

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

**Present: Shri Gajendra Mohapatra, Officiating Chairperson
Shri Sushanta Kumar Ray Mohapatra, Member**

CASE NO.107 OF 2021

Date of Hearing : 19.02.2022

Date of Order : 24.03.2022

IN THE MATTER OF: Application for approval of Aggregate Revenue Requirement (ARR) and determination of Bulk Supply Price (BSP) of GRIDCO Ltd. for FY 2022-23, 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 and other related Rules and Regulations.

ORDER

GRIDCO Limited (hereinafter called as GRIDCO) is a Deemed Trading Licensee under the 5th Proviso to Section 14 of the Electricity Act, 2003 (hereinafter referred to as the Act) and carry out the business of Bulk Supply of electricity to the four Electricity Distribution & Supply Utilities (hereinafter called as 'DISCOMs') by utilizing the transmission network of OPTCL, the State Transmission Utility (STU) and Inter State Transmission System (ISTS). Section 86 (1) (b) of the Electricity Act, 2003 requires the Commission to determine the power procurement price structure for distribution companies operating in the State of Odisha. Under the existing Bulk Supply Agreements with GRIDCO, the Distribution Companies 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 Companies) but also the seller (GRIDCO Ltd.). No meaningful hearing of GRIDCO is possible unless GRIDCO files its Aggregate Revenue Requirement and expected revenue. GRIDCO has done so. The Commission has taken into consideration the ARR filed by GRIDCO for the FY 2022-23.

PROCEDURAL HISTORY (Para 2 to 7)

2. The Commission had directed GRIDCO to publish its Aggregate Revenue Requirement (ARR) and determination of Bulk Supply Price (BSP) application for the FY 2022-23 in the approved format in two leading & widely circulated daily

newspapers one in Odia & one in English and the matter was also posted on the Commission's website (www.orierc.org) and GRIDCO's website in order to invite objections/suggestions from the intending objectors. The Commission had directed GRIDCO 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 of the ARR and BSP application of the GRIDCO for FY 2022-23, the Commission received 12 nos. of objections/suggestions from the following persons/ associations/ institutions/ licensees: -

(1) Shri Jogendra Behera, M/s. Indian Energy Exchange, Plot No. C-001/A/1, 9th Floor, Max Towers, Sector-16B, Noida, Gautam Buddha Nagar, Uttar Pradesh-201301, (2) Shri Soumya Ranjan Patnaik, S/o-Late Brajabandhu Patnaik, MLA, Khandapada, Plot No. 185, VIP Colony, Nayapalli, Bhubaneswar-15, (3) Shri Ramesh Ch. Satpathy, Secretary, National Institute of Indian Labour & President, Upobhokta Mahasangha, Plot No.302(B), Beherasahi, Nayapalli, Bhubaneswar-751012, (4) M/s. Utkal Chamber of Commerce & Industry Ltd. (UCCI), N-6, IRC Village, Nayapalli, Bhubaneswar-751015, (5) M/s. OPGC Limited, Zone-A, 7th Floor, Fortune Towers, Chandrasekharpur, Bhubaneswar-751023, (6) Shri Ashok Kumar Nanda, S/o Late Banabihari Nanda, Convener, Odisha Janashakti Manch, Plot No. 196/2282, Mukti Nilay, Khandagiri Square, Bhubaneswar-751030, (7) M/s. Vedanta Limited, 1st Floor, C-2 Fortune Tower, Chandrasekharpur, Nandanakanan Road, Bhubaneswar-751023, (8) M/s. Grinity Power Tech Pvt. Ltd., At-K-8-82, Kalinga Nagar, Ghatikia, Bhubaneswar-751029, (9) The Chief Executive Officer, TP Western Odisha Distribution Ltd.(TPWODL), Burla, Sambalpur-768017, (10) Shri Alekha Chnadra Malik, S/O-Late Harekrushna Malik, Plot No.335, City Garden, Raghunathpur, Bhubaneswar-751024, (11) The Chief Executive Officer, TPSODL, Courtpeta, Berhampur-760004, (12) The Chief Executive Officer, TPNODL, Corporate Office-Januganj, Balasore-756019.

4. The applicant GRIDCO had submitted its response to the issues raised by the above objectors. Further, in exercise of the power conferred under Section 94 (3) of the Electricity Act, 2003 and in order to protect the interest of the consumers of Odisha, the Commission had appointed the World Institute of Sustainable Energy (WISE), Pune, as Consumer Counsel for objective analysis of the licensee's Aggregate

Revenue Requirement and Bulk Supply Price proposal for FY 2022-23. The Consumer Counsel-WISE, Pune had presented its views on the matter in the hearing.

5. The date for hearing was fixed on 19.02.2022 at 11.00 AM and the Commission had decided to conduct the hearing through virtual mode due to COVID-19 situation in the State. Further, the Commission had also made arrangements in its office at Bhubaneswar for the objectors to participate in the hearing through video conferencing. It was duly notified in the leading newspapers mentioning the list of the objectors, date and time of hearing. The Commission had also issued notice to each applicant, objectors and the Department of Energy, Government of Odisha etc. informing them about the hearing of the above matter and requesting them to mail their e-mail ID and mobile number with Whatsapp facility to oerc.vc@gmail.com for providing links to participate in the hearing. Accordingly, the applicant, objectors and the representative of DoE, GoO etc. had furnished their e-mail IDs.
6. In its consultative process, the Commission conducted the public hearing through virtual mode on 19.02.2022 and heard the Applicant, Objectors, Consumer Counsel, the Representative of Dept. of Energy, Govt. of Odisha and other participants at length. The following persons participated in the hearing process.

(1) The Managing Director, GRIDCO, CGM (PP), GRIDCO & Shri Gagan Swain, Director (Finance), GRIDCO Ltd. (2) Shri Jogendra Behera of M/s. Indian Energy Exchange, (3) Shri Soumya Ranjan Patnaik, S/o-Late Brajabandhu Patnaik, MLA, Khandapada, (4) Shri Ramesh Ch. Satpathy, Secretary, National Institute of Indian Labour & President, Upobhokta Mahasangha, (5) Shri Bibhu Charan Swain on behalf of M/s. Utkal Chamber of Commerce & Industry Ltd. (UCCI), (6) Shri Haresh Satpathy of M/s. OPGC Limited, (7) Shri Ashok Kumar Nanda, S/o Late Banabihari Nanda, Convener, Odisha Janashakti Manch, (8) Shri Buddy Rangnadhan, Sr. Advocate on behalf of M/s. Vedanta Limited, (9) Shri K.C.Nanda, DGM (Fin.), TP Western Odisha Distribution Ltd.(TPWODL), (10) Shri Alekha Chnadra Malik, S/o Late Harekrushna Malik, (11) Shri Binod Kumar Nayak, Asst. GM (Comm.), TPSODL, (12) Shri P.K.Mohanty of TPNODL and Ms. Niharika Patnaik, the representative of the Principal Secretary to Government of Odisha, Department of Energy, Bhubaneswar Nobody was present on behalf of M/s. Grinity Power Tech Pvt. Ltd. In addition to the above persons, the Commission allowed Shri R.P.Mahapatra, Er. (Dr.) P.K.Pradhan and Shri Ananda Kumar Mohapatra to express

their views on the subject ARR and BSP application of GRIDCO, on their request during the hearing. The written notes of submission filed in the above case were taken in to consideration by the Commission.

7. The Commission convened the State Advisory Committee (SAC) meeting on 11.03.2022 at 11.00 A.M. through virtual mode on Bulk Supply Price proposal of the licensee for FY 2022-23. 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 2022-23 (Para 8 to 39)

8. GRIDCO, being the successor organization to the erstwhile Odisha State Electricity Board (OSEB), 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 sector generators for supplying the same to DISCOMs. Under the existing Bulk Supply Agreements between the DISCOMs and the GRIDCO, the DISCOMs 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 power procurement price of the DISCOMs. This procurement price incidentally happens to be the Bulk Supply Price at which GRIDCO supplies power to the DISCOMs. Moreover, GRIDCO also supplies emergency power to the Captive Generating Plants (CGPs) and trades the surplus power, if any, from time to time. Thus, as a statutory requirement, as provided in the OERC (Conduct of Business) Regulations, 2004 & other related Regulations and as per Section 86 (1) (a) & (b) & other applicable provisions of the Electricity Act, 2003, GRIDCO is required to submit its Annual Revenue Requirement before OERC for determination of the power procurement cost of the DISCOMs. Accordingly, GRIDCO has filed an application for approval of its proposed Aggregate Revenue Requirement and revision of Bulk Supply Price for the FY 2022-23.

Projection of Demand and Energy

9. The Simultaneous Maximum Demand (SMD) of DISCOMs for the FY 2022-23 has been projected by GRIDCO as 5243 MVA per month based on the projections submitted by DISCOMs. GRIDCO has mentioned that SMD recorded for Apr'21 to Sep '21 was 4862 MVA. However, the DISCOMs have projected their SMD for the ensuing year 2022-23 expecting certain load growth. GRIDCO has projected energy requirement of 28474 MU (after considering transmission loss of 3% in STU network) for the FY 2022-23, which includes sale to DISCOMs (i.e. 28414 MU) and emergency power supply (i.e. 60 MU) to CGPs like NALCO and IMFA.

Quantum of Power Procurement

10. GRIDCO has estimated an energy availability of 36391.31 MU for the FY 2022-23 from different generating sources and proposed to procure the entire available energy. However, GRIDCO has projected State requirement of 29354.67 MU for FY 2022-23 considering the estimated energy requirement of 28474.03 MU for DISCOMs & CGPs and 880.64 MU towards Transmission Loss @ 3.00% in STU system. GRIDCO has proposed to trade the surplus energy (i.e. 7036.64 MU) and details are given in Table below:

Table -1
Demand and Energy Projection of GRIDCO for FY 2022-23

Particulars	Projection for FY 2022-23
SMD for DISCOMs Utilities (MVA per month)	5243.00
Energy Demand of DISCOMs and Emergency Sales to CGPs (MU)	28,474.03
Transmission Loss @ 3.00% (MU) in STU Network	880.64
Energy Required to meet the demand of DISCOMs and Emergency Sale CGPs (MU)	29,354.67
Total Available Energy (MU)	36,391.31
Surplus Energy (MU)	7,036.64

Power Purchase Cost Projected for FY 2022-23

11. The detailed cost of power purchase as furnished by GRIDCO for FY 2022-23 is reproduced hereunder in Table below.

Table -2
Proposed Power Procurement Cost for FY 2022-23

Station Name	Energy Availability (MU)	Per unit Rate (P/U)	Total Cost (Rs Cr.)
HHEP	635.81	137.05	87.14

Station Name	Energy Availability (MU)	Per unit Rate (P/U)	Total Cost (Rs Cr.)
CHEP	329.67	111.27	36.68
Balimela	1058.31	74.28	78.61
Rengali	823.68	83.26	68.58
Upper Kolab	604.89	112.79	68.23
OHPC(Old)	3452.36	98.26	339.24
Indravati	1703.79	102.80	175.15
Machkund	259.88	110.90	28.82
State Hydro	5416.03	100.30	543.21
OPGC - 1 & 2	2597.99	279.03	724.91
OPGC - 3 & 4	6919.90	313.62	2170.19
State Thermal	9517.89	304.17	2895.10
Renewables	3312.22	352.52	1167.64
M/s. GKEL	1670.00	342.21	571.49
M/s. Vedanta Ltd.	2628.70	285.50	750.48
Total IPP	4298.70	307.53	1321.97
Total State Sector (A)	22544.84	262.94	5927.90
FSTPS-III	503.27	507.95	255.64
KhSTPS-II	266.97	335.84	89.66
TSTPS-I	2175.82	299.72	652.13
TSTPS-II	1317.38	296.46	390.55
Darlipali (Units- I &II)	6356.29	307.99	1970.41
FSTPS-I & II	39.34	456.05	17.94
KhSTPS -I	27.67	375.89	10.40
Barh STPS-I	1937.73	524.00	1015.37
Central Thermal	12624.47	348.70	4402.12
Chukha	267.00	248.22	66.27
Tala	126.00	234.62	29.56
Teesta	506.00	205.33	103.90
Mangdechhu	323.00	433.06	139.88
Central Hydro	1222.00	277.91	339.61
Total Central Sector (B)	13846.47	342.45	4741.71
Total (C) (i.e. A+B)	36391.31	293.19	10669.61
PGCIL Charges (D)			792.35
SOC &MOC Charges (E)			2.67
GRAND TOTAL (C+D+E)	36391.31	315.04	11464.63

12. GRIDCO has submitted that against demand of 29,354.67 MU, it has availability of 36,391.31 MU resulting in surplus energy of 7,036.64 MU. GRIDCO plans to sell the surplus power in exchange which has variable cost below the real time rate in the exchange. GRIDCO has estimated revenue of Rs.2033.59 Crore by trading the surplus power. Accordingly, GRIDCO has proposed the power purchase cost of the regulated

power as Rs.9431.04 Crore after deducting the earning from trading of surplus power (i.e. total power purchase cost of Rs.11464.63 Crore – revenue earning of Rs.2033.59 Crore from surplus power).

13. GRIDCO further submitted that the Commission had formulated a scheme, in its tariff order for FY2021-22 read with order dated 20.07.2021 in Case No. 54/2021, wherein the surplus power with GRIDCO can be supplied to industries owning CGPs and having a CD with DISCOMs for the energy drawn over 80% of load factor without overdrawal penalty at a minimum rate of Rs.3.50 per kVAh. GRIDCO has requested to revise the base tariff of Rs.3.50 per unit upward allowing full recovery of increased power purchase cost. The responsibility is with GRIDCO to sell the surplus power at a tariff which allows recovery of power purchase cost plus transmission charges (Rs.0.28 /unit) of OPTCL and a suitable margin for DISCOMs. GRIDCO submitted that since there is no limit on overdrawal of power by the industrial consumers under the above scheme, the consumers can draw as much power which threatens the stability of the grid. Hence, GRIDCO has proposed that there must be a limit on overdrawal as per prevailing regulations and suggested an overdrawal limit of 10% beyond which the industrial consumers shall be charged at the applicable emergency tariff rate.

Pass through of arrear dues paid / to be paid during FY 2022-23

14. GRIDCO has submitted to consider the claim of Rs.816.90 Crore under pass through while approving the ARR & BSP for FY 2022-23, which includes STU charges of other states for RE procurement, payment of GST and safeguard duty due to change in law, various payments to mini/small hydro projects, deferred tax liability of Teesta-V hydro station, payment of revised rate for Tala HEP, additional power purchase cost of NTPC plants, and arrear payments to IPPs.

Special Appropriation for Loan and Interest towards Past Power Purchase Liabilities

15. GRIDCO has submitted that it has outstanding loan balance of Rs.8101.89 Cr as on 31st March 2021 with repayment liability of Rs.1380.21 Cr in FY 2022-23. Due to non-cost reflective BSP, disallowance of carrying cost on Regulatory assets and huge receivables, the loan liability has increased over the year. GRIDCO has proposed the repayment liabilities of Rs.1380.21 Crore for recovery under Special Appropriation, while loans payable to the State Government and NTPC bonds has been deferred. As

directed by the Commission in its previous orders, GRIDCO has proposed to first meet such loan liability from the margin on account of sale of surplus power. The trading margin is expected to be very low due to present market condition and may be insufficient to meet huge repayment liability. Hence, GRIDCO has proposed to deduct margin earned from sale of surplus power (sale price minus variable charges) from the repayment liability for the year and allow the balance repayment amount in the following manner:

- a. Allow as a part of the annual revenue requirement,
- b. Allow a regulatory surcharge recovery as a percentage of bulk supply tariff, or
- c. Allow as a regulatory asset with an amortisation in a defined period of 3 to 5 years, as the Commission deems fit.

Interest, Financing and Other expenses

16. GRIDCO has proposed to incur about Rs.740.42 Crore during the FY 2022-23 towards expenses on account of interest and financial charges, Employees Cost, A&G Expenses etc. GRIDCO has considered Rs.623.69 Crore towards interest and financial charges with deferment of interest payable to the State Government loans. GRIDCO has proposed Rs.15.09 Crore towards employees cost for FY 2022-23 including the balance arrear amount of Rs.0.81 Crore on account of implementation of 7th Pay Commission recommendation. The details of the above expenses are given in the table below:

Table- 3

Interest, Financing & Other expenses for FY 2022-23 (Rs. Crore)

Particulars	GRIDCO proposal for FY 2022-23
(a) Interest & Financial Charges	623.69
(b) Other Costs:	
• Employee Cost	15.09
• A&G Expenses	7.50
• Repair & Maintenance Cost	0.85
(c) Depreciation	1.02
(d) Return on equity (on Equity base of Rs 576.71 Cr @ 16%)	92.27
Total (a+b+c+d)	740.42

17. GRIDCO has submitted that it has availed loan to the tune of Rs.8292 Crore as on 30.09.2021 with principal repayment obligation of Rs.1095.84 Crore and Rs.1380.21 Crore during FY 2021-22 and FY 2022-23 respectively. Above loans were availed on

the strengths of expected amortisation of Regulatory Assets backed by Govt. guarantee. GRIDCO has submitted that due various uncontrollable factors, it has to borrow funds from external sources and requested the Commission to allow interest cost to avail rebates and limit the late payment surcharge on power purchase cost.

18. GRIDCO has further submitted that the State Government, vide letter dt. 26.10.2021, has communicated GRIDCO for settlement of outstanding securitised dues of OHPC Ltd. through restructuring within stipulated time period. Therefore, GRIDCO has prayed the Commission to allow the interest and principal repayment obligation of the outstanding dues of OHPC Ltd. in the ARR of GRIDCO in order to make payment in time.

Other Income / Miscellaneous Receipts

19. GRIDCO expects to earn an amount of Rs.42.90 Crore during FY 2022-23 from the proposed emergency power sale of 60 MU to long term customers like NALCO and IMFA at existing approved BSP of 715 P/U.

Receivable from DISCOMs and other parties

20. GRIDCO has submitted that with the sale of distribution licensees, there is uncertainty in realisation of past dues from DISCOMs. Prior to sale of licensees, GRIDCO had escrow mechanism for recovery of dues. Post the sale of licensees, the past dues of GRIDCO have been retained in the erstwhile utilities which are non-functional and do not have any revenue stream to repay GRIDCO's past dues. Thus, at present, GRIDCO does not have any mechanism at its disposal to recover the dues from DISCOMs. This will negatively impact on GRIDCO to meet the debt service obligation for the short term/ working capital loans. In view of this, GRIDCO has submitted that a mechanism be put in place for principal and interest repayment of short term loans availed to bridge the working capital gap arising due to non-realization of BSP dues from DISCOMs.
21. GRIDCO has further submitted that it has outstanding securitized dues of Rs.1867.31 Crore (as on 30.11.2021), and Rs.1616.03 Crore towards BSP bills (up to September 2021) payable by DISCOMs. Further, Rs.195.36 Crore towards Bonds is due from DISCOMs as on 31.03.2021. Owing to this, GRIDCO has been availing term loans to meet the working capital gap.

Aggregate Revenue Requirement (ARR)

22. The proposal for Aggregate Revenue Requirement of GRIDCO for FY 2022-23 is summarized in the Table below.

Table -4
Proposed Aggregate Revenue Requirement of GRIDCO for FY 2022-23
(Rs. Crore)

Particulars	Amount
Power purchase cost net of revenue from trading of surplus power	9,431.04
Interest cost	623.69
Employee cost	15.09
Repair & Maintenance	0.85
Administrative and General Expenses	7.50
Depreciation	1.02
Return on Equity	92.27
Sub Total	10,171.46
Pass Through Power purchase cost	816.90
Gross Revenue Requirement	10,988.36
Less Revenue from Emergency sales	43.00
Net ARR	10,945.36

Proposed Revenue Earning at Existing BSP

23. GRIDCO has estimated to earn revenue of Rs.8431.24 Crore during FY 2022-23 from the anticipated sale of 28414 MU to DISCOMs at the existing BSP of FY 2021-22.

Excess / Deficit in the ARR and Proposal for Revision of Bulk Supply Price for FY 2022-23

24. GRIDCO has submitted that it would suffer revenue deficit of Rs.2514.12 Crore considering the proposed ARR of Rs.10945.36 Crore and the revenue of Rs.8431.24 Crore to be earned from the proposed sale of 28414 MU of energy to DISCOMs during FY 2022-23 at the existing BSP for FY 2021-22. The details are shown in the table below:

Table- 5
Excess/Deficit on Revenue Requirement for FY 2022-23

SL. No.	Particulars	Amount (Rs. in Cr.)
1	Total Revenue Requirement	10988.36
2	Less Revenue from Emergency sales	43.00
3	Net ARR to be recovered through BSP	10945.36
4	Revenue Receipt from DISCOMs at existing BSP	8431.24
5	GAP i.e. surplus (+) /deficit (-)	(-) 2514.12

Proposal for Revision of BSP

25. In order to meet the above estimated deficit, GRIDCO has submitted before the Commission for upward revision of Bulk Supply Price for the FY 2022-23. GRIDCO has proposed the revised average BSP of 385.21 P/U to recover the estimated net ARR of Rs. 10945.36 Crore through Energy Charge only as given in the Table below:

Table- 6

Proposed Bulk Supply Price (BSP) for FY 2022-23

SL. No.	Particulars	Proposed BSP for FY 2022-23
1	Net ARR to be recovered through BSP (Rs Crore)	10945.36
2	Energy Proposed for Sale to DISCOMs (MU)	28414
3	Proposed Average BSP to recover the Net ARR through Energy Charge only. (P/U)	385.21

Other Allied Submissions made by GRIDCO for Recovery of its Expenses

Demand Charge:

26. GRIDCO has proposed that the Demand Charges may be levied @ Rs.250 KVA/Month from DISCOMs when the actual SMDs of DISCOMs in a month exceeds the permitted monthly SMD (110% of the approved SMD). The DISCOMs will be billed by GRIDCO and it shall be paid by DISCOMs on provisional basis towards the excess SMD to take care of monthly variations. However, such charges will be adjusted at the end of the year, if the actual annual SMD remains within the permitted annual SMD i.e. 110% of the approved annual SMD. The demand charges for excess SMD, if any, may be levied at the proposed rate of Rs.250/kVA/Month.

Over Drawal and Year End Charges:

27. GRIDCO submits that the Over Drawal and Year End Charges payable by DISCOMs are presently billed at the rate corresponding to applicable BSP approved by the Commission in line with the judgment of the APTEL dated 07.05.2018 passed in Appeal No.55 of 2015, till intra-State DSM Regulations is pronounced by OERC and implemented in the State. GRIDCO proposes that any excess drawal of energy by a DISCOM during a month over and above the approved energy quantum (i.e. Approved MU for FY 2022-23 X No. of days of the relevant month / 365 days) would be payable on provisional basis at the highest OERC approved Power Purchases Rate fixed for a Station for FY 2022-23 (which includes transmission

charges and transmission loss) on monthly basis instead of the normal differential BSP applicable to the respective DISCOMs, subject to final Year End Adjustment (YEA) considering the highest Power Purchases rate/s cost including the rate/s of energy drawn through U.I./deviation settlement of the month plus transmission charges and transmission loss.

Fuel Price Adjustment:

28. GRIDCO submits that the Fuel Price Adjustment (FPA) mechanism needs to ensure timely recovery of variations in fuel cost which is an uncontrollable expense. Ex-post facto approval is provided on quarterly basis by MERC, Maharashtra allowing monthly adjustment of tariff to account for FPA. Some other States also determine the fuel price adjustment on quarterly basis. In Gujarat, FPA upto 10 paise/unit is allowed without any prior approval of GERC. GRIDCO requests the Commission to provide a mechanism for monthly or quarterly determination of FPA component which can be recovered through tariff as per the practices followed in other States.

Rebate:

29. GRIDCO submits that at present GRIDCO is raising the BSP bill for a particular month in the 1st week of the subsequent month. The due date for payment of retail supply bills to DISCOMs by different category of consumers (except SBM consumers) is presently kept at seven days and rebate is allowed for payment made by the consumer within three working days. As such, the DISCOMs are collecting the revenue from different category of consumers by end of the month of billing. In view of above, the BSP bills of GRIDCO need to be settled by the end of the month of billing. Hence, due date of bill may be kept as 25 days from the date of presentation of bill.
30. GRIDCO states that the maximum rebate to be allowed to DISCOMs needs to be in line with the maximum rebate allowed to GRIDCO by the Generators under prevailing CERC / OERC Terms & Conditions of Tariff Regulations. Accordingly, GRIDCO proposes the following graded rebate for payment of BSP dues by the DISCOMs:
- a. For crediting the BSP bill of the DISCOM to GRIDCO's designated current bank account through Letter of Credit (LC) on presentation or through NEFT/RTGS within a period of five (5) working days, a rebate of 1.5 % shall be allowed.

- b. Where the amount is credited on any day after five (5) working days and within a period of twenty five (25) days of presentation of bill, a rebate of 1% shall be allowed.
- c. The DISCOMs may pay their BSP dues in staggered manner under different rebate option, but for eligibility of rebate, total current BSP dues needs to be settled by the DISCOMs within 25th day of presentation of the bill.

Delayed Payment Surcharge:

- 31. GRIDCO submits that for delayed payment of Bulk Power Supply Bills i.e., payment after the periods of 30 days from the date of submission of bills, the surcharge is to be levied @ 1.5% per month.

Duty and Taxes:

- 32. GRIDCO submits that 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.

Remittance of past arrear collection to GRIDCO by DISCOMs

- 33. GRIDCO submitted that as per the terms of vesting order, GRIDCO shall receive the past arrear collected by DISCOMs being presently Managed by Tata Power after deduction of incentive. GRIDCO requests the Commission to direct the DISCOMs to maintain separate records and accounts for arrear collections from consumers. The amount to be paid to GRIDCO shall be paid on monthly basis towards settlement of outstanding BSP dues. A suitable MIS report shall also be submitted by DISCOMs to GRIDCO showing detailed month wise revenue collections and past arrear collections.

Carry Forward of Revenue Gap

- 34. GRIDCO prays that the proposed Annual Revenue Requirement & Bulk Supply Price be made applicable from 1st April 2022. However, in case of a gap between the approved revenue requirements for FY 2022-23 and the revenue realized, the Commission may approve to carry forward the gap for adjustment in subsequent years.

Pass Through of Compensation to be paid to the Generators

- 35. In event of scheduling a plant at a PLF lower than the technical minimum, GRIDCO will be liable to pay compensation to the generating companies as per the provisions

of the IEGC. GRIDCO prayed before the Commission to allow any such compensation as pass through in the ARR.

Inclusion of Effect of Review Petition of GRIDCO for FY 2021-22

36. GRIDCO has filed a Review Petition before the Commission against the ARR & BSP Order for FY 2021-22. GRIDCO has prayed to the Commission to allow pass through the effect including the financial effect of the Review Petition while approving the ARR & BSP for FY 2022-23.

Impact of sale of utilities of revoked licenses on GRIDCO

37. GRIDCO has stated that a high amount of past dues are lying in the erstwhile utilities resulting in a negative impact on the financial health of GRIDCO. In the books of GRIDCO the outstanding dues from all the four erstwhile utilities is Rs 7788.30 Cr. as on 30th Nov 2021. GRIDCO has no mechanism to collect such huge outstanding dues from them. Therefore, GRIDCO has stated that the Commission should allow a mechanism for amortization of these past dues over the next 3-5 years. Further, the depreciation on assets of erstwhile distribution utilities transferred to the new distribution utilities can be utilised to settle GRIDCO's dues. These indicators show that there is a margin for settling the past dues through BSP without impacting the retail supply tariff.

Prayer

38. In its application GRIDCO has prayed the Commission to approve the following for FY 2022-23 and make the same effective from 1st April, 2022.
- a. Allow all the reasonable costs including uncontrollable costs and RoE as proposed in the petition and accordingly, approve the ARR and Bulk Supply Price (BSP) for FY 2022-23 and make the same effective from 1st April 2022.
 - b. Approve the fixed charges as payable by GRIDCO to all generating stations (existing and new stations) to be recovered through BSP, wherever long term PPA exists even if energy is not fully scheduled during the year from the station(s) based on MoD principles and change in demand of the state.
 - c. Allow the carrying cost on Regulatory Assets and amortisation of the Regulatory assets in 2022-23.
 - d. Allow a suitable mechanism to recover the shortfall towards DISCOMs' receivable of Rs. 7788.30 Cr., as on 31st March 2021, arising out of sale of distribution utilities (CESU, WESCO, NESCO and SOUTHCO) through regulatory process preferably in the next five years.

- e. Allow recovery of the additional cost/s due to over-drawal of energy, fuel price adjustment / fuel surcharge adjustment etc. or on account of any other statutory increase, significant rise in the fuel cost, Electricity Duty/ Water Cess levied by the Government of Odisha and any other Statutory levy/ Duty/ Tax etc. if any, be passed on to GRIDCO on account of the OERC / CERC / Tribunal / Court Orders / Impact due to any change in law etc., as surcharge during the year on quarterly basis.
 - f. Allow recovery of the full cost of the plant with the next highest tariff in the merit order from the DISCOMs if any DISCOM draw power in excess of the projected demand based on which BST is determined.
 - g. To allow Fuel Price Adjustment in the tariff order and to create a mechanism for monthly/quarterly fuel price adjustment.
 - h. Pass suitable orders related to sale of surplus power to industrial/large consumers considering recovery of cost to GRIDCO, margins for DISCOMs and applicable transmission charges etc. as specified in this petition.
 - i. Approve the proposed rebate mechanism as specified in this petition.
 - j. Direct the DISCOMs to pay GRIDCO's share of past arrear collection on monthly basis and also submit monthly MIS reports as specified in this petition.
39. 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 2022-23. World Institute of Sustainable Energy (WISE), Pune who was appointed by the Commission as consumer counsel, put up certain queries and objections regarding ARR and BSP filing of GRIDCO. A presentation on the proposed ARR was made by GRIDCO followed by the objective analysis by the consumer counsel (WISE). The objectors also made their observations and valuable suggestions on the submission of the licensee. Based on the nature and type of issues, objections/observations of consumer counsel and objectors have been broadly classified and details are as follows:

VIEWS OF THE CONSUMER COUNSEL AND OBJECTORS ON ARR AND THE BSP PROPOSAL FOR FY 2022-23 AND REPLIES/RESPONSES OF GRIDCO THEREON (Para 40 to 180)

Views of Consumer Counsel (WISE)

40. Design of BSP for DISCOMs has direct impact on consumer tariff; therefore, WISE, the Consumer Counsel has made the following observations on the ARR of GRIDCO and requested for consideration of the Commission.
- (a) to review the energy availability from all sources, specifically the low availability from IPPs (i.e. lower than state quota availability) along with the power purchase costs claimed by GRIDCO in respect of various power stations;

- (b) not to consider the high cost power purchase from central thermal stations and finalise the procurement strictly based on merit order despatch principle;
- (c) consider OHPC purchase cost as per the previous tariff order;
- (d) review the cost projected for OPGC Units-3 & 4;
- (e) to review the energy procurement from renewable energy projects for meeting the RPO target set by the Commission;
- (f) to review the transmission loss and transmission charges in case of central sector projects;
- (g) to suitably determine the power procurement rates for IPPs;
- (h) non-consideration of proposed special appropriation for repayment of loans;
- (i) allow principal repayment through trading income as per the Commission's earlier directive;
- (j) to review the proposed pass through expenses especially the cost of power purchase from NTPC stations claimed for the FY 2021-22, which should not be part of present BSP determination process;
- (k) not to allow interest on proposed new loans and loans availed from FY 2016-17 onwards as per Commission's earlier orders; and
- (l) to verify the actual employee cost, R&M cost, A&G cost and trading income of GRIDCO.

Legal Issues:

Views of Objectors

41. GRIDCO is a deemed trading licensee under Section 14 of the Electricity Act, 2003 and distribution Licence is not given to GRIDCO. There is no specific provision in the Electricity Act, 2003 for a trading licensee like GRIDCO to file the instant petition for determination of its ARR. Further, Section 86 (1) (a) of the Act states that the Commission shall discharge the function to determine the tariff for Generation, Supply, Transmission and Wheeling of electricity either in wholesale, bulk or retail, as the case may be, in which no space is provided to determine the tariff or price for a trading licensee. Further, OERC (Conduct of Business) Regulations, 2004 does not specify for filing of ARR by the Trading Licensee. Hence, the petition of GRIDCO is

liable to be rejected and necessary action may be taken to merge the details of power purchase cost disclosed by GRIDCO into the proceedings initiated for approval of ARR & RST for the four DISCOMs.

42. The previous BSP order is not a statute to substantiate the filing of GRIDCO which have been passed in violation of the provisions of the Act. Moreover, the provisions of Section 86 (1) (f) stipulates that the State Commission shall fix the trading margin in the intra-state trading of electricity. So, if the Commission thinks to compensate GRIDCO for his role, a trading margin may be allowed to GRIDCO. The source of revenue of a power trader is the trading margin calculated at the rate of a fixed paisa per unit as agreed between the trader and buyer / seller. The Commission neither feels the necessity of a trading margin nor notifies the rate in line with CERC regulations.
43. GRIDCO like power traders are present in Gujarat, Madhya Pradesh, and Uttar Pradesh, but their SERCs do not carry out any proceeding to approve their ARR and determine a tariff like BSP. Gujarat Electricity Regulatory Commission (GERC) notifies a trading margin of 3 paisa / unit and GUVNL, the trading licensee, is paid at the same rate for power supplied. SERCs of MP and UP do not notify any rate for trading margin, in which power trading is done by their Govt Company without passing any cost to consumers.
44. In case of other states, the State Govt himself or a designated Govt company has been authorized to deal with the state quota power and allocate the same to DISCOMs in a fair and transparent manner and the DISCOMs use to file the details of power purchase cost along with their ARR and their SERCs undertake proceedings and public hearings to approve the ARR and determine the BSP, if any, and Retail Supply Tariff for their states. The tariff proceeding done by OERC for a trading licensee is factually illegal and unlawful, needs rectification. OERC does not pay any attention to last clause of National Tariff Policy related to trading margin and allowed GRIDCO to file its ARR for determination of BSP. The Commission should be guided by Regulations and Licensee conditions of GRIDCO while hearing its tariff petition.
45. One of the Objectors has submitted that as a trader, GRIDCO should be allowed a trading margin between 4 P/U to 7 P/U. As a result the ARR of GRIDCO excluding power purchase cost would be between Rs.145.5 Crore and Rs.254.7 Crore. However, GRIDCO has proposed its ARR at Rs.1557.32 Crore excluding Power Purchase Cost

for FY 2022-23, which is very huge amount. Hence, the ARR of GRIDCO beyond Rs.254.7 Crore should not be passed on to consumers.

46. However, one of the objectors has submitted that GRIDCO is a valid legal entity as per the judgment of the Hon'ble Supreme Court of India (AIR 2009, SC 304) and the Commission has already recognised the GRIDCO as a "deemed trading licensee" and accordingly approved the ARR and BSP of GRIDCO from time to time. As such the Commission is justified to accept the application of GRIDCO.

GRIDCO's Response

47. GRIDCO has submitted that it is a Deemed Trading Licensee under 5th Proviso to Section 14 of the Electricity Act, 2003. GRIDCO, a Wholly State owned Undertaking and the State Designated Entity and also an Aggregator, is engaged in the business of purchase of electricity in bulk from various generators located within & outside the State of Odisha and also the State share of power from the Central Sector Generators for supply of the same in bulk to the four Electricity Distribution Companies in the State of Odisha. GRIDCO has been filing its ARR & BSP Application each Year before the Commission for approval under Section 86 (1) (a) & (b) and all other applicable provisions of the Electricity Act, 2003 read with relevant provisions of the OERC (Conduct of Business) Regulations, 2004, and other related Rules and Regulations.
48. GRIDCO submitted that under Section 86 (1) (a) of Electricity Act, 2003, the State Commission is duly empowered to determine the wholesale, bulk or retail supply tariff within the State. Accordingly, the Commission in its different Tariff Orders in past years, has determined the Bulk Supply Price for procurement of power by the DISCOMs. The Commission vide Para 1 of its Order dated 26.03.2021 has broadly explained the applicability of Section 86 and the requirement of GRIDCO to file its ARR Petition before OERC for determination of the power procurement price of the DISCOMs.
49. GRIDCO further submitted that as per Government of Odisha Notification no 7947 dated 17.08.2006, GRIDCO is the State Designated Entity for bulk supply of power to the DISCOMs in Odisha. As a Bulk Supplier, GRIDCO undertakes power purchase planning with an objective of reducing tariff for the consumers of the State. Owing to cost-efficient power purchase planning, GRIDCO has been able to procure power at a

low cost compared to other States. GRIDCO's management of power purchase has ensured that there is no energy deficit in the State even during peak hours. GRIDCO owns the responsibility of meeting the RPO and HPO targets for the State. GRIDCO also undertakes trading of surplus power and earns revenue which is utilised to reduce the end-tariff for the consumers. GRIDCO supplies power at-cost without any profit margin to ensure low cost power for consumers of Odisha. Also, the Commission does not allow any return on the equity invested by GRIDCO which also helps in reducing the BSP. Various activities like cost optimization, energy planning, arranging renewable power to meet the RPO obligations, strengthening the energy infrastructure etc. performed by GRIDCO has not only ensured the energy security and operational flexibility of the state but has made Odisha a power surplus state.

50. GRIDCO further submitted that similar to Odisha, state-owned trading licensees operate as bulk supplier in other states such as Gujarat, Bihar, Uttar Pradesh, Madhya Pradesh, Karnataka and some others which have multiple DISCOMs. This system enables a centralized, bulk procurement planning which helps in maintaining a uniform retail supply tariff throughout the State. Further, while considering the state as single entity under GRIDCO for CGS deviation, there is automatic optimization of DSM liability as compared to individual DISCOM. Also, in the DSM regulation, there is likely to be high penalty on deviation. The role of GRIDCO is very important in maintaining a uniform retail supply tariff across the state and ensuring that the consumers of Odisha avail 24x7 supply of reliable power at competitive price as compared to individual DISCOM making PPAs with the multiple generators.
51. Regarding allocation of PPAs and maintaining a uniform tariff across the state, GRIDCO has submitted that it is the State Designated Entity for bulk supply of power to the DISCOMs in Odisha. As a bulk supplier, GRIDCO undertakes power purchase planning with an objective of reducing tariff for the consumers of the State. Owing to cost-efficient power purchase planning, GRIDCO has been able to procure power at a low cost compared to other States. GRIDCO as a bulk supplier enables centralized, bulk procurement of power which helps in maintaining a uniform retail supply tariff in the State across different categories of consumers. Further, to keep the retail supply tariff reasonable, the Commission is not considering all the uncontrollable expenses of GRIDCO in the ARR.

52. Regarding fixation of a trading margin by the Commission, GRIDCO has submitted that it appreciates the concerns of the stakeholder in allowing GRIDCO a margin on its trading activities. GRIDCO being a state designated entity has always acted for the interest of the consumers of the state and operated on no profit basis.
53. GRIDCO's legal existence and the nature of its business and filing of its ARR & BSP application each year before OERC have also been upheld by OERC in multiple occasions in various previous ARR & BSP Orders.
54. The Commission has not been allowing RoE with observations for disallowance till the period the sector turns around and becomes profitable. Thus, GRIDCO has no objection if the trading margin is allowed by the Commission as suggested by the stakeholders along with approval of total uncontrollable cost including variable charges, capacity charges, Year-end charges, etc., as per the projection made by GRIDCO for FY 2022-23.

Availability of power and Energy Sales

Views of Objectors

55. One of the Objectors submitted that the proposed procurement of high cost central sector power comprises of about 38% of the total availability of power for the State. The full state quota power available from the low cost IPP power is under casted by GRIDCO in view of the MoUs executed with them. GRIDCO has failed to procure full state quota of low cost IPP power by citing some legal issues and required steps have not been taken to resolve the same. Therefore, the Commission should initiate necessary actions for procurement of full state quota of low cost IPP power.
56. The Objector has requested to consider state requirement of 29355 MU basing on MoD principle after considering DISCOM's demand and transmission loss. Accordingly, total power purchase cost for DISCOMs needs to be determined in view of the provisions of the Act. The available surplus power may be considered to the disposal of GRIDCO and the Government.
57. The objector has submitted that during last five years period i.e. from FY 2017 to FY 2021, the actual power purchase done by DISCOMs are 23541 MU, 24614 MU, 25528 MU, 24660 MU and 24627 MU respectively whereas, the Commission had approved 24540 MU, 25140 MU, 25990 MU, 27840 MU and 28090 MU for the corresponding period. The excess approval of OERC over the actual purchase by

DISCOMs for the aforesaid period were 1000 MU, 526 MU, 462 MU, 3180 MU & 3463 MU respectively. The excess approval of 3180 MU and 3463 MU for FY 2020 and FY 2021 looks unrealistic because the approved quantity is around 13% more than the actual consumption. Consequently, the cost of such excess power is about Rs. 1272 Crore for FY 2020 and Rs.1385 Crore for FY 2020-21 (calculated at Rs. 4.00 per Unit) which has been approved by the Commission in the tariff orders for which RST was rose up by 60 P/U and 65 P/U respectively. Further, the estimated power consumption of DISCOMS for the FY-2022 is as high as 27068 MU without considering Covid factors. The objector presumed that actual power consumption for FY-2022 would be at par with FY-2021, say 25000 MU. The ensuing FY-2023 will be no better than the current FY-2022 in the backdrop of Covid-19. So it is prudent and reasonable to approve 25000 MU as power consumption of Odisha DISCOMs for ensuing FY-2023.

58. The Commission adopts the top down approach to determine the sales forecast factoring the normative distribution loss. While forecasting sales, the growth of sales due to reduction of distribution loss is not factored in. The Compound Annual Growth Rate (CAGR) for FY-18, FY-19 and FY-20 shows real growth picture of input of DISCOMs and useful to forecast input energy for the ensuring year. The CAGR of actual input energy shows negative growth. The CAGR of 3.62% recorded for energy sales is due to reduction in distribution loss without any growth of state power consumption through DISCOMs. The deficiencies of the top down approach and Year over Year approach as adopted by the Commission and GRIDCO respectively could be medicated in the CAGR approach.
59. The input energy of 27011 MU estimated by the four DISCOMs for the current FY-22 and the projection of 28587 MU made for ensuing FY-23 are only falsehood whereas the intent behind the above false and fabricated estimates and projections is nothing but to approve higher normative losses in tariff and exploit the consumers by increasing the RST. Therefore, the Objector suggested to consider no growth of input energy of DISCOMs and approve only 25000 MU of input energy for state consumption.
60. The state energy consumption through DISCOMs was 6.15% during 1st decade but the same has been reduced to 1.49% during 2nd decade. The low power consumption of the State during the 2nd decade puts question mark on the growth of State economy

and in the other hand it is responsible for creation of surplus state quota power in the jurisdiction of Govt. & GRIDCO. GRIDCO could not earn desired profit by trading the surplus power in the hot open market and the inefficiencies thereof have been shifted to tariff hike.

61. The objector suggests to procure power from the following sources i.e. OHPC- 5399.36 MU; OPGC - 9517.89 MU; IPP - 8000 MU and Renewable power - 2082.75 MU for meeting the power procurement requirement of 25000 MU for FY-23 without considering high cost central sector power. In the above scenario, the central sector state quota power shall be surplus in the power pool of GRIDCO and there is no necessity to pass out the total central transmission charges of Rs 795.02 Cr to determine the power purchase cost of DISCOMs for the ensuing FY-2023. The objector requested to discard the proposal of the petitioner for procurement of central sector power and the total central transmission charges thereof.
62. M/s Vedanta Ltd. has submitted that GRIDCO has projected State's energy demand of 29355 MU including transmission losses of 3% for FY 2022-23 based on demand projected by four DISCOMs. The DISCOMs have projected growth in energy requirement to the tune of 3.2% to 8%; however, the actual growth in energy sales to DISCOMs is below 5% during last four years.
63. M/s. Vedanta Ltd. has further submitted that GRIDCO's power entitlement from its IPP unit was limited to the power generated from the linkage coal available with M/s.Vedanta Ltd. As was clarified in earlier orders in case no 21 of 2015, 68 of 2018 and in case no 34 of 2018, for any power supplied by Vedanta, the same can only be off-taken by GRIDCO which is generated by linkage coal. Hence, unless GRIDCO satisfies the cost effectiveness of its decision to requisition power from Vedanta, no power can be requisitioned. Further, such power supply is only to be made if Vedanta has linkage coal available. Any requisition given by GRIDCO shall have to be prudently examined by the Commission. For the ensuing FY 2022-23, if GRIDCO does not requisition power from Vedanta, the availability of power shall be 33762.60 MU which is still 4408 MU more than state requirement. GRIDCO requires no drawl from high cost ISGS stations such as FSTPS-III, KhSTPS-II, Barh-I and Barh-II. In the event of zero requisition from Vedanta, GRIDCO would save Rs 242 Crore in FY 2022-23 at 62% availability.

64. In other hand sale of surplus power in the market would also not be a viable option for GRIDCO, as GRIDCO proposed the average BSP as Rs 3.85/kWh whereas the average clearing price on RTC basis for the past three years is Rs 3.18/kWh. Thus, from no perspective, requisitioning power from Vedanta would cost effective, which is the test laid down in terms of order dated 5.10.2021 in case no 34 of 2018. The percentage share of actual availability from Vedanta Unit-II, as approved, is merely 8.45% on average basis of approved state demand. As per order dated 5.10.2021, GRIDCO is allowed to give requisition of power for at least three months from Unit-II while giving three-month advance notice. Vedanta has not given any generation plan for FY 2022-23. GRIDCO by its own has derived an estimated quantum wrongfully considering Unit-II as IPP on annual basis. The self-estimated annual generation plan is in gross violation of OERC order.
65. Some objectors submitted that Odisha, a surplus power state, has been created artificially and the Commission has allowed M/s Vedanta Ltd for conversion of its IPP unit to CGP unit. This is one of the cheapest power compare to other IPPs and the conditions imposed while converting the CGP to IPP is not workable without sacrificing interest of state consumers.
66. One of the objectors has submitted that with respect to proposed sale of surplus power, it is indicated that GRIDCO is not intending the surplus energy to be consumed by the industries within the state. Due to unsustainable power price in the state most of the steel industries have closed their units and moved to Jharkhand, Chhattisgarh where steel industries are given tariff incentive. Around 153 MVA load has been closed in the TPWODL area. In order to retain the industries, TPWODL made special arrangements with 12 steel industries as per the approval of the Commission, but still 3 to 4 industrial units have been closed citing unviable tariff. GRIDCO should place a proposal to offer the surplus power towards industrial growth inside the State through DISCOMs. With a better proposal with competitive price, most of the industries can be benefitted with licensee's power and may reduce their CGP generation.
67. For sale of surplus power to industries, TPWODL has suggested that the special agreement may be made with DISCOMs only. GRIDCO's earning of Rs 3.40/Unit at the exchange is close to highest BST. So the price may be fixed as Rs 4.15 / unit (Rs 3.37 / unit of GRIDCO + Rs 0.28 / unit towards transmission charges + Rs 0.50 /unit

to DISCOM). To match with GRIDCO's suggestion, DISCOM share may be reduced to Rs 0.25/unit. Concept of over drawl will not be applicable as the DISCOM will make the agreement with consumer which will be available from GRIDCO. As per RST order, industry is eligible to draw power up to 120% of CD.

68. The case regarding Railways' deemed license, is now pending before ATE. The risk of judicial decision may create further availability of surplus power with GRIDCO.
69. The shortfall in drawl from Vedanta Ltd. and JITPL be brought out and intimated to the Government for necessary action as the Government has provided them many facilities. GRIDCO may avail full entitlement of power from M/s Vedanta. In case of any short supply from annual entitlement, M/s Vedanta may be charged penalty as per penalty provision approved by the Commission for arranging high cost power from other sources by GRIDCO.
70. The fixed charge along with variable cost associated with the quantum of surplus energy, which are subject to be traded or sold through special arrangement, may be set off with income from such sale, instead of conceded to DISCOMs.
71. The Life of TSTPS-I is expiring on 30.06.2022. Hence, there will not be any capacity charge obligation with GRIDCO after expiry of life period. In a surplus availability scenario requisition and scheduling of power from TSTPS-I for the whole year is unjustified. Further, as per MOD principle, no power purchase should be approved for FY 2022-23 from KhSTPS-II and Farakka-III due to high variable cost of power. In its application, GRIDCO has submitted that without Darlipali-I, Barh-I, North Karanpura, the maximum demand projected for next 10 years could not be met. The objector has suggested to optimize the hydro power plant efficiency to meet the maximum demand requirement of the State.

GRIDCO's Response

72. GRIDCO is arranging the entire power requirement as well as the backup power to meet the peak demand. The demand and the availability of power need to be matched on a continuous basis and any instantaneous additional demand cannot be met on real time basis. As per Clause 3.10 of the Odisha Grid Code, 2015, the primary responsibility of load forecasting within its area rests with the Distribution Companies. The DISCOMs shall determine the peak demand and energy requirement of their respective areas of operation for each category of loads. GRIDCO prepares

least cost generation plan for the State to meet the demand as per the forecast, after examining the economic, technical and environmental aspects of all available alternative sources taking into account the existing contracted generation capacities. Power purchase planning is done on a long-term basis and power is tied up considering the peak load. Gap between the load forecast and actual demand during the year is not unique to the State and GRIDCO is in continuous endeavor to minimize such gap for each subsequent year. However, there always remains a degree of uncertainty (like force majeure conditions and market forces etc.) which adversely affects the fine balance between demand and supply. Similar to previous year, GRIDCO while projecting the power procurement requirement for FY 2022-23, has considered the projected sales and AT&C loss of the DISCOMs.

73. GRIDCO is contractually obligated by various Legal Covenants (like Long Term PPAs) to purchase power from the entitled sources and also equally concerned for any high cost of power entering into the State Power Basket. In fact, GRIDCO along with the Government of Odisha, has been continuously following up with the Centre since 2012, for de-allocation of high cost power. The efforts by the State Government and GRIDCO resulted in de-allocation of Odisha share of 155 MW of costly thermal power from Nabi Nagar Thermal Power Station of NTPC w.e.f. 07.01.2016. Further, the directions of the Commission for de-allocation of costly thermal stations of NTPC like NTPC-Barh-II has now become a reality with de-allocation of State share of 166 MW w.e.f. 19.02.2019.
74. In respect of Odisha share from NTPC Kanti-Bijlee Station and Barh-I STPS, GRIDCO is in close co-ordination with the Govt. of Odisha and has requested the MoP, GoI to de-allocate the same. Accordingly, MoP, GoI has taken cognizance of the request and notified GRIDCO's proposal for surrender of Odisha share of power. Further, the re-allocation of 218 MW & 128 MW thermal power, resulted in surrender of GRIDCO's share w.e.f. 01.09.2021 in respect of FSTPS-I & II and KHTPS-I stations of NTPC in favour of Government of Gujarat.
75. Regarding procurement from TSTPS-I station, expiring on 30.06.2022, GRIDCO submitted that, the variable charge of TSTPS-I lie in the range between 170 P/U and 210 P/U and coming under the merit order. Hence, GRIDCO has considered the drawal from this station because of its lower variable charges and also the uncertainty in the stoppage of the plant on reaching its scheduled life as it is envisaged that in

similar situations, plants' tenure are extended beyond the pre-scheduled tenure for certain additional years. The peak deficit of the State can be better managed through drawal from the TSTPS-I station comparatively at lower cost.

76. Regarding non-procurement of power from FSTPS-III & KhSTPS-II, GRIDCO submitted that the state has allocation of 17.15% & 2.62% respectively from these power stations of NTPC. GRIDCO has proposed for the surplus power for trading purpose in the ARR & BSP application for FY 2022-23 reducing the total power cost. Further, as per the long term contractual obligations, capacity charges need to be paid by GRIDCO even without availing power from these stations. Hence, procurement from the plant has been considered for trading purpose as the surplus revenue is to be utilized for recovery of the capacity charges.
77. Regarding proposal for replacement of power from Darlipali-I, Barh-I and North karanpura stations with optimization of hydro power plant efficiency, GRIDCO submitted that the proposition seems to be illogical and not based on the hydro capacity available to the State. Moreover, hydro power mostly depends on hydrology in all tariff years, which has experienced with a declining trend over the last couple of years. Moreover, the present hydro capacity is utilized to meet the peak demand and during exigencies, which can't be utilized to replace the thermal power of the NTPC stations as raised by the objector.
78. GRIDCO submitted that out of the five IPPs, M/s. Ind-Barath is yet to come as it has become NPA and has been taken to NCLT for resolution process and GRIDCO is not drawing power from M/s. NBVL due to high variable cost. Further, JITPL (2 X600 MW) has challenged the MOU with Government of Odisha and Power Purchase Agreement with GRIDCO before the Hon'ble High Court of Odisha in Writ Petition No. 18150 of 2018. Based on an Interim Stay order dated 16.05.2019, JITPL is not supplying power to the State. GRIDCO has made efforts for an early disposal of the said Writ Petition. The actual supply of power from IPPs is varying from the State's entitlement. The Commission is approving/projecting availability of power based on normative parameters (PLF% and AEC %) to be supplied by the IPPs to GRIDCO which is on higher side in comparison to the actual quantum of power exported in favour of GRIDCO, thus adversely affecting the power supply position of GRIDCO. The gap in availability vis-à-vis actual quantum of power supplied by the IPPs impacts the Bulk Supply Price (BSP) and during real time operation, GRIDCO is

dependent on high-cost power sources to meet/cater State demand. The actual and approved power purchase from IPPs is reproduced below for ready reference.

Table -7
Actual vs Approved Power Purchase from IPPs (in MU)

IPPs	FY 2017-18		FY 2018-19		FY 2019-20		FY 2020-21		Actual
	Approved	Actual	Approved	Actual	Approved	Actual	Approved	Actual	(Avg.)
M/s. Vedanta Ltd.	5039.45	970.89	5039.45	902.09	5039.45	747.84	3053	2806.01	1356.71
M/s GMR KEL	1517.1	1487.5	1842.19	1702.44	2167.28	1814.75	2167.28	1769.88	1693.64
M/s JITPL	503.95	250.64	1007.89	261.14	1010.57	11.95	1010.57	0	130.93
M/s. NBVL	-	-	-	-	-	-	-	-	-
M/s. Ind Barath Energy (Utkal) Ltd.	-	-	-	-	-	-	-	-	-
Total	7060.5	2709.03	7889.53	2865.67	8217.3	2574.54	6230.85	4575.89	3181.28

79. Regarding drawal of full state share from M/s. Vedanta Ltd., GRIDCO has submitted that during the current year M/s. Vedanta Ltd. has supplied power to tune of 2061.61 MU as on Dec'21 and not supplied any power during January'2022 against the approval of 3,003.48 MU by the Commission for FY 2021-22. M/s. Vedanta Ltd. has deliberately violated the order of the Commission and disregarded the requisition of GRIDCO for supply of power during the last quarter of FY 2021-22. In compliance to the Commission's order dated 05.10.2021, GRIDCO had furnished the energy requirement for the fourth quarter of FY 2021-22, which was not complied deliberately, for which GRIDCO has filed a petition under Sec.142 and Sec.146, seeking intervention of the Commission for giving direction to the defaulting IPP. On this petition, the Commission has passed order dated 05.10.2021 in Case No.02 of 2021 with no clear cut direction regarding supply of power by M/s. Vedanta Ltd. for the fourth quarter of FY 2021-22. Therefore, considering the past trend of power supply, GRIDCO has considered the energy projection of 2628.70 MU from the Vedanta Ltd. for FY 2022-23. Since FY 2017-18 there is always a wide gap in the actual supply of power by M/s. Vedanta Ltd. and the approval by the Commission. Hence, in the interest of the State, GRIDCO has prayed the Commission to issue

direction to the Vedanta Ltd. for supplying the requisite quantum of power on continuous basis based on the quarterly projection to be submitted by GRIDCO during the FY 2022-23.

80. GRIDCO has submitted that in Case No 21 of 2015, even if the Commission has converted Unit#1, 3 & 4 as CGP, the State Entitlement of Power has not been disturbed as per PPA dated.19.12.2012. Further, in Case No 34 of 2018, the Commission has conditionally converted the Unit#2 of Vedanta as CGP, i.e. if in any quarter, GRIDCO requires power from M/s. Vedanta for State consumption, they can avail the same by giving three months' prior notice to M/s. Vedanta and avail the same for a period of at least three months. Therefore, without pre-judice to the stand of GRIDCO, GRIDCO vide letter dated 31.12.2021 has already intimated to procure power from Vedanta for the quarter from April'2022 to June'2022. During the said period Unit #2 of Vedanta will operate as IPP as per the direction of OERC and Vedanta is thus bound to supply the State share of power from all the four Units and cannot escape from the obligation under subsisting Power Purchase Agreement and OERC Orders.
81. GRIDCO has further submitted that the underlying intent of the Commission is that the concessional coal received under the Fuel Supply Agreement (FSA) for Unit #2 because of long term PPA dated 19.12.2012 should not be mis-utilised. It is the responsibility of the Vedanta to ensure full linkage coverage for the State's Share of IPP Power from its Power Station. However, Vedanta has attempted to misinterpret the direction of OERC. Any shortage in Linkage coal supply has to be addressed through provisions of bilateral Fuel Supply Agreement between Vedanta and MCL as per which Vedanta is sufficiently compensated in case of slippage in grade of GCV of Linkage Coal. Therefore, Vedanta is duty bound to make available the total entitled power of GRIDCO by making suitable arrangement for procurement of linkage coal or commercially cheaper coal vis-à-vis linkage coal else it is solely responsible for its inaction.
82. Regarding requisition of additional quantum of power, GRIDCO submitted that, vide several correspondences it has always intimated its intent to M/s. Vedanta Ltd. to avail full entitlement of power. If Vedanta will procure commercially cheaper coal as compared to linkage coal and supply power to GRIDCO, then it will be advantageous to the consumers of the State. As such, power procured from Unit #2 of Vedanta is

always cheaper than the market price because of which OERC in previous ARR Orders of GRIDCO has categorically directed that, 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. Further, OERC has directed that, 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 present approval. However, Vedanta is intentionally/purposefully not procuring the cheaper coal to limit its entitlement up to the linkage coal mis-interpreting the Orders of OERC. However, other IPPs like M/s GKEL and M/s. JITPL are procuring cheaper coal under SHAKTI Policy rolled out by Ministry of Coal, by participating in bidding process done by Coal Indian limited (CIL). The CIL is floating bids from time to time to maximise the generation of the IPPs by making available of coal under PPA towards meeting the power supply obligation of the generators. Recently, the Commission has approved the additional coal procurement of M/s GKEL under SHAKTI B (III) because there was shortfall of linkage coal under PPA and also the cost of SHAKTI coal is cheaper than linkage coal. Consequently GRIDCO is now availing cheaper power (ECR) from GKEL with an additional discount of 3 P/U upto the quantum of SHAKTI Coal used by GKEL to supply power to GRIDCO. In contrast, although it is the responsibility of Vedanta to ensure full coverage of linkage coal for 720 MW, i.e. the State Share of Power plus proportionate Auxiliary Consumption, Vedanta in past, without intimating GRIDCO, surrendered the FSAs for linkage coal. Now Vedanta is trying desperately not to avail linkage coal for Unit# 2, only to achieve its vested interest, i.e. permanent CGP status to Unit#2, with an ulterior motive to deprive the State Consumers from availing the cheap IPP power.

83. Further, GRIDCO submitted that the cost effectiveness of GRIDCO's requisition for power from Unit #2 of Vedanta can only be scrutinised by OERC only at the end of the quarter and not in between which will make the order inoperative. M/s. Vedanta Ltd. neither can undertake prudence check nor usurp the power of the Commission. Vedanta did not make any single effort to supply power to GRIDCO based on requisition dated 05.11.2021 and instead intentionally/purposefully did not procure linkage coal available under the FSA, thereby creating a situation of shortage in linkage coal stock and taking this plea for supply power to GRIDCO as per the

requisition. Instead Vedanta continued to operate Unit II as CGP in gross, flagrant and wilful violation of the order because of which GRIDCO was compelled to file application as Case No. 02 of 2022 under Section 142 and 146 of Electricity Act, 2003 for direction to Vedanta to comply forthwith the order of the Commission.

84. Unit #II of Vedanta has been given a special status and GRIDCO has been directed to operate its PPA with flexibility to exercise its option of availing power from STU connected Unit #II. The average cost of power procurement from Vedanta hovers around Rs.2.65/- which is the cheapest source of power available in the basket of GRIDCO and is well within the merit order for procurement of power to meet the State requirement in order to optimize the power procurement cost and as a consequence with lower Bulk Supply Price (BSP) for the State Consumers. Therefore, the projection for 2628 MUs of power from Vedanta against the entitlement of 5010 MU (normative) is appropriate and justified.
85. Regarding procurement of power from CGPs, GRIDCO has submitted that CGPs are infirm sources and thus cannot be relied upon and hence, GRIDCO can't propose definite quantum of power to be procured from CGPs which is essentially meant for captive consumption. Further, 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. In view of the projected power procurement of about 36391.31 MU during FY 2022-23 from such firm Stations to meet the projected demand of the DISCOMs and sale of the surplus power due to lower State demand; there is no opportunity left for any procurement of energy from infirm CGP Sources during the ensuing year. Besides, GRIDCO is not out rightly denying the proposal, but the option of sourcing power from CGPs has been kept open for procurement under "force majeure" or "exigency conditions" and in appropriately cost effective situations. GRIDCO may consider procuring 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.
86. With regard to proposition of power procurement from the Energy Exchange instead of procuring costly power from the central sector, GRIDCO has submitted that GRIDCO has entered into PPAs with various State & Central generators to meet the

long term demand. The above proposition looks lucrative considering the present subdued market with lower trading price, which may cater the short term demand of the State. However, the above proposition may not hold good to meet the state demand especially in the peak hours in the long run. GRIDCO being functioning as the State Designated Entity is responsible for ensuring steady power supply in the State which can be achieved only through Long Tem PPAs.

87. Regarding free power from SHPs, GRIDCO submitted that GRIDCO is now availing power from three SHPs, and free power is not being availed as these SHPs are embedded in Odisha network and entire power is being availed for state consumption. The Commission in its order dated 19.5.2011 has clarified the same, as balance 88% power is also used in the state, the concept of 12 % free power does not hold good.
88. GRIDCO has submitted that the Stakeholder's estimation of power consumption of 25000 MU for FY 2022-23 is not supported by proper justifications and assumptions. The DISCOMs are responsible for projection of power consumption for the ensuing year on which procurement requirement is to be estimated. The Stakeholder has not considered that the power procured from renewable sources is based on the RPO target and not based on MoD principles. Similarly, 'Must Run' plants are also to be kept out of the ambit of MoD. It is to be understood that power procurement is a complex task of matching aggregate demand with supply, rather, there are various technical considerations that needs to be factored in while preparing a power procurement plan. Power is scheduled in 15 minutes' time blocks considering different demand patterns for different time blocks. GRIDCO has ensured availability of sufficient capacity in meeting the peak demand of the State through long term PPAs to provide stable power.
89. GRIDCO has submitted that the communication regarding the demand estimation made by TPCODL and TPNODL has been submitted by GRIDCO; hence the contention of TPSODL regarding erroneous demand projection made by GRIDCO for other DISCOMs is not justified. Further, on the contention of TPWODL regarding judicial decision towards allowing Indian railways for availing power supply through open access, GRIDCO submitted that they are hopeful for retaining Indian railway to get power supply from the respective DISCOMs because of their demand being met through long term PPAs.

Issues on RPO target

Views of Objectors

90. M/s IEX submitted that for FY 2022-23 GRIDCO has projected shortfall of more than 400 MU in solar segment and approximately 200 MU in non-solar segment. The Distribution Licensees now have the option to fulfil their existing RPO as well as future RPO targets by procuring RE power from short term market through Green Day Ahead Market (G-DAM) and Green Term Ahead Market (G-TAM) products available at IEX platform. G-DAM was introduced during FY-2022 at IEX platform w.e.f. 26.10.2021 wherein Solar and Non-Solar RE is being transacted. The buyers of this market will get Solar and Non-Solar RPO credit on the basis of proportion of the solar and non-solar bids of the sellers cleared in the total volume of the RE market. G-TAM market was introduced in August 2020, wherein Solar and Non-Solar renewable energy is being transacted in intra-day, Day Ahead contingency, Daily and Weekly contracts. Presently G-DAM segment has around 26 sellers and 40+ buyers participating in this market segment. G-DAM and G-TAM provide alternate market-based route to the RE generators to sell their green power and for the buyers to fulfil their RPO at competitive price with flexibility of entry and exit in the market. The market has witnessed an encouraging response since launch of G-TAM and G-DAM. G-TAM has registered trade of around 4.2 BUs and G-DAM has registered trade of ~0.32 BUs since launch till 31.12.2021. Therefore, M/s IEX has requested the Commission to consider these developments related to market while assessing the power purchase of DISCOMs.
91. One of the objectors submitted that OREDA has to produce their planning schedule for procurement of solar power. The Commission should direct the Secretary, Energy, GoO to ask OREDA to take proactive steps for development of RE sources in the State. The Objector has requested the Commission to direct GRIDCO to submit its year wise RPO compliance status report to OREDA at the earliest. Another Objector submitted that GRIDCO constantly failing to keep up with SPO, RPO from 2012 onwards.

GRIDCO's Response

92. GRIDCO has stated that it is well committed to meet the RPO target and has taken up through requisite planning by executing agreements with Central and State developers

and Nodal Agencies to meet the RE target by 2030. GRIDCO is hopeful to achieve the target with commissioning of various RE projects in the pipeline as well as the upcoming projects for which GRIDCO has executed agreements. In view of the COVID-19 situation, commissioning of some RE projects got delayed from their scheduled commissioning date. The 500 MW Solar power through SECI and 40 MW solar project of NHPC got delayed due to the same and energy procurement from these projects has not been considered in the ARR for FY 2022-23.

93. Regarding introduction of Green Short Term Markets through G-TAM & G-DAM for buying of RE power GRIDCO has stated that it is certainly an alternate for sourcing of RE, but the quantum is very less and the rate is higher in comparison to the long-term RE tariff. However, GRIDCO is exploring the short term and medium term markets for procurement of RE power for the RPO compliance with competitive RE tariff through power exchanges. GRIDCO is procuring power from different RE sources for RPO compliance, which is now being done through competitive bidding route, where the tariff is below Rs.3.00/kWh. GRIDCO is not only promoting green power for RPO compliance but from cheaper sources also.
94. GRIDCO has submitted that they have already submitted the financial year wise RPO compliance status to OERC through OREDA up to FY 2020-21 and Q2 of the FY 2021-22. The surplus / shortfall, if any, will be addressed as per the direction in the prevailing OERC RPO Regulations, 2015. GRIDCO is regularly submitting its quarterly and year wise RPO compliance status to both OREDA and OERC.
95. The PM-KUSUM Scheme of MNRE is supposed to be implemented through OREDA, the State Nodal Agency as per the scheme document, where individual farmers/ co-operatives/ panchayats/ Farmer Producer Organisations (FPO) can develop the project which is up to 2 MW Solar capacity under Component 'A' of the Scheme. GRIDCO will procure power under PM-KUSUM Scheme to be implemented in the State at a specified tariff of Rs.3.08/kWh as determined by the Commission, where the quantum is to be allocated by MNRE to the States. GRIDCO has proposed to implement around 100-200 MW solar capacity in the State and up to 500 MW in the coming years through this scheme.

Power Purchase Cost

Views of Objectors

96. M/s Indian Energy Exchange (IEX) submitted that GRIDCO can take advantage of the competitive rates at the exchange and optimize its power purchase costs. There is a bouquet of products available in the market starting from real time delivery for the next hour till up to a year, and this includes buy and sell through power exchanges, and bilateral through traders/DEEP portal. While the short-term procurement beyond 11 days of contract could be done by the DISCOMs through the trader/DEEP only, IEX is in process of introducing longer duration contracts for delivery of power beyond 11 days at the exchange platform. These contracts will ensure delivery of non-conventional and conventional power beyond 11 days up to 1 year.
97. One of the objectors has submitted that Govt. of Odisha is collecting Electricity Duty (ED) of more than Rs. 3000 Crore per annum from State Power Sector and sufficient scope is available for Government to earn more revenue by selling the surplus power outside the State. The above revenue is not factored in the present case to determine the total power purchase cost. Moreover, there are ample scopes for GRIDCO to maximize its revenue by selling the unaccounted power, not consider in the books of accounts. The provisions of the Act do not allow the SERCs to consider and approve the cost of total power available for the State and the associated incidental cost, but restricts the SERCs to consider and approve only the volume of power the state requires through DISCOMs in the tariff proceedings for the purpose of determination of uniform RST. Moreover, in its application, the petitioner has factored the purchase cost and revenue of surplus power in the computation of total and average power cost of power purchase by DISCOMs in an illegal manner. The Commission is concerned with only to determine the total and the average cost of power purchase required by all the DISCOMS under the provisions of the Act.
98. The objector submitted that GRIDCO has proposed to procure 13846.47 MU central sector power but transmission charges have been computed on 16847.31 MU in view of the Long Term Access (LTAs). So, excess transmission charges have been proposed by the Petitioner basing on the excess procurement of 3000.84 MU over and above the proposed procurement from central sector power. Therefore, on prorate basis a sum of Rs. 653.41 crore may be considered for the proposed procurement of 13846.47 MU of central sector power.

99. An Objector submitted that GRIDCO should negotiate with OHPC to reduce the price claimed by OHPC in its ARR application. GRIDCO and OHPC should sit together and see that the mini hydro projects now available under OPGC should be transferred to OHPC for low cost power generation.
100. One of the objectors has submitted that the trading rate of Rs 3.40 per unit should not be accepted because Government and GRIDCO are not able to change PPA and purchase low cost power for State use. Further, the proposed fixed charges of Rs 4681 Cr should not be accepted for the wrong forecast by GRIDCO.
101. An Objector has stated that GRIDCO has proposed to buy costlier power from NTPC; but not buying the power from state based CGPs even at Rs. 2.75 per unit. GRIDCO should procure all surplus power from CGPs of the State considering the fact that the tariff of CGP is cheaper than that of Central Generating Stations and not associated with any transmission loss, POC/STU charges & losses and other associated cost. Further, the Objector has requested the Commission to pass appropriate order so as to ensure a specified quantum of power to be purchased from CGPs and the tariff of the same may be approved looking into present cost of generation. Further, GRIDCO is not taking any action to buy power from IEX.
102. In its tariff filings for FY 2022-23, OPGC has proposed annual fixed cost as Rs 275.56 crore, whereas GRIDCO has considered the same as Rs 260.67 crore. Further, GRIDCO has proposed the energy charges of Rs.1.528/kWh for Units 1&2 as per the parameters of previous OPGC tariff order. But OPGC in its tariff filing has proposed energy charges as Rs 1.779 /kWh considering the norms of PPA, provisional fuel price and GCV as per the half yearly data for FY 2021-22. OPGC has requested the Commission to approve the annual fixed charges and energy charge rate as proposed in its tariff filing while projecting power purchase cost of GRIDCO.
103. OPGC has further submitted that it has filed an Appeal No.189 of 2020 before the APTEL against Commission's said Order dated 28.10.2020 in case no. 43 of 2017 on GCV for tariff computation. As the matter is sub-judice, OPGC has considered the GCV of coal and oil as actually delivered to the power station. OPGC has requested to approve the reimbursement of other charges as proposed in its tariff fillings for FY 2022-23 and requested the Commission to direct GRIDCO to reimburse other charges on actual basis in accordance with the provisions of the approved amended PPA.

104. OPGC has submitted that for its Units-III&IV the provisional tariff of Rs 3.09 / kWh was approved by OERC for FY 2020-21 in GRIDCO's ARR. The same rate was also considered in GRIDCO's ARR for FY 2021-22. OPGC in its tariff petition (Case No 96 of 2021) has proposed fixed charges of Rs 1726.98 Crore and energy charge rate of Rs 1.369/kWh considering the norms of CERC Tariff Regulations, 2019, and the provisional fuel prices and GCV of previous 3 months prior to CoD. With provisional total rate of Rs 3.09/kWh, the amount available for payment of fixed charges, after deducting the proposed energy charges from provisional tariff, is Rs 1190.90 Crore {6919.90 MU X (3.09 – 1.369) Rs / kWh} for supplying 6919.90 MU. This implies an under recovery of fixed charges of Rs 536.08 Crore (Rs 1726.98 Crore - Rs 1190.9 Crore). Such under recovery of fixed charges is leading to difficulty in debt servicing, non-recovery of expenses towards water charges and security expenses, additional working capital loans causing higher interest burden, negative cash flow affecting the credit rating of OPGC. Further, once final tariff is approved by the Commission, GRIDCO would face difficulty in liquidating the prior period billing arrears and also lower interim tariff would cause higher prior period arrear.
105. OPGC has further submitted that the landed cost of coal has changed due to change /mix in source of coal procurement (OCPL & MCL) including mode of transportation (MGR, Road + IR + MGR etc). OPGC may be allowed to bill the energy charge considering the actual GCV and landed cost of coal and oil in accordance with the CERC Tariff Regulations as proposed in its tariff petition. The per unit fixed charge for drawal of 6919.90 MU comes to Rs.2.50/kWh considering proposed fixed charges of Rs 1726.98 Crore and further considering the proposed energy charge of Rs.1.37/kWh, the total tariff for OPGC Units-III&IV has been proposed at Rs.3.87/kWh. However, OPGC has requested to consider an interim provisional tariff of Rs 3.49/kWh adopting the principle proposed by GRIDCO and accepted by the Commission in Case No 71 of 2019 (85% of proposed annual fixed cost plus energy charge) till the final tariff determined, which would enable OPGC to raise monthly energy bill and GRIDCO to pay power procured from Units-III&IV.
106. One of the objectors has submitted that the average cost of supply to the consumers will increase by 60-70 paise per unit of all categories of consumers taking into account the BSP proposed by GRIDCO, increase in transmission charges of OPTCL and distribution losses of the DISCOMs. Hence, the Commission should scrutinize

the power procurement proposed by GRIDCO avoiding procurement of costlier power from central sector stations.

107. GRIDCO is expected to utilize earning from sale of surplus power and plough back to achieve lower tariff. If it makes consistent loss, then GRIDCO's existence is questionable, if not legally as defended, but as a viable business entity.
108. In absence of MYT Regulations, regulatory certainty is to be ensured while determining Power Purchase Cost of DISCOMs. If GRIDCO seeks upward tariff revision in every ARR petition, the DISCOMs' business plan would become infeasible. The burden of increased power purchase cost will make revenue recovery more difficult, not only in terms of current demand but also the past arrears and the operational cost of revenue recovery would increase substantially.
109. It would be in better interest of the State and all stakeholders, if power availability, at competitive rates vis-a-vis neighbouring States, is assured to consumers in Odisha, particularly to the energy intensive industry, when surplus power is available.
110. For sale of surplus availability, GRIDCO may requisition such power considering market condition. The losses on account of trading of surplus availability should not be passed on to the consumers.
111. One objector has submitted that GRIDCO has made long term PPA as per their planning and requirement and they have to pay fixed charges even though they do not avail power. Because of high cost of power, industries prefer to procure power through open access. GRIDCO has no option rather than to surrender power during off-peak period and pay the full fixed charges. If the Commission does not allow the recovery of fixed cost, GRIDCO has to borrow and pay the same in case they are not able to sell the power through bilateral / power exchange. This is happening for last two years and the Commission forced GRIDCO to become a loss making unit.

GRIDCO's Response

112. GRIDCO has submitted that the ARR & Tariff Application of OHPC for FY 2022-23 will be subject to the regulatory scrutiny and approval by the Commission through public hearing. GRIDCO will make payments to OHPC towards power procurement cost of power at the OERC approved tariff and not as projected tariff by OHPC. Regarding transfer of Mini Hydel projects from OPGC to OHPC, the matter is beyond the purview of GRIDCO.

113. GRIDCO has considered the Annual Fixed Charges (AFC) of Rs.260.67 Crores for OPGC Units-1 & 2 for FY 2022-23 based on the order dated 26.03.2021 of the Commission in Case No.71 of 2020. However, OPGC has prayed for approval of AFC of Rs. 275.56 Crore for FY 2022-23 vis-à-vis current AFC of Rs.260.76 Crore i.e. a hike of about 6% which is quite high. Therefore, GRIDCO prayed before the Commission to carry out prudent verification of working capital claimed by OPGC in their tariff petition and accordingly determine its AFC. Further, OPGC has proposed the ECR of Rs.1.779/kWh (Base Value) considering the norms of operation as per approved amended PPA and provisional fuel prices and GCV of half yearly Fuel Price Adjustment Bill for FY 2021-22. However, GRIDCO has proposed for an ECR of Rs.1.5281/kWh for Units-1&2 considering parameters considered in earlier tariff order of OPGC in Case No.71 of 2020. The Commission may direct OPGC to submit “As Received” GCV of coal and actual Specific Fuel Oil Consumption for determining the monthly Energy Charge Rate (ECR) and the Third-Party Joint Sampling Report done by CIMFR at billing end in respect of coal procured from MCL. The Commission may determine the base ECR prudently. Further, GRIDCO has been carrying out reimbursement of other charges as per actuals as per the Commission’s order from time to time after detailed scrutiny of supporting documents. However, OPGC has not claimed Income Tax, Tax and Cess on land and contribution towards Water Conservation Fund for 2021-22 yet.
114. GRIDCO has considered Annual Fixed Charges and Energy Charges for FY 2022-23 for Units-III&IV of OPGC based on provisional tariff of Rs.3.09/kWh as approved by the Commission in Case No.71 of 2019 and Case No.72 of 2020. However, OPGC has filed petition for approval of capital cost and tariff of Units-3&4 for control period 2019-24 before OERC in Case No.96 of 2021, wherein OPGC has requested the Commission to approve the Annual Fixed Charges of Rs.1726.98 Crore with per unit Fixed Charges of Rs.2.49/kWh, while projecting the power purchase cost of GRIDCO from Units-3&4. The Commission may suitably determine the tariff for Units-III&IV of OPGC for purpose of determination of ARR of GRIDCO for FY 2022-23.
115. GRIDCO has submitted that cost savings for GRIDCO upon zero requisition of power from M/s. Vedanta Ltd. is completely baseless. GRIDCO stated that 5% of energy sent out from power plant of Vedanta at ECR only is the cheapest power available to

GRIDCO apart from 25% of power at Two-Part Tariff which is well placed in the MOD list for State use.

116. Further, since M/s Vedanta has to supply power to GRIDCO during IPP mode of operation of Unit#2, the tariff of Unit #2 is essential to be determined by OERC and cannot be avoided under any circumstances whatsoever. Therefore, the averments of Vedanta that the petition for determination of tariff for M/s. Vedanta Ltd. is infructuous, is misplaced and contrary to the Order dated 05.10.2021 of OERC and hence, not acceptable to GRIDCO.
117. GRIDCO has projected fixed cost to the tune of Rs.4,618.05 Crore as capacity charges of all power stations for the FY 2022-23 towards the contractual obligation for availing power to meet the State demand. The capacity charges of the respective central stations are determined by CERC and for the state generators by OERC for tariff block period, which has been considered as the base for projection by GRIDCO for sharing the State share of capacity charges. Accordingly, GRIDCO has requested the commission to approve the projected Fixed Cost of the Central and State Generating Stations to honour the contractual obligation of GRIDCO. The SERCs of various states allow the Capacity Charges of the high cost Generating Stations with whom DISCOM/State executes long term contracts, even there is less drawal due to fall in demand.
118. With regard to avoidance of procurement from central generators as well as CTU charges, GRIDCO has submitted that the PPAs are executed by GRIDCO based on allocation of State share of power by the MoP, GoI. Accordingly, the obligation of GRIDCO towards payment of fixed charge and CTU charges is mandatory irrespective of drawl as per applicable Regulations of appropriate Commissions. GRIDCO has submitted that ISTS / CTU charges are calculated in accordance with Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2020 and other applicable CERC Regulations. GRIDCO has proposed the power procurement cost from NTPC based thermal power plants, which have filed Tariff petition before CERC for the block period 2019-24.
119. GRIDCO is continuously following the principle of MOD while procuring power to meet the needs of the State and constantly focused for optimizing overall power procurement cost for the State consumers. Since, GRIDCO is experiencing a power

surplus position at present, it is selling its surplus power across different platforms of the Power Exchange as and when opportunity arises to boost up its revenues. Further, purchase of power from the power exchanges can only be considered when the rates prevailing in the exchange is less than the variable cost of the generators, necessitating GRIDCO to schedule as per MOD to optimize the procurement cost. As a bulk supplier GRIDCO undertakes power purchase planning with the objective of reducing tariff for the consumers of the State and is operating with no profit basis. Major portion of the power purchase cost has two parts out of which fixed part of the power purchase cost has to be paid based on availability of the plant irrespective of energy input into the grid. Revenue from trading of surplus power is being used to reduce the overall power purchase cost in the greater interest of the consumers.

120. Regarding procurement of power from the NTPC plants running at the technical minimum of 55%, GRIDCO has submitted that it is contractually obliged to pay the capacity charges. The projected average energy exchange price of Rs. 3.40 per unit shall be compared with the variable charges of respective plants, which shall be considered for trading as surplus power during the ensuing FY 2022-23 in order to optimize the total procurement cost through prudent and timely decisions for sale/surrender of the surplus power as the only recourse, for optimization power procurement cost. The differential revenue on trading at the higher price shall be adjusted during the truing up exercise as it is quite difficult to assess the exchange price for the ensuing year.
121. Under Orissa Electricity Reforms Act 1995, GRIDCO is required to plan energy requirement in the State to meet the power Demand. Accordingly, GRIDCO had planned energy requirement in the State, based on demand projections of 17th EPS released during March' 2007, wherein the demand of the State was estimated to grow to 10074 MW by FY 2022-23. Considering the above projection conservatively, GRIDCO executed PPAs with NTPC, OPGC and IPPs. Once the capacity has been tied up and PPAs have been signed, GRIDCO is contractually bound to service the PPA. Following MOD principles, GRIDCO purchase power from sources with higher variable cost only when low cost power is not available due to outage of the plant. Sometimes power from costly generating stations is being force scheduled by ERLDC to run the generator at technical minimum.

122. GRIDCO has submitted that it is well conversant of the mechanism with regard to the substitution of power from high ECR based station with the low cost power available in the market. However, the energy rates in the exchange usually remains low during the off peak hours of the day as the demand remains low. During these hours, though the power from costlier ECR based CGS is not scheduled as per merit order, power from these sources gets forced scheduled. Therefore, purchase of power from exchange shall negatively impact GRIDCO's portfolio.
123. GRIDCO has further submitted that presently the average rate during 00:00 hrs to 06:00 hrs in Day Ahead Market (DAM) of IEX is hovering around Rs. 2.00/ kWh. During the said period, the State also experiences a fall in demand thus resulting in huge surplus availability. Consequently, power from costlier ECR based thermal power stations, is being surrendered as per Merit Order; hydro power generation is being ramped down. In spite of the low rates, GRIDCO has been compelled to sell power in DAM and RTM from the available surplus pool which comprises of low cost ECR based thermal power stations such as NTPC Darlipali, OPGC, GKEL etc. which otherwise would have been surrendered to avoid any penal injection to the central grid. Thus chances of substitution of power from high cost ECR based station with the low cost power available in the Exchange, is quite bleak from the long term perspective towards meeting the State demand.
124. GRIDCO has submitted that adherence to long term PPAs executed by the Government and GRIDCO, resulted in higher procurement cost along with proposed trading rate of Rs. 3.40/unit. Because of lower State demand in the last two years consequent to out-break of pandemic and sluggish growth in the industrial sector, resulted in surplus capacity. GRIDCO endeavors to make trading of surplus power after meeting the State demand and accordingly for trading of 85% of the available surplus energy during the ensuing FY 2022-23, it has projected the average price of Rs.3.40 unit derived on average IEX price over the last five financial years. Accordingly, the differential revenue that would be earned due to higher trading price during the FY 2022-23, shall be factored during Truing up exercise.

Employee cost

Views of Objectors

125. The other costs like Employee Cost, A&G, R&M, Depreciation, Interest on Loans and Return on Equity, proposed by GRIDCO have neither any basis nor qualifies for consideration by the Commission under the provisions of the Act. The Commission does not notify any terms & conditions and regulations to pass out these costs for a trading licensee like GRIDCO. Hence passing out of above costs is illegal and unlawful.
126. GRIDCO has projected the employee cost at Rs 15.09 Crore for FY 2022-23 against Rs 11.42 Crore as approved by the Commission for FY 2021-22. GRIDCO has to justify such abnormal increase in employee cost. GRIDCO should furnish the details of its present and future employee projection for the next two years. GRIDCO hardly justifies its existence and further burdening the sick sector with employee cost.

GRIDCO's Response

127. The details of projection of GRIDCO towards employees cost has been furnished in Commission's prescribed Form F-9 along with the ARR & BSP application. The employee cost of Rs. 15.09 crore has been projected for various components including salary of regular employees, outsourced personnel, terminal benefits towards leave salary and pension contribution of the existing employees, balance payment of 7th pay arrear.

A&G, R&M and Depreciation

Views of Objectors

128. GRIDCO has projected A&G Expenses of Rs.7.5 Crore for FY 2022-23 against Rs. 5.42 Crore as approved by Commission. The Objector requested GRIDCO to justify why they have crossed approved A&G Expenses without obtaining necessary consent from the Commission
129. GRIDCO has proposed the Depreciation expenditure at Rs 1.02 Crore and R&M cost of Rs 0.85 Crore for FY2022-23 against approval of Rs. 1.33 Crore and Rs 0.70 Crore respectively for FY 2021-22. The Commission may approve the same through prudence check.

GRIDCO's Response

130. With regard to the A & G expenses, GRIDCO has submitted that the details of projection have been furnished in OERC Form F-11. Out of the total projected expenses of Rs.7.50 Crore, the major expenses considered are towards Annual License Fees of Rs.1.90 Crore, Legal Expenses Fees of Rs. 2.07 Crore and the balance expenses to the tune of Rs. 3.53 crore, which are quite minimal with respect to the annual turnover and the normal functioning of GRIDCO. Further, the projections for Depreciation and R&M Expenses are based on realistic assessments which are quite minimal and hence, the same may be considered and approved by the Commission.

Loan / Pass through expenses

Views of Objectors

131. One of the objectors has stated that most of the pass through expenses has occurred due to the central sector power. The position of central sector power in state power pool is just surplus power and it is the responsibility of either Govt. of Odisha or GRIDCO to dispose of the same. But the inactions and inefficiency of Government and GRIDCO to deal the surplus power have given birth to non-payment of pass through expenses. Hence, it is the duty of either Govt. of Odisha or GRIDCO to pay for the proposed special appropriation carrying out the management of surplus power.
132. Being a trader, GRIDCO is not authorized by OERC to obtain loan and charge the interest in tariff. The State Government has to pay the subsidy for such repayment. GRIDCO should not be allowed to avail loan for bridging the cash gap due to its default in collecting dues from earlier DISCOMs. Even if GRIDCO has availed any loan without approval, then provision of principal and interest for the same should not be allowed in the ARR of GRIDCO.
133. With regard to recovery of DISCOM's receivable, one objector has submitted that as per section 21 (a) of Electricity Act 2003, no past liability can be passed on to the new DISCOMs. As per the terms of the vesting orders, no past liabilities have been transferred to DISCOM and hence, the proposed pass through cannot be recovered through ARR of the DISCOMs. GRIDCO had already raised these issues before the Commission referring vesting orders of DISCOMs and the Commission has addressed

these issues with its observations/directions vide order dated 04.01.2022 in Case No.55/2021

134. As submitted by GRIDCO one of the reasons for availing loans is non-receipt of outstanding amount from DISCOMs in the past and that needs to be dealt as per manner it should be. Presently, all the DISCOMs are paying their BST bills on time and GRIDCO is supported with revocable LC of two months BSP dues provided by the DISCOMs. So, suggestion of GRIDCO to pass on interest and finance charges against past loan is not prudent and hence not acceptable.

GRIDCO's Response

135. GRIDCO has submitted that GRIDCO never gets any grant from State Govt. rather due to inappropriate cost reflective tariff, the revenue deficit has been financed through borrowing with State Govt. Guarantee during past couple of years. Further Govt. of Odisha is providing budgetary allocation for strengthening of Transmission & Distribution network in the State through Capex program and not funding any working capital requirement. Thus, the non-allowance of expenses beyond the trading margin seems to be illogical, inappropriate and untenable.
136. GRIDCO is availing loan for timely payment of power purchase bills to avoid power regulation and ensure uninterrupted supply of power to the State. The erstwhile CESU, WESCO Utility, SOUTHCO Utility and NESCO Utility have been privatized with transfer of day to day management control with 51% shareholding in the respective DISCOMs for bringing efficiency in the distribution sector. The Commission in the vesting order has stipulated for recovery of arrear dues from consumers over stipulated period for settlement of past dues of GRIDCO prior to vesting of the Utility. In view of the above, GRIDCO is quite optimistic with the recent privatization, anticipates improvement in the overall operational performance of the DISCOMs in the coming future with better financials and growth of the sector, resulting in settlement of past dues of GRIDCO.
137. Moreover, obligations of GRIDCO towards payment of finance cost and principal repayment has arisen due to non-cost tariff prevailing over the years, resulting in cumulative revenue deficit and compelling GRIDCO to resort to bank loan through Govt. guarantee. GRIDCO has requested the Commission that a mechanism be put in place for principal and interest repayment of short-term loans availed to bridge the

working capital gap arising due to non-realization of BSP dues from DISCOMs. GRIDCO further requested the Commission to issue suitable directives for arrear recovery performance of privatized DISCOMs.

138. Non-cost reflecting tariff, non-performance of DISCOMs over a long period, had compelled GRIDCO to avail loan from banks with Govt. guarantee in order to avoid power regulation in lieu of non-payment of generator bills. Further, the revenue deficit created over the years caused great hardship for GRIDCO in financing the revenue deficit so created due to non-cost reflective tariff over the years. The Govt. has extended financial guarantee against the loan availed by GRIDCO to tune of Rs. 6,500 Crore for payment of generator bills and settling the past financial liabilities of GRIDCO. In the pretext of the above, Govt. is not willing to extend any subsidy/grant against the repayment and finance cost obligation. Further, in absence of any reserves and surplus, GRIDCO is unable to meet the financial obligation and accordingly prayed the Commission for allowing the financial obligations in its ARR.
139. GRIDCO has submitted that the pass through claim of Rs. 580.71 Crore included in total pass through of Rs. 816.90 Crore, is towards NTPC stations for the current financial year 2021-22 covering period from Apr'21 to Sept'21. Further, such expenses do not have any relationship with provisions and directives issued by the Commission in the vesting order. The above claim has been raised by the generator during the FY 2021-22 for payment and also pass through has arisen due to change in law, differential claim as per the norms and orders approved by CERC and OERC, which were not considered in the ARR for FY 2021-22.
140. Moreover, the practice of allowing carrying cost on the regulatory gap by other SERCs are never being followed for which finance cost has increased considerably for funding the revenue shortfall/ gap, being met through borrowings in absence of any positive reserves and surplus. Thus, GRIDCO has prayed the Commission to consider the uncontrollable finance cost in the ARR of FY 2022-23.

Return on equity

Views by Objectors

141. GRIDCO is not entitled to Return on Equity. The order of APTEL may be continued and RoE should not be considered in the ARR of GRIDCO. GRIDCO is to submit what is book value of equity and net worth and whether they have been eroded.

GRIDCO's Response

142. GRIDCO has claimed RoE @ 16% of Rs. 92.27 Crore, on the Equity base of Rs 576.71 Crore as per the regulations framed by the Commission. The Commission may allow the RoE @16% on the "Paid-up Equity" as per the relevant Regulations in place as applicable to other Utilities. RoE is very much essential to create reserves and surplus as the same will enable GRIDCO to meet any eventualities. With regard to its net worth, GRIDCO has submitted that the same has been turned negative due to increased liabilities arising out of the outstanding power purchase dues payable by the four Distribution Utilities to GRIDCO and non-cost reflective tariff over the years.

Miscellaneous Receipts, Revenue Gap and BSP

Views of Objectors

143. Miscellaneous receipts on account of sale of inadvertent power at the rate of 2200 MU per annum has been ignored in the calculation of power purchase cost. No energy audit is carried out by GRIDCO. GRIDCO does not pay for such power, but the same is traded and earns revenue. Hence, the income from trading of inadvertent power of CGPs need to be considered in the power purchase cost. GRIDCO should submit how much revenue is earned by selling such quantity of inadvertent CGP power.
144. The installed capacity of CGPs in Odisha is very high i.e. around 12000 MW. What was the necessity to go for such huge capacity of CGPs in Odisha? Is not it a reckless approach by the power management of Odisha? Had the Government taken prudent planning of state power demand then it could restrict the installed capacity of CGPs within 5000 MW and industries could buy well the state quota power from DISCOMs. The proceeding to determine the power purchase of DISCOMs does not consider the revenue gap of the trading licensee under the provisions of the Act. Therefore, the revenue gap proposed is unwarranted and to be ignored.
145. The Commission while determining BSP for each DISCOM also allocating cheaper source of energy to LT segment and high cost power to industrial segment. In similar manner TPWODL has suggested source-wise allocation and surplus power thereafter may be sold through special tariff / traded by GRIDCO. TPWODL has calculated ARR of GRIDCO as Rs 8368.59 Crore and average BSP of 292.74 paisa/unit. Whereas, TPNODL has proposed the ARR of GRIDCO as Rs 8561.66 Cr and proposed BSP as 301.32 P/U.

146. As per the provisions Clause (c) and (d) of Section 61, tariff should be determined taking into account the factors which would encourage competition, efficiency, economical use of the resources, good performances, optimum investments and safeguarding consumers' interest. The ARR filed by GRIDCO would adversely impact end use consumers of all categories, thereby losing the rationality and reasonability. Hence, prima facie GRIDCO has proposed its ARR with a higher BSP which is even much more than the existing RST, thus ignoring the wholesome interest of all stakeholders the power sector in the State. If the proposal of GRIDCO is considered then there would be obvious increase in the existing RST, which would impose unwarranted burden upon the retail consumers.
147. One of the objectors has submitted that the rationale behind entrusting an intermediary agency between the generating company and DISCOMs is to maintain uniformity, proper coordination, avoiding complexity in the process of determination of tariff. GRIDCO is acting as a bridge between the Generators and DISCOMs. It has been entrusted by the State with such dual responsibility to maintain balance between the interest of the DISCOMs and consumers.

GRIDCO's Response

148. Regarding inadvertent power, GRIDCO has submitted that as per the order of the Hon'ble APTEL dated 08.05.2017 in Appeal No. 120 of 2016 & IA No. 272 of 2016, any inadvertent power injected to the system without scheduling to be treated as free power and attracts no cost. GRIDCO has stated that injection of inadvertent power from CGPs or any other sources demands levy of additional cost due to imposition of penalty on GRIDCO as per the DSM Regulations. Injection of inadvertent power is detrimental for stability of the State Grid and State has to do a balancing act to accommodate this power, by rescheduling the input from other generators which otherwise may have an impact on the grid stability. Hence, GRIDCO should ideally charge penalty on the CGPs for injecting inadvertent power rather than paying for the same for absorbing inadvertent injection shock of the CGPs. Further, since billing is done on scheduled power and the inadvertent power injected in the system is unscheduled in absence of any provision for which, there is no need for calculating any revenue on the same. The suggestion to charge GRIDCO for inadvertent power injected by the CGPs will put additional burden on the consumers of the State in terms of increase in power purchase cost as well as DSM charges apart from threat to

safety and security of grid operation. The proposal of the stakeholder may result in burdening the State consumers in terms of levy of additional charges for inadvertent / unscheduled power. Also, there is a chance of habitual under schedule and threat to safety and security of grid operation.

149. The Commission approves the industrial tariff every year in the RST Order. DISCOMs may appreciate the specialized tariff formulated by OERC in the tariff order for FY 2021-22 with concessional tariff to benefit the industries for meeting their increasing power demand beyond 80% of the contract demand. Moreover, the proposition that the BSP of GRIDCO is more than the existing RST, seems to be erroneous and is not based on any facts as the RST order for FY 2021-22 at Table-38 , Para-386 reflects the average cost of supply for the state as whole i.e., 548.40 P/U which is quite higher than the proposed BSP of 385.20 P/U. Moreover, GRIDCO has remained accountable for its due diligence since its inception as the successor to erstwhile OSEB being the first Government entity in the country to commence reform in the power sector under the OER Act, 1995 and became instrumental on shouldering the responsibilities on supplying uninterrupted power supply to the State consumers in spite of acute financial difficulties due to default in BSP payment over the years. GRIDCO has been functioning within the ambit of law and as per Business Regulations framed by the Commission.

Issues related to DISCOMs

Views of Objectors

150. The proposal of GRIDCO to recover the past dues through regulatory mechanism and through escrow of future revenue flow seems to be very unsound. In the sale process, the Commission has already given target towards realization of past dues, which is being honoured by DISCOMs in letter and spirit and also committed to do so in the time span. The committed arrear realization shall be paid to GRIDCO which may be adjusted for past dues. The suggestion of GRIDCO for recovery of the same through regulatory process not only an impediment proposal rather will invite for tariff shock to consumers in future. It has been witnessing in the past that option of escrow mechanism in the revenue flow has produced negative impact on DISCOMs' performance. Therefore, a separate kind of proposal would have been suggested by GRIDCO for benefit of power sector as a whole in realization of past dues.

151. Suggestions to recover past dues of GRIDCO relating to the erstwhile utilities through present day DISCOMs are not only opposed to principles enshrined in RFP and the Vesting Orders, but also send wrong signals to the DISCOMs in particular and to the power sector in the State in general. The same goes for treatment of depreciation on assets, prior and post takeover of the erstwhile distribution utilities. The present day DISCOMs should be allowed depreciation on assets for utilization of assets during period of their incumbency and should not be liable to make depreciation on assets for any past period. GRIDCO is the major beneficiary of the sale process by receiving financial gain to tune of Rs. 2475 crore in shape of cash and share acquisition, Further, the Commission has directed that all the arrear collections prior to the vesting will be remitted to GRIDCO as and when collected. The GRIDCO is also assured of Bulk supply payment by way of LC and performance Guarantee.
152. GRIDCO stated that as per vesting orders for DISCOMs, the depreciation on assets of erstwhile utilities transferred to the successor entities shall be utilized to meet the additional serviceable liabilities. DISCOMs submitted that, from the orders of the Commission regarding finalization of opening balance sheet, it is evident that these entities do not have to service any additional serviceable liabilities.
153. With regard to utilizing regulatory liability of DISCOMs in H1 FY 2022 to settle GRIDCO's dues, DISCOMs submitted that regulatory liability of the DISCOMs is for the current year only and nothing to do with GRIDCO's liability. Further, the same shall be addressed through truing up mechanism and will be passed on to consumers.
154. GRIDCO has prayed for recovery of the full cost with the next highest tariff in the merit order from the DISCOM (s), if any DISCOM (s) draw power in excess of the projected demand based on which BST is determined. One-way GRIDCO is struggling to sale the surplus power in present market condition and in other way trying to restrict the DISCOMs to draw more power. Drawl by DISCOMs will definitely help in use of surplus power. No doubt if GRIDCO would have suggested for drawl of higher quantum beyond approval shall be billed with highest BST among all DISCOMs would be a better option. With the above option of GRIDCO, DISCOMs will always curious to restrict its drawl through different option which is not a good sign in the present context, because DISCOMs are unaware about the rate at which GRIDCO will levy penalty at the end of the year. So, upfront declaration of rate is always good and with calculated risk the DISCOMs will operate.

GRIDCO's Response

155. The consumers of the erstwhile DISCOMs are being continued and transferred to the newly created DISCOMs. GRIDCO was constrained to allow escrow relaxation as per the directives of the Commission and request of erstwhile DISCOMs to meet the employee cost & other approved cost in the past years. Further, the present payment mechanism through LC ensures GRIDCO to get its BSP dues in time. But it is equally relevant to make recovery of the consumers' dues and settle the past BSP dues of GRIDCO as per the directives of the Commission in the vesting order with subsequent guidelines in the review meeting conducted in post vesting period. As the consumer receivables are dealt with by the successor DISCOMs, GRIDCO having supplied the power in the past, would appreciate the early recovery of consumers outstanding by the DISCOMs retaining the incentive approved by the Commission.
156. The claim of DISCOMs towards depreciation on total assets seems to be quite illogical. The R &M on the DISCOMs assets shall be much less because of addition of assets to the tune of around Rs.11000 Crore in the recent years as most of the assets have been renovated/replaced thus requiring less R &M expenses. GRIDCO prayed the Commission to approve the depreciation in the ARR of DISCOMs as per the principle adopted during the pre-vesting era and consider to allow the depreciation for payment of GRIDCO's dues in settlement of past BSP dues and other dues, enabling GRIDCO to make payment of its repayment obligations. GRIDCO submitted that the past arrear needs to be settled on monthly basis with suitable MIS so as to enable GRIDCO to make timely payment of repayment obligations by reducing its borrowings.
157. GRIDCO appreciates the efforts made by TPWODL for the agreements executed with the steel industries for supplying power during FY 2021-22. GRIDCO has stated that the IEX price remains volatile and is mostly determined considering the demand and supply of power for a relatively short period. It may not be possible on the part of GRIDCO for supplying the requisite quantum of power at the proposed price of Rs. 3.37 per unit considering the demand volatility of industries with simultaneous responsibility of meeting the State demand, particularly during the peak hours, outage of plant, during summer and any national breakdown affecting the supply at the national level. Thus, GRIDCO proposed for recovery of the cost of procurement from the industrial consumers so as to optimize cost to other category state consumers.

158. Regarding sale of surplus power through bi-partite agreements between DISCOMs and industrial/large consumers, GRIDCO submitted that the proposal would violate the order of the Commission in Case No 72 of 2020 while approving the ARR & BSP Order of GRIDCO for FY 2021-22. Moreover, TPWODL has acted beyond its scope erroneously and unlawfully by supplying power by executing the Short Term Agreement violating the Supply Code without seeking consent of GRIDCO, EIC, and OPTCL during the national crisis situation in mid of October'2021 when there was multiple outages of State generating stations & the state demand was being met through procurement from the energy exchange at a high price.
159. The matter is pending before the Commission for redressal in the interest of the State consumers since power was traded in the range of Rs. 11/unit to Rs. 15/unit during this national level crisis. GRIDCO requests the Commission to consider the above irregularities and TPWODL needs to be guided for refraining from such unlawful activities in the interest of the State. GRIDCO prays the Commission for fixing the special tariff with a base rate allowing GRIDCO to determine the upward rate/price following transparent tendering process so as to recover the cost to the maximum extent possible and ensure that the special tariff becomes competitive and in the interest of industries of the State.
160. Further, the arbitrary allocation of State entitlement of power for meeting the DISCOMs' requirement shall not be materialized because of the latest instance i.e, non-supply of power by M/s. Vedanta Ltd., who reduced its supply during the period Aprl'21 to Dec'21 and completely discontinued the power supply to GRIDCO from 01.01.2022 without assigning any sufficient reasons, which proves the proposition being non implementable and erroneous for finalization of the merit order and beyond the scope of DISCOM's authority.
161. The huge capex plan proposed by DISCOMs would result in additional benefits in the form of additional revenue or cost saving through improvement in technical and commercial efficiency. These gains should result in lower RST. Any decrease in RST due to efficiency or revenue gain would create margin for increase in BST.
162. All the four DISCOMs have negative ASL. Hence, they do not need to service any ASL as initially envisioned by the Commission while passing the vesting orders. Further, the DISCOMs may be earning an interest on negative ASL and they have

regulatory surplus, there is a scope for the DISCOMs to absorb some increase in BSP without any change in RST.

Rebate and DPS on BSP Payment

Views of Objectors

163. The DISCOMs have given following suggestion with regard to rebate:
- a. For crediting the BSP bill of the DISCOMs to designated current bank account through Letter of Credit on presentation or through NEFT/RTGS within a period of five (5) working days, a rebate of 2 % shall be allowed.
 - b. If the amount is credited on any day after five (5) working days and within a period of twenty-five (25) days of presentation of bill, a rebate of 1.50% shall be allowed.
 - c. If the amount is credited on any day after twenty-five (25) working days and within a period of thirty (30) days of presentation of bill, a rebate of 1% shall be allowed.
 - d. The DISCOMs may pay their BSP dues in staggered manner under different rebate option, but for eligibility of rebate, total current BSP dues needs to be settled by the DISCOM within 30th day of presentation of BSP bill.
164. Presently, the DPS for non-payment of RST dues beyond the permissible limit against Domestic & General Purpose category of consumers is 1% p.m, and in case of other category of consumers it is 1.25% per month. Where levy of DPS is 1.25%, such consumers are availing prompt payment rebate. The major defaulters for DISCOMs are Domestic and GP category of consumers. So, in line with the same, to maintain uniformity, DPS for non-payment of BSP dues may be considered as 1% p.m. instead of GRIDCO's suggestion of 1.5% p.m.

GRIDCO's Response

165. Regarding rebate on prompt payment of BSP bills and delayed payment surcharge, GRIDCO stated that they have already submitted their proposal in their application considering the cash flow of DISCOMs upon collection from consumers which needs to be passed on to GRIDCO through graded rebate system for timely payment of the generators bills. Further, GRIDCO has proposed the DPS rate for the DISCOMs in line with DPS rate imposed by generators for non-payment of their bills during the scheduled period.

Other Issues

Views of Objectors

166. M/s IEX has submitted that India has committed to achieve the target of 500 GW of installed capacity from non-fossil fuel based sources by 2030 as per its commitments made under Nationally Determined Contribution (NDC) at the Climate Submit at Glasgow and to meet about 40% of energy requirements from RE sources by 2030. The Central Government has also extended waivers of ISTS charges to the solar/wind power being deployed today. The existing concessions provided by the Commission in the past Tariff Orders have encouraged RE generation and consumption in the state either through the Distribution Licensee or Open Access. Extension of the concessions given presently to RE power will give the necessary fillip to RE deployments in the State and help to meet the target envisaged for 2030. M/s IEX has further submitted that before finalising the long term contracts, the option of purchase from market can be explored which requires detailed analysis. Further, the Commission may frame MoD Regulations and power purchase guidelines.
167. An Objector submitted that a huge sum has been paid to the DISCOMs under various flagship program of both the Union and State Government for strengthening the infrastructure during the period FY 2009-10 to FY 2020-21. Asset created out of above Govt. grant has not been capitalised in the balance sheet of either DISCOMs or GRIDCO.
168. In the previous tariff orders issued by the OERC the objections raised in the proceedings are not disposed of with reasons, whereas in the tariff orders issued by other SERCs the objections and suggestions of the stakeholders are recorded and under which the observation, analysis and ruling of the SERC are given to dispose of the issues.
169. There is wide variation in CEA General Review Report and OERC / GRIDCO data. GRIDCO must reconcile the same. GRIDCO has to produce the details of power purchased and per unit rate since April'2020 to December'2021 along with the power purchase cost of central thermal and hydro power stations.
170. GRIDCO is violating the orders and directions of the Commission and regularly purchasing high cost power. GRIDCO has to see that all the central schemes like KUSUM should be implemented.

171. GRIDCO is representing on behalf of GoO in the DISCOMs and hence GRIDCO officials are responsible for such non-payment of DISCOMs.
172. Instead of audited balance sheet and cash flow statement, GRIDCO has furnished authenticated un-audited annual accounts. GRIDCO needs to submit their audited balance sheet; because truing up exercise and determination of ARR & Tariff is not fruitful without these documents. GRIDCO also needs to submit its Business Plan, truing up and performance review related document along with ARR application. The truing up exercise should be carried out in public hearing and enquired whether the accounts are being audited as per statutory provision of the Companies Act.
173. One of the objectors has requested the Commission to direct GRIDCO to chalk out the five year plan, looking to power availability from the IPPs in the state and future load demand and explore the possibility of surrender the allocation of costly power from central sector. GRIDCO should also furnish the report on feasibility study for projected power demand of the state for five years.
174. An Objector submitted that short term purchase may be allowed and guidelines in this regard may be framed. There is consistent effort by PGCIL/POSOCO to hinder trading by not allowing injection of power at Jharsuguda around and action taken by GRIDCO may be stated. Whether GRIDCO as state designated entity enjoying free power from the small hydro projects.

GRIDCO's Response

175. GRIDCO has submitted that Annual Reports of GRIDCO for FY 2019-20 which encompass the Audited Annual Accounts for the respective years are uploaded in GRIDCO's website. Accounts of GRIDCO are being audited as per the statutory provisions of the Companies Act, 2013.
176. GRIDCO is an "Aggregator" with its role as "State Designated Entity" to facilitate power procurement on behalf of the State to meet the entire power requirements of the four DISCOMs in Odisha. In this context, it may be relevant to state that the OERC has been approving the Business Plan of the DISCOMs from time to time where GRIDCO remains as an active participant offering its views, especially with regard to its role as the Sole "Bulk Supplier" of Power to the four DISCOMs. It may be considered that, even though the estimated power requirement is approved by the Commission for four DISCOMs in the DISCOMs Business Plan, the principal

responsibility of fulfilling such power requirement always falls on GRIDCO to arrange for the Bulk Procurement and Supply of the required power at the Regulated Price in time so that the interest of the State Consumers is always served and protected. Thus, GRIDCO to have a separate Business Plan of its own will be self-defeating in nature and therefore, has been shelved in the greater interest of the Public of the State.

177. GRIDCO has submitted that the Truing up exercise till FY 2019-20 has been considered by the Commission. Truing up application for FY 2020-21 is being filed shortly.
178. GRIDCO always submits information documents in respect of its Performance Review as directed by the Commission from time to time. Performance Review of GRIDCO for FY 2020-21 and FY 2021-22 (Apr'21 to Sep'21) has been conducted by the Commission on 21.06.2021 & 20.12.2021 respectively.
179. GRIDCO has no Agreement with the CGPs and accordingly, the power procurement from such sources is nil during the FY 2021-22, thus raising of bill by the CGP does not arise.
180. GRIDCO's Pool Cost Statement for the period April'21 to Nov'21 indicating the cumulative Monthly Power Purchase Costs with Quantum & Rate of Central Thermal & Hydro Stations along with other generators has been submitted.

OBSERVATIONS OF THE STATE ADVISORY COMMITTEE (Para- 181)

181. The meeting with State Advisory Committee (SAC) was convened on 11.03.2022 through video conferencing to discuss about the proposed ARR and Tariff Applications of different utilities in the state for FY 2022-23. The members of the SAC deliberated on the various issues and the observations /suggestions of the SAC Members pertaining to ARR & Tariff of GRIDCO are mentioned hereunder.
 - (a) There has been no considerable load growth in the State for last three years. However, GRIDCO is not utilizing the State resources in full and is forced to draw high cost power from the central sector generating stations. The power purchase cost of DISCOMs constitute 60% to 70% of their ARR. GRIDCO has unique role to minimize, reduce and rationalize the cost of power. But the role played by GRIDCO is not as expected by the stakeholders of the State. GRIDCO has proposed 30% hike in BSP for the ensuing year 2022-23 for which there may

be 20% rise in the cost of supply of power. GRIDCO has to minimize the cost. If it is unable to do so, then the responsibility of power purchase may be passed on to the DISCOMs. The Commission may issue a strong order to GRIDCO in this regard.

- (b) GRIDCO is not able to meet its RPO compliance and from FY 2010-11 onwards, the shortfall in RPO of GRIDCO has not been carried forward. Development of renewable energy sources is not encouraging in our State. No sincere effort has been made by GRIDCO for development of RE generation. There has to be a consolidated effort for increase in RE generation. The KUSUM Scheme of Govt. of India has failed in Odisha due to inactiveness of the concerned government agencies. GRIDCO is refusing to purchase RE power from small RE developers. Hence, DISCOMs may be allowed to purchase RE power from small RE developers.
- (c) Now, the DISCOMs have proposed for green tariff, which requires some serious reconsideration because of proposed green premium. Green tariff is not alone the solution, but there is a need for increase in RE generation. Green tariff is not advisable till GRIDCO fulfills its backlog RPO compliance.
- (d) Govt. of Odisha is remaining silent on functioning of the power sector. The State Government cannot wash its hand and pass the responsibility to the private companies. Simply investment in CAPEX is not enough. The Government of Odisha should provide subsidy to certain section of the society.
- (e) Burla and Chipilima power house have not generated upto their design energy since last 6-7 years, but approval for purchasing power from these hydro power stations is made to the tune of their design energy. Since the low cost energy from these power stations is not made available due to less generation, GRIDCO is forced to draw high cost power from the central sector generating stations. The Commission should look into the matter.
- (f) The Commission in its earlier order has said that the M/s. Vedanta-IPP shall normally operate as CGP. Consequent to the order of the Commission M/s. Vedanta Limited may not be entitled for availing the linkage coal. Accordingly, the rate of M/s. Vedanta power will be abnormally high (One to Two Rupees

more than the normal rate) due to use of imported coal, for which a huge burden will be passed on to the consumers of the State.

Response of GRIDCO

In the SAC meeting, the representative of GRIDCO submitted that the performance of GRIDCO is being reviewed by the Commission in every quarter. GRIDCO is consistently trying to reduce the cost of power purchase. In last five to six years there is not much increase in power purchase cost. GRIDCO has succeeded in de-allocation of State share of high cost power around 667 MW from central sector generating stations i.e. Barh-II, FSTPS-I&II and KhSTPS-I. Further, GRIDCO is trying along with the State Government for de-allocation of State share of high cost power about 450 MW from Barh STPS-I & M/s. KBUNL. GRIDCO is also trying at different forum (Govt. of India and Niti Ayog) for reduction of ISTS charges and succeeded in the reduction of ISTS charges to some extent from last year. GRIDCO further stated that due to subdued demand during Covid situation in the State, per unit power purchase cost has increased. When the demand in the State will increase, per unit cost will be reduced and consequently the additional costs will be absorbed. However, the major burden on GRIDCO is its interest liabilities and principal loan repayment on account of past loan. Further, due to low hydrology, there is less availability from OHPC hydro generating stations, which is expected to continue for the next year. The representative of GRIDCO stated that GRIDCO has increased its purchase from RE sources substantially for meeting its RPO and the RPO is expected to be met in the ensuing year.

VIEWS OF THE GOVT. OF ODISHA (Para- 182)

182. Govt. of Odisha vide their Letter No. 2428, dated 22.03.2022 have communicated their views/suggestions on various issues relating to tariff for FY 2022-23 as follows:
- (a) Considering the surplus revenue (regulatory transfer) and profit of DISCOMs as well as the loss of GRIDCO during the first nine (9) months of the current financial year, there is scope for increasing the BST of DISCOMs without increasing the RST. The fixed cost of the PPAs signed by GRIDCO as well as the finance cost need to be taken into account in the ARR of the GRIDCO for the year 2022-23.

- (b) Concession on intra-State transmission charges, wheeling charges given on open access RE power need to be withdrawn forthwith. The Commission may also impose cross subsidy surcharge on RE power. A detailed affidavit in this regard was submitted by the Department before OERC in Case No. 81/2021, which need to be taken into consideration.
- (c) Operation of OPGC has become unviable because of present level of provisional tariff. OPGC has also filed an application before the Commission for determination of tariff. It may take some time. Hence, OPGC may be allowed reasonable and prudent provisional tariff w.e.f. 01.04.2022 for covering its fixed cost in full.
- (d) The Government has constructed the entire distribution infrastructure necessary for operationalising the mega Lift Irrigation Points (LIPs). The DISCOMs have not made any investment. The mega lift irrigation points receive power through dedicated 33 KV lines. Hence, the losses are low and the cost of supply for the mega lift points is much lower than the average cost of supply of DISCOMs. The mega lift irrigation points also use power for 10-15 days in a year as these have not been designed to provide assured irrigation rather these LIPs have been designed to provide protective irrigation for a few days when there is less rain fall. Accordingly, OERC may consider lower fixed charges and energy charges for the mega LIPs.

COMMISSION'S OBSERVATIONS AND ANALYSIS OF GRIDCO'S PROPOSAL (Para 183 to 394)

Legal Status of GRIDCO Ltd. and Nature of its Application

183. Prior to enactment of the Electricity Act, 2003 (hereinafter referred to as 'the Act') GRIDCO Ltd. was "Transmission and Bulk Supply Licensee" under the Orissa Electricity Reforms Act, 1995 (hereinafter referred to as 'the Reforms Act'). As such GRIDCO Ltd. has entered into long-term Power Purchase Agreements (PPAs) with Generating Companies namely OHPC, OPGC, NTPC etc. and also Bulk Supply Agreements with the four Distribution Companies of Odisha, namely TPCODL, TPNODL, TPWODL and TPSODL. Under the said agreements GRIDCO Ltd. is obliged to sell power on priority basis to the aforesaid Distribution Companies of Odisha as per their requirement and the Distribution Utilities are obliged to buy power from GRIDCO Ltd. This type of bulk supply arrangement is known as the "Single-

Buyer- Model” of power procurement for Distribution Companies of Odisha and the same is prevailing in the State as a historical legacy.

184. Under the Fifth Proviso to Section 14 of the Electricity Act, 2003 GRIDCO Ltd. has become a deemed licensee ; but its position has had to be consistent with the provisions of the Act. GRIDCO Ltd. has had to belong to one of the categories of licensee as set forth in clauses (a) (b) or (c) of Sec. 14 of the Act. It could not continue to maintain its position as “Transmission and Bulk Supply Licensee” as per the Orissa Electricity Reforms Act, 1995. The transmission business was taken over by OPTCL and GRIDCO’s present activity is now confined to bulk purchase of electricity for sale to the Distribution Companies of Odisha. This satisfies the definition of trading in Sec. 2(71) of the Act. Therefore, GRIDCO’s position as per the Fifth Proviso to Sec. 14 of the Electricity Act, 2003 is that of a deemed trading licensee, responsible for trading of electricity in bulk.
185. Bulk supply activity by a trader is not repugnant to any provision of the Act, 2003. Such activity is tenable in law. It is a historical legacy coming down from the period under the Reforms Act, 1995 and it continues so long as the long term bulk supply agreements with Distribution Companies subsist. Some of the objectors have canvassed the view that the single buyer model is against the spirit of the Electricity Act, 2003 and adversely affects the consumers of Odisha. In this tariff proceeding, the Commission has to set tariff in the situation as it stands now and therefore it refrains from addressing this larger issue.
186. Further, the Govt. of Odisha, vide Notification No. 7948 dated 17.08.2006, have notified GRIDCO as the State Designated Entity for execution of Power Purchase Agreements with generating companies involved in generation of power from thermal, hydro & renewable sources for purchase of power.
187. Regarding filing of ARR & BSP application of GRIDCO Ltd. before the OERC, it is to clarify that the Commission is empowered under Sec 86 1(b) of the Electricity Act, 2003 to regulate the price for procurement of power by the DISCOMs. Thus, this provision enables the Commission to fix the regulated price for procurement of power by the DISCOMs under the existing Bulk Supply Agreement with GRIDCO. Incidentally the approval of regulated price of power purchase for DISCOMs happens to be the Bulk Supply Price of GRIDCO Ltd. under the present arrangement and as

such the Commission is empowered to approve the ARR & BSP of GRIDCO Ltd. Hence, GRIDCO's submission of its ARR & BSP application before the OERC for approval is quite logical and very much tenable under the law. Moreover, GRIDCO acts as a shock absorber and protect DISCOMs from possible Power Regulation by generator(s) due to any immediate cash flow problem.

188. Under S. 86(1)(b) of the Electricity Act, 2003 the Commission is entitled to regulate the price at which Distribution Companies may buy power from generating companies or licensees (such as GRIDCO Ltd., which is a deemed trading licensee) or from other sources through agreements. The power to regulate price includes the power to fix regulated price from time to time. This provision enables the Commission to fix a regulated price for procurement of power by Distribution Companies under the existing Bulk Supply Agreements with GRIDCO Ltd.. Conceptually this is different from setting of general tariff for sale of electricity by GRIDCO Ltd. to any purchaser.
189. The Commission cannot and does not fix tariff for sale of electricity by a trader, vide Section 62 of the Act, and it does not intend to do so for GRIDCO Ltd. as a trader; even though under Section 86(1)(d) read with S.62 of the Act, the Commission may determine tariff for whole-sale or bulk supply of electricity by generators or distributors (*i.e. licensees other than traders*). This follows from a harmonious reading of Sec. 62 and Sec. 86(1)(a) and Sec. 86(1)(j) of the Electricity Act, 2003. But it just happens that in the present situation of Single – Buyer – Model the regulated purchase price for Distribution Companies fixed under Section 86(1)(b) of the Act coincides with the selling price of GRIDCO Ltd. as a trader for sale of power *only to the present Distribution Companies of Odisha*. If GRIDCO Ltd. sells surplus power, after meeting its contractual obligation under existing Bulk Supply Agreements, directly to any consumer u/Section 42 read with Section 49 of the Act or another trader, or even to another distributor licensed under the 6th proviso to Section 14 of the Act, the procurement price, which coincides with GRIDCO Ltd's selling price, fixed in this order is not applicable. **Thus, this order does not fix tariff for GRIDCO Ltd. as a trader.**
190. However, the single buyer model has put GRIDCO Ltd. in a dominant position, indeed a monopolistic position, so far as supply to the Distribution Companies of Odisha is concerned. By virtue of S.60 of the Act, GRIDCO Ltd. is under an

obligation to refrain from abusing its dominant position. In particular, GRIDCO Ltd. has to refrain from exploiting scarcity situation in the State arising from inability of generating companies to supply adequate power to GRIDCO Ltd. under their PPAs. Where, in such a situation, GRIDCO Ltd. chooses to purchase power *de hors* the PPAs from open market, it has to do so prudently and following merit order dispatch principle. Also in taking such decision GRIDCO Ltd. has to weigh the possibility of over-burdening the tariff payable by the consumers of Odisha as against reasonable power regulation. It would be proper for GRIDCO Ltd. to present facts before the Commission and seek Commission's directions under Section 23 of the Act. In this connection Commission's Order dated 14.01.2010 in Case No..01/2010 regarding Power Regulation Protocol may be referred to. If it is established that GRIDCO Ltd. has not taken such steps and arbitrarily purchased power at high cost, the Commission would be within its rights not to allow such costs to be passed on to consumers.

191. In the process of re-organization of electricity industry, GRIDCO Ltd. as a trading licensee could not be a transferee of the liabilities either of erstwhile OSEB or of erstwhile GRIDCO Ltd. functioning as a distribution or transmission company vide S.131 of the Act. Therefore, it has been contended that GRIDCO Ltd. as deemed trading licensee now is not entitled to consideration of past losses, securitization of arrear dues and other related costs indicated in the application. On deeper analysis it transpires that these past losses, securitization of liabilities and other related costs etc. are a mirror reflection or virtual image of what in reality are the liabilities of Distribution Companies and are actually being serviced by Distribution Companies. These liabilities are the Liabilities already incurred by GRIDCO Ltd. as on 01.04.1999 when its distribution business was transferred to Distribution Companies (After Revocation of their Distribution Licenses in Case No.55 of 2013 which was upheld by the Hon'ble APTEL, New Delhi vide their Judgment dated 21 08.2017 in Appeal No.64 of 2015 and was also confirmed by the Hon'ble Apex Court in Civil Appeal No.18500 of 2017) of the RIL Managed DISCOMs. These are arrears on account of power purchase payable to generators and incurred by GRIDCO Ltd. in the course of its distribution business. These liabilities could not be transferred to Distribution Companies as they refused to accept them and hence have remained with GRIDCO Ltd. even after it became a deemed trading licensee subsequently.

192. The regulatory power under Section 86(1)(b) of the Electricity Act, 2003 can be exercised by the Commission Suo Motu. GRIDCO Ltd. has filed its application referring to Section 62, Section 64 and also referring to Section 86(1)(b) of the Act. GRIDCO Ltd. has however prayed for fixation of its selling price qua the present distribution companies by virtue of the subsisting Bulk Supply Agreements with the Distribution Companies and filed its Aggregate Revenue Requirement (ARR) along with the application. The Distribution Companies have filed their tariff applications through their Chief Executive Officer vide Case Nos. 108/2021 for TPNODL, 109/2021 for TPWODL, 110/2021 for TPSODL & Case No. 111 of 2021 for TPCODL. They have not prayed for fixation of their power procurement price but such fixation being fundamental determinant of tariff is implicit in their prayer for determination of tariff. In the circumstances GRIDCO's application is not being treated as a tariff application but as material for the Commission to proceed Suo Motu for fixation of a regulatory price for power procurement by the present Distribution Companies of Odisha under the existing Bulk Supply Agreements. In this context GRIDCO Ltd. had been heard at length on its Aggregate Revenue Requirement (ARR) because under the prevailing single buyer model, the procurement price of the present Distribution Companies coincides with the selling price of GRIDCO Ltd. Therefore, GRIDCO Ltd. ought to have say in the matter and ought to be heard even though the Commission is essentially fixing the procurement price for the present Distribution Companies. No meaningful hearing can be given to GRIDCO Ltd. in the context unless its Aggregate Revenue Requirement (ARR) is considered and approved. It is in this context that Aggregate Revenue Requirement (ARR) of GRIDCO Ltd. was considered and analyzed and not in the context of fixing a general tariff for GRIDCO Ltd.
193. On detailed scrutiny and examination of the Aggregate Revenue Requirement and Bulk Supply Price Applications for 2022-23, the written and oral submission of the objectors, the Commission has passed the order as enunciated in the subsequent paragraphs.

Principle followed for approval of ARR for FY 2022-23

194. The Commission, for determination and approval of the ARR of GRIDCO for FY 2022-23, continues to follow the principles laid down in terms and conditions for determination of tariff and principles followed in the previous year. It 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.

195. Tariff determination is based on various assumptions and principles to arrive at the ARR components for the next financial year and hence, it is a reasonable estimate. The actual figures/amount may be different and this will be considered in the truing-up exercise. The Commission has determined the ARR for the FY 2022-23 using the following principles.
196. The cost of power purchase for GRIDCO, which constitutes about 98% of the total cost structure, has been considered on a merit-order basis. The availability of energy from state hydro generation has been estimated as per design energy and that of state thermal generation has been computed based on the generation plan submitted by OPGC and the cost has been considered as per norms of OERC Regulations/Power Purchase Agreement (PPA). Availability from the Central Sector Generating Stations/Inter State Generating Stations (ISGS) has been considered as per the allocation/shares of Odisha in these stations and the applicable tariff is as per CERC norms. The drawal from Independent Power Producers (IPPs), Captive Generating Plants (CGPs), Cogeneration Plants and energy from renewable sources have been estimated based on the proposal of GRIDCO, the requirement of the state and other obligations
197. Following the separation of the transmission business along with transfer of related assets, liabilities and personnel to OPTCL w.e.f. 01.04.2005, GRIDCO does not possess any asset on its books of account. It however continues to carry the accumulated burden of past liabilities arised due to non-payment of dues by the earlier DISCOMs in time. GRIDCO also does not have the benefit of depreciation provisions to meet these debt obligations. Keeping in line with earlier orders, to avoid a huge additional burden being passed on to the retail consumers, the Commission has provided for 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 DISCOMs.
198. The Commission has scrutinised in detail the energy requirement proposed by the DISCOMs for FY 2022-23. Based on the energy availability, the Commission has

observed that after drawal of power from all state-owned generating stations (both Thermal and Hydro), the State's share from central sector generating stations, and drawal from IPPs, Renewable sources, captive & co-generation sources, some surplus energy will be available after meeting the State demand for FY 2022-23. The availability of energy has been calculated based on normative loss. The quantum of surplus energy may increase or decrease based on hydrology and/or projected drawal from IPPs & central sector generating stations, though this has been estimated on normative basis for the ensuing year.

Quantum of Power Purchase

199. GRIDCO as a deemed trading licensee procures power from the generating stations within and outside the State to meet the requirement of the consumers of the State. The power purchased by GRIDCO is supplied to the DISCOMs through the OPTCL's transmission system.
200. GRIDCO Ltd. as well as DISCOMs have submitted their ARR applications for FY 2022-23 to the Commission separately for approval. In their applications, the Distribution Companies have furnished projections of drawal of power from GRIDCO for FY 2022-23 and GRIDCO has projected the total power to be purchased 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 ARR applications filed by GRIDCO and DISCOMs in respect of expected quantum of power purchase by GRIDCO & energy drawl by DISCOMs have been examined & estimated by the Commission based on the quantum of present drawl of power and expected additional load growth during FY 2022-23.
201. The Commission observed that some of the objectors have submitted that during last five years, the actual consumption of electricity in the State is much less than the projected annual energy requirement of the State as approved by the Commission. Hence, the estimation for State consumption is unrealistic resulting in approval of high power purchase cost leading to increase in BSP and RST. The Commission observed that the variations in approval and actual power purchase by DISCOMs are 1023 MU (4.16%) in FY 2016-17, 508 MU (2.02%) in FY 2017-18, 401 MU (1.54%) in FY 2018-19, 3248 MU (11.67%) in FY 2019-20 and 3554 MU (12.65%) in FY 2020-21. The higher variation in FY 2019-20 & 2020-21 is due to low industrial

consumption on account of Covid-19 situation in the State and the variation in other years is nominal. The details are shown in the Table below:

Table -8

Year	DISCOMs Drawal of Energy (in MU)		Variation (in MU)	Difference (in %)
	Approval	Actual		
2016-17	24540	23517	1023	4.16
2017-18	25140	24632	508	2.02
2018-19	25990	25589	401	1.54
2019-20	27840	24592	3248	11.67
2020-21	28090	24536	3554	12.65
2021-22	27870	27824*	46	0.17

* Actual drawal of 20868 MU upto December, 2021 is prorated for the whole year.

However, any financial impact arising out of such variations is being taken care of in the truing up exercise of the licensees. The Commission vide its order dated 20.10.2021 in Case Nos. 67/2018, 62/2020 and 27/2021 has trued up the accounts of GRIDCO for the period from FY 2015-16 to 2019-20. In this truing up order, the Commission has considered the actual power purchase cost & actual sale of power to DISCOMs by GRIDCO and accordingly, the cumulative gap in the GRIDCO's ARR has been reduced to (-) Rs.460.58 Crore as on 31.03.2020 (i.e. upto 2019-20) against the cumulative gap of (-) Rs.3588.02 Crore upto FY 2014-15.

202. The objector has further submitted that the power consumption of DISCOMs for the FY 2021-22 has been estimated as 27068 MU without considering Covid factors and the objector has presumed that the actual power consumption for FY 2021-22 would be at par with that of FY 2020-21, say 25000 MU and the ensuing FY 2022-23 will be no better than FY 2021-22 in the backdrop of Covid-19. The Commission observed that in the current FY 2021-22, the DISCOM's consumption upto December, 2021 is 20868 MU and prorating the same for the whole year, the DISCOMs consumption for the current FY 2021-22 comes out to be 27824 MU against the approval of 27870 MU. Since, the difference is found to be very nominal, the Commission cannot accept the suggestion of the objectors to consider 25000 MU for DISCOMs consumption for the ensuing FY 2022-23.
203. The quantum of power to be purchased by the four Distribution Utilities for the FY 2022-23 has been assessed and approved by the Commission while determining their Revenue Requirement & Tariff in Case Nos. 111/2021 (TPCODL), 108/2021

(TPNODL), 109/2021 (TPWODL) and 110/2021 (TPSODL), in line with the provisions in the existing Regulations. The Commission has approved the total energy requirement of 29500 MU for all the DISCOMs for the FY 2022-23 and this would be 6% increase over previous FY 2021-22. Accordingly the requirement of TPCODL, TPNODL, TPWODL and TPSODL would be about 9790 MU, 6020 MU, 9300 MU and 4390 MU respectively, which would be about 5%, 2%, 8% & 6% increase respectively over the approved quantum for FY 2021-22.

204. The Commission has considered 3% as loss in the transmission system of OPTCL for the FY 2022-23 and accordingly OPTCL's tariff order for the FY 2022-23 has been approved in Case No. 105 of 2021.
205. The sale of emergency power supply of 60 MU to the CGPs has been taken into account and approved for FY 2022-23 based on the submission of GRIDCO. Considering 3% as transmission loss, the estimated quantum of power purchase by GRIDCO to meet requirement of DISCOMs would be 30474.23. The details of the estimated power purchase to meet the requirement/demand of the State is indicated in the Table below:

Table –9
Purchase of Power by GRIDCO for State Use for FY 2022-23
(In MU)

Name of the DISCOMs	Commission's Approval for FY 2021-22	GRIDCO's Proposal in ARR for FY 2022-23	Commission's Approval for FY 2022-23
TPCODL	9290.00	9271.00	9790.00
TPNODL	5880.00	5973.00	6020.00
TPWODL	8600.00	9000.00	9300.00
TPSODL	4100.00	4170.00	4390.00
TOTAL DISCOMs	27870.00	28414.03	29500.00
CGP	60.00	60.00	60.00
TOTAL SALE	27930.00	28474.03	29560.00
Transmission loss at EHT in MU (DISCOMs Purchase only)	861.96 (@ 3.00% Transmission loss)	880.64 (@ 3.00% Transmission loss)	914.23 (@ 3.00% Transmission loss)
Total Purchase	28791.96	29354.67	30474.23

206. The Commission has approved the energy drawal by the Distribution Utilities for FY 2022-23 considering their present drawal pattern and the future projection due to additional load growth. Hence there should not be variations from the approved

drawal. The Distribution Utilities need to plan their drawal in consultation with GRIDCO keeping in view the deviation settlement mechanism and actual losses in the system.

Simultaneous Maximum Demand (SMD) in MVA

207. GRIDCO in its filing has submitted that the recorded SMD for six (6) months i.e. from April, 2021 to September, 2021 was 4862 MVA against the approval of 5020 MVA for the FY 2021-22. The DISCOMs have projected increase in the SMD to 5243 MVA for the FY 2022-23. Accordingly, GRIDCO has projected the same for the FY 2022-23 and details are given in the Table below:

Table- 10
DISCOM-WISE Projection of SMD for FY 2022-23
(MVA/Month)

DISCOM Utility	OERC approval for FY 2021-22	Highest SMD recorded during FY 2021-22 (Apr.'21 to Sept'21)	DISCOMs Projection of SMD for FY 2022-23	GRIDCO's Projection of SMD of DISCOMs for FY 2022-23
TPCODL	1680	1662	1723	1723
TPNODL	1100	1050	1150	1150
TPWODL	1540	1524	1650	1650
TPSODL	700	626	720	720
State SMD	5020	4862	5243	5243

208. GRIDCO has submitted that in order to meet the above maximum demand of the State at any time during the year, there could be requirement of scheduling of power from all thermal stations (for which PPAs has been signed with GRIDCO) to avoid load shedding and has requested the Commission to take into account above aspect while determining the power purchase cost.
209. 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 ARR application, GRIDCO has considered the simultaneous maximum demand as furnished by Distribution Utilities to GRIDCO. As per the RST application of DISCOMs, the monthly demand for the period from April'21 to Dec'21 is as given in the table below:

Table -11
Demand in MVA during 2021-22 (Upto Dec' 21)

	TPCODL	TPNODL	TPWODL	TPSODL	Total
Apr-21	1569.25	888.63	1100.02	602.18	4160.08
May-21	1641.69	819.28	1271.40	594.19	4326.56
Jun-21	1661.89	887.43	1164.42	612.65	4326.38
Jul-21	1456.00	883.17	1322.96	612.65	4274.78
Aug-21	1456.20	908.72	1524.24	609.06	4498.22
Sep-21	1452.55	889.89	1184.71	626.39	4153.54
Oct-21	-	926.87	1253.99	637.41	2818.28
Nov-21	-	763.05	1209.61	595.13	2567.78
Dec-21	-	738.32	1368.24	592.71	2699.27
Average (4/21 to 12/21)	1539.60	856.15	1266.62	609.15	4271.52

210. From the above table, it is observed that the total demand of all four DISCOMs varies over the year and the peak demand of 4498.22 MVA is observed in the month of August, 2021. However, the maximum demand in areas of operation of each DISCOM occurs in different months of the year. TPCODL, TPNODL, TPWODL, TPSODL have maximum demand in the month of June (1661.89 MVA), October (926.87 MVA), August (1524.24 MVA) and October (637.41 MVA) respectively.
211. The Commission analyzed the demand pattern of DISCOMs during the current FY 2021-22 (upto December, 2021) and observed that the Average SMD of the DISCOMs has decreased with respect to the approved SMD for the FY 2021-22. After recasting the estimated requirement of power, it is observed that due to normalcy in industrial load after COVID-19 situation and the scheme for electricity to every household, there is likely increase of additional requirement of about 2016.72 MU by the DISCOMs during FY 2022-23 over the FY 2021-22 (prorating the actual upto December, 2021). Thus, the matching MVA requirement works out to be 255.80 MVA. So, the SMD of each DISCOM is to be calculated considering their maximum demand during April, 2021 to December, 2021 plus the estimated demand on account of additional load growth during FY 2022-23. However, the Commission approves the maximum demand for the FY 2022-23 considering the proposal of DISCOMs / GRIDCO and calculated SMD whichever is higher. The DISCOMs are likely to operate within the approved SMD subject to a maximum overdrawal of 10% in a month. The details of estimation of SMD for the DISCOMs are given in the table below:

Table -12
Demand in MVA for FY 2022-23

DISCOMs	OERC Approval for 2021-22	Proposal by DISCOMs for 2022-23	Proposal by GRIDCO for 2022-23	Average SMD during 4/21 to 12/21	Maximum SMD during 4/21 to 12/21	Additional Load growth as estimated for 2022-23 (MU)	Additional load growth converted to MVA at 0.9 power factor	Maximum SMD during 4/21 to 12/21 + Additional load growth in MVA	OERC Approval for 2022-23
TPCODL	1680.00	1723.00	1723.00	1539.60	1661.89	644.09	81.70	1743.59	1740.00
TPNODL	1100.00	1150.00	1150.00	856.15	926.87	632.46	80.22	1007.09	1150.00
TPWODL	1540.00	1650.00	1650.00	1266.62	1524.24	299.19	37.95	1562.19	1650.00
TPSODL	700.00	720.00	720.00	609.15	637.41	440.98	55.93	693.34	720.00

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

Purchase of Power from Different Generating Stations

State Hydro

212. The details of energy available to GRIDCO from various power stations of OHPC have been dealt in Case No. 103/2021 while determining the tariff and revenue requirement of OHPC, wherein the Commission has considered the existing design energy of the power stations of OHPC for the purpose. Further, the design energy of Machhkund Joint Venture H.E. Project is 525 MU. Considering 1% auxiliary consumption and Odisha share of 50%, the net energy drawal from this station comes to 259.88 MU. Hence, the Commission approves an availability of 259.88 MU to GRIDCO from Machhkund (Jt.) HE project. The Commission desires that the State should draw its full share from Machhkund power station every day in a planned and economical manner. GRIDCO/OPTCL and TPSODL should co-ordinate to maximise the drawal from Machhkund in consultation with Government of Odisha whenever necessary. GRIDCO's proposal and Commission's approval for drawal of energy from OHPC stations for the FY 2022-23 are given in the Table below:

Table –13
Drawal from Hydro Power Stations of OHPC (in MU)

Source of Generation	FY 2021-22	FY 2022-23	
	Commission's Approval	GRIDCO's Proposal	Commission's Approval
OHPC (Old Stations)	3676.86	3452.36	3660.22
Upper Indravati	1942.38	1703.79	1942.38
Machhkund	262.50	259.88	259.88
Total Hydro	5881.74	5416.03	5862.48

IB Thermal Power Station of OPGC

213. Orissa Power Generation Corporation (OPGC) owns IB Thermal Power Station at Banharpalli in the district of Jharsuguda with an installed capacity of 2x210 MW (Units-I & II) in Stage-I and GRIDCO is entitled to draw 100% power from Stage-I. Similarly, from the expansion project of OPGC in Stage-II (Units-III&IV) with installed capacity of 1320 MW (2 x 660 MW), GRIDCO has a share of 75% for the FY 2022-23. In ARR application for FY 2022-23, GRIDCO has projected to procure the net energy of 2597.99 MU from the Units-I&II (Stage-I) based on the generation plan submitted by OPGC. The Commission observed that OPGC in its generation plan for FY 2022-23 has projected the gross generation of 2912.75 MU. Considering the auxiliary energy consumption @ 9.50% as per PPA, the net energy availability to GRIDCO comes to 2636.04 MU. Accordingly, the Commission approves the net drawal of 2636.04 MU from Units-I & II of IB Thermal Power Station of OPGC for the purpose of determination of ARR and BSP of GRIDCO for the FY 2022-23.
214. GRIDCO has submitted that OPGC in its generation plan has projected Ex-Bus generation of 9300.22 MU from its expansion project with Units- III & IV (2x660 MW) for the FY 2022-23 at PLF of 85.10% and Auxiliary Energy Consumption of 5.50%. Further, considering 75% of Ex- bus generation as contracted capacity of GRIDCO for the FY 2022-23, the entitled quantum of power works out to 6975.165 MU. However, GRIDCO has projected generation from OPGC Stage-II (Units- III &IV) based on norms set in the OERC Tariff Regulations, 2020 (for the Units above 600 MW) with PLF of 85.10% as submitted by OPGC and Auxiliary Energy Consumption of 6.25%. Accordingly, GRIDCO has estimated the net export of 6919.90 MU from OPGC Stage-II (Units- III &IV) and prays the Commission to approve the same quantum for procurement from OPGC Stage-II during FY 2022-23.
215. The Commission observed that Department of Energy, Government of Odisha, vide its Notification No. 10485 dated 20.12.2018, have enhanced the contracted capacity of OPGC expansion project Units-III&IV (2x660 MW) from 50% to 75% of the installed capacity for the period from the COD of the station to 31.03.2023 and 100% w.e.f. 01.04.2023 till completion of 25 years i.e. upto 31.03.2048. Accordingly, GRIDCO has entered into a supplementary PPA with OPGC on 24.01.2019 and the Commission vide its order dated 22.06.2021 has approved the said PPA. Now GRIDCO has proposed to procure 6919.90 MU (75% of the estimated net energy sent

out) from the OPGC expansion project (Units-III & IV) during the FY 2022-23 considering PLF of 85.10% as projected by OPGC and normative auxiliary consumption of 6.25%. Considering the above proposal of GRIDCO, the Commission estimates an availability of 6910.82 MU from OPGC Stage-II (Units-III & IV) towards State share of 75% taking normative auxiliary consumption as 6.25% and normative availability as 85%. Further, considering the merit order principle, the Commission approves the drawal of 4862.04 MU from OPGC Unit-III & IV during the FY 2022-23 towards state consumption. However, in case of less drawal from the approved sources during FY 2022-23, GRIDCO may draw more power from these generating units of OPGC for meeting the power demand of the State following the merit order principle.

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

216. In the application, GRIDCO has submitted that with availability of OPGC Units-III & IV and NTPC Stations i.e. Darlipalli (1600 MW), North Karanpura, Barh-I etc. and also capacity addition from renewable sources, there would not be any requirement of power from CGPs during the ensuing FY 2022-23 on regular basis. However, procurement of power from CGPs and Co-Generation Plants may be resorted to as per the Order dated 09.04.2019 of the Commission in Case No.62 of 2017. GRIDCO may resort to source power from CGPs provided the economics of power procurement works out in favour of GRIDCO and the power supply & demand situation of the State and exigency/force majeure conditions justify such procurement. CGPs are not firm sources of power as they are essentially meant for the captive consumption and hence, GRIDCO cannot propose procurement of a definite quantum of power from the CGPs. Further, GRIDCO has submitted that drawal of firm power from the generators with whom it has signed PPAs, has to be sourced in order to economise the procurement cost, otherwise the liability of payment of fixed cost remains with GRIDCO irrespective of quantum of drawal of power. As directed by the Commission in Tariff order for FY 2021-22, GRIDCO will try to procure power from captive sources based on requirement and Merit Order Despatch (MOD) principles.
217. Some of the objectors have stated that it will be always beneficial for GRIDCO to procure available surplus power from CGPs as the CGP power is cheaper than NTPC power and not associated with any transmission loss, PoC / STU transmission charges and other associated costs. GRIDCO should procure a specified minimum quantum of

power from CGPs of the State depending on the availability. They have requested the Commission to specify certain quantum of power purchase by GRIDCO from the CGPs for State consumption at the tariff decided by the Commission taking into account the present cost of generation. In its reply, GRIDCO has stated that GRIDCO may consider to source power from CGPs provided the economics of power procurement works out in favour of GRIDCO and power supply & demand situation of the State and exigency/force majeure conditions justify such procurement. GRIDCO has further submitted that CGP(s) is not a firm source of power as CGPs are essentially meant for the captive consumption and hence, GRIDCO cannot propose procurement of a definite quantum of power from the CGPs. GRIDCO further submitted that drawal of firm power from the generators with whom they have signed PPAs, has to be sourced in order to economise the procurement cost, otherwise the liability of payment of fixed cost remains with GRIDCO irrespective of quantum of drawal of power. The projected power procurement of about 36391.31 MU during FY 2022-23 from such firm stations shall meet the projected demand of the DISCOMs and therefore, there is least possibility of procurement of power from captive generation sources during the ensuing year. However, the option of sourcing power from CGPs has been kept open under force majeure or exigency conditions or unexpected increase in demand.

218. Considering the objections/suggestions of the objectors as well as the submission of GRIDCO, the Commission observes 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 other power stations. Hence, the Commission directs GRIDCO to purchase available surplus power from the CGPs and Co-generation plants for state consumption in case of shortfall in drawal from other sources as approved by Commission. While purchasing such power GRIDCO must ensure that the price of the CGP power is cheaper than variable component of firm power. Further, the Commission also advises 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.

Availability of Energy from Renewable Sources

Small Hydro Sources:

219. GRIDCO has submitted that apart from Meenakshi and Samal Small Hydro Projects, 24 MW SHEP power from Lower Baitarani SHEP by M/s Baitarani Power Projects Pvt. Ltd. is made available to GRIDCO from 29.08.2020. Further, out of 18 MW (3x6 MW) Saptadhara SHEP developed by M/s Sri Avantika Power Projects Pvt Ltd., two number of units (2x6 MW) have been achieved CoD on 6th and 13th October, 2021 and the third unit of 60 MW capacity has got commissioned on 3rd October, 2021. Further, 9 MW Bargarh Head Regulator SHEP developed by M/s Kakatiya Industries Pvt. Ltd. is expected to be commissioned by March, 2022. GRIDCO has also entered into PPA with M/s OPGC to procure power from 650 kW (2 x 325 kW) Biribati Mini Hydel Project located across Taladanda Canal at Cuttack and 500 kW (2 x 250 kW) Kendupatna Mini Hydel Project located across Kendrapada Canal near Salipur in Cuttack district. Accordingly, GRIDCO has proposed to procure 456.35 MU from small hydro sources during FY 2022-23 and the details are given in the Table below.

Table –14
Proposed Drawal from Small Hydro Sources for FY 2022-23

Sl. No.	Name of the SHEPs	Installed Capacity (MW)	Energy drawal during the 1st six months of 2021-22 (MU)	Proposed Energy procurement for FY 2022-23 (MU)
1.	Meenaskhi Small Hydro	37	100.88	220.00
2.	SAMAL Small Hydro	20	48.62	80.00
3.	Lower Baitarani Small Hydro	24	71.97	85.00
4.	Saptadhara Small Hydro	18	-	60.00
5.	Baragarh Head Regulator Small Hydro	09	-	11.00
6.	Biribati & Kendupatana Mini Hydro (OPGC)	1.15	-	0.35
	Total	109.15	221.47	456.35

220. The Commission approves the above proposal of GRIDCO and allows to purchase 456.35 MU of renewable energy from aforesaid SHEPs for consumption in the State during FY 2022-23.

Bio-mass Energy:

221. In the ARR application, GRIDCO has proposed to purchase only 80 MU of renewable energy from biomass sources during the FY 2022-23 i.e. from the 20 MW of Bio-

mass plant of M/s. Shalivahan Green Energy Ltd. located at Nimidha in Dhenkanal district.

222. The Commission approves the above proposal and allows GRIDCO to purchase 80 MU of renewable energy from said Bio-mass Plant for consumption in the State during FY 2022-23.

Wind Energy:

223. GRIDCO has submitted that Power Sale Agreements (PSAs) have been executed with PTC India Ltd. and SECI to purchase wind power under different schemes of MNRE, GoI where ISTS Charges are waived off for lifetime of the Wind Power Plant as given below:
- a. GRIDCO has signed PSA with PTC on dated 20.07.2017 to avail 50 MW “Wind Power” through “ISTS Connected Wind Power Projects Scheme” of MNRE, Govt. of India. This 50 MW of 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 Paise per kWh including Trading Margin of 7 Paise per kWh of M/s.PTC India Ltd.
 - b. GRIDCO has signed PSA with SECI on dated 24.11.2017 for availing 100 MW Wind power under the “ISTS Connected Wind Power Projects Scheme, Phase-II” of MNRE, Govt. of India, at the applicable tariff of 272 Paise per kWh including Trading Margin of 7 Paise per kWh of SECI.
 - c. GRIDCO has executed PSA with SECI on dated 23.03.2018 to avail 50 MW Wind Power under the “ISTS Connected Wind Power Projects Scheme, Phase-III” of MNRE, Govt. of India at the applicable tariff of 251 Paise per kWh including Trading Margin of 7 Paise per kWh of SECI.
 - d. GRIDCO has executed PSA with SECI on dated 15.06.2018 to avail 100 MW Wind Power under the “ISTS Connected Wind Power Projects Scheme, Phase-IV” of MNRE, Govt. of India at the applicable tariff of 258 Paise per kWh, including Trading Margin of 7 Paise per kWh of SECI.
 - e. GRIDCO has executed PSA with SECI on dated 22.08.2019 to avail 50 MW Wind Power under the “ISTS Connected Wind Power Projects Scheme, Phase-VI” of MNRE, Govt. of India at the applicable tariff of 289 Paise per kWh including Trading Margin of 7 Paise per kWh of SECI.

224. Accordingly, GRIDCO has proposed to draw 975.87 MU of Wind power during FY 2022- 23 from PTC & SECI with the allocated Wind Capacity of 350 MW and details are given in the Table below:

Table-15
Proposed Procurement of Wind Energy by GRIDCO for FY 2022-23

Name of the Sources	Proposed Energy Procurement for FY 2022-23 (MU)
MNRE ISTS connected Wind Power Projects Scheme Batch -I through PTC	141.91
MNRE ISTS connected Wind Power Projects Scheme Batch -II through SECI	273.57
MNRE ISTS connected Wind Power Scheme Batch -III through SECI	149.11
MNRE ISTS connected Wind Power Projects Scheme Batch -IV through SECI	285.05
MNRE ISTS-connected Wind Power Projects Scheme Batch -VI through SECI	126.23
Total	975.87

225. The Commission considered the above proposal of GRIDCO and allows procurement of 975.87 MU of wind energy during the FY 2022-23 for State consumption.

Solar Energy

226. In its submission, GRIDCO has proposed to procure 1800 MU of Solar Energy from the following sources during the FY 2022-23.

- (i) 13 MU from 8 Nos. of Solar PV Projects each of 1 MW capacity 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 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 of 5 MW from Dadri Solar PV project in U.P. and another 5 MW from Faridabad Solar PV Project in Haryana.

- (iv) 7 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) 108 MU from 70 MW Solar Capacity allocated to GRIDCO through SECI under Viable Gap Funding (VGF) Scheme under JNNSM Phase-II, Batch-I.
- (vii) 401 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.
- (viii) 101 MU from the 75 MW Solar PV project developed by M/s Aditya Birla Renewables Limited, selected under GRIDCO e-bidding Scheme as per the Ministry of Power, Government of India Resolution dated 03.08.2017.
- (ix) 635 MU from the 300 MW Solar Power being procured through SECI under ISTS-connected Solar power Projects Scheme which is expected to be available during FY 2022-23.
- (x) 409 MU from the 200 MW Solar power allocated to GRIDCO through SECI under ISTS-connected Solar power Projects Scheme. Out of this 200 MW solar capacity, GRIDCO is now availing 66.6 MW and the balance capacity is expected to be available by the end of current FY 2021-22.
- (xi) 11 MU from the upcoming 8 MW Solar PV Project developed by GEDCOL in 5 nos. of location (3 nos. of OPTCL sub-stations, one at Mukhiguda Power House and another is Manamunda Solar Project of GEDCOL) in the unutilized surplus land.
- (xii) 13 MU from 40 MW SPV project of NHPC which is expected to be available to GRIDCO during FY 2022-23 for two months i.e. from February to March, 2023.
- (xiii) 6 MU of solar energy from the 4 MW Rooftop Solar PV Project implemented by GEDCOL in 177 nos. of non-residential Govt. buildings in twin-city of Cuttack and Bhubaneswar under net-metering Regulations, which will be deemed procurement by GRIDCO through CESU and considered for meeting the RPO by GRIDCO.

(xiv) 3 MU from the 2 MW MNRE RTS-II Scheme implemented by OREDA.

227. The proposal of GRIDCO for procuring solar energy during the FY 2022-23 is summarised in the Table below :

Table –16
Drawal of Solar Power during FY 2022-23

Sl. No.	Solar RE Sources	Energy for procurement during FY 2022-23 (MU)
1.	8 Nos. of Solar PV projects of 1 MW each under RPSSGP	13.00
2.	20 MW Bundled Power from NVVNL through 'New Projects scheme' under JNNSM, 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	7.00
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 JNNSM, Phase –II, Batch-I	108.00
7	270 MW through SECI under VGF Scheme under JNNSM, Phase –II, Batch-IV	401.00
8	75 MW from M/s Aditya Birla Renewables Ltd. procured through GRIDCO e-bidding process	101.00
9	300 MW Solar power through SECI under ISTS-Connected Solar Power projects scheme	635.00
10	200 MW Solar power through SECI under ISTS-Connected Solar Power projects scheme	409.00
11	8 MW from GEDCOL implemented Solar Plants in Un-utilised surplus land	11.00
12	40 MW from NHPC for two months i.e Feb. to March, 2023	13.00
	Sub Total (for procurement by GRIDCO)	1791.00
13	4 MW Rooftop Solar PV Project implemented by GEDCOL on the non-residential Govt. buildings in Bhubaneswar and Cuttack	6.00
14	2 MW under MNRE RTS-II Scheme implemented by OREDA	3.00
	Total (for the purpose of meeting RPO by GRIDCO)	1800.00

228. The Commission approves the above proposal of GRIDCO to procure 1800 MU of Solar energy. Thus, the total procurement of Renewable Energy during FY 2022-23 from Solar, Bio-mass, wind and Small Hydro Sources approved by the Commission for State use comes to 3312.22 MU.

229. The Commission has notified OERC (Procurement of Energy from Renewable Sources and its Compliance) Regulations, 2021, which has been notified in the Odisha Gazette on 15.02.2022. As per the said Regulation, the RPO shall be calculated in

energy terms as a percentage of total consumption of electricity excluding consumption met from large hydro sources of power (both State and Central). For the FY 2022-23, the Commission has estimated a quantum of 7084.10 MU to be purchased by GRIDCO from large hydro sources (5862.48 MU from State hydro and 1221.62 MU from Central hydro). Further, the Commission has estimated a quantum of 29560 MU to be sold by GRIDCO for State consumption during FY 2022-23. Thus, deducting the quantum of power from large hydro sources, the State consumption for the purpose of computation of RPO comes to 22475.90 MU. The source-wise estimated power procurement from Renewable Energy sources and projected compliance of RPO by GRIDCO (on behalf of DISCOMs) are indicated in the Table below:

Table –17
Drawal from Renewable Energy Sources during FY 2022-23

Sl. No.	RE Sources	Renewable Energy approved for drawal during FY 2022-23 (MU)	Percentage w.r.t. the total estimated drawal of DISCOMs (%)	RPO fixed in the Regulation for FY 2022-23 (%)
A.	Non-Solar			
(i)	Mini / Small Hydro Electric Projects (SHEPs)	456.35	2.03	
(ii)	Bio-mass Energy	80.00	0.36	
(iii)	Wind Energy	975.87	4.34	
	Sub-Total (Non-Solar)	1512.22	6.73	6.50
B.	Solar	1800.00	8.01	8.00
C.	Total (Solar & Non-Solar)	3312.22	14.74	14.50

230. As per the aforesaid RPO Regulations, 2021, for FY 2022-23, the ‘Non-solar RPO’ is 6.50% which includes 0.35% of Hydropower Purchase Obligation (HPO) and 6.15% of ‘Other Non-solar RPO’. The HPO shall be met from the eligible large hydro plants commissioned on or after 08.03.2019. If power from eligible large hydro plants is insufficient to meet HPO, generation from small hydro sources commissioned on and after 08.03.2019 would qualify for fulfilment of HPO. In such cases, if small hydro generation exceeds the desired HPO, the surplus will then be considered under category ‘Other Non-solar RPO’. Further, it is observed from the above table that in case the estimated renewable energy is fully availed by GRIDCO, it shall meet its RPO compliance during the ensuing year 2022-23. In case GRIDCO availed more renewable energy during FY 2022-23 than its requirement for meeting the RPO, the excess renewable energy would be adjusted towards the shortfall in RPO compliance

of GRIDCO in past years. Further, the Commission advises GRIDCO to make endeavour to purchase more energy from renewable sources to fulfil its backlog RPO of the past years.

Power Supply Position of IPPs

231. In its application GRIDCO has submitted that it is entitled to draw power from 5 Nos. of IPPs in the State, namely M/s. Vedanta Limited, M/s. GMR Kamalanga Energy Limited (M/s. GKEL), M/s. Jindal (India) Thermal Power Limited (M/s. JITPL), M/s. Nava Bharat Venture Limited (M/s. NBVL) and M/s. Ind-Barath Utkal Energy Limited (M/s. IBUEL). GRIDCO has stated that out of these five (5) IPPs, M/s. IBUEL has become NPA and the case is with NCLT for resolution. Therefore, GRIDCO has not considered any drawal from this IPP for the FY 2022-23. Considering the above proposal of GRIDCO, the Commission does not consider any procurement of power from the IPP of M/s. IBUEL for the FY 2022-23.
232. GRIDCO has further submitted that the Commission is approving/projecting availability of power from the IPPs based on normative parameters (PLF% and AEC %) which is on higher side in comparison to the quantum of power actually supplied by the IPPs to GRIDCO. The approved Vrs. actual power purchase form the IPPs during last four years is given hereunder:

Table-18
Actual vs Approved Power Purchase from IPPs (MU)

IPPs	FY 2017-18		FY 2018-19		FY 2019-20		FY 2020-21		Actual (Avg.)
	OERC	Actual	OERC	Actual	OERC	Actual	OERC	Actual	
M/s. Vedanta Ltd.	5039.45	970.89	5039.45	902.09	5039.45	747.84	3053.00	2806.01	1356.71
M/s GKEL	1517.10	1487.50	1842.19	1702.44	2167.28	1814.75	2167.28	1769.88	1693.64
M/s JITPL	503.95	250.64	1007.89	261.14	1010.57	11.95	1010.57	0	130.93
M/s. NBVL	-	-	-	-	-	-	-	-	-
M/s. IBEUL	-	-	-	-	-	-	-	-	-
Total	7060.50	2709.03	7889.53	2865.67	8217.30	2574.54	6230.85	4575.89	3181.28

233. GRIDCO stated that the gap in availability vis-à-vis actual quantum of power supplied by the IPPs impacts the BSP and during real time operation, GRIDCO depends on the high cost power sources to meet/cater State demand. GRIDCO, therefore request the Commission to approve energy availability from IPPs based on realistic levels and direct the IPPs to comply/adhere to the subsisting contracts to supply contracted capacity of power to GRIDCO without fail. The detail power supply position of other four IPPs is as follows.

M/s. Jindal (India) Thermal Power Limited (M/s. JITPL)

234. GRIDCO has submitted that it is entitled for 12% of the total energy sent out from the IPP, M/s. JITPL at variable cost/Energy Charge Rate (ECR). But M/s. JITPL has challenged the MoU with Government of Odisha and PPA with GRIDCO before the Hon'ble High Court of Orissa in W. P. (C). No. 18150/2018. Based on the interim stay order dated 16.05.2019 of Hon'ble High Court, M/s. JITPL is not supplying power to the State since 22.05.2019. Further, M/s. JITPL has challenge the PPA approval order dated 04.06.2019 of the Commission before APTEL. GRIDCO has also filed Case No. 28/2020 before the Commission under Section 142 of the Electricity Act, 2003 for non-payment of compensation by M/s. JITPL for non-supply of State share of power to GRIDCO and action is being taken by GRIDCO for vacating the stay order of Hon'ble High Court of Orissa. Further, GRIDCO has requested M/s. JITPL to submit its generation plan and tentative tariff for the FY 2022-23, but they have not furnished the same. In view of the above, GRIDCO has not considered any drawal from M/s. JITPL for the FY 2022-23.
235. The Commission observed that the installed capacity of M/s Jindal India Thermal Power Limited (M/s. JITPL) is 1800 MW (3x600 MW), out of which two units (i.e. 2x600 MW) are in commercial operation. As per PPA dated 05.01.2011 with M/s JITPL, GRIDCO is entitled for 12% (after de-allocation of coal blocks by the Hon'ble Supreme Court of India) of the power sent out at Variable Cost/Energy Charge Rate (ECR) to be determined by the Commission. Considering the State share of 12%, normative PLF of 85% and normative auxiliary consumption of 6.25%, energy availability to the State from the existing 1200 MW (2X600 MW) capacity of M/s JITPL would be 1005.21 MU. The Commission further observed that M/s. JITPL has challenged the MoU and PPA with GRIDCO before the Hon'ble High Court of Orissa in W.P.(C). No. 18150/2018 and based on the interim stay order dated 16.05.2019 of Hon'ble High Court in this writ petition, M/s. JITPL is not supplying power to the State since 22.05.2019. M/s. JITPL has also challenged the Commission's order dated 04.06.2019 passed in Case No.01/2017 before APTEL on the matter of PPA approval. Therefore, GRIDCO has not proposed any drawal of power from the IPP of M/s. JITPL for the ensuing year 2022-23. In view of the above, the Commission accepts the proposal of GRIDCO and do not consider any drawal by GRIDCO from the IPP, M/s. JITPL during the FY 2022-23 for computation of ARR of GRIDCO. However,

the Commission directs GRIDCO to take up the matter with State Government and pursue the cases related to M/s. JITPL at appropriate judicial forum for early resolution of the disputes as State share of energy will be available at the variable cost only.

M/s. Nava Bharat Ventures Limited (M/s. NBVL)

236. GRIDCO has submitted that it is entitled for share of 12% of energy sent out from the 60 MW power plant of M/s. NBVL at the Variable Cost/ Energy Charge Rate (ECR). But at present GRIDCO is not availing power from M/s. NBVL in view of very high variable cost claimed by them and therefore, GRIDCO has not considered any drawal from this IPP for the FY 2022-23. However, M/s. NBVL has filed the Tariff petition before this Commission in Case No. 44/2021 for determination of ECR for sale of power to GRIDCO. On request by GRIDCO, M/s. NBVL vide its letter dated 22.10.2021 has furnished its tentative generation plan and projected tariff for the FY 2022-23. In case energy is supplied by M/s. NBVL, GRIDCO shall approach the Commission to recover such costs.
237. The Commission observed that as per the revised PPA dated 31.10.2014 and supplementary PPA dated 23.09.2015 executed between GRIDCO and M/s. NBVL, GRIDCO is entitled to draw 12% of total energy sent out from the 60 MW power plant of M/s. NBVL as State share at variable cost/ECR, which is to be determined by the Commission. M/s. NBVL had approached the Commission for determination of ECR in respect of its 60 MW power plant in Case No. 44/2021. The Commission, vide its order dated 12.01.2022, has fixed the annual plant availability factor of 85% and auxiliary energy consumption @ 10% for the 60 MW power plant of M/s. NBVL. Accordingly, the energy availability to GRIDCO from this power plant comes out to 48.25 MU considering State share of 12% of total energy sent out. However, M/s. NBVL in its generation plan has projected generation of 367.20 MU for the FY 2022-23 with a planed outage in the month of December, 2022 for annual maintenance of the generating unit. Considering auxiliary energy consumption @ 10% and State entitlement of 12% of total energy sent out, the net availability from the power plant comes out to 39.66 MU. Therefore, the Commission approves the drawal of 39.66 MU by GRIDCO from 60 MW power plant of M/s. NBVL during the ensuing financial year 2022-23.

M/s. GMR Kamalanga Energy Limited (M/s. GKEL)

238. GRIDCO has submitted that the average of actual energy supplied by M/s. GKEL during the period from FY 2017-18 to 2020-21 is 1693.64 MU. M/s. GKEL in its generation plan for the FY 2022-23 has projected to supply 1670 MU to GRIDCO towards State entitlement at the PLF of 77%. GRIDCO, in its ARR application for the FY 2022-23 has proposed to draw the same.
239. The Commission observed that as per the PPA with M/s. GKEL the State share is 25% of the total energy sent out from the station at 80% PLF and power generated in excess of 80% PLF shall be available to the State at variable cost. Since the IPP, M/s. GKEL is supplying power to more than one State, its tariff has been determined by CERC. As per CERC Tariff Regulations, 2019, the auxiliary consumption shall be 6.25% for the IPP of M/s. GKEL. The Commission further observed that the present installed capacity of the IPP is 1050 MW (3x350 MW) and considering normative plant availability of 85% & auxiliary consumption at 6.25% as per CERC norms, the net generation comes to 7329.66 MU. Further, considering plant availability of 80% and auxiliary consumption of 6.25%, net generation comes to 6898.50 MU. As per the PPA, energy available to GRIDCO is 25% of total energy sent out at 80% PLF i.e. 1724.62 MU (i.e. 25% of 6898.50 MU) plus excess power generated beyond 80% PLF i.e. 431.16 MU (7329.66 MU – 6898.50 MU). Thus, total energy available to GRIDCO would be 2155.78 MU (1724.62 MU + 431.16 MU). However, M/s. GKEL in its generation plan for the FY 2022-23 has projected to supply 1670 MU to GRIDCO during FY 2022-23 as State's entitlement. GRIDCO, in its ARR application, has proposed to draw the same. Hence, based on the proposal of GRIDCO, the Commission approves the availability of 1670.00 MU from the power plant of M/s. GKEL during the FY 2022-23.

M/s. Vedanta Limited

240. GRIDCO has submitted that the Commission, vide its order dated 05.10.2021 in Case No. 34 of 2018, has changed the status of State dedicated IPP Unit #2(600 MW) of M/s. Vedanta Ltd reversing their earlier order dated 27.01.2016 in Case No.21 of 2015. The Commission, in its order dated 05.10.2021, has directed GRIDCO for submitting the proposed drawal for the quarter in advance to the IPP M/s. Vedanta Ltd. Relevant extract of the said order is quoted below:

“30(f).GRIDCO has to exercise its option to avail IPP power from M/s. Vedanta for the next quarter within one month of this order failing which the IPP Unit –II of M/s. Vedanta shall operate as CGP with effect from the 1st of January, 2022. Thereafter, as stated in sub-para (a) above, GRIDCO will have to give three months prior notice for availing power in any quarter.”

241. GRIDCO submitted that since the commercial operation of the Unit#2 (600MW) in FY 2010-11, the Commission has approved the quantum of power towards State’s share in GRIDCO’s ARR for the respective financial years as per the existing PPA and order dated 27.01.2016 in Case No. 21 of 2015. The quantum approved by the Commission vis-a-vis the actual power supplied by M/s Vedanta Ltd to GRIDCO from the State dedicated Unit#2 is given hereunder:

Table-19
Quantum of Energy Approved by the Commission vis-a-vis the Actual Power Supplied by M/s Vedanta Ltd.

FY	Approval of State Demand by Commission (MU)	Availability from Vedanta-IPP as approved by OERC (MU)	% Share of Vedanta Power availability w.r.t. approved State Demand	Actual Energy supplied by Vedanta to GRIDCO (MU)	% of Energy actually supplied to GRIDCO against approved quantum	Approved power purchase rate by Commission (P/U)
2020-21	29018.76	5039.45	17.37	2806.01	55.68	251.29
2019-20	28731.03	5039.45	17.54	747.84	14.84	243.26
2018-19	26803.81	5039.45	18.80	978.11	19.41	260.96
2017-18	26051.63	5039.45	19.34	1061.52	21.06	237.78
2016-17	25492.87	5039.45	19.77	3216.84	63.83	223.10
2015-16	25776.23	4199.54	16.29	3414.16	81.30	212.09
2014-15	25495.71	4199.54	16.47	3093.07	73.65	207.32
2013-14	24058.42	3132.90	13.02	2849.67	90.96	275.00
2012-13	24096.98	2612.57	10.84	3027.27	115.87	275.00
2011-12	23489.18	3357.12	14.29	1964.55	58.52	275.00
2010-11	21003.75	646.23	3.08	468.50	72.50	243.45
AVG.	25456.22	3940.47	14.95	2147.96	60.69	245.30

242. GRIDCO submitted that, it is evident from the above table that the average quantum of power availability from the Unit-II of Vedanta was about 15% of total power demand of the State as approved by the Commission. However, the actual average supply of power by Vedanta-IPP to GRIDCO in the respective financial years was

only 60.69% of availability of power from Unit-II as approved by the Commission. The Commission have approved availability of full normative entitlement/State share of power from Vedanta's IPP Unit till date which has resulted into lower BSP because of lower cost of procurement from the said IPP Unit which is in operation since last 10 years. The cost of power is low on account of recovery of capital cost through Annual Fixed Charges comprising of depreciation, interest on loan, Return on Equity etc and Linkage Coal available under long term Fuel Supply Agreement (FSA) with MCL based on long term PPA with GRIDCO (25 years validity). The Commission has time and again directed GRIDCO in its ARR orders to avail full entitlement of power from the said IPP. Accordingly, GRIDCO always endeavours to avail the full entitlement of power from the State dedicated Unit-II of Vedanta since its commercial operation in 2010. However, as per recent order dated 05.10.2021 of the Commission in Case No. 34 of 2018, Unit-II of M/s. Vedanta Ltd shall normally operate as CGP which will inevitably affect/impact the cost of procurement of power to meet the State demand. GRIDCO may have to depend upon high cost power to compensate non-availability of State's share of power from the said Unit-II to meet the State demand.

243. GRIDCO submitted that the State is entitled to get entire power generated from State dedicated Unit#2 (600 MW) at the total cost and 5% of power sent out from the power plant at variable charges /Energy Charge Rate (ECR). The entitlement of State's share of power at normative generation (i.e.85% PLF and 6.55% Auxiliary Energy Consumption) works out to be 5010 MU. However, in absence of the generation plan of Vedanta Ltd. for FY 2022-23, GRIDCO has considered the total supply during first six months of FY:2021-22 and pro-rated to derive the estimated quantum of power i.e. 2628.70 MU to be supplied by Vedanta from IPP-Unit #2 (600 MW). GRIDCO stated that though there shall be shortfall to the tune of 2383.30 MU (approx.) from the IPP-Unit-II of Vedanta during FY 2022-23, GRIDCO has taken generation projection as explained above in order to avoid over projection of power availability. GRIDCO has prayed the Commission to direct Vedanta to supply full entitlement of power to the State as per the terms of existing PPA and the subsequent orders dated 27.01.2016 in Case No. 21 of 2015 and order dated 05.10.2021 in Case No. 34 of 2018. In case of non-supply of power from Vedanta, power will have to be scheduled from the next stations in merit order which have a tariff higher by nearly 30 paise per unit compared to the tariff of Vedanta. Thus, the power purchase cost will increase by

~Rs. 75 crore (i.e. 2628.70 MU at the tariff higher by 30 P/U). As per the present ARR application, the average rate of power from M/s Vedanta Ltd. is projected at 281 Paise/ kWh, which is well within the merit order for procurement of power to meet the State requirement. Considering the State entitlement of power, as approved by the Commission as well as subsisting PPA in force, GRIDCO has prayed the Commission to approve the projected quantum of 2628.70 MU of power from M/s Vedanta Ltd for the FY 2022-23 for meeting State requirement in order to optimize the power procurement cost so as to have lower BSP for the State consumers.

244. The Commission observed that M/s. Vedanta Limited is an objector to the present case. In its submission M/s. Vedanta Limited has stated that as per the Commission's order dated 27.01.2016 in Case No. 21/2015, "*the coal used for generating power for State entitlement shall be linkage coal/ captive mines allocated to petitioner for State use*". Further, the Commission in its order dated 22.06.2020 in Case No. 68/2018 has observed that "*.....GRIDCO is entitled to purchase power from the IPP of M/s. Vedanta Limited to the extent of power generated from the linkage coal since it is supplied to M/s. Vedanta for State use and GRIDCO may purchase power beyond that upto the State entitlement if it is commercially cheaper. GRIDCO is directed to plan accordingly sufficiently ahead intimating the same to M/s. Vedanta Limited. Further, the Commission directs M/s. Vedanta Limited to supply State entitlement of power to the extent of linkage coal availed from MCL in future without fail.*" Thereafter the Commission in its order dated 05.10.2021 in Case No. 34/2018, have converted the Unit-II of M/s. Vedanta Limited to a captive generating plant and directed that, "*The Unit-II of M/s. Vedanta shall normally operate as CGP. If in any quarter, GRIDCO requires power form M/s. Vedanta for State consumption they can avail the same giving three months prior notice to M/s. Vedanta and avail the same for a period of at least three months. During that period the CGP will operate as IPP and GRIDCO will be required to pay fixed cost for the said period in addition to energy charge and other charges.*"
245. M/s. Vedanta Limited has further submitted that GRIDCO has proposed an availability of 36391.30 MU for the FY 2022-23 whereas it requires 29534.67 MU to meet the State demand. If GRIDCO does not requisition power from M/s. Vedanta Limited, the availability of power with GRIDCO shall be 33762.60 MU which is still 4408 MU more than the State requirement. Even after zero requisition of power from

M/s. Vedanta Limited, GRIDCO requires no drawal power from high cost central sector generating stations. Further, GRIDCO has to pay full fixed cost of the central NTPC stations as per the existing PPAs. However, in the event there is no requisition of power from M/s. Vedanta Limited it would be beneficial to the State in terms of the fact that it would save Rs. 242 Cr. by purchasing the power from the marginal power stations i.e. TSTPS-I & II for State consumption. Further, sale of surplus power in power market would also not be a viable option for GRIDCO, as GRIDCO has proposed the average BSP as Rs 3.85/kWh whereas the average clearing price on RTC basis for the past three years is Rs.3.18/kWh. Thus, requisitioning power from Vedanta would not be cost effective, which is the test laid down in terms of order dated 5.10.2021 in case no 34 of 2018. As per this order, GRIDCO is allowed to requisition of power from Unit-II for a period of at least three months giving three months prior notice to M/s. Vedanta Limited. Accordingly, M/s. Vedanta Limited has not given any generation plan for FY 2022-23, GRIDCO by its own has derived an estimated quantum of power of 2628 MU from Unit-II on annual basis considering it as an IPP which is contradictory of OERC order wherein GRIDCO is allowed to requisition power on quarterly basis only in the event the same is found to be cost effective by the Commission.

246. 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 2400 MW (4x600 MW) power plant of M/s. Vedanta Ltd. will continue to remain as IPP and must remain connected to STU network 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. As per the said order, 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) of the total energy sent out of the power station at variable cost as per the PPA in force. The power supply to GRIDCO must be 25% of the total energy sent out or total ex-bus generation from Unit-II whichever is higher plus 7%/5% of the total energy sent out from the power station. The Commission further observed that as per the OERC Tariff Regulations, 2020, the normative auxiliary consumption for the thermal generating stations with unit capacity of more than 300 MW is 5.75% and additional 0.8% where tube type coal mill is used. Therefore, considering PLF of 85% and auxiliary consumption of

6.55%, the State share of energy from the thermal power plant of M/s. Vedanta Limited comes to 5009.97 MU.

247. Further, the Commission at Para-30 of its order dated 05.10.2021 passed in Case No. 34/2018 has observed as under:

”30. Accordingly, considering the submission of parties and basing on the above analysis we allow GRIDCO to operate its PPA without losing its entitlement under the same.

- (a) The Unit-II of M/s. Vedanta shall normally operate as CGP. If in any quarter, GRIDCO requires power from M/s. Vedanta for State consumption they can avail the same giving three months prior notice to M/s. Vedanta and avail the same for a period of at least three months. During that period the CGP will operate as IPP and GRIDCO will be required to pay fixed cost for the said period in addition to energy charge and other charges.*
- (b) During IPP mode of operation, 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 (4 x 600 MW) 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.*
- (c) During IPP mode of operation, the coal used for generating power for State entitlement shall be linkage coal / captive mines allocated to the Petitioner for State use.*
- (d) If M/s. Vedanta fails to supply power after requisition by GRIDCO within the stipulated period, M/s. Vedanta will compensate GRIDCO by paying the differential cost incurred by GRIDCO for such drawal at margin over and above the cost of normal power purchase from M/s. Vedanta IPP Unit-II.*
- (e) If at any time it is found that M/s. Vedanta has failed to supply IPP power after requisition by GRIDCO and is trading the same, M/s. Vedanta will have to pay, in compensation, two times the differential cost incurred by GRIDCO at margin over and above the IPP power cost from M/s. Vedanta.*
- (f) In order to prevent dislocation in the current supply of power, the Unit-II will continue as IPP for the current quarter. GRIDCO has to exercise its option to avail IPP power from M/s. Vedanta for the next quarter within one month of this order failing which the IPP Unit –II of M/s. Vedanta shall operate as CGP with effect from the 1st of January, 2022. Thereafter, as stated in sub-para (a) above, GRIDCO will have to give three months prior notice for availing power in any quarter.*
- (g) The option of GRIDCO to avail IPP power shall be prudently exercised in order to minimise the total power purchase cost and shall be scrutinised by the Commission at any time.”*

248. The Commission observed that as per the above order, the IPP-Unit-II of M/s. Vedanta Limited shall normally operate as CGP. But when GRIDCO requires power and give three months prior notice to avail power, this Unit will operate as CGP and GRIDCO will be required to pay fixed cost for the said periods in addition to energy charge and other charges. Further, during the IPP mode of operation, the coal used for generation of power for State entitlement shall be linkage coal/coal mines allocated to M/s. Vedanta Limited. Keeping in view, the above order of the Commission, GRIDCO has proposed to avail 2628.70 MU of power from M/s Vedanta Ltd during the FY 2022-23 for State requirement in place of normative available of 5009.97 MU from this unit. Therefore, the Commission approves drawal of 2628.70 MU from the Unit-II of M/s. Vedanta Limited during FY 2022-23 to be purchased by GRIDCO for State consumption. However, apart from the above approval GRIDCO must purchase power from M/s. Vedanta Limited to the extent of generation from the available linkage coal.

249. In view of the above, the Commission consider the availability of 4338.36 MU for the FY 2022-23 from the IPPs operating in the State. Some of the objectors have suggested for drawal of full State share of power by GRIDCO from the IPPs. But the Commission has approved only 4338.36 MU from the IPPs for the reasons as cited in the above paragraphs. The proposal of GRIDCO and approval of the Commission in respect of purchase of power from the IPPs for the FY 2022-23 is as indicated in the table below.

Table -20
Power Procurement from the IPPs during FY 2022-23

IPPs	Proposal of GRIDCO (MU)	Availability estimated by the Commission (MU)	Approval of the Commission (MU)
M/s. Vedanta Limited	2628.70	2628.70	2628.70
M/s. GMR Kamalanga Energy Ltd.	1670.00	1670.00	1670.00
M/s. Nava Bharat Ventures Ltd.	0.00	39.66	39.66
Total	4298.70	4338.36	4338.36

Power Purchase from Central Generating Stations

250. Odisha has been allocated shares in the NTPC's stations located in the Eastern Region as well as from the Chukha, Tala and Mangdechhu 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. In the instant case the percentage of share allocation in favour of Odisha has been considered based on the latest Regional Energy Accounts (REA) of the Eastern Regional Power Committee and Southern Regional Power Committee for the month of December, 2021. The central transmission loss in respect of these stations has been considered as per CERC (Sharing of Inter State Transmission Charges and Losses) Regulations, 2020.

Central Transmission Loss:

251. GRIDCO has submitted that from 1st November, 2020, the central transmission losses are being calculated at all India level as per CERC (Sharing of Inter State Transmission Charges and Losses) Regulations, 2020. GRIDCO has considered the average Inter-State Transmission Loss of 3.247% based on the month wise transmission loss from the month of April, 2021 to September, 2021 and projected the same for FY 2022-23.
252. 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. In a reply to the Commission query, GRIDCO has submitted that the average Inter-State Transmission loss during the period from April, 2021 to December, 2021 is 3.33%. The Commission scrutinized the same with reference to the publication in NLDC site and considered the central transmission loss as 3.33% for drawal of power from individual central sector generating stations for estimation of procurement of power by GRIDCO for the FY 2022-23.

Hydro Generating Stations of Central Sector and Neighbouring Country (Bhutan)

253. **Chukha HEP (Bhutan):** GRIDCO submits that Odisha has a share of 15.19% out of ER allocation of 270 MW from Chukha Hydro Electric Project of Bhutan (4x84 MW). GRIDCO has projected the drawl of 276.25 MU from Chukha HEP for FY 2022-23 considering the average drawal of last 6 years i.e. from FY 2015-16 to 2020-21. Deducting central sector loss of 3.247%, the net availability to GRIDCO is projected at 267 MU for the FY 2022-23.
254. The Commission scrutinized the above proposal of GRIDCO and observed that the drawal of GRIDCO from Chukha during the period from FY 2015-16 to 2020-21

were 272.39 MU, 312.17 MU, 263.90 MU, 223.86 MU, 269.90 MU and 315.27 MU respectively, which varies from 223.86 MU during FY 2018-19 to 315.27 MU during the FY 2020-21. Due to such variations, the Commission estimates drawal of 276.25 MU from Chukha considering the average drawal in last 6 years i.e. from FY 2015-16 to 2020-21. Further, deducting the Central Transmission Loss @ 3.33%, the Commission approves the net drawl of 267.05 MU by GRIDCO from Chukha hydro station for FY 2022-23.

255. **TALA HEP (Bhutan):** Odisha has an allocated share of 4.25% from Tala HEP, Bhutan having installed capacity of 1020 MW (6X170 MW). GRIDCO has proposed to draw 130.13 MU of energy from Tala HEP during FY 2022-23 by averaging previous 6 years drawal i.e. from FY 2015-16 to 2020-21. After deducting Central Sector Loss of 3.247%, the net availability to GRIDCO is projected as 126 MU for FY 2022-23.
256. After scrutiny, the Commission observed that the drawal of GRIDCO from Tala Hydro Power Station during the period from FY 2015-16 to 2020-21 were 139.61 MU, 140.57 MU, 122.81 MU, 107.96 MU, 125.71 MU and 144.14 MU, respectively, which varies from 107.96 MU during FY 2018-19 to 144.14 MU during the FY 2020-21. Due to such variations, the Commission estimates drawal of 130.13 MU from Tala Hydro Power Station considering the average drawal of last 6 years i.e. from FY 2015-16 to 2020-21. Further, deducting the Central Transmission Loss @ 3.33%, the Commission approves the net drawl of 125.80 MU by GRIDCO from Tala hydro station for FY 2022-23.

Mangdechhu HEP (Bhutan):

257. GRIDCO has submitted that Odisha has share of 10.97% (equivalent to share of 79.01 MW) from Mangdechhu Hydro Electric Project in Bhutan having Installed Capacity of 720 MW (4x180 MW). GRIDCO has proposed to draw 333.71 MU from Mangdechhu HEP during FY 2022-23 considering the average drawal of last 25 months i.e. from September, 2019 to September, 2021. Further, considering the central transmission loss of 3.247%, the net availability to GRIDCO has been proposed as 323 MU from Mangdechhu HEP during FY 2022-23.
258. The Commission observed that the average annual drawal from Mangdechhu HEP comes to 333.96 MU considering the drawal for the period from September, 2019 to

September, 2021 and further considering the central transmission loss @ 3.33%, the net availability to GRIDCO comes to 322.84 MU. Accordingly, the Commission approves an availability of 322.84 MU from Mangdechhu HEP during FY 2022-23 for State consumption.

259. **TEESTA HEP:** 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 and 1.20% of Auxiliary Consumption, the annual saleable energy of the project is 2236.78 MU. Further, considering Odisha share of 23.40%, the energy availability to GRIDCO comes out to be 523.41 MU and deducting the Central Sector loss @ 3.247% GRIDCO has proposed to procure net energy of 506 MU from Teesta-V HEP during FY 2022-23.
260. 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% of annual saleable energy of 2541.80 MU i.e. the design energy less auxiliary consumption @ 1.20%. Further, considering the central sector transmission loss @ 3.33%, the Commission approves the net drawl of 505.93 MU from Teesta-V HEP during FY 2022-23.
261. The Commission approves the total energy drawal of 1221.62 MU from the Central Hydro Generating Stations during the FY 2022-23 against 1222.00 MU as proposed by GRIDCO. The proposal of GRIDCO and approval of the Commission are summarised in the Table below:

Table –21
Drawal from Central Hydro Stations during FY 2022-23

Central Hydro Stations	Installed Capacity (MW)	GRIDCO Share (%)	GRIDCO Share of installed capacity (MW)	Proposed drawal for FY 2022-23 after C.S. loss (MU)	Energy drawal approved by the Commission for FY 2022-23 after C.S. loss (MU)
Chukha	336 (4*84) (ER Allocation =270)	15.19	41.01	267.00	267.05
Tala	1020 (6*170)	4.25	43.35	126.00	125.80

than 85%. So, in the present ARR application for FY 2022-23, GRIDCO has considered the normative availability of 85% for all central sector thermal generating stations except Farakka-I & II. GRIDCO has furnished the station wise cumulative PAF derived based on the REA for High Demand Season and Low Demand Season for the period Apr'21 to Sept'21 as given in the table below.

Table-22

Sl. No.	Name of Stations	Installed Capacity (MW)	PAFM (%)		Weighted Average of HD and LD Seasons (%)
			High Demand Seasons	Low Demand Seasons	
1	FSTPS-I&II	1600	84.50	66.93	75.66
2	FSTPS-III	500	93.18	88.80	90.98
3	KhSTPS-I	840	90.67	82.38	86.50
4	KhSTPS-II	1500	99.65	91.09	95.35
5	TSTPS-I	1000	86.49	96.25	91.40
6	TSTPS-II	2000	94.69	86.29	87.67
7	DSTPS-I	1600	84.16	98.98	91.61

* High Demand Season: ER: Apr-21 to Jun-21 and SR: Apr-21, Feb-22 & Mar-22

* Low Demand Season: ER: Jul-21 to Mar-22 and SR: May-21 to Jan-22

264. In the present application, the energy drawal for FY 2022-23 from Central Sector Thermal Generating Stations has been estimated by GRIDCO by considering the relevant allocated share of Odisha from the respective stations, Cumulative Plant Load Factor (High Demand and Low Demand Season) for the period April'21 to Sept'21 for existing stations, Cumulative Plant Load factor of 85% for the existing as well as upcoming units of Barh-I. Auxiliary Consumption has been considered as per the CERC Tariff Regulations, 2019 and the all India Transmission Loss has been considered as per the CERC (ISTS Charges and Losses), Regulation 2020 implemented with effect from 01.11.2020.
265. GRIDCO has further submitted that as per the Commission's order dated 29.10.2021 State share from FSTPS-I&II (210 MW) and KhSTPS-I (128 MW) has been relinquished by GRIDCO. However, allocation of 9 MW from FSTPS-I&II and 5 MW from KhSTPS-I towards solar equivalent of bundle power has not yet been relinquished. In the present petition, GRIDCO has proposed to draw the above solar equivalent of bundle power from FSTPS-I&II and KhSTPS-I at the PLF of 56.21% and 79.68% respectively. GRIDCO has stated that it has taken the PLF for all the

NTPC stations (except Darlipalli STPS-I, Barh STPS-I) cumulatively considering High Demand Season and Low Demand Season as per REA. The PLF for Darlipalli STPS has been considered by taking cumulative of Sep-2021 & Oct-2021 only as the COD of Unit-II of Darlipalli STPS was 01.09.2021. The PLF for Barh STPS-I is taken as 85%. GRIDCO has stated that TSTPS-I of NTPC is going to complete its normal service life of 25 years on 30.06.2022. But, in the calculation GRIDCO has considered the energy availability of this power station for whole FY 2022-23.

266. GRIDCO has further submitted that the Commission, vide order dtd. 01.11.2021 has dis-approved the PPA executed between NTPC and GRIDCO towards purchase of Power from Barh STPS-I and directed GRIDCO to approach MoP again through State Government for immediate de-allocation of State share from this power station. GRIDCO stated that Govt. of Odisha has already taken up the matter with Ministry of Power, Govt. of India for de-allocation of Odisha share of power at the earliest. However, in the meeting under the Chairmanship of Secretary (Power) on 01.11.2021, it was decided that till the time of re-allocation, original beneficiary is liable to pay fixed charges. Hence, GRIDCO has to make payment of capacity charges as per the prevailing CERC Regulations in force, even in the absence of any drawl of power from this station.
267. GRIDCO has submitted that the MoP, GoI, vide order dtd. 12.11.2021, directed CPSE GENCOs and IPPs to regulate power supply to DISCOMs who are defaulting in payment immediately after 30 days of their due date i.e. about two and half months from presentation of the bill. At the same time, the DISCOMs would not have any recourse to alternate power arrangements from any other source including Power Exchange during the period of power regulation. Further, MoP/GoI vide notification dtd. 09.11.2021 issued a revised procedure for scheduling of power to Distribution Company in the event of non-maintenance of LC in accordance with Electricity (Late Payment Surcharge) Rules 2021. As per the revised procedure, Distribution Company shall be liable to be debarred from procurement through Power Exchange(s) or STOA in case of outstanding dues is more than seven months.
268. In view of the above, GRIDCO has prayed the Commission to allow them to draw power from Barh STPS-I as and when required for the State on merit order basis. Further, considering the existing practice, there is every possibility that the system operator may schedule power from Barh-I under technical minimum. Hence,

considering the share of 24.84%, Auxiliary Consumption @6.25%, as per the CERC Tariff Regulations, 2019, cumulative PLF of 85% and Central Transmission Loss of 3.247%, GRIDCO has projected energy availability of 1107.27 MU from existing Unit-I (660 MW) and 830.45 MU from upcoming Unit-II (660 MW for nine months) of Barh-I.

269. GRIDCO has submitted that as per the notification dtd. 17.07.2019 of MoP, GoI, during the period of non-scheduling of power on account of non-opening of LC or advance payment, GRIDCO shall not be granted open access to procure power from the power exchanges and other sources. At that time GRIDCO had brought to the notice of MoP, GoI regarding the various cases pending before OERC/CERC in respect of drawal of power from Kanti Bijlee Utpadan Nigam Limited (KBUNL) and sought an exemption from the applicability of aforesaid notification. The MoP, GoI vide letter dtd. 06.08.2019, issued no objection to GRIDCO to draw power through open access in case of non-opening of LC with respect to KBUNL considering the prayer of GRIDCO. Therefore, in past GRIDCO had not claimed any tariff for drawal of power from KBUNL. The Commission vide its order dtd 04.10.2021, has disapproved the PPA executed between KBUNL and GRIDCO and instructed to take steps for de-allocation of State share of power from M/s KBUNL. Further, M/s. KBUNL has filed a petition before CERC in Case No 116/2019 regarding realization of fixed cost from the beneficiaries. The hearing in the aforesaid case has been concluded by CERC and order is awaited.
270. GRIDCO has further submitted that Govt. of Odisha, Dept. of Energy has taken the matter with MoP/GoI for de-allocation of State share from M/s. KBUNL and recently, a notification in this regard has also published by MoP/GoI seeking application from the interested beneficiaries to avail GRIDCO's surrendered quantum of power. Recently, in a meeting between MoP, GoI and Govt. of Odisha, the Secretary Power stated that the project has been put up based on long term PPA signed by GRIDCO and based on the allocation of power by GoI, the cost is to be serviced by the concerned beneficiaries. Accordingly, GRIDCO is in the process of discussion with KBUNL on the issues relating to outstanding dues keeping in view of the adverse impact of recent notification from MoP, GoI and also the directives received from High level meeting between MoP, GoI and Govt. of Odisha. In view of the above, GRIDCO has prayed the Commission to revise the petition in case of mutual

settlement occurs between GRIDCO and KBUNL and allow the power procurement in respect of M/s. KBUNL in order to avoid any coercive action by MoP, GoI for not scheduling any power from M/s. KBUNL.

271. GRIDCO has submitted that North Karanpura Supper Thermal Power Station of NTPC in Jharkhand with a combined capacity of 1980 MW (3x660 MW), is under construction and the MoP, GoI vide letter Dtd 07.09.2015 has allocated 396 MW of power from this power station. The plant achieved financial closure in January, 2014 and as per the original schedule, the COD of Unit-1, 2 & 3 was June, 2018, December, 2018 and June, 2019 respectively. However, as per the revised schedule provided in CEA Thermal Broad Status Report in October 2021, Unit-1, 2 & 3 are expected to be commissioned in March, 2022, March, 2023 and September, 2023 respectively. GRIDCO stated that they had executed PPA with NTPC on 11.08.2006 for purchase of power from North Karanpura STPS, which is under process for approval of the Commission. GRIDCO has decided to retain the allocation from this generating station considering the same to be a pit head station, the recent post pandemic load growth and the expected growth due to industrialization. Further, GoO has requested MoP, GoI for de-allocation of all upcoming NTPC stations located outside the State except North Karanpura. However, due to uncertainty on commissioning of the plant in the scheduled time, GRIDCO in the present petition has not considered to procure power from this plant. But, after clarity on the COD and approval of PPA is approved, GRIDCO will file petition before the Commission on drawl of power from the North Karanpura STPS along with the associated cost.
272. Accordingly, GRIDCO has estimated the drawl from individual NTPC-ER Stations for FY 2022-23 totalling to 12624.49 MU as given in the table below:

Table-23
Statement of Station wise Availability of Power FY 2022-23

Name of Stations	Installed Capacity (MW)	State Share (%)	State Share (MU)	Aux. Consmp. (%)	PAF/ PLF (%)	Net availability (MU) before Loss	Central Trans. Loss (%)	Net availability (MU) after Loss	GRIDCO's Proposal for FY 2022-23 (MU)
Existing NTPC Stations									
FSTPS-III	500	17.15	751.16	6.25%	73.86	520.16	3.247	503.25	503.25
KhSTPS-II	1500	2.62	344.35	6.25%	85.47	275.93	3.247	267.00	267.00
TSTPS-I	1000	32.34	2833.35	7.05%	85.39	2248.84	3.247	2175.82	2175.82
TSTPS-II	2000	10.00	1752.00	6.25%	82.90	1361.59	3.247	1317.37	1317.37
DSTPS-I	1600	58.82	8244.21	6.25%	85.00	6569.61	3.247	6356.29	6356.29

Name of Stations	Installed Capacity (MW)	State Share (%)	State Share (MU)	Aux. Consmpt. (%)	PAF/ PLF (%)	Net availability (MU) before Loss	Central Trans. Loss (%)	Net availability (MU) after Loss	GRIDCO's Proposal for FY 2022-23 (MU)
& II									
Barh -I (Unit-I)	660	24.84	1436.15	6.25%	85	1144.43	3.247	1107.27	1107.27
Up-coming NTPC Stations/ Units									
Barh-I *(Unit-2)	660	24.84	1078.10	6.25%	85	858.32	3.247	830.45	830.45
De-allocated NTPC Stations, but having Share of Bundled Power									
FSTPS-I & II	1600	0.55	77.59	6.78%	56.21	40.66	3.247	39.37	39.37
KhSTPS-I	840	0.54	39.44	9.00%	79.68	28.60	3.247	27.67	27.67
TOTAL									12624.49

* Unit-II of Barh STPS-I is yet to be operated commercially, hence energy drawal for 9 months has been considered.

273. The Commission observed that in its application, GRIDCO has proposed to draw 1937.72 MU of energy from Barh STPS-I though the Commission has disapproved the PPAs executed between GRIDCO and NTPC in respect of Barh STPS-I earlier due to availability of adequate power with GRIDCO based on the petition filed by GRIDCO in this regard. Since, the said PPA has not been approved, the Commission do not consider any drawal of power from Barh STPS-I during FY 2022-23. Further, the Commission observed that as per the estimation, now GRIDCO has a surplus availability of about 2981.71 MU. If GRIDCO draws power from Barh STPS-I, the surplus availability of power will be increased further. The Commission further observed that TSTPS-I of NTPC is going to complete its normal service life on 30.06.2022 and hence the existing PPA between GRIDCO and NTPC ends on that day. Therefore, the Commission considers the drawal from TSTPS-I for three months (i.e. from April, 2022 to June, 2022) only during the FY 2022-23. In view of the above, GRIDCO should take up the matter with the State Government for de-allocation of State share of power from Barh STPS-I.

274. The Commission examined the submissions of GRIDCO and provisionally considers the normative plant availability factor for the purpose of computation of availability of power from the central thermal power stations of NTPC during the FY 2022-23. The share of power purchase by GRIDCO from ER-NTPC thermal stations has been considered by the Commission based on the REA for the month of December, 2021 submitted by GRIDCO. Considering the normative NAPAF of 85% and central sector transmission loss of 3.33% as approved in earlier paragraph, the availability of power

from Central Sector Thermal Stations (except Barh STPS-I) has been estimated for the FY 2022-23 and GRIDCO's drawal approved by the Commission for State requirement are given in the Table below:

Table -24
Drawal from Central Thermal Generating Stations for FY 2022-23

Central Thermal Stations	Installed Capacity (MW)	Aux. Cons. (%)	Plant Availability Factor (PAF) considered (%)	GRIDCO Share (%)	GRIDCO Share (MU)	Central Trans. Loss (%)	Estimated Energy after Central Sector Transmission Loss (MU)	OERC Approval for Purchase (MU)
TSTPS –I	1000	7.05	85	32.344	2238.57	3.33	*541.01	541.01
TSTPS –II	2000	6.25	85	10.000	1396.13	3.33	1349.63	1349.63
FSTPS-I& II	1600	6.78	85	0.550	61.53	3.33	59.48	0.00
FSTPS-III	500	6.25	85	17.150	598.59	3.33	578.66	0.00
KhSTPS–I	840	9.00	85	0.540	30.51	3.33	29.49	0.00
KhSTPS–II	1500	6.25	85	2.621	274.44	3.33	265.30	0.00
DSTPS (Unit-I &II)	1600	6.25	85	58.82	6569.61	3.33	6350.84	6350.84
TOTAL					11169.38		9174.41	8241.48

* Considered for three months only.

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

275. The Commission observed that the total estimated availability of power from different sources comes to 33455.94 MU, whereas total power requirement of GRIDCO is estimated at 30474.23 MU only for State consumption. Therefore, following the merit order despatch principle, procurement of costly power from generating stations has not been considered in the ARR of GRIDCO for consumption inside the State. However, GRIDCO may trade available surplus power if commercially viable and earn some revenue to reduce the past losses. Hence, taking the least cost power procurement from different generating stations for the State consumption, the Commission approves the quantum of purchase for FY 2022-23 as given in the table below:

Table – 25
Quantum of Power Purchase from Various Sources for FY 2022-23

(Figures in MU)

Sources of Purchase	Commission's Approval for State Drawl for 2021-22	GRIDCO's Proposal for 2022-23	Estimated Availability for 2022-23	Commission's Approval for State Drawl for 2022-23
HYDRO (OLD)	3676.86	3452.36	3660.22	3660.22
Indravati	1942.38	1703.79	1942.38	1942.38
Machakund	262.50	259.88	259.88	259.88
Total State Hydro	5881.74	5416.03	5862.48	5862.48

Sources of Purchase	Commission's Approval for State Drawl for 2021-22	GRIDCO's Proposal for 2022-23	Estimated Availability for 2022-23	Commission's Approval for State Drawl for 2022-23
OPGC (I & II)	2726.34	2597.99	2636.04	2636.04
OPGC (III & IV)	4208.22	6919.90	6910.82	4862.04
IPPs	4847.48	4298.70	4338.36	4338.36
Total State Thermal	11782.04	13816.59	13885.22	11836.44
Small Hydro	458.35	456.35	456.35	456.35
Biomass Energy	80.00	80.00	80.00	80.00
Wind Energy	685.00	975.87	975.87	975.87
Solar Energy	1479.00	1800.00	1800.00	1800.00
Total RE	2702.35	3312.22	3312.22	3312.22
TOTAL STATE	20366.13	22544.84	23059.91	21011.13
CHUKHA HPS	255.43	267.00	267.05	267.05
Tala HPS	124.69	126.00	125.80	125.80
Mangdechhu	342.26	323.00	322.84	322.84
Teesta-V HPS	504.57	506.00	505.93	505.93
Total Central Hydro	1226.94	1222.00	1221.62	1221.62
TSTPS-I	2158.20	2175.82	541.01	541.01
TSTPS-II	1346.00	1317.38	1349.63	1349.63
FSTPS-I & II	-	39.34	59.48	0.00
FSTPS-III	-	503.27	578.66	0.00
KhSTPS-I	-	27.67	29.49	0.00
KhSTPS-II	-	266.97	265.30	0.00
DSTPS (Unit-I & II)	2608.02	6356.29	6350.84	6350.84
Barh-I (Unit-I &II)	-	1937.72	-	-
Total Central Thermal	7198.89	12624.47	9174.41	8241.48
Total Central Sector	8425.83	13846.47	10396.03	9463.10
TOTAL GRIDCO	28791.96	36391.31	33455.94	30474.23

276. GRIDCO has proposed to purchase 36391.31 MU from all available sources. Out of which 29354.67 MU is estimated by GRIDCO towards State requirement and balance 7036.64 MU of energy is proposed for procurement towards trading purpose. However, the Commission has estimated availability of 33455.94 MU for FY 2022-23 from different sources, out of which procurement of 30474.23 MU is estimated towards State requirement. Although drawal of power would be from the least cost sources as indicated in the above table, the Commission has considered the payment towards fixed cost for all thermal stations for which PPA has been approved.

Power Procurement Cost

277. 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

278. OHPC has submitted the application for approval of its Annual Revenue Requirement and Tariff of its individual power stations separately for the FY 2022-23 in terms of Section 62, 64 and 86 of the Electricity Act, 2003 which has been registered as Case No.103/2021. 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.
279. Accordingly, the cost of power purchase by GRIDCO from each of the power stations of OHPC is given in the table below:

Table – 26
Cost of Power Purchase from Power Stations of OHPC for FY 2022-23

Name of the Power Station	Quantum of Power Purchase for 2022-23 (MU)	Approved Average Tariff for 2022-23 (P/U)	Cost of Power Purchase for FY 2022-23 (Rs. Cr.)
Burla	660.52	117.28	77.46
Chipilima	485.10	84.03	40.76
Balimela	1171.17	66.25	77.59
Rengali	519.75	150.89	78.43
Upper Kolab	823.68	74.61	61.45
Upper Indravati	1942.38	85.27	165.62
Sub-Total	5602.60	89.48	501.31
Machhkund	259.88	110.90	28.82
Total	5862.48	90.43	530.13

Ib Thermal Power Station of OPGC

280. GRIDCO has submitted that for purchase of power from OPGC Units-I&II during FY 2022-23, they have provisionally considered Annual Fixed Charges of Rs. 260.76 Crore, which was approved by the Commission for the FY 2021-22, along with Energy Charge Rate (ECR) of 152.81 Paise/kWh and Year End charges of Rs. 67.15 Crores determined in the said order. However, the Commission in its order dated 28.10.2020 in Case No. 43 of 2017 in the matter of GCV of coal utilised by OPGC (Units-I&II) has directed to work out GCV of coal as follows:

“ 14. XXX This is because the measurement of GCV on total moisture basis at power station end is the practice generally followed by the industry and it determines the volume of coal the power station requires to generate a particular quantity of energy.

GCV of coal as delivered to the power station (total moisture basis)
= GCV X (1-TM) / (1-IM) Where:

GCV = Gross Calorific value of coal as billed by coal supplier.

TM = Total moisture as per CIMFR report.

IM = Inherent moisture as per CIMFR report.

The above formula should form the basis of calculation of GCV of coal on “as delivered basis” for computation of energy charge. The above formula shall take care of total moisture in calculation of GCV which is the prevalent industry practice.”

281. GRIDCO has further submitted that OPGC is claiming the ECR of 152.81 Paise/kWh as computed by the Commission in the tariff order for FY 2021-22 and has not provided actual monthly data in respect of “As billed” GCV of Coal, percentage (%) of IM, percentage (%) of TM as per CIMFR Report, actual landed cost of coal and oil, GCV of coal and oil for first six months of FY 2021-22. However, GRIDCO has derived the ECR to be 152.81 Paise/kwh for FY 2022-23 considering the aforesaid parameters as per OPGC Tariff order for FY 2021-22.
282. The Commission observed that OPGC has filed its ARR & Tariff application before OERC for determination of Generation Tariff of its existing Units-I & II (2x210 MW) of Ib Thermal Power Station for the year 2022-23, which has been registered in Case No.104 of 2021. The Commission in its order passed in Case No.104 of 2021 has determined the annual capacity charges to the tune of Rs. 274.74 Crore and energy charge @ 161.09 P/U for the said power station of OPGC. Hence the procurement cost for the approved drawal of 2636.04 MU from the Units-I & II of OPGC comes to Rs.699.38 Crore at an average rate of 265.31 P/U.
283. Further, GRIDCO has submitted that the tariff for OPGC Units III & IV is yet to be determined by the Commission. Hence, pending determination of tariff by the Commission, GRIDCO has proposed to consider the provisional tariff of Rs 3.09/kWh towards purchase of power from Unit #3 and #4 of OPGC during FY 2022-23 as approved for the previous year. GRIDCO has further submitted that it has forecasted the year end charges of Rs. 30.56 Crore towards procurement of such power by prorating the actual year end charges of Rs. 15.28 Crore as admitted by GRIDCO during the 1st half of the FY 2021-22 i.e. from April to September, 2021, which consists of electricity duty, water charges/cess, SOC & MOC and DSM charges. Accordingly, GRIDCO has estimated the Power Procurement Cost of

Rs.2170.19 Crore towards proposed procurement of 6919.90 MU of energy from OPGC Units-III & IV during FY 2022-23.

284. The Commission observed that in earlier paragraphs 4862.04 MU has been approved for drawal by GRIDCO from the expansion Units-III & IV of OPGC during the FY 2022-23. OPGC has already filed petition before the Commission in Case No. 96/2021 for approval of capital cost and determination of tariff in respect of Units-III&IV of OPGC which is scheduled to be heard on 12.04.2022. OPGC, as an objector to the instant case, has submitted that in its tariff petition they have proposed an average tariff of 386.83 P/U for Units-III&IV of OPGC. However, the Commission may allow a provisional tariff of 349.34 P/U towards purchase of power by GRIDCO from Units-III&IV of OPGC considering 85% of the annual fixed cost proposed by OPGC in its petition. The Commission observed that the average tariff for the expansion project covering Units-III&IV of OPGC would be more than 309 P/U, which was being provisionally considered by the Commission for last two years. If it is not enhanced, there would be a huge arrear on GRIDCO on account of power drawal from OPGC Units-III & IV, which would be passed in the ARR of GRIDCO in next year resulting in an abrupt hike in BSP. Therefore, in order to avoid such situation in next year, the Commission would like to enhance the provisional tariff to 330 P/U in respect of the drawal of power from the expansion Units-III & IV of OPGC during FY 2022-23. Accordingly, the cost of power procurement by GRIDCO from the OPGC Units-III&IV during FY 2022-23 has been estimated at Rs.1604.47 Crore towards purchase of the approved quantum of 4862.04 MU at the provisional tariff of 330 P/U. However, in the instant order, the Commission has estimated an availability of 6910.82 MU from Units-III&IV of OPGC expansion project. But following the merit order principle, the Commission has considered only 4862.04 MU (70% total share of 6910.82 MU) from these generating units for State consumption at a provisional rate of 330 P/U, as the generation tariff for these Units-III&IV is yet to be determined by the Commission. In above consideration, the entire fixed cost of these units of OPGC is not covered in the ARR of GRIDCO for the FY 2022-23. But GRIDCO has to pay the entire fixed cost to OPGC. Therefore, the Commission allows an amount of Rs.327.80 Crore provisionally as power purchase cost in the ARR of GRIDCO for the FY 2022-23 for covering the balance fixed cost of Units-III&IV of OPGC arising due to non-drawal of balance quantum of 2048.78 MU, which is

around 30% of the total share of 6910.82 MU. The provisional amount of Rs.327.80 Crore has been arrived at by considering the fixed cost of 160 P/U provisionally for the non-drawal quantum of 2048.78 MU.

285. The Commission directed that after determination of tariff of Units-III & IV of OPGC, the differential amount inclusive of year-end charges and SLDC charges, if any, shall be considered in the truing up exercise of GRIDCO.

Power Purchase from Renewable Energy Sources

Small Hydro

286. In its ARR application for FY 2022-23, GRIDCO has proposed to procure 220 MU from Meenakhi Small Hydro Electric Project of M/s. MPL @ 368 P/U and 80 MU from Samal Small Hydro Electric Project of M/s. OPCL @ 371 P/U including PTC trading margin of 4 P/U in both the cases. GRIDCO has also proposed to procure 85 MU of energy from M/s Baitarani Power Projects Pvt. Ltd at the rate of 507 P/U as specified by the Commission for the 3rd Control period and as per the PPA executed with this SHEP. GRIDCO has also proposed to draw 60 MU of energy from Saptadhara SHEP of M/s. Sri Avantika Power Project Pvt. Ltd. @ 426 P/U as per PPA dated 29.10.2014. Further, GRIDCO has proposed to draw 11 MU of energy from the forthcoming Bargarh Head Regulator SHEP of M/s. Kakatya Industries Pvt. Ltd. @ 426 P/U as per PPA dated 02.12.2015. GRIDCO has also proposed to draw 0.35 MU from Biribati and Kendupatana Mini Hydel Projects of OPGC @ 391 P/U during FY 2022-23. Accordingly, GRIDCO has proposed the total power procurement cost of Rs. 184.11 Crore towards purchase of total 456.35 MU of energy from small and mini hydel sources at an average rate of 403.44 P/U during FY 2022-23.
287. 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. Further, the Commission vide its order dated 15.01.2022 passed in Case No. 88/2020 has approved 571 P/U towards procurement of power from the SHEP of M/s Baitarani Power Projects Pvt.

Ltd. The Commission further observed that GRIDCO has proposed to draw 60 MU of energy from Saptadhara SHEP and 11 MU of energy from Baragarh Head Regulator SHEP @ 426 P/U as per the PPAs executed by GRIDCO with them. Further, GRIDCO has proposed to procure power from the 2 nos. of mini hydel projects of OPGC i.e. Biribati MHP and Kendupatana MHP at the rate of 391 P/U as per the Commission's order dated 05.01.2019 passed in Case No. 35/2018. Accordingly, the Commission approves the procurement cost of Rs.189.56 Crore towards purchase of total 456.35 MU by GRIDCO from the aforesaid Mini and Small Hydro sources during the FY 2022-23 for state consumption at an average rate of 415.38 P/U. The details of which given in the Table below:

Table-27

Procurement & Cost of Power from Small Hydro Sources for FY 2022-23

Sl. No.	Name of the SHEPs	Installed Capacity (MW)	Energy Approved for Drawal (MU)	Rate (P/U)	Total Cost (Rs. Cr.)
1.	Meenakshi Small Hydro	37	220.00	368.00	80.95
2.	SAMAL Small Hydro	20	80.00	371.00	29.68
3.	Lower Baitarani Small Hydro	24	85.00	571.00	48.54
4.	Saptadhara Small Hydro	18	60.00	426.00	25.56
5.	Bargarh Head Regulator Small Hydro	09	11.00	426.00	4.69
6.	Biribati & Kendupatna MHPs by OPGC	1.15	0.35	391.00	0.14
	Total	109.15	456.35	415.38	189.56

Bio-mass Energy

288. GRIDCO has proposed to procure Biomass Energy of 80 MU from M/s. Shalivahan Green Energy Ltd. during FY 2022-23 at a cost of Rs. 58.64 Crore @ 733 P/U as per the Commission's order dated 01.10.2020 passed in Case No. 12/2019. The Commission accepts the proposal of GRIDCO and approves the procurement cost of Rs. 58.64 Crore towards procurement of 80 MU of Biomass energy from M/s. Shalivahana Green Energy Ltd. at the rate of 733 P/U for computation of ARR of GRIDCO for the FY 2022-23.

Wind Energy

289. GRIDCO has submitted that 350 MW Wind power is expected to be made available to GRIDCO during FY 2022-23 i.e. 50 MW in Phase-I through M/s PTC India Ltd.

@353 P/U, 100 MW @272 P/U in Phase-II, 50 MW @ 251 P/U in Phase-III, 100 MW @ 258 P/U in Phase-IV and another 50 MW @ 289 P/U in Phase-VI all through SECI MNRE ISTS-connected Wind Power Project Schemes. GRIDCO has proposed to procure around 975.87 MU of Wind Energy from the above projects at a cost of Rs.221.95 Crore (i.e. at an average rate of 278.68 P/U) and details are given in the Table below:

Table-28
Proposed Procurement of Wind Energy and the Cost for FY 2022-23

Sl. No.	Scheme Name	Proposed Energy (MU)	Rate (P/U)	Estimated cost (Crore)
1	MNRE ISTS-Connected Wind Power Scheme through PTC Phase-I	141.91	353	50.09
2	MNRE ISTS-Connected Wind Power Scheme through SECI, Phase-II	273.57	272	74.41
3	MNRE ISTS-Connected Wind Power Scheme through SECI, Phase-III	149.11	251	37.43
4	MNRE ISTS-Connected Wind Power Scheme through SECI, Phase-IV	285.05	258	73.54
5	MNRE ISTS-Connected Wind Power Scheme through SECI, Phase-VI	126.23	289	36.48
Total Wind Energy		975.87	278.68	271.96

290. After scrutiny, the Commission accepts the above proposal of GRIDCO and approves the procurement cost of Rs.271.96 towards purchase of 975.87 MU of wind energy by GRIDCO Crore during the FY 2022-23 at an average rate of 278.68 P/U for State consumption.

Solar Energy

291. GRIDCO has proposed to procure 1800 MU of solar energy from different sources at the total cost of Rs. 652.94 Crore with an average rate of 362.74 P/U during the FY 2022-23 including 6 MU towards deemed purchase through TPCODL from 4 MW Roof-top Solar PV project developed by GEDCOL under net metering regulation and 3 MU under MNRE RTS-II Scheme implemented by OREDA. The Commission examined the above proposal of GRIDCO and approves the procurement cost of Rs. 649.74 Crore at an average rate of 360.96 P/U for purchase of total 1800 MU of solar power during the FY 2022-23, the details as indicated in the Table below:

Table -29
Procurement of Solar Power and the Cost for FY 2022-23

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	13.00	628	8.16
2	20 MW from NVVN through 'New Projects scheme' under JNNSM, Phase-1	34.00	1065	36.21
3	5 MW through NTPC from Solar PV project at Dadri	8.50	1294	11.00
4	5 MW through NTPC from Solar PV project at Faridabad	8.50	935	7.95
5	5 MW from M/s Alex Green Energy Ltd. through OREDA State Scheme	7.00	700	4.90
6	25 MW from M/s ACME Odisha Solar Power Pvt. Ltd.	42.00	728	30.58
7	70 MW through Solar Energy Corporation of India (SECI) under JNNSM, Phase –II, Batch-I	108.00	550	59.40
8	270 MW through Solar Energy Corporation of India (SECI) under JNNSM, Phase-II, Batch-IV	401.00	450	180.45
9	75 MW from M/s. Aditya Birla Renewables Limited under GRIDCO e-bidding	101.00	306	30.91
10	300 MW through SECI under ISTS-Connected Solar Power Projects Scheme	635.00	260	165.10
11	200 MW through SECI under ISTS-Connected Solar Power Projects Scheme	409.00	265	108.39
12	8 MW from GEDCOL implemented in unutilized surplus land	11.00	284	3.12
13	40 MW from NHPC for 2 months (February, 2023 and March 2023)	13.00	275	3.58
	Sub-Total (Procurement by GRIDCO)	1791.00	362.78	649.74
14	Under MNRE RTS-II Scheme implemented by OREDA	3.00	-	-
15	Deemed purchase through TPCODL from 4 MW Rooftop Solar PV Project implemented by GEDCOL under net metering regulation	6.00	-	-
	Total (for the purpose of meeting RPO by GRIDCO)	1800.00	360.96	649.74

292. The Commission, in the above paragraphs, has approved purchase of 3312.22 MU from renewable energy sources (both solar and non-solar) during the FY 2022-23 based on the proposal of GRIDCO and availability of the same. The total procurement cost of such renewable energy is estimated at Rs.1169.89 Crore at an average rate of 353.20 P/U as summarized in the Table below:

Table- 30
Estimated Cost of Renewable Energy Procurement for FY 2022- 23

RE Sources	RE Procurement Approved for FY 2022-23	Average Rate	Estimated Cost
	(MU)	(P/U)	(Rs. Crore)
NON-SOLAR			
SHEP	456.35	415.38	189.56
Biomass	80.00	733.00	58.64
Wind	975.87	278.68	271.96
Total Non-Solar	1512.22	340.36	520.16
SOLAR	1800.00	360.96	649.74
TOTAL (Non-Solar & Solar)	3312.22	353.20	1169.90

Independent Power Plants (IPPs)

M/s. Vedanta Ltd.

293. In its application, GRIDCO has submitted that the Multi Year Tariff (MYT) Petition filed by M/s Vedanta Ltd for FY 2014-19 has been disposed of by the Commission vide its order dated 29.06.2018 in Case No.95 of 2013. Further, M/s. Vedanta Ltd. has filed MYT application for FY 2019-24 in Case No. 20 of 2020 which is now sub-judice before the Commission. However, the Commission in the ARR Order of GRIDCO for FY 2021-22 has fixed a provisional average tariff of 251.99 Paise/kWh (i.e. Fixed Charge: 95.67 P/kWh + ECR: 152.46 P/kWh+ ED: 3.86 P/kWh) towards procurement of power by GRIDCO from the IPP Unit of M/s. Vedanta Ltd. Further, the Commission vide Regulation 3(ff) of the OERC (Terms and Conditions of Determination of Tariff) Regulations, 2020 have fixed GCV of Coal to be considered on “As Received” basis for the purpose of determination of Energy Charge Rate (ECR). Considering the “As Billed” GCV data provided by M/s. Vedanta Ltd. along with energy bills for the month of April, 2021 to September, 2021, GRIDCO has worked out the weighted average ECR as 179.39 P/U. GRIDCO has stated that the landed price of linkage coal is following an increasing trend as observed from the data given in the Table below. GRIDCO has requested M/s. Vedanta Ltd. to clarify the reasons of noticeable increase in landed cost of linkage coal during first six months of FY 2021-22, but no response has been provided by M/s. Vedanta Ltd. Therefore, GRIDCO has proposed ECR @ 185.91 P/U (i.e. ECR for the month of September, 2021) for procurement of power from M/s. Vedanta Ltd. during FY 2022-23.

Table-31**Energy Charge Rate of the IPP of M/s. Vedanta Ltd. from April'21 to Sept.'21**

Month	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21
LPPF (Rs./kg)	2.039	2.190	2.278	2.412	2.388	2.473
CVPF (kCal /kg)	3192	3192	3192	3192	3192	3192
GHR (kCal /kwh)	2375	2375	2375	2375	2375	2375
SFC (ml/kWh)	1	1	1	1	1	1
CVSF (kCal/ml)	9.85	9.85	9.85	9.85	9.85	9.85
LPSFi (Rs./Lit.)	0.0372	0.03998	0.03824	0.0398	0.0397	0.038119
AUX (in %)	6.55	6.55	6.55	6.55	6.55	6.55
ECR (P/U)	166.211	171.163	182.265	185.295	185.470	185.910
Average ECR (P/U)						179.39

294. Further, GRIDCO has estimated the Year End charges of Rs.10.56 Crore payable to M/s. Vedanta Ltd. for FY 2022-23 by considering Electricity Duty amounting to Rs.10.13 Crore (approx.) @ 55 P/U and SOC and MOC charges amounting to Rs.0.43 Crore. GRIDCO has estimated the total power purchase cost of Rs.750.48 Crore towards purchase of 2628.70 MU from M/s. Vedanta Ltd. as given in the Table below:

Table-32**Projected Power Purchase Cost of M/s. Vedanta Ltd-IPP for FY 2022-23**

Energy (MU)	Fixed Charges (Rs. Cr.)	Energy Charges (Rs. Cr.)	Year-End Charges (Rs Cr.)	Total Cost (Rs. Cr.)	Rate (P/U)
2628.70	251.22	488.70	10.56	750.48	285.50

295. The Commission vide its order dated 05.10.2021 in Case No. 34/2018 has allowed that “the Unit-II of M/s. Vedanta shall normally operate as CGP. If in any quarter, GRIDCO requires power form M/s. Vedanta for State consumption they can avail the same giving three months prior notice to M/s. Vedanta and avail the same for a period of at least three months. During that period, the CGP will operate as IPP and GRIDCO will be required to pay fixed cost for the said period in addition to energy charge and other charges.” Accordingly, GRIDCO has proposed to draw 2628.70 MU from Unit-II of M/s. Vedanta Ltd. during the FY 2022-23 and the same has been approved by the Commission in earlier paragraphs. Therefore, it is required to fixed a tariff for procurement of such power by GRIDCO.

296. The Commission observed that the MYT petition filed by M/s. Vedanta Ltd. before the Commission for the FY 2014-15 to 2018-19 in Case No.95 of 2013 has been disposed of vide its order dated 29.06.2018. No further tariff order has been issued by the Commission for determination of tariff of the IPP Unit-II of M/s. Vedanta Ltd. In the said order the fixed cost was approved as 95.11 P/U for FY 2018-19. However, now considering auxiliary consumption of 6.55% as per the OERC Generation Tariff Regulations, 2020, per unit fixed cost is computed as 95.67 P/U. The Commission provisionally considers the fixed cost of 95.67 P/U and ECR of 179.52 P/U for the purpose of computation of ARR of GRIDCO for the FY 2022-23. Further, the Commission allows Rs.19.31 Crore in tariff towards payment of E.D. on normative auxiliary consumption, the per unit cost of which comes to 3.86 P/U. Accordingly the average tariff for M/s. Vedanta Ltd. comes to 279.05 P/U. The Commission has approved 2628.70 MU for procurement by GRIDCO from M/s. Vedanta Ltd. for the FY 2022-23. Accordingly, the power procurement cost is estimated at Rs.733.52 Crore @ 279.05 P/U for the approved quantum of 2628.70 MU from M/s. Vedanta Ltd. during the FY 2022-23.

M/s GMR Kamalanga Energy Ltd.

297. GRIDCO has submitted that CERC, vide its order dated 29.06.2018 in Petition No.61/GT/2016, have pronounced the tariff order for the control period 2014-19 in respect of procurement the contracted capacity of 262.5 MW by GRIDCO from M/s. GKEL. Further, GKEL has filed MYT application for determination of tariff for the period 2019-24 in Petition No. 407/GT/2020 and for installation of emission control system (i.e., FGD) in Petition No. 300/MP/2018. Both these petitions are now sub-judice before CERC. The Annual Fixed Charges (AFC) as approved by CERC, vide its order in Petition No.61/GT/2016, in respect of GKEL for the control period 2014-19 is given below and GRIDCO has considered the AFC for FY 2022-23 same as that for FY 2018-19.

Table- 33

Fixed Charge for GMR for FY 2022-23(Rs Cr.)

Item	2014-15	2015-16	2016-17	2017-18	2018-19
Total AFC of the IPP	1,228.89	1,255.99	1,272.95	1,280.79	1,258.96
GRIDCO's Share of AFC	307.22	314.00	318.24	320.20	314.74

298. GRIDCO has submitted that, as per the Order dated 20.12.2019 of APTEL in Appeal No. 135/2018 & 54/2018, the firm and tapering linkage assured/supplied to the M/s. GKEL has to be apportioned on pro rata basis among all the beneficiaries. The said order of APTEL has been challenged by GRIDCO before Hon'ble Supreme Court of India on dated 13.10.2020 vide Civil Appeal No 3429 of 2020. However, GRIDCO is now paying the Energy Charge to GKEL provisionally based on the said Order of APTEL. Accordingly, GRIDCO has worked out the average of actual monthly Energy Charge Rate (ECR) at 166.78 P/U considering the ECR for the period from April'21 to Sept.'21 with availability of Linkage, SHAKTI and other sources of coal by GKEL and proposed the same as the ECR for FY 2022-23. Further, GRIDCO has projected the Year-End charges of Rs.6.12 Crore for FY 2022-23 by considering Electricity Duty @ 55 P/U for the proposed drawal of 1670 MU from M/s. GKEL for FY 2022-23. Accordingly, GRIDCO has proposed the procurement cost of Rs.571.49 Crore towards purchase of 1670 MU of energy from M/s. GKEL at an average rate of 342.21 P/U.

Table-34

Proposed Power Purchase Cost of GMR-IPP for FY 2022-23

Energy (MU)	Annual Fixed Charges (Rs. Cr)	Annual Energy Charge (Rs. Cr.)	Year End Charges (Rs. Cr)	Total Projected Cost (Rs. Cr.)	Average Rate (P/U)
1670	286.84*	278.53	6.12	571.49	342.21

* Fixed Charge has been considered proportionately to the drawal of 1670 MU (PLF is worked out to be 77.46%) as per the generation plan submitted by GKEL.

299. The Commission observed that CERC, vide their order dated 29.06.2018 passed in Petition No.61/GT/2016, has determined the tariff for the control period 2014-19. No further order has been issued by CERC in respect of the tariff for IPP-M/s. GKEL. According to the said order dated 29.06.2018, GRIDCO's share of AFC is worked out to be Rs. 314.74 Crore towards 25% of the State share of installed capacity. However, GRIDCO has proposed to draw 1670 MU from M/s. GKEL as per the generation plan submitted by M/s. GKEL which is at the PLF of 77.46%. Accordingly, the proportionate fixed cost would be Rs. 286.84 Crore which is payable by GRIDCO to M/s. GKEL towards drawal of State share of power. Further, considering the actual of ECR claimed by M/s. GKEL in the monthly bills from the month of April'21 to

Sept.'21, as submitted by GRIDCO in its TRT format, the average ECR is computed as 166.72 P/U which has been provisionally considered by the Commission for procurement of power from M/s. GKEL during FY 2022-23. In earlier paragraph, the Commission has approved 1670 MU to be procured by GRIDCO from IPP-M/s. GKEL during FY 2022-23. Hence, the total energy charge for procurement of approved quantum of 1670 MU comes out Rs.278.42 Crore. Further, the Commission allows Rs.6.13 Crore in tariff towards payment of E.D. on normative auxiliary consumption, the per unit cost of which comes out 3.67 P/U for the drawal of 1670 MU. Accordingly, the total power procurement cost is arrived at Rs. 571.39 Crore (Fixed charges- Rs. 286.84 Crore + Energy Charges Rs. 278.42 Crore + ED Rs. 6.13 Crore) at an average rate of 342.15 P/U for drawal of the approved quantum of 1670 MU for state use during the FY 2022-23.

M/s. Nava Bharat Ventures Limited (M/s. NBVL)

300. GRIDCO has submitted that M/s. NBVL has furnished its tentative tariff for the FY 2022-23 along with the generation plan which is at higher side. Since the tariff determination for the IPP-M/s. NBVL is sub-judice before this Commission, GRIDCO has not proposed any drawal from this plant. The Commission observed that as per the revised PPA between GRIDCO and M/s. NBVL, GRIDCO is entitled to draw 12% of total energy sent out from the 60 MW IPP of M/s. NBVL as State share of power at variable cost/ECR to be determined by the Commission. The Commission, vide its order dated 12.01.2022, has fixed the annual plant availability factor, auxiliary energy consumption gross station heat rate and norms of secondary fuel oil consumption for the 60 MW IPP of M/s. NBVL. The Commission has observed that the energy charge is to be calculated as per Regulations 27 (8) and 27 (9) and ECR is to be calculated as per Regulations 27 (10) and 27 (11) of OERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2020 and accordingly billing shall be prepared by the generator. Further, the Commission has provisionally computed the ECR as 209.11 P/U for the 60 MW IPP of M/s. NBVL. The Commission provisionally consider the same for computation of ARR of GRIDCO for the FY 2022-23. In earlier paragraph, the Commission has approved a drawal of 39.66 MU from M/s. NBVL. Accordingly, the Commission approves the power procurement costs of Rs.8.29 Crore towards procurement of 39.66 MU by GRIDCO from 60 MW IPP of M/s. NBVL during the ensuing financial year 2022-23.

M/s Jindal India Thermal Power Ltd. (M/s. JITPL)

301. GRIDCO has submitted that in view of no supply of power by JITPL since May-2019 onwards and on-going litigations, GRIDCO has not proposed any drawal of power from JITPL during FY 2022-23. GRIDCO has stated that both GRIDCO and DoE, GoO have been consistently taking steps for hearing of the W.P (C) No.18150 of 2018 filed by JITPL before Hon'ble Odisha High Court on maintainability of the writ petition. Several dates have been scheduled and in certain dates hearings had commenced and completed with arguments by JITPL. In certain dates the Bench could not sit due to COVID 19 and further hearing could not be taken up after 08.10.2021 due to Puja Holidays followed by change of Bench. GRIDCO expects that new Bench shall shortly hear the matter.
302. GRIDCO has further submitted that, assuming vacation of stay order or disposal of the case pending before Hon'ble High Court of Odisha in favour of GRIDCO, JITPL shall supply power to GRIDCO and under such a situation, there should be a provisional ECR for payment of monthly energy dues to the IPP-M/s.JITPL. Therefore, GRIDCO has prayed the Commission to fix a provisional ECR for the IPP-M/s.JITPL towards drawal of power, if any, during FY 2022-23 which shall be reconciled as per the actual ECR (fuel cost) only based on linkage coal and oil data to be provided by the M/s.JITPL along with the monthly energy bills raised on GRIDCO.
303. The Commission has observed that M/s. JITPL has stopped supplying State share of power to GRIDCO since 23.05.2019. GRIDCO is trying to pursue the matter for early disposal of the cases related to M/s. JITPL pending at different judicial forum so that State share of energy from this IPP will be available at the variable cost only. However, based on the submission of GRIDCO, the Commission has not approved any drawal of power from the IPP-M/s JITPL for the FY 2022-23. However, in case of resolution of disputes between GRIDCO and M/s. JITPL, GRIDCO should draw State share of power from the IPP at the ECR based on the formula given in OERC Generation Tariff Regulations, 2020 and considering linkage coal.
304. In view of the above, the power procurement cost of 4338.36 MU from the above four (4) IPPs is estimated as Rs.1313.20 Crore at an average rate of 302.70 P/U and details are given in the Table below:

Table -35
Power Procurement Cost from IPPs during FY 2022-23

IPPs	Quantity	Average Rate (Prov.)	Cost
	(MU)	(P/U)	(Rs. Crore)
M/s. Vedanta Ltd.	2628.70	279.05	733.52
M/s GMR Kamalanga Ltd.	1670.00	342.15	571.39
M/s. Nava Bharat Ventures Ltd.	39.66	209.11	8.29
M/s Jindal India Thermal Power Ltd.	-	-	-
Total	4338.36	302.70	1313.20

305. The Commission has provisionally considered the above price of the IPPs for the purpose of computation of ARR of GRIDCO for the FY 2022-23. However, GRIDCO should 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, on this account shall be considered in the truing up exercise.

Hydro Generating Stations of Central Sector & Neighbouring Country (Bhutan)

306. **Chukha HEP (Bhutan)** : In its application, GRIDCO has considered procurement of power from Chukha hydro power station during the FY 2022-23 at the rate of 240.16 P/U (including trading margin @ 4 P/U) based on the Office Memorandum dated 08.03.2018 of Ministry of External Affairs, Govt. of India and PTC letter No. C/PTC/Chukha/7388 dtd.13.03.2018. GRIDCO has, therefore, proposed a rate of 248.22 P/U including Inter-State Transmission Loss of 3.247% towards drawal of power from Chukha hydro power station for the FY 2022-23, but excluding transmission charges of ISTS. Thus, the power purchase cost of the proposed drawal of 267 MU is worked out to Rs. 66.27 crore by GRIDCO.

307. The Commission scrutinized the submission of GRIDCO and approves power procurement from Chukka HEP for FY 2022-23 at the rate of 248.43 P/U including Inter-State transmission loss @ 3.33%. So the cost of power from Chukka power station comes out Rs. 66.34 Crore for the approved drawal of 267.05 MU for FY 2022-23. The details are given in Table below:

Table – 36

	GRIDCO's Proposal for FY 2022-23	Commission's Approval for FY 2022-23
Net Energy Drawal (MU)	267.00	267.05
Energy Charge (P/U)	240.16	240.16
Energy Charge incl. Tr. Loss (P/U)	248.22 (C.T.L. @ 3.247%)	248.43 (C.T.L. @ 3.33%)
Cost of Chukka Power (Rs. Cr.)	66.27	66.34

308. **TALA HEP (Bhutan):** GRIDCO has proposed 227.00 P/U (including trading margin @ 4 P/U payable to PTC India) as the estimated power purchase cost towards drawal of power from TALA HEP during the FY 2022-23. This rate of 227 P/U is based on the bills served to GRIDCO in accordance to the PTC Letter No.C/PTC/Tala/2220 dated 11.11.2021. Considering Inter-State Transmission Loss of 3.247%, GRIDCO has estimated the rate of TALA Power as 234.62 P/U. Considering the drawal of 126 MU, the power purchase cost from TALA HEP as worked out by GRIDCO is Rs.29.56 Crore for the FY 2022-23 excluding transmission charges of ISTS.
309. The Commission scrutinized the above proposal of GRIDCO and approves the power procurement from TALA HEP for FY 2022-23 at the rate of 234.82 P/U including the Inter-State transmission loss @ 3.33%. So the cost of TALA power comes out Rs.29.54 Crore for the approved drawal of 125.80 MU for FY 2022-23. The details are given in Table below:

Table – 37

	GRIDCO Proposal for 2022-23	Commission's Approval for 2022-23
Net Energy Drawal MU	126.00	125.80
Energy Charge (P/U)	227.00	227.00
Energy Charge incl. Tr.Loss (P/U)	234.62 (C.T.L. @ 3.247%)	234.82 (C.T.L. @ 3.33%)
Cost of Tala Power (Rs. In Cr.)	29.56	29.54

310. **MANGDECHHU HEP (Bhutan):** In the ARR and BSP Application for FY 2022-23, GRIDCO has considered the cost of power from Mangdechu HEP as 419 P/U (including the PTC Margin of 7 P/U). GRIDCO has submitted the copies of the protocol to the Agreement (signed on 23.04.2019) between the Govt. of the Republic of India & the Royal Govt. of Bhutan regarding Mangdechu HEP and the Power Sale Agreement executed between PTC & GRIDCO on 30.08.2019 to this effect. Considering Inter-State Transmission Loss @ 3.247%, the rate of Mangdechu power becomes 433.06 P/U. Accordingly, GRIDCO has estimated the power purchase cost of Mangdechu power at Rs.139.88 Crore for procurement of 323 MU @ 433.06 P/U during FY 2022-23.
311. The Commission scrutinized the above proposal of GRIDCO and approves the power procurement from Mangdechhu HEP for FY 2022-23 at the rate of 433.43 P/U including Inter-State transmission loss @ 3.33%. Hence, the cost of Mangdechhu HE

power comes out Rs.139.93 Crore for the approved drawal of 322.84 MU during FY 2022-23. The details are given in Table below:

Table –38

	GRIDCO's Proposal for 2022-23	Commission's Approval for 2022-23
Net Energy Drawal MU	323.00	322.84
Energy Charge (P/U)	419.00	419.00
Energy Charge incl. Tr.Loss (P/U)	433.06 (C.T.L. @ 3.247%)	433.43 (C.T.L. @ 3.33%)
Cost of Mangdechhu Power (Rs. In Cr.)	139.88	139.93

312. **TEESTA HEP:** GRIDCO has submitted that it has relied on the tariff petition filed by NHPC before CERC for determination of fixed cost of Teesta-V HEP for the control period FY 2019-20 to FY 2023-24. Thus, GRIDCO has prayed the Commission to approve power purchase cost of Teesta-V based on the said petition filed by NHPC, subject to revision and final tariff determined by CERC. GRIDCO further submits that relying on actual data of NHPC bills would not be appropriate for deciding the tariff for previous control period. GRIDCO's share in the AFC of this power station would be to the tune of Rs. 429.7642 crore for the FY 2022-23, as per petition filed by NHPC before CERC. GRIDCO has estimated the power procurement cost as Rs.103.90 Crore (Fixed cost Rs.51.95 Crore & variable cost Rs.51.95 Crore) towards proposed drawal of 506 MU from Teesta-V Station of NHPC with average rate of 205.33 P/U during FY 2022-23. The proposal of GRIDCO is summarized in the table below:

Table-39
Power purchase cost of Teesta V

Name of the Power Stations	Energy (MU)	Fixed Charges (Rs. Cr.)	Energy Charges (Rs. Cr.)	Year End Charges (Rs. Cr.)	Total Projected Cost (Rs. Cr.)	Rate (P/U)
Teesta V	506	51.95	51.95	-	103.90	205.33

313. After due scrutiny, the Commission observed that as per the petition filed by NHPC before CERC, the Annual Fixed charges of TEESTA-V for FY 2022-23 is Rs. 429.76 Crore and accordingly the average rate of TEESTA Power comes to 192.14 P/U considering the net energy sent out of 2541.80 MU (design energy less normative auxiliary consumption). Hence, the average rate per unit of TEESTA power computed to be 198.75 P/U inclusive of inter-state transmission loss of 3.33% for FY 2022-23.

Accordingly, the cost of TEESTA power comes out Rs.100.56 Crore for the approved drawal of 505.93 MU during FY 2022-23. The details are given in Table below:

Table – 40

	GRIDCO Proposal for FY 2022-23	Commission's Approval for FY 2022-23
Net Energy Drawal MU	506.00	505.93
Energy Charge (P/U)	198.66	192.14
Energy Charge incl. Tr. Loss (P/U)	205.33 (C.T.L. @ 3.247 %)	198.75 (C.T.L. @ 3.33%)
Cost of Teesta Power (Rs. In Crore)	103.90	100.56

Central Sector Thermal Power Stations

314. GRIDCO has submitted that the Capacity Charge (Fixed Cost) of the Thermal Stations of NTPC are being claimed as per the relevant Tariff Orders / Regulations approved by the CERC as amended from time to time. The CERC (Terms and Conditions of Tariff) Regulation, 2019 has been pronounced vide Notification dtd. 07.03.2019 and is effective from 01.04.2019. But the Tariff Orders for all the respective ER Generating Stations for the block period 2019-24 have not been pronounced by the CERC till date. Hence, in the absence of the Tariff Order for ER Generating Stations, GRIDCO, in the application for FY 2022-23, has considered the fixed cost of the central generating station based on the petition filed by NTPC before CERC. GRIDCO has projected the fixed cost of the new NTPC station i.e. Barh STPS-I in proportion to its share of energy drawal. Further, GRIDCO has stated that after confirmation regarding COD and approval of PPA in respect of North Karanpura thermal power station, GRIDCO shall approach the Commission to include the allotted capacity and its associated power purchase cost in its ARR.
315. Further, GRIDCO has stated that at present, NTPC is claiming energy charges as per Tariff Regulations 2019-24. Therefore, in its application GRIDCO has projected the Energy Charge Rate (ECR) based on the average of actual data of first 6 months of FY 2022-23 and prayed the Commission to approve the same for the FY 2021-22 in respect of central generating stations. However, in case of Barh STPS-I, GRIDCO has considered ECR as per the submission of NTPC before CERC.
316. GRIDCO has further submitted that it has projected the Year-End charges for FY 2022-23 in respect of existing central sector generating stations considering the actual Year-End Charges for FY 2020-21. The year-end charges for FSTPS-I & II and

KHTPS-I are prorated for FY 2022-23 considering the limited share towards solar bundled power. The Year-End Charges includes RLDC Charges, ED on Auxiliary Consumption and incentive and other cost [i.e. Compensation Charges which has been claimed by NTPC due to under drawl by GRIDCO below 85% in line with the mandate mentioned in CERC (Compensation charges Regulation) 2016]. The total amount estimated by GRIDCO for FY 2022-23 is Rs.66 Crore which includes Rs.29 Crore towards Compensation. GRIDCO has prayed the Commission to approve the same. The power purchase cost of NTPC Thermal Power stations as proposed by GRIDCO for the FY 2022-23 are given in the Table below:

Table-41
Proposed Power Purchase Cost of Thermal Stations of NTPC for FY 2022-2023

Name of the Power Stations	Energy (MU)	Fixed Charges (Rs. Cr.)	Variable Charges (Rs. Cr.)	Year End Charges (Rs. Cr.)	Other Cost (Rs. Cr.)	Total Projected Cost (Rs. Cr.)	Unit Rate (Including Reimbursement Charges (P/U)
FSTPS-I & II	39.34	5.19	11.94	0.01	0.80	17.94	456.05
FSTPS-III	503.27	99.83	149.99	0.06	5.76	255.64	507.95
KhSTPS-I	27.67	3.26	6.93	0.16	0.06	10.40	375.89
KhSTPS-II	266.97	25.71	63.43	0.02	0.51	89.66	335.84
TSTPS-I	2175.82	213.88	412.49	6.26	19.50	652.13	299.72
TSTPS-II	1317.38	124.33	248.15	18.07	0.00	390.55	296.46
DSTPS	6356.29	1322.39	638.21	9.81	0.00	1970.41	307.99
Barh-I	1937.73	521.25	494.12	0.00	0.00	1015.37	524.00
Total	12624.47	2315.83	2025.26	34.39	26.63	4402.12	348.70

317. **Fixed Charge:** The Commission scrutinized the proposal of GRIDCO and observed that GRIDCO has proposed to draw 1937.73 MU from Barh STPS-I during FY 2022-23 with a cost of Rs.1015.37 Crore. Since the Commission has earlier disapproved the PPA executed between GRIDCO & NTPC in respect of Barh STPS-I, the Commission has not considered any drawl of power and hence, no fixed charges in respect of Barh STPS-I is considered by the Commission for the FY 2022-23. Further, since the normal service life of the TSTPS-I will be over on 30.06.2022, the Commission has considered the drawal of power from this power station for a period of three months only during the FY 2022-23. Accordingly, the state share of fixed cost of TSTPS-I has been considered for three months only. The Commission direct GRIDCO to decide whether they will renew/extend the existing PPA with NTPC in respect of TSTPS-I. In case GRIDCO renew/extends the existing PPA, then the

Commission will consider the State share of fixed cost of TSTPS-I from the date of renewal/extension of the PPA and the same shall be factored in the truing up of GRIDCO's account or passed through in the ARR of GRIDCO in future year. The Commission further observed that since no tariff orders have been issued for the FY 2022-23 in respect of NTPC-ER Thermal Generating Stations, GRIDCO has considered the Fixed Charges in line with petition filed by NTPC before CERC for the period from 2019-24. However, the Commission has provisionally considered the fixed cost of NTPC thermal generating stations based on the present bills raised by NTPC to GRIDCO for the month of December, 2021 and factoring the same with the normative plant availability factor of these stations.

318. **Energy Charge Rate (ECR):** The Commission observed that GRIDCO has computed the energy charge rate of NTPC stations for the FY 2022-23 based on actual data of first 6 months of FY 2021-22. The Commission scrutinized the bills submitted by NTPC to GRIDCO from the month of April, 2021 to December, 2021 and has computed the average ECR of the Eastern Region NTPC stations as given in the table below:

Table-42
Average ECR of Central Sector Generating Stations for the period from Apr'21 to Dec'21

MONTH	FSTPS - I & II ECR Rs./ KWH	FSTPS- III ECR Rs./ KWH	KSTPS-I ECR Rs./ KWH	KSTPS -II ECR Rs./ KWH	TSTPS-I ECR Rs./ KWH	TSTPS - II ECR Rs./ KWH	DARLIPALLI ECR Rs./ KWH
Apr-21	2.667	2.618	2.138	2.028	1.894	1.906	0.941
May-21	2.821	2.769	2.287	2.169	1.826	1.805	0.947
Jun-21	2.947	2.892	2.398	2.274	1.918	1.901	0.969
Jul-21	3.100	3.043	2.607	2.472	1.890	1.874	0.990
Aug-21	3.131	3.074	2.689	2.550	1.793	1.777	1.001
Sep-21	2.981	2.927	2.401	2.277	1.681	1.666	0.982
Oct-21	3.014	2.958	2.792	2.647	1.629	1.615	0.946
Nov-21	2.895	2.841	2.639	2.503	1.709	1.694	1.090
Dec-21	2.709	2.660	2.732	2.591	1.671	1.657	1.208
Avg. ECR from 4/21 to 12/21	2.914	2.861	2.531	2.400	1.781	1.768	1.008

319. From the above table, it is observed that the variation in ECRs of the central sector generating stations do not follow any particular pattern. Therefore, the Commission has considered the average of actual ECR of first nine months of the current FY 2021-22 (i.e. from April, 2021 to December, 2021) of the Central Sector Thermal Power Stations for the purpose of computation of ARR of GRIDCO for FY 2022-23 and the same is given in the Table below.

Table –43
Energy Charge Rate (ECR) of CGSs approved for 2022-23

(Paise/Unit)

Central Thermal Stations	GRIDCO's Proposal for 2022-23 (including Loss)	Approval of the Commission considering the Avg. of actual ECR from April'21 to Dec'21 (excluding central Tr. Loss)	Approval of the Commission including central sector Tr. Loss
TSTPS-I	189.58	178.08	184.22
TSTPS-II	188.37	176.83	182.92
FSTPS-I & II	303.62	291.42	301.46
FSTPS -III	298.03	286.06	295.91
KHSTPS-I	250.54	253.08	261.80
KHSTPS-II	237.58	240.00	248.27
DSTPS-I	100.41	100.81	104.28

320. In case of any variation in ECR during 2022-23 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 2023-24.
321. **Year-end Adjustment Charges (YEA):** In its application GRIDCO had proposed the year-end adjustment charges of central sector generating stations for FY 2022-23 to the tune of Rs.34.39 Crore based on the actual data for the FY 2020-21. However, in case of DSTPS-I, GRIDCO has considered only ED on auxiliary consumption towards Year End charges at normative availability. Further, GRIDCO has included other cost such as compensation charges claimed by NTPC on GRIDCO towards under drawal below 85% of the plant availability amounting to Rs.26.63 Crore in the proposed Year-end Charges for FY 2022-23.
322. The Commission examined the above proposal of GRIDCO and after scrutiny approves the Year-end Charges of Rs.27.15 Crore for the FY 2022-23 in respect of NTPC's thermal power stations, which includes ED on normative auxiliary consumption and RLDC charges only. The above approval of ED and RLDC charges is based on the actual data of FY 2020-21 for NTPC's stations. The Commission does not allow any incentive as normative generation has been considered for FY 2022-23. The details of the year-end charges approved by the Commission are given in the table below:

Table –44
Year End Charges Approved for the FY 2022-23

Central Generating Stations	Electricity Duty (Rs. Cr.)	RLDC Charges (Rs. Cr.)	Total (Rs. Cr.)	Estimated energy after Central Tr. Loss (MU)	Rate including loss (P/U)
TSTPS –I	2.34	0.05	2.39	541.01	4.41
TSTPS-II	0.00	0.08	0.08	1349.63	0.06
FSTPS- I & II	0.00	0.13	0.13	59.48	2.19
FSTPS – III	0.00	0.06	0.06	578.66	0.10
KhSTPS –I	0.00	0.08	0.08	29.49	2.71
KhSTPS –II	0.00	0.02	0.02	265.30	0.08
DSTPS-I	24.09	0.30	24.39	6350.84	3.84
Total	26.43	0.72	27.15		

323. Taking all the above costs into account, the summary of estimated power purchase cost in respect of drawl of power from Central Sector Thermal Generating Stations by GRIDCO for FY 2022-23 is given in the table below:

Table –45
Summary of Power Purchase Cost from Central Generating Stations for FY 2022-23

Sl. No.	Generators	Estimated Availability of Energy (MU)	Approved drawal of Energy (MU)	Fixed Cost (Rs. Cr.)	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	541.01	541.01	53.67	99.20	184.22	4.41	287.82	155.71
2	TSTPS St-II	1349.63	1349.63	99.70	73.87	182.92	0.06	256.85	346.65
3	FSTPS I & II	59.48	0.00	5.07	85.28	301.46	2.19	388.93	5.07
4	FSTPS III	578.66	0.00	89.28	154.29	295.91	0.10	450.31	89.28
5	KhTSPS St-I	29.49	0.00	3.20	108.41	261.80	2.71	372.92	3.20
6	KhTSPS St-II	265.30	0.00	29.89	112.66	248.27	0.08	361.00	29.89
7	DSTPS-I	6350.84	6350.84	1091.56	171.88	104.28	3.84	280.00	1778.20
NB: The rates include Central Transmission Loss.									

Transmission Charges for PGCIL System

324. GRIDCO has submitted that the Transmission Charges of PGCIL & other Inter-State Transmission System are being determined as per the norms and principles laid down by the CERC from time to time. CERC has notified CERC (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2020 on dtd. 04.05.2020 which is effective from 01.11.2020. According to the said Regulations, the Inter-State Transmission System charges shall have the following components:

- a. National Component (NC)
- b. Regional Component (RC)
- c. Transformer Component (TC)
- d. AC system Component (ACC)

325. GRIDCO has stated that as per the above Regulations, the ISTS Licensees have to submit their Yearly Transmission Charges (YTC) data which is examined by NLDC and considered for computation of transmission charges for Designated ISTS Customers (DICs) for respective billing period. Such sharing of Transmission Charges for DICs is based on Ex-post calculation and on monthly basis. GRIDCO has estimated the Monthly Transmission Charges (MTC) for FY 2022-23 based on trend of the MTC for the billing month of April 21 to November 21. Accordingly, considering above components as base, the ISTS Transmission Charges of Odisha has been calculated by GRIDCO taking into consideration of the Long Term Access (LTA) of the upcoming Generation plants excluding North Karanpura. The average LTA of 1949.92 MW has been projected by GRIDCO for FY 2022-23. GRIDCO has stated that as the transmission charges are levied as capacity charges, if the scheduling of power will be lesser, the average Transmission charges per unit for ISTS will increase. Further, since the calculations are made on all India basis and with limited data, it is difficult to project the exact MTC / exact quantity of LTA under the said new Regulations. Therefore, certain assumptions have been made by GRIDCO to arrive at the projections of transmission charges for FY 2022-23. Accordingly, GRIDCO has proposed the estimated Transmission Charges Rs.792.35 Crore for FY 2022-23.
326. The Commission observed that the transmission charges for Inter-State Transmission System (ISTS) is fixed by the principles and norms laid down by the CERC from time to time. CERC has notified CERC (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2020, which is effective from 04.05.2020. In its TRT format, GRIDCO has submitted that for the billing month December, 2021 onwards, LTA for GRIDCO has been considered by subtracting LTA of FSTPS-I&II and KhSTPS-I and adding LTA of DSTPS (Unit-II). GRIDCO has further stated that there is no change in LTA for the ensuing year 2022-23 as there is no upcoming generating station. Further, from the Regional Transmission Accounts (RTA) notified ERPC for the month of January, 2022, February, 2022 and March, 2022, the Commission observed that total central transmission charges payable by GRIDCO are Rs.62.96 Crore, Rs.67.66 Crore and Rs.61.07 Crore respectively. The average transmission charges for these three months comes to Rs.63.90 Crore and prorating the same for the whole year, the total transmission charges for a year is estimated to Rs.766.79 Crore. As

there is no change in LTA of 1949.74 MW for the ensuing year, as stated by GRIDCO, the Commission considers Rs.766.79 Crore towards central transmission charges for the ensuing year 2022-23. Further, in replying to the Commission's queries GRIDCO has submitted that it has received an amount of Rs.72.30 Crore from Short-term open access customers till January, 2022. Prorating the same for the whole year, it is estimated that GRIDCO would receive an amount of Rs.86.76 Crore from STOA customers during FY 2021-22. Considering the same for the FY 2022-23 and factoring it with the estimated transmission charges of Rs.766.79 Crore, the net transmission charges of ISTS comes to Rs.680 Crore. Therefore, the Commission provisionally approves Rs.680 Crore towards transmission charges of ISTS for the FY 2022-23.

POSOCO Fees and Charges

327. GRIDCO has submitted that as per CERC (Fees and Charges of Regional Load Despatch Centre and other related matters) Regulations 2019, the RLDC fees and charges shall comprise of fees to be recovered by POSOCO towards registration for commencement of Grid access, scheduling and also annual charges to be collected in the form of annual LDC charges from the users. The RLDC charges shall be collected equally (1/3rd of Monthly Charges) from (a) Distribution Licensees & Buyers (b) Generating Stations & Sellers and (c) Transmission Licensees. GRIDCO has forecasted the ERLDC fees and POSOCO charges of Rs 2.67 Crore for FY 2022-23 by prorating the actual expenses of Rs. 1.56 Crore for the period from April'21 to Oct' 2021. The Commission accepts the proposal of GRIDCO and allow Rs.2.67 Crore in the ARR of GRIDCO towards POSOCO charges for the FY 2022-23. The Commission observed that one of the objectors has suggested for calculating ISTS and POSOCO charges proportionate to the drawal of energy from the central sector generating station with respect to the total energy requirement of DISCOMs. The objector has further submitted that since the DISCOM requirements for FY 2022-23 can be met from OHPC, OPGC, full State share of IPPs and renewable sources, the DISCOMs neither require power from central sector nor to pay the ISTS charges. Hence, ISTS charges may be excluded while determining the power purchase cost of DISCOMs. The Commission observed that the transmission charges for inter-state transmission system (ISTS) is fixed by the principles and norms laid down by the CERC from time to time. Now, the existing CERC (Sharing of Inter-State

Transmission Charges and Losses) Regulations, 2020, is in force with effective from 04.05.2020. Accordingly, Regional Transmission Accounts (RTA) is being notified ERPC on monthly basis for ISTS charges based on the Long Term Access (LTA) of the DISCOMs (GRIDCO in our State) for the capacity tied up with the central sector power stations. This is not being calculated based on the actual drawal of power from the central sector generating stations. Hence, GRIDCO has to pay the ISTS charges for the LTA of its tied up capacity irrespective of its drawal from the central sector generating stations for State use. Accordingly, the transmission charges and POSOCO charges payable by GRIDCO for the FY 2022-23 are given in the table below:

Table – 46
PGCIL Transmission Charges for FY 2022-23

Particulars	Commission's Approval
Transmission charge payable by GRIDCO factoring the amount receivable from STOA customers (Rs. Cr.)	680.00
POSOCO Charges (Rs. Cr.)	2.67
Total amount payable by GRIDCO (Rs. Cr.)	682.67

328. 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 2022-23 are given in the table below:

Table –47
GRIDCO's Proposal & Commission's Approval for FY 2022-23

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)	3452.36	98.26	339.24	3660.22	91.71	335.69
Indravati	1703.79	102.80	175.15	1942.38	85.27	165.62
Machakund	259.88	110.90	28.83	259.88	110.90	28.82
Total State Hydro	5416.03	100.30	543.21	5862.48	90.43	530.13
OPGC 1 & 2 nd Unit	2597.99	279.03	724.91	2636.04	265.31	699.38
OPGC 3 & 4 th Units	6919.90	313.62	2170.19	4862.04	330.00	1604.47
IPPs	4298.70	307.52	1321.93	4338.36	302.70	1313.20
Total State Thermal	13816.59	305.21	4217.03	11836.44	305.59	3617.05
Small Hydro	456.35	403.46	184.12	456.35	415.38	189.56
Biomass	80.00	733.00	58.64	80.00	733.00	58.64
Wind	975.87	278.68	271.96	975.87	278.68	271.96
Solar	1800.00	362.74	852.94	1800.00	360.96	649.74
Total RE	3312.22	352.53	1167.65	3312.22	353.20	1169.89
TOTAL STATE	22544.83	262.94	5927.88	21011.13	253.06	5317.08
CHUKHA	267.00	248.22	66.27	267.05	248.43	66.34

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.
Tala HPS	126.00	234.62	29.56	125.80	234.82	29.54
Mangdechhu	323.00	433.06	139.88	322.84	433.43	139.93
Teesta-V	506.00	205.34	103.90	505.93	198.75	100.56
Total Central Hydro	1222.00	277.92	339.62	1221.62	275.35	336.37
TSTPS - I	2175.82	299.72	652.14	541.01	287.82	155.71
TSTPS - II	1317.38	296.46	390.55	1349.63	256.85	346.65
FSTPS -I & II	39.37	456.04	17.95	0.00	388.93	5.07
FSTPS -III	503.25	507.97	255.63	0.00	450.31	89.28
KhTPS – I	27.69	375.95	10.40	0.00	372.92	3.20
KhTPS – II	267.00	335.86	89.67	0.00	361.00	29.89
DSTPS-I	6356.30	309.99	1970.39	6350.84	280.00	1778.20
Barh-I	1937.73	524.00	1015.37	-	-	-
Total Central Thermal	12624.50	348.70	4402.11	8241.48	292.18	2408.01
Total Central Sector	13846.50	342.45	4741.73	9463.10	290.01	2744.38
PGCIL Tr. Charge	-	-	792.35	-	-	680.00
ERLDC Charges	-	-	2.67	-	-	2.67
FC towards balance power of OPGC (Units 3 & 4)	-	-	-	-	-	327.80
TOTAL GRIDCO	36391.33	315.04	11464.63	30474.23	297.69	9071.93
Less: Revenue from trading of surplus power	7036.65	289.00	2033.59	-	-	-
Net GRIDCO	29354.67	321.28	9431.04	30474.23	297.69	9071.93

NB: The rates include Central Transmission Loss

329. The Commission has not allowed drawal from some Central Sector Generating Stations considering merit order principle, but allowed the fixed charges of all power stations towards State share (except Barh STPS-I). The fixed charges as well as the drawal from Barh STPS-I has not been allowed as the Commission has already disapproved the PPA in respect of Barh STPS-I based on the petition filed by GRIDCO. Further, the Commission has allowed drawal and fixed charges for three months only in respect of TSTPS-I as stated earlier since the service life of this power station will be over on 30.06.2022.
330. The Commission's approval of power purchase for State consumption is based on the merit order dispatch principles in order to optimise the power procurement cost. Hence, any deviation from the merit order dispatch principle should be avoided by

GRIDCO. In past years, it is observed that there has been differences between the Commission's approval and actual drawal of energy by GRIDCO. Therefore, the Commission directs GRIDCO to follow the merit order dispatch principle while purchasing power for State consumption. Any major deviation in real time power purchase should be intimated to the Commission. GRIDCO should put sincere effort to optimize and rationalize the cost of power purchase. The Commission shall review the quantum and cost of power purchase based on merit order during performance review of GRIDCO. Accordingly, GRIDCO shall furnish the relevant data during the review of its performance along with the justifications and rationales in case of any deviation from merit order dispatch principle. The Commission shall also consider the same along with other expenses during truing up exercise.

Rebate for Prompt Payment from the Generators

331. As per the OERC Generation Tariff Regulations, 2020, the bills of the generating company for payment through letter of credit on presentation or through NEFT/RTGS within a period of two (2) working days, a rebate of 2% shall be allowed. Where payments are made on any day after two (2) working days and within a period of five (5) working days of presentation of bills by the generating company, a rebate of 1.5% shall be allowed. Where payments are made on any day after five (5) working days and within a period of thirty days of presentation of bills by the generating company, a rebate of 1% shall be allowed. Further, in case the payment of any bill for charges payable under these regulations is delayed by a beneficiary beyond a period of forty five (45) days from the date of receipt of the bill, a late payment surcharge at the rate of 1.25% per month shall be levied by the generating company. The Commission advises that the above provisions of rebate and late payment surcharge should be followed. However, if the PPA between GRIDCO and the generator have provisions different from the above, the provisions of the approved PPA shall be followed.

Pass through of costs in the ARR & BSP of GRIDCO for FY 2022-23

332. GRIDCO has submitted that the uncontrollable costs, such as of STU chargers of other State towards procurement of Renewable Energy, differential power purchase cost in respect of the IPP of M/s. GKEL and central sector hydro station i.e. Tala HEP, additional power purchase cost in case of Small/Mini Hydel Projects for FY 2020-21 and 2021-22, deferred Tax liability of Teesta-V HEP for FY 2020-21 and additional power purchase cost of NTPC's plants have been paid by GRIDCO which

was not approved by the Commission in the ARR of GRIDCO in previous years. In total GRIDCO has claimed an amount of Rs.816.90 Crore under Pass Through in its ARR for FY 2022-23 as detailed here under.

STU Charges/Scheduling Charges of Other States for RE Procurement

333. GRIDCO has submitted that it has paid STU/SLDC/RLDC charges amounting to Rs.10.16 Crore during FY 2020-21 towards procurement of Renewable Energy from outside the State which was not approved in the ARR & BSP order. Further, in its application, GRIDCO has also submitted that it has paid a total amount of Rs.45.48 Crore for FY 2020-21 & FY 2021-22 towards STU charges for sourcing Renewable Energy from other States which was not approved in the respective year's ARR and proposed the same as pass through expenses for the FY 2022-23. GRIDCO has further submitted that as per CERC order dated 02.04.2020 and claim of SECI, GRIDCO has paid GST compensation of total Rs.9.82 Crore towards procurement of solar power from other States under MNRE VGF Scheme, Phase-II, Batch-IV (Rs.7.29 Crore in respect of 20 MW power from M/s. Sadipali Solar Pvt. Ltd. and Rs.2.53 Crore in respect of 10 MW power from M/s. Jyoti Solar Solutions Pvt. Ltd.). Further, GRIDCO has submitted that in reference to the CERC order dated 03.02.2020 in Petition No.51/MP/2019 with regard to Safeguard Duty Claims of M/s Azure Power Forty Three Pvt. Ltd. (the Solar Power Developer for the 300 MW solar project), SECI has reconciled the Safeguard Duty Claims of total Rs.101,61,78,110/- for provisional payment, based on the submissions of the documents by the SPD/ SECI as per the principles laid down by CERC in its order dated 20.08.2021 in Petition No.536/MP/2020. As per this order dated 20.08.2021, the methodology for payment of the Safeguard Duty Claims shall be on annuity basis and the discount rate of annuity payments shall be 10.41 % for tenure of 13 years. The liability of SECI / GRIDCO for "Monthly Annuity Payment" starts from 60th day of the date of orders of respective petitions or from date of submission of claims by the SPD, whichever is later and any delay in the release of payment will attract late payment surcharge. Accordingly, GRIDCO has calculated the monthly annuity payment against the Safeguard Duty Claims up to CoD as Rs.1.16 Crore and further a lump sum amount of Rs.5.86 Crore is to be paid by GRIDCO upfront towards the same. Thus, GRIDCO has proposed an amount of Rs.11.66 Crore as pass through in the ARR for FY 2022-23 on account of Safeguard Duty Claims of the SPD. Accordingly, GRIDCO has

proposed a total amount of Rs.66.96 Crore as passed through in its ARR for FY 2022-23 towards STU/Scheduling charges of other states for RE procurement.

334. The Commission scrutinized the above proposal of GRIDCO and observed that GRIDCO has paid an amount of Rs.10.16 Crore towards procurement of Renewable Energy from outside State on account of STU/SLDC/RLDC charges, which was not approved in the ARR & BSP order of GRIDCO. However, in its application GRIDCO has inadvertently mentioned the same as Rs.45.48 Crore and consider it in the computation of its ARR. Therefore, the Commission approves an amount of Rs.10.16 Crore as pass through in the ARR of GRIDCO for FY 2022-23 as this amount was paid by GRIDCO towards STU/SLDC/RLDC charges on account of procurement of RE power from other States. Further, the Commission observed that GRIDCO has paid total amount of Rs.9.82 Crore to SECI towards GST compensation charges with reference to the claim of SECI, vide its letter dated 04.08.2020 in respect of the payment of Rs.7.29 Crore for drawal of 20 MW solar power from M/s. Sadipali Solar Pvt. Ltd. and vide letter dated 11.09.2020 in respect of the payment of Rs.2.53 Crore for drawal of 10 MW solar power from M/s. Jyoti Solar Solution Pvt. Ltd. Hence, the Commission approves an amount of Rs.9.82 Crore as pass through in the ARR of GRIDCO towards payment of said GST compensation. The Commission further observed that GRIDCO has claimed an amount of Rs.11.66 Crore towards payment on Safeguard Duty Claims of M/s Azure Power Forty Three Pvt. Ltd. As per the CERC order dated 20.08.2021 in Petition No. 536/MP/2020, GRIDCO has to pay the upfront lump sum amount of Rs.5.86 Crore and monthly annuity payment of Rs.1.16 Crore for a tenure of 13 years. Accordingly, GRIDCO has started payment w.e.f. the month November, 2021 and computed the amount of Rs.5.80 Crore considering monthly payment for 5 months i.e. from November, 2021 to March, 2022. Adding the upfront lump sum amount of Rs.5.86 Crore, GRIDCO has claimed the total amount of Rs.11.66 Crore as pass through in its ARR for FY 2022-23. The Commission approves the said amount of Rs.11.66 Crore as pass through in the ARR of GRIDCO for the FY 2022-23. Accordingly, the Commission approves total amount of Rs.31.64 Crore against GRIDCO's proposal of Rs.66.96 Crore in respect of above mentioned items which is summarised in the Table below.

Table-48**(Rs. in Crore)**

Particulars	GRIDCO's proposal	Commission's approval
STU Charges paid towards sourcing of Renewable Energy from Outside the State	45.48	10.16
Payment of GST Compensation under Change in Law event	9.82	9.82
Payment towards Safeguard Duty Claims of M/s Azure Power Forty Three Pvt. Ltd. under Change in Law event	11.66	11.66
TOTAL	66.96	31.64

Water Cess, SLDC Charges and Power Purchase Cost of Mini/Small HEP

335. GRIDCO submitted that as per the Commission's direction in Case No. 17/2011, it has reimbursed an amount of Rs.0.146 Crore to M/s OPCL towards SLDC Charges and Water Cess of the 20 MW Samal Barrage SHEP and SLDC charges of 24 MW Lower Baitarani SHEP of M/s BPPPL for FY 2020-21. Further, as per the Commission's order in Case No. 25/2001, GRIDCO has to pay an amount of Rs.4,63,257/- to OPGC towards purchase of renewable power from its 650 KW Biribati Mini Hydrel Project and 500 KW Kendupatana Mini Hydrel Project. Accordingly, GRIDCO has claimed a total amount of Rs.1.25 Crore as given in the table below. But in the abstract table of its application, GRIDCO has inadvertently mentioned the same as Rs.1.52 Crore and computed its ARR accordingly.

Table-49**(Figures in Rupees)**

Name of Station	Reasons of Pass through Expenses	Relating to Financial Year	Amount Proposed as Pass through
20 MW Samal Barrage SHEP of M/s OPCL	SLDC Charges and Water Cess reimbursed as per Commission's direction	FY 2020-21	13,37,819
24 MW Lower Baitarani SHEP of M/s BPPPL	SLDC Charges	FY 2020-21 (August,2020 to March,2021) FY 2021-22 (April,2021 to October,2021)	2,14,769
650 kW Biribati MHP of OPGC	OERC direction in Case No. 25/2021	FY 2007-08 to 2018-19 (Except FY 2013-14)	45,30,598
500 kW Kendupatana MHP of OPGC	OERC direction in Case No. 25/2021	FY 2007-08 to FY 2018-19	64,32,522
TOTAL			1,25,15,708

336. The Commission scrutinized the above proposal of GRIDCO and allows Rs.1.25 Crore as pass through in the ARR of GRIDCO for the FY 2022-23 towards reimbursement of water cess, SLDC charges and power purchase cost in respect of the above mentioned Mini/Small Hydel Projects.

Payment to Central Hydro Stations

337. GRIDCO has submitted that it has paid an amount of Rs.11.56 Crore during April to September, 2021 towards Deferred Tax liability of Teesta-V HEP. Thus, GRIDCO has proposed the same as Pass Through in its ARR for FY 2022-23. After scrutiny, the Commission observed that NHPC vide its invoice dated 24.06.2021 has claimed an amount of Rs.11.56 Crore towards deferred tax liability against drawal of power from Teesta-V HEP for the FY 2020-21 and the same has been paid by GRIDCO. Hence, the Commission accepts the proposal of GRIDCO and allows Rs.11.56 Crore as pass through in the ARR of GRIDCO for the FY 2022-23 towards Deferred Tax Liability of Teesta-V HEP.
338. GRIDCO has further submitted that, the Commission in its ARR and BSP order for FY 2021-22 has considered the power purchase cost @ 224.04 P/U towards drawal of power from TALA HEP. However, the rate for Tala power has been revised @ 227 P/U which is applicable w.e.f 01.12.2021. Based on the approved drawal of 124.69 MU for FY 2021-22, GRIDCO has estimated the differential power purchase cost of Rs.0.48 Crore towards drawal of power from Tala HEP during the period from December, 2021 to March, 2022 and proposed the same amount as pass through in the ARR of GRIDCO for FY 2022-23. The Commission scrutinized the above proposal of GRIDCO and allows Rs. 0.48 Crore as pass through in the ARR of GRIDCO for FY-2022-23 towards differential power purchase cost for the drawal from Tala HEP.

Arrear Payment of M/s. GKEL

339. GRIDCO has submitted that the Commission while approving ARR of GRIDCO for FY 2018-19 vide order dated 22.03.2018 in Case No. 76 of 2017, had accepted pass through of Rs.171.32 Crore which was paid by GRIDCO pertaining to the period from FY 2014-15 to 2016-17. This is on account of tariff determined by CERC in respect of M/s. GMR Kamalanga Energy Ltd. (towards differential arrear released on

account of fixed charges (PAFM figure), ECR (based on landed price and GCV of linkage coal only) .The relevant extract of the said ARR order is reproduced below:

“268. The Commission scrutinised 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 Ltd. 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 Crores 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 Crores in three years. Accordingly an amount of Rs.57.11 Crores (i.e. one third of the total claim of Rs.171.33 Crores) is approved as pass through in the ARR of GRIDCO for the FY: 2018-19 towards payment of arrear dues to M/s. GKEL.”

340. GRIDCO submitted that, they have inadvertently missed to claim the 2nd and 3rd instalments amounting to Rs.114.11 Crore (i.e. 2 x Rs.57.11 Crores) while filing ARR application for FY 2019-20, FY 2020-21 and FY 2021-22. Therefore, now GRIDCO has prayed the Commission to consider Rs.114.11 Crore as allow pass through in the ARR of GRIDCO for FY 2022-23.
341. After scrutiny of the above proposal of GRIDCO, the Commission observed that GRIDCO has paid the aforesaid amount to M/s. JKEL during FY 2017-18 and in the meantime the accounts of GRIDCO has been trued up till FY 2019-20. Hence, the Commission does not accept the proposal of GRIDCO to pass through the amount of Rs.114.11 Crore in the ARR of GRIDCO for FY 2022-23.

Year End Charges to M/s.Vedanta Ltd and M/s. GKEL:

342. GRIDCO has submitted that the Year End Charges amounting to Rs.41.56 Crore in respect of M/s. Vedanta Ltd and M/s. GKEL has been reimbursed by GRIDCO towards Electricity Duty, Water Charges, SOC and MOC charges pertaining to previous/prior periods as detailed in the table below. GRIDCO stated that such reimbursements were delayed due to inadequate delay in claims raised by the IPPs on GRIDCO with all supporting documents. Therefore, GRIDCO has prayed the Commission to consider and allow Rs.41.56 Crore (Rs.25.67 Crores and Rs.15.89 Crores respectively towards reimbursement of Year End Charges of the IPPs

(M/s.Vedanta Ltd and M/s.GKEL) as pass through in the ARR of GRIDCO for the FY 2022-23.

Table-50

IPP Name	FY	Description	Approved by OERC	Paid by GRIDCO
			(Rs. in Crs)	(Rs. in Crs)
Vedanta	2014-15	Water Charges	0	5.47
	2015-16		0	5.79
	2016-17		0	6.28
	2017-18		0	1.55
	2018-19		0	1.41
	2019-20	0	2.75	
	2016-17	SoC & MoC Charges	0	0.49
	2017-18		0	0.46
	2018-19		0	0.53
	2019-20		0	0.54
2020-21	0		0.39	
Sub-Total			25.67	
GKEL	2013-14	Electricity Duty (ED)	0	0.33
	2014-15		0	1.39
	2015-16		0	2.41
	2016-17		0	2.50
	2017-18		0	4.72
	2018-19		0	4.55
Sub-Total			15.89	
TOTAL				41.56

343. The Commission scrutinized the above proposal of GRIDCO and observed that only Rs.5.35 Crore has been paid by GRIDCO to M/s. Vedanta Limited during the month from August to November, 2021 towards water charges (for the period from April, 2014 to March, 2020) and SOC & MOC charges (for the period from April, 2014 to May, 2021). Hence, the Commission allows only Rs.5.35 Crore as pass through in the ARR of GRIDCO for the FY 2022-23 against the proposed amount of Rs.25.67 Crore. The Commission further observed that GRIDCO has not produced any evidential documents towards payment of electricity duty on auxiliary consumption to M/s. GKEL after FY 2019-20 (upto which the accounts of GRIDCO has been trued up). Therefore, the Commission does not accept the proposal of GRIDCO to pass through the amount of Rs.15.89 Crore in the ARR for FY 2022-23 towards payment of ED on auxiliary consumption to M/s. GKEL.

Additional Power Procurement Cost from NTPC Stations

344. GRIDCO has proposed the differential power purchase cost amounting to Rs 580.71 Crore as pass through in its ARR for the FY 2022-23 in respect of NTPC Stations for the period from Apr'21 to Sept'21, the details of which are as under:
- e. In the ARR for FY 2021-22, the Commission has not allowed any energy and fixed cost for FSTPS-I & II, FSTPS-III, KHTPS-I & KHTPS-II. However, GRIDCO has drawn 975 MU from the aforesaid stations owing to exigency of the State, sometimes due to forced scheduling by the system operator for operation of the plant at technical minimum level and due to outage of other approved plants. Further, as GRIDCO has allocations from the aforesaid stations the fixed charge liability lies with GRIDCO. Hence, GRIDCO had no option to draw some power and make payment of Rs.479.58 Crore towards purchase of power from these four stations. GRIDCO could make sale of the surplus power on real time basis upon drawal from these stations when the market price has exceeded the variable charges to recover some part of the fixed cost of these stations. However, for TSTPS-I & II an amount of Rs 64.55 Crs has been shown as Credit in pass through as the rate approved by the Commission for TSTPS-I was 313.17 P/U, whereas the actual rate billed by NTPC was 287.07 P/U. Similarly, for TSTPS-II, the rate approved by OERC was 282.75 P/U, whereas the actual rate billed by NTPC was 254.92 P/U.
 - f. The Unit-II (800 MW) of Darlipali STPS was put on Commercial operation on 01.09.2021. But, during the tariff determination by OERC for 2021-22, the COD of this unit was considered from Nov'2021. Accordingly, the actual Energy drawn is more than the approved energy. Hence, an amount of Rs.160.29 Crore on drawal of such excess energy has been claimed as pass through in the ARR for FY 2022-23.
 - g. TTPS has stopped the generation from 01.04.2021. However, on account of revision of certain bills pertaining to the period prior to Apr'21 NTPC has claimed an amount of Rs.5.39 Crore during the period from Apr'21 to Sept'21. Hence, GRIDCO has claimed this amount as pass through in the ARR for the FY 2022-23.

345. The Commission observed that in the ARR and BSP order of GRIDCO for FY 2021-22, the quantum of power purchase from the different NTPC thermal stations was approved based on the merit order despatch principles and GRIDCO was directed to follow the merit order principle while purchasing power for State consumption. The Commission in the said tariff order had not allowed any drawal from some central generating stations i.e. FSTPS-I & II, FSTPS-III, KHTPS-I & KHTPS-II for State consumption following the merit order despatch principle. Further, in order to avoid unnecessary burden on the State consumers, the Commission had not allowed the fixed cost of these power stations in the ARR of GRIDCO for FY 2021-22. The Commission had directed GRIDCO to take up the matter with the State Government regarding payment of the fixed cost of these power stations. Further, the Commission had directed that any major deviation in real time power purchase should be intimated to the Commission and the Commission shall review the quantum and cost of power purchase based on merit order during performance review of GRIDCO. Accordingly, GRIDCO shall furnish the relevant data during the review of its performance along with the justifications and rationales in case of any deviation from merit order dispatch principle. The Commission shall also consider the same along with other expenses during truing up exercise. Further, the FY 2021-22 has not yet been completed and GRIDCO has forecasted the differential power purchase cost for the whole year. In view of the above, the Commission do not consider the proposal of GRIDCO to pass through the proposed forecasted differential power purchase cost in the ARR for FY 2022-23 in respect of the central sector generating stations of NTPC including the claim of Rs.160.29 Crore towards excess power purchase cost for drawal of excess energy from the Darlipali STPS (Unit-II) during the current financial year 2021-22. However, the Commission allows the claim of GRIDCO to pass through the amount of Rs.5.39 Crore in its ARR for the FY 2022-23 arising out of revision of certain bills pertaining to the period prior to Apr'21 in respect of TTPS. Accordingly, the Commission allows an amount of Rs.5.39 Crore only as pass through in the ARR of GRIDCO for FY 2022-23 against the amount of Rs.580.71 Crore as claimed by GRIDCO towards differential power purchase cost of NTPC stations.

Reimbursement to OPGC during FY 2022-23 as pass through

346. GRIDCO in its application has considered pass through of Rs. 67.15 Crore in the ARR for the FY 2022-23 towards ED, water cess, SOC & MOC charges and DSM charges of OPGC based on the approval for FY 2021-22. The Commission while passing the order in ARR and Tariff application of OPGC for the FY 2022-23 in Case No.104 of 2021 has allowed an amount of Rs. 30.71 Crore provisionally for reimbursement by GRIDCO for the FY 2022-23. The Commission approves the same as pass through in the ARR of GRIDCO for the FY 2022-23 and details are given in Table below.

Table- 51

Sl.No.	Particulars	OERC Approval for FY 2022-23 (Rs. in Crore)
1	Electricity Duty	14.42
2	Water Cess and Water Charges	8.58
3	Energy Compensation Charges	0.71
4	Tax and Cess on Land	0.05
5	SOC and MOC for SLDC	0.36
6	ERPC Charges	0.16
7	Income Tax	0.00
8	ARR and Tariff Petition Fees	0.30
9	Water Conservation Fund	6.13
	Total	30.71

Reimbursement to OHPC during FY 2022-23 as pass through

347. The Commission while passing the order in ARR and Tariff application of OHPC for the FY 2022-23 in Case No.103 of 2021 has allowed an amount of Rs.61.05 Crore provisionally for reimbursement by GRIDCO for the FY 2022-23. The Commission approves the same as pass through in the ARR of GRIDCO for the FY 2022-23 and details are given in the Table below.

Table – 52

(Rs. in Cr.)

Component of Costs	RHEP	UKHEP	BHEP	HHEP	CHEP	UIHEP	Total
(a) License fee for use of water for generation of electricity	0.840	1.331	1.893	1.094	0.784	3.139	9.082
(b) ED on Aux. Consumption	0.289	0.458	0.651	0.376	0.270	1.079	3.122
(C) SLDC charges							1.470
(e) Application fees and publication expenses for FY 2022-23							0.270
(d) Differential Publication Expenses for FY 2021-22							0.004

Component of Costs	RHEP	UKHEP	BHEP	HHEP	CHEP	UIHEP	Total
(e) Contribution to ERPC							0.160
(f) Reimbursement of Income tax paid during FY 2020-21							35.189
(g) Differential ARR of MHEP for FY 2020-21 (due to rise in O&M expenses from 30% to 50% share)							4.039
(h) Advance Payment of Working Capital equal to 15% of actual O&M of the previous year to Machakund HEP.							7.740
Total							61.076

348. One of the objectors has stated that GRIDCO has projected pass through of power purchase dues amounting to Rs.816.90 Crore without factoring in truing up quantum approved by the Commission. The major pass through expenses claimed by GRIDCO is surplus power procured from central sector power stations, which does not merit consideration in the instant proceeding while approving the power purchase cost of DISCOMs. In this context, it is to mention here that the Commission has approved only Rs.147.16 Crore as pass through in the ARR of GRIDCO for FY 2022-23 after due scrutiny against Rs.816.90 Crore as proposed by GRIDCO. The truing up of accounts of GRIDCO for FY 2020-21 is yet to be made. Once truing up is made automatically the additional power purchase cost shall be trued up, which is a regular activity. It is to be mentioned here that in this order the Commission had disallowed many costs proposed by GRIDCO since this has already been trued up by the Commission in truing up orders upto FY 2019-20. Accordingly, the pass through expenses proposed by GRIDCO and approved by the Commission is summarized in the table given below:

Table-53
Pass Through Expenses approved for FY 2022-23 (Rs Cr.)

Particulars	Proposed by GRIDCO	Approved by the Commission
STU/Scheduling charges of Other States for RE Procurement and Payment of GST & Safeguard Duty to Solar Energy Developer	66.96	31.64
Arrear Payment to Small/ Mini Hydro Projects (OPCL Biribati and Kendupatana)	1.52	1.25
Deferred Tax liability of Teesta-V HEP	11.56	11.56
Payment of Differential Power Purchase Cost against Tala HEP	0.48	0.48
Additional Power Purchase Cost from NTPC	580.71	5.39

Particulars	Proposed by GRIDCO	Approved by the Commission
Arrear Payment to Ms. GKEL	114.11	0.00
Payment of Year-End Charges to IPPs (M/s. Vedanta Ltd. & M/s. GKEL)	41.56	5.35
Reimbursement to OPGC	-	30.71
Reimbursement to OHPC	-	61.08
Total	816.90	147.46

GRIDCO FINANCE

Employees cost

349. The Aggregate Revenue Requirement for the Financial Year 2022-23 filed by GRIDCO includes Rs.15.09 Crore towards employees cost, which is given in the table below:-

Table – 54

Sl No	Particulars	Previous Year (FY 2020-21)	Current Year (FY 2021-22)	Ensuing Year (FY 2022-23)	Assumptions
A	Salary & Allowance				
1	Basic Pay	7.69	7.20	7.75	3% on account of Annual Increment including pay of newly recruited
2	Grade Pay	-	-	-	
3	Dearness Allowance	(0.90)	1.60	2.95	38% on Basic Pay
4	House Rent Allowance	0.29	0.33	0.58	Double of FY 2020-21
5	Other Allowance	0.08	0.09	0.10	5% annual growth
6	Over-time	-	-	-	
7	Bonus	-	-	-	
	Sub-total (A)	7.16	9.21	11.38	
B	Additional Employee Cost				
1	Wage/Salary revision if any	-	-	-	
2	Contractual Engagement				
3	Out Sources Engagement	0.72	0.81	0.89	10% annual growth
4	others if any	-	-	-	
	Sub-total (B)	0.72	0.81	0.89	
C	Other Employee Cost				
1	Medical Expenses (allowance+Reimbursement)	0.11	0.12	0.13	10% annual growth
2	Leave Travel Concession		-	-	
3	Interim Relief to Staff	-	-	-	
4	Encashment of Earned Leave	-	-	-	
5	Honorarium	0.05	0.06	0.06	
6	Ex-gratia	0.11	0.11	0.12	10% annual growth

Sl No	Particulars	Previous Year (FY 2020-21)	Current Year (FY 2021-22)	Ensuing Year (FY 2022-23)	Assumptions
7	Staff Welfare Expenses	-	-	-	
8	Miscellaneous	0.00	0.014	0.01	
	Sub-total (C)	0.27	0.30	0.33	
D	Terminal Benefits				
1	Pension	0.73	0.82	0.86	5% annual growth
2	Gratuity	-	-		
3	Leave Salary	0.65	0.44	0.46	5% annual growth
4	Other (including contribution to NPS)	0.27	0.31	0.38	10% annual growth
	Sub-total (D)	1.65	1.57	1.69	
	Arrear towards implementation of 7th Pay Commission(E)		-	0.81	
E	Total Employees Cost (A+B+C+D)	9.81	11.89	15.09	
F	Less: Employees Cost Capitalised	-	-	-	
G	Net Employee Cost (E- F)	9.81	11.89	15.09	
	TOTAL	9.81	11.89	15.09	

Basic Pay + GP

350. GRIDCO in its reply to the Commission's queries has submitted the actual cash outflow of Basic Pay and GP from April 2021 to November 2021 (for a period of 8 months) amounts to Rs.4.85 Crore. The Basic pay and GP for the current year (FY 2021-22) is extrapolated to arrive at Basic Pay for FY 2022-23 including 7th pay commission recommendations. The calculation is shown in the following table:

Table-55

(Rs in Crore)

Basic & GP	Apr 21 to Nov 21	4.85
	Average per month	0.61
	Prorated for 2021-22	7.28
Approved for 2022-23 (with 3% annual increment)		7.49

Dearness Allowance:

351. The Govt of Odisha (GoO) implemented the 7th Pay Commission report with effect from 01.01.2016. The DA was also changed as per the 7th Pay Commission's recommendations and the following table shows the notified DA by Govt of Odisha and projected DA thereof for FY 2021-22.

Table-56

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	7%	Approved By GoO
01.07.2018	9%	Approved By GoO
01.01.2019	12%	Approved By GoO
01.07.2019	17%	Approved By GoO
01.01.2020	-	
01.07.2020	-	
01.01.2021	-	
01.07.2021	31%	Approved By GoO
01.01.2022	34%	Projected
01.07.2022	37%	Projected
01.01.2023	40%	Projected

As per the above table the DA rate for FY 2022-23 is assumed to be 37%.

352. Following principle has been adopted for passing of other items of employee cost.
- The balance 50% of the arrear pertaining to 7th pay recommendations has been projected as Rs.0.81 Crore. Now, the commission allows 30% of the total arrear in the ARR as per notification of GoO. The remaining 20% arrear will be considered in the ARR of GRIDCO when GoO notifies for payment. Accordingly, an amount of Rs.0.49 Crore is now passed in the ARR of GRIDCO for FY 2022-2023.
 - House rent allowance has been allowed to the tune of Rs.0.32 Crore.
 - Medical reimbursement and all other expenses items claimed under the Employee cost have been allowed.
 - Terminal Liability has been allowed as per the actual cash outgo basis taking into account the actual payment to be made. GRIDCO has projected Rs.1.69 crore on account of the payment of pension, Gratuity, Leave salary and Employer's contribution of the NPS scheme. The same is allowed to be passed on to the tariff for FY 2022-2023.
353. With the above principle the approved employees cost for FY 2022-2023 is shown in table below:-

Table – 57
Employees Cost Approved for FY 2022-23

		Rs. in Crore	
	Particulars	Proposed	Approved
A	Salary & Allowance		
1	Basic Pay	7.75	7.49
2	Dearness Allowance (@37%)	2.95	2.77
3	House Rent Allowance	0.58	0.32
4	Other Allowance	0.10	0.10
	Sub-total (A)	11.38	10.69
B	Additional Employee Cost		
1	Contractual Engagement	0.89	0.89
	Sub-total (B)	0.89	0.89
C	Other Employee Cost		
1	Medical Expenses (allowance+Reimb.)	0.13	0.13
2	Honorarium	0.06	0.06
3	Ex-gratia	0.12	0.12
4	Miscellaneous	0.01	0.01
	Sub-total (C)	0.32	0.32
D	Terminal Benefits		
1	Pension	0.86	0.86
2	Gratuity	-	-
3	Leave Salary	0.46	0.46
4	Other (including contribution to NPS)	0.37	0.37
	Sub-total (D)	1.69	1.69
E	Arrear towards implementation of 7th Pay	0.81	0.49
F	Total Employees Cost (A+B+C+D+E)	15.09	13.25
G	Less: Employees Cost Capitalised	-	-
	Net Employee Cost (F- G)	15.09	13.25

354. The Commission approves an amount of Rs.13.25 Crore towards employees cost of GRIDCO for FY 2022-23 as against the proposed amount of Rs.15.09 Crore.

Repair Maintenance

355. For the Financial Year 2022-23, GRIDCO has proposed an amount of Rs.0.85 Crore towards repair & maintenance under the head AMC of computers, vehicles, furniture and office equipment. The Commission approves the amount of Rs.0.85 Crore as a pass through in the ARR for FY 2022-23.

Administration & General Expenses

356. For the Financial Year 2022-23, GRIDCO has proposed an amount of Rs. 7.50 Crore under the head Administrative and General expenses, inclusive of an amount of Rs.1.90 Crore towards license fee payable to OERC, professional charges of Rs 2.73 Crore, communication expenses of Rs 0.07 crore and miscellaneous expenses of Rs. 1.84 Crore. The Commission considers the last year approved figure of Rs.3.36 crore and factoring the same in the expected annual inflation of (+) 5.0% for FY 2022-23, the amount works out to Rs.3.53 Crore. Over and above the amount, the licence fee applicable for FY 2022-23 amounting to Rs.1.90 Crore and ERPC membership fees/ Fund of Rs.0.16 crore are also allowed. The details are given in the following table:

Table-58
A&G Expenses for FY 2022-23

Description	Rs. in Crore
Normal A&G approved for FY 2021-22	3.36
Annual Inflation for 2022-23@ 5%	0.17
Normal A&G approved for FY 2022-23	3.53
License Fees for 2022-23	1.90
ERPC membership fees/ Fund	0.16
Total A&G for 2022-23 (Approved)	5.59

357. Thus the Commission approves an amount of Rs.5.59 Crore towards Administration and General Expenses for FY 2022-23 with a rider that GRIDCO shall make all endeavours to reduce the A&G expenses by prudent management of resources.

Depreciation

358. GRIDCO has proposed an amount of Rs.1.02 Crore towards the depreciation on the fixed assets (vehicle, furniture and office equipment etc.) for the FY 2022-23. The Commission approves the same as pass through in the ARR of GRIDCO for the FY 2022-23.

Interest and Financial Charges

359. The proposal of GRIDCO on Interest and Financial Charges as submitted in Format F-2 is shown in the following table:

Table-59

Sl No	Particulars	Rate of Int. (%) 01-04-21	Ensuing Year (FY 2022-23)					
			Opening Balance		Interest		Closing Bal.	
			Principal	Due	To be Paid	Principal	Interest	
A								
1	State Govt.(WCL)	13.00%	120.00	15.60		120.00	374.61	
2	St.Govt (OPGC Adj.)	10.50%	42.54	4.47		42.54	101.77	
3	NTPC (Govt.Bonds)	8.50%	818.81	85.98		818.81	671.37	
	Sub-total		981.35	106.05	-	981.35	1,147.75	
B	Availed During FY 2009-10							
4	Union Bank STL- V	7.20%	100.00	7.17	7.17	100.00	0.00	
	Sub-total		100.00	7.17	7.17	100.00	0.00	
C	Availed During FY 2010-11							
5	IOB_I - 200_2010-11		-		-	-	-	
	Sub-total		-	-	-	-	-	
D	Availed During FY 2011-12							
6	Union Bank - SOD(available)	7.20%	350.00	12.00	12.00	350.00	-	
7	Bond PF/2012-13 (140 cr)		-			-	-	
	Sub-total		350.00	12.00	12.00	350.00	-	
E	Availed During FY 2013-14							
8	GRIDCO Bond 2013-127.50cr	8.79%	63.75	1.97	1.97	31.88	-	
9	Odisha Gramya Bank II 136cr	7.20%	0.00		-	0.00	-	
10	Bank of India III 100 cr	7.35%	-		-	-	-	
	Sub-total		63.75	1.97	1.97	31.88	-	
F	Availed During FY 2014-15							
11	Bank of India IV 300 cr	7.35%	29.18	0.61	0.61	-	-	
12	OHPC Loan 619 cr	3.00%	619.00	17.15	137.67	515.80	50.98	
	Sub-total		648.18	17.76	138.28	515.80	50.98	
G	Availed During FY 2015-16							
13	Canara_V - 100 2015-16	7.85%	-		-	-	-	
14	OMC TL-II & III 1500cr 2014-16	4.50%	32.12	0.30	0.30	0.00	-	
15	Bank of India_V_500 cr	7.35%	266.27	17.47	17.47	203.75	-	
16	Andhra IV - 200cr		- 0.00		-	- 0.00	-	
	Sub-total		298.39	17.77	17.77	203.75	-	
H	Availed During FY 2016-17							
17	Union Bank-VIII 300 2016-17	7.40%	34.40	0.82	0.82	-	-	
18	Union Bank-IX 500 2016-17	7.20%	212.58	12.01	12.01	112.58	-	
19	Canara Bank_VI_200 cr 2016-17	7.40%	80.18	4.51	4.51	39.98	-	
20	Uco_Bank_300 Cr 2016-17	7.40%	116.55	6.51	6.51	56.55	-	
21	Andhra_V - 200cr 2016-17	7.20%	100.61	5.93	5.93	60.61	-	
22	Odisha GB III 25cr	7.20%	18.78	1.27	1.27	16.08	-	
	Sub-total		563.10	31.04	31.04	285.80	-	
I	Availed During FY 2017-18							
23	IOB_II - 300_2017-18	7.45%	153.86	9.76	9.76	103.82	-	
24	Odisha Gramya	7.20%	26.06	1.61	1.61	18.02	-	

Sl No	Particulars	Rate of Int. (%) 01-04-21	Ensuing Year (FY 2022-23)				
			Opening Balance	Interest		Closing Bal.	
			Principal	Due	To be Paid	Principal	Interest
	Bank IV 40 CR						
25	Andhra Bank VI 100CR	7.25%	50.81	3.00	3.00	30.81	-
26	Canara Bank VII 100 CR	7.30%	110.47	6.22	6.22	55.24	-
27	Allahabad Bank V-150 CR	7.30%	77.62	4.62	4.62	46.30	-
	Sub-total		418.83	25.21	25.21	254.19	-
J	Availed During FY 2018-19						
28	Bank of India VI 300 cr	7.70%	186.41	11.07	11.07	108.17	-
29	Odisha Gramya Bank V 35 CR	7.20%	26.77	1.69	1.69	19.69	0.00
30	Canara Bank VIII 200 CR	7.30%	103.50	6.17	6.17	62.04	-
31	Canara Bank IX 200 CR	7.30%	103.51	6.17	6.17	62.05	-
32	Andhra Bank VII 200CR	7.20%	105.50	6.28	6.28	65.50	0.00
	Sub-total		525.70	31.39	31.39	317.46	0.00
K	Availed During FY 2019-20		-			-	-
33	Canara Bank X 200 CR	7.45%	181.61	11.99	11.99	143.50	-
34	Andhra Bank VIII 300CR	7.20%	280.71	18.24	18.24	220.71	0.00
35	Andhra Bank IX 400CR	7.20%	394.08	25.74	25.74	314.08	0.00
36	Canara bank XI 200 cr	7.35%	194.37	13.01	13.01	156.39	-
37	Bank of India VII 300 cr	7.35%	295.38	19.69	19.69	235.38	0.00
38	Bank of India VIII 100 cr	7.35%	101.79	6.81	6.81	81.75	-
	Sub-total		1447.95	95.48	95.48	1151.82	0.00
L	Availed During FY 2020-21						
39	Union Bank of India X 500 CR	7.20%	500.00	35.70	35.70	466.67	
40	Allahabad Bank - VI 500CR	7.30%	500.00	35.70	35.70	466.67	
41	Canara Bank XII 500 CR	7.35%	500.00	36.24	36.24	458.33	
42	Bank of India IX 500 CR	7.35%	500.00	36.45	36.45	466.67	
43	Punjab National Bank 600 CR	7.10%	600.00	43.80	43.80	566.66	
	Sub-total		2,600.00	187.90	187.90	2,425.00	-
	TOTAL (A+B+..+M)		7,997.25	533.74	548.22	6,617.05	1,198.73
M	Add: Financial Charges	0.50%	-	32.57	32.57	-	-
N	Add: Rebate to Customer		-	-	-	-	-
O	Add: Proposed Loan for FY 21-22(Dec-Mar)	7.15%	600.00	42.90	42.90	700.00	-
P	Add: Proposed Loan for FY 22-23(Apr-Mar)	7.15%		-	-	-	-
Q	Grand Total (A to O)		8,597.25	609.22	623.69	7,317.05	1,198.73
	Govt Guarantee Loan		6,514.78			4,669.89	0.00
	Secured		6,264.78	403.07	403.07	5,019.89	0.00
	Unsecured		2,291.45	206.14	220.62	2,297.15	1,198.73
	Total		8,556.23	609.22	623.69	7,317.05	1,198.73

360. In the tariff order for FY 2016-17 the Commission had allowed interest on loans availed during the period from FY 2008-09 to 2015-16 except interest on OHPC Bond. The Commission similarly allows the interest impact on loan availed for that period in the ARR of GRIDCO for FY 2022-23 based on the figure finalized as per the annual accounts.
361. The commission in earlier orders have observed 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 the dues from the DISCOMs, has landed GRIDCO in a situation of borrowing from banks. The Commission in the tariff order for FY 2017-18 had 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 DISCOMs.*
362. The Commission observed that GRIDCO instead of collecting its dues from the erstwhile DISCOMs availed loan from the commercial institutions and the Commission had taken a view not to allow interest on loan availed by GRIDCO after FY 2015-16. The Commission is continuing with the same approach and accordingly not inclined to allow any interest on loan availed by GRIDCO after FY 2015-16. The details of the interest on loan approved for FY 2022-23 is given in the following table:

Table -60

		(Rs. Cr.)
Total Interest proposed for FY 2022-23		623.69
Less disallowed:		
1	Interest on loan for the FY 2016-17	31.04
2	Interest on loan for the FY 2017-18	25.21
3	Interest on loan for the FY 2018-19	31.39

Total Interest proposed for FY 2022-23		623.69
4	Interest on loan for the FY 2019-20	95.48
5	Interest on loan for the FY 2020-21	187.90
6	Interest on proposed loan for the FY 2021-22	42.90
7	Interest on OHPC loan	137.67
8	Financial charges	32.57
9	Total Interest disallowed	584.16
Total Interest allowed for FY 2022-23		39.53

363. In view of the above, the Commission allows Rs.39.53 Crore towards interest and financial charges of GRIDCO for FY 2022-23.

Special Appropriation

364. GRIDCO in his petition has submitted to approve Special Appropriation of Rs 1380.21 Crore towards loan repayment liabilities which are binding on GRIDCO. GRIDCO further submitted that there is no mechanism for recovery of past dues, as per the Commission's order in Case No. 27/2021 relating to truing up of accounts for FY 2015-16 to 2019-20. GRIDCO has submitted its claim of special appropriation as given in the table below:

Table-61

Particulars	Loan Repayment Dues	Interest Dues
State Govt. Loan	120.00	476.38
NTPC-GoO Special Bonds	818.81	671.37
(A) Sub-Total	938.81	1147.75
(B) Bank loans and Inter-Corporate loans (OMC)	1380.21	-
Grant Total (A+B)	2319.02	1147.75

365. GRIDCO has further submitted that against demand of 29354.67 MU it has availability of 36391.31 MU resulting in surplus energy of 7036.64MU. GRIDCO plans to sale the surplus power in energy exchange and expects better margin on such sale and has projected revenue of Rs.2033.59 Crore from such sale. However, this will be insufficient to recover the entire procurement cost of such surplus power. GRIDCO therefore, proposed to deduct margin earned from sale of surplus power (sale price minus variable charges) from the repayment liability for the year. GRIDCO further submitted that the balance repayment amount may be allowed in the following manner:

- a) Allow as a part of the ARR

- b) Allow a regulatory surcharge recovery as a percentage of BST or
- c) Allow as a regulatory asset with an amortisation in a defined period of 3 to 5 years

GRIDCO has submitted that the above proposal is based on the assumption that the Commission will allow the entire fixed charges forming part of the power purchase cost for the NTPC generating stations for which the fixed charges are not allowed in the last tariff order.

366. GRIDCO has submitted to approve the following mechanisms for settlement of its past dues.

- a) As per the respective vesting orders of TPCODL, TPNODL, TPWODL and TPSODL, the depreciation on assets of erstwhile Utilities shall be utilised to meet the Additional Serviceable Liabilities (ASL). Since there is no burden of ASL on the utilities as per the Commission's order on finalisation opening balance sheet, this depreciation may be utilised for the payment of past dues of GRIDCO.
- b) DISCOMs have reported a regulatory liabilities of Rs.454.97 Crore in the H1 FY 2022. This amount may be utilised to settle the GRIDCO dues.

367. 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 regarding the disallowance of repayment liability through amortisation of Regulatory Asset . 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.”

368. The Commission for the FY 2016-17, 2017-18, 2018-19, 2019-20, 2020-21 and 2021-22 has taken the same stand and did not consider such amount as a pass through under the head special appropriation in the revenue requirement. The Commission had directed GRIDCO to collect the BSP arrear from the DISCOMs, proactively.
369. However the Commission considers that the market fluctuations are likely to swing to the advantage of GRIDCO. GRIDCO has estimated the energy availability of 36391.31 MU from different sources during FY 2022-23 and the State requirement has been estimated at 29354.67 MU, leaving a surplus availability of 7036.64 MU. GRIDCO has also projected to earn revenue of Rs.2033.59 Crore from the sale of such surplus power. However, as estimated by the Commission, the surplus power available to GRIDCO is 2981.71 MU. The Commission directs GRIDCO for trading of the available surplus power on prudent commercial principles in the market after meeting the State requirement and adjust the revenue earnings from trading and UI sources towards meeting its loan repayment liability and past losses. Further, the

Commission directs that GRIDCO should continue to procure surplus power from CGPs and IPPs of the State and market the surplus power in order to reduce the accumulated losses.

370. The Commission observed that surplus power would be available with GRIDCO after meeting the state demand for the FY 2022-23. GRIDCO can sell the surplus power to the industries having CGP with Contract Demand (CD) through a tripartite agreement executed between GRIDCO, concerned Distribution Licensee and the concerned Industry. The tariff for such sale of power to the industry having CGP with CD should not be less than Rs.4.30/kVAh for FY 2022-23 provided that the drawee entity operates above 80% load factor and there shall be no overdrawal penalty. For this purpose, GRIDCO shall invite bid for sale of surplus power and the bidders shall be selected through bucket filling method till the total bid quantity is exhausted. However, the ceiling limit for exemption of overdrawal penalty shall be as per the respective agreement. The Distribution Licensee(s) should be involved in the preparation of tripartite agreement and find prospective buyers for sale of surplus power. Further, any industry having CGP without CD, availing emergency power only can also get this benefit for their incremental energy (kVAh) drawal above the emergency drawal limit applicable to them. For this transaction tripartite agreement shall also be applicable. In this type of transactions, OPTCL shall get normal transmission charge of 28 paise per kWh and GRIDCO shall get Rs.3.60 per kWh. The balance amount earned out of the above sale shall be shared equally between GRIDCO and the concerned Distribution Licensee. The Commission may revisit the above Scheme at any time based on the application from the DISCOMs/GRIDCO on the success of the Scheme.

Return on Equity

371. GRIDCO has proposed an amount of Rs.92.27 Crore towards Return on Equity (RoE) for FY 2022-23 considering the return @16% on the equity base of Rs.576.71 Crore.
372. The Commission observed that in past years Return on Equity is not being allowed in the ARR of GRIDCO. The Commission has explained the reasons for this at Para-425 to 427 of its ARR and BSP order for the FY 2009-10 dated 20.03.2009 passed in Case No. 62/2008, which is depicted below:

“425. At the time of vesting of the transmission and distribution business with GRIDCO by the State Govt. on 01.04.1996, the Equity Share Capital was Rs.327.00 crore. During the subsequent years upto FY 2004-05, there were additional infusions

of equity capital of Rs.165.98 crore by the State Govt. raising the total equity of GRIDCO to Rs.492.98 crore. At the time of de-merger of GRIDCO effective from 01.04.2005, the equity share capital of OPTCL was stated at Rs.60 crore, leaving the balance equity share capital with GRIDCO. The equity share capital issued to Govt. of Orissa was both in consideration of cash and other than cash. Therefore, the licensee claimed ROE @14% on the equity share capital of Rs.432.98 crore.

426. The Commission in earlier orders referred to the GoO Notification of 29.1.2003, wherein it has been stated that GRIDCO and OHPC should not be entitled to any return in equity till the sector becomes viable or FY 2005-06 whichever is earlier. Further, in partial modification of earlier notification, the Govt. of Orissa in its letter no. 5302 dtd. 6.5.2003 stated the following "GRIDCO and OHPC shall not be entitled to any Return on Equity (ROE) except in respect of the new projects commissioned after 01.04.2006 till the sector becomes viable or end of 2005-06 whichever is earlier." The Commission would like to clarify that correspondence has been made with Govt. of Orissa to clarify the status of the notification dtd. 29.1.2003, as it has great impact on Tariff. Govt. while communicating their views/comment in their letter No.1704 dtd. 17.02.2009 in response to the Commission's letter No.2807 dtd. 31.12.2008 have stated as under:

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

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

373. In view of the above facts, the Commission does not allow return on equity to GRIDCO for the FY 2022-23.

Other Income/ Miscellaneous Receipts

374. GRIDCO has projected to earn an amount of Rs.42.90 Crore (at the existing approved rate of Rs.7.15/kWh) during the FY 2022-23 from the proposed sale of 60 MU to Long Term Customers like NALCO and IMFA for meeting their emergency & back-up power requirements as per the MOU signed with them. However, the commission approves an amount of Rs.44.52 Crore as miscellaneous revenue of GRIDCO for the FY 2022-23 towards emergency power sale of 60 MU to the CGPs @ Rs.7.42/kWh.

Receivables from DISCOMs and Others

375. GRIDCO in its petition submitted that it has outstanding dues to be received from DISCOMs towards securitized dues, NTPC Bond dues, Non-payment of BSP dues and Year End Adjustment Bills of DISCOMs. The Commission after undertaking the competitive bidding process for sale of Distribution Companies as envisaged under Section 20 of the Electricity Act, 2003 have now handed over the three utilities i.e. CESU, WESCO and SOUTHCO to separate joint venture company in which M/s. Tata Power Company Ltd. (TPCL) holds 51% of the equity share and the Govt. of Odisha through its entity GRIDCO holds 49%. The utility of CESU was vested in a new company, TPCODL on 01.06.2020 in terms of the vesting order No. 11/2020 dated 26.05.2020, WESCO was vested on 01.01.2021 in the new company TPWODL in terms of the vesting order No. 82/2020 dated 28.12.2020 and SOUTHCO was vested in the new company TPSODL on 01.01.2021 in terms of the vesting order No. 83/2020 dated 28.12.2020. The respective vesting orders for these companies' deal with the segregation of the balance sheet as on the date of vesting by transfer of assets and liabilities to the new company. Accordingly, all the outstanding dues of the GRIDCO will be dealt as per the provisions of the vesting order.
376. The summary of the ARR of GRIDCO approved for the FY 2022-23 is given below:

Table –62
Revenue Requirement of GRIDCO for FY 2022-23

(Rs. in Cr.)				
	Particulars	Approved for FY 2021-22	Proposed for FY 2022-23	Approved for FY 2022-23
A	Items of Expenses			
	Cost of Power Purchase	8005.77	9431.04	9071.93
	Employee costs	11.42	15.09	13.25
	Repair & Maintenance	0.70	0.85	0.85
	Administrative and General Expenses	5.42	7.50	5.59
	Depreciation	1.33	1.02	1.02
	Interest Chargeable to Revenue	75.2	623.69	39.53
	Return on Equity	0	92.27	0.00
	Total Expenses	8099.84	10171.46	9132.17
B	Special Appropriation			
	Amortization of Regulatory Assets			
	Repayment of principal (Bank and Commercial Loans)	0	0	0
	Pass Through of Power Purchase Dues	190.15	816.90	147.46
	Total Special Appropriation	190.15	816.90	147.46

	Particulars	Approved for FY 2021- 22	Proposed for FY 2022-23	Approved for FY 2022- 23
C	Total Revenue Requirement (A+B)	8289.99	10988.36	9279.63
D	Less Miscellaneous Receipt	44.52	43.00	44.52
E	Revenue from trading of surplus power	0	0	0
F	Net Revenue Requirement	8245.47	10945.36	9235.11
G	Expected Revenue from DISCOMs	8257.57	8431.24	9213.95
H	GAP (+/-)	12.10	-2514.12	-21.16
I	Energy Sale to DISCOMs (MU)	27870	28414	29500
J	Average Bulk Supply Price (P/U)	296.29	385.21	312.34

377. It is observed from above table that the Commission has estimated the net revenue requirement of GRIDCO to the tune of Rs.9235.11 Crore after adjustment of miscellaneous receipts of Rs. 44.52 Crore and GRIDCO would recover Rs.9213.95 Crore from the DISCOMs through Bulk Supply Price during the FY 2022-23 with a revenue deficit of Rs.21.16 Crore which will be factored in true up of GRIDCO.

378. One of the objectors has stated that the revenue gap of GRIDCO has been widened year after year and now GRIDCO has estimated its revenue gap of Rs.2514.21Crore for the ensuing year 2022-23. The objectors stated that the installed capacity of CGPs in Odisha has reached at 12000 MW, whereas many developed States in India have kept such capacity within 5000 to 7000 MW. Giving permission to the CGPs has wrecked havoc the State power sector leaving surplus power in the State pool. Further, the decision of GRIDCO in this regard has caused availability of huge quantum of surplus power as well as huge gap in its ARR. The Commission should not allow the revenue gap claimed by GRIDCO as there is no provision to approve the revenue gap for a trader. The Commission observed that the installed capacity of CGP in Odisha is more than total installed generation capacity of Odisha including share from central sector generating stations. This is a matter of concern and the Commission would like to bring to the notice of the objector(s) that establishment of CGP is a de-licensed activity. It can be established by the industry depending upon their business model, quantum of power requirement and availability/requirement of reliable power supply. GRIDCO has no role to play in this matter. The Commission observed that the surplus power available with GRIDCO is estimated to be about 2981.71 MU for the FY 2022-23 which is within contingency of 10% of the estimated power requirements of DISCOMs. Further, the revenue gap estimated by the Commission in the ARR of GRIDCO is (-) Rs.21.16 Crore (against Rs.2514.21 Crore

as proposed by GRIDCO), which is to be passed in the ARR/Truing up of GRIDCO in future.

Design for Bulk Supply Pricing

379. 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 DISCOMs. It is not possible to allocate particular power station to a DISCOM since the Power Purchase Agreement of that Generator has been made with the GRIDCO and not with a particular DISCOM. Moreover, DISCOMs have also Bulk Supply Agreements (BSAs) with GRIDCO. This is a past legacy. The allocation of power from a generator to a particular DISCOM shall be possible only when the PPAs would be executed between DISCOM(s) and the Generator(s) which is not the prevailing practice in the State. Therefore, the Commission has no alternative but to consider the pooled power purchase cost of GRIDCO while designing the BSP of DISCOMs.
380. OERC has been following a uniform retail tariff policy, which is in the overall interest of the consumers of the State. The retail tariff for each distribution licensee is based solely on its ARR and its expected revenue ought not to be considered in isolation. The Commission is to take into consideration the Annual Revenue Requirement and the expected source of revenue of the distribution utility in its area of operation safeguarding consumers' interest of the State and recovering the cost of electricity as per 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 [Para 8.4(2)]. Only when distribution utilities show appreciable increase in operational efficiency by reducing AT & C losses, reward for efficiency of the distribution utility by a differential retail tariff may arise. This is not the case now. The benefit of differential Bulk Supply Price has been an accepted practice although the Intra-State transmission network along with ISTS forms backbone of power system of the State and serves the distribution network as a single system. Accordingly, the consumers of Odisha have been paying for the cost of this transmission system uniformly. Further, the industries are setup in the State depending upon the availability of raw materials, facility for transportation, ease of doing business and Govt. policies etc. However, one

distribution utility would earn substantially higher revenue compared to other distribution utilities by virtue of concentration of industries in its area of operation. DISCOMs having higher percentage of LT consumers earns less revenue. Hence, it is just & fair/proper that Bulk Supply Price should be higher for the DISCOM(s) with higher concentration of HT/EHT industries than for those with lesser HT/EHT load. Therefore, with differential Bulk Supply Price across the distribution licensees, there could be uniform retail tariff in the State and at present there is no need to change the prevailing practice.

381. 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. Judicious, fair & transparent process is being exercised while determining the bulk supply price for distribution utilities, so that the revenue earned by the utilities are sufficient to meet all their expenses like the cost of power purchase, which constitute a substantial part of their revenue requirement; the cost of employees; the interest burden and return on equity, etc.
382. The Commission has taken into consideration the amount of revenue that a distribution utility is likely to earn from sale of power to HT & EHT groups of consumers. Besides, the volume of sale to LT consumers is also an important criterion as the loss level is high at LT level and the expected revenue realisation is low. Thus, the Bulk Supply Price (BSP) is fixed in a manner that makes all the distribution utilities operationally stable and financially viable.

Determination of Bulk Supply Price (BSP)

383. GRIDCO has proposed average BSP @ 385.21 P/U to be levied on the DISCOMs towards their purchase of power during FY 2022-23. The Commission has determined the BSP in such a way that the estimated revenue of DISCOMs shall be sufficient to pay the power purchase cost, the transmission charge including SLDC charges, meet the expenses towards establishment, maintenance and other allied expenses and also meet all statutory obligations.
384. The details of Bulk Supply Price as well as the energy requirement of each DISCOM as approved by the Commission are summarised in a table below:

Table – 63
Bulk Supply Price and Quantum of Energy for FY 2022-23

Name of the DISCOMs	Existing Bulk Supply Price approved for FY 2021-22 (P/U)	Quantum of Energy for sale during FY 2022-23 (MU)	Total Revenue for FY 2022-23 (Rs. Crore)	Bulk Supply Price approved for FY 2022-23 (P/U)
TPCODL	283.00	9790.00	2937.00	300.00
TPNODL	320.00	6020.00	1932.42	321.00
TPWODL	337.00	9300.00	3348.00	360.00
TPSODL	207.00	4390.00	996.53	227.00
Total	296.29	29500.00	9213.95	312.34

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

Demand Charges

386. As usual in line with ARR of previous year, 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 2022-23. Permitted SMD would mean monthly SMD recorded upto 110% of approved SMD. Any excess drawal over the permitted SMD will have to be paid by DISCOMs @ 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 plan & maintain the load within SMD and maintain 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 DISCOM might have paid the SMD charges for exceeding the permitted SMD in any month.

Charges for Overdrawal of Energy

387. In its application, GRIDCO has submitted that presently the over drawal of energy by DISCOMs is billed at the corresponding OERC approved applicable BSP rates in line with the judgment of Hon'ble APTEL dated 07.05.2018 passed in Appeal No. 55/2015 till the Regulations on Deviation Settlement Mechanism (DSM) is pronounced by OERC and implemented in the State of Odisha. However, GRIDCO has proposed that any excess drawl of energy during a month over and above the approved drawal by a Distribution Licensee and Retail Supply Utility would be

payable on provisional basis at the highest power purchase rate for a station approved by the Commission for the FY 2022-23 (which includes transmission charges & transmission loss) on a monthly basis instead of the normal differential BSP applicable to the respective DISCOM 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.

388. The Commission observed that it has already framed guidelines/regulations for intra-state ABT and in the 1st phase introduced same for transaction between GRIDCO and DISCOMs. The issue of overdrawal / underdrawal of energy would be adjusted through un-scheduled interchange mechanism. Accordingly, the schedule energy shall be billed by GRIDCO and paid by DISCOMs as per the present Tariff Order of the Commission and any deviation from the scheduled energy shall be billed by SLDC and paid by DISCOMs as per the prevalent UI rate. However, the Commission further observed that being aggrieved by the order dated 05.04.2014 of the Commission in Case No. 40/2013 on the matter relating to settlement of dues between GRIDCO and DISCOMs in respect of payment towards over drawal energy by DISCOMs, GRIDCO had made an appeal before APTEL. The APTEL in their judgment dated 07.05.2018 in Appeal No. 55/2015 and IA No. 75/2015 have pronounced that in absence of any DSM Regulations for the State, the deviation energy may be settled amicably between GRIDCO, DISCOMs & SLDC and paid at BSP rate for the period from 17.02.2014 onwards till Intra-State DSM Regulations comes into effect. SLDC will stop billing to DISCOMs on account of deviation of energy henceforth till DSM Regulation is pronounced by OERC and SLDC is to withdraw the DSM bills so raised since 17.02.2014. The Intra-State DSM Regulations will be notified by the Commission shortly and till implementation of DSM Regulations in the State, the quantum of overdrawl of energy by DISCOMs shall be billed by GRIDCO at the applicable BSP rate determined by the Commission.

Rebate

389. For payment of BSP bills by the Distribution Utilities through Letter of Credit / RTGS / NEFT or by cash within a period of two (2) working days (excluding holidays under the N.I. Act., 1881), a rebate of 2% shall be allowed on current dues. If the payments are made after two working days, but within a period of fifteen (15) days of presentation of bills, a rebate of 1.5% shall be allowed. If the payments are made after

15 days but within a period of thirty (30) days of presentation of bills, a rebate of 1% shall be allowed.

Delayed Payment Surcharge

390. In case payment of bills by the distribution utilities is delayed beyond a period of thirty (30) days from the date of presentation of bill, a late payment surcharge at the rate of 1.25% per month shall be levied by GRIDCO Ltd. on the unpaid amount.

Duty and Taxes

391. 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.
392. The Bulk Supply Price in respect of GRIDCO as indicated below will become effective from **1st April, 2022** and shall continue until further orders.

Table -64

Name of the DISCOMs	Paise/ Kwh
TPCODL	300.00
TPNODL	321.00
TPWODL	360.00
TPSODL	227.00

Action to be taken by GRIDCO

393. GRIDCO is directed to provide the details relating to following issues within a period of three months:
- (a) As per Orissa Reform Act, 1995, GRIDCO, being responsible for projection of power consumption i.e. requirement of energy and peak demand, should plan for the requirement of power in longer time frame at least for next 5-10 years and accordingly decide about de-allocation of share from central sector generating stations, keeping in view the long term requirement of energy and peak demand of the State. Hence, GRIDCO is directed to provide long term projection of power requirement for next 10 years time frame and its plan to meet such requirement from various generating sources.
- (b) To submit its RPO compliance status for last 10 years. The RPO is likely to be enhanced and accordingly steps need to be taken by GRIDCO to meet the higher RPO in future.

- (c) To evaluate the benefit of sale of available surplus power to the industries vis-a-vis sale of power in short term open market and also the proposed mechanism for sale of surplus power to industries for a win-win situation for all GRIDCO, Industries & DISCOMs.
- (d) To submit about its efforts made for refinance of the loan as it results in net saving on interest as per OERC (Conduct of Business) Regulations, 2004.

394. The application of GRIDCO in Case No. 107 of 2021 is disposed of accordingly.

Sd/-
(S.K. Ray Mohapatra)
Member

Sd/-
(G. Mohapatra)
Officiating Chairperson