPs)

M/s. Vedanta Ltd.

222. In its application, GRIDCO has submitted that the Multi Year Tariff (MYT) Petition filed by M/s Vedanta Ltd for FY 2014-15 to 2018-19 in Case No.95 of 2013 and application for interim tariff in Case No.38 of 2016 (truing up for the period 2010-11 to 2013-14) are yet to be disposed of by the Commission. Pending disposal of the aforementioned Appeal and the MYT petition filed by M/s. Vedanta Ltd, the Commission for FY 2017-18 had fixed a provisional tariff of 251.22 Paise/kWh (fixed charge component of 90.25 Paise/kWh and energy charge of 160.97 Paise /kWh) towards procurement of power by GRIDCO from the said IPP. At present, M/s. Vedanta Ltd-IPP is raising monthly energy bills based on ECR as per actuals and capacity charges considering Annual Fixed Charges as fixed by the Commission in the Tariff Order dated 12.06.2013 taking into account the PAFM calculated on its own instead of the same furnished by SLDC. However, for computation of ARR for FY 2018-19, GRIDCO has considered the Fixed Charge of 116.90 Paise/kWh based on the submission made by M/s. Vedanta Ltd. before this Commission, in their MYT application admitted in Case No. 95 of 2013. The average of actual Energy Charge Rate of M/s. Vedanta Ltd-IPP is calculated from the coal and oil data submitted for

the period from April-17 to Sept-17 and the proposed Energy Charge Rate for FY 2018-19 is calculated by GRIDCO considering 10% escalation on the weighted average ECR and it works out to be 180 Paise/kWh (i.e.164 Paise/kWh*1.1). However, these coal and oil data so submitted are under scrutiny of GRIDCO. Accordingly, estimated rate of power procurement from M/s Vedanta Ltd has been worked to be 297 Paise/kWh (i.e. Fixed Charges plus Energy Charge Rate) by GRIDCO for the FY 2018-19. GRIDCO proposes to procure an estimated total quantum of 2630.82 MU from the IPP Unit (#2) or the power as supplied by M/s. Vedanta Ltd in compliance to Para 35 (c) of OERC Order 27.01.2016. @ 297 Paise/kWh (i.e. Fixed Charge Rate @117 P/U plus Energy Charge Rate @180 P/U) .

223. The Commission observed that the MYT petition filed by M/s. Vedanta Ltd. (erstwhile Sesa Sterlite Ltd) before the Commission for the FY 2014-15 to 2018-19 is under consideration. The Commission in its order dated 27.01.2016 passed in Case No. 21/2015 has concluded that Unit-II of the 4x600 MW power plant of M/s. Vedanta Ltd. will continue to remain as IPP and connected to the State Grid. Quantum of power supply to GRIDCO towards State entitlement should be 25% (at full cost) and 7% / 5% (at variable cost) of total energy sent out from the power station as per the PPA in force. The Unit-II must remain connected to STU as State dedicated unit and accordingly supply to GRIDCO must be 25% + 7%/5% of total energy sent out from the power station or total ex-bus generation from Unit-II whichever is higher. Such quantum of power supply should not be disturbed at any point of time. Unit – I, III & IV of the power plant are allowed to be converted to CGP w.e.f. 01.04.2015. The above conversion is based on the assurance of the Petitioner that in case of low or no generation in Unit-II, the Petitioner shall meet its commitment in the PPA from the CGP units and its pricing shall be as per the relevant IPP Regulations of the Commission. The coal used for generating power for State entitlement shall be linkage coal / captive mines allocated to the Petitioner for State use. However, in the meantime the Commission vide its order dated 26.02.2018 has disposed of the Case No. 38/2016 on the matter of revision of tariff for the IPP of M/s. Vedanta Ltd. for the period from FY 2010-11 to 2013-14.
224. In view of the above, for the purpose of computation of ARR of GRIDCO for the FY 2018-19, the Commission considers the fixed cost as approved for FY 2013-14 in its aforesaid order dated 26.02.2018 passed in Case No. 38/2016. Accordingly, the fixed

cost is considered at 114.40 P/U. Further, considering the average linkage coal & oil price indicated in the monthly bills of M/s. Vedanta Limited from the month of April'17 to September, 2017 as submitted by GRIDCO, the avg. energy charge rate is computed as 162.70 P/U. Accordingly, the provisional tariff for the IPP of M/s. Vedanta Ltd. for the FY 2018-19 is considered at the energy charge rate of 162.70 P/U and fixed charge rate of 114.40 P/U. The Commission has approved the power procurement of 5039.45 MU (4199.54 MU at fixed & variable cost and 839.91 at variable cost only) from M/s. Vedanta Ltd. for state use. Further, the Commission allows Rs. 14.74 Crore in tariff towards payment of E.D. on normative auxiliary consumption. Accordingly the average tariff for Vedanta Ltd comes to 260.96 P/U. The Commission provisionally consider the same for the FY 2018-19 for procurement of power from M/s. Vedanta Ltd. Therefore, the power procurement cost is estimated at Rs.1315.08 Crore considering the approved quantum of 5039.45 MU to be procured from M/s. Vedanta Ltd. for state use during the FY 2018-19. As stated earlier this figures are provisional to estimate the ARR of GRIDCO and the final tariff will be determined by the Commission after disposal of the Multi-Year Tariff petition filed by M/s. Vedanta Ltd. before the Commission for the FY 2014-19.

M/s GMR Kamalanga Energy Ltd.

225. GRIDCO has submitted that at present it is procuring power from GKEL at provisional rate of tariff as fixed by CERC in the tariff order dated 12.11.2015 in Petition No.77/GT/2013 for FY 2013-14. Further, Appeal No.74/2014 filed by GRIDCO (in the matter of jurisdiction of CERC for determination of tariff of the IPP which comes in the category of Composite Scheme) before the APTEL against the maintainability of CERC order 03.01.2014 has been dismissed by APTEL vide order dated 7th April, 2016. APTEL had upheld that CERC has the jurisdiction to determine the tariff of GKEL in respect of supply of power to GRIDCO. The said judgment of APTEL dated 7th April, 2016 in respect of 25% State entitlement challenged by GRIDCO before the Hon'ble Supreme Court of India in Civil Appeal No.5415 of 2016 was also dismissed vide Hon'ble Apex Court's order dated 11.04.2017 and upheld the aforesaid APTEL judgment. Further, final judgment of APTEL dated 1st August, 2017 in Appeal No.35 of 2016 and Appeal No.45 of 2016 filed by GKEL and GRIDCO respectively against CERC order 12.11.2015 have been pronounced. GRIDCO is taking necessary action for challenging the said judgment before the

Hon'ble Apex Court. Further, GKEL had filed application for determination of tariff for the control period 2014-19 before CERC in Petition No.61/GT/2016 along with truing up for 2013-14 which is yet to be pronounced. However, The Annual Fixed Charges proposed by GKEL for the control period 2014-19 in Petition No. 61/GT/2016 are as follows:

Table-32

Item	2014-15	2015-16	2016-17	2017-18	2018-19
AFC (Rs. Cr.)	1352.76	1388.04	1414.52	1410.01	1383.78
GRIDCO's Share of AFC (Rs.Cr.)	338.19	347.01	353.63	352.50	345.94

226. GRIDCO has further submitted that the Annual Fixed Charges for 25% of contracted capacity towards state share comes to Rs. 345.94 Crore as per the tariff filing made by GKEL for FY 2018-19. Hence, per unit fixed cost has been worked out to be 188 P/U. Considering 10% escalation over and above the average of the actual Energy Charge Rate (ECR) based on use of linkage coal only, the Energy Charge Rate (ECR) has been calculated by GRIDCO at 160 P/U and the total rate of power from GKEL has been calculated to be 348 P/U. The IPP has submitted the tentative Generation plan for FY 2018-19 in compliance to request of GRIDCO. Therefore, the total proposed power procurement cost from GKEL for 1840 MU @ 348 P/U is worked out by GRIDCO to be Rs. 640.32 Crores for FY 2018-19.
227. The Commission observed from the submission of GRIDCO that it is entitled to procure 25% of the power sent out from M/s. GMR Kamalanga Energy Ltd. at the tariff to be determined by CERC and as per PPA the power generated in excess of 80% PLF shall be made available to the state at variable cost. Further, the application filed by M/s. GKEL before CERC for determination of tariff for the control period 2014-19 along with the truing up of the fixed cost for FY 2013-14 is yet to be disposed of. However, CERC has already approved the provisional tariff for GMR for FY 2013-14 vide its order dt.12.11.2015. Hence, pending the decisions of the aforesaid issues, the Commission like to consider the fixed cost of Rs. 339.30 Crore already approved by CERC for FY 2013-14, for procurement of power from the IPP of M/s. GKEL during FY 2018-19. Accordingly, the fixed cost is computed 184.18 P/U. Further, considering the average linkage coal & oil price indicated in the

monthly bills of M/s. Vedanta Limited from the month of April'17 to September, 2017 as submitted by GRIDCO, the average energy charge rate is computed as 139.00 P/U and considered by the Commission for procurement of power during FY 2018-19. Accordingly, the power procurement cost is arrived at Rs.595.36 crore @ 323.18 P/U considering the approved quantum of 1842.19 MU for state use during the FY 2018-19. However, any excess generation beyond 85% PLF shall be purchased by GRIDCO at the variable cost i.e. ECR considering the linkage coal price. The tariff computed here is provisional and considered for computation of ARR of GRIDCO for the FY 2018-19. Any difference after finalization of tariff by the appropriate Commission will be considered in truing up exercise.

M/s Jindal India Thermal Power Ltd.

228. GRIDCO has submitted that M/s. JITPL have filed tariff application before the Commission for approval of Energy Charge Rate (ECR) in respect of its IPP which is admitted as Case No.26 of 2014. Now M/s. JITPL is supplying power @12% of tentative day ahead declaration in view of cancellation of allocated coal block by Hon'ble Supreme Court of India. However, pending disposal of the Case No-26 of 2014 by the Commission, GRIDCO has proposed to procure 504 MU of power from M/s. JITPL at a provisional ECR of 141 P/U considering 10% escalation over the average of actual Energy Charge Rate (ECR) for the period April-17 to September-17 (based on firm linkage coal only). Accordingly, the total proposed procurement cost from M/s. JITPL for 504 MU @ 141 P/U is worked out by GRIDCO to be Rs. 71.06 Crore for FY 2018-19.
229. The Commission has approved purchase of 1007.89 MU from the IPP of M/s JITPL during the FY 2018-19 for State use at variable cost. Considering the submission GRIDCO and the average linkage coal price indicated in the monthly bills of M/s. JITPL from the month of April, 17 to June, 17 as submitted by GRIDCO, the energy charge rate comes to 146.70 P/U. Pending finalisation of the tariff of such power from M/s JITPL, the Commission considers a provisional rate of 146.70 P/U for the energy to be procured from the IPP of M/s JITPL during the FY 2018-19. Accordingly, the power procurement cost comes to Rs. 147.86 Cr. @ 146.70 P/U for purchase of the approved quantum of 1007.89 MU by GRIDCO for State use. The tariff computed here is provisional and considered for computation of ARR of GRIDCO for the FY 2018-19.

230. Thus, the procurement cost of total 7889.53 MU from the above IPPs is Rs. 2058.30 cr. at an average rate of 260.89 P/U as shown in the Table below:

Table -33
Power Procurement & Cost from IPPs during FY 2018-19

IPPs	Quantity	Provisional Rate	Cost
	(MU)	(P/U)	(Rs. Crore)
M/s. Vedanta Ltd.	5039.45	260.96	1315.08
M/s GMR Kamalanga Ltd.	1842.19	323.18	595.36
M/s Jindal India Thermal Power Ltd.	1007.89	146.70	147.86
Total	7889.53	260.89	2058.30

231. Pending finalization of the tariff for the aforesaid IPPs, the Commission considers the above price provisionally for the purpose of computation of ARR of GRIDCO for the FY 2018-19. However, GRIDCO may make payment of the energy bill of these IPPs after due scrutiny as per the PPA and tariff determined by the appropriate Commission. Further, the Commission directs that deviations /adjustment in revenue, if any, after finalization of tariff shall be considered in the truing up exercise.

Central Hydro Generating Stations

232. **Chukha:** In its application, GRIDCO has submitted that the procurement cost of power from Chukha for FY 2018-19 has been considered as 229.00 P/U (including trading margin @ 4 paise/unit) based on the Office Memorandum dated 06.01.2016 of Ministry of External Affairs, Govt. of India along with the PTC letter No. C/PTC/Chukha/14994-15004 dtd.07.01.2016. GRIDCO has, therefore, proposed a rate of 233.70 paise/unit towards drawal of power from Chukha hydro power stations for the FY 2018-19 including Central Transmission Loss of 2.01%, but excluding transmission charges of PGCIL. Thus, the power purchase cost of 262.00 MU as proposed by GRIDCO works out to Rs.61.23 crore.
233. The Commission scrutinized the submission of GRIDCO and approves the rate of 233.70 paise/unit considering the central transmission loss @ 2.01% for the power procurement from Chukka for FY 2018-19. So the cost for Chukka power comes to Rs. 61.27 crore for the approved drawal of 262.18 MU for FY 2018-19. The details are given in Table below.

Table – 34

	GRIDCO's Proposal for FY 2018-19	Commission's Approval for FY 2018-19
Net Energy Drawal (MU)	262.00	262.18
Energy Charge (P/U)	229.00	229.00
Energy Charge incl. Tr. Loss (P/U)	233.70 (C.T.L. of 2.01%)	233.70 (C.T.L. of 2.01%)
Cost of Chukka Power (Rs. Cr.)	61.23	61.27

234. **TALA:** GRIDCO has proposed the rate of 216.00 P/U (including trading margin @ 4 paise/unit payable to PTC India) for estimating the power purchase cost from TALA during the FY 2018-19. This rate of 216 P/U is based on the bills served to GRIDCO. Considering Central Transmission Loss of 2.01%, the rate of TALA Power comes to 220.43 p/u. Considering the drawl of 139.00 MU, the power purchase cost from TALA HEP worked out to be Rs.30.64 crore for the FY 2018-19 excluding transmission charges of PGCIL.
235. The Commission scrutinized the above proposal of GRIDCO and approves the rate of 220.43 paise/unit considering the central transmission loss @ 2.01% for the power procurement from TALA HEP for FY 2018-19. So the cost of TALA power comes to Rs.30.60 crore for the approved drawal of 138.80 MU for FY 2018-19. The details are given in Table below.

Table – 35

	GRIDCO Proposal for 2018-19	Commission's Approval for 2018-19
Net Energy Drawal MU	139.00	138.80
Energy Charge (P/U)	216.00	216.00
Energy Charge incl. Tr.Loss (P/U)	220.43 (C.T.L. of 2.01%)	220.43 (C.T.L. of 2.01%)
Cost of Tala Power (Rs. In Cr.)	30.64	30.60

236. **TEESTA:** GRIDCO has stated that the Energy Charge Rate (ECR) being claimed by NHPC–TEESTA in the present bills is 115.50 P/U. The ECR in case of TEESTA station constitute 50% of the total charges and balance 50% constitute the fixed charges. Thus, the per unit fixed charge for TEESTA station works out to 115.50 p/u, the total per unit cost being 231.00 p/u. Considering the central sector loss @ 2.01% the proposed rate for TEESTA works out to 235.74 p/u. So, the power purchase cost from TEESTA–V HEP estimated by GRIDCO comes to Rs.120.93 crore considering the proposed drawl of 513.00 MU for FY 2018-19.

237. After due scrutiny, the Commission observed that as per the CERC order dated 16.08.2016, the Annual Fixed charges of TEESTA-V is approved at Rs. 520.32 crore and accordingly the average rate of TEESTA Power comes to 232.62 p/u considering the saleable energy of 2236.81 MU. Hence, the average rate per unit of TEESTA power computed to be 237.39 P/U inclusive of central transmission loss of 2.01% for FY 2018-19. Accordingly, the cost of TEESTA power comes to Rs.121.74 crore for the approved drawal of 512.84 MU during FY 2018-19. The details are given in Table below.

Table – 36

	GRIDCO Proposal for FY 2018-19	Commission's Approval for FY 2018-19
Net Energy Drawal MU	513.00	512.84
Energy Charge (P/U)	231.00	232.62
Energy Charge incl. Tr. Loss (P/U)	235.74 (C.T.L. of 2.01%)	237.39 (C.T.L. of 2.01%)
Cost of Teesta Power (Rs. In Crore)	120.93	121.74

Central Sector Thermal Power Stations:

238. GRIDCO in its ARR filing submitted that the Capacity Charges (Fixed Cost) of respective NTPC Stations are being claimed by NTPC as per the relevant Tariff Orders / Regulations notified by the CERC applicable from time to time. CERC (Terms and Conditions of Tariff) Regulations, 2014 provides the basis for determination of Fixed Cost in respect of various Generating Stations and as per CERC Tariff Orders, it has been clarified that the measurement of GCV of coal on “as received basis” shall be taken from the loaded wagons at the unloading point either manually or through Hydraulic Augur. Hence, CERC has decided to compute the fuel components and the energy charges in the Working Capital by provisionally taking the GCV of coal on “as billed basis” and allowing the adjustment for total moisture as per the formula given as under:

$$\text{GCVX} (1-\text{TM}) / (1-\text{IM})$$

Where GCV= Gross Calorific value of coal

TM= Total moisture, IM= Inherent moisture

239. In view of above, CERC has computed the cost of fuel components in Working Capital at 83% NAPAF for the year 2014-15, 2015-16 and 2016-17 and at 85% NAPAF for the year 2017-18 & 2018-19 and based on “as billed” GCV of coal and price of coal procured by NTPC for the preceding 3months. Similarly, the Energy

Charge Rate (ECR) has been computed by the Commission basing on the billed GCV with an adjustment on account of coal received at the Generating Station for equilibrated basis in the billed GCV of M/s. Coal India. Similar contentions have been mentioned by CERC for TSTPS-I vide Order dtd. 29.07.2016 at Para 81 and 83 regarding the issue of calculation of fuel components in Working Capital and Energy Charge Rate calculation. Accordingly NTPC has recalculated the AFC as determined by the CERC considering revised working capital based on Total Moisture Correction in GCV as narrated above.

240. GRIDCO has further submitted that NTPC is raising the Capacity Charges of its Generating Stations on GRIDCO by applying the Fixed Cost already determined by the Central Commission in its tariff Orders for FY 2014-19 (considering the total moisture correction) except Barh-II. For Barh Super Thermal Power Station-II (BSTPS-II), the bill has been raised by NTPC at 85% of the tariff filed before the CERC. GRIDCO has made the apportionment of Fixed Cost as per the state share in the pool and with inclusion of Central Transmission Loss (CTL), the Projected Fixed Cost applicable for state share of energy drawal from different Stations is worked out by GRIDCO as Rs. 928.59 Crore as shown in the Table below:

Table-37

Projected Annual Fixed Cost (AFC) of CGSs NTPC -ER Stations for FY 2018-19

Central Thermal Stations	AFC for FY2018-19 as per CERC Order (Rs. Cr.)	Revised AFC based on Interest on Working Capital adjusted towards Moisture Correction in GCV	Projected AFC by GRIDCO for FY18-19 (Rs. Cr.)	GRIDCO Share (%)	GRIDCO F.C. share for FY 2018-19 at normative availability of 85% (Rs. Cr.)	GRIDCO's Proposed drawal for FY 2018-19 after C.S. Loss (MU)	Fixed Cost (P/U)
TSTPS -I	674.01	676.26	676.26	32.34	218.73	2229.92	98.09
TSTPS -II	1007.23	1012.59	1012.59	10.00	101.26	1371.85	73.81
FSTPS-I&II	914.80	930.04	930.04	14.18	131.91	1552.63	84.96
FSTPS-III	525.44	527.82	527.82	18.05	95.28	622.30	153.12
KhSTPS-I	603.63	606.35	606.35	15.77	95.65	884.27	108.17
KhSTPS-II	1149.96	1155.82	1155.82	2.62	30.29	271.69	111.49
Barh STPS - II **	1727.45	1727.45	1727.45	14.79	255.46	1349.23	189.34
TOTAL-B	6602.52	6636.33	6636.33		928.59	8281.89	112.12

* Except Barh STPS-II, the AFC for aforementioned stations has been calculated as per the Tariff Orders of CERC for the period 2014-19 and revised therefrom due to recalculation of interest on working capital basing upon the total moisture correction in GCV in compliance with CERC Order.

241. **Fixed Cost:** The Commission scrutinized the above proposal of GRIDCO and observed that GRIDCO has considered the Fixed Cost of Central Thermal Generating Stations as per the tariff orders issued by CERC except Barh STPS-II. Now, NTPC is also raising the bills towards Capacity Charges of its Generating Stations on GRIDCO by applying the Fixed Cost already determined by the Central Commission in its tariff Orders for FY 2014-19 considering the total moisture correction in working capital. Therefore, to calculate the power purchase cost of central sector thermal stations provisionally towards State share of power, the Commission consider the fixed cost of NTPC-ER stations as approved by CERC in its Tariff Orders for the FY 2018-19 considering the total moisture correction in working capital, as shown in the table below:

Table – 38

Fixed Cost considered by the Commission for Central Thermal Stations for 2018-19

Name of Power Station	Fixed cost approved by CERC (Rs. Cr.)	Revised Fixed cost with total moisture correction in GCV (Rs. Cr.)	State share (%)	GRIDCO's proposal for its share of Fixed Cost (Rs. Cr.)	GRIDCO's proposal including Central Tr. Loss (P/U)	OERC approval of Fixed Cost for 2018-19 (Rs. Cr.)	Estimated energy after Central Tr. Loss (MU)	OERC approval including Central Tr. Loss (P/U)
TSTPS –I	674.005	676.257	32.344	218.73	98.09	218.73	2229.92	98.09
TSTPS –II	1007.234	1012.591	10.000	101.26	73.81	101.26	1371.85	73.81
FSTPS-I&II	914.799	930.041	14.184	131.91	84.96	131.91	1552.65	84.96
FSTPS-III	525.437	527.824	17.150	95.28	153.12	90.52	591.18	153.12
KhSTPS- I	603.631	606.345	15.775	95.65	108.17	95.65	884.27	108.17
KhSTPS–II	1149.465	1155.825	2.621	30.29	111.49	30.29	271.69	111.49

242. **Energy Charge Rate (ECR):** GRIDCO has stated that as per the CERC Tariff Regulation, 2014-19, the cost of Secondary Fuel Oil (SFO) is to be included in the Energy Charges of CGSs. Accordingly, NTPC is claiming the Monthly Energy Charges every month as per the ECR worked out from the landed price of coal & oil and GCV for that month and considering the operational parameters laid down in CERC Tariff Regulation, 2014. Based on the present trend of energy charges, GRIDCO has projected the Energy Charge Rate for FY 2018-19 considering 5% escalation on ECR computed as per the CERC Tariff Regulations including Central Sector Loss as shown in the table below:

Table – 39
Energy Charge Rate of NTPC Stations Projected by GRIDCO for FY 2018-19

Central Thermal Stations	Weighted Average ECR of 1 st six months of FY 2017-18 (Apr.'17 to Sept.'17) as billed by NTPC	ECR projected by GRIDCO for 2018-19 considering 5% escalation on the Weighted Average ECR	Projection for FY 2018-19 including Central Sector Loss
	(P/U)	(P/U)	(P/U)
TSTPS-I	157.41	165.28	168.24
TSTPS-II	160.35	168.37	172.26
FSTPS-I&II	261.90	275.00	279.92
FSTPS-III	265.97	279.27	284.27
KhSTPS-I	225.78	237.07	240.71
KhSTPS-II	213.45	224.12	227.57
Barh STPS-II	232.97	244.62	248.37

243. Actual bills submitted by NTPC to GRIDCO from the month of April, 2017 to November, 2017 are scrutinized and it is observed that the average ECR of the Central Generating Stations for this period (except FSTPS-I, II & III) has been decreased as compared to the approval for FY 2017-18. The details of Price of Coal, GCV & ECR as per the bills served by NTPC to GRIDCO for the period from April, 2017 to November, 2017 are given in the table below:

Table-40
Price of Coal & GCV of CGS

MONTH	FSTPS - I & II			FSTPS-III	KSTPS-I			KSTPS -II	TSTPS-I			TSTPS - II
	Cost of Coal (Rs./MT)	GCV of Coal Kcal/Kg	ECR Rs./ KWH	ECR Rs./ KWH	Cost of Coal (Rs./MT)	GCV of Coal Kcal/Kg	ECR Rs./ KWH	ECR Rs./ KWH	Cost of Coal (Rs./MT)	GCV of Coal Kcal/Kg	ECR Rs./ KWH	ECR Rs./ KWH
Apr-17	3,985.83	3,702.00	2.775	2.785	2,666.92	3,099.00	2.329	2.227	2,018.99	2,668.00	1.917	1.917
May-17	4,387.90	3,925.00	2.882	2.893	2,671.55	3,164.00	2.286	2.185	2,134.00	2,709.00	1.995	1.995
Jun-17	4,276.69	4,055.00	2.718	2.753	2,803.89	2,843.00	2.667	2.574	1,951.88	2,890.00	1.713	1.713
Jul-17	3,843.57	3,928.00	2.523	2.542	2,696.11	3,144.00	2.321	2.218	1,802.79	3,229.00	1.419	1.419
Aug-17	3,805.90	3,572.00	2.746	2.769	2,579.14	3,156.00	2.213	2.115	1,702.93	3,194.00	1.356	1.356
Sep-17	3,501.26	3,638.00	2.482	2.497	2,439.66	3,112.00	2.124	2.030	1,800.97	3,162.00	1.447	1.447
Oct-17	3,098.12	3,339.00	2.394	2.415	2,420.94	3,066.00	2.139	2.045	1,617.35	3,161.00	1.302	1.302
Nov-17	3,863.91	3,797.00	2.624	2.611	2,766.08	3,324.00	2.253	2.154	1,611.69	2,917.00	1.404	1.404
Avg from 4/17 to 11/17	3,845.40	3,744.50	2.648	2.663	2,630.54	3,113.50	2.287	2.189	1,830.08	2,991.25	1.553	1.553

244. From the above table it is found that the ECR for FSTPS-I & II varies from 239.40 p/u to 288.20 p/u, for FSTPS-III it varies from 241.50 p/u to 289.30 p/u, for KhSTPS-I, it varies from 212.40 p/u to 266.70 p/u, for KhSTPS-II, it varies from 203.00 p/u to 257.40 p/u and for TSTPS-I & II, it varies from 130.20 p/u to 199.50 p/u for the period from April, 2017 to November, 2017. It is observed that the ECRs of the central generating stations have not followed a particular pattern in their variations. Therefore, reaching a conclusion on likely ECRs of different power stations for the ensuing year is difficult. The comparisons of ECRs of different central thermal stations are given below.

Table –41

Central Thermal Stations	Approved ECR for 2017-18	GRIDCO Proposal for 2018-19 (considering 5% escalation on average ECR recasted as per CERC Regulations)	Max. ECR from 04/17 to 11/17	Min. ECR from 04/17 to 11/17	Avg. of actual ECR for 2017-18 (from April'17 to Nov.'17)
	(P/U)	(P/U)	(P/U)	(P/U)	(P/U)
TSTPS-I	162.30	165.28	199.50	130.20	155.30
TSTPS-II	162.60	168.37	199.50	130.20	155.30
FSTPS- I & II	243.10	275.00	288.20	239.40	264.80
FSTPS- III	245.20	279.27	289.30	241.50	266.30
KHSTPS-I	238.80	237.07	266.70	212.40	228.70
KHSTPS-II	228.20	224.12	257.40	203.00	218.90

245. The wide variation in ECR in recent times may be due to use of different types of coal used by NTPC in its plants for power generation. Hence, the actual ECR of the Central Thermal Power Stations for the ensuing year is unpredictable. Therefore, the Commission, for the purpose of computation of ARR of GRIDCO for FY 2018-19, considers the average of actual ECR of first eight months of the current FY 2017-18 (i.e. from April, 2017 to November, 2017) of the Central Thermal Power Stations as indicated in Table below.

Table – 42
Energy Charge Rate (ECR) of CGSs approved for 2018-19

(Paise/Unit)

Central Thermal Stations	GRIDCO's Proposal for 2018-19 (considering 5% escalation on average ECR recasted as per CERC Regulations)	Approval of the Commission considering the Avg. of actual ECR from April, 2017 to Nov, 2017 (excluding central Tr. Loss)	Approval of the Commission including central Tr. Loss
TSTPS-I	165.28	155.30	158.12
TSTPS-II	168.37	155.30	158.91
FSTPS-I & II	275.00	264.80	269.52
FSTPS -III	279.27	266.30	271.06
KHSTPS-I	237.07	228.70	232.24
KHSTPS-II	224.12	218.90	222.27

246. In case of any variation in ECR during 2018-19 over and above the rate approved by the Commission, the same may be recovered in accordance with the procedure and guidelines outlined in Appendix-7 read with the Regulations 60 of the OERC (Conduct of Business) Regulations, 2004. This would be over and above the normal tariff applicable. Alternatively such additional expenditure would be considered while determining the tariff for FY 2019-20.
247. **Year-end Adjustment Charges (YEA):** GRIDCO had proposed the year-end adjustment charges of central generating stations for FY 2018-19 to the tune of Rs. 14.81 crore based on the actual for FY 2016-17 and FY 2017-18 (April, 17 to Sept' 17) along with the projected Central Sector loss.
248. The Commission examined the above proposal of GRIDCO and accepted the Year-end Charges of Rs.14.41 Crore for the FY 2018-19 which is at the level of the actual Year-end Charges for the FY 2016-17 as proposed by GRIDCO except electricity duty and incentive. For Electricity Duty, the Commission approves Rs. 12.33 Crore for FY 2018-19 considering normative auxiliary consumption and the Commission does not allow incentive due to consideration of normative generation. Accordingly, the year-end charges approved by the Commission including central transmission loss are given in the table below.

Table – 43

Year End Charges Approved for the FY 2018-19

Central Generating Stations	Water/ Pollution Cess (Rs. Cr.)	Electricity Duty (Rs. Cr.)	SOC & MOC charges (Rs. Cr.)	Total (Rs. Cr.)	Estimated energy after Central Tr. Loss (MU)	Rate including loss (P/U)	GRIDCO Proposal including loss (P/U)
TSTPS –I	0.08	7.62	0.36	8.06	2229.92	3.55	2.99
TSTPS-II	0.09	4.71	0.20	5.00	1371.85	3.56	4.96
FSTPS- I & II	0.75	0.00	0.25	1.00	1552.65	0.63	0.65
FSTPS – III	0.02	0.00	0.10	0.12	591.18	0.20	0.19
KhSTPS –I	0.06	0.00	0.14	0.20	884.27	0.22	0.21
KhSTPS –II	0.01	0.00	0.02	0.03	271.69	0.11	0.10

Transmission Charge for PGCIL System

249. GRIDCO in its ARR application has submitted that Transmission charges of PGCIL are being determined applying the norms and principles laid down by CERC from time to time. CERC vide its Order dtd.15.06.2010 have notified CERC (Sharing of Inter State Transmission Charges and Losses) Regulation, 2010, amended vide CERC notifications dated 24.11.2011, 28.03.2012 and 01.04.2015. The last amendment came into force with effective from 01.05.2015. According to this Regulation, PGCIL Charges shall be shared applying Hybrid Methodology, which shall be sensitive to distance, direction as well as quantum of power flow using load flow studies. The sharing of Inter-State Transmission System (ISTS) Charges shall be based on the technical and commercial information provided by various customers to the evaluating agency known as Implementing Agency which shall calculate the point of connection rates on quarterly basis for every customer (such as generator or demand customer) using the aforesaid method, for which Orders are being published by the CERC for the specified period from time to time. The Point of Connection (PoC) rates shall be on Rs/MW/Month basis. CERC vide its Order dtd.06.05.2016 have furnished the Slab PoC Rates for the period from April to June, 2016 taking into consideration the 3rd Amendment Regulations.
250. Accordingly, GRIDCO has received first part of the Bill (Bill #1) amounting to Rs.42.88 Crore towards recovery of charges for use of transmission assets of ISTS licensees for the month of April'17 for the approved Long Term Access (LTA) of 1315.71 MW. Based on the Weighted Average of Withdrawal Charges and Reliability

Support Charges applicable for Odisha from April'17 to Sept'17 and considering an escalation of 10% on Account of Asset Addition, GRIDCO has proposed to pay an amount of Rs. 544.86 Crore for the ensuing year 2018-19.

251. GRIDCO has not been receiving any Bill towards the second part of Bill (Bill #2) due to absence of additional Medium Term Open Access. The third part of the Bill (Bill #3), which is basically quarterly adjustment in nature, has been received by GRIDCO on quarterly basis. GRIDCO has received bills on this account amounting to Rs. 13.64 Crore for the period from April'17 to Sept'17. Accordingly, GRIDCO proposes Rs.27.29 Crore towards Bill #3 for the ensuing year 2018-19. PGCIL is also furnishing the deviation bills (Bill #4) as per the provision mentioned in the Regulation which is based on deviation from the approved withdrawal. Considering the bills received during the last six months and prorating the same for a year, GRIDCO proposes an amount of Rs. 0.53 Crore payable towards Bill #4 for the ensuing FY 2018-19.
252. Besides the above, GRIDCO has paid Rs. 3.46 Crore towards ULDC and Communication Charges for the period from Apr'17 to Sep'17 and prorating the same for the year, GRIDCO proposes to pay an amount of Rs. 6.91 Crore for the FY 2018-19. Further, GRIDCO has received an amount of Rs. 27.79 Crore towards Short-Term Open Access (STOA) Charges for the period from April, 17 to Sept,17. Accordingly, GRIDCO proposes Rs. 55.59 Crore to be received on account of STOA Charges for the FY 2018-19.
253. With the above submission, GRIDCO has estimated the net amount of Rs.524.00 Crore payable towards Transmission Charges for the ensuing year FY 2018-19. Considering energy drawal of 9363.60 MU and after allowing 2.05% of CTU loss, PGCIL Transmission Charge per unit including loss has been worked out by GRIDCO at 57.14 P/U.
254. The Commission observed that the tariff for central transmission system is fixed by the principles and norms lay down by the CERC from time to time. Hence, the Commission feels it prudent to provisionally consider the PGCIL transmission charges in line with the CERC Regulations for the purpose of computation of the ARR of GRIDCO for FY 2018-19. The Commission scrutinized the submission of GRIDCO and estimated the PoC charges towards Bill #1 at Rs.490.21 Crore based on

the average of the charges paid / to be paid by GRIDCO from April'17 to March'18 as per CERC Orders. Hence, the Commission provisionally approves the amount of Rs.490.21 Crore towards Bill #1 for the ensuing year 2018-19. In case the actual payment by GRIDCO during FY 2018-19 exceeds this approved amount, the differential amount shall be considered in trueing up exercise. Similarly, the Commission scrutinized the Bill #3 raised for the month from April'17 to Sept'17 by PGCIL and pro-rating the same for the whole year, the amount anticipated is Rs.27.29 crore. The Commission provisionally approves the same for the ensuing year 2018-19. The Commission scrutinized the Bill #4 towards Deviation charges of PGCIL for the period from April'17 to Sept., 17 and pro-rating the same for the whole year the amounts comes to Rs.0.53 crore. The Commission provisionally approves the same for the ensuing year 2018-19. Further the Bill #2 has not yet been raised by PGCIL to GRIDCO due to absence of additional medium-term Open Access. Accordingly, the Commission provisionally approves the total amount of Rs. 518.03 Crore towards transmission charges of PGCIL for the FY 2018-19 on account of Bill #1, Bill #3 and Bill #4 against Rs. 572.68 crore proposed by GRIDCO.

255. The Commission also scrutinized the ULDC & Communication Charges as proposed by GRIDCO in the ARR for FY 2018-19 and provisionally approves Rs.6.91 crore for pass through in the tariff. Further the Commission observed that GRIDCO has collected an amount of Rs. 27.79 Crore from the Short-term OA Customers during April'17 to Sept.'17. Prorating the same for the whole year, the amount comes to Rs.55.59 Crore as proposed by GRIDCO. Hence the Commission provisionally considers the amount of Rs.55.59 crore towards collection from Short-term Open Access Customers during the ensuing year 2018-19 and deducts the same from the total transmission charges.
256. Taking all the above costs into account the Commission approves a net amount of Rs. 469.35 Crore payable by GRIDCO to PGCIL towards transmission charges with projected average Central Sector Loss of 1.79% for the FY 2018-19. The details of total cost towards PGCIL transmission charges is indicated in the table below:

Table – 44

PGCIL Transmission Charges for FY 2018-19

Particulars	GRIDCO's Proposal	Commission's Approval
Transmission charge payable by GRIDCO for 2016-17 towards Bill#1 (Rs. Cr.)	544.86	490.21
Deviation charges proposed towards bill #4 (Rs. Cr.)	0.53	0.53
Year End Charges proposed towards Bill #3 (Rs. Cr.)	27.29	27.29
Total (Rs. Cr.)	572.68	518.03
ULD and Communication Charges (Rs. Cr.)	6.91	6.91
Less: allocable to short term customers(Rs. Cr.)	(-) 55.59	(-) 55.59
Net amount payable by GRIDCO towards Transmission Charges (Rs. Cr.)	524.00	469.35

257. Taking all the above cost into account the summary of power purchase from Central Thermal Generating Stations and its cost for GRIDCO estimated for FY 2018-19 is given in the table below:

Table –45

Sl. No.	Generators	Estimated Energy (MU)	Fixed Cost (Rs. In Crore)	Fixed Cost (P/U)	Energy Charge Rate (P/U)	Other Cost (P/U)	Total Rate (P/U)	TOTAL Cost (Rs Cr)
1	TSTPS St-I	2229.92	218.73	98.09	158.12	3.61	259.83	579.39
2	TSTPS St-II	1371.85	101.26	73.81	158.91	3.64	236.37	324.27
3	FSTPS I & II	1552.65	131.91	84.96	269.52	0.64	355.12	259.98**
4	FSTPS III	591.18	90.52	153.12	271.06	0.20	424.38	90.52*
5	KhTPS St-I	884.27	95.65	108.17	232.24	0.23	340.64	301.21
6	KhTPS St-II	271.69	30.29	111.49	222.27	0.11	333.87	90.71
NB:	(i) The rates include Central Transmission Loss. (ii) * No energy is considered for State drawal. Full fixed cost is allowed. (iii) ** Only 474.04 MU is considered for State drawal. Full fixed cost is allowed.							

258. Further, GRIDCO has projected an amount of Rs.2.20 crore towards payment of ERLDC fees and charges consisting of System Operation Charges (SOC) and Market Operation Charges (MOC) for the FY 2018-19. GRIDCO submitted that CERC vide its order dtd.18.05.2015 had framed Regulation on CERC (Fees and Charges of Regional Load Despatch Centres & Other Related Matters) Regulations, 2015 which is applicable during the control period from 01.04.2014 to 31.03.2019, based on which ERLDC shall levy and collect fees and charges from the users towards its SOC and MOC. 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 Utility/ Buyers and

hence, liable to pay the SOC & MOC claimed by the ERLDC. The total projected SOC & MOC payable by GRIDCO to ERLDC is calculated as Rs. 2.20 crore for the ensuing year 2018-19. Considering the parameters approved in this order, the Commission approves Rs. 2.10 Crore as pass through in the tariff towards SOC & MOC of ERLDC for the FY 2018-19.

259. GRIDCO's proposal for the cost of power purchase from various generating stations and the Commission's approval based on least cost power purchase for the FY 2018-19 are given in the table below:

Table –46
GRIDCO's Proposal & Commission's Approval for FY 2018-19

Generators	GRIDCO's PROPOSAL			COMMISSION'S APPROVAL		
	Energy	Total Rate	Total cost	Energy	Total Rate	Total cost
	MU	P/U	Rs.in Cr.	MU	P/U	Rs.in Cr.
HYDRO (OLD)	3,660.26	91.65	335.47	3,676.86	92.88	341.52
Indravati	1,943.37	79.49	154.48	1,942.38	80.36	156.08
Machakund	262.50	79.76	20.94	262.50	75.34	19.78
Total Hydro	5,866.13	87.09	510.89	5,881.74	87.96	517.38
OPGC	2,913.49	230.11	670.43	2,912.82	205.26	597.89
TTPS (NTPC)	3,376.07	318.37	1,074.85	3,376.07	309.18	1,043.83
IPPs	4,974.82	300.06	1,492.74	7,889.53	260.89	2,058.30
CGPs	-	-	-	-	-	-
Renewable						
Small Hydro	320.00	368.94	118.06	320.00	368.94	118.06
Biomass Energy	110.00	574.73	63.22	80.00	578.00	46.24
Wind Energy	22.00	353.00	7.77	22.00	353.00	7.77
Solar Energy	680.00	537.94	365.80	680.00	537.94	365.80
TOTAL STATE	18,262.51	235.66	4,303.76	21,162.17	224.71	4,755.26
CHUKHA	262.00	233.70	61.23	262.18	233.70	61.27
Tala HPS	139.00	220.43	30.64	138.80	220.43	30.60
Teesta-V	513.00	235.74	120.93	512.84	237.39	121.74
Total Central Hydro	914.00	232.83	212.80	913.82	233.75	213.61
TSTPS St-I	2,229.92	269.32	600.56	2,229.92	259.83	579.39
TSTPS St-II	1,371.85	251.03	344.38	1,371.85	236.37	324.27
FSTPS I & II	1,552.63	365.54	567.55	-	-	131.91*
FSTPS III	622.30	437.58	272.31	-	-	90.52*
KhTPS St-I	884.27	349.10	308.74	854.37	340.64	294.26**
KhTPS St-II	271.69	339.15	92.14	271.69	333.87	90.71
Barh STPS – I & II	1,349.23	437.89	590.81	-	-	-
Total Central Thermal	8,281.89	335.24	2,776.45	4,727.83	319.61	1,511.06

Generators	GRIDCO's PROPOSAL			COMMISSION's APPROVAL		
	Energy	Total Rate	Total cost	Energy	Total Rate	Total cost
	MU	P/U	Rs.in Cr.	MU	P/U	Rs.in Cr.
Total Central Sector	9,195.89	325.06	2,989.25	5,641.65	305.70	1,724.67
PGCIL Tr Charge			524.00			469.35
ERLDC Charges			2.20			2.10
TOTAL GRIDCO	27,458.40	284.77	7,819.21	26,803.81	259.34	6,951.38

NB: * No energy is considered for State drawal. Full fixed cost is allowed.

** Only 854.37 MU is considered for State drawal. Full fixed cost is allowed.

Rebate for Prompt Payment from the Generators

260. The PPA between the generators and GRIDCO provides for a rebate of 2% on the gross power bill, if payment is made through Letter of Credit. 1% rebate on the billed amount is allowed when payment is made within 30 days. In case of payment beyond the due date, delayed payment surcharge @ 1.25% per month is payable by GRIDCO to the generators.
261. For the purpose of calculation of revenue requirement, the cost of power should be calculated at its gross value, as the rebate available from the generator is likely to offset the rebate that will be allowed to the DISCOMs for payment through L.C.

Pass through of Arrear Power Purchase Dues

262. GRIDCO has proposed expenses of Rs. 293.71 crore, paid / to be paid to the Generators, as a pass through in the ARR of 2018-19. The details of proposed expenses claimed by GRIDCO as pass through are given hereunder:

Arrear payment to NTPC in respect of TTPS:

263. GRIDCO has submitted that CERC has pronounced the Tariff Order on 26.09.2016 for the Control period 2014-19 in respect of TTPS as per Petition No.334/GT/2016 in line with the CERC Tariff regulation, 2014 and some of the subsequent orders of CERC in respect of Central Generating Stations. The Annual Fixed Charges as fixed by CERC in respect of TTPS are as follows:

Table-47

FY	2014-15	2015-16	2016-17	2017-18	2018-19
AFC (Rs. Crore)	367.9727	385.4905	406.17	426.9269	444.7101*

*Increased to Rs.445.48 Crore by TTPS after adjusting Interest on WC towards differential GCV of Coal due to total moisture correction basing on CERC order.

As claimed by GRIDCO, the Commission have allowed Rs.104.41 Crore in ARR & BSP Order for FY 2017-18 towards arrear of NTPC-TTPS up to the period Sept'2016 arising out of revision of above fixed cost by CERC. However, GRIDCO has further paid an amount of Rs.19.00 Crore towards such arrears for the remaining period i.e. from October'16 to Mar'17 as per the relevant CERC Order. Hence, GRIDCO has prayed the Commission to allow this arrear payment of Rs.19.00 Crore in respect of TTPS as pass through in the ARR of GRIDCO for 2018-19.

264. The Commission observed that CERC vide its Order dated 26.09.2016 has determined the year wise annual fixed charges in respect of TTPS for the Control period 2014-19 in line with the CERC Tariff regulation, 2014. Accordingly, the Commission has computed the fixed cost of TTPS in the ARR of GRIDCO from the FY 2017-18. Earlier, the fixed cost of TTPS was calculated based on the annual fixed charges determined by CERC in respect of TTPS for the control period 2009-14 as per CERC Tariff Regulations, 2009. In the ARR of GRIDCO for the FY 2017-18, the Commission has allowed an arrear amount of Rs. 68.84 Crore paid to NTPC by GRIDCO towards differential fixed cost upto September, 2016. Now GRIDCO has claimed an amount of Rs. 19.00 Crore towards arrear in respect of TTPS arising out of the differential AFC for the period from October, 2016 to March, 2017. The Commission allows the prayer of GRIDCO and approves the said amount of Rs. 19.00 Crore as pass through in the ARR of GRIDCO for FY 2018-19.

Arrear payment in respect of NTPC-FSTPS-III Power Station

265. GRIDCO has submitted that in the ARR & BSP Order for FY 2017-18, the Commission has not considered quantum of energy and cost thereon towards purchase of power from Farakka-III in view of its higher rate. However, the Commission has allowed the Fixed Charges of the said Station to the tune of Rs.95.20 Cr. But during the year, GRIDCO has drawn power from the aforesaid Station due to scarcity in power and non-availability of power from the Generators inside the State and till Sept'17, an amount of Rs. 141.61 Crore has already been paid by GRIDCO towards purchase of power from FSTPS-III. In view of actual utilization of power by the State, GRIDCO has claimed amount of Rs.94.00 Cr. as pass through in the ARR for FY

2018-19 towards differential power purchase cost for availing power from Farakka-III during the period from April' 17 to Sept' 17.

266. The Commission observed that in the ARR & BSP Order for FY 2017-18, procurement of power from Farakka-III power stations of NTPC was not approved by the Commission for state use due to higher tariff, but payment of fixed cost of this power station was allowed. However, due to scarcity of power on account of non-availability of approved power purchase from IPPs, GRIDCO has purchased power from this power station to meet the state requirement. Accordingly, GRIDCO has claimed an amount of Rs. 94.00 Crore towards differential power purchase cost from this power station from April, 2017 to September, 2017. The Commission is of the view that it needs verification at the end of the year whether GRIDCO has followed the principle of merit order despatch by purchasing power from this power station during the FY 2017-18. Accordingly, the differential amount claimed by GRIDCO would be trued up after end of the year. Therefore, the Commission does not allow the claim of Rs.94.00 Cr. as pass through in the ARR for FY 2018-19.

Arrear Payment of M/s. GMR Kamalanga Energy Limited

267. GRIDCO has submitted that the Commission had kept the tariff at Rs.2.75/kWh for procurement of power from the IPP of M/s. GKEL for the financial years from 2013-14 to 2017-18 although GRIDCO has prayed to fix the tariff as per the CERC Tariff order dated 12.11.2015 in Petition No.77/GT/2013 for the FY 2013-14. Accordingly, GRIDCO was also making payment to GKEL as per the said provisional tariff fixed by the Commission. Further, the tariff petition for control period 2014-19 and truing up petition for FY 2013-14 have been filed by M/s. GKEL before CERC under Petition No.61/GT/2016 and the matter is sub-judice. In the meantime, GKEL also prayed before APTEL regarding payment of arrear dues by GRIDCO as per CERC order. Accordingly, GRIDCO had made provisional payment of Rs.171.33 Crore by 31st March, 2017 to GKEL in two phases towards arrear dues for the period FY 2014-15, FY 2015-16 and FY 2016-17 as per CERC Tariff order 12.11.2015, PAFM calculated and certified by SLDC, ECR based on linkage coal only against the claim of Rs.467 Crore raised by M/s. GKEL. However, the arrear payment against FY 2013-14 has not been considered due to non-availability of coal data for some period of the said financial year. The difference between claim of GKEL and provisional acceptance by GRIDCO is on account of difference in PAFM figure, working out of

ECR based on landed price and GCV of linkage coal only instead of weighted average of landed price of e-auction coal, open market coal and linkage coal. The year-wise arrear payment made by GRIDCO is as follows:

Table-48

(Rs. Crore)

Financial Year	Differential Arrear released by GRIDCO (Provisional)
2014-15	27.6396464
2015-16	64.9845652
2016-17	78.7050941
TOTAL	171.3293057

268. The Commission scrutinized the above proposal of GRIDCO and accepts the claim of GRIDCO towards payment of arrear dues arising on determination of tariff by CERC in respect of M/s. GMR Kamalanga Energy Limited. However, the Commission feels that there will be a heavy burden on the consumers of our state, if the entire arrear of Rs. 171.33 Crore is passed in the ARR of GRIDCO for the ensuing year 2018-19. Therefore, the Commission decides for reimbursement of the claimed arrear amount of Rs. 171.33 Crore in three years. Accordingly, an amount of Rs. 57.11 Crore (i.e. one third of the total claim of Rs. 171.33 Crore) is approved as pass through in the ARR of GRIDCO for the FY 2018-19 towards payment of arrear dues to M/s. GKEL.

Payment of Transmission Charges and Scheduling Charges by GRIDCO towards Procurement of Solar power from the Outside the State:

269. GRIDCO has submitted that it is availing around 75 MW Solar power from outside the State under different schemes of MNRE towards the Solar Purchase Obligation and bears the STU charges & RLDC charges towards scheduling of power availed from Rajasthan & Gujarat through SECI&NVVN and also from Dadri, Uttar Pradesh through NTPC at the rate determined by the respective State Electricity Regulatory Commissions for the respective financial years, as per the PPA / PSA executed with SECI, NVVN and NTPC. During FY 2016-17, GRIDCO has paid an amount of Rs. 7.88 Crore towards the STU Charges and Scheduling Charges and prayed the Commission to allow the same as pass through in the ARR of GRIDCO for the FY 2018-19. After scrutiny, the Commission accepts of the claim of GRIDCO and allows the amount of Rs. 7.88 Crore as pass through in the ARR of GRIDCO for the FY 2018-19 towards STU and Scheduling Charges for procurement of solar power from the outside the State during the FY 2016-17 as claimed by GRIDCO.

Arrear payment of Reactive Energy Charges

270. GRIDCO has claimed an amount of Rs. 1.50 Crore as pass through in the ARR for FY 2018-19 towards arrear payment of Reactive Energy Charges. Due to non-availability of supporting documents, the claim of GRIDCO could not be verified by the Commission. Hence, the Commission does not allow the same as pass through in the ARR of GRIDCO for the FY 2018-19.

Reimbursement to OHPC during FY 2018-19

271. The Commission while passing the order in ARR and Tariff application of OHPC for the FY 2018-19 in Case No.74 of 2017 has allowed an amount of Rs. 52.31 Crore provisionally for reimbursement by GRIDCO during the FY 2018-19 as given in the table below. The Commission approves the same in the ARR of GRIDCO for the FY 2018-19.

Table – 49

(Rs. in Cr.)

Component of Costs	RHEP	UKHEP	BHEP	HHEP	CHEP	UIHEP	Total
(a) License fee for use of water for generation of electricity for FY 2018-19 and differential amount for FY 2017-18	0.688	1.090	1.549	0.896	0.642	2.570	7.435
(b) ED on Auxiliary Consumption for FY 2018-19 and differential amount for FY 2017-18	0.499	0.791	1.124	0.650	0.466	1.864	5.392
(c) SLDC charges							1.570
(d) Application fees and publication expenses							0.262
(e) Contribution to ERPC							0.160
(f) Reimbursement of Income tax paid during FY 2016-17							37.490
Total							52.309

Reimbursement to OPGC during FY 2018-19

272. The Commission while passing the order in ARR and Tariff application of OPGC for the FY 2018-19 in Case No.75 of 2017 has allowed an amount of Rs. 65.08 Crore provisionally for reimbursement by GRIDCO during the FY 2018-19 as given in the table below. The Commission approves the same in the ARR of GRIDCO for the FY 2018-19.

Table- 50

Sl. No.	Particulars	OERC Approval for FY 2018-19
1	Electricity Duty	15.84
2	Water Cess and Water Charges	6.21
3	Tax and Cess on Land	0.18
4	SOC and MOC for SLDC	0.37
5	ERPC Charges	0.16
6	Income Tax	38.67
7	Recovery of ARR and Tariff Petition Fees	0.30
8	Incentives	3.35
	Total	65.08

Summary of Pass Through Expenses in the ARR & BSP for FY 2018-19

273. The proposed and approved Pass Through expenses in the ARR of GRIDCO for FY 2018-19 relating to Power Purchase Cost are given below:

Table - 51**(Rs. In Crore)**

Particulars	Proposal of GRIDCO	Commission's approval
(i) Arrear in respect of TTPS (Differential AFC for the period from October' 16 to Mar.' 17)	19.00	19.00
(ii) Arrear in respect of NTPC (Arrear towards FSTPS-III from Apr.' 17 to Sept.' 17)	171.33	57.11
(iii) Differential Arrear paid to M/s. GKEL for FY 2014-15, 2015-16 & 2016-17	94.00	-
(iv) Payment of Tr. Charges and Scheduling Charges towards Procurement of Solar power from the outside the State during FY 2016-17	7.88	7.88
(v) Arrear towards Re-active Energy Charges	1.50	-
(vi) Reimbursement to OHPC during FY 2018-19	-	52.31
(vii) Reimbursement to OPGC during FY 2018-19	-	65.08
Total amount for pass through in the ARR & BSP for FY 2018-19	293.71	201.38

GRIDCO FINANCE**Truing up of GRIDCO**

274. GRIDCO in its submission has stated to true up the expenditure based on the audited accounts of GRIDCO for FY 2015-16. GRIDCO has further submitted to file the audited accounts for FY 2016-17 as soon as the relevant audit report is available which will facilitate necessary for truing up. The Commission is of the view that GRIDCO needs to file a separate petition for the true up exercise along with the available audited accounts to be heard separately.

Employees cost

275. The Annual Revenue Requirement for the Financial Year 2018-19 filed by GRIDCO includes Rs.14.26 crore towards employees cost, which is analysed in the table below:-

Table - 52

Sl. No	Particulars	FY 2016-17 (Unaudited)	FY 2017-18 (Approved)	FY 2018-19 (Projected)
A	Salary & Allowances			
1	Basic Pay+ GP	2.20	2.19	8.50
3	Dearness Allowance	2.86	3.15	0.85
4	House Rent Allowance	0.30	0.33	0.36
5	Other Allowance	0.04		0.43
	Sub-total (A)	5.39	5.67	10.14
B	Additional Employee Cost			
1	Contractual Engagement	0.46	0.46	0.57
2	others if any	0.04	0.22	0.06
	Sub-total (B)	0.50	0.66	0.63
C	Other Employee Cost			
1	Medical Expenses	0.12	0.12	0.14
2	Leave Travel Concession	0.01		0.01
3	Honorarium	0.01		0.05
4	Ex-gratia	0.09		0.10
5	Staff Welfare Expenses	0.01		0.01
6	Miscellaneous	-		0.05
	Sub-total (C)	0.23	0.12	0.36
D	Terminal Benefits	0.79	2.28	3.13
E	Total Employees Cost (A+B+C+D)	6.91	7.24	14.26

Basic Pay + GP

276. The figure as per the actual un-audited data for the FY 2016-17 was Rs.2.20 crore. GRIDCO in the reply to queries of the Commission reported that the actual cash outflow on Basic Pay + GP from April 2017 to November 2017 (for a period of 8 month) was Rs.1.45 crore. From the statement it is revealed that they have not implemented the 7th pay recommendations. However it is assumed that this would be implemented during the ensuing year FY 2018-19. The Basic pay and GP for FY 2016-17 is given which has been extrapolated to arrive at Basic pay for FY 2018-19 including 7th pay recommendations. The said calculation is shown in the following table:

Basic Pay

Table-53

(Rs in Crore)

	FY 2016-17	FY 2017-18	FY 2018-19
Basic Pay	1.77		
GP	0.43		

	FY 2016-17	FY 2017-18	FY 2018-19
Total (Basic plus GP)	2.20		
7th pay recommendation assuming 2.57 times hike with 3% annual increment		5.65	5.82

Dearness Allowance:

277. The Govt of Odisha implemented the 7th Pay Commission with effect from 01.01.2016. The DA was also changed as per the 7th pay recommendations and the following table shows the notified DA by Govt of Odisha and projected DA thereof for FY 2018-19.

Table-54

Effective Date	Rate	Status
01.01.2016	nil	Approved By GoO
01.07.2016	2%	Approved By GoO
01.01.2017	4%	Approved By GoO
01.07.2017	5%	Approved By GoO
01.01.2018	6%	Projected
01.07.2018	7%	Projected
01.01.2019	8%	Projected

As per the above table the DA rate for FY 2018-19 is assumed to be 7%.

278. Following principle has been adopted for passing of other items of employee cost.
- i. The arrear pertaining to 7th pay recommendations has been projected at Rs. 1.50 crore. However, the Commission has considered not to allow any arrear pertaining to 7th pay recommendations for FY 2018-19.
 - ii. House rent allowance has been allowed as provided in the actual un-audited account for the year 2016-17 since there is no provision of increment in the 7th pay recommendations and the HRA would be a fixed amount equalling to the amount received on the date of implementation of 7th pay recommendations.
 - iii. Medical reimbursement and all other items have been allowed as projected by GRIDCO.
 - iv. Terminal benefits have been arrived by escalating the actual un-audited figures for the year 2016-17 at the rate of 2.57 times as per the provisions of the 7th pay recommendations.
279. With the above principle the approved employees cost for 2018-19 is shown in table below:-

Table – 55

	2017-18 (Approved)	2018-19 (Proposed)	2018-19 (Approved)
Basic Pay	2.19	7.00	5.82
DA	3.15	0.85	0.41
HRA	0.33	0.36	0.33
Expenses on contractual engagement	0.46	0.63	0.46
Medical reimbursement	0.11	0.14	0.14
Others	0.22	0.65	0.65
Terminal liabilities	0.78	3.13	2.09
Arrear of 7th Pay commission *	-	1.50	-
Total	7.24	14.26	9.90

280. The Commission approves an amount of Rs.9.90 crore towards employees cost for 2018-19 as against proposed amount of Rs.14.26 crore.

Repair Maintenance

281. During Financial Year 2018-19, GRIDCO proposes an amount of Rs.0.28 crore towards repair & maintenance under the head AMC of computers, vehicles, furniture and office equipment. The Commission approves an amount of Rs.0.28 crore as a pass through in the ARR for FY 2018-19.

Administration & General Expenses

282. During Financial Year 2018-19, GRIDCO proposed an amount of Rs.8.59 crore under the head Administrative and General Expenses, inclusive of an amount of Rs.1.50 crore towards license fee payable to OERC and Rs.0.16 crore towards ERPC membership fees and ERPC fund. The Commission considers the approved figure of Rs.2.76 crore last year and factoring in the annual inflation of (+) 5.25% for FY 2018-19, the amount works out to Rs.2.90 crore. Over and above the amount, the licence fee applicable for 2018-19 amounting to Rs.1.90 crore and ERPC membership fees/ Fund of Rs.0.16 crore are also allowed. Thus the Commission approves an amount of Rs.4.96 crore towards Administration and General Expenses for FY 2018-19 with a rider that GRIDCO shall make all endeavours to reduce the A&G costs by prudent management of resources.

Depreciation

283. Under this head GRIDCO has proposed Rs.1.10 crore towards the depreciation on fixed assets (vehicle, furniture and office equipment etc.) for the FY 2018-19. The Commission approves the same as pass through in the ARR of GRIDCO for the FY 2018-19.

Interest and Financial Charges

284. GRIDCO has proposed the total interest on loans and financial charges related to Power Purchase at Rs.572.85 Crore including Rs.8.62 Crore towards financial charges and Rs.52 Crore towards proposed interest payable on the bank loan during FY2018-19. Out of the above Rs.572.85 Crore, Rs.106.05 Crore of interest payable to the State Government and Rs.49.52 Crore payable to OHPC towards Interest on Securitised dues are proposed to be deferred. The proposed interest of Rs.51.90 Crore was calculated for six months period for the FY 2018-19 as the loans will be availed in a phased manner over the entire year. Accordingly, Interest amounting to Rs.417.28 Crore (Rs.572.85 Cr. – Rs.106.05 Cr. – Rs.49.52 Cr.) payable to Banks / FIs/ Corporates during FY 2018-19 has been factored by GRIDCO in the ARR & BSP proposal for FY 2018-19. The proposal of GRIDCO on Interest and Financial Charges indicated in the following table:

Table-56

Sl No	Particulars	Rate of Int. (%)	Ensuing Year (FY 2018-19)					
		01-4-17	Principal		Interest		Closing Bal.	
			Received	Repayment	Due	Paid	Principal	Interest
A								
1	State Govt.(WCL)	13.00%	-	-	15.60	15.6	120	296.61
2	St.Govt (OPGC Adj.)	10.50%	-	-	4.47	4.47	42.54	79.43
3	NTPC (Govt.Bonds)	8.50%	-	-	85.98	85.98	818.81	491.62
	Sub-total		-	-	106.05	106.05	981.35	867.66
B	Availed During FY 2009-10							
4	Union Bank STL- V	9.30%		-	9.3	9.3	100	-
	Sub-total		-	-	9.3	9.3	100	-
C	Availed During FY 2010-11							
5	Allahabad Bank - IV	10.45%	-	21.79	0.84	0.84	0.05	-
6	Syndicate Bank-II_200cr	10.35%	-	-	-	-	-	-
7	Canara -III_200 cr TL	10.55%	-	18.64	0.54	0.54	0.01	-
8	Bank of India _100cr_I	10.10%	-	0.01	-	-	0	-
9	Bank of India _200cr_II	10.10%	-	4.14	0.05	0.05	-	-
10	Union Bank- VII_190_2010-12	10.05%	-	-	-	-	-	-

Sl No	Particulars	Rate of Int. (%)	Ensuing Year (FY 2018-19)					
		01-4-17	Principal		Interest		Closing Bal.	
			Received	Repayment	Due	Paid	Principal	Interest
11	Andhra Bank_III_2010-12	10.45%	-	38.29	2.08	2.08	-	-
12	Canara_IV -100_2010-11	10.45%	-	32.06	1.48	1.48	0.08	-
13	IOB_I - 200_2010-11	10.45%	-	28.56	7.05	7.05	51.74	-
	Sub-total		-	143.49	12.04	12.04	51.88	-
D	Availed During FY 2011-12							
14	Union Bank - SOD	11.50%	21.46	-	36	36	350	-
15	Bond PF/2012-13 (140 cr)	10.82%	-	27.5	2.18	2.18	5.25	-
	Sub-total		21.46	27.5	38.18	38.18	355.25	-
E	Availed During FY 2012-13							
16	Real Growth PPB_2012-50cr	10.40%	-	-	5.2	5.2	50	-
	Sub-total		-	-	5.2	5.2	50	-
F	Availed During FY 2013-14							
17	GRIDCO Bond_2013-127.50cr	8.79%	-	-	11.21	11.21	127.5	-
18	Odisha Gramya Bank_II_136cr	9.95%	-	27.24	6.87	6.87	54.28	-
19	Bank of India_III_100 cr	10.10%	-	20.04	5.13	5.13	39.87	-
	Sub-total		-	47.28	23.21	23.21	221.65	-
G	Availed During FY 2014-15							
20	Bank of India_IV_300 cr	9.95%	-	60	20.65	20.65	174.92	-
21	OHPC Loan_619 cr	8.00%	-	88.44	49.52	49.52	530.56	49.52
	Sub-total		-	148.44	70.17	70.17	705.48	49.52
H	Availed During FY 2015-16							
22	Canara_V -100_2015-16	10.15%	-	19.99	5.52	5.52	41.67	-
23	OMC TL-I_II_& III 1500cr_2012-16	5.75%	-	266.2	33.45	33.45	372.91	-
24	Bank of India_V_500 cr	9.95%	-	62.5	44.83	44.83	416.58	-
25	Andhra_IV - 200cr	9.95%	-	40.08	11.6	11.6	94.84	-
	Sub-total		-	388.77	95.4	95.4	926	-
I	Availed During FY 2016-17							
26	Union Bank- VIII_300_2016-17	9.65%	-	60	20.51	20.51	180	-
27	Union Bank- IX_500_2016-17	9.80%	-	41.67	48.33	48.33	458.32	-
28	Canara Bank_VI_200 cr 2016-17	9.90%	-	23.33	19.23	19.23	176.67	0
29	Uco_Bank_300 Cr_2016-17	9.90%	-	40	28.55	28.55	260	-
30	Andhra_V - 200cr_2016-17	8.65%	-	-	17.3	17.3	200	-
31	Odisha GB_III_25cr	8.65%	-	-	2.16	2.16	25	-
	Sub-total		-	165	136.08	136.08	1,299.99	0
J	Availed During FY 2017-18							
32	IOB_II - 200_2017-18	8.55%	-	-	16.69	16.69	200	-
	Sub-total		-	-	16.69	16.69	200	-
	TOTAL (A+B+..+J)		21.46	920.48	512.32	512.32	4,891.60	917.18
K	Add: Financial Charges	0.50%	-	-	8.62	8.62	-	-
L	Add: Rebate to Customer		-	-	-	-	-	-
M	Add: Proposed Loan	8.65%	1,200.00	-	51.90	51.90	1,200.00	-
N	Grand Total (A to N)		1,221.46	920.48	572.85	572.85	6,091.60	917.18

Sl No	Particulars	Rate of Int. (%)	Ensuing Year (FY 2018-19)					
		01-4-17	Principal		Interest		Closing Bal.	
		Received	Repayment	Due	Paid	Principal	Interest	
	Govt Guarantee Loan						1,311.54	-
	Secured		21.46	538.34	304.71	304.71	2,824.03	0
	Unsecured		1,200.00	382.14	268.14	268.14	3,267.57	917.18
	Total		1,221.46	920.48	572.85	572.85	6,091.60	917.18

285. In the tariff order for FY 2016-17 the Commission allowed interest on loans availed from 2008-09 to 2015-16 except interest on OHPC Bond. The Commission accordingly allows the interest impact on loan availed for that period in this ARR, based on the figure finalized as per the annual accounts.

286. The commission in the successive tariff orders approves the total revenue requirement where the total expected revenue is sufficient to meet the total expenses for that year.

This is evident from following table:

Table-57

Particulars	FY 2016-17 (Approved)	FY 2017-18 (Approved)
Cost of Power Purchase	5849.16	6419.56
Other Expenses	811.36	543.41
Total Revenue Requirement	6660.52	6962.97
Expected Revenue	6702.94	6969.15
Gap	42.42	6.18

287. On analysis of the above, it may be inferred that there is no need for GRIDCO to borrow further from banks, if it is able to collect the approved revenue from DISCOMs. The inability of GRIDCO to collect such revenue has landed GRIDCO in a situation of borrowing from banks. The Commission in the tariff order 2017-18 observed that *GRIDCO in reality landed in deficit balance i.e. the revenue received from DISCOMs is not sufficient to discharge even power dues of the generators, which is quite alarming. If this situation persists, every year GRIDCO will resort to borrowing from Banks, the interest impact of which will be passed on to the consumer. Therefore, the Commission is not inclined to accept the interest liability on loan availed by GRIDCO for the year 2016-17, which is attributable to inability of GRIDCO to mobilize the internal resource by way of collection of BSP dues from DISCOMs. Hence, the interest impact on loan for the year 2016-17 has not been considered by Commission in determining the ARR for FY 2017-18. In this regard*

Para-279 of the ARR & BSP order for the FY 2016-17 may be referred. GRIDCO is advised to fill the gap from collection of arrears from the DISCOM Utilities.

288. The Commission in line with the earlier order disallows the interest on further loans taken after FY 2015-16.
289. Regarding the claim of Rs.49.52 Cr. towards interest on securitized dues of OHPC, similar claim was disallowed by the Commission in successive tariff orders as GRIDCO has not submitted any proposal for securitization of outstanding dues to the Commission for approval. Further, OHPC has not yet shown this interest income as their receivable in their ARR for FY 2018-19.
290. In view of the above analysis the interest approved for FY 2018-19 is given in the following table:

Table -58

	(Rs. Cr.)
Total interest proposed	572.85
Less disallowed:	
(i) Interest on Govt. loan	20.07
(ii) Interest on NTPC Bond	85.98
(iii) Interest on OHPC Bond	49.52
(iv) Interest on loan availed during the FY 2016-17	136.08
(v) Interest on loan during the FY 2017-18	16.69
(v) Interest on proposed loan for the FY 2018-19	51.90
Total interest disallowed	360.24
Total Interest allowed	212.61

291. The Commission accordingly allows Rs.212.61 crore towards interest and financial charges for FY 2018-19.

Special Appropriation of Repayment of Principal

292. For the FY 2018-19 GRIDCO has proposed Special Appropriation of Rs.832.03 crore under the following heads:-

Table - 59
Special Appropriation claimed by GRIDCO

	(Rs. in Crore)	
Particulars	Total	Remarks
State Govt. Loan and Interest	182.61	Deferred
NTPC-GoO Special Bonds & Interest	904.79	Deferred
OHPC Securitized Dues & Interest	137.76	Deferred
Bank/ Commercial Loans	832.03	Claimed

293. GRIDCO proposed to defer the State Govt. loan & interest, NTPC-GoO special bonds & interest and OHPC Securitized Dues & Interest to the tune of Rs.1225.16 crore.
294. Balance commercial bank loan amounting Rs.832.03 crore (principal repayment) is shown under the head special appropriation to be recovered from BSP.
295. The Commission took note of the submission made by the licensee. In para 295 and 296 of the BSP order for the FY 2014-15, the Commission made the following observation. The same is extracted below:

“295. The repayment liability of the State Govt. loan as well as Bank loan put a huge burden on the Bulk Supply Price of DISCOMs. The Commission feels that in order to keep the BSP at a reasonable level, the repayment liability should not be considered as pass through in the ARR of GRIDCO so that the revenue requirement of GRIDCO is kept at minimum and DISCOMs will have the benefit of the lower BSP. In this context it is necessary to analyse in depth the generation potential of OHPC and its commercial implication. A large number of objectors have pointed out that by proper planning with regard to storage of water in the reservoir and having satisfied the need for flood control and irrigation in the normal monsoon year OHPC can generate much more than its design energy. We have already provided for generation of 5881 MU and any generation beyond the design energy available to GRIDCO can be traded with profit and this amount can be made available for repayment of loan. In the current year Tariff Hearing OHPC submitted that GoO directed them to restrict generation. The Commission is, therefore, of the view that lesser generation from OHPC is not so much due to monsoon failure but because of administrative Order issued by GoO from time to time. In the present context the Commission would like to advise the Govt. to revisit its earlier assumption with regard to storage capacity for flood control and irrigation. The Commission is of the view that by proper planning and redesigning of priorities, power generation of OHPC can go beyond the design energy without sacrificing obligation towards flood control and irrigation. The Commission feels that a proper day to day planning and co-ordination with different purchaser within and outside the State, GRIDCO on conservative estimate will be able to trade about 2500 MU of power and generate a substantial amount of revenue, which can be utilised for repayment of principal loan liabilities.

296. *In view of this Commission decides the following measures to be taken by GRIDCO:-*

- a) *A separate head may be created under GRIDCO account where the revenue from trading of surplus power above design energy of OHPC, UI Charges and other miscellaneous receipts, shall be shown as receipts for repayment of principal. Since GRIDCO is fully owned Govt. of Odisha undertaking the State Govt. shall monitor and ensure that the money kept under this separate head is utilised only for repayment of loan.*
- b) *In case the earmarked fund receipts as mentioned above is not sufficient to meet the repayment obligation of principal amount of loan, the State Govt. may make budget provision for the differential amount and pay the same to Banks/Financial Institutions through GRIDCO.*

c) *For the time being, repayment of the principal amount along with interest on State Govt. loans and Bonds may be deferred till the financial health of GRIDCO becomes sound.*

Hence, in view of the above decision of the Commission, the repayment liability recognized by the Commission through amortisation of Regulatory Asset as stated in the Para above has not been considered as a pass through in the revenue requirement for the year 2014-15.”

296. The Commission for the FY 2016-17 and 2017-18 has taken the same stand and did not consider the amount of Rs.812.59 crore and Rs.1054.63 crore respectively as a pass through under the head special appropriation in the revenue requirement. GRIDCO is required to collect the BSP arrear from the DISCOM Utilities, proactively.
297. GRIDCO in its ARR proposal has not projected any revenue from trading and UI charges. However the Commission considers that the market fluctuations are likely to swing to the advantage of GRIDCO. The Commission therefore directs that GRIDCO should continue to procure power from CGPs and IPPs of the State and market the surplus power in order to reduce the accumulated loss. To overcome the deficit situation GRIDCO is further directed to make all out effort for collection from DISCOMs its current dues and also arrear dues finalized in the securitization order dt.01.12.2008 of the Commission to avoid borrowings.

Return on Equity

298. GRIDCO has not proposed any amount towards Return on Equity (RoE) for FY 2018-19, hence not considered by the Commission.

Other Income/ Miscellaneous Receipts

299. During the FY 2018-19 GRIDCO expects to earn an amount of Rs.3.48 crore (at existing approved tariff) from proposed emergency sale of 5 MU to long term customers like NALCO & IMFA as per the MoU signed with these entities. The Commission approves an amount of Rs.6.95 crore for FY 2018-19, considering emergency power sale of 10 MU.

Receivables from DISCOMs and Others

Securitized Dues

300. GRIDCO in its filing submitted that the DISCOMs have defaulted payment of Rs.2085.33 crore by 31.03.2016 towards securitized dues as per the direction of the

Commission vide order dated 01.12.2008. The DISCOMs wise default is given below:-

Table – 60

(Rs. Crore)

Particulars	Unpaid as on 31-03-2017
WESCO	294.70
NESCO	303.37
SOUTHCO	259.98
CESU	1227.28
Total	2135.33

The Commission directs GRIDCO to collect the dues during the ensuing year.

Rs. 400 Crore NTPC Bond dues

301. GRIDCO submitted that apart from securitise dues, the DISCOMs have failed to honour the OERC order dated 29-03-2012 read with corrigendum Order dated 30.03.2012 on the Bond dues of Rs.308.45 Crore. In the said order OERC had directed the erstwhile 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 erstwhile 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.195.36 Crore. On this issue the Commission have given direction to both GRIDCO and DISCOMs several times for compliance of the order. The Commission reiterates the same and directs both GRIDCO and DISCOMs to comply the order dtd.29.03.2012 in case No.107 of 2011. GRIDCO take all necessary actions to collect the above arrear dues.

Non-payment of BSP dues and Year End Adjustment Bills of DISCOMs

302. GRIDCO in the ARR has further submitted that besides the default in securitised dues and Rs.400 crore of bond the DISCOMs have made default in payment of BSP dues and year-end bill amounting Rs.4846.69 crore. The details of which is given below.

Table- 61

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

(Amount Rs. Crore)

Particulars	WESCO	NESCO	SOUTHCO	Sub- Total	CESU	TOTAL
	Utility	Utility	Utility			
BSP Bills as on 31.03.2017	1205.00	805.94	382.06	2393.00	508.35	2901.35
BSP Bills-FY2017-18 (April '17 to Sept-'17)	551.87	224.56	285.39	1061.82	219.25	1281.07

Particulars	WESCO	NESCO	SOUTHCO	Sub-Total	CESU	TOTAL
Sub Total	1756.87	1030.50	667.45	3454.82	727.60	4182.42
Year-end Adj.Bills-2007-08 to FY 2010-11	137.67	99.16	153.14	389.97	274.30	664.27
Grand Total	1894.54	1129.66	820.59	3844.79	1001.90	4846.69

303. The Commission directs both GRIDCO and DISCOMs to file a reply before the Commission regarding action plan taken for liquidation of the arrears as stated above by 31.05.2018.

304. The summary of the ARR of GRIDCO approved for the FY 2018-19 is given below:

Table –62
Revenue Requirement of GRIDCO for FY 2018-19

(Rs. in Cr.)

	Particulars	Approved for 2017-18	Proposed for 2018-19	Approved for 2018-19
A	Items of Expenses			
	Cost of Power Purchase	6419.56	7819.21	6951.38
	Employee costs	7.24	14.26	9.90
	Repair & Maintenance	0.22	0.28	0.28
	Administrative and General Expenses	6.05	8.59	4.96
	Depreciation	0.73	1.10	1.10
	Interest Chargeable to Revenue	300.98	417.28	212.61
	Total Expenses	6734.78	8260.72	7180.23
B	Special Appropriation			
	Amortization of Regulatory Assets	-	-	-
	Repayment of principal (Bank and Commercial Loans)	0.00	832.03	0.00
	Pass Through of Power Purchase Dues	231.66	293.71	201.38
	Total Special Appropriation	231.66	1125.74	201.38
C	Return on Equity	0	0	0
	TOTAL Revenue Requirement (A+B+C)	6966.44	9386.46	7381.61
D	Less Miscellaneous Receipt	3.475	3.48	6.95
E	Proposed Revenue from Trading	0	0	0
F	Net Revenue Requirement	6962.97	9382.98	7374.66
G	Expected Revenue (Full year) from DISCOMs	6969.15	9382.98	7190.34
H	GAP (+/-)	6.18	0.00	(-) 184.32
I	Energy Sale to DISCOMs (MU)	25140	26561	25990
J	Average BSP (P/U)	277.21	353.26	276.66

305. GRIDCO has proposed power purchase cost of Rs. 7820.65 Crore and average BSP of 353.32 P/U. But due scrutiny and prudent check by the Commission reveals these figures as Rs. 7819.21 Crore and 353.26 P/U respectively. It is further observed from

above that, GRIDCO's net revenue requirement is Rs. 7374.66 Crore after adjustment of miscellaneous receipts of Rs. 6.95 Crore. It will recover Rs. 7190.34 Crore from the DISCOM Utilities through energy charges for the FY 2018-19 with a deficit of Rs. 184.32 Crore. The Commission has estimated the energy availability of 28977.55 MU (excluding the energy availability from Barh STPS-II) to GRIDCO from different sources during FY 2018-19 and State requirement of 26803.81 MU including transmission loss, leaving a surplus availability of 2173.74 MU. The Commission directs GRIDCO for trading of the surplus power after meeting the State requirement on prudent commercial principles in the market and meeting the aforesaid revenue gap of Rs. 184.32 Crore during the FY 2018-19.

Design for Bulk Supply Pricing

306. The Commission has been following a particular methodology considering the uniqueness of Odisha power sector for a long time. The State Designated Agency GRIDCO holds all the Power Purchase Agreements (PPAs) with the Generators on behalf of State Government. Therefore, power purchased from Generators is pooled at GRIDCO end and thereafter supplied to DISCOM Utilities. It is not possible to allocate particular power station to a DISCOM Utility since the Power Purchase Agreement of that Generator has been made with the GRIDCO and not with a particular DISCOM Utility. Moreover, DISCOM Utilities have also Bulk Supply Agreement (BSA) with GRIDCO. This is a past legacy. The allocation of power from a generator to a particular DISCOM Utility shall be a possibility only when the PPAs will be allocated to DISCOM Utilities as per the decision of the Government. Therefore, the Commission has no alternative but to consider the pooled power purchase cost of GRIDCO while designing the BSP of DISCOM Utilities.
307. OERC has been following a uniform retail tariff policy. Considerations of public interest for consumers of the entire State warrants continuance of a uniform retail tariff policy. The retail tariff for each distribution Utility based solely on its ARR and its expected revenue ought not to be considered in isolation. The law requires the Commission to take into consideration not only the annual revenue requirement and the expected revenue of the distribution utility, but also such policy inputs for safeguarding consumers' interest, one of which is the uniform retail tariff for the whole State, vide Section 61(d) of the Electricity Act, 2003. Moreover, uniformity of retail tariff for the whole State is in line with the National Tariff Policy, vide Para

8.4(2) thereof. Only when distribution utilities show appreciable rise in their respective levels of efficiency by reducing distribution losses, both technical and commercial, a question of rewarding efficiency by a differential retail tariff may arise. This is not the case now. Besides, the benefit of differential Bulk Supply Price has been an accepted practice, as the State transmission network serves the whole State as a single backbone system and the consumers of Odisha have been paying for the cost of this transmission system uniformly. The distribution companies have little contribution towards the growth and development of the EHT industries and yet a distribution Utility would reap substantial higher revenue than another distribution Utility by virtue of mere concentration of EHT industries in its area. It is just and proper that differential Bulk Supply Price should be higher for the DISCOM Utilities with higher concentration of HT/EHT industries than for those with little HT/EHT load. Therefore, with differential Bulk Supply Price there is no necessity of shifting away from the uniform retail tariff prevailing in the state of Odisha.

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

Demand Charges

311. Like the ARR approval of GRIDCO for previous years, there shall not be any levy of separate maximum demand charges upto the permitted SMD in a month for the Distribution Utilities for the FY 2018-19. Permitted SMD would mean monthly SMD recorded upto maximum of 10% over the approved SMD in the current tariff order to take care of monthly variations. Any excess drawl over the permitted SMD will have to be paid by DISCOM Utilities @ Rs.250 per KVA per month. This is again subject to the condition that the annual average SMD shall be limited to the SMD approved in the order. This is necessary to maintain the load planning and system stability. In case the annual average SMD is more than the approved SMD, then overdrawal quantum shall attract the penalty @ Rs.250 per KVA per month, notwithstanding the fact that a utility might have paid the SMD charges for exceeding the permitted SMD in any month.

Determination of Bulk Supply Price

312. GRIDCO has proposed a BSP @ 353.32 P/U to be levied on the DISCOM Utilities towards their purchase of power during FY 2018-19. The Commission determines the Bulk Supply Price in such a way that their expected estimated revenue shall be sufficient to pay the power bills, the transmission charge bills including SLDC charges and they shall also meet their statutory obligations including meeting the expenses towards establishment, maintenance and other allied expenses.
313. The details of Bulk Supply Price as well as the quantum of energy approved by the Commission for each DISCOM Utility are presented in a table below:

Table – 63
Bulk Supply Price and Quantum of Energy for FY 2018-19

Name of the DISCOMs	Existing Bulk Supply Price i.e. approved for FY 2017-18 (P/U)	Quantum of Energy for sale during FY 2018-19 (MU)	Total Revenue for FY 2018-19 (Rs. Crore)	Bulk Supply Price approved for FY 2018-19 (P/U)
CESU	274.00	9070.00	2485.18	274.00
NESCO	301.00	6140.00	1848.14	301.00
WESCO	301.00	7120.00	2136.00	300.00
SOUTHCO	199.00	3660.00	721.02	197.00
Total	277.21	25990.00	7190.34	276.66

314. The above approved revenue is to be realized by GRIDCO from the DISCOM Utilities through escrow mechanism. In case of any default in monthly BSP dues by the DISCOM Utilities, they are liable for imposition of power regulations. It is directed that GRIDCO should resort power regulation to the DISCOM Utilities to the extent of non-payment of monthly BSP dues.

Charges for Overdrawal of Energy

315. GRIDCO in its application proposes that any excess drawl of energy by a Distribution and Retail Supply Utility during a month over and above the approved drawal would be payable on provisional basis at the highest power purchase rate for a station approved by the Commission for the FY 2018-19 (which includes transmission charges & transmission loss) on a monthly basis instead of the normal differential BSP applicable to the respective DISCOM Utilities subject to final year-end adjustment considering the highest power purchase rate/cost including the rate(s) of energy drawn through UI / Deviation Settlement of the month plus transmission charges and transmission loss.
316. The Commission has already framed guidelines/regulations for intra-state ABT, which will be binding on all the users of the system. As the Commission have introduced Intra-state ABT between GRIDCO and DISCOM Utilities in the 1st phase (in a separate order), the issue of overdrawal / underdrawal of energy will be adjusted through un-scheduled interchange mechanism. The schedule energy shall be billed by GRIDCO and paid by DISCOMs as per the present Tariff Order of the Commission. Any deviation from the scheduled energy shall be billed by SLDC and paid by DISCOMs as per the prevalent UI rate. The Commission may at latter date notify the Intra-State Deviation Settlement Regulations which would replace the existing ABT Regulations.

Rebate

317. For payment of bills through a letter of credit or by cash within two working days (excluding holidays under N.I. Act, 1881) of presentation of bills, a rebate of 2% shall be allowed on current dues. If the payments are made by a mode other than through a letter of credit but within a period of one month by the Distribution Utilities, a rebate of 1% shall be allowed. However, payment by DISCOM Utilities within the specified period shall be first adjusted towards current months dues raised in the bill. If the

current dues are fully met within the specified time period, GRIDCO shall allow rebate. Payments over and above the current dues shall be adjusted towards the arrears after rebate.

Late Payment Surcharge

318. In case payment of bills by the Distribution Utilities is delayed beyond a period of 1 month from the date of billing, a late payment surcharge at the rate of 1.25% per month shall be levied by GRIDCO on the unpaid amount.

Duty and Taxes

319. The Commission approves that statutory levy/duty/tax/cess/toll etc. imposed under any law from time to time shall be charged over and above the bulk supply price fixed by the Commission.
320. The Bulk Supply Price in respect of GRIDCO as indicated below will become effective from 1st April, 2018 and shall continue until further orders.

Table -64

Name of the DISCOMs	Paise/ Kwh
CESU	274.00
NESCO	301.00
WESCO	300.00
SOUTHCO	197.00

321. The application of GRIDCO in Case No. 76 of 2017 is disposed of accordingly.

Sd/-

(S. K. PARHI)
MEMBER

Sd/-

(A. K. DAS)
MEMBER

Sd/-

(U. N. BEHERA)
CHAIRPERSON