CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI

Petition No. 630/MP/2020

Coram:
Shri I.S. Jha, Member
Shri Arun Goyal, Member
Shri P.K Singh, Member

Date of Order: 25.7.2022

In the matter of
Petition under Section 79(1)(c) of the Electricity Act, 2003 read with Regulation 6.4 of CERC (Indian Electricity Grid Code Regulations), 2010 and 33A (Power to Relax) and Regulation 33B (Power to Remove Difficulties) of the CERC (Grant of Connectivity, Long-Term Access and Medium-Term Open Access in inter-State Transmission and related matters) Regulations, 2009 for seeking appropriate dispensation and guidance in terms of the Minutes of Meeting dated 10.1.2020 between the Petitioner and the Respondents for implementation of closed bus operation of Unit 1 (connected to STU) and Unit 2 (connected to ISTS) at Petitioner's 2×300 MW coal based thermal generating station located at Tadali, Chandrapur in the State of Maharashtra.

And in the matter of
Dhariwal Infrastructure Ltd.
Registered Office: CESC House
Chowringhee Square
Kolkata – 700001, West Bengal **….Petitioner**

Vs

1. Power Grid Corporation of India Ltd.
(Central Transmission Utility)
Saudamini, Plot No.2, Sector 29,
Gurgaon (Haryana) – 122001.

2. Central Electricity Authority
Sewa Bhawan, R. K. Puram, Sector-1,
New Delhi - 110 066.

3. Western Regional Power Committee
F-3, MIDC Area, Marol,
Central Road, Andheri (East),
Mumbai - 400 093.

4. Western Regional Load Despatch Centre
F-3, MIDC Area,
Marol, Andheri (East),
Mumbai - 400 093.

5. Maharashtra State Electricity Transmission Company Ltd.
(State Transmission Utility),
Prakashganga, Plot No.C-19, E-Block,
Bandra-Kurla Complex, Bandra (E),
Mumbai - 400 051.

6. National Load Despatch Centre
B-9 (1st Floor),
Qutab Institutional Area,
Katwaria Sarai,
New Delhi -110016.

7. Maharashtra State Load Despatch Centre
Thane-Belapur Road, Airoli
Navi Mumbai - 400 708. **….Respondents**

Parties Present: Shri Sanjay Sen, Sr. Advocate, DIL
Shri Avijeet Lala, Advocate, DIL
Ms. Meha Chandra, Advocate, DIL
Ms. Mandakini Ghosh, Advocate, DIL
Ms. Suparna Srivastava, Advocate, CTU
Ms. Soumya Singh, Advocate, CTU
Shri Tushar Mathru, Advocate, CTU
Shri Subir Kumar Saha, DIL
Shri Aveek Chatterjee, DIL
Mr. Rabi Chowdhury, DIL
Mr. Bhaskar Kumar Ganguly, DIL
Mr. Shubhayu Sanyal, DIL
Mr. Aditya Das, WRLDC
Ms. S. Usha, WRLDC
Mr. Sudhanshu S Choudhari, MSLDC & MSETCL
Mr. Mahesh Shinde, MSLDC & MSETCL

ORDER

The Petitioner, Dhariwal Infrastructure Ltd. ("DIL") has set up a 2X300 MW Coal-fired thermal generating station located at Chandrapur in the State of Maharashtra. Unit 1 of the Project achieved Commercial Operation Date on 11.02.2014 and Unit 2 of the Project achieved COD on 02.08.2014. The Petitioner is seeking appropriate dispensation and guidance from the Commission in terms of implementation of closed bus operation of Unit 1 (connected to STU) and Unit 2 (connected to ISTS) at Petitioner's 2x300 MW coal-based thermal generating station.

2. The Petitioner has made the following prayers:

"

a) *Admit the Petition;*

b) *Allow inter-connection of 400 KV buses of STU-connected Unit 1 and CTU-connected Unit 2 of the Petitioner's generating station, without prejudice to the existing connectivity of Unit 1 with STU and Unit 2 with CTU;*

c) *Direct Respondent No. 4/WRLDC to schedule power from Unit 1 of Petitioner's generating station post inter-connection of the buses as per relevant provisions of the Act while continuing to schedule the power from Unit 2 to TANGEDCO and NPCL under respective long-term PPA's as per present practice;*

d) *Direct Respondent No. 3/WRPC to certify the energy accounts for the energy scheduled by Respondent No. 4/WRLDC from Unit 1 post inter-connection of the buses as per relevant provisions of the Act in addition to certifying the energy accounts for the energy scheduled from Unit 2 of the Petitioner's generating station as being done presently;*

e) *Declare that only PoC charges and losses shall be applicable and state transmission charges and losses shall not be applicable for the energy scheduled from Unit 1 on CTU network while the PoC Charges and Losses would continue to be applicable for the contracted capacity/energy scheduled from Unit 2 on CTU network of the Petitioner's generating station post inter-connection of the buses;*

f) *Declare that only State transmission charges and losses shall be applicable and PoC charges and losses shall not be applicable as per the existing practice for the energy scheduled from Unit 1 on STU network from the Petitioner's generating station post inter-connection of the buses;*

g) *Condone any inadvertent omission/errors/shortcomings and permit the Petitioner to add/change/modify/alter the present pleading/petition and may also grant leave to the Petitioner to make appropriate submissions at any future date in regard to the present proceedings; and*

h) Pass such other order/s which the Hon'ble Commission deems fit in the facts and circumstances of the instant case.

"

Submissions by the Petitioner

3. The Petitioner vide affidavit dated 3.9.2020 has submitted as follows:

(a) Unit 1 of the Petitioner's generating station is connected to State Transmission System at 400 KV Chandrapur II Sub-station of Respondent No. 5, Maharashtra State Electricity Transmission Company Limited through a 8 km long dedicated 400 KV D/C line. On the other hand, Unit 2 of the generating station is connected through a 19 km long 400 KV D/C line to ISTS network through LILO arrangement of CTU (PGCIL)-owned 400 KV Bhadravati – Parli Ckt-II, which in turn is connected to 400 KV Bhadravati Sub-station and 400 KV Parli Sub-station of PGCIL. Both the 400 KV lines, that is, the 8 km 400 KV D/C line from Unit 1 to MSETCL and the 19 km 400 KV D/C from Unit 2 to LILO point of ISTS system have been constructed and are maintained by the Petitioner at its own cost.

(b) Both Units 1 and 2 of the generating station are presently being operated in disconnected bus mode and in the present arrangement, the power from Unit 1 and Unit 2 are evacuated independently through the state and central transmission systems respectively. The energy from Unit 1 is scheduled by Respondent No. 7, MSLDC and it is considered as a state entity in Maharashtra. On the other hand, energy from Unit 2 is scheduled by Respondent No. 4, WRLDC and it is considered as a regional entity.

(c) Petitioner has tied-up 170 MW net Contracted Capacity with Noida Power Company Limited (**"NPCL"**) under a long-term PPA of 25 years, and 100 MW net Contracted Capacity with Tamil Nadu Generation and Distribution Corporation Limited (**"TANGEDCO"**) through a long-term PPA of 15 years from Unit 2 which is connected to the CTU system. However, there is no LTA for Unit 1 and power is sold from Unit 1 under STOA route. The Petitioner has so far achieved very low Plant Load Factor ("**PLF**") for Unit 1 since its COD including several non-operational spells of the Unit.

(d) In order to alleviate its financial distress arising out of sub-optimal operation of Unit 1, the Petitioner is intending to connect the presently disconnected station buses by reconnecting the segregated buses of the bus sectionalisation arrangement and connecting Unit 1 and Unit 2 of the generating station. Such connected bus operation will immensely help the Petitioner to explore opportunities for sale of the un-tied capacity from Unit 1 within and outside the State of Maharashtra at competitive tariffs.

(e) A meeting was held by CEA on 10.01.2020 for examining Petitioner's proposal to allow closed bus operation of Unit 1 and Unit 2 at its 2X300 MW TPP. The meeting was attended by participants from CEA, WRPC, PGCIL/CTU, POSOCO, MSETCL and the Petitioner. There are no technical issues in operating both Units 1 and 2 in connected bus mode, as is evident from the MoM with CEA. Only the issues relating to connectivity, commercial arrangements, scheduling and control area, applicable transmission charges and losses need to be addressed prior to establishment of this interconnection. For this reason, the Petitioner was advised to approach the Commission to seek an appropriate dispensation and guidance.

(f) The primary objective while granting connectivity is to determine the technical feasibility of addition/modification of an element to the grid and confirm adherence to the standards laid down by Central Electricity Authority (Technical Standards for Connectivity to the Grid) Regulations, 2007. Any decision on such applications should only be based on technical considerations related to grid security.

(g) The Petitioner, for the purpose of evaluating the technical feasibility of the proposed operation of Unit 1 and Unit 2 under connected bus condition, has conducted power flow studies with all four lines (i.e. the two lines connected to STU network from Unit 1 and two lines connected to ISTS/CTU network through LILO arrangement from Unit 2) in service and possible contingent conditions. As per the Petitioner, the results of power flow studies, was within operational limit and as such the system shall remain N-1 compliant even after

connected bus condition, which further ensures that the system reliability and secured operation of the grid shall not be compromised.

(h) In case the 400 KV DIL-Chandrapur D/C line connected to STU, i.e., MSETCL, is kept open, it would render the asset idle for its balance life thereby making the capital investment towards construction of this dedicated asset redundant. A stranded transmission asset is often vulnerable to theft and sabotage and will only increase additional overheads on account of security. Further, it would also reduce the reliability of the plant as a whole.

(i) Since the Petitioner would only be allowed to sell power through short-term bilateral transactions and collective transactions under this arrangement from the Unit 1, no augmentation in transmission system is envisaged as such short-term sale will be allowed by the system operator only when there is real time availability of transmission corridors. Thus, the proposed arrangement by the Petitioner would not lead to any burden to any stakeholders (viz., the transmission utilities) on account levy of transmission charges under the proposed arrangement.

(j) The intra-state buyers drawing power from Unit 1 utilizing the STU Network are presently not liable to pay the PoC charges and losses since no part of the ISTS network is utilized in transfer of such power from Unit 1. As such, the ISTS network shall not be utilized for such supply post the connected bus operation of Unit 1 and Unit 2, and, therefore, the PoC charges and losses shall not be applicable to the schedules on the STU network post inter-connection of the buses. Such principle on applicability of appropriate transmission charges and losses based on the utilization of ISTS or STU network has been affirmed by the Commission in the following orders:

a) Order dated 09.03.2018 in Petition No. 20/MP/2017 & I.A. No 47/2017: Kanti Bijlee Utpadan Nigam Ltd. vs Central Transmission Utility &Ors.

b) Order dated 30.03.2017 in Petition No. 291/MP/2015: Transmission Corporation of Andhra Pradesh Ltd. &Ors. vs Southern Regional Load Despatch Centre &Anr.

(k) The generating station will lie within the Control Area of WRLDC, governed through Regulation 6.4.2(c)(iii) of IEGC 2010 since the home state will have less than 50% of the

share of power as specified. Based on the above reasoning, Respondent No. 4/WRLDC who is presently having its jurisdiction over Unit 2 contracted under long-term PPAs, shall, in addition, also have the jurisdiction to carry out the scheduling and other functions of the system operator for Unit 1 post interconnection of the buses.

(l) The Petitioner shall continue to be subjected to the Deviation Settlement Mechanism as specified by the Central Commission under the proposed arrangement, and that Petitioner is not seeking any relaxation with respect to requirement of long-term, medium-term or short–term access essential for scheduling of power.

Hearing dated 27.4.2021

4. The Petitioner submitted the current status of operation of the Units-1 & 2 i.e. from Unit 1, the Petitioner is supplying power to MSEDCL under coal tolling mechanism on short-term basis, which is about to expire soon. In addition, Petitioner submitted that there are limited short-term opportunities for sale of power within the State of Maharashtra to MSEDCL.

5. Petitioner further submitted that its prospect of offering competitive bids from Unit 1, due to being connected to STU, is adversely affected by the applicability of intra-State transmission charges and losses and the proposed arrangement of close bus operation of Unit 1 and Unit 2, will enable the Petitioner to operate its Unit 1 with optimum efficiency and to alleviate the financial distress.

6. In response to the Commission's query regarding scheduling and the control area for the generating station upon the inter-connection of the buses, the learned senior counsel submitted that in the event the Maharashtra has share of 50% or less, the scheduling and the other functions including the control area in respect of both the Units will rest with WRLDC.

7. In response to the further query of Commission regarding surrendering the connectivity with STU in respect of Unit 1, learned senior counsel submitted that it might be difficult to tie the entire capacity of Unit 1 outside the State of Maharashtra. Since there are short-term opportunities for sale of power within the State of Maharashtra, the Petitioner is not contemplating to surrender the connectivity to STU in respect of Unit 1.

Submissions by Petitioner

8. Petitioner filed additional information on record vide dated 13.5.2021 which are as follows:

a. Order dated 08.06.2013 passed by the Commission in the matter of *Lanco Anpara Power Limited, Hyderabad v. Uttar Pradesh Power Transmission Corporation Limited, Lucknow & Ors.* (Petition No. 189/MP/2012)
b. Order dated 04.05.2018 passed by the Commission in the matter of Uttar Haryana Bijli Vitran Nigam Limited & Ors. v. Power System Operation Corporation Limited & Ors. (Petition No. 126/MP/2017)
c. Record of proceedings for hearings dated 17.10.2019, 31.10.2019 and 18.12.2019 before the Commission in Petition No. 380/MP/2019 and Petition No. 334/MP/2019 along with relevant extracts of minutes of meeting of Eastern Region Power Committee (Transmission Planning) ("ERPCTP") held on 14.02.2020 regarding closing of bus sectionaliser between two units of a generating station i.e. Odisha Power Generation Corporation Limited - where one Unit was connected to CTU system and the other Unit to STU system. Such issue was raised before the Commission by Eastern Regional Load Despatch Centre in Petition No. 334/MP/2019 on the ground of violation of grid discipline.

Submissions by Respondent No.4, WRLDC and Respondent No. 6, NLDC

9. WRLDC and NLDC vide dated 24.5.2021 on the issues viz. scheduling and control area issues, applicable transmission charges and losses submitted as follows:

(a) **Applicability of Transmission Charges & Losses:** The CERC (Sharing of ISTS Charges & loss) regulations 2020 ('Sharing Regulations 2020') have the following provisions for power stations which are connected to both inter-state and intra-state networks:

Regulation 13 (11) of Sharing Regulations 2020:

Quote:
"Where a generating station is connected to both ISTS and intra-State transmission system, only ISTS charges and losses shall be applicable on the quantum of Long Term Access and Medium Term Open Access corresponding to capacity connected to ISTS."
Unquote

Accordingly, the Commission may issue necessary directions for sharing of ISTS charges & losses in the instant case which shall be followed by the answering respondents (Respondent 4 & Respondent 6) post the proposed interconnection of both the generating units of the Petitioner.

(b) Connectivity and LTA: Presently the petitioner has obtained connectivity for 300 MW (for unit-2) from the CTU. Subsequent to the proposed interconnection of both buses at the Petitioner's generating station, the Petitioner will have to avail additional connectivity to ISTS from the CTU for the quantum to be scheduled over the ISTS network. Similarly, the Petitioner will have to avail access (LTA, MTOA or STOA) for the said additional amount (say '*a'* MW) to be scheduled over the ISTS. For this additional capacity (*a*), the petitioner need not have to bear Maharashtra STU charge and losses, if it is sold outside Maharashtra. However, if the Petitioner sells the remaining capacity (i.e. '*300 – a'* MW*)* outside Maharashtra, it will have to bear the STU charges & losses in addition to ISTS charges and losses since this portion would be still under STU connectivity.

(c) If this capacity (*'300-a' MW)* under STU connectivity, is sold within Maharashtra, ISTS charges & loss may not be applicable as per the Sharing Regulations.

(d) If the Petitioner seeks to get ISTS connectivity for the entire 600 MW capacity, it has to apply for additional connectivity for 300 MW (for the unit-1) before the CTU, after completion of the applicable modalities for surrendering STU connectivity & after

obtaining due clearance from the STU. In that case the Petitioner will no longer be liable to pay STU charges and loss for the entire capacity (600 MW) sold to any buyer outside Maharashtra.

(e) Further, the CERC has given following directions in a similar case vide its order dated 30.03.2017 in Petition No. 291/MP/2015.

(f) **Scheduling and Control Area Issues:** Upon interconnection of both the units in the proposed arrangement, the power station of 2X300 MW capacity will have dual connectivity. The control area jurisdiction of such units would be decided as per the Regulation 6.4.2(c)(iii) of the Indian Electricity Grid Code (IEGC) regulations. At present the unit-2 (300 MW) is being scheduled by WRLDC out of which 270 MW is under LTA. The other unit (unit-1) on STU network, reportedly, does not have any long term or medium-term power purchase agreement PPA with Maharashtra. Thus, the state has less than 50% share in the power station. Accordingly, under the regulation 6.4.2(c).(iii) of IEGC, the Petitioner's power station will fall under the control area jurisdiction of WRLDC.

(g) **WRLDC monthly Charges post interconnection:** At present the 300 MW unit-2 of the Petitioner is registered as a user of WRLDC & hence sharing the WRLDC fees & charges for this 300 MW capacity. Subsequent to interconnection of both the buses the Petitioner would be required to pay WRLDC charges for the entire capacity (i.e. 600 MW) as per the CERC (Fees & Charges of Regional Load Despatch Centre and other related matters) Regulations 2019.

(h) **Surrendering STU connectivity as proposed in the meeting dated 10.01.2020:**
If there are no technical issue and the system is n-1 compliant even after closing the circuit breaker between Unit-1 and Unit-2, as proposed by the petitioner (DIL), the dedicated 400 kV d/c line from DIL to Chandrapur-II would only provide additional reliability to the interconnection and therefore, can be continued to kept in operation. However, the interface metering arrangement needs to be ensured as per the CEA (Installation & Operation of meters) Regulations (as amended) and the IEGC Regulation 6.4.21.

Rejoinder of Petitioner to the Replies of WRLDC and NLDC

10. Petitioner vide affidavit dated 22.6.2021 has submitted the following:

Regarding Additional Connectivity:

11. No additional connectivity is being sought for Petitioner's 2X300 MW generating station. The station is already having approved connectivity with Central Transmission Utility ("CTU") for 300 MW (Unit 2) and with STU for 300 MW (Unit 1). Post interconnection of the buses, if allowed by this Commission, the Petitioner's generating station as a whole will continue to have a connectivity of 600 MW and the station as a whole will be similar to an interconnection point between ISTS and Maharashtra State Transmission System in the meshed network.

12. If the Petitioner's generating station is allowed the proposed interconnection of buses with the existing 300 MW STU connected Unit 1 and 300 MW ISTS connected Unit 2, the scheduling of transactions can be done as follows:

a) 100 MW Net Capacity from Unit 2 under long-term PPA - Scheduling on ISTS network (no change from existing practice)
b) 170 MW Net Capacity from Unit 2 under long-term PPA - Scheduling on ISTS network (no change from existing practice)
c) Say 'a' MW Net Capacity (after considering Auxiliary Power Consumption) from Unit 1 under short term route - Scheduling on ISTS network
d) '300-a' MW Net Capacity (after considering Auxiliary Power Consumption) from Unit 1 under short term route - Scheduling on State network (no change from existing practice)

The sum total of all capacities as mentioned in S. No. a) to d) above can never exceed 600 MW in a meshed network and thus, there is no requirement of additional connectivity in case of implementation of the Petitioner's proposal of interconnection of buses of the generating station.

13. The Petitioner would not be able to transfer any power through the ISTS merely by seeking connectivity until it obtains LTA/MTOA or is allowed to supply power under STOA, subject to availability of transmission corridor. The Petitioner is not seeking any LTA/MTOA in either ISTS or STU network, post inter-connection of the buses, for which any capacity is required to be reserved. The Petitioner intends to supply power through ISTS as well as STU network to the inter-state and intra-state beneficiaries under STOA route which shall be possible only if there is availability of transmission corridor.

14. Petitioner is duty bound to abide by the direction of this Commission and pay all statutory charges as may be applicable under the extant Regulations on account of the shifting of the control area jurisdiction of Unit 1 with Respondent No. 4/WRLDC post inter-connection of the buses.

Submissions by Respondent No. 1, PGCIL

15. The submissions of PGCIL vide affidavit dated 15.7.2021 are as follows:

(a) Petitioner has approached the Commission seeking a special dispensation which is not available under the extant Regulations framed by this Commission. A transmission system may be inter-State (ISTS) or intra-State (IrSTS), defined in Section 2 (36) of the 2003 Act.

(b) The aspect of scheduling and despatch as also the treatment of transmission charges and losses for a generator who is connected to both ISTS (i.e. the system built, owned, operated, maintained or controlled by the Central Transmission Utility or the Respondent No.1 CTU) and IrSTS (i.e. the system owned and operated by the State Transmission Utility or STU) has been considered by this Commission in its Order dated 9.3.2018 passed in Petition No.20/MP/2017: Kanti Bijlee Utpadan Nigam Ltd. Vs. Central Transmission Utility &Ors.

(c) As per the IEGC, a generator may opt to be connected to both the ISTS and the IrSTS. However, what emerges from the above Order of this Commission is that in such a situation, both connectivities are to be for separate and distinct capacities as indicated in the applications for connectivity by the generator and that scheduling and despatch of power is to be done in accordance with the provisions of clause 6.4 of the IEGC. The Order nowhere permits a dispensation whereby the ISTS connectivity can be utilized for undertaking power transaction for the quantum for which connectivity has been granted with IrSTS or the vice-versa. On the contrary, the Order states that in case, a generator plans to get connected to both ISTS and State network, while granting connectivity CTU should ensure that adequate State system is available or shall be made available which clearly indicates the requirement for demarcation of ISTS and IrSTS connectivities with their respective quantum for enabling power transactions through open access.

(d) Connectivity is granted to a generating station who is required to seek such connectivity as per Regulation 8 of the Connectivity Regulations. The Clause 1.4 of the Detailed Procedure of the said Connectivity Regulations 2009 is as follows:

> *"1.4 The applicant (Generator/bulk consumer) already connected to grid (regional or state grid) or for which connectivity is already granted under the present arrangement, shall not be allowed to apply for additional connectivity for the same capacity. In case of extension of capacity of generator or bulk consumer, however, it shall be required to make application for connectivity as per the provisions of these procedures."*

(e) Thus, any applicant who is already connected to the regional or State grid is disqualified under the Detailed Procedure from applying for additional connectivity for the same capacity. It follows that where a generating station has been granted connectivity to ISTS (or IrSTS) for a given capacity, it cannot be granted additional connectivity to IrSTS (or ISTS) for the same capacity.

(f) For Unit-II (300 MW), the Petitioner made an application dated 27.11.2010 to Respondent No.1 for grant of long term access (LTA) into the ISTS for transfer of power to target beneficiaries for 150 MW in the Western Region (WR) and 150 MW in the Northern Region

(NR). The Petitioner had thus clearly earmarked unit-II for evacuation of power through the ISTS and the LTA was agreed to be granted to it with a bus sectionalization arrangement to be put in place between units I and II.

(g) The two units of the Petitioner's project had been declared commercially operational on 11.2.2014 and 2.8.2014. Vide intimation dated 29.7.2016, LTA for 170 MW was granted to the Petitioner for transfer of power from its unit-II to M/s Noida Power Corporation Ltd. (UP) subject to payment of relinquishment charges for the LTA quantum of 20 MW from WR. With the said LTA grant, the status of LTA granted to the Petitioner stood as under:

Total LTA quantum (in MW)	Northern Region (Noida Power Corpn. Ltd.)	Southern Region (TANGEDCO)
270	170	100

(h) In this manner as per the BPTAs entered into with Respondent No.1 for 170 MW and 100 MW respectively, the Petitioner began to undertake power transactions under open access through ISTS, which presently continues.

(i) Respondent No.1, vide its letter dated 1.8.2016, informed the Petitioner that under the applicable Regulations framed by this Commission, it was impermissible for a generating station already connected to the grid (regional or State) to be allowed additional connectivity for the same capacity. It was, however, clarified that the Petitioner could always surrender the connectivity granted by Respondent No.5 for unit-I of the project and apply for a fresh connectivity for unit-I to Respondent No.1 along with a 'no-objection certificate' from Respondent No.5. Pursuant thereto, the Petitioner, vide its letter dated 1.9.2016, accepted the advice given by Respondent No.1 and informed that it was in the process of obtaining the requisite NOC from Respondent No.5 after which it would approach Respondent No.1 for grant of a fresh connectivity for unit-I of its project.

(j) The Respondent No.2, CEA convened a special meeting held on 10.1.2020 for examining the proposal of the Petitioner to allow closed bus operation of unit-I and unit-II of its project.

In the said Meeting, the Petitioner informed that its unit-1 had no long-term/medium-term power sale arrangement since its commissioning in 2014 and it was selling power from unit-I which too was becoming commercially unviable due to applicability of State transmission charges and losses on the transaction.

(k) Thus, citing the correct regulatory position, Respondent No.1 requested the Petitioner to surrender its connectivity with the State network and obtain connectivity to ISTS for unit-I after obtaining NOC from the STU. In the Meeting that technically it was feasible to close the bus breaker between unit-I and unit-II and the system was to remain N-1 compliant in such a situation. However, the technical feasibility was also required to be accompanied with legal permissibility and as such, the CEA opined that the commercial, scheduling and control area issues were required to be addressed and for which the Petitioner was required to approach this Commission.

(l) The prayers of the Petitioner are based purely on short-term commercial considerations. Nevertheless, the prayers of the Petitioner appear ill founded as even with connectivity to only STU network, there is no bar on the Petitioner to sell power to other open access customers outside Maharashtra as an embedded entity by bearing the STU transmission charges and losses. Hence, it is clear that the prayers of the Petitioner are motivated in terms of avoiding the STU charges and losses and are not due to any genuine handicaps faced in availing open access.

(m) In Petition No.20/MP/2017, the Petitioner who was operating a central sector generating station [being Muzaffarpur Thermal Power Station (MTPS)] had approached this Commission espousing, inter-alia, issues relating to scheduling of power from Stage-II of MTPS (2x195MW) contending that the RLDC had restricted its scheduling to the extent of 126 MW since Stage-II of MTPS only had connectivity of 126MW on the ISTS while the remaining capacity was connected to the State network. At the same time, PoC charges were being levied on its beneficiaries for the full installed capacity of 390 MW. As such, approval of control area jurisdiction in terms of clause 6.4.3 of the IEGC had been sought from this Commission. The nature of the *lis* was thus different and power evacuation

arrangement therein did not involve any inter-linking of connectivity as is the case with the present Petitioner.

(n) As such, the findings of the Commission in the above Order are not applicable to the case of the Petitioner which is an Independent Power Producer (IPP) who has been granted connectivity and LTA separately to ISTS and IrSTS with a bus coupler arrangement to ensure separation between the two units of its generating station. Besides, as set out hereinabove, the Order has only acknowledged the provisions in the IEGC as regards connectivity of a generating station both to the ISTS and IrSTS but has nowhere permitted connectivity of same capacity to both ISTS and IrSTS.

(o) If the proposal of the Petitioner was to be accepted then, on some days, power from unit-I would be flowing through ISTS and on other days it would be flowing through IrSTS. In such a situation, the entire demarcation of responsibilities and control areas as contemplated under the IEGC would be rendered completely otiose and the division of regions as provided under Section 25 of the 2003 Act would also be rendered nugatory.

(p) The proposal of the Petitioner to allow inter-connection of 400 kV buses of unit-I of its project connected to the IrSTS of Respondent No.5 with unit-II of its project connected to the ISTS, without prejudice to the existing connectivity of units-I and II, cannot be permitted under the extant regulatory framework as set out hereinabove. However, as agreed in the Meeting dated 10.1.2020, in case the Petitioner considers surrendering of the connectivity of unit-I with the IrSTS and obtaining additional connectivity from Respondent No.1 for unit-I after getting NOC from Respondent No.5, both units may then be connected to the ISTS (together with seeking LTA for the additional quantum) and no State transmission charges and losses would be applicable to the Petitioner and only PoC charges and losses would be applicable for drawing/injection power from any of the units of the Petitioner.

Rejoinder of Petitioner to the submissions of Respondent No. 1, PGCIL

16. Petitioner vide affidavit dated 17.8.2021 submitted the following:

(a) There is no restriction under the extant Regulations for implementation of the Petitioner's proposal of closed bus operation of Unit 1 (connected to STU network) and Unit 2 (connected to ISTS) at Petitioner's generating station.

(b) The Petitioner's proposal of closed bus operation of Unit 1 (connected to STU system) and Unit 2 (connected to ISTS) under the present Petition does not seek any additional connectivity for its 2 X 300 MW generating station. The station is already having approved connectivity with Central Transmission Utility ("**CTU**") system for 300 MW (Unit 2) and with STU for 300 MW (Unit 1). Post interconnection of the buses, if allowed by this Commission, the Petitioner's generating station as a whole will continue to have a connectivity of 600 MW and the station as a whole will be similar to an interconnection point between ISTS and Maharashtra State Transmission System in the meshed network.

Submissions by Respondent No. 7, MSLDC Submissions

17. MSLDC vide affidavit dated 22.9.2021 has submitted as follows:

(a) MSLDC is obligated to perform the functions in accordance with Section 32 of the Act, 2003. If the Commission allows dispensation for instant interconnection as prayed by the Petitioner, the issues of connectivity, commercial arrangement, scheduling and control area, interface meter issues for deviation settlement, applicable transmission charges and losses need to be addressed before establishment of such interconnection.

(b) MSLDC also request the clarifications on the aforesaid points raised by MSETCL if dual connectivity as prayed by the Petitioner is granted. Further, if dual connectivity is granted to Petitioner by this Commission, condition should be imposed on the Petitioner for not to sell more than 49% of power in Maharashtra from its Unit-1 connected to STU so that scheduling of the Petitioner's units will be carried out by WRLDC as desired by the Petitioner.

Submissions by MSETCL, Respondent No. 5

18. MSETCL vide affidavit dated 22.9.2021 has submitted that MSETCL has no objection in this case subject to connectivity issue, commercial arrangement, scheduling and control area issues, applicable transmission charges and losses are addressed before establishment of this interconnection. In any case, MSETCL's right to levy transmission charges and losses needs to be protected.

Hearing dated 7.12.2021

19. CTU submitted that the only issue to be considered is whether the arrangement proposed by the Petitioner is legally permissible under the Regulations of the Commission. As per CEA, technically such arrangement is permissible. However, the commercial and regulatory aspect has to be considered by the Commission. She submitted that the responsibility of scheduling, despatch and accounting of electricity in the course of Inter-State transmission System and Intra-State transmission System has been statutorily entrusted to the concerned RLDC and SLDC respectively who are to discharge the same "in accordance with the contracts entered into with the licensees or the generating companies operating in the region/ State" and also in accordance with the provisions of the Grid Code. Referring to the order dated 9.3.2018 in Petition No.20/MP/2017 and Clause 1.4 of Regulation 8 of the Detailed Procedure, she submitted that the Commission has observed that it is a settled position that under the Grid Code, a generator may opt to be connected to both the inter-State Transmission System and the Intra-State Transmission System. In such a situation, connectivity has to be for separate and distinct capacities as indicated in the applications for connectivity by the generator and that scheduling and despatch of power is to be done in accordance with the provisions of clause 6.4 of the Grid Code.

20. The order dated 9.3.2018 does not permit the utilisation of ISTS connectivity for undertaking power transaction for the quantum for which connectivity has been granted for Intra-State transmission System or vice-versa. She submitted that there is no provision in the Statues/ Regulations which permits connectivity of the same capacity to both the CTU and STU systems. Therefore, the prayers of the Petitioner cannot be granted in the existing legal regime.

21. WRLDC and POSOCO submitted that technically there is no issue in implementing the arrangement proposed by the Petitioner. She submitted that since the Petitioner wants 100% flexibility in scheduling of power between STU and CTU network, she suggested that the Petitioner may surrender STU connectivity for Unit-I and obtain additional 300 MW ISTS connectivity from CTU, only then 100% scheduling of power can be done by RLDC.

22. MSLDC and MSETCL submitted that they have no objection to the arrangement proposed by the Petitioner.

23. Subject to the above, the Commission reserved order in the matter.

Written short note submitted by Petitioner

24. The Petitioner has filed short notes dated 21.12.2021.The Petitioner submitted that the present proposal of the Petitioner deserves to be allowed, inter alia, for the following reasons:

(a) It is technically feasible and does not create grid insecurity;
(b) There are no adverse financial implications on the stakeholders;
(c) Commercial settlement is also possible within the current regulatory regime, including the issues of control area;
(d) There is no statutory or regulatory prohibition or bar which can disentitle the Petitioner from the relief that it is currently seeking.

25. The present petition was heard on 7.12.2021 where Commission had reserved the Order. However as the Petition could not be disposed of, prior to the then Chairperson demitting office, the petition was reheard on 12.7.2022. During the course of hearing, the learned counsel for the

parties submitted that the matter has already argued at length and prayed to pass order based on documents available on record and the Commission reserved the Order.

Analysis and Decision

26. Petitioner has submitted that Unit 1 of the Petitioner's generating station is connected to State Transmission System at 400 KV Chandrapur II Sub-station of Respondent No. 5, Maharashtra State Electricity Transmission Company Limited through a 8 km long dedicated 400 KV D/C line. Unit 2 of the generating station is connected through a 19 km long 400 KV D/C line to ISTS 400 KV Bhadravati Sub-station and 400 KV Parli Sub-station of PGCIL through LILO arrangement of 400 KV Bhadravati – Parli Ckt-II. Both the 400 KV lines, that is, the 8 km 400 KV D/C line from Unit 1 to MSETCL and the 19 km 400 KV D/C from Unit 2 to LILO point of ISTS system have been constructed and are maintained by the Petitioner at its own cost.

27. Petitioner has tied-up 170 MW net Contracted Capacity with Noida Power Company Limited ("NPCL") under a long-term PPA of 25 years, and 100 MW net Contracted Capacity with Tamil Nadu Generation and Distribution Corporation Limited ("TANGEDCO") through a long-term PPA of 15 years from Unit 2 which is connected to the CTU system. There is no LTA for Unit 1 and power is sold from Unit 1 under STOA route which too was becoming commercially unviable due to applicability of State transmission charges and losses on the transaction.

28. The Petitioner submitted that there are no technical issues in operating both Units 1 and 2 in connected bus mode, as is evident from the MoM with CEA. Only the issues relating to connectivity, commercial arrangements, scheduling and control area, applicable transmission charges and losses need to be addressed prior to establishment of this interconnection. For this reason, the Petitioner was advised to approach the Commission to seek an appropriate dispensation and guidance.

29. The Petitioner submitted that the generating station will lie within the Control Area of WRLDC, governed through Regulation 6.4.2(c)(iii) of IEGC 2010 since the home state will have less than 50% of the share of power as specified. Respondent No. 4/WRLDC who is presently having its jurisdiction over Unit 2 contracted under long-term PPAs, shall, in addition, also have the jurisdiction to carry out the scheduling and other functions of the system operator for Unit 1 post interconnection of the buses.

30. Petitioner submitted that No additional connectivity is being sought for Petitioner's 2X300 MW generating station. The station is already having approved connectivity with Central Transmission Utility ("CTU") for 300 MW (Unit 2) and with STU for 300 MW (Unit 1). Post interconnection of the buses, if allowed by this Commission, the Petitioner's generating station as a whole will continue to have a connectivity of 600 MW and the station as a whole will be similar to an interconnection point between ISTS and Maharashtra State Transmission System in the meshed network.

31. PGCIL submitted that connectivity is granted to a generating station who is required to seek such connectivity as per Regulation 8 of the Connectivity Regulations. Any applicant who is already connected to the regional or State grid is disqualified under the Detailed Procedure from applying for additional connectivity for the same capacity. It follows that where a generating station has been granted connectivity to ISTS (or IrSTS) for a given capacity, it cannot be granted additional connectivity to IrSTS (or ISTS) for the same capacity.

32. PGCIL submitted that prayers of the Petitioner are based purely on short-term commercial considerations. Nevertheless, the prayers of the Petitioner appear ill founded as even with connectivity to only STU network, there is no bar on the Petitioner to sell power to other open

access customers outside Maharashtra as an embedded entity by bearing the STU transmission charges and losses.

33. WRLDC and NLDC submitted that technically there is no issue in implementing the arrangement proposed by the Petitioner. Since the Petitioner wants 100% flexibility in scheduling of power between STU and CTU network, it is suggested that the Petitioner may surrender STU connectivity for Unit-I and obtain additional 300 MW ISTS connectivity from CTU, only then 100% scheduling of power can be done by RLDC. WRLDC & NLDC would facilitate scheduling and energy accounting as well as computation & sharing of transmission charges and losses as per the extant regulations and any subsequent directions of the Commission.

34. MSLDC and MSETCL submitted that they have no objection to the arrangement proposed by the Petitioner subject to connectivity issue, commercial arrangement, scheduling and control area issues, applicable transmission charges and losses are addressed before establishment of this interconnection. In any case, MSETCL's right to levy transmission charges and losses needs to be protected.

35. We have considered the submissions of Petitioners and Respondents. The following issues arise for our consideration:

Issue No. 1: Whether inter-connection of 400 kV buses of STU connected Unit-1 and CTU-connected Unit-2 of the Petitioner's generating station can be allowed?

Issue No. 2: What will be the status of connectivity granted to both the units of the Petitioner i.e. Unit 1 by STU and Unit-2 by CTU post-interconnection of the buses?

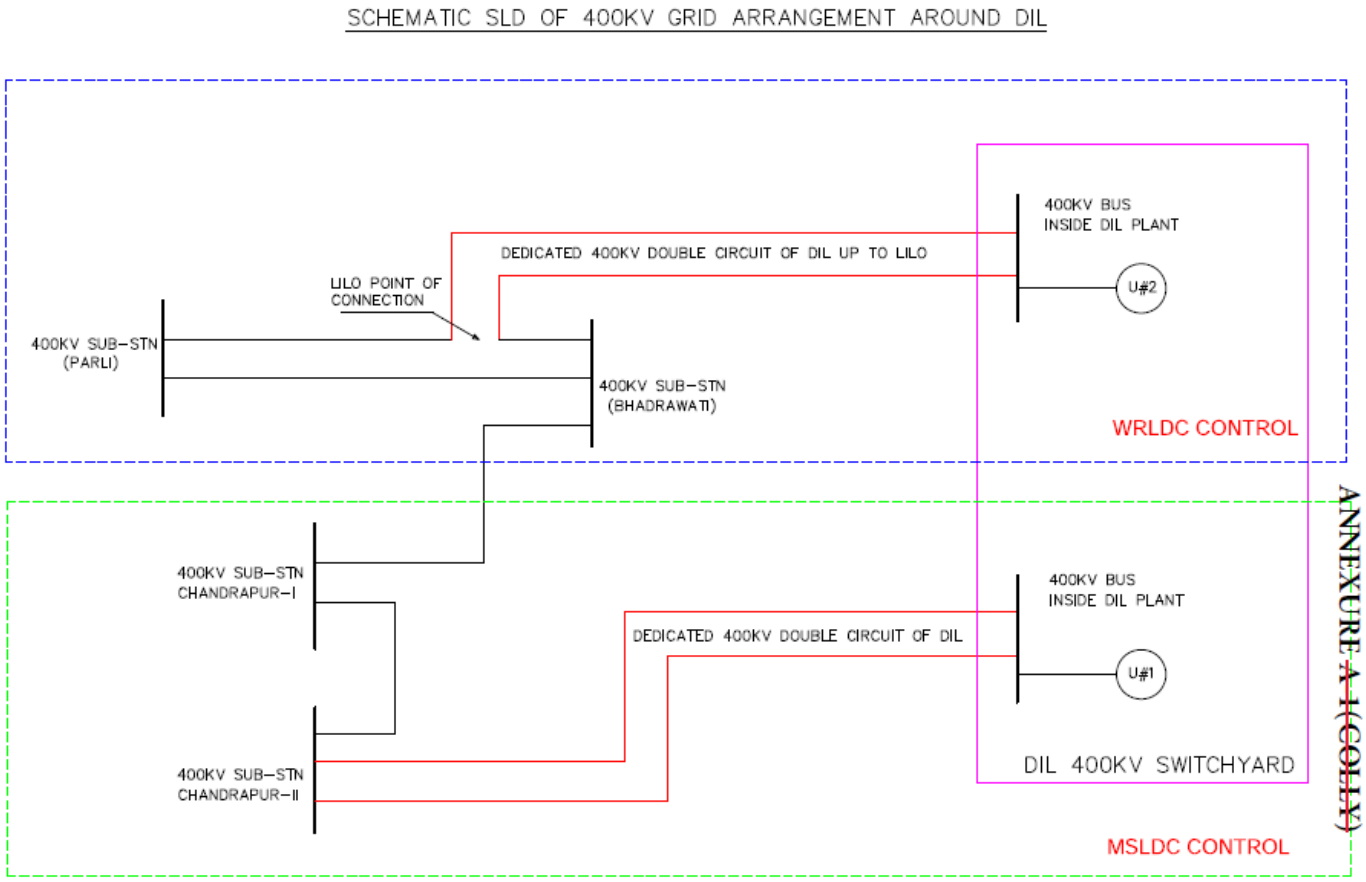
Issue No.3: What will be the control area jurisdiction for scheduling and accounting post-interconnection of the buses?

Issue No. 4: What should be treatment of transmission charges and losses post-interconnection of the buses?

The above issues are being dealt in the succeeding paragraphs.

Issue No. 1: Whether inter-connection of 400 kV buses of STU connected Unit-1 and CTU-connected Unit-2 of the Petitioner's generating station shall be allowed?

36. The SLD of the existing evacuation system of the instant generating station is as follows:



37. The Petitioner is seeking appropriate dispensation and guidance from the Commission in terms of implementation of closed bus operation of Unit 1 (connected to STU) and Unit 2 (connected to ISTS). The Petitioner submitted that connected bus operation will immensely help the Petitioner to explore opportunities for sale of the un-tied capacity from Unit 1 within and outside the State of Maharashtra at competitive tariffs.

38. We have considered the submissions of Petitioner and Respondents. We have perused the Minutes of Meeting held by CEA on 10.01.2020 for examining Petitioner's proposal to allow closed bus operation of Unit 1 and Unit 2 at its 2X300 MW TPP. The meeting was attended by participants from CEA, WRPC, PGCIL/CTU, POSOCO, MSETCL and the Petitioner. The relevant extract of the aforesaid minutes are as follows:

> "After detailed deliberations, the following was agreed:
>
> *(i) Apparently, there are no technical issues/constraints in implementing the arrangement proposed by M/s DIL i.e closing the circuit breaker between unit-1 bus (connected to STU network) and unit-2 bus (connected to ISTS network).*
>
> *However, connectivity issues, commercial arrangements, scheduling and control area issues, applicable transmission charges and losses needs to be addressed prior to establishment of this interconnection. M/s DIL may approach CERC regarding the same.*
>
> *……."*

As per above Minutes of Meeting, there are no technical issues/constraints in closing the circuit breaker between unit-1 bus (connected to STU network) and unit-2 bus (connected to ISTS network) of the Petitioner's generating station.

39. WRLDC and NLDC have submitted that there are no technical constraint and the system is n-1 compliant after closing the circuit breaker between Unit-1 and Unit-2, as proposed by the petitioner (DIL), the dedicated 400 kV d/c line from DIL to Chandrapur-II would only provide additional reliability to the interconnection and therefore, can be continued to kept in operation.

However, the interface metering arrangement needs to be ensured as per the CEA (Installation & Operation of meters) Regulations (as amended) and the IEGC Regulation 6.4.21.

40. Keeping in view minutes of the meeting dated 10.1.2020 attended by CEA, WRPC, PGCIL/CTU, POSOCO, MSETCL and the submissions filed by WRLDC, NLDC ,MSETCL and MSLDC in the instant petition citing no technical issues/constraints and that system is n-1 compliant after closing the circuit breaker between Unit-1 and Unit-2, we are of the view that inter-connection of 400 kV buses of STU connected Unit-1 and CTU-connected Unit-2 of the Petitioner's generating station shall be allowed keeping 400 KV DIL-Chandrapur D/C line connected to STU under operation. However, the interface metering arrangement needs to be ensured as per the CEA (Installation & Operation of meters) Regulations and the Regulation 6.4.21 of the IEGC Regulations 2010.

41. Prayers (a) of the Petitioner is answered accordingly.

Issue No. 2: What will be the status of connectivity granted to both the units of the Petitioner i.e. Unit 1 by STU and Unit-2 by CTU post-interconnection of the buses?

42. PGCIL/CTU submitted that connectivity is granted to a generating station as per Regulation 8 of the Connectivity Regulations. As per the Regulation, any applicant who is already connected to the regional or State grid is disqualified under the Detailed Procedure from applying for additional connectivity for the same capacity.

43. Petitioner submitted that no additional connectivity is being sought as the station is already having approved connectivity with Central Transmission Utility ("CTU") for 300 MW (Unit 2) and with STU for 300 MW (Unit 1). Post interconnection of the buses, if allowed by this Commission, the Petitioner's generating station as a whole will continue to have a connectivity of 600 MW and

the station as a whole will be similar to an interconnection point between ISTS and Maharashtra State Transmission System in the meshed network.

44. We have perused the 'Procedure for making an application for grant of connectivity in ISTS' dated 31st December, 2009 which provides the following:

> *"1.4 The applicant (Generator/bulk consumer) already connected to grid (regional or state grid) or for which connectivity is already granted under the present arrangement, shall not be allowed to apply for additional connectivity for the same capacity. In case of extension of capacity of generator or bulk consumer, however, it shall be required to make application for connectivity as per the provisions of these procedures."*

45. We observe that clause 1.4 of the Detailed Procedure prohibits an entity already connected to regional or state grid, from seeking additional connectivity from ISTS for the same capacity. However, we observe that even after inter-connection of 400 kV buses of STU connected Unit-1 and CTU-connected Unit-2 of the Petitioner's generating station, the generating station have connectivity with STU system for 300MW of Unit 1 and with CTU system for 300 MW of Unit 2. We observe that once bus coupler is closed the power may flow either through STU system or ISTS or both STU system and ISTS depending on load generation balance. Hence before any such inter-connection, it must be ensured by CTU that interconnected system is adequate as per load flow studies so that grid security is not affected. Commission vide Order dated 9.3.2018 in Petition No. 20/MP/2017 observed as follows:

"58. It would be pertinent to mention that in accordance with the Detailed Procedure, the application for grant of connectivity to ISTS is required to be submitted alongwith above details as per the Format CON-2. The details sought in the application also include the capacity (MW) for which connectivity is required and the installed capacity of the generation station. Therefore, CTU has the information about installed capacity of the generating station and capacity (MW) for which connectivity is sought from ISTS. In case, a generator plans to get connected to both ISTS and State network, while granting connectivity CTU should ensure that adequate State system is available or shall be made available. In such cases, scheduling may be either with RLDC or SLDC as per applicable provisions of the Grid Code. In case, SLDC carries out scheduling, STU charges and losses shall not be applicable to schedules on ISTS. In case, RLDC carries out scheduling, ISTS charges and losses shall not be applicable to schedules on State network. It is also pertinent to mention that an associated issue may arise regarding treatment of UI/deviation charges. We are of the view that Deviation charges shall be considered pro-rata on the schedules on the State network and ISTS network."

As per above requirement of adequate capacity was to be ensured by CTU for all cases. In the instant case we observe that technical experts such as CTU, CEA, RLDC and MSETCL have concluded that there are no technical constraints meaning thereby capacity is adequate, and the issue remains to be decided was of commercial nature which is decided as per this Order.

Issue No.3: What will be the control area jurisdiction for scheduling and accounting post-interconnection of the buses?

46. The Petitioner submitted that the generating station will lie within the Control Area of WRLDC, governed through Regulation 6.4.2(c)(iii) of IEGC 2010 since the home state will have less than 50% of the share of power as specified. Based on the above reasoning, Respondent No. 4/WRLDC who is presently having its jurisdiction over Unit 2 contracted under long-term PPAs, shall also have the jurisdiction to carry out the scheduling and other functions of the system operation for Unit 1, post interconnection of the buses.

47. WRLDC and NLDC submitted that upon interconnection of both the units in the proposed arrangement, the power station of 2X300 MW capacity will have dual connectivity. The control area jurisdiction of such units would be decided as per the Regulation 6.4.2(c)(iii) of the Indian Electricity Grid Code (IEGC) regulations. At present the unit-2 (300 MW) is being scheduled by WRLDC out of which 270 MW is under LTA. The other unit (unit-1) on STU network, reportedly, does not have any long term or medium-term power purchase agreement with Maharashtra. Thus, the state has less than 50% share in the power station. Accordingly, under the regulation 6.4.2(c)(iii) of IEGC, the Petitioner's power station will fall under the control area jurisdiction of WRLDC.

48. We have considered submissions of petitioner and Respondents. We have perused Regulation 6.4.2(c)(iii) of the IEGC which is as follows:

"(c) In other cases, the control area shall be decided on the following criteria:

(i) ……..

(ii) ……...

(iii) If a generating station is connected both to ISTS and the State network, scheduling and other functions performed by the system operator of a control area will be done by SLDC,, only .if state has more than 50% Share of power, The role of concerned RLDC, in such a case, shall be limited to consideration of the schedule for inter state exchange of power on account of this ISGS while determining the net drawal schedules of the respective states. If the State has a Share of 50% or less, the scheduling and other functions shall be performed by RLDC."

We observe that as per clause Regulation 6.4.2 (c) of the IEGC, if a generating station connected to both ISTS and State network and the State has more than 50% share of power, such generating station shall come under control area of SLDC. In the instant case, post inter-connection of 400 kV buses of STU connected Unit-1 and CTU-connected Unit-2, the generating station gets connected to both ISTS and the State network. Out of total capacity of 600 MW (2X300 MW) of the instant generating station, the unit-2 (300 MW) is being scheduled by WRLDC out of which 270 MW is under LTA. Further, Unit-1 which is connected to STU network, reportedly, does not have any long term or medium-term power purchase agreement with Maharashtra. Thus, the state has less than 50% share in the power station.

49. In view of above, we observe that post-interconnection, the scheduling of the Petitioner's generating station (Unit-1 and Unit-2) shall be under the control jurisdiction of WRLDC in the instant scenario. Accordingly, the energy accounting shall be done as per extant regulations based on control jurisdiction of WRLDC.

Prayers (b) and (c) of the Petitioner is answered accordingly.

Issue No. 4: What should be treatment of transmission charges and losses post-interconnection of the buses viz. if the Unit-2 having CTU connectivity gets schedule in STU area and Unit-1 having STU connectivity gets schedule in other State/CTU area?

50. The Petitioner submitted that it would be duty bound to pay the applicable transmission charges and losses as per the directions of this Commission for the capacity to be evacuated from Unit 1 under STOA either in STU network or in ISTS. The Petitioner shall continue to be subjected to the Deviation Settlement Mechanism as specified by the Central Commission under the proposed arrangement.

51. We have perused the regulatory provisions and order of the Commission in regards to treatment of transmission charges in succeeding paragraphs.

52. The Commission vide order dated 9.3.2018 in Petition No. 20/MP/2017 along with IA No. 47/2017 observed as follows:

> *"58. It would be pertinent to mention that in accordance with the Detailed Procedure, the application for grant of connectivity to ISTS is required to be submitted alongwith above details as per the Format CON-2. The details sought in the application also include the capacity (MW) for which connectivity is required and the installed capacity of the generation station. Therefore, CTU has the information about installed capacity of the generating station and capacity (MW) for which connectivity is sought from ISTS. In case, a generator plans to get connected to both ISTS and State network, while granting connectivity CTU should ensure that adequate State system is available or shall be made available. In such cases, scheduling may be either with RLDC or SLDC as per applicable provisions of the Grid Code. In case, SLDC carries out scheduling, STU charges and losses shall not be applicable to schedules on ISTS. In case, RLDC carries out scheduling, ISTS charges and losses shall not be applicable to schedules on State network. It is also pertinent to mention that an associated issue may arise regarding treatment of UI/deviation charges. We are of the view that Deviation charges shall be considered pro-rata on the schedules on the State network and ISTS network."*

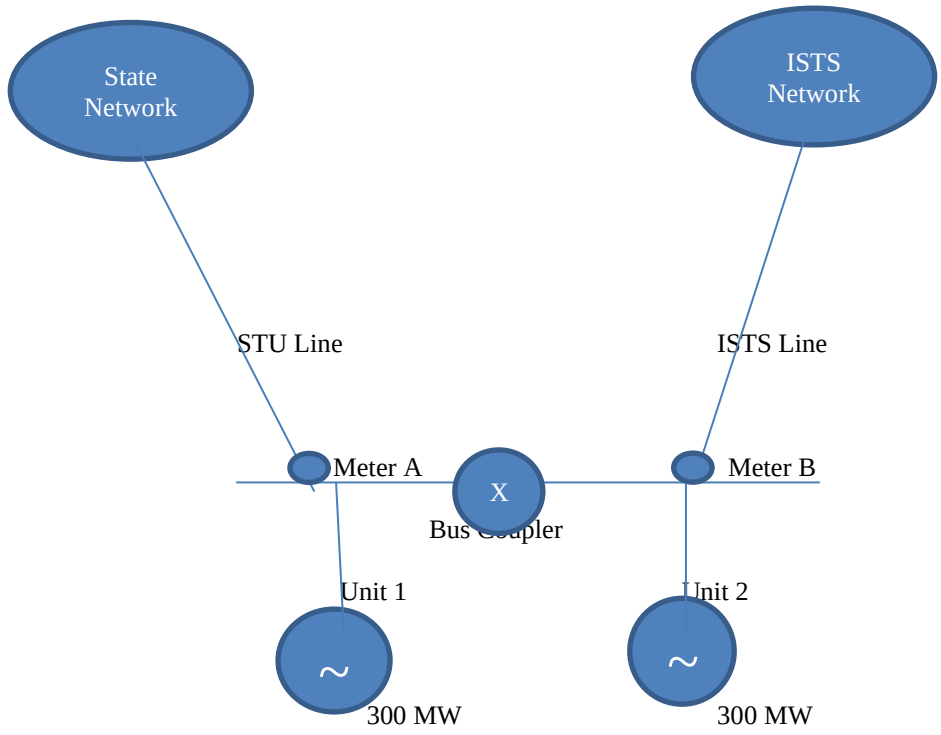
53. The regulation 13(11) of Sharing Regulation 2020 is as follows:

> *"13. Treatment of transmission charges and losses in specific cases*
>
> *….*
> *(11) Where a generating station is connected to both ISTS and intra-State transmission system, only ISTS charges and losses shall be applicable on the*

quantum of Long Term Access and Medium Term Open Access corresponding to capacity connected to ISTS."

54. In the current scenario, the Petitioner's generating station is connected to both ISTS and STU network, where 300 MW connectivity is with STU and 300 MW is with the ISTS network. Also, the scheduling of the said generating station shall be under the purview of WRLDC. The treatment of transmission charges shall be as per subsequent paragraphs.

55. The simplified diagram of the extant generating station is depicted in the figure below.



Case-I: If the generating station gets total schedule of 600 MW, out of which 300 MW is within the state (sale of power to Maharashtra) through Bilateral transaction and 300 MW through Collective STOA transaction through Power exchange

The actual power flow shall be as per law of physics. The generating station shall bear ISTS transmission charges and losses corresponding to 300 MW and STU transmission charges and losses corresponding to 300 MW, as applicable (as per state regulations or agreements), as per the existing i.e. pre-interconnection system. It is assumed that 300 MW power has wheeled through ISTS network and remaining 300 MW power has wheeled through STU network as per network topology built for the instant generating station.

Case-II: If the generating station gets total schedule of say 400 MW all through Collective STOA transaction through Power exchange

The generating station shall bear ISTS transmission charges and losses corresponding to 400 MW and, in addition it shall bear the STU transmission charges and losses corresponding to 100 MW, as applicable (as per state regulations or agreements), assuming that 300 MW (upto connectivity quantum to ISTS network)has been transmitted directly through ISTS, while 100 MW power wheeled to ISTS network through STU network.

Case-III: If the generating station gets total schedule of say 400 MW all through Bilateral STOA transaction for sale to Maharashtra state

The generating station shall bear ISTS transmission charges and losses corresponding to 100 MW and STU transmission charges and losses corresponding to 400 MW, as applicable (as per state regulations or agreements), assuming that the 100 MW power has been wheeled through ISTS network.

Case-IV: If the generating station gets total schedule of say 600 MW out of which 400 MW is for within the state (sale of power to Maharashtra) through Bilateral transaction and 200 MW is through Collective STOA transaction through Power exchange

The actual power flow shall be as per law of physics. The generating station shall bear ISTS transmission charges and losses corresponding to 300 MW and STU transmission charges and losses corresponding to 400 MW, as applicable (as per state regulations or agreements). It is assumed that out of 400 MW scheduled to state, 300 MW power (upto the connectivity quantum to STU network) has been wheeled through STU network directly and balance 100 MW wheeled to STU network through ISTS network as per network topology built for the instant generating station.

56. Further if Petitioner chooses to take additional connectivity's with ISTS, he needs to surrender Connectivity of equivalent quantity in State system after payment of necessary charges of State.

57. Issue of payment of transmission charges is answered accordingly.

58. Petition No. 630/MP/2020 is disposed of in terms of the above.

Sd/	Sd/	Sd/
(P.K. Singh)	**(Arun Goyal)**	**(I.S. Jha)**
Member	**Member**	**Member**