

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

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

Case No. 39/2022

GRIDCO Ltd.	Petitioner
Vrs.		
M/s. NLC India Ltd. & Others	Respondents

In the matter of: Application of GRIDCO Limited under Section 86(1)(b) of the Electricity Act, 2003 read with Section 21 of the Orissa Electricity Reform Act, 1995 and other enabling provisions seeking for in-principle approval of the Hon'ble Commission towards the procurement of State Entitlement of 800 MW of power, i.e. 400 MW (Phase-I) and 400 MW (Phase-II) from (3200 MW: 4X800 MW) Thermal Power Project of M/s. NLC India Ltd. (NLCIL) at Talabira, Dist: Jharsuguda, Odisha.

For Petitioner: Shri P. K. Das, CGM (PP) & Ms. Murchhna Dhar, AGM, GRIDCO Ltd.

For Respondents: Shri S. Ravi, GM (Commercial), M/s. NLC Ltd., Shri K. C. Nanda, GM (RA & Strategy), TPWODL; Ms. Malancha Ghose, DGM (RA), TPNODL; Shri Puneet Munjal, Chief (Regulatory & Govt. Affairs), TPCODL; and Shri V. Wagle, Regulatory Affairs, TPSODL and Shri R. P. Mahapatra are present. Nobody is present on behalf of DoE, GoO.

ORDER

Date of Hearing: 11.10.2022

Date of Order: 05.11.2022

1. The present application has been filed by the Petitioner- M/s. GRIDCO under Section 86(1)(b) of the Electricity Act, 2003 read with Section 21 of the Orissa Electricity Reform Act, 1995 and other enabling provisions wherein it has been prayed to accord in-principle approval for procurement of State entitlement of 800 MW of power, i.e. 400 MW (Phase-I) and 400 MW(Phase-II) from upcoming Green Field Project of M/s. NLCIL at Talabira, Jharsuguda through STU network on Cost Plus Tariff basis subject to grant of exemption by Ministry of Power, Government of India as per letter dated 19.11.2020.
2. The Respondent No. 1 M/s. NLCIL, Talabira Project, is a Pit-Head Coal Fired Supercritical Thermal Power Plant having Installed Capacity of 3200MW (4x800MW) at an estimated cost of Rs.23,569.60 Crore (3x800MW: Phase-I) and (1x 800MW : Phase-II) is being established in the State of Odisha as per the provisions of Clause 4(D) of State Thermal Policy dated 08.08.2008 notified by the Department of Energy,

Government of Odisha. Power Purchase Agreement (PPA) for 2000 MW had been entered into with UT of Puducherry (100 MW), State of Kerala (400 MW) and State of Tamil Nadu (1500 MW) as on 05.01.2011 and Ministry of Power (Govt. of India) had allocated power of Phase-I (3x800 MW) of the project in above line, vide letter No.06/01/2010-St.Th (Vol.I) dated 19.11.2020.

3. The petitioner-GRIDCO has submitted the following:

- (a) The Proposal for procurement of 800 MW power from NLCIL was placed before the 172nd Board of Directors (BOD) meeting of GRIDCO held on 18.01.2018, wherein after detail deliberation, it has been decided for consideration of procurement of 800 MW (25% of proposed capacity) power from NLCIL. The proposal was recommended to High Level Clearance Authority (HLCA) of the State Government for consideration as per the decision taken in the 90th State Level Single Window Clearance Authority (SLSWCA) meeting held on 28.02.2020. In the 22nd HLCA Meeting held on 29.02.2020, the recommendations of the 90th SLSWCA was accepted and accordingly approved the set of conditions for the proposed project of M/s. NLC India Ltd. The recommendation of HLCA with respect to the power allocation stated that: *“25% of the proposed capacity of 3200MW shall be allocated to the State of Odisha in the following manner. Phase I-400MW Phase-II-400MW.”*
- (b) Due to volatile nature of power market and with a long term perspective, it may be beneficial to have long term agreement with M/s. NLCIL for supply of the State entitlement of power.
- (c) The facts effectively justify the proposal to procure power from the upcoming green field thermal power project of M/s NLCIL which would require about 52 months for commercial operation are as follows:
 - As per the latest estimated Long term LGBR, i.e. up to the FY 2029-30, it is observed that GRIDCO already have Peak shortfall and it will continue for the above period, even considering the 400 MW (Phase-I) of NLCIL. Therefore, unless there is capacity to sustain this peak shortfall, in case of sudden breakdown of large supercritical units of 500 MW and above, reliable and uninterrupted power supply strategy of the State Government would be seriously jeopardized.

- The State has witnessed an unexpected rise in power demand in the post pandemic scenario. For instance, the DISCOM consumption has increased from 2477.09 MU in April 2021 to 2856.65 MU in April 2022, thus a growth of 15% has been observed. The demand has not only increased in Odisha but also across the country leading to power crisis situation over pan India in the month of April 2022.
 - Another crucial factor for such power crisis was unavailability of coal. However, pithead stations are usually least affected by such coal crisis. M/s. NLCIL has been allotted with Coal Blocks that are fully operational and would be advantageous for its beneficiaries to mitigate the impact of coal crisis. It is anticipated that the Pan India coal crisis would aggravate further in the coming years.
 - In view of the recent experience of power shortage and exorbitantly high rates discovered in power exchange for which CERC had to cap price from Rs.20/kWh to Rs.12/kWh.
 - In view of phasing out of NTPC- CGS stations, uncertainty in supply of power by IPPs like JITPL and Vedanta, frequent outage of large size thermal units (such as Darlipalli), it is apparent that there shall be further requirement of thermal power to meet State demand and for Base Load support, inevitably during evening peak hours.
 - Further, 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. The enhancements may lead to further increase in demand of about 200 to 250 MW.
 - Moreover, it would be futile to rely upon renewable energy sources and hydro power in view of their inherent disadvantages i.e. non-availability of renewable power during night time and uncertainty in monsoon.
- (d) M/s. NLCIL vide letter dated 26.02.2021 intimated that the Indicative levelized tariff for the said project shall be Rs.3.06/ kWh (Fixed Charges: Rs.2.08/ kWh and variable cost/ Energy Charge Rate: Rs.0.98/ kWh).
- (e) Further, in the recent meeting held on 30.03.2022 between GRIDCO and M/s. NLCIL, representatives of M/s. NLCIL informed that, the upcoming thermal

project being a “Composite Scheme” (supplying power to more than one State), tariff of power shall be as per the tariff to be determined by Central Electricity Regulatory Commission (CERC) from time to time as per norms & parameters fixed by CERC, which will be applicable to all its long term beneficiaries and the tentative tariff shall be Rs.3.29/kWh (First Year) and estimated levelised tariff shall be Rs.3.06/kWh as per the Section 79 (1) (b) of the Electricity Act, 2003.

- (f) During the meeting held on 30.03.2022, representatives of M/s. NLCIL have informed that, under the existing Regulation, issue of dual connectivity of the generator (i.e. both to STU and CTU) is acceptable and M/s. NLCIL can supply State share of 400 MW from its Phase I at STU network (i.e. at 400kV to be delivered at Ex- Bus NTTTP to Lapanga Grid Sub-station of OPTCL) and no ISTS charges and losses shall be payable by GRIDCO for availing the State share of power. However, once CERC (Connectivity and General Network Access to the Inter-State Transmission System) Regulation, 2021, comes into force, NLCIL shall have to apply to CTU for LTA for sale of 2000 MW to other States, leaving aside the State share of power of 400MW, which is to be evacuated through STU network, for which no LTA is required. The dedicated line for connecting to STU shall be constructed by M/s. NLCIL.
- (g) In the said meeting, NLCIL intimated that the Phase II (1x800MW) of NLCIL project shall be taken up at later stage during execution of Phase-I. NLCIL informed that the tender for the plant has already been floated and bid opening was scheduled on 26.04.2022. The proposed pit head thermal plant at Talabira: Phase-I (3x800MW) of NLCIL shall be commissioned tentatively by the end of 2026 or beginning of 2027 as per the statement of NLCIL representatives.
- (h) The Commission, vide Order dated 26.05.2020 in Case No. 11/2020 (Para 39(c)), has directed that GRIDCO may sign additional PPAs with prior consultation with TPCODL, other retail supply licensees in the State and with the prior approval of the Commission. Accordingly, vide letters dated 19.01.2021, 05.04.2022, and 26.04.2022 the Petitioner GRIDCO communicated the proposal of procurement of 400MW of power from Phase I of the proposed Pithead Thermal power Project by M/s NLCIL at Cost Plus Tariff from M/s. NLCIL to the four State DISCOMs. Further, vide letter dated 23.05.2022, consent/views was sought again from the DISCOMs by specifying the

possibility of exemption from the Competitive Bidding Route as per the extant Tariff Policy, as mentioned in the Ministry of Power letter dated 19.11.2020. TPCODL has given its consent for purchase of 400MW of power from M/s. NLCIL by GRIDCO and have requested that suitable exemption from competitive bidding route may be sought from the Commission or appropriate authority. It is understood from TPCODL that the other three DISCOMs are also of same view.

- (i) In-principle approval of the Commission is essential prior to issuance of In-Principle consent to M/s. NLCIL for procurement of the State Entitlement of power by GRIDCO from M/s. NLCIL. Thereafter, required request letter with sufficient justification regarding procurement of power shall be issued to the Ministry of Power, Government of India through Department of Energy, Government of Odisha for grant of necessary exemption from procurement of power through Competitive Bidding Route as per the extant Tariff Policy, 2016.
- (j) The state is witnessing a surge in demand due to post-covid economic recovery and unexpected heat wave during summer which has put the State to a very precarious power deficit position due to outages of large generating stations. Under the current scenario of accelerated increase in demand of power in the State, the Renewable Energy Projects would be inadequate to meet the energy and peak demand growth of the State. The estimated provisional peak power demand is projected to increase from 5700 MW in the FY 2023-24 to 6866 MW in the FY 2029-30 including STU loss of 3%. The estimated figure shows that the State would suffer peak deficit of power at an average of approx.500 MW (with cushion towards contingency of 400 MW) during the year FY 2022-23 to FY 2029-30 even after considering the RE availability and RPO target of 30%.

4. The Respondent No. 2 TPWODL has submitted as follows:-

- a) TPWODL has conveyed its consent towards the power procurement from NLC subjected to approval from Commission vide letter dated 19.07.2022.
- b) Ministry of Power, GoI, vide letter dt.19.11.2020, intimated GRIDCO that allocation of 400 MW in phase-I to Odisha is subject to submission of detailed justification from Government of Odisha and also request from NLCIL for grant of exemption from competitive tariff based bidding as per National Tariff Policy, 2016 vide clause 5.3. So suitable exemption may be obtained from MoP, GoI in this regard to avoid bidding for competitive tariff.

- c) As per LGBR upto FY 2029-30, GRIDCO has already faced the peak shortage and assumed to be continued till the said period even after considering this 400 MW thermal power from NLCIL. Enhancing RE portfolio and reducing carbon footprint is the prime target at present for the state but for meeting peak demand or for base load, thermal power is still required.
- d) Further, considering the volatile nature of power market due to many reasons like market conditions, metal price in international market, scarcity in coal availability etc. the 400 MW thermal power from M/s. NLCIL is quite a good option from multiple aspects, as it is a pit-head coal-fired supercritical thermal power plant. Being a pit head station, fuel will be readily available and being a plant with super critical units, the efficiency will be more and green house gas emission will be less.
- e) The Commission may observe that M/s. NLCIL also informed that under existing regulation, issue of dual connectivity (both CTU & STU) of the generator is permissible and they are ready to supply the state share at STU network (i.e. at 400 kV to be delivered at Ex-Bus NTTTP to Lapanga Grid Sub-station of OPTCL). Therefore, the advantage is that there shall not be any transmission loss and no ISTS charge payable by GRIDCO to avail this 400 MW thermal power. Another advantage is that M/s. NLCIL would construct the dedicated line, required for evacuation of the power at STU.

5. The Respondents No. 3 and 4 TPCODL & TPNODL respectively have submitted as follows:-

- a) The advantage of this project is that it is based in Odisha and hence Construction and Operation of the project would greatly help the state economy. Further, the project is a Pit- Head Plant and its location reduces the transportation cost of coal and also improves the availability of the fuel for the power plant. Moreover, the first year tariff projected (inclusive of FGD cost) is Rs.3.29/ kWh (estimated for FY 2026-27) and is around the same as the Bulk Supply Price (BSP) of GRIDCO for FY 2022-23 (Rs.3.12/ kWh)
- b) The plant is estimated to be commissioned in FY 2026-27 i.e. about 4.5 years from now. As per the computation of GRIDCO for LGBR, the capacity can be absorbed in the requirement for the state. In this regard, the Ministry of Power in its recent order dated 22nd July 2022 has released new RPO trajectory, wherein the RPO has increased substantially (it gradually increases from 24.61% in FY

2022-23 to 43.33% in FY 2029-30). Further, it is even stipulated in the above order that the State Commission may consider notifying RPO trajectory for their respective states which will be over and above the RPO, HPO and Energy Storage Obligation trajectory provided in the MoP Order. In this backdrop, the Commission may satisfy itself on requirement of thermal capacity in future.

- c) Since, the determination of tariff under Section 62 as sought by NLCIL/GRIDCO is not in line with the provisions of the National Tariff Policy, 2016 as acknowledged in the petition also, specific exemption from its application would be required. While TPCODL & TPNODL are agreeable to grant the consent for purchase of 400 MW from the above project, the Commission may consider the above views before taking final decision on this case matter.

6. The Respondent No. 8 Shri R. P. Mahapatra has submitted that:

- a) In Phase-I, the Units 2 & 3 will be commissioned at 6 months interval after commissioning of Unit 1. Since there are 4 beneficiaries sourcing power from Phase-I, it may be confirmed how the generating capacity of each of the Units will be shared by the beneficiaries on commissioning.
- b) Since the Phase-II (1X800 MW) of the project will be constructed as an extension of Phase-I using the common facilities, sourcing of power of Phase-II can be included in the present PPA for Stage-I or through an amendment to the PPA Stage-I when Stage-II project is firmed up.
- c) The levellised tariff has been mentioned as Rs.3.06/kWh. It has to be confirmed whether the tariff for power to be received under Phase-II shall also be Rs.3.06/kWh. If not, what is the anticipated tariff for Phase-II.
- d) In accordance with the direction of the Commission, power is being sourced based on 'Merit Order Despatch'. Therefore, a provision may be made in the PPA that in case power from this project is not drawn at all or in full based on Merit Order, no fixed charges would be payable to NLCIL. However, the period for intimation may be incorporated in the PPA.
- e) The Commission may consider that the generator can sell the power not scheduled by the beneficiary, not only at the ECR, but even a part or full of the Fixed Charges can be recovered. This is particularly so when the EC for a pit-head thermal station in Odisha is only 98 p/u and the total cost is 306 p/u. Therefore there should be a provision in the PPA that only such of the fixed cost

which is not recovered by sale to other consumers either through short term PPA or through energy exchange will only be recovered from GRIDCO. It may further provide that any additional profit made by NLC will be shared with GRIDCO. This is in line with the approved PPA of the Commission for power sale by CGPs to GRIDCO.

- f) The PPA may have a provision for penalty clause in case of delayed commissioning, even though NLCIL have given necessary assurance to take all out efforts for timely completion of project. The Commission may take necessary decision in this respect.

7. The Respondent No. 7 M/s. OPTCL has submitted as follows:-

- a) Vide letter dated 26.02.2021 M/s. NLCIL has proposed a 400 kV switchyard with 765/ 400 kV ICTs and 400 kV transmission line to Lapanga S/s of OPTCL for evacuation of state entitlement of power (as per preliminary report of CEA). As per notes of discussion dated 09.04.2021 between GRIDCO, OPTCL and NLCIL two alternative options for drawl of the state share of 400 MW power was deliberated:

Option-1: All units (3X800 MW) may be connected to 765 kV substation which in turn will be connected to 400 kV substation inside NLCIL through 765/400 kV ICT. NLCIL shall take the responsibility for evacuation of the 400 MW share of GRIDCO at 400kV Lapanga S/s of OPTCL. No ISTS charges and losses are to be paid by GRIDCO for availing State share of Power.

Option-2: One unit of 800 MW will be connected separately to 400 kV switchyard of NLCIL and GRIDCO will draw its share of 400 MW through STU network and i.e. 400 kV Lapanga S/s of OPTCL and balance 400 MW can be drawn by other beneficiary through CTU and STU tie points of Odisha with applicable STU charges for balance 400 MW by other beneficiary.

NLCIL informed that construction and O&M of 400 kV transmission line to 400 kV Lapanga S/s for evacuation of 400 MW Odisha share of power shall be discussed after firming up of power evacuation system in due consultation with CTU/CEA. A detailed system study was to be carried out by OPTCL for connectivity to OPTCL S/s as per procedure and practice.

- b) OPTCL has conducted system study during August 2022 for Option-1, to avoid complicity of commercial treatment during breakdown and shutdown issue in

case of one splitting unit connected to 400 kV Bus of NLCIL as described in Option-2.

OPTCL has conducted system study for all 4 units of NLCIL connected to 765 kV Bus of NLCIL and stepped down through 2 nos. of 765/400 kV ICTs and connected to 400 kV Bus of NLCIL. 765 kV NLCIL bus is connected 765 kV Jharsuguda PG through D/C line and 400 kV NLCIL bus is connected to 400 kV Lapanga S/s through D/C lines.

Power flow to the tune of 512.5 MW in each line of 400 kV NLCIL –Lapanga Ckt-I & II is within permissible limit. Power flow to the tune of 1087.5 MW in each line 765 kV NLCIL –Jharsuguda Ckt-I & II is also permissible. Connection of 400 kV D/C line to Lapanga S/s of OPTCL is feasible.

It also satisfies the contingency condition i.e. either tripping of one of NLCIL-Lapanga 400 kV D/C line or NLCIL-Jharsuguda PG D/C line.

- c) As per record notes of discussion between GRIDCO and NLCIL on 30.02.2022, it was finalized that –
- The dual connectivity of Generator is acceptable to NLCIL and NLCIL can supply State share of 400 MW power from its Phase-I at STU network and no ISTS charges & losses shall be payable by GRIDCO for availing State share of Power.
 - The dedicated transmission line for connecting to STU (Lapanga S/s of OPTCL) will be constructed by NLCIL.
 - GRIDCO has opined that NLCIL has to apply to CTU for LTA for sale of 2000 MW to its beneficiaries except Odisha.
 - Further, GRIDCO shall have to obtain consents from DISCOMs for procurement of 400 MW power from NLCIL Phase-I.
 - Moreover, both NLCIL and GRIDCO shall pursue with MoP, GOI for allocation of above 400 MW power and grant of exemption from procurement through Competitive Bidding Route.
- d) Confirmation is required whether the CTU connectivity permission has been obtained by NLCIL for evacuation of balance share of Power of other beneficiaries & submission of relevant documents thereof.

- e) OPTCL has received Minutes of Meeting dated 08.07.2022 held under the Chairmanship of Chief Secretary, Odisha on implementation of high value transmission projects through tariff based competitive Bidding, vide letter dated 20.07.2022 from DoE, GoO. In the said meeting dated 08.07.2022, it was discussed that Lapanga S/s would get congested soon due to enhancement of power demand of the industries and also shifting of present voltage level of these industries from 220 kV to 400 kV. It was also discussed to carry out load flow study for setting up a 765/400 kV S/s near Rengali, Sambalpur by tapping 765 kV Angul PG-Jharsuguda PG line. OPTCL was also advised to find out availability of land for the proposed projects for finalizing the project. Subsequent to the meeting, OPTCL found out a site at Kolabira in Jharsuguda district for setting up a 765/400 kV S/s which has been planned for evacuation of power from NLC and also to meet enhanced demand of industries (M/s Bhusan Steel, M/s. Aditya AI & M/s Shyam Metallics etc.). As there is corridor issue for further connectivity with Lapanga S/s, therefore, it is proposed to have 765/400 kV Grid at Kolabira by LILO arrangement of 765 kV Angul PG-Jharsuguda PG line, NLC-Kolabira 765 kV D/C line and NLC-Jharsuguda 765 kV D/C line. As a result, NLC will have dual connectivity i.e. 765 kV DC line with Kolabira S/s and also 765 kV DC line with Jharsuguda PG for evacuation of power (4x800)MW.
- f) The power flow in the line is forecasted to be within permissible limit of line capacity. OPTCL is in process of getting approval from CTU for above LILO line to be executed through TBCB mode. Further, the associated transmission system to be developed by NLCIL on connectivity to Lapanga S/s is adequate as per study report of OPTCL. Therefore, the new proposal may be considered by the Commission subject to consideration of the proposed connectivity from NLCIL. Moreover, NLCIL is to develop the associated Transmission System for evacuation of State share of Power and approval of CTU for LILO arrangement of 765kV Angul PG-Jharsuguda PG line at Kolabira S/s may be obtained.

8. GRIDCO, in response to queries raised by the Respondent No. 8 Shri R. P. Mahapatra has submitted as follows:-

- a) The CoD declaration of units will be done in phased manner as proposed by NLCIL. The power dispatched from Generating station will be scheduled

proportionately to beneficiaries by RLDC and RPC based on the power allocation.

- b) The 1X800 MW (Phase-II) will be constructed as an extension of Phase-I in the same premises utilizing some common facilities. The tendering for Phase-I has already advanced to techno-commercial evaluation stage and physical possession of land as well as LoA for the main plant EPC is targeted by March 2023. Implementation of Phase-I will be 52 months for the first unit i.e. September 2027 and within 6 months interval for the subsequent Units (Unit-2 March 2028 and Unit-3 September 2028). NLCIL will seek approvals for Phase-II during execution of Phase-I. Implementation schedule for Phase-II will be 48 months from the date of LOA. The proposed commissioning of Phase-II Unit will be during March 2029.
- c) After getting necessary approval from the OERC, GRIDCO will give consent for availing 400 MW from upcoming Phase-I (3X800 MW) Green Field project. After that NLCIL will approach MoP to allocate proposed share of power to Odisha state as per MoP letter dated 19.11.2020. Accordingly, PPA will be executed for phase-I and subsequently based on the approval of OERC, separate PPA for Phase-II will be executed.
- d) The tariff indicated is for Phase-I and is provisional only which is based on the estimated completion cost of Phase-I. Being a pit head project and the Phase-II is an extension of Phase-I utilizing the common facilities, the tariff for Phase-II also would be close to Phase-I tariff. However, the project cost may undergo changes based on prudence check by CERC. The tariff applicable of that project would be finally determined by CERC as per the CERC Tariff Regulations. However, NLCIL may be asked to give further clarification on the matter.
- e) Bills for power supplied from Neyveli Talabira Thermal Power Project (NTTPP) will be raised based on Regional Energy Account (REA) published by Eastern Regional Power Committee (ERPC) on monthly basis.
- f) As per Chapter 11, Regulation 42 of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019, the recovery of fixed charges for the generating station is based on the Normative Plant Availability Factor (NAPAF) only and energy Charge is based on scheduled energy. Fixed charges are for long term investment and fixed charges will be applicable in line with the Regulations. Further, as per Sub-clause 4 of Clause 9

of MoP Electricity (Late Payment Surcharge and Related Matters) Rules 2022, “*The liability of payment of fixed charges towards the unrequisioned power shall remain with the distribution licensee.*” Hence, even when the DISCOM does not schedule power from a generating station, it shall be still liable for payment of fixed charges to the generating station. However, the Commission may issue suitable directions. There is no provision in the existing Regulation regarding non-payment of fixed charges of a Generator if the power is not scheduled. NLCIL has given necessary assurance that the project would be completed within the time schedule.

9. During hearing, the Commission raised the issue regarding flexible operation of generating units of the Power Plant to accommodate variability in generation from RE sources. The representative of M/s NLCIL informed that the directions/guidelines of the Ministry of Power (Govt. of India) & CEA will be followed in this regard.
10. Heard the Petitioner and Respondents through virtual mode and considered their arguments and written submissions. The Commission observed that the Coal Fired Supercritical Thermal Power Plant which is being established by NLCIL at Talabira in Odisha in two phases is a pit-head station with Installed Capacity of 3200MW i.e. (3x800 MW) in Phase-I and (1x800 MW) in Phase-II. The Generating Units of Phase-I & Phase-II are likely to be commissioning in 2027 & 2029 respectively. GRIDCO has submitted that as per the latest estimated Long term LGBR, the Peak shortfall in demand is expected to continue till FY 2029-30, even after considering the share of 400 MW from Phase-I Generation of M/s. NLCIL. Being unable to generate to their maximum capacity due to Pan India coal scarcity, many industries including industries having CGPs in our State have expressed their willingness to enhance their existing contract demand. It shows that there is requirement of thermal power to meet Base load as well as a support for peak load requirement of the State.
11. It is further proposed by OPTCL that power generated at Talabira would be evacuated at voltage level i.e. 765 kV and 400 kV. OPTCL has already undertaken system studies in this regard. Accordingly, OPTCL has proposed construction of a new 765/400 kV sub-station at Kolabira in Jharsuguda district to which 765 kV D/C line from Talabira power station shall be connected. The Odisha share of power will be evacuated at 400 kV from Kolabira sub-station through Kolabira – Lapanga (OPTCL) 400 kV D/C line. The following network arrangement is proposed at Kolabira 765 /400 kV sub-station and at NLCIL power station end:

- a. Loop In Loop Out (LILO) of Angul (PG)-Jharsuguda (PG) 765 kV Double circuit line at Kolabira
- b. NLCIL-Kolabira 765 kV D/C line
- c. NLCIL-Jharsuguda (PG) 765 kV D/C line and
- d. Kolabira-Lapanga 400 kV D/C line etc.

As a result, the generating station of NLCIL will have dual connectivity at 765 kV level i.e. with Kolabira & Jharguguda sub-stations of Powergrid for evacuation of outside Odisha share of power. The power flow in the line is expected to be within permission limit. However, the dedicated line for connecting to STU system/network will be constructed by NLCIL and hence no ISTS charges and losses shall be payable by GRIDCO for availing State share of power.

12. The Commission has also considered the following aspects while evaluating the procurement of power from NLCIL by GRIDCO:
 - (a) There will be requirement of thermal power on long term basis for meeting energy requirement and peak demand of the State in 2027 & 2029 time frame due to expected increase in power demand and industrial growth in the State as well as economic growth of State.
 - (b) Being a pit head station, coal will be readily available and transportation cost of coal will be reduced resulting in low variable cost of generation.
 - (c) Being a plant with supercritical units, efficiency will be more and greenhouse gas emission will be less.
 - (d) Allotment of coal blocks to NLCIL, which are fully operational, would be advantageous for its beneficiaries to mitigate the impact of coal crisis which affected Pan India thermal Power Station recently.
 - (e) Tariff is to be determined by CERC from time to time in a transparent manner. The tentative tariff shall be Rs.3.29/kWh (inclusive of FGD cost) for the initial year (first year) and estimated levelised tariff shall be Rs.3.06/kWh (fixed charges: Rs.2.08/kWh and variable charges/energy charges: Rs.0.98/kWh), which is quite reasonable.
 - (f) Recent experience of power shortage in the country due to Pan India coal crisis and volatile power market resulting in exorbitantly high cost discovered in power exchange (i.e. Rs.12/kWh)

- (g) Dedicated line would be constructed by NLCIL for evacuation of state share of power from the generating station through STU network, thereby no ISTS charges and losses shall be payable by GRIDCO.
 - (h) Uncertainty in availability of power from IPPs, outage of large size thermal units e.g. 660 MW unit at Darlipali, uncertainty of monsoon and non-availability of renewable power during night time (peak hours).
 - (i) Conveyance of consent of all four DISCOMs (TPNODL, TPSODL, TPNODL & TPWODL) for procurement of power from NLCIL.
13. In view of the above, the Commission feels that requirement of thermal power cannot be completely ruled out for meeting increasing demand for power in spite of large scale integration of RE power and hence hereby grants in-principle approval for procurement of the State entitlement of 800 MW of power by GRIDCO, i.e. 400 MW (Phase-I) and 400 MW (Phase –II) from upcoming Green Field Project of M/s. NLCIL at Talabira at Cost Plus Tariff subject to grant of exemption by Ministry of Power, Government of India in respect of competitive tariff based bidding in line with provision in National Tariff Policy, 2016.
14. **This is an in-principle approval only for procurement of 800 MW of State share of power in two phases (Phase-I : 400 MW, Phase- II : 400 MW) from NLCIL’s Talabira plant in Odisha as per CERC determined tariff without any liability of payment of ISTS charges. This should not be construed as approval of PPA. The PPA to that effect should be executed between the parties and shall be submitted before the Commission for approval.**
15. GRIDCO is directed:
- (a) To ensure the resolution of the power evacuation system and connectivity issue with CTU & STU network before signing the PPA. **The present in-principle approval should not be treated as approval of connectivity arrangement.**
 - (b) To obtain necessary grant of exemption relating to competitive tariff based bidding as per Tariff Policy, 2016 from the Ministry of Power, Government of India through the Department of Energy, Government of Odisha for procurement of power.
 - (c) To submit the draft PPA to be executed for Phase-I and for Phase-II (if separate PPA is not required) for approval of the Commission. Before submitting draft PPA, further consultation with State Government should be made to firm up

State share of Power with due regard to State Thermal Policy notified by Government of Odisha dated 08.08.2008.

- (d) To consider inclusion of the provision for penalty in the PPA for delay in commissioning of the project.
16. Large scale integration of Renewable generation requires flexible operation of thermal power plant. M/s. NLCIL need to consider such operation in future as and when required in line with notification/guidelines of Ministry of Power, Government of India or the CEA, and take steps on this matter during detailed engineering stage to avoid additional tariff burden on consumer of the State in future.
17. The case is accordingly disposed of.

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

Sd/-
(G. Mohapatra)
Officiating Chairperson