

**ODISHA ELECTRICITY REGULATORY COMMISSION
BIDYUT NIYAMAK BHAWAN
PLOT NO.-4, CHUNUKOLI, SHAILASHREE VIHAR
BHUBANESWAR - 751 021**

**Present: Shri G. Mohapatra, Officiating Chairperson
Shri, S.K.Ray Mohapatra, Member**

Case No. 22/2022

GRIDCO Ltd.	Petitioner
Vrs.		
NTPC & Others	Respondents

In the matter of: **Application under 86 (1) (b) of the Electricity Act, 2003 read with Section 11 (1) (e) of the OER Act, 1995 and other enabling provisions seeking approval of Power Purchase Agreement (PPA) executed between GRIDCO Ltd. and NTPC Ltd. and GRIDCO on dated 11.08.2006 for purchase of power from 1,500 MW Kahalgaon Super Thermal Power Station (KhSTPS) Stage-II, Bihar in the Eastern Region.**

For Petitioner: Shri Trilochan Panda, M.D, Shri P. K. Das, CGM (PP), Shri Lalit Mishra, AGM (PP) GRIDCO Ltd.

Respondent: Shri G. C. Mohapatra of NTPC Ltd., Shri V. Wagle, TPCODL, Ms. Malancha Ghose, AGM (RA), TPNODL, Shri K. C. Nanda, DGM(Fin.), TPWODL and Shri Binod Nayak, Asst. GM(Comm.), TPSODL.
Nobody is present on behalf of DoE, GoO.

ORDER

Date of hearing: 01.06.2022

Date of order: 19.07.2022

The petitioner-GRIDCO has filed the present application for approval of Power Purchase Agreement (PPA) executed between NTPC and GRIDCO Ltd. on dated 11.08.2006 for purchase of State share of power from 1500 MW Kahalgaon Super Thermal Power Station (KhSTPS) Stage-II, Bihar in the Eastern Region. GRIDCO has prayed the Commission to:

- (a) Condone the delay for addressing the issues as directed by the Commission in its Order dated 20.07.2016 to make fresh submissions individually in respect of approval of PPA of the NTPC Generating Stations.

- (b) Approve the PPA dated 11.08.2006 in respect of KhSTPS Stage-II executed between GRIDCO and NTPC for procurement of State share of power from the said thermal power plant.
2. GRIDCO has submitted that being a Bulk Supplier of Electricity, approval of the PPA by the Commission for purchase of power from a generating station is required as per the provisions of Section 86 (1) (b) of the Electricity Act, 2003 read with Section 11 (1) (e) of Orissa Electricity Reform Act, 1995 (OER Act, 1995) including other enabling provisions of the Act and Regulations framed there under. GRIDCO has stated that NTPC vide its letter dated 16.05.2003 had requested GRIDCO for early execution of PPA for availing power from KhSTPS Stage-II so that the investment approval as well as allocation of power would be finalized. Thereafter, GRIDCO, vide its letter dated 16.05.2006, had requested NTPC for allocation of capacity along with details of the facts and draft PPA so that GRIDCO could be able to give its willingness. NTPC vide its letter dated 23.05.2006 requested for signing of the PPA by 10.06.2006 as the power station is expected to be commissioned till November, 2006. In the 100th Meeting of GRIDCO's Board of Directors held on 08.06.2006, considering the wide gap between demand on supply position of power in the State mainly due to rapid industrialization and massive rural electrification, authorized CMD, GRIDCO to execute PPA with NTPC for procurement of 100 MW power from KhSTPS Stage-II. Accordingly, GRIDCO vide its letter dated 09.06.2006 has requested NTPC to allocate 100 MW power from the said power project. In the meantime pursuant to GRIDCO's letter dated 24.07.2006, OERC vide its letter dated 04.08.2006 accorded in-principle approval for procurement of 100 MW power from KhSTPS Stage-II with a direction to follow up the matter through a petition in accordance with Chapter-II of OERC (Conduct of Business) Regulations, 2004. In view of the above, GRIDCO had entered into a PPA with NTPC on 11.08.2006 for purchase of 100 MW power from KhSTPS Stage-II, subject to final allocation by the MoP, GoI. However, MoP, GoI, vide its letter dated 21.02.2007 allocated 74 MW (4.93 % of installed capacity i.e. 5.8% of the total allocation excluding 15% on allocated capacity) of power from KhSTPS, Stage-II in favour of Odisha. Thereafter, after allocation of 43.35 MW from Tala Hydro Electric Project in favour of Odisha, MoP, GoI vide its notification dated 18.07.2008 revised the State share of 74 MW to 31 MW (2.06% of the installed capacity) in respect of KhSTPS Stage-II. However, considering the Solar Equivalent Bundled Thermal Power Scheme, presently GRIDCO is having allocation of 39 MW (2.62% of the installed capacity) from KhSTPS Stage-II. The Commercial Operation of the 3 nos. of

generating units KhSTPS Stage-II (3 x 500 MW) were declared w.e.f. 01.08.2008, 30.12.2008 & 20.03.2010 respectively and GRIDCO is availing power from this power station since the COD of the generating units. GRIDCO has stated that considering the requirement of power in the State, the Commission has been allowing GRIDCO to procure power from the said Generating Station in the ARR and BSP Order of GRIDCO Ltd.

3. GRIDCO has further stated that, on earlier occasion, it had filed a joint application before OERC seeking approval in respect of 14 Nos. of PPAs including the present one, which was registered as Case No.43/2011. The Commission has disposed-off the said case, vide its Order dated 20.7.2016, with certain observations/directions by granting liberty to make fresh submissions of the individual PPA separately in respect of each of the upcoming NTPC Generating Stations in the Eastern Region within three months. GRIDCO has stated that the Commission in its interim order dated 16.08.2011 in Case No. 43/2011 had observed as under:

“4. X x x x x x x x.

- a. *“Presently, GRIDCO is purchasing power from some of the NTPC Stations in Eastern Region at a very high cost compared to the generation cost of State Thermal Stations, particularly compared to the variable cost of State Thermal Stations/PPs. As stated by GRIDCO, NTPC is charging GRIDCO the variable cost as per the escalation formula of variable cost approved by CERC and it has little scope to verify the coal & oil prices etc. used by these NTPC Stations. This is primarily responsible for high variable cost in the formula. It was opined that GRIDCO should have taken steps for adequate provisions in the PPAs for the forthcoming NTPC stations to overcome these difficulties now being faced under the existing PPAs.*
 - b. *In other regions of India, the 15% unallocated power of the NTPC Stations are being allocated by GOI among the beneficiaries of that region, whereas in the Eastern Region the unallocated power of the NTPC Stations are being allocated to other regions apart from the beneficiaries of this region, particularly for the state of Odisha the allocation from the 15% unallocated power from existing NTPC stations is ‘NIL’. Such disparities need to be corrected in the PPAs of the future projects of NTPC after discussion in ERPC forum.*
5. *Further, GRIDCO has tied-up with many IPPs inside the state to purchase the state share of around 8000 MW, which are scheduled to be in operation between 2011-12 to 2021-22. Out of this power substantial quantum, as per the State Thermal Policy, will be available at the variable cost only. In such a scenario, GRIDCO should apprise the Commission regarding utilization of the power to be purchased from the forthcoming NTPC Stations at a higher cost as apprehended. xxxxxxxxxxxxxxxxxxxx”*

4. Replying to the observations Para at 4(a) of the Order dated 20.07.2016, GRIDCO has now submitted that;

- i. As per Section 61 and Section 178 of the Electricity Act, 2003, the CERC is empowered to specify the terms and conditions for determination of tariff with respect to Inter-state Generating Stations (ISGSs). The tariff for supply of electricity from a thermal generating stations comprises of two parts, namely, Capacity (Fixed) Charge and Energy (Variable) Charge.
 - ii. The fixed cost/capacity charge of the NTPC generating stations is determined by CERC on annual basis for a tariff period of 5 years, based on the capital expenditure incurred duly certified by auditors. The fixed cost liability for a particular station is calculated in proportion to share allocation of each beneficiary. The Energy Charge Rate (ECR) is calculated on the formula/operating norms specified by CERC in the Tariff Regulations notified from time to time.
 - iii. CERC Tariff Regulations, 2014 has stipulated that, Energy Charge Rate has to be calculated on the basis of GCV measured on “As Received” basis which was challenged by NTPC before Hon’ble High Court of Delhi through Writ Petition. Hon’ble High Court of Delhi, vide its Order dated 25.01.2016 has decided that, the sample for measurement of GCV of Coal on ‘as received’ basis shall be collected from the loaded wagons at the unloading point of the Generating Station either manually or through the Hydraulic Augur.
 - iv. GRIDCO has also challenged the above Order of CERC in APTEL justifying the point of determination of GCV at the Colliery end instead that at the unloading point of the generating station towards calculation of ECR for billing to Beneficiaries. The said Appeal has been admitted by the Hon’ble Tribunal vide Appeal No. 238 of 2017.
 - v. Further, GRIDCO has filed a Writ Petition No. 22227 of 2019 before the Hon’ble High Court of Orissa by challenging, inter-alia the point of determination of GCV at un-loading point of the Generating Station as stipulated in CERC Tariff Regulations, 2019 instead of being determined at Colliery end as per GRIDCO’s contention for billing to GRIDCO.
5. Replying to the observations at Para 4(b) of the Order dated 20.07.2016, GRIDCO has now submitted that;
- i) Clause 2.2.2 of the PPA between NTPC and GRIDCO Limited for KhSTPS Stage - II stipulates as follows:
“Fifteen percent capacity of the station shall be kept on allocated at the disposal of Govt. of India and shall be subject to allocation from time to time as per the decision of Ministry of Power. Out of this unallocated capacity, balance if any, shall be

deemed to have been allocated to various Beneficiaries in proportion to their allocated shares.”

- ii) Hence, it is the prerogative of the GoI to allocate the unallocated 15% share to any beneficiary irrespective of the Region. However, presently the share from unallocated 15% power from NTPC stations is also being allocated to GRIDCO as per its entitlement.
6. Replying to the observations at Para 5 of the Order dated 20.07.2016, GRIDCO has now submitted that;
- i. CEA in its report on 17th Electric Power Survey of India Publication (August 2006) had made a forecast that there would be high load growth of around 4459 MW Peak demand with the energy requirement of around 27148 MU in the State of Odisha upto 2011-12. Further GRIDCO had forecasted requirement of 26600 MU for 2009 and 46800 MU for 2012 taking into consideration of rapid industrialisation cushion for bad hydrology and to achieve the target of per capita consumption of 1000 units by 2012 set by “The New National Electricity Policy”. On the above premises, the petitioner entered into PPA with NTPC on dated 11.08.2006 to purchase power from KhSTPS Stage-II expecting power supply within a reasonable time span.
 - ii. Further, as a State Designated Entity, GRIDCO is responsible to tie up for power procurement, so that bulk supply of power is made available to the Distribution Licensees of the State in order to meet their service obligations to the Consumers of the State under Section 43 of the Electricity Act, 2003 Accordingly, GRIDCO is required to procure electricity from generating companies or licensees or from other sources through agreements to meet the State power demand. That is why GRIDCO had no option except entering into PPAs with NTPC considering the then power situation in the State and future load growth.
7. GRIDCO has submitted that the Commission vide Order dated 20.07.2016 had directed to make fresh submissions for approval of PPAs of NTPC Generating Stations individually within a stipulated period of 3 months. GRIDCO could not submit the PPAs due to various reasons. GRIDCO prays the Commission to condone the delay for filing the petition and gracious enough to approve this PPA to safe guard the interests of consumers as stipulated under Section 61 (d) of Electricity Act 2003. GRIDCO preferred to retain the State share of power from KhSTPS Stage-II because this power station comes under the Mega Power Policy envisaged by Govt. of India. As per the

terms and conditions of the said Policy, the plant is entitled for following fiscal concessions/benefits:

- a. The import of capital equipments for the power plant would be free of customs duty.
- b. Under Chapter-8 (f) of the Foreign Trade Policy, Deemed Export Benefits is available to NTPC for the said project.
- c. Price preference of 15% have been given for Domestic PSU Bidders.
- d. The Income Tax holiday regime as per Section 80-IA of the Income Tax Act, 1961 can also be availed for the project.

In view of the above concessions/benefits, capital cost of the said generating station is low resulting in lower fixed cost payable by GRIDCO.

8. KhSTPS Stage-II is a pit-head station. Hence, the cost of coal on the captive coal mines on account of reduced transportation cost is less for which Energy Charge Rate (ECR) is reduced. GRIDCO has submitted that as per present CERC Tariff Regulations the Tariff of KhSTPS Stage-II for FY 2021-22 are as follows;

• Fixed Cost (Normative)	:	132.90 Paisa/kwh
• Variable Cost	:	244.02 Paisa/kwh
• Total Cost	:	376.92 Paisa/kwh

9. The submissions made by the Respondent DISCOMs (TPWODL, TPSODL, TPNODL & TPCODL) are similar in nature. The DISCOMs have submitted that the Commission has not allowed drawal of any power from KhSTPS Stage-II for the FY 2020-21 and 2021-22. In this regard Para-294 of the BSP order for FY 2020-21 passed in Case No. 71/2019 is reproduced below:

“The Commission has not allowed any drawal from some of the Central Generating Stations i.e. FSTPS-I, II & III and KhTPS-I & II, since considering merit order despatch principle these Stations lie beyond the margin of the merit order. GRIDCO has entered into PPAs with numbers of State and Central Generating Stations. If, GRIDCO draws power from those stations it will have surplus availability of power. Even, if GRIDCO does not draw power from the power stations which are having PPA, it will have to pay fixed cost to those power stations which will eventually be passed on to the consumers as Tariff burden. In order to avoid passage of unnecessary cost to the consumer, the Commission has not considered the fixed cost of those power stations from which GRIDCO would not draw power due to surplus availability. Therefore, the GRIDCO should take up this matter with the State Government to whom Central allocation of power has been made for payment of fixed cost of those stations. The estimated extra fixed charge for those stations would be Rs. 348.37 Crore for FY 2020-21.”

The Commission may direct GRIDCO to explain the status/position of this matter with regard to stand of the State Government. However, the Commission has approved the fixed charges for this power station for the FY 2022-23.

10. The DISCOMs have further submitted that the Commission vide its order dated 20.07.2016 in Case No. 43/2011 had not approved the PPAs with NTPC Stations with the view that substantial low cost power would be available to the State. Recent order of the Commission dated 29.10.2021 in Case No. 43/2021 reinforces the same with the following observation:

“The Commission further observed that as per the availability-demand estimation of GRIDCO till FY 2029-30, GRIDCO has surplus availability of power after meeting the projected State demand.”

11. The DISCOMs have submitted that the cost of power from the subject power plant is quite high due to high variable cost. Therefore, the Commission, instead of approving the PPA at present allow purchase of power from this power station from time to time whenever it is required.
12. The DISCOMs have further submitted that Odisha has a target of replacing thermal energy with non-fossil fuel energy, with the objective of ensuring 50% electricity consumption from non-fossil fuel sources by the end of FY 2029-30. One of the disadvantages of approving the PPA at present is that the fixed charges would be included in the ARR of GRIDCO. GRIDCO needs to satisfy the reason why the PPAs should be approved now after being in operation for more than 14 years for KhSTPS Stage-II. In view of the above, The DISCOMs have stated that the approval of PPAs shall bind the DISCOMs to the fixed charges relating to the balance life of the power stations, especially when the state being in a surplus situation and these units not falling under merit order for the State consumption and also the Government’s thrust to reduce fossil fuel imprint drastically. However, only after accessing the situation of demand in future, the Commission may consider for approving the PPAs, if such capacities are required for the State. In case the Commission approve the PPAs at present, the claim of fix charges for previous year, which has been disapproved, should not now be allowed to be claimed by GRIDCO from DISCOMs which will have a tariff burden on the consumers.
13. The respondent Shri R.P.Mahapatra has submitted that GRIDCO has filed the application for approval of PPA dated 11.08.2006 for purchase of power from KhSTPS

Stage-II after a lapse of nearly 16 years which appears deliberate. In the ARR and BSP orders for the FY 2020-21 and 2021-22 no drawal of energy was allowed from KhSTPS Stage-II and also no fixed charges was allowed. However, for the FY 2022-23 fixed charges of this power station is allowed with approval of zero energy drawal, since it does not come under merit order. The scheduling of energy and allowing a fixed charge for the FY 2022-23 is not in accordance with the statute and the earlier orders of the Commission as the PPA have not been approved. Considering the quantum of allocated power, which is negligible compare to the requirement of the State, the PPA executed on 11.08.2006 need not be approved and accordingly be rejected. In case the Commission decides to approve the said PPA, Clause-2.2.1 has to be amended as the GRIDCO's entitlement is stated as 100 MW, whereas State share is 31 MW excluding solar equivalent bundled thermal power. Further a clause may be included in the PPA stating that the drawal of power from this station be on merit order, as decided by OERC and no fixed charges shall be leviable in case no energy or lesser energy is scheduled for drawal during a year.

14. Replying to the objections of the Respondents, GRIDCO has submitted a consolidated rejoinder in Case No.21/2022 (approval of PPA in respect of FSTPS Stage-III) and in Case No.22/2022 (approval of PPA in respect of KhSTPS Stage-II). In its rejoinder GRIDCO has submitted that;

- i) As per the OERC Vesting Orders in case No. 11/2020 dated 26.05.2020, 82/2020 dated 28.12.2020, 83/2020 dated 28.12.2020 and 9/2021 dated 25.03.2021 of TPCODL, TPWODL, TPSODL and TPNODL respectively, the PPAs in respect of KhSTPS Stage-II and FSTPS Stage-III including other PPAs have been duly taken into account to meet the existing as well as future demand of the State.
- ii) In all the ARR and BSP orders, subsequent to the signing of the PPAs, procurement from the KhSTPS Stage-II and FSTPS Stage-III have been duly reflected.
- iii) The Vesting Orders and ARR & BSP Orders have reached their finality. Therefore, having accepted the Vesting Orders and ARR & BSP Orders, TPCODL, TPWODL, TPSODL and TPNODL have no right whatsoever to reopen the issue and object the approval of the PPAs and claim any stake whatsoever in this regard.

- iv) Para 5 of the Commission's Order dated 20.07.2016 case No.43/2011 states that, *"In view of the above, the Commission would like to dispose of the present case and directs the petitioner GRIDCO Ltd. to make fresh submission of individual PPA separately in respect of each of the upcoming Inter-State Generating station in the eastern region after incorporating the issues observed/directed by the Commission in its interim order dated 16.08.2011 passed in present case within three months."*

From the above, it is wrong for the Respondent DISCOMs to submit that, the Commission has denied approval of the PPA way back in 2016. Moreover, the averments made by the DISCOMs, wrongly quoting Para 5 of the Order dated 20.07.2016, is misleading.

- v) As per the Order dated 20.07.2016 to make fresh submission individually in respect of approval of PPA of KhSTPS Stage-II and FSTPS Stage-III within a stipulated period of 3 months, couldn't be addressed under the premises that, GRIDCO is already drawing power from the said generating stations since 01.08.2008 and 04.04.2012 respectively. Further, the Commission considering the demand of the State, has been allowing GRIDCO to procure power from the said generating station in its ARR and BSP Orders with effect from the CoD.
- vi) The Commission except FY 2020-21 and 2021-22 has approved procurement of power from KhSTPS Stage-II and FSTPS Stage-III w.e.f. their CoD by approving the fixed cost. However, procurement for FY 2020-21 and 2021-22 was based on the Merit Order Despatch principle, subject to trading purpose to bridge the past revenue gap of GRIDCO. The Commission has never disallowed the power procurement from both these stations.
- vii) GRIDCO's share of 396 MW power from the two NTPC Generating Stations i.e., FSTPS-I & II and KhSTPS-I has already been de-allocated by MoP, GoI vide Notification dated 01.09.2021 and re-allocated to the State of Gujarat. Also, power generation from TTPS (460 MW) has been stopped by NTPC w.e.f. 31.03.2021 due to its closure. In recent past, GRIDCO has faced severe power crisis during the peak load hours of summer as well as during the outage of the super critical thermal units like OPGC Stage-II and Darlipali Stage-I. Being functioning as the State Designated Entity, GRIDCO has been compelled time and again to procure power from the un-reliable power market at a maximum cap

rate of Rs. 12/Unit which is much higher. In such situations, GRIDCO has been benefited by sourcing power from KhSTPS-II and FSTPS-III, to minimise the power procurement cost.

- viii) Further, in the ARR of DISCOMs, the Commission has approved a sum total of 53.18 MW of additional power (HT+EHT) to be procured by GRIDCO whereas, 310.26 MW has already been released to the four DISCOMs for the months of April-22 and May-22. To cope-up with further power demand, retention of old units are very much required in the interest of the State. It would be therefore, irrelevant on part of the DISCOMs to state that, GRIDCO is procuring high cost thermal power in a surplus power situation.
- ix) Solar energy constitutes nearly 70% of the total Non-Fossil Fuel Energy (RE) generated. Whereas, the solar power plants are running around PLF of 20% during the day light hours, almost 2/3rd of them, get out of the system, during night hours, which requires GRIDCO to avail the thermal power to meet the peak demand of the State. In the above premises, Non-Fossil Fuel Energy (RE) cannot equally substitute/replace the thermal power to meet the peak demand because of its non-availability round the clock.
- x) Considering the energy demand of the State as forecasted by 16th Electric Power Survey (EPS) Report published by CEA, GRIDCO entered into PPA with different NTPC generating stations outside the State. However, there has been substantial increase in demand in the recent years and State is facing scarcity of power especially during peak hours in the event of outage of generating stations. Subsequent to the signing of the PPAs, the State has been reaping the benefits from the said power plants since their COD. Keeping in mind that, the power market has been volatile during this long period, it is not proper to question the signing of the PPAs, by analysing the power scenario of a particular period only. Mere denial by the DISCOMs for approval of the PPAs is gross violation of the agreement done with a Central PSU which would never discharge the onus of GRIDCO in availing power from the thermal stations.
- xi) The CERC vide Order dated 22.09.2008 in Petition No. 89/2008 at para 14 had observed that, the principal reason for huge gaps in demand and supply is the lack of proper planning by the States. The State Utilities were directed to plan in

advance to meet consumers' load without overdrawing from the grid. The relevant portion of the said Order is quoted as below:

“14. We find that, the principal reason for huge gaps in demand and supply is the lack of proper planning by the States. The concerned State Utilities are required to plan in advance as to how they would meet their consumers' load without overdrawing from the grid.....”

- xii) CERC vide its press release dated 11.05.2009 imposed penalty on Tamil Nadu Electricity Board, Karnataka Power Transmission Corporation Ltd. and Rajasthan Rajya Vidyut Prasaran Nigam Ltd. and on dated 15.05.2009 imposed penalty on APTRANSCO for persistent over drawl from the grid, violating IEGC provisions and thus endangering the Grid Security instead of resorting to manual load shedding for curtailing the over drawl whenever the grid frequency was below 49Hz. The above penalties were imposed in accordance to the order dated 22.09.2008 in Petition No. 89 of 2008.
- xiii) ERLDC vide its letter dated 19.06.2009 warned GRIDCO for continuous over drawl at low system frequency causing severe dips in the system.
- xiv) The Department of Energy, Govt. of Odisha vide Office Order dated 04.07. 2009 invoked Section 11 of the EA, 2003 and directed all the Captive Generating Plants to generate power at full capacity and inject the same to the State grid to tide over the power deficit situation on account of low reservoir level and outage of OPGC and TTPS units.
- xv) Further, OERC vide Order dated 14.01.2010 in Case No. 01/2010 affirmed/held that, the Power supply situation in Orissa was passing through a critical stage due to hydrology failure, low thermal power generation due to non-availability of coal and various factors, incapability of CGPs to supply surplus power etc. In the said situation, in accordance with Section 23 of the Electricity Act, 2003 OERC imposed load restrictions on the DISCOMs w.e.f. 15.01.2010.
- xvi) In view of the above, to overcome the power crisis of the State, GRIDCO entered into PPAs with various thermal generating stations outside the state including FSTPS Stage-III (on 27.12.2010). However, during the said period GRIDCO was already drawing power from KhSTPS Stage-II from 01.08.2008 as per in-principle approval accorded by this Commission vide letter dated 04.08.2006.

- xvii) GRIDCO is harnessing power from both KhSTPS Stage-II and FSTPS Stage-III for the State consumers to mitigate the power crisis of the State and to avoid penalty to be imposed by CERC in compliance with Clause 6.4.5 of IEGC which is reproduced as below:

“6.4.5 The SLDCs/STUs shall regularly carry out the necessary exercises regarding short-term and long-term demand estimation for their respective States, to enable them to plan in advance as to how they would meet their consumers’ load without overdrawing from the grid.”

- xviii) A peak power deficit to the tune of 300 MW and above can be observed from the Peak Load Generation Balance Report (LGBR), as projected by GRIDCO for the F.Y. 2022-23 to 2029-30. The deficit will be enhanced by another 100 MW each year if we don’t consider the procurement of power from KhSTPS Stage-II and FSTPS Stage-III.

- xix) As per the present CERC Tariff Regulations the Average Tariff of KhSTPS Stage-II and FSTPS Stage-III for FY 2021-22 are as follows:

Cost Components	KhSTPS Stage-II (Paesa/kWh)	FSTPS Stage-III (Paesa/kWh)
Fixed Cost	132.90	196.02
Variable Cost	244.02	279.92
Total Cost	376.92	475.94

- xx) The Power Market is always volatile in nature and hence, procurement of power from power market on Real Time basis is never being reliable. The average per unit power procurement cost of Day Ahead Market (DAM) for the last three months i.e., Mar’22, Aprl’22 and May’22 are Rs. 8.23, Rs. 10.07 and Rs. 6.76 respectively, which implies that power procurement from power exchange is not cheaper than that from KhSTPS Stage-II and FSTPS Stage-III during summer season particularly during peak load hours.
- xxi) CERC vide Regulation 42(1) of Tariff Regulations, 2019 specified that, in a year, High Demand Season is for three months and Low Demand Season is for nine months. Eastern Region Power Committee (ERPC) in support to the said Regulation, vide Regional Energy Accounting (REA) of the Eastern Region for the month of April 2022, has defined Apr’22, May’22 and June’22 as High Demand Season for Eastern Region.

- xxii) If GRIDCO procures the 99 MW of ex-bus power from the Day Ahead Market instead of availing the same from KhSTPS Stage-II and FSTPS Stage-III, it would have to spend Rs. 361.89 Crore for FY 2022-23 (considering the average power purchase cost of last three months i.e. Rs. 8.353 per Unit) instead that of Rs. 269.25 Crore (at the Average Tariff of both the stations for FY 2021-22). This will amount to Rs. 92.63 Crore more for the whole FY 2022-23.
- xxiii) As per the latest estimated Long term LGBR, i.e. upto FY: 2029-30, GRIDCO have already Peak shortfall and which will continue for balance life period of these power plants, even considering the procurement from these power plants. Therefore, unless GRIDCO has capacity to sustain the peak shortfall, in case of sudden breakdown of large supercritical units of 500 MW and above, reliable and uninterrupted 24X7 power supply strategy of the State Government would be seriously jeopardized.
- xxiv) The DISCOMs' consumption has increased from 2657.67 MU in April 2021 to 3011.31 MU in April 2022 with a growth of 15%. The demand has also increased across the country leading to power crisis situation pan India in the month of April'22. In view of the recent experience of acute power shortage scenario in the country, requirement of thermal power cannot be completely ruled out for meeting the increasing demand of power in spite of accelerated infusion of RE power to the energy mix. As a consequence of such power crisis, the rates discovered in Power Exchanges were exorbitantly high and in some days power was not available in the exchanges even at the highest capping price. Such was the situation that CERC had to step in to reduce the capping price from Rs.20/kWh to Rs. 12/kWh.
- xxv) In view of phasing out of NTPC stations, uncertainty in supply of power by IPPs like JITPL and Vedanta, frequent outage of large size thermal units, it is apparent that GRIDCO shall be in dire need of thermal power to meet State demand and for base load support, inevitably during evening peak hours to meet the State demand.
- xxvi) In the meantime, in FY 2021-22, around 700 MVA of power has been released in favour of the DISCOMs to be availed by their customers. As the prevailing market rates are quite high and due to Pan India coal scarcity, many industries including CGPs in the State have expressed their willingness to further enhance

their existing Contract Demands. As per initial estimates, the above enhancements may lead to around 200-300 MW further increase in demand.

xxvii) These subject two thermal projects are materialised on the basis of the assured allocation of the Central Government through long term PPAs. GRIDCO, as the State Designated Entity, with due approval of the State Government, executed the PPAs with NTPC based on 17th EPS survey and with an optimistic extrapolation of the power demand situation prevailing at that time to the then future. During this prolonged period GRIDCO has been benefitted by availing the power from these two power plants, as and when required. Any retreat from the PPA at the middle of the life period of the Power Plants will adversely affect GRIDCO's long term strategy of power procurement. There exists notification of the Central Government to exit from the PPA on completion of 25 years of the life period. However, there is no prevailing notification of the Central Government, by virtue of which, GRIDCO can withdraw from the PPAs in the middle of the life period of 25 years. Further, GRIDCO has been paying the Fixed Cost for KhSTPS Stage-II and FSTPS Stage-III from their CoD. It will not be prudent to surrender the power from the said generating stations when the FC is expected to be lower and the depreciation is nearing salvage value.

xxviii) In the ARR and BSP Order of GRIDCO for FY 2022-23 at para 369, the Commission has allowed a cushion of around 2981.71 MU from the surplus pool of power directing GRIDCO to trade the available surplus power in the market on prudent commercial principles after meeting the State requirement and adjust the revenue earnings from trading and UI sources towards meeting its loan repayment liability and past losses.

xxix) In view of the above, GRIDCO prays the Commission to approve the PPAs of KhSTPS Stage-II and FSTPS Stage-III in order to safe guard the interest of consumers of the State considering the fact that, GRIDCO is drawing power from the said generating stations from their CoD which has already been factored in the ARR and BSP Orders of GRIDCO.

15. Heard the petitioner and respondents through virtual mode. The written submissions of the petitioner and respondents are taken into record. The Commission observed that,
 - i. GRIDCO had executed the PPA with the NTPC on 11.08.2006 towards purchase of 100 MW power from KhSTPS Stage-II. But presently, GRIDCO is having power

allocation of 31 MW from KhSTPS Stage-II and after allocation of solar equivalent bundled thermal power from this power station, total allocation is considered to be 39 MW. Earlier GRIDCO had filed application in Case No. 43/2011 for approval of PPAs executed between GRIDCO and NTPC in respect of 14 nos. of thermal generating stations of NTPC including KhSTPS Stage-II. The Commission vide interim order dated 16.08.2011 in Case No. 43/2011 had raised certain queries regarding availability and utilization of surplus power arising out of execution of such PPAs with NTPC stations along with some other observations. In the final order dated 20.07.2016 in Case No.43/2011, the Commission had directed GRIDCO to make fresh submission of individual PPA separately within three months after incorporating the issues observed and direction of the Commission in its interim order dated 16.08.2011.

- ii. GRIDCO had filed application for approval of the PPA executed between NTPC and GRIDCO on 11.08.2006 for procurement of State share of power from KhSTPS Stage-II power stations of NTPC after a period of about 6 years with the replies to the observations/directions of the Commission made vide order dated 20.07.2016 in Case No.43/2011.
- iii. As stated by GRIDCO, PPAs were signed with various thermal generating stations outside the State prior to 2010-11 to overcome the power crisis of the State and to meet evening peak demand of the State and also to avoid penalty due to over drawal under low frequency condition.
- iv. The 3 nos. of generating units of KhSTPS Stage-II was commercially operated w.e.f. 01.08.2008, 30.12.2008 & 20.03.2010 respectively and GRIDCO is drawing power from this NTPC's power station since then. The Commission had approved drawal of power from this power station from its CoD except for the FY 2020-21 and 2021-22, as it did not come under merit order dispatch. However, the Commission had allowed GRIDCO to purchase power from this power station in case of any shortfall in approved quantum of power from other power stations or in case of increase in State demand. The Commission had also directed 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 towards meeting its loan repayment liabilities and past losses.
- v. GRIDCO's share of 396 MW power from NTPC generating stations i.e. FSTPS Stage-I&II and KhSTPS-I has already been de-allocated by MoP, GoI vide

notification dated 01.09.2021. Further, 460 MW Talcher Thermal Power Station has been stopped by NTPC w.e.f. 31.03.2021 due to its closure.

- vi. There has been considerable load growth of State DISCOMs in recent years. Further, in order to facilitate the requirement of power of the industries within the State, the Commission in the current tariff order has directed GRIDCO to sale available surplus power to the industries having CGPs with certain terms and conditions through a tripartite agreement executed between GRIDCO, concerned Distribution Licensee and the concerned Industry. As estimated by GRIDCO there would be around 200-300 MW of additional demand to meet the demand of industries.
 - vii. As per the LGBR prepared by GRIDCO, there would be a peak power deficit of about 300 MW during the FY 2022-23 to 2029-30, which may further increased by another 100 MW, if procurement power from KhSTPS-II and FSTPS-III is not considered.
 - viii. In view of the recent experience of acute power shortage scenario in the Country, requirement of thermal power cannot be completely ruled out for meeting the increasing demand of power in spite of large scale integration of generation from renewable energy sources in the energy mix. As experienced recently, at the time of crisis the cost of power in volatile power market becomes exorbitantly high and much higher than the tariff of the subject power plants. The rate discovered in power market had gone upto Rs.12 per unit.
 - ix. GRIDCO is drawing power from KhSTPS Stage-II of NTPC for a period of about 14 years and has already paid the fixed charge during this period. The fixed cost of this generating station is expected to have reduced substantially. KhSTPS Stage-II being a pit-head station and covered under the benefit of fiscal concessions of the mega power policy envisaged by Government of India, it may be prudent to continue drawing power from this power station instead of purchasing power from a new power station or from power market at higher price.
16. In conspectus of above facts and circumstances, it can be reasonably stated that the other parties have not been affected by such retrospective approval of the PPA executed on 11.08.2006. Under such scenario, the delay in the matter of filing of the PPA stands condoned.

17. In view of the above observations, and considering the principle of doctrine of legitimate expectation the Commission is inclined to allow GRIDCO to draw power from KhSTPS Stage-II for State consumption on merit order basis and also in case of exigencies as experienced from the recent power crisis throughout the country. GRIDCO can also trade the surplus power, if any, following prudent commercial principles after meeting the State requirements and adjust the revenue earnings towards meeting its loan repayment liabilities. Therefore, in the interest of the public, the Commission does accord approval of the PPA dated 11.08.2006 executed by GRIDCO with NTPC for purchase of State share of power from KhSTPS Stage-II of NTPC. The above approval will come into force retrospectively i.e from the date of signing of PPA. However, the Commission is of the view that drawl of power from the generating stations without prior approval of PPA by the Commission is not proper and desirable. In this regard, the letter No. 114 dt.19.01.2021 of the Commission should be strictly followed.
18. Accordingly, the case is disposed of.

Sd/-

(S. K. Ray Mohapatra)
Member

Sd/-

(G. Mohapatra)
Officiating Chairperson