

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 38/MP/2023

Coram:

Shri Jishnu Barua, Chairperson

Shri Ramesh Babu V, Member

Shri Harish Dudani, Member

Date of Order: 20.03.2025

In the matter of:

Petition for approval of Central Electricity Regulatory Commission for inclusion of 400/220/66 kV GIS Pooling Sub-Station Wangtoo (Sherpa Colony) of H.P. Power Transmission Corporation Limited under PoC mechanism for recovery of transmission charges under CERC (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2020.

And in the matter of:

H.P. Power Transmission Corporation Limited
Himfed Bhawan, Panjari, Shimla-171005

.....Petitioner

Versus

1. Himachal Pradesh State Electricity Board Limited
Vidyut Bhawan, Shimla
Himachal Pradesh -171005
2. Himachal Pradesh Power Corporation Limited
Himfed Building, BCS, New Shimla, Shimla
Himachal Pradesh - 171009
3. Taranda Hydro Power Private Limited
Gyamba House, South End, Lane – IV, Sector -1, New Shimla, Shimla
Himachal Pradesh – 171009
4. Northern Regional Load Despatch Centre
18-A, Shaheed Jeet Singh Sansanwal Marg, Katwarai Sarai,
New Delhi -110016



5. Central Transmission Utility of India Limited
Plot No. 2, Saudamini, Sector 29, Gurugram
Haryana - 122 001
6. Statkraft Markets Private Limited
(formerly known as Tidong Power Generation Private Limited)
Unit 401, 4th Floor Salcon Rasvilas building, Saket District Centre Saket
New Delhi-110017
7. Northern Regional Power Committee
18-A, Qutab Institutional Area, Shaheed Jeet Singh Marg,
Katwaria Sarai, New Delhi-110016

.....Respondent(s)

Parties Present:

Ms. Swapna Seshadri, Advocate, HPPTCL
Shri Anand Ganesan, Advocate, HPPTCL
Shri Amal Nair, Advocate, HPPTCL
Ms. Shivani Verma, Advocate, HPPTCL
Ms. Shriya Gambhir, Advocate, TPGPL
Shri Gajendra Sinh, NRLDC
Shri Alok Mishra, NRLDC

ORDER

The instant petition has been filed by the Himachal Pradesh Power Transmission Corporation Limited (HPPTCL) for approval of the CERC for inclusion of 400/ 220/ 66 kV GIS Pooling Sub-Station Wangtoo (Sherpa Colony) under PoC mechanism for recovery of transmission charges under CERC (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2020 (hereinafter referred to as '2020 Sharing Regulations').

The Petitioner has made the following prayers:

- (a) *Admit the instant Petition.*
- (b) *Approve the request of HPPTCL to include the instant asset in PoC mechanism for recovery of transmission charges of the instant asset.*
- (c) *Allow for recovery of payment made for filing of instant Petition before Hon'ble CERC.*
- (d) *Allow for recovery of Advocate/Consultancy Charges/other expenses incurred by HPPTCL for filing/defending said petition before Hon'ble Commission.*
- (e) *Allow HPPTCL to recover the transmission charges from beneficiaries @ 90% of HPERC approved ARR as an interim tariff till final disposal of petition by Hon'ble CERC in order to mitigate financial crunch being faced by Petitioner.*



(f) And pass such other relief as Hon'ble Commission deems fit and appropriate under the circumstances of the case and in the interest of justice.

Submissions of the Petitioner:

2.The Petitioner has mainly submitted as follows:

- a) The Petitioner, H.P. Power Transmission Corporation Limited (HPPTCL), is the State Transmission Utility (STU) of the State.
- b) The 400/220/66 kV GIS Pooling Substation Wangtoo (Sherpa Colony) has been developed by HPPTCL.
- c) HPPTCL has earlier filed a Petition No. 550/TT/2014, on 16.12.2014 before the Commission seeking the determination of tariff of the HPPTCL transmission line Karian-Rajera anticipating to be commissioned by December 2014. The Commission disposed of the Petition 550/TT/2014 vide Order dated 23.09.2015 with a liberty to file a fresh Petition for inclusion of the Karian-Rajera in PoC computation after the Commercial Operation of the lines and approval of the tariff of the instant asset by the State Commission and further directed to obtain a certificate from the NRPC to the effect that the instant assets are being used for inter-state transmission of power.
- d) Further, HPPTCL also observed that the 2010 Sharing Regulations vide Regulation 7(1)(n), as amended on April 1, 2015, i.e., Third Amendment, also specifies the certification from NRPC. In view of the above direction of the Commission in an Order dated September 23, 2015, and the said Regulations, HPPTCL had followed or has been following the method suggested by the CERC for the inclusion of its Assets under the PoC Mechanism.
- e) CEA, in its 30th Meeting of the Standing Committee on Power System Planning of the Northern Region, held that a lot of new hydro generation projects are planned in the upper region of the State of Himachal Pradesh, which mainly covers the upper part of Satluj Basin, including Spiti Valley and Chandrabhaga Basin. Keeping in view the implementation of a transmission system for power evacuation from upcoming hydro generation projects, a Task Force having representatives from the

Govt. of HP, HPPCL, HPPTCL, CEA, and POWERGRID was constituted to study and revise the Transmission Master Plan. The Task Force undertook site visit from 19.09.2011 to 29.09.2011 and proposed the development of the following transmission system, which included the implementation of various pooling stations and high-capacity common transmission corridors. The planned Transmission System, along with phased development for the upper part of Satluj Basin and Spiti Valley (Satluj Basin) is as under:

“i. SHPs: Establishment of 66/220/400 kV GIS Pooling Station at Wangtoo by Mid-2014 to match commissioning of SHPs in Bhaba Khad (57 MW) and Sangla Valley (40 MW) + LILO of 220 kV Kashang- Bhaba D/c Line and LILO of both circuits of 400 kV Karcham Wangtoo-Abdullapur D/c line at Wangtoo. - Proposed Implementation through STU.

ii. Tidong-I (100 MW) and Tidong-II (90 MW) HEP: Following transmission system may be implemented matching with the commissioning of these projects:

- o 2x315 MVA (7x105 MVA units) 220/400 kV GIS Pooling Station at Jangi (with 4000 Amps. switchgear) (with space provision for 3rd ICT) - Proposed Implementation as ISTS*
- o LILO of one ckt. of Shongtong – Wangtoo 400 kV Line at Jangi - Proposed Implementation as ISTS*
- o Tidong – Jangi Pooling Station 220 kV D/c line- Proposed Implementation as ISTS*

iii. Kashang-I (65 MW), Kashang-II (65 MW), Kashang-III (65 MW) & Kashang-IV (48 MW) HEP: Kashang –I (65 MW) HEP is under construction and is likely to be commissioned during 2013. For evacuation of power from Kashang-I, HP is constructing a 220 kV D/C line from Bogtu to Kashang. Accordingly, power can be evacuated through Bogtu-Wangtoo-Bhabha 220 kV D/C line. With the commissioning of other stages of Kashang, the power shall be injected at Jangi pooling station. The Transmission scheme for Kashang shall be as given below:

- o Kashang-Jangi Pooling Station 220 kV D/C line (Single HTLS- Equivalent to 300 MW capacity) - Proposed Implementation as ISTS”*

- f) The development of Wangtoo Pooling station was proposed to be taken up by the STU in the 30th Standing Committee Meeting. Accordingly, HPPTCL took up the implementation of Wangtoo Pooling Station, and the Board of Directors (BOD) of

HPPTCL approved the proposal for construction of 400/220/66 kV GIS Pooling Sub-Station Wangtoo (Sherpa Colony) in the 10th Board Meeting held on 09.02.2011. CEA vide Letter dated 14.03.2012 accorded its approval on the Detailed Project Report (DPR) submitted vide letter dated 17.02.2011. The details of the transmission scheme are as follows:

Name of the Line	Type of S/s	Voltage level kV	No. of Transformers	No. of Bays				CoD
				765 kV	400 kV	220 kV	33 kV	
400/220/66 kV GIS Pooling Sub-Station Wangtoo (Sherpa Colony).	GIS	400	7	-	9	-	-	29.09.2019
		220	2	-	-	9	-	
		66	-	-	-	-	7	

- g) The above transmission system was envisaged to evacuate about 328 MW of power from various HEPs, which were planned to be developed in Satluj Basin in a phased manner. These HEPs include Kashang-I, II, and III HEP (65 MW each), Tidong-I HEP (100 MW), Rala HEP (13 MW), Wanger-Homte HEP (24.60 MW), Silti-Masrang HEP (24 MW) and various upcoming HEP's. The current beneficiaries include Kashang-I, II, and III HEP (195 MW), Tidong-I HEP (100 MW), Rala HEP (13 MW), and Wanger Homte HEP (24.60 MW).
- h) For utilization of Wangtoo Pooling Station, HPPCL has signed the LTOA with HPPTCL on 10.01.2020 for Kashang-I. HPPCL signed the LTOA with HPPTCL on 08.07.2022 Kashang-II and III, and Tidong-I signed the LTOA with HPPTCL on 03.06.2022.
- i) The works for the Substation were awarded in the month of July 2013, which were to be completed in 30 months. However, the Project achieved COD on 29th Sep. 2019 with a delay of 41 months.
- j) In line with the directions provided in Order dated 23.09.2015 in Petition No. 550/TT/2014, and Regulation 7(1)(n) of 2010 Sharing Regulations as amended on 1.04.2015, the Petitioner vide Petition No. 29/2022 filed the Petition for approval of Capital Cost and determination of Tariff for the Transmission Asset on 20.07.2021 after the availability of the audited capital cost figures.

- k) HPERC, while determining the ARR for subject assets, has sought information with regard to the nature of the substation and sought supporting documents regarding the Substation being part of the Intra or inter-State transmission system. In response, HPPTCL has submitted that the work of certification of non-ISTS lines was withdrawn with effect from the notification of 2020 Sharing Regulations from 11.11.2020. Therefore, on account of changes in Regulations, assets incidental to inter-state transmission systems cannot be certified as interstate or intrastate.
- l) Subsequently, after the prudence check of the claims made by HPPTCL, the HPERC disposed of the Petition vide Order dated September 28, 2022, and has approved the following capital cost and Annual Transmission Charges.

Capital Cost Claimed and Approved for the Wangtoo Pooling Station

Particular	Actual Claimed by HPPTCL (Rs. Crore)	Approved by HPERC (Rs. Crore)
Supply-transmission line material and erection stringing/Civil works. etc.	339.09	338.28
Overheads	75.47	66.72
Establishment	24.96	24.96
IDC	50.51	41.76
Total	414.56	405.00

ARR Claimed and Approved for the Wangtoo Pooling Station

Particular	FY 2019-20		FY 2020-21		FY 2021-22		FY 2022-23		FY 2023-24	
	(Rs. Lakh)		(Rs. Lakh)		(Rs. Lakh)		(Rs. Lakh)		(Rs. Lakh)	
	Claimed	Approved	Claimed	Approved	Claimed	Approved	Claimed	Approved	Claimed	Approved
Depreciation	1102.89	1049.72	2344.42	2186.01	2337.23	2187.99	2338.97	2190.41	2339.1	2190.89
Interest on Loan	1623.94	1697.15	3371.71	3393.24	3129.01	3177.78	2898.70	2962.85	2665.49	2744.59
Return on Equity	899.27	667.93	1658.96	1397.91	1653.24	1399.77	1655.56	1400.71	1656.02	1401.02
O&M Expenses	136.33	213.89	1,310.61	437.99	1,515.17	453.42	1,512.48	469.27	1,538.32	485.78
Interest on Working Capital	75.39	73.64	172.21	139.87	161.12	126.76	157.21	123.61	153.96	120.37
ARR	3837.82	3702.32	8857.91	7555.02	8795.77	7345.12	8562.93	7146.86	8353.09	6942.65

- m) With regard to the recovery of transmission charges, HPERC ruled that since the DPR does not clearly specify the beneficiaries of the system, TSAs for the substation are not yet in place, and the Petitioner itself has communicated that once the tariff is determined, the Petitioner shall approach CERC for appropriate recovery of transmission charges through POC mechanism in line with 2020 Sharing

Regulations. Accordingly, the Petitioner is directed to file a suitable application before the CERC for recovery of ARR approved in this Order for the period from COD to FY 2023-24 under the 2020 Sharing Regulations.

- n) Petitioner, HPPTCL had requested a study for certification of asset incidental to inter-State transmission system for 220 kV Charor-Banala transmission line, as deliberated in 43rd TCC and 46th NRPC meeting vide letter dated 6.8.2020.
- o) NRPC, vide its letter dated 24.08.2021, stated that the work of certification of non-ISTS lines was withdrawn with the effect of notification of 2020 Sharing Regulations from 1.11.2020.
- p) NRPC had categorically stated that HPPTCL may kindly approach the CERC for getting the certification of the instant asset as an inter-state asset, considering that 2020 Sharing Regulations, which came into effect from 01.11.2020, clearly does not provide the mechanism for certification or recovery of such intra-state lines incidental to the inter-state flow of power.
- q) While finalizing the 2020 Sharing Regulations, the Commission had specifically decided that the tariff for the intra-state schemes that are used for inter-state flow of power shall be approved by CERC if such a system is to be considered for recovery of transmission charges under the 2020 Sharing Regulations.
- r) HPPTCL, through this Petition, requests the CERC to include the instant asset under the PoC mechanism for recovery of transmission charges, considering that the power generated from HEPs is going out of the State of Himachal Pradesh via Wangtoo Pooling Station.

Hearing dated 29.05.2023:

3.The Commission admitted the Petition and noted as follows:

"2. After hearing the learned counsel for the Petitioner, the Commission observed that as per the SCM, construction of this Wangtoo substation was undertaken by HPTCL as State Hydro Projects was to be connected and evacuated through this substation. As such, it appears to be conceived as intra-state system . However, if it was envisaged as an ISTS asset, then it should have been assigned to CTUIL, which is the apex body discharging the functions of planning and co-ordination relating to ISTS.



...

4. The Commission further directed the Petitioner to submit the following on affidavit by 20.6.2023:

- a) To implead NRLDC and CTUIL as party to the petition and file revised "Memo of Parties".
- b) The current status of all the generating stations which were planned to evacuate their power through Wangtoo Sub-station.

Commission's TV letter dated 31.05.2023:

4.The Commission, vide TV letter dated 31.05.2023, directed Petitioner for the following:

- a) Implead all the beneficiaries of the transmission assets whose transmission charges have been claimed in the instant petition.
- b) SLD of the Wangtoo Sub-Station along with associated transmission lines.
- c) Current status of all the generating stations that are planned to evacuate their power through Wangtoo Sub-station.
- d) Details and present status of the LTA/ LToA granted by the HPPTCL to the generators connected to the Wangtoo Substation.
- e) Whether any Inter-State Generating Station is presently connected or is planned to be connected in the future with the Wangtoo Sub-station.
- f) Current Status of LILO of Kashang-Bhaba D/c Line and LILO of both circuits of 400 kV Karcham Wangtoo-Abdullapur D/c line at Wangtoo

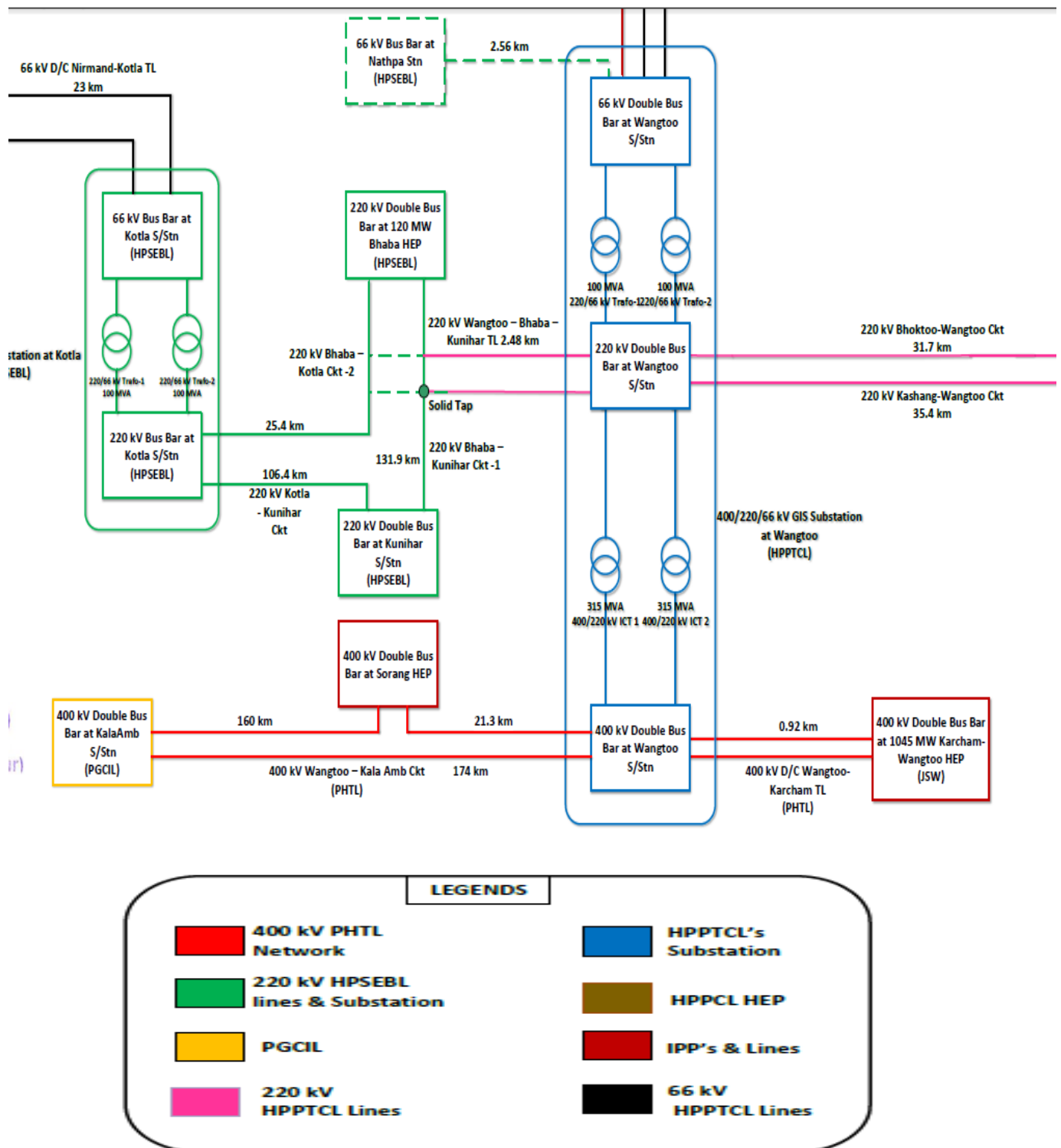
5.The Petitioner, vide amended Memo dated 05.06.2023, impleaded NRLDC and CTUIL as parties to the instant petition.

Petitioners' Submissions dated 31.05.2023:

6.In compliance with the Commission's TV letter dated 31.05.2023, the Petitioner has mainly submitted as follows:

- a) M/s Tidong Power Generation Ltd. has signed LTA with HPPTCL with the date of operationalization of LTA agreed as 25.03.2023, and the same has also been impleaded as beneficiary by the Petitioner.
- b) The simplified block diagram of Wangtoo Substation, along with associated transmission lines, is as follows:





- c) The Petitioner filed the current status of the Hydro Electric Power Plants which were planned to evacuate their power through the Wangtoo Sub-Station.
- d) The details of the LTA/ LTOA granted by the Petitioner to the aforementioned generating stations connected to the Wangtoo Sub-Station is as follows:

Sl. No.	Name of Applicant	Date from which LTA granted	LTA operationalization date
1	Taranda Hydro Power Ltd. (13 MW)	30.06.2019	30.06.2019 to 29.06.2039
2	Tidong Power Generation Ltd. (100 MW)	25.03.2023	25.03.2023
3	H.P. Power Corporation Ltd. (Kashang Stage-I) (65 MW)	02.11.2019	02.11.2019 to 01.11.2044
4	H.P. Power Corporation Ltd. (Kashang Stage II and III) (113 MW)	30.06.2026	30.06.2026

- e) The ISTS HEP of upper Satluj Valley, i.e., Tidong HEP (150MW), Shongtong HEP (450MW), and other projects like Jangi Thopan HEP, as and when integrated, shall be pooled at Wangtoo Substation. These generators shall become beneficiaries of the HPPTCL Wangtoo Substation in the future.
- f) The LILO of the Kashang- Bhaba D/C line and LILO of both circuits of the 400kV Karcham Wangtoo-Abdullapur D/C line at Wangtoo are complete.

Reply by Respondent, NRLDC:

7.The Respondent, NRLDC, vide affidavit dated 07.07.2023, has mainly submitted as follows:

- a) In a similar matter in Petition No. 57/MP/2022 (filed by Petitioner HPPTCL for inclusion of 220 kV D/C Charor-Banala Transmission line of H.P. Power Transmission Corporation Limited under PoC mechanism for recovery of transmission charges under Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2020, the Commission had already passed the order on 04.05.23, in which it held that a transmission system planned as intra-State transmission system could not be termed as inter-State for one month and then intra-State for another month. There are cases where intrastate power flows through inter-State lines where such inter-State lines cannot be declared as intra-State. Since the network is meshed, it is not appropriate to identify an intra-State transmission system as inter-State and levy its transmission charges on beneficiaries of other States. Further, it was held that the liability is on the Petitioner to substantiate what had changed from the day of planning when this transmission line was envisaged and constructed as intra-State, that now it is being proposed as inter-State.



- b) In the 29th Standing Committee Meeting, the Petitioner (HPPTCL) was also a member of the study and evacuation system of the Project in Satluj basin was discussed, and it was decided to make a task force for the same. In the 30th Meeting of the Standing Committee on Power System Planning of the Northern region, it was decided that 400/220/66 kV GIS Pooling Sub-Station Wangtoo (Sherpa Colony) shall be implemented by STU, i.e., HPPTCL and for which funds were also tied up with ADB and hence it was HPPTCL choice to implement the said asset as intra state.

Reply by Respondent, Tidong Power Generation Private Limited (TPGPL):

8. The Respondent, TPGPL, vide affidavit dated 25.07.2023, has mainly submitted as follows:

- a) The 400/220/66kV GIS pooling substation at Wangtoo (Sherpa Colony) is not entitled to be treated as incidental to the inter-state flow of power for the purpose of sharing of Inter-state transmission charges and losses. The Order dated 23.09.2015 in Petition No. 550/TT/2014 is not relevant for the present proceedings as it relates to a different transmission asset.
- b) The Commission, in its order dated 23.09.2022 in Petition No. 57/MP/2022, has not admitted but dismissed the said petition. Also, the same was filed before the 2020 Sharing Regulations were notified. Therefore, the reference to the RoP dated 15.07.2022 is not relevant to the facts of the present case.
- c) The Petitioner had rightly pointed out before HPERC that the work of certification of non-ISTS lines was withdrawn with effect from 11.11.2020, i.e., the notifications of the 2020 Sharing Regulations, and that on account of change in regulations, the assets incidental to ISTS cannot be certified as inter-state or intra-state. This submission reflects the position of law under the 2020 Sharing Regulations that intra-state transmission lines are not being considered as part of ISTS for purposes of sharing transmission charges and losses under the 2020 Sharing Regulations. This being the position admittedly appreciated by the Petitioner, there is no basis to file the present petition under the 2020 Sharing Regulations, and the same is not maintainable.

Rejoinder by the Petitioner to the reply of NRLDC:

9. The petitioner, in its rejoinder vide affidavit dated 12.09.2023 to the reply of NRLDC, has mainly submitted as follows:

- a) In the LTA meeting held on 29.12.2010 to discuss Connectivity and Long-Term Access (LTA) to Himachal Pradesh Power Corporation Limited (HPPCL) for connectivity and transfer of 195 MW power from Kashang HEP and 450 MW power from Shongtong Karcham HEP, it was agreed as follows:

“it was proposed that to establish a 400kV substation at Sherpa colony by LILO of one circuit of Karcham Wangtoo- Abdullapur 400 kV D/c (quad) line, matching with generation schedule (March’ 15). The works of establishing 400kV Sherpa colony substation and providing connectivity from the generation project by 400kV D/c can be carried out by CTU/ transmission licensee as per provisions of the CERC regulations. With the commissioning of Sherpa colony, power from Kashang, in accordance with CEA master plan, would be pooled at Sherpa colony by LILO of Kashang-Bhabha-Kunihar 220kV line and establishment of transformation capacity of 2x500 MVA. The works (LILO and its bays and provision of ICT and associated bays) would be carried out as a depository work on behalf of HPPCL/HPPTCL.”

- b) The 400 kV Pooling Station/Switching station to integrate with the existing ISTS system i.e., Karcham Wangtoo-Abdullapur and evacuate power of Shongtong Karcham HEP (450 MW) was to be constructed by CTU under ISTS, and 400/220 kV Transformers and LILO of 220 kV line at the proposed 400/220 kV Substation were proposed to be carried out as deposit work of HPPTCL by CTU.
- c) HPPTCL proposed for the approval of DPR of 400/220 kV Substation at Wangtoo with interlinking 400 kV line with proposed 400 kV Switching/ Pooling Station at Wangtoo/ Sherpa Colony wherein CEA vide letter dated 06.04.2011 advised that creation of two 400 kV GIS substations within the proximity of 1 km is sub-optimal planning and therefore HPPTCL may keep space provision for Wangtoo accommodating 4 nos. 400 kV lines at proposed 400/220/66 kV Wangtoo substation for terminating LILO of one circuit of 400 kV Karcham Wangtoo-Abdullapur D/c line and 400 kV D/c line from Shongtong Karcham HEP. In addition, space provision of 2 nos of 220 kV line bays may also be kept for terminating additional 220KV D/C lines from Kashang to Wangtoo in the future when full generation of Tidong and Kashang HEPs materializes. The earlier planned 400 kV

switching for the evacuation of power from Shongtong Karcham would not be required in this case. Further, in view of the above, HPPTCL is advised to revise the scope of works of the above lines for the substation accordingly. HPPTCL may also furnish a proposal on the above lines for consideration of the Standing Committee Meeting of power system planning for the Northern Region.

- d) In the 30th meeting of the Standing Committee on Power System Planning of the Northern Region held on 19/12/2011, as per the report submitted by a task force consisting of the Government of Himachal Pradesh, HPPCL, HPPTCL, CEA, and Powergrid, it was decided to establish the Subject Asset at Wangtoo by mid-2014 to match commissioning of SHPs in Bhaba Khad (57 MW) and Sangla Valley (40 MW) plus LILO of 220 kV Kashang- Bhaba D/c Line and LILO of both circuits of 400 kV Karcham Wangtoo-Abdullapur D/c line.
- e) CEA, *vide* letter dated 14.03.2012, approved the revised DPR of the subject asset with a future scope of 2 No. 400 kV bays for D/C line for Shongtong Karcham HEP in the future.
- f) The establishment of the subject asset by HPPTCL has facilitated the integration of ISTS power with existing ISTS infrastructure, i.e., 400 kV Karcham Wangtoo-Abdullapur line, the same was reiterated in the 18th Consultation Meeting for Evolving Transmission Schemes in Northern Region held on 28.04.2023. The subsequent system is also being developed incidental to this 400 kV Substation by CTUIL due to severe ROW constraints and land availability issues in the narrow valley.

Rejoinder by the Petitioner to the reply of TPGPL:

10. The Petitioner, vide affidavit dated 12.09.2023, filed a rejoinder to the reply of TPGPL as follows:

- a) Section 2(36) of the Electricity Act, 2003 clearly states that STU lines carrying inter-state power or lines incidental to ISTS are to be considered inter-state transmission lines. The subject asset is incidental to ISTS as the power generated from HEPs is going out of the State of Himachal Pradesh *via* the subject asset. This Commission, by way of an Order dated 23.09.2015, had laid down the methodology to be followed

for the inclusion of intra-state lines under the POC mechanism.

- b) If only intra-state transmission lines whose tariff has been approved by this Commission are entitled to be considered under the POC mechanism, then Section 2 (36) of the Electricity Act 2003 becomes otiose. The change that has been brought about by the 2020 Sharing Regulations is that NRPC can no longer certify non-ISTS lines as being ISTS.
- c) The establishment of a subject asset by HPPTCL has facilitated the integration of ISTS power with existing ISTS infrastructure, i.e., 400 kV Karcham Wangtoo-Abdullapur line; in fact, Tidong Power makes use of the subject asset to push its power outside the State of Himachal Pradesh. It is denied that the subject asset was identified for implementation through the State Transmission Utility.

Hearing dated 13.09.2023:

11. During the hearing following was noted:

- “3. In response to an observation of the Commission as to why HPPTCL agreed to construct the said sub-station on its own rather than assigning the same to CTUIL when this was conceived as an ISTS asset, the learned counsel for the Petitioner submitted that the CTUIL, in the 18th Consultation Meeting for Evolving Transmission Schemes in the Northern Region, held on 28.4.2023, declared that the Wangtoo Sub-station will be used as an ISTS for evacuation of power and directed the Petitioner to take up the matter with the Commission. The Commission observed that in that case, the CTUIL should have approached the Commission with the proposal for using the STU system as an ISTS system rather than the Petitioner.*
- 4. The representative of the CTUIL submitted that it was planned to evacuate power from Shongtong HEP and Tidong HEP after their commissioning through the Wangtoo Sub-station.*
- 5. In response to a query of the Commission regarding the date of commissioning of the said HEPs, the representative of the CTUIL replied that the Shongtong HEP is anticipated to be commissioned in 2025, whereas Tidong is still under construction.*
- 6. Learned counsel for TPGPL submitted that the status of the Wangtoo Sub-station, whether an inter-State or intra-State system, is not clear since, on the one hand, the Petitioner does not allow TPGPL to evacuate power through the said sub-station on the ground that it is an intra-State system and, on the other hand, has applied for ISTS status for the sub-station.*
- 7. The representative for the NRLDC submitted that the said transmission system was envisaged as a STU at the planning stage and was not to be included in the common pool (PoC mechanism).”*

12. After hearing parties, the Commission directed the CTUIL and the other Respondents to file their reply by 6.10.2023.

Commission's TV letter dated 18.09.2023:

13. The Commission vide TV letter dated 18.09.2023 directed the Petitioner to furnish as to what has changed which makes the assets under consideration in the instant petition an inter-State Transmission System, as it was originally planned as an intra-state system to be implemented by STU.

Petitioners' reply to the TV letter dated 18.09.2023:

14. The Petitioner, vide affidavit dated 29.09.2023 to the TV letter dated 18.09.2023, has mainly submitted as follows:

- a) The subject asset may have initially been envisaged to be implemented by PGCIL/CTU; however, in view of the CEA letter dated 06.04.2011, the scope and space for future integration of the ISTS system was kept by STU on advice of CEA to conserve ROW and limited availability of space thereby avoiding duplicity of construction of a separate 400 kV pooling/ Switching Station by PGCIL/CTUIL. The Switchyard capacity of the substation has been kept as advised in the 30th meeting of the Standing Committee on Power System Planning of Northern Region held on 19/12/2011, keeping in view the overall power handling requirements. Even the transmission system for evacuation of power from Shongtong Karcham HEP (450 MW) and Tidong HEP (150 MW) has been finalized considering 400kV D/C line from proposed 400 kV Sub-station Jhangi to 400/220/66 kV GIS Sub-station Wangtoo which implies that Wangtoo Sub-station is an integral part of the system which facilitates evacuation of the power out of the state as ISTS. Therefore, the subject asset ought to be included in the POC mechanism since it will be used as an ISTS asset to service generators supplying their electricity outside the State. The same has been reiterated in the 18th Consultation Meeting held on 28/04/2023.
- b) As per the Ministry of Power notification dated 13.04.2023 in the Gazette of India, on the recommendations of the 11th meeting of the National Committee on Transmission, M/s REC Power Development and Consultancy Limited has been appointed as the bid process Coordinator (BPC) for transmission system for

evacuation of power from Shongtong Karcham HEP (450 MW) and Tidong HEP (150 MW) wherein 400kV bays at Wangtoo Substation have been considered for termination of 400kV Jhangi PS- Wangtoo D/C line and LILO of one circuit of Jhangi PS – Wangtoo (HPPTCL) 400kV D/C (Quad) line at generation switchyard of Shongtong HEP. It has also been notified that HPPTCL has to provide space for 4 Nos. 400kV line bays (GIS) at the Wangtoo Sub-station for the termination of 400kV Jhangi PS-Wangtoo D/C line and Wangtoo (HPPTCL)-Panchkula (PG) D/C line. This clearly shows that the Wangtoo Substation of HPPTCL, eventually, is an integral part of the ISTS System and may accordingly be included in the PoC mechanism for recovery of ARR.

Reply by Respondent, CTUIL:

15.The Respondent, CTUIL, vide affidavit dated 06.10.2023, has mainly submitted as follows:

- a) During the 30th meeting of the Standing Committee on Power System Planning of Northern Region held on 19.12.2011, the Master Plan for evacuation of hydro potential for about 3500 MW in the Upper part of the Satluj basin was agreed upon, which included the implementation of various Pooling Stations and high-capacity Common Transmission corridors. This Master Plan was finalized through a site visit undertaken by the Task Force (constituted in 29th NR-SCM) from 19.09.2011 to 29.09.2011 to identify the availability of corridors, location of proposed pooling stations, feasibility of construction of lines, progress of generation projects, etc.
- b) Out of the 3500 MW, Open Access applications for about 885 MW were received under ISTS at that time. Along with these generation projects, some SHPs were also envisaged in the Satluj basin. Accordingly, for evacuation of power from these generations, various pooling stations along with high-capacity lines, as per the tentative location of the generation projects, were agreed to be implemented under ISTS as well as Intra State by STU, matching with the respective generation schedules.
- c) HPPTCL proposed that works of 400/220/66 kV Wangtoo substation, along with the LILO of both circuits of 400 kV Karcham Wangtoo-Abdullapur D/c line at Wangtoo

S/s, would be carried out by HPPTCL (STU) as these works were required for evacuation of power from SHPs, matching with their time frame. HPPTCL also proposed to implement this substation by Mid-2014 and they have tied up the funds from ADB. The same was agreed. In view of the above, Wangtoo S/s was constructed by HPPTCL under Intra-state.

- d) 885 MW projects (except Shongtong HEP) did not materialize, and their Connectivity/LTA applications under ISTS were closed. Only LTA and Connectivity application for Shongtong HEP in ISTS was left in Satluj basin with Connectivity at Wangtoo 400 kV level.
- e) Several intra-state SHPs are connected at 66 kV level of Wangtoo S/s (HPPTCL), as 400 kV Karcham Wangtoo-Abdullapur D/c line was LILLOed at Wangtoo S/s and ISTS power from Karcham Wangtoo/ Baspa/ Nathpa Jhakri HEPs, is presently being wheeled through 400 kV side of Wangtoo S/s.
- f) The Connectivity and LTA for Shongtong (450 MW) and Tidong (150 MW) HEPs in ISTS, upstream of Wangtoo S/s at 400 kV Connectivity/ LTA transmission system was agreed through 400 kV Jhangi PS - Wangtoo S/s (HPPTCL) – Panchkula (PG) line.
- g) Presently, Shongtong and Tidong HEPs are scheduled for commissioning in July 2026. Accordingly, this 600 MW of power from Shongtong and Tidong HEPs shall be wheeled through 400 kV Wangtoo S/s after their commissioning.

Rejoinder by the Petitioner to the reply of CTUIL:

16. The Petitioner vide affidavit dated 26.10.2023 through rejoinder to the reply of CTUIL has mainly submitted as follows:

- a) CTUIL, in its Reply, has not objected to the inclusion of the Subject Asset under the PoC mechanism for recovery of transmission charges. CTUIL, in its reply, has, in fact, supported the contention of HPPTCL that even though the Subject Asset was initially envisaged as an InSTS subsequently, after taking into account the system constraints, the Subject Asset is now to be considered as an ISTS. The obvious corollary is that the Subject Asset ought to be included under the PoC mechanism

for recovery of transmission charges.

- b) All statutory authorities, including the CEA and CTUIL, were of the view from 2011 onwards that the subject asset would be used for the flow of ISTS Power.
- c) HPPTCL has facilitated the integration of ISTS Power with existing ISTS infrastructure, i.e. Karcham Wangtoo-Abdullapur line. The Subject Asset is an ISTS asset considering following:
 - i. 400 kV side shall be permanently used to provide ISTS connectivity in the upper Satluj region and shall facilitate the evacuation of ISTS power. HPPTCL has invested funds to facilitate this integration of ISTS power of present projects as well as upcoming projects upon request of CEA/Powergrid/CTUIL.
 - ii. Tidong HEP, which has to ultimately evacuate through 400/220 kV Jhangi Pooling station, has been facilitated at the Subject Asset.
 - iii. The establishment of the Subject Asset has resulted in a decreased tariff burden, due to which a separate 400 kV Switching station could be avoided.
 - iv. Actual power flow from three HEPs – Karcham Wangtoo/Baspa/Naphtha Jhakri on an inter-state basis through the Subject Asset.

Hearing dated 19.02.2024:

17.The Commission reserved the matter for Order and directed CTUIL and Petitioner to file the status of the generation schedule of Shongtong Karcham HEP (STKHEP) and Tidong HEP. The Petitioner was also directed to file a copy of the Ministry of Power Gazette Notification dated 13.4.2023.

Submission by the Petitioner:

18.The Petitioner, vide its written submissions dated 26.02.2024, has mainly re-iterated the points which have already been covered in its earlier submissions.

19.The Petitioner, in compliance with the RoP for hearing dated 19.02.2024 vide affidavit



dated 06.03.2024, has submitted the copy of the Ministry of Power Gazette Notification dated 13.4.2023 through which the Transmission system for evacuation of power from Shongtong Karcham HEP (450 MW) and Tidong HEP (150 MW) have been notified for bidding to be conducted by REC. The Petitioner also submitted that the schedule of commissioning of Shongtong Karcham HEP (STKHEP) and Tidong HEP was deliberated in the 28th Joint Co-ordination Committee Meeting for Generation and Transmission Projects of Northern Region where following was noted:

Shongtong HEP (450 MW)	Tidong HEP (150 MW)
Unit-I - 31.07.2026	Unit-I - 50MW - 10.10.24
Unit-II - 30.09.2026	Unit-II- 50MW - 25.10.24
Unit-III -30.11.2026	Unit-III- 50MW - 31.10.24

20.The Petitioner on 26.03.2024 has filed the amended Memo of Parties impleading Statkraft Markets Private Limited and Northern Regional Power Committee as parties to the present Petition.

Hearing dated 26.09.2024:

21._Since the order in the matter, which was reserved on 19.2.2024, could not be issued prior to the Members of the Commission, who formed part of Coram, demitting office, the matter has been re-listed for the hearing. Learned counsel for the Petitioner and the Respondent(s) submitted that the Pleadings are completed in the matter and the parties have already made their detailed submissions, which may be considered, and the matter may be reserved. Considering this, the Commission reserved the matter for Order.

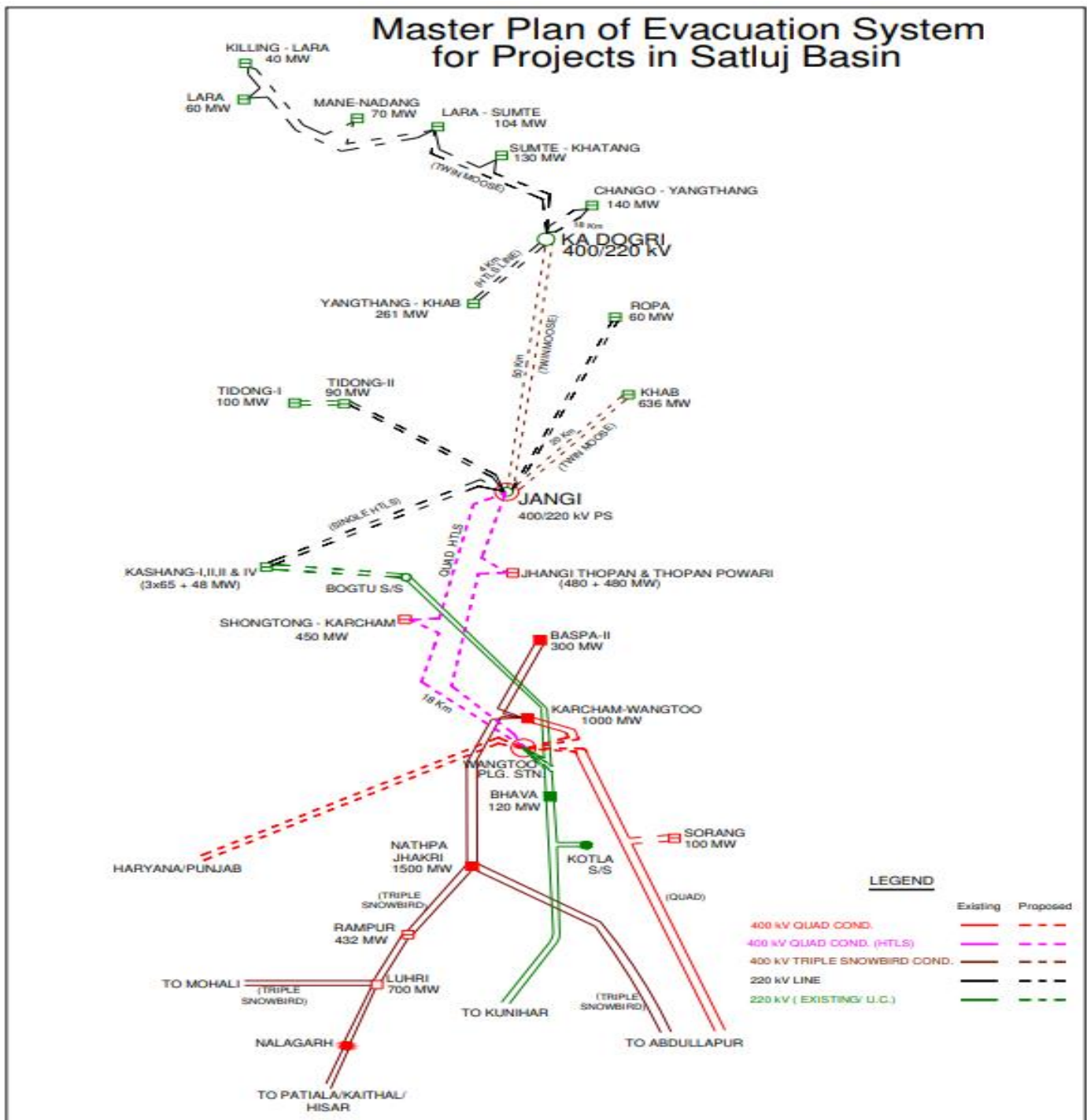
Analysis and Decision:

22.Petitioner is praying for declaring the 66/220/400 kV GIS pooling station at Wangtoo (Sherpa Colony) GIS developed by STU as ISTS for recovery of transmission charges under 2020 Sharing Regulations, stating that the sub-station is incidental to the inter-State flow of power. The 66/220/400 kV GIS pooling station at Wangtoo GIS achieved COD on 29.09.2019 and has the following details:

Name of the Line	Type of S/s	Voltage level kV	No. of Transformers	No. of Bays			
				765 kV	400 kV	220 kV	33 kV
400/220/66 kV GIS Pooling Sub-Station Wangtoo (Sherpa Colony)	GIS	400	7	-	9	-	-
		220	2	-	-	9	-
		66	-	-	-	-	7

23. Petitioner has submitted that HPERC has determined Capital Cost and ARR, vide Order dated 28.09.2022 in the Petition No. 29/2022 and directed to approach CERC for appropriate recovery of transmission charges through POC mechanism in line with 2020 Sharing Regulations.

24.. The schematic representation of interconnections at Wangtoo GIS is as under:



25. The Petitioner has claimed that Wangtoo GIS may be included in the inter-state system for recovery of transmission charges considering that:

- (i) 400 kV side shall be permanently used to provide ISTS connectivity in the upper Satluj region and shall facilitate the evacuation of ISTS power. This integration of ISTS power of present projects as well as upcoming projects facilitated upon request of CEA/ Powergrid/ CTUIL.

- (ii) Tidong HEP, which has to ultimately be evacuated through 400/220 kV Jhangi Pooling station, has been facilitated at the Subject Asset.
- (iii) Establishment of the Subject Asset has resulted in a decreased tariff burden, due to which a separate 400 kV Switching station could be avoided.
- (iv) Actual power flow from three HEPs- Karcham Wangtoo/ Baspa/ Naphtha Jhakri on an inter-state basis through the Subject Asset.

26. The NRLDC has objected to the claim of Petitioner and submitted that it was HPPTCL's choice to implement the said assets as an intra-state system. Accordingly, in the 30th Meeting of the Standing Committee on Power System Planning of the Northern region, it was decided that the 400/220/66 kV GIS Pooling Sub-Station Wangtoo (Sherpa Colony) shall be implemented by STU, i.e., HPPTCL for which funds were also tied up by it from ADB.

27. CTUIL has submitted that HPPTCL proposed that works of 400/220/66 kV Wangtoo substation, along with the LILO of both circuits of 400 kV Karcham Wangtoo-Abdullapur D/c line at Wangtoo S/s, would be carried out by HPPTCL (STU) as these works were required for evacuation of power from SHPs, matching with their time frame. HPPTCL also proposed to implement this substation by Mid-2014 and they have tied up the funds from ADB. The same was agreed. In view of the above, Wangtoo S/s was constructed by HPPTCL under Intra-state.

Respondent TPGL has submitted that the 400/220/66kV GIS pooling substation at Wangtoo (Sherpa Colony) is not entitled to be treated as incidental to the inter-state system for the purpose of sharing of Inter-state transmission charges and losses. TPGL has stated that on account of change in regulations, the assets incidental to ISTS cannot be certified as inter-state or intra-state; the position of law under the 2020 Sharing Regulations is that intra-state transmission lines are not being considered as part of ISTS for the purposes of sharing of the transmission charges and losses under the 2020 Sharing Regulations. TPGL further stated that this being the position admittedly appreciated by the Petitioner, there is no basis to file the present petition under the 2020 Sharing Regulations and the same is not maintainable.

28. We have considered the submissions of Petitioner and Respondents and also perused the information on record. The Petitioner has prayed to include the 66/220/400 kV GIS pooling station at Wangtoo (Sherpa Colony) under the PoC mechanism for recovery of transmission charges for the period from 29.09.2019 to FY 2023-24. We observe that the 2020 Sharing Regulations were issued on 04.05.2020 and were made effective from 01.11.2020, and with the effectiveness of the 2020 Sharing Regulations, the 2010 Sharing Regulations were repealed. Accordingly, the following issues arise for our consideration:

Issue No. 1: Whether the 66/220/400 kV GIS pooling station at Wangtoo (Sherpa Colony) is to be considered an inter-State transmission system for the purpose of recovery of transmission charges under the 2010/2020 Sharing Regulations?

29. The same is dealt with in subsequent paragraphs.

30. The 2020 Sharing Regulations provides as follows:

“13 (13) An intra-State transmission system for which tariff is approved by the Commission shall be included for sharing of transmission charges of DICs in accordance with Regulations 5 to 8 of these regulations, only for the period for which such tariff has been approved.”

As per above, an intra-State transmission system approved by the Central Commission shall be considered for inclusion in Regulations 5 to 8 of the said regulations.

- a) Petitioner has submitted that the subject substation was envisaged to evacuate about 328 MW of power from various HEPs, which were planned to be developed in the Satluj Basin in a phased manner. These HEPs include Kashang-I, II, and III HEP (65 MW each), Tidong-I HEP (100 MW), Rala HEP (13 MW), Wanger-Homte HEP (24.60 MW), Silti-Masrang HEP (24 MW) and various upcoming HEP's. The current beneficiaries include Kashang-I, II, and III HEP (195 MW), Tidong-I HEP (100 MW), Rala HEP (13 MW), and Wanger Homte HEP (24.60 MW). Petitioner had approached HPERC for determination of tariff of the substation where HPERC vide Order dated 28.09.2022 observed with regard to the recovery of transmission charges, that since the DPR does not clearly specify the beneficiaries of the system, TSAs for the sub-station are not yet in place and the Petitioner itself has

communicated that once the tariff is determined, the Petitioner shall approach CERC for appropriate recovery of transmission charges through POC mechanism in line with 2020 Sharing Regulations. Accordingly, HPERC was directed to file a suitable application before the CERC for recovery of ARR approved in this Order for the period from COD to FY 2023-24 under the 2020 Sharing Regulations.

31. We have considered the submissions of the Petitioner. From the submissions of Petitioner, it is observed that Petitioner himself submitted in HPERC that he would approach CERC for appropriate recovery of transmission charges under 2020 Sharing Regulations, and HPERC observed that DPR does not clearly specify the beneficiaries of the system, and TSAs for the sub-station is not yet in place.

32. This Commission, vide Order dated 04.05.2023 in Petition 57/MP/2022, has observed as follows:

“22. The Electricity Act 2003 lays down the framework of transmission system development in our Country as divided into intra-State transmission and inter-State transmission. The responsibility of development of inter-State transmission system lies with CTU, while the development of intra-State transmission system with STU. Inter-State transmission system is planned by CTU for evacuation and transmission of inter-state power after consultation with CEA and the concerned RPC, and mode of implementation of inter-state transmission system is either Tariff Based Competitive Bidding (TBCB) route or Regulated Tariff Mechanism (RTM) route, as decided by the committee constituted by MOP, Govt. of India. However, there are some transmission lines connecting the systems of two neighboring states which have been constructed over the years by concerned States under bilateral arrangement or the intra-state lines converted into inter-state lines due to bifurcation of a State. Such transmission lines connecting two states are eligible as inter-State lines under Section 36(i) of the Act and they are being approved by the Commission as inter-State transmission system upon application by the Concerned States. Commission had also introduced identification of intra-State transmission lines as inter-State based on load flow under Sharing Regulations, 2010. However, load flow varies in a transmission system on continuous basis depending on the load-generation balance scenarios. A transmission system planned as intra-State transmission system cannot be termed as inter-State for one month and then intra-State for another month. There are cases where intrastate power flows through inter-State lines where such inter-State lines cannot be declared as intra-State. Since the network is meshed, it is not appropriate to identify an intra-State transmission system as inter-State and levy its transmission charges on beneficiaries of other States.”

As per the above, it was observed that the Commission had introduced the identification of intra-State transmission lines as inter-State based on the load flow under the 2010 Sharing Regulations. However, load flow varies in a transmission system on a continuous basis depending on the load-generation balance

scenarios. A transmission system planned as an intra-State transmission system cannot be termed as inter-State for one month and then intra-State for another . There are cases where intra-state power flows through inter-State lines where such inter-State lines cannot be declared as intra-State. Since the network is meshed, it is not appropriate to identify an intra-State transmission system as inter-State and levy its transmission charges on beneficiaries of other States. Accordingly, planning a transmission system is one of the major criteria for deciding whether to put in place an intra-State transmission system or an inter-State one.

33. Now, let us peruse the planning of the instant substation under Standing Committee Meetings.

34. The minutes of the Connectivity/ Long Term Access meeting dated 29.12.2010, wherein various Long-Term Access (LTA) applications for transfer of power to Northern Region and Connectivity of generation to Northern Regional Grid were discussed, is as under:

“6.0 Connectivity and Long-term Access (LTA) to Himachal Pradesh Power Corporation Limited, for connectivity and transfer of 450 MW power from Shongtong Karcham HEP

POWERGRID informed that Himachal Pradesh Power Corporation Ltd. (HPPCL) has applied for Connectivity and Long-Term Access of their Shongtong Karcham (450) MW Generation project in Satluj Basin at Kinnaur, H.P. As per the application, the connectivity and LTA for the project is required by March, 2015 (Unit-1 : March, 2015, Unit-2 : April, 2015 & Unit-3 : May, 2015). The beneficiary for the power is Northern Region.

Connectivity and Long-Term Access POWERGRID informed that HPPCL had proposed to LILO of one circuit of Baspa-II – Jhakri D/c line at Shongtong Karcham HEP. As per their connectivity application, the generation project is located about 2 km (during the meeting it was informed that it is about 20 km) from proposed Sherpa colony 400kV S/s. As per the master plan evolved by CEA for evacuation of power from Satluj basin, it envisages pooling of power from the project in 400/220kV Substation at Sherpa colony.

...

Keeping above in view, presently about 750 MW needs to be evacuated from the basin, Kashang (195MW), Tidong-I (100 MW) and Shong Tong Karcham (450 MW) and to evacuate the power, a 400/220kV Substation at Sherpa colony by LILO of one circuit of Karcham Wangtoo- Abdullapur at Sherpa colony was agreed. The substation would be commissioned matching with Shong Tong time frame. It was agreed that the Shongtong Karcham HEP would be connected to Sherpa colony by a 400kV D/c line. With the commissioning of Karcham Wangtoo system, about 1000 MW shall be available for future projects, out of which already 100 MW has been allotted for Sorang

HEP. Tidong-I, Kashang and Shongtong Karcham can also be evacuated over the corridor upto Abdullapur.

Beyond Abdullapur additional transmission system would be required with commissioning of proposed generation projects. The additional transmission system shall be evolved based on progress of generation and network orientation. HPPCL would be required to share transmission charges for additional transmission system, alongwith other generations, if any.

After the discussions, it was agreed that Connectivity and Long term Access for 450MW generation of Shongtong Karcham HEP of HPPCL be granted subject to following:

Connectivity:

- For evacuation of Shongtong Karcham (450 MW), it is proposed to establish a 400kV substation at Sherpa colony by LILO of one circuit of Karcham Wangtoo – Abdullapur 400 kV D/c (quad) line, matching with generation schedule (March'15). **The works of establishing 400kV Sherpa colony substation and providing connectivity from the generation project by 400kV D/c can be carried out by CTU / transmission licensee as per provisions of the CERC regulations.** With the commissioning of Sherpa colony, power from Kashang, in accordance with CEA master plan, would be pooled at Sherpa colony by LILO of Kashang-Bhabha-Kunihar 220kV line and establishment of transformation capacity of 2x500 MVA. The works (LILO and its bays and provision of ICT & associated bays) would be carried out as a depository work on behalf of HPPCL/HPPTCL.
- HPPTCL/HPPCL would discuss for vacation of land presently being held by M/s Jaypee Ltd. for Sherpa Colony substation or else assist the CTU/transmission licensee for identifying/acquisition of the land for substation at Sherpa colony.
- The applicant shall abide by all provisions of the Electricity Act, 2003, the CERC regulation 2009 (Grant of Connectivity, Long-term Access and Medium-term Open Access in inter-State Transmission and related matters) Central Electricity Authority (Technical Standards for connectivity to the Grid) and Indian Electricity Grid Code as amended from time to time. • The connectivity shall be as per the detailed procedures of Central Transmission Utility (POWERGRID) for Grant of Connectivity, Long-term Access and Medium-term Open Access to Inter-State Transmission and all provisions regarding connectivity would have to be met.
- The applicant shall furnish additional details for signing Connection Agreement for the same and would sign the Connection Agreement as per the provisions of Connectivity.
- Further, HPPCL shall have to sign separate Transmission Agreement with CTU /transmission licensee for bearing transmission charges of Sherpa colony S/s alongwith LILO & 400kV D/c shall also be required to submit Bank Guarantee @ Rs. 2.5 Lakhs per MW if required line is less than 20 kms else @ Rs. 5 Lakhs per MW of connectivity applied/granted.

As per above, the evacuation of Shongtong Karcham (450 MW) and power from Kashang was planned to be evacuated 400kV substation at Sherpa colony by LILO of

one circuit of Karcham Wangtoo – Abdullapur 400 kV D/c (quad) line, to be implemented by CTU/transmission licensee ISTS system.

35.CEA, in its letter dated 06.04.2011 upon examination of DPR of HPPTCL's ADB financed transmission projects, has mentioned as under:

*"It is mentioned that in LTA meeting held on 29.12.2010 it was decided that a 400 kV switching station would be created at Sherpa Colony by LILO of one circuit of 400 kV Karcham Wangtoo-Abdullapur D/C line and a 400 KV D/c line from Shongtong - Karcham HEP (450 MW) to Sherpa colony switching station would be constructed for evacuation of power from Shongtong Karcham HEP. **These works were approved to be constructed as ISTS System.** It was also agreed that HPPTCL may provide requisite 400/220 kV ICTs and 220 kV line bays as per the requirement of HPPTCL would be provided at this station at the cost of HPPTCL.*

*It is observed that **HPPTCL now proposed to construct a separate 400/220/66 KV GIS substation at Wangtoo which is at a distance of 1 km and interconnect this station with 400 kV switching station of ISTS System.***

*In this context, it is **felt that creation of two 400 kV GIS substations within the proximity of 1 km is sub-optimal planning and therefore HPPTCL may keep space provision for Wangtoo accommodating 4 nos.** 400 kV lines at proposed 400/220/66 kV Wangtoo substation for terminating LILO of one circuit of 400 kV Karcham Wangtoo-Abdullapur D/c line and 400 kV D/c line from Shongtong Karcham HEP. In addition, space provision of 2nos of 220 kV line bays may also be kept for terminating additional 220KV D/C line from Kashang to Wangtoo in future when full generation of Tidong and Kashang HEPs materialises. The earlier planned 400 kV switching for evacuation of power from Shongtong Karcham would not be required in this case.*

In view of the above, HPPTCL is advised to revise the scope of works of above lines for substation accordingly. HPPTCL may also furnish a proposal on above lines for consideration of Standing Committee Meeting of power system planning for Northern Region."

36.As per above, what clearly emerges is that HPPTCL had proposed to construct a 400/220/66kv substation for its requirement at a distance of 1 km from the 400 kV switching station of ISTS against which background it was proposed that HPPTCL may keep 4 bays in its substation to connect LILO or Karcham Wangtoo-Abdullapur line.

37.We have also perused the agenda for the 30th Standing Committee on Transmission System Planning of Northern Region dated 19.12.2011 as under:

Quote

"Agenda no. 10- Evacuation of power from HEPs in Satluj Basin & Chandrabhaga Basin:

...A lot of new hydro generation projects are planned in the upper region of State of Himachal Pradesh which mainly covers upper part of Satluj Basin including Spiti Valley and Chandrabhaga Basin. For implementation of transmission system, there are severe Right-of-Way constraints, the terrain is very tough and the area is snow bound. The issue of transmission system for upper part of Satluj Basin, Spiti Valley (Satluj Basin), Chandrabhaga Basin and Seas Basin in Himachal Pradesh was discussed during the **29th Standing Committee Meeting of Northern Regional Transmission Planning held on 29/12/2010, wherein it was decided that a Task Force having representatives from Govt. of HP, HPPCL, HPPTCL, CEA and POWERGRID would be constituted to study and revise the Master Plan. Keeping above in view, a site visit was undertaken by the Task Force from 19/09/2011 to 29/09/2011 to identify the availability of corridors, location of proposed pooling stations, feasibility of construction of lines, progress of generation projects etc.**

...

...

Based on the above as well as power transfer requirement, transmission system along with the phasing of the works was finalized. The proposed transmission system includes implementation of various pooling stations and high-capacity common transmission corridors. Details of transmission system along with the phasing of works is given in Annexure-IV.

...

(b) Out of the above planned transmission scheme, the transmission elements which may be taken

up as ISTS elements is also proposed at Annexure-IV. **Generally the high capacity common transmission corridors, which are to be used for more than one generator, have been proposed as ISTS.**

A.1 Planned Transmission System along with phased development for upper part of Satluj Basin and Spiti Valley (Satluj Basin)

- i. **SHPs: Establishment of 66/220/400 kV GIS Pooling Station at Wangtoo by Mid-2014 to match commissioning of SHPs in Bhaba Khad (57 MW) and Sangla Valley (40 MW) + LILO of 220 kV Kashang- Bhaba D/c Line and LILO of both circuits of 400 kV Karcham Wangtoo-Abdullapur D/c line at Wangtoo. - Proposed Implementation through STU.**

HPPTCL proposed to implement this substation by Mid, 2014 and they have tied up the funds from ADB. The switchgear rating and bus capacity etc. at Wangtoo substation should be equivalent to 4000Amps.

- ii. **Tidong-I (100 MW) & Tidong-II (90 MW) HEP: Following transmission system may be implemented matching with the commissioning of these projects:**

- 2x315 MVA (7x105 MVA units) 220/400 kV GIS Pooling Station at Jangi (with 4000 Amps. switchgear) (with space provision for 3rd ICT) - **Proposed Implementation as ISTS**
- LILO of one ckt. of Shongtong – Wangtoo 400 kV Line at Jangi- **Proposed Implementation as ISTS**
- Tidong-Jangi Pooling Station 220 kV D/c line- **Proposed Implementation as ISTS**

iii. **Kashang-I (65 MW), Kashang-II (65 MW), Kashang-III (65 MW) & Kashang-IV (48 MW) HEP:** Kashang –I (65 MW) HEP is under construction and is likely to be commissioned during 2013. For evacuation of power from Kashang-I, HP is constructing a 220 kV D/C line from Bogtu to Kashang. Accordingly, power can be evacuated through Bogtu-Wangtoo-Bhabha 220 kV D/C line. With the commissioning of other stages of Kashang, the power shall be injected at Jangi pooling station. The Transmission scheme for Kashang shall be as given below:

- **Kashang-Jangi** Pooling Station 220 kV D/C line (Single HTLS-Equivalent to 300 MW capacity) - **Proposed Implementation as ISTS**

Note: In case Kashang HEP (Stage II & III) materialize earlier than Tidong, Jangi Pooling Station along with LILO of Shongtong-Wangtoo 400kV line would have to be implemented along with Kashang. After coming up of Kashang II & III and its inter-connection with Jangi Pooling Station, the Kashang-Bogtu 220kV line has to be kept in open condition.”

Unquote

From the above, the 66/220/400 kV GIS Pooling Station at Wangtoo was proposed to be implemented by HPPTCL, whereas Shongtong Karcham- Wangtoo 400 kV D/c Line was proposed as ISTS. A power evacuation system for Tidong-I (100MW) and Tidong-II HEP was also planned as ISTS.

38.As submitted by the Petitioner, the substation was planned to evacuate power from the following HEPs:

Current Status of Generating Station which were planned to evacuate their power through 66/220/400 kV Pooling S/S Wangtoo as per DPR			
S.No.	Description of HEPs	Installed Capacity (MW)	Remarks/ Status
A	HEP's- Commissioned and evacuating their power through Wangtoo		
1.	Tangling	5	Commissioned
2.	Shyang	3	Commissioned
3.	Barua	9	Commissioned
4.	Raura	8	Commissioned
5.	Shaung	3	Commissioned
6.	Kasang - I	65	Commissioned

7.	Homte Wanger	24.5	Commissioned
8.	Rala	9	Commissioned
	Total - A	126.5	
B	HEP's – Under Construction		
1.	Nesang-I	15	Under Construction
2.	Rukti -II	5	Under Construction
3.	Nesang-II	10	Under Construction
4.	Ropa	12	Under Construction
5.	Pangi	5	Under Construction
6.	Raura-II	20	Under Construction
7.	Himani Chamunda	10	Under Construction
8.	Silti Masrang	24	Not Commissioned (expected in July 2023)
9.	Tidong -I	100	Under Construction
10	Kashang Stage-II and III	113.1	Under Construction
	Total - B	314.1	
	TOTAL	440.6	

39.As per above, the 66/220/400 kV Wangtoo GIS (Sherpa Colony) was planned to evacuate HEPs as an intrastate system.

40.We have perused the HPERC Order dated 22.09.2022, whereby the following is noted:

"3.2 Summary of the Project

Petitioner Submission

- 3.2.1 *The Petitioner submitted that the beneficiaries of the system include M/s Taranda Hydro Power Private Limited (Rala HEP having capacity of 13MW), M/s Panchhor Hydro Private Limited (Wanger-Homte HEP of 24.60MW) and M/s Ramesh Hydro Power Private Limited (Silti-Masrang of 24MW). Each beneficiary has been provided one no. of 66 kV bay at Wangtoo Substation for evacuation of power in joint mode. Rala HEP is selling its power to M/s Tata Power Delhi Distribution Limited and has signed LTOA (Long Term Open Access Agreement) with HPPTCL for usage of STU system. Wanger-Homte HEP has executed Power Purchase Agreement (PPA) with HPSEBL and its power is being purchased by HPSEBL at inter-connection point as defined in the Agreement. Further, Silti-Masrang HEP is yet to be commissioned and the Petitioner has not received the LTA/MTOA application from the HEP, hence the said HEP is not impleaded in the current Petition.*
- 3.2.2 *Furthermore, HPSEBL's intrastate system is connected to Wangtoo Sub-station through S/C LILO of 220 kV D/C Bhaba-Kunihar transmission line and is being used by HPSEBL for both drawl and injection.*
- 3.2.3 *Subsequent to BOD of the Petitioner and CEA approval, the contract for Design, Engineering, Manufacturing, Fabrication, Testing at Manufacturing works, Transportation to site, Insurance, Storage, Erection, Testing and Commissioning of 400/220/66 kV GIS Pooling Station at Wangtoo (Sherpa Colony) was awarded*

on Turnkey basis to M/s L&T Construction Ltd. The Petitioner further submitted that the contract was awarded after carrying out due competitive bidding process."

As per above, the beneficiaries of the substation have been identified as intra-State generating stations and HPSEBL, which is using the Wangtoo substation for both drawl and injection.

Further, the said HPERC Order also notes about future beneficiaries of the substation as follows:

"3.3 *Energy flow and Nature of Asset*

Petitioner Submission

3.3.1 *The Petitioner submitted that 400/220/66 kV Pooling Sub-station of capacity 220/400 kV, 2X315 MVA and 66/220 kV, 2X80/100 MVA has been constructed with an anticipated evacuation capacity of ~350 MW.*

3.3.2 *As per the Petitioner, currently there are four beneficiaries of the project viz. HPPCL Kashang HEP (65 MW), Taranda Hydro Power Limited (13 MW), Rala HEP (13 MW) and Panchhor Hydro Power Pvt. Ltd. (24.60 MW). Further, HPSEBL has utilised 316 MW of peak power from the Sub-station through its Kuniyar circuit. The Petitioner also submitted that more beneficiaries are expected to join in the future.*

Commission's Analysis

3.3.3 *The Commission in one of its deficiency letter sought updated details from the Petitioner on the current and future beneficiaries of the project. In its response, the Petitioner submitted that currently there are four LTOA beneficiaries of the project listed as follows:*

Table 5: Details of existing beneficiaries

Sl.	Name of Beneficiary	Quantum (MW)	Type of Agreement signed
1	HPPCL (Kashang HEP)	65	LTOA executed on dated 10.01.2020
2	Taranda Hydro Power Pvt. Ltd. (Rala HEP)	13	LTOA executed on dated 26.02.2019
3	Panchhor Hydro Power Pvt. Ltd. (Wanger Homte HEP)	24.60	M/s Panchhor has signed Connection Agreement with HPPTCL on 06.08.2014. Further, HPSEBL has executed PPA with IPP for purchase of power and Connection Point has been defined as 66/220/400kV Wangtoo Substation as per Connection Agreement. Hence, Transmission charges for usage of said system will be borne by HPSEBL and signing of TSA in this regard is in process
4	HPSEBL	HPSEBL has utilized approximately 316 MW of Peak Power from Wangtoo Substation through its Kunihar Circuit.	Signing of TSA with HPSEBL is in process. TSA to be signed with HPSEBL with a proposed capacity of 830 MVA (630 MVA for 400/220 kV level + 200 MVA for 220/66 kV level)

3.3.4 The details of future beneficiaries as submitted by the Petitioner are provided as follows:

Table 6: Details of future beneficiaries

Sl.	Name of Beneficiary	Quantum (MW)	Status
1	Ramesh Hydro Power Pvt. Ltd. (Selti – Masrang HEP)	24	Selti-Masrang HEP has signed Connection Agreement with HPPTCL on 15.12.2018. The project is under execution stage and details with respect to agreement with HPSEBL/other utility is not available at the moment.
2	Tidong Power Generation Pvt. Ltd. (Tidong HEP)	100	Projects has applied for LTA for its respective capacities and its LTA application are under process.
3	HPPCL (Kashang HEP)	130	
4	Raura II	24	Brua HEP, Shaung HEP and Raura-II HEP's have signed joint Connection Agreement with
5	Brua HEP	9	

Sl.	Name of Beneficiary	Quantum (MW)	Status
6	Shaung HEP	3	HPPTCL on 02.07.2021, whereas Raura HEP has signed Connection Agreement with HPPTCL on 23.06.2016. The projects have been granted connectivity at 66kV Urni Substation and shall be connected to Wangtoo Substation through 66kV Urni-Wangtoo Transmission line. These generators have signed PPAs with HPSEBL for selling their power and signing of TSA with HPSEBL is in process.
7	Raura HEP	12	

- 3.3.5 *The Commission with regard to the TSA with HPSEBL sought status update from the Petitioner regarding signing and the proposed timeline of conclusion of the process. The Petitioner submitted that the TSA signing is under process and is expected to conclude shortly. The Commission directs the Petitioner to timely take up the matter with HPSEBL and sign the TSA on priority.*
- 3.3.6 *The Commission sought information with regards to nature of line and sought supporting documents regarding the Sub-station being part of Intra or Inter-State transmission system. In response, the Petitioner submitted that the work of certification of non-ISTS lines was withdrawn with effect from the notification of CERC (Sharing of ISTS Charges and Losses) Regulations, 2020 from 11th November, 2020. Therefore, on account of change in Regulations, assets incidental to inter-state transmission system cannot be certified as interstate or intrastate.*
- 3.3.7 *From the review of the DPR it is inferred that the Sub-station was constructed for evacuation of power from hydro plants such as Kashang (65 MW), Tidong (100 MW), Raura (20 MW), Selti (24 MW), Masrang and 11 other power houses. Furthermore, as per the DPR, it was decided that the generating companies shall be paying the Annual Transmission Charges to HPPTCL as beneficiaries of the generating stations were not identified.*
- 3.3.8 *Since, the TSAs for the Sub-station are not yet in place and the Petitioner itself has communicated, as discussed in the previous chapter, that once the tariff is determined, the Petitioner shall approach Hon'ble CERC for appropriate recovery of transmission charges through POC mechanism in line with CERC (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2020.*
- 3.3.9 *Hence, in light of the submissions, the Petitioner is directed to take up the matter with appropriate authority /agencies for recovery of the approved ARR from the beneficiaries as also highlighted in Chapter 4 of this Order.*
- 3.3.10 *The maximum capacity that can be handled by Sub-station is 315 MVA under n-1 contingency condition for 400/220 kV transformer and 100 MVA under n-1 contingency condition for 220/66 kV Transformer. Under present generation scenario, power being evacuated through 66/220/400 kV is provided as follows:*

Table 7: Power Evacuation through Wangtoo transmission system

Sl.	Name of the Project	Voltage level from which generation is coming	Transmission system
1	Rala HEP (13 MW)	66 kV	1 No. 66kV bay at Wangtoo Substation has been constructed for Rala HEP, Wanger Homte HEP and Silti Masrang HEP in joint mode. However, as on date Silti Masrang HEP is not commissioned. Presently, Rala HEP is selling its power outside HP and Wanger Homte is selling its power to HPSEBL
2	Wanger Homte (24.5 MW)	66 kV	
3	Raura HEP (12 MW)	66 kV	Under interim arrangement, the power of IPP is being evacuated through second circuit of 220kV Kashang-Bhaba transmission line (charged at 66kV level) with interconnection point as Tower No.61. Power of said generator is being purchased by HPSEBL.
4	Kashang HEP (65 MW)	220 kV	The Power of Kashang HEP is being transmitted through 220kV Kashang-Wangtoo Transmission line (Circuit-1) to 66/220/400kV Wangtoo Substation. Earlier HPPCL was selling its power through trading but now HPPCL has entered into a formal agreement with HPSEBL on 1 st May, 2022 to sell power directly for a period of ~one year.
5	Brua HEP (9MW)	220 kV	Under interim arrangement, these IPP's are connected through solid tap at Tower No. 52 of Circuit-2 of Kashang Bhaba line (charged at 66kV level) and power is being transmitted to 66/220/400kV Wangtoo Sub-station via 22/66/220kV Bhoktoo Substation. Both IPP's are selling their power to HPSEBL.
6	Shaung HEP (3MW)	220 kV	
7	Shyang HEP (3MW)	220 kV	These IPP's have 22/66/220kV Bhoktoo as interconnection point and said power is being transmitted through 220kV Kashang-Bhaba line (Circuit-I) to 66/220/400kV Wangtoo sub-station. Power of Shyang and Tangling HEP is being purchased by HPSEBL under PPA arrangement.
8	Tangling HEP (5MW)	220 kV	

“

As per the above, it is observed that current and future beneficiaries include multiple intra-State generating stations and HPSEBL. The HPERC has also noted that as per DPR it was decided that generating companies shall be paying the Annual Transmission charges to HPPTCL. The HPERC concluded as follows:

"Commission's Analysis

3.2.7 *The Commission observed that the construction work on the project commenced on 15th Oct, 2013. The beneficiaries of the project include hydro generating stations located within the State which are selling power both within and outside the State. It is observed that while the Petitioner has signed open access agreements with few of the generators, for remaining beneficiaries it is yet to enter into the agreements. The Petitioner is directed to enter into the agreements with all the beneficiaries as the project has already been commissioned and the recovery of tariff can only be assured after executing the same.*

....

3.2.15 *It is observed that the Petitioner has not undertaken capital investment approval for the transmission schemes as per the requirement of HPERC Transmission Tariff Regulations, 2011. Absence of scheme-wise capital investment approval for the transmission works results in difficulties in determining reasonable capital cost and applicability of transmission charges. The Petitioner is directed to undertake scheme-wise approval for such capital investments for all future schemes.*

...

4.8 Transmission Charges

Petitioner Submission

4.8.1 *The Petitioner has requested to approach the Commission for recovery of tariff in the future in case the asset is certified as intra-state asset*

Commission's Analysis

4.8.2 *The Commission sought information with regards to nature of line and sought supporting documents regarding the Sub-station being part of Intra or Inter-State Transmission System. In response, the Petitioner submitted that the work of certification of non-ISTS lines was withdrawn with the effect from the notification of CERC (Sharing of ISTS Charges and Losses) Regulations, 2020 from 11th Nov, 2020. Therefore, on account of change in Regulations, assets incidental to inter-state transmission system cannot be certified as interstate or intrastate.*

4.8.3 *From the review of the DPR it is inferred that the Sub-station was constructed for evacuation of power from hydro plants such as Kashang (65 MW), Tidong*

(100 MW), Raura (20 MW), Selti (24 MW), Masrang and 11 other power houses. Furthermore, as per the DPR, it was decided that the generating companies shall be paying the Annual Transmission Charges to HPPTCL as beneficiaries of the generating stations were not identified.

- 4.8.4 With regards to existing and future beneficiaries of the system, the Petitioner submitted that HPSEBL is the primary beneficiary of the project with future beneficiaries expected to join.
- 4.8.5 The signing of TSA with HPSEBL is in process wherein the Sub-station capacity has been considered as 830 MVA i.e. the complete capacity of the system (630 MVA for 400/220 kV level + 200 MVA for 220/66 kV level). In further clarifications sought, the Petitioner updated that the TSA signing is under process and is expected to conclude shortly. The Commission directs the Petitioner to timely take up the matter with HPSEBL and sign the TSA on priority.
- 4.8.6 Further, in response to one of the stakeholders comments, the Petitioner has submitted the following:
- "The work of certification of non ISTS assets was withdrawn vide issuance of CERC (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2020. Therefore, on account of change in Regulations, the Petitioner expresses its inability in getting the assets incidental to inter-state Transmission system certified as inter-state or intra-state asset. However, once the tariff is determined by the Hon'ble Commission, the Petitioner shall approach Hon'ble CERC for appropriate recovery of transmission charges through POC mechanism in line with CERC (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2020."
- 4.8.7 Since, the DPR does not clearly specifies the beneficiaries of the system, TSAs for the Sub-station are not yet in place and the Petitioner itself has communicated that once the tariff is determined, the Petitioner shall approach Hon'ble CERC for appropriate recovery of transmission charges through POC mechanism in line with CERC (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2020. Accordingly, the Petitioner is directed to file suitable application before the CERC for recovery of ARR approved in this Order for the period from COD to FY 2023-24 under the CERC (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2020."

As per above, HPERC noted that as per DPR, generating companies were to pay Annual Transmission charges and that Petitioner has entered into open access agreements with a few generators but is yet to sign with other beneficiaries. HPERC also noted that Petitioner did not take capital investment approval as per HPERC Regulations. Further HPERC observed that since Petitioner himself communicated that it shall approach CERC for recovery of charges through POC, accordingly, Petitioner may file Petition before CERC for recovery under 2020 Sharing Regulations.

41. We observe that the instant substation was planned to evacuate the power of intra-State generating stations and draw/injection of HPSEBL. As recorded in minutes and submitted by CTUIL, it was Petitioner's proposal to construct the substation as an intra-State transmission system for which it had tied up ADB funding. We observe that Petitioner has developed 9 bays under 400 kV, and interconnecting 400 kV transmission lines provides an evacuation path to intra-State generating stations. Further, as per HPERC analysis, the maximum capacity that can be handled by Wantoo 400/220 kV substation is 315 MVA with n-1 contingency condition, and HSEBL has already utilized approx. 316 MW of peak power from Wangtoo substation. We note that Petitioner has developed the instant substation as an intra-State transmission system with intra-State generating stations as its beneficiaries and does not qualify as inter-State transmission system. We do not agree with Petitioner's contention that the substation should be recovered under POC since actual power flow from three HEPs- Karcham Wangtoo/ Baspa/ Naphtha Jhakri may flow on an inter-state basis through the Subject Asset. We observe that load flow varies in a transmission system on a continuous basis depending on the load-generation balance scenarios. A transmission system planned as an intra-State transmission system cannot be termed as inter-State for one month and then intra-State for another month. There are cases where intrastate power flows through inter-State lines where such inter-State lines cannot be declared as intra-State. Since the network is meshed, it is not appropriate to identify an intra-State transmission system as inter-State and levy its transmission charges on beneficiaries of other States. We are of the considered opinion that the instant substation cannot be included for the sharing of transmission charges under the 2020 Sharing Regulations, and such charges cannot be levied on beneficiaries on an all India basis. In view of the above, discussions, the prayers of the Petitioner cannot be acceded to.

42. Petition No. 38/MP/2023 is disposed of in terms of the above.

Sd/
(Harish Dudani)
Member

Sd/
(Ramesh Babu V)
Member

Sd/
(Jishnu Barua)
Chairperson

