

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

**Petition No. 209/MP/2017
(On Remand)**

Coram:

**Shri Jishnu Barua, Chairperson
Shri Ramesh Babu, Member
Shri Harish Dudani, Member**

Date of Order: 8th December, 2025

In the matter of:

Approval of transmission charges, transmission losses and other conditions for the use of the 176.50 km D/C 220 kV dedicated Transmission Line of the Petitioner {Allain Duhangan Hydro Power Limited (ADHPL)} from Prini (generating station of ADHPL) to Nalagarh (Sub-station of CTU) on reman d from the Appellate Tribunal for Electricity.

And

In the matter of

**A. D. Hydro Power Limited,
Bhilwara Towers, A-12, Sector 1,
Noida, Uttar Pradesh-201301.**

.... Petitioner

Versus

**1. Everest Power Private Limited,
1st House, Bhumian Estate, Navbahar, Bhimian Road,
Chhota, Shimla, Shimla-170002.**

**2. Central Electricity Authority,
Sewa Bhavan, Sector -1,
R. K. Puram, New Delhi-110066.**

**3. Ministry of Power, Government of India,
Shram Shakti Bhavan,
Rafi Marg, New Delhi-110001.**

**4. Power Grid Corporation of India Limited,
Plot No. 2, Sector 29,
Gurgaon-122001.**

**5. Northern Regional Load Despatch Centre,
B-9 (First Floor), Qutab Institutional Area,
Katwaria Sarai, New Delhi-110016.**



6. Ministry of Power,

Government of Himachal Pradesh,
Shimla-171002.

7. Himachal Pradesh State Electricity Board Limited,

Vidyut Bhawan, Kumar House,
Shimla-171004, Himachal Pradesh.

8. Himachal Pradesh Power Transmission Corporation Limited,

Khalini, Shimla-171002.

9. Department of Forests,

Government of Himachal Pradesh,
Shimla-171002.

10. Central Transmission Utility of India Limited,

Plot No. 2, Sector 29,
Near IFFCO Chowk,
Gurgaon-122001.

11. Tata Power Delhi Distribution Limited,

(Erstwhile North Delhi Power Limited),
33 kV Grid Sub-station Building, Hudson Lines,
Kingsway Camp, New Delhi-110009.

12. BSES Rajdhani Power Limited,

PMG Office, 2nd Floor, B-Block BSES Bhawan,
Nehru Place New Delhi-110019.

13. BSES Yamuna Power Limited,

2nd Floor, A- Block, Shakti Kiran Building Karkardooma,
Delhi-110092,

14. New Delhi Municipal Corporation,

Palika Kendra Parliament Street,
New Delhi-110001.

15. Haryana Power Purchase Centre,

Shakti Bhawan, Sector-6,
Panchkula- 134109, Haryana.

16. Punjab State Power Corporation Limited,

The Mall, Near Kali Badi Mandir,
Patiala-147001.

17. Uttarakhand Power Corporation Limited,

Victoria Cross, Vijeyta Gabar Singh, Urja Bhawan,
Kanwali Road, Balliwala Chowk,
Dehradun-248001, Uttarakhand.



18.Kanchanjunga Power Company Private Limited,
B-37, 3rd Floor, Sector-1,
Noida, Gautam Budh Nagar (UP)-291301.

19.Uttar Pradesh Power Corporation Limited,
10th Floor, Shakti Bhawan Extension,
14, Ashok Marg Lucknow-226001.

20.Engineering Department,
1st Floor, UT Chandigarh,
Sector 9D Chandigarh-160009.

21.Power Development Department,
Jammu & Kashmir, 5, Prithvi Raj Road,
New Delhi-110003.

...Respondents

Parties Present : Dr. Seema Jain, Advocate, ADHPL
Shri Vimlesh Kumar, Advocate, ADHPL
Shri Sumit Garg, ADHPL
Shri Sanjay Jana, ADHPL
Ms. Suparna Srivastava, Advocate, CTUIL
Ms. Divya Sharma, Advocate, CTUIL
Shri Siddharth Sharma, CTUIL
Ms. Priyansi Jadiya, CTUIL
Shri Hemant Singh, Advocate, KPCL
Shri Lakshyajit Singh Bagdwal, Advocate, KPCL
Ms. Alchi Thapliyal, Advocate, KPCL
Shri Akshaya Lal, Advocate, KPCL
Shri Arun Lal, Advocate, KPCL
Shri Gajanendra Singh, Advocate, KPCL
Shri Amal Nair, Advocate, PSPCL
Ms. Shivani Verma, Advocate, PSPCL
Ms. Kritika Khanna, Advocate, PSPCL
Shri Alok Mishra, NRLDC & NLDC
Shri Sunil Kanojiya, NRLDC & NLDC
Shri Gajendra Singh, NRLDC & NLDC

ORDER

Background

The Petitioner, ADPHL, is a generating company which has established a 176.50 km-long 220 kV D/C transmission line from its generating station to the Sub-station of the Central Transmission Utility of India Limited (CTUIL) at Nalagarh. Another generating company, namely, Everest Power Private Limited (EPPL), has established a



2X50 MW Malana-II Hydro Electric Generating Station, which is connected with the dedicated transmission system of ADPHL's Electric Project for the evacuation of its power outside the State of Himachal Pradesh.

2. The Petitioner was accorded the Techno Economic Clearance (TEC) by the Central Electricity Authority (CEA) to set up 2x96 MW (192 MW) Allain Duhangan Hydro Electric Project (ADHEP) in the State of Himachal Pradesh on 20.8.2002. The 220 kV D/C line of ADHEP was sanctioned as a Dedicated Transmission Line (hereinafter referred to as "DTL") by CEA for the evacuation of power from its generating station at Prini to Nalagarh CTU Sub-station.

3. The Petitioner was granted approval by the Ministry of Power (hereinafter referred to as the "MOP") under Section 68(1) of the Electricity Act, 2003 (hereinafter referred to as "the Act") on 21.8.2007 to construct the 220 kV Allain Duhangan-Nalagarh D/C line and the transmission line was also approved as the Associated Transmission System of ADHEP subject to the certain terms.

4. On 17.6.2008, the MOP granted prior approval to EPPL for the construction of a 132 kV line to be connected with the Petitioner's 220 kV transmission line by constructing a 132/220 kV Sub-station at Chhaur, with its dedicated transmission system. The approval given to EPPL was based on the understanding that the power from its Malana-II project would be evacuated through the Allain Duhangan-Nalagarh Transmission Line of ADHPL.

5. The Petitioner informed the CEA and MOP on 18.6.2008 that technically they have no objection if EPPL establishes the 132/220 kV Sub-station and LILOed the one circuit of 220 kV D/C ADHEP-Nalagarh line of the Petitioner at Chhaur Sub-station at



their own cost, subject to other modalities as finalized by the Petitioner and the condition that (a) the 132/220 kV Sub-station cannot be a dedicated system of EPPL as control of the 132/220 kV system after Loop in Loop Out ("LILO") including the controlling circuit breaker and isolators to be handed over to the Petitioner to maintain its system from sending end to receiving end, and (b) the Petitioner will have priority in case of fault on one circuit to transmit its power to Nalagarh Sub-station of CTUIL/PGCIL.

6. On 14.7.2008, PGCIL granted long-term access on its ISTS to EPPL for the injection of power at Nalagarh through LILO of one circuit of ADHEP-Nalagarh 220 kV line. In a meeting held on 14.8.2008, the Petitioner and EPPL decided that they would approach the Commission regarding the sharing of DTL, and the Petitioner made it clear that control, operation, and maintenance of the 220kV switchyard and control room of 132/220 kV Sub-station after LILO of one circuit of their 220kV line will remain with the Petitioner. EPPL did not agree to this suggestion of the Petitioner and informed the Petitioner that the Central Government had granted approval to it under Section 68(1) of the Act to LILO the Petitioner's DTL for the 132/220 kV Sub-station, as well as the 132 kV line to be a dedicated system of EPPL.

7. The Ministry of Environment and Forest ("MOEF") granted final approval to the Petitioner for forest clearance and diversion of land through letters dated 15.4.2009 and 15.5.2009.

8. The MoP convened a meeting of the Petitioner with EPPL on 12.8.2010, wherein the Petitioner reiterated its terms that it will have (a) the first right to use the transmission capacity, (b) full control of the 220 kV Sub-station of EPPL should be given to it, and (c) EPPL should bear the incremental losses of the Petitioner on account of wheeling the power of EPPL. In the above meeting, the CEA's representative informed the following:

- a. *EPPL to proceed for tie up of evacuation of its power through the Petitioner's line and establish a 220/132 kV Sub-station;*



- b. *The Petitioner and EPPL to finalize the terms for agreement on sharing the cost of 220 kV line and its O&M Expenses for evacuation of power of EPPL;*
- c. *Proposal, if any agreed, between the Petitioner and EPPL was required to be sent to CEA. If no agreement is arrived at between the Petitioner and EPPL, they should send their respective proposals separately to CEA to sort out the contentious issues;*
- d. *The Petitioner should approach the Commission regarding the sharing of the line with EPPL.*

9. The Petitioner's DTL was put into commercial operation on 16.9.2010.

10. Subsequently, EPPL filed Petition No. 259/2010 before the Commission under Section 60 of the Act, alleging abuse of dominant position by the Petitioner and seeking the following directions:

- “(i) The methodology and process for computation and sharing transmission charges by EPPL and ADHEPL, for the use of 220 kV D/C Allain Duhangan Hydro Electric project (ADHEP)-Nalagarh transmission line;*
- (ii) The methodology of sharing of energy losses by the Petitioner and ADHEPL for use of the said line;*
- (iii) The method and process to be adopted for calculation and determination of capital cost of the line;*
- (iv) The method and process to be adopted for ascertaining the priority of use by the Petitioner and ADHEPL for the said line;*
- (v) The operation and control of 132/220 kV Sub-station at Chhaur constructed by EPPL and at which point the 220 kV ADHEP-Nalagarh transmission line being constructed by ADHEP is to be LILOed for evacuation of power by Malana-II HEP;*
- (vi) Scheduling, metering and accounting of the power generated by Malana-II HEP and ADHEP by NRLDC at the individual periphery of the respective generator;*
- (vii) All commercial aspects of the Transmission Service Agreement (“TSA”) between ADHEP and EPPL should be based on the Commission's regulations applicable to inter-State transmission system and scheduling and operational issues should be based on IEGC and RLDC norms for inter-State Transmission System;*
- (viii) A direction to both parties to conclude TSA within two weeks..:*

11. The Commission, after hearing the parties, disposed of the said Petition vide its order dated 1.6.2011. The important observations made by the Commission in the said order are as under:

- a. *“The Commission can issue appropriate directions to the Petitioner, i.e. A. D. Hydro Power Limited, even though the 220 kV D/C ADHEP-Nalagarh transmission line is a dedicated transmission line which are planned and developed for inter-*



State transmission of power. This is due to the fact that there are other generators in the near region which are transferring power to other States by using the said line. Therefore, under Section 79(1)(c) of the Act, the Commission has the jurisdiction to regulate the power through the said line. Further, as per Section 2(36) of 2003 Act, the said line is an ISTS line after EPPL becomes part of that line.

b. The Petitioner will provide the connectivity to EPPL's dedicated line with immediate effect.

c. The cost of the said transmission line shall be decided mutually by the Petitioner and EPPL, after considering approved cost and audited expenditure and benchmark capital cost of the similar lines of the CTUIL.

d. The Return on Equity (RoI) to be allowed as per the 2009 Tariff Regulations.

e. O&M Expenses to be allowed as per the actuals and to be shared in proportion to the usage.

f. Control of Chhaur Sub-station will be with EPPL and there shall be a representative of the Petitioner to be appointed at the Sub-station for the co-ordination purposes.

g. A co-ordination center shall be established similar to sub-load dispatch center which would do system and market operations of the instant system with RLDC or SLDC.

h. The tariff to be computed based on depreciation, Interest on Loan, Return on Equity, Interest on Working Capital etc., and apportionment of transmission charges to be done on pro-rata basis of the installed generation capacity.

i. Computation and apportionment of transmission losses will be as per the estimated average transmission losses based on previous weeks actual average losses, measured through the actual meter readings.

j. Priority in case of outage will be as per the concerned grid code and in accordance with the 2010 Connectivity Regulations."

12. Aggrieved by the Commission's order dated 1.6.2011 in Petition No. 259/2010, the Petitioner preferred Appeal No. 81 of 2011 before the APTEL. Vide interim order dated 10.6.2011, the APTEL directed the Petitioner to allow connectivity to EPPL as an interim measure and also made the following observations regarding the payment of the transmission charges and other issues:

a) The Petitioner to allow the connectivity to EPPL by LILO of one Ckt of 220 kV D/C ADHEP-Nalagarh transmission line at Chhaur Sub-station;

b) In the interim period, the transmission charges will be worked out on the capital cost of the transmission line as per the Audited accounts of the ADHEP on the basis of the norms of 2009 Tariff Regulations and will be shared by EPPL in proportion to the rated capacity of the units commissioned, on a pro-rata basis.

c) EPPL will share the transmission losses @ 4.75% of the power injected by



Malana-II at Chhaur Sub-station;

- d) NRLDC will control the scheduling and dispatch of the power generation and prepare UI and Energy accounts for both the Petitioner and Malana-II. NRLDC will also control the switching at Chhaur Sub-station.

13. Pursuant to the aforesaid order of the APTEL, the Petitioner and EPPL entered into an Interim Power Transmission Agreement (IPTA) on 9.8.2011. The APTEL, *vide* its judgment dated 2.1.2013, dismissed the Appeal and agreed with the Commission's observations on certain issues in Petition No. 259/2010. The summary of the said judgment of the APTEL is as under:

- a) The Central Commission has the jurisdiction to regulate the transmission of electricity on the ADHPL–Nalagarh transmission line after LILO of one of the circuits at Chhaur Sub-station of EPPL, as it involves inter-State transmission of power through the main line, i.e., 220 kV D/C ADHEP-Nalagarh transmission line.
- b) In case of contingency, priority of access to the 220 kV D/C ADHEP-Nalagarh transmission line cannot be granted to the Petitioner, as EPPL is proportionately sharing the complete capital cost of the transmission line.
- c) The Commission to determine the capital cost of the transmission line as per the 2009 Tariff Regulations, which shall be the basis for the determination of the transmission charges payable by EPPL.
- d) The Commission, *vide* its order dated 1.6.2011, directed to share the O&M Expenses in proportion to their usage based on actuals, not as per regulations. However, the Commission shall hear afresh regarding the allowable O&M Expenses to be borne by EPPL.
- e) The transmission losses shall be shared between the Petitioner and EPPL on the same principle as transmission charges are being shared on a pro-rata basis on the respective installed capacity.
- f) Agreed upon with the Commission that the control of 132/220 kV Chhaur Sub-station will be with EPPL, and the Petitioner may appoint its representative at the Sub-station for coordination purposes. However, the operations at the



Chhaur Sub-station for the sections of Allain Dulhangan and Nalagarh have to be carried out by NRLDC.

- g) It is not necessary for the Petitioner to obtain a transmission licence.
- h) The Commission shall hear the parties afresh regarding the other operational issues and pass the consequential order.

14. The CEA in its Standing Committee Meeting (SCM) dated 2.1.2013 on Power System Planning of the Northern Region for evacuation of power of EPPL through LILO of one circuit of the Petitioners DTL, discussed and agreed upon that (i) the Petitioner's line was not adequate for reliable evacuation of power from both the projects especially under contingency condition, (ii) it was agreed upon to construct a 220 kV line from 220/132 kV Chhaur Sub-station to Parbati Pooling Station enabling injection of power from Malana-II at Parbati Pooling Point to ISTS, (iii) HPPTCL would construct the 132/220 kV Chhaur Sub-station of EPPL to make it a part of their State Transmission Utility (STU) System, and (iv) COD of the 220 kV line of HPPTCL would be by 2015.

15. The APTEL's judgment dated 2.1.2013 was challenged by the Petitioner before the Hon'ble Supreme Court in Civil Appeal No.1795 of 2013. During the pendency of the said Appeal, HPPTCL filed an IA seeking connectivity on the Petitioner's DTL for evacuation of power or electricity generated by the State-owned generating stations or other generating stations with which HPPTCL has an arrangement for the transmission of electricity. The Hon'ble Supreme Court *vide* order dated 24.8.2015, declined to pass any order thereon. Thereafter, HPPTCL approached the ADHEPL to utilise the transmission lines set up by ADHEPL. Subsequently, ADHEPL and HPPTCL entered into an agreement allowing HPPTCL to evacuate the power of different utilities through the Petitioner's DTL, subject to prior consent of connectivity from the Petitioner.



16. The Hon'ble Supreme Court *vide* its judgment dated 26.4.2017 in Civil Appeal No. 1795 of 2013, dismissed the appeal filed by the Petitioner and upheld the judgment dated 2.1.2013 passed by the APTEL and referred the matter to the Central Commission to decide the same on merits.

17. Aggrieved by the judgment dated 26.4.2017 of the Hon'ble Supreme Court, the Petitioner preferred a Review Petition No. 1365/2017 in Civil Appeal No. 1795 of 2013. The Hon'ble Supreme Court *vide* its judgment dated 12.7.2017, dismissed the Review Petition and referred the matter to the Commission with an observation that the Commission, while deciding the present matter, may or may not consider the observations of the APTEL's judgment dated 2.1.2013.

18. Pursuant to the direction of the Hon'ble Supreme Court, the Commission directed the Petitioner to file a Petition with respect to the 220 kV D/C ADHEP-Nalagarh transmission line for the determination of transmission charges, losses, and other related issues. Accordingly, the Petitioner had filed Petition No. 209/MP/2017 wherein the Petitioner had *inter alia* raised the issue of the dedicated nature of its transmission line, treatment of the transmission line losses, transmission system availability, its right to use the line first, charges for over injection, sharing of transmission charges, and other minor issues. EPPL had raised the issue of the nature of the instant transmission line, the inflated capital cost of the transmission asset, RoI, depreciation, the availability of the transmission line, the inflated invoices raised by the Petitioner, the sharing of transmission losses, and handing over the control of its 220 kV Chhaur Sub-station to the Petitioner. Kanchanjunga Power Company Private Limited (KPCPL) submitted that the Petitioner has not submitted the required details as specified in the Tariff Regulations, and the Petitioner's claim for the RoE, O&M Expenses, and Interest on Working Capital (IWC) needs to be checked with prudence.



19. The Commission, after considering the submissions of the parties, *vide* order dated 17.10.2019, determined the tariff of the 220 kV Allain-Duhangan-Nalagarh transmission line. Apart from the determination of tariff, the Commission decided the following issues:

a) As regards the “nature of the transmission line and jurisdiction of the Commission”, the following had been decided:

“42. A combined reading of the judgment dated 26.4.2017 in Civil Appeal No. 1795 of 2013 and judgment dated 12.7.2017 in Review Petition of Hon’ble Supreme Court (supra) shows that the Commission’s order dated 1.6.2011 in Petition No. 259 of 2010 and the judgment dated 2.1.2013 in Appeal No. 81 of 2011 of APTEL were upheld and the matter was remanded to the Central Commission to decide it on merits having held that it has jurisdiction to proceed further.”

b) As regards the “availability of the transmission system”, the Commission had issued the following directions:

“46. We have considered the contentions of Petitioner and EPPL. The formula for calculation of availability and normative availability of individual line is specified in Tariff Regulations. The availability calculations and normative annual availability factor for recovery of transmission charges shall be worked out as per the relevant tariff regulations. Accordingly, we direct NRPC to work out the availability of the instant transmission line.”

c) As regards the “charges for over-injection”, the Commission had issued the following directions:

“48.....The instant transmission line is catering power of hydro generators which may operate on overload of about 10% of their capacities. In line with Regulation 8(4) of 2010 Sharing Regulations, the methodology to be adopted in the instant case is to impose additional transmission charges for deviation beyond contracted capacities. The rate of charges for such over injection shall be determined per block based on approved Yearly Transmission Charges. The transmission charges towards over injection upto 20% from the contracted capacity in any time block shall be payable at the same rate and beyond this limit, additional transmission charges shall be payable, which shall be 25% higher than the yearly transmission charge calculated pro-rata for the block. The charges collected towards such over injection shall be reduced from total monthly transmission charges for next month while calculating pro-rata liability of each party. Further, to keep a check on over-injection of power from any connected generator, Special Protection System (SPS) should be installed by EPPL and other connected generators. The modalities of SPS shall be decided at NRPC.”

d) As regards the “caps on maximum power flow” on the transmission



line, the Commission had passed the following directions:

“51. We have considered the contentions of the Petitioner. We are of the view that the maximum cap shall be decided by NRLDC keeping in view of system conditions. As regards the control of Chhaur Sub-station and operation of said transmission line, we direct NRLDC to co-ordinate the operations of the instant transmission line and the said sub-station.”

e) As regards the issue of “first right of use in case of transmission constraints,” the Commission had passed the following directions:

“55. We have examined the submissions of the Petitioner and APTEL’s order dated 2.1.2013. We observe that petitioner is evacuating power from its generating station under Short Term Open Access whereas EPPL has obtained Long Term Access. Hence as per 2010 Grid Code, the Petitioner would be curtailed first as Short-Term Open Access has lesser priority. Since the Petitioner has built the transmission line, it is not fair to curtail the Petitioner first in case of contingency. Further, the other connected generating stations are proportionately sharing the entire cost of the Petitioner’s transmission line i.e. 200 kV D/C Prini-Nalagarh. Therefore, in case of any contingency in the said line, all the connected entities should be curtailed on prorata basis to their scheduled energy.”

f) As regards the “transmission line losses”, the Commission had passed the following directions:

“59. As the transmission charges of the instant transmission line are to be shared on a pro-rata basis on the respective installed capacities of the connected generating stations, similar principle of sharing of losses on the basis of weekly average losses in the said line shared in proportion to the scheduled energy on weekly basis shall be adopted. We direct that line losses shall be monitored and coordinated by the concerned RLDC/NRLDC. For the accounts based on average loss for last week for periods prior to issue of this Order, NRLDC/NRPC shall revise the accounts only for entities connected to the transmission line in instant petition. Any shortfall or surplus shall be adjusted from UI /DSM pool for such period.”

g) As regards the “date of commercial operation of the 220 kV Allan Duhangan -Nalagarh transmission line”, the Commission had passed the following directions:

“60. The Petitioner has claimed the COD of the instant transmission line as 16.9.2010. In support of COD of the asset, the Petitioner has filed RLDC and CEA certificates of trial operation. Taking into consideration the CEA energisation certificate, RLDC charging certificate and CMD certificate, the COD of the instant transmission line is being considered as 16.9.2010. As the nature of the instant transmission line is a dedicated one from 16.9.2010 till the date of start of usage of the line by EPPL, we are of the view that there is no need to determine the transmission tariff for this period.



Accordingly, in the instant case, the transmission tariff has been worked out from the month of start of usage of the line by EPPL. HPPTCL/ KPCPL/ HPSEB started injection of 24 MW of power into the instant transmission line during August, 2011. However, the exact date of start of use by EPPL/ HPPTCL/ KPCPL/ HPSEB has not been furnished.”

h)As regards the “sharing of the transmission charges”, the Commission, after considering the rival contentions of the parties, decided as under:

“113. EPPL has submitted that the transmission charges shall be calculated and allocated in terms of the 2009 Tariff Regulations. ThePetitioner has also submitted that the instant transmission assets should not be included in the PoC pool. We have considered the submissions of the parties. The instant transmission line was initially conceived as a DTL and it was later decided that the same will be used by EPPL and other generating stations to meet their evacuation requirements and the transmission charges shall be shared by them. The instant line is being used by the Petitioner, EPPL and HPPTCL/ KPCPL/ HPSEB for evacuation of their power from their respective generating stations. On the completion of construction of 220 kV Transmission Line by HPPTCL from Chhaur Sub-station to Parbati Pooling Station, EPPL and HPPTCL/ KPCPL/ HPSEB shall evacuate their generation capacities through the said line and stop using the Petitioner’s transmission line. Accordingly, theinstant transmission line is being shared by Petitioner and other generators and hence we are of the view that the instant transmission line should not be included in the PoC calculations and the transmissioncharges should be shared by the Petitioner and the other generators in proportion to their installed capacities as under:

- a. The transmission charges from date of start of utilisation of the asset byEPPL till utilisation of the line started by HPPTCL/KPCPL/HPSEB shall be shared between EPPL and the Petitioner in proportion to the installed capacities of generating stations;*
- b. The transmission charges from the date of individual utilisation of DTL by other generators i.e. HPPTCL/KPCPL/HPSEB shall be shared between the Petitioner, EPPL and other generators in proportion to their installed capacities till they stop using the instant transmission line.*

114. As regards the payment security and the mechanism of recovery of the transmission charges, the Petitioner and EPPL have already entered into an IPTA and the same shall be governed as per the provisions of the said IPTA and we are of the view that there is no need to interfere in the existing mechanism.”

20. Aggrieved by the methodology adopted for deriving the capital cost contrary to the 2009 Tariff Regulations, the Petitioner filed Appeal No. 410 of 2019 against the order dated 17.10.2019 before the APTEL. After considering the submissions of the parties, the APTEL, vide order dated 31.8.2023 in Appeal No. 410 of 2019, set aside the order dated 17.10.2019 and directed the Commission to examine afresh



the Petitioner's claims in terms of Regulations 7, 8 and 9 of the 2009 Tariff Regulations and in accordance with the law.

21. KPCPL also filed an Appeal No. 450 of 2019 against order dated 17.10.2019 in Petition No. 209/MP/2017, before the APTEL and *vide* judgment dated 31.10.2022 in Appeal No. 450 of 2019, the APTEL has set aside the Commission's order dated 17.10.2019 to the extent as challenged in the appeal and has directed the Commission to pass necessary consequential orders in light of the observations and conclusions recorded by the APTEL.

Proceedings Before the Commission after Remand

22. Pursuant to the APTEL's judgment dated 31.8.2023, the Commission heard the matter on 8.12.2023, 24.1.2023, 15.3.2024, 5.6.2024 and 8.10.2024.

Hearing dated 8.12.2023:

23. After hearing the learned counsels of the parties, the Petitioner, *vide* RoP for the hearing dated 8.12.2023, was directed *vide* to submit the following information:

- a) Investment amount and approval accorded by the competent authority.
- b) SCOD of the transmission asset.
- c) Justification of time and cost overrun, if any, together with supporting documents.
- d) All the tariff forms as per 2009-14 and 2014-19 Tariff Regulations, especially Form-5.
- e) Auditor's Certificate clearly indicating Hard Cost, IDC and IEDC as well as element-wise (i.e. land, building, transmission line, Sub-station, communication system) capital cost as on COD.
- f) Reasons for the huge variation in capital cost claimed vis-à-vis the indicative



cost of CTUIL of similar voltage levels.

g) The impact of IDC/ IEDC due to the delay in commissioning of the transmission asset.

h) Reasons for claiming the ACE during the 2009-14 tariff period, along with the relevant provision of the Tariff Regulations.

i) Whether the switchyard @ Prini is part of the generating station or part of the transmission system? Clarify the same.

24. The Petitioner, *vide* affidavit dated 2.1.2024, has submitted the following information called for *vide* RoP for the hearing dated 8.12.2023:

A. Investment amount and approval accorded by the competent authority:

25. Out of the total investment of ₹92235.50 lakh made in 192 MW Allain Duhangan HEP of the Petitioner, ₹41661.35 lakh as on the COD has been invested in the ADHPL-Nalagarh transmission system. Since the transmission line of the Petitioner was constructed by the Petitioner as a composite part of its 192 MW Allain Duhangan HEP project, the capital cost of the transmission system was not required to be approved by any competent authority.

B. SCOD of the Transmission Asset:

26. The transmission system of the Petitioner was a part of the composite scheme of 192 MW Allain Duhangan HEP allotted to the Petitioner. In accordance with the terms of TEC approval, the commissioning schedule of the generating unit is (i) Unit 1 - April 2008 and (ii) Unit 2 - June 2008. Therefore, the SCOD for the transmission system was April 2008.

C. Justification of time and cost overrun, if any, together with supporting documents:

27. The main reasons for the cost and time overrun are due to the changes in the



evacuation plan for the power of 192 MW Allain Duhangan HEP of the Petitioner in the middle of the construction of Allain Duhangan HEP. The change in the LTOA increased the length of the transmission system from 65 km to 176.5 km and the delay in grant of the approval for the same for which the Petitioner had to mobilise the additional resources for the construction of the transmission system to match with the commissioning schedule of the Petitioner's Allain Duhangan HEP and EPPL's Malana-II HEP as per the directions of the statutory authorities.

28. The time overrun, which has also led to some cost overrun to commission the transmission system, matched with the commissioning schedule with generating stations, which was not in control of Petitioner. However, relevant facts are being mentioned hereunder again in order to justify the grounds for the time and cost overrun.

The following may be considered:

- a) The Petitioner was accorded Techno Economic Clearance (TEC) by CEA to set up 2x96 MW (192 MW) Allain Duhangan Hydro Electric Project in Himachal Pradesh vide letter dated 20.8.2002. The TEC included a 220kV double circuit transmission line for the evacuation of power from the Petitioner's project to Nalagarh (Pooling point of Central Transmission Utility, along with the condition stipulated in Condition No. vii that:

"POWERGRID after route survey shall confirm the adequacy of land for construction of Parbati Pooling Point, and accordingly, the decision of taking the line from Allain Duhangan to Parbati Pooling Point instead of Allain Duhangan to Nalagarh shall be reviewed. In case, it is decided to terminate this line at Parbati Pooling point, the Project Authorities would have to furnish the revised completed cost to CEA."

- b) Accordingly, the Petitioner at the time of the start of the construction, vide letter dated 18.7.2005, made an Application to PGCIL seeking Long Term Open Access at Parbati Pooling Point for transfer of its power.



- c) PGCIL, *vide* letter dated 21.7.2006, granted LTOA to the Petitioner at Parbati Pooling Point. Pursuant to this LTOA, the Petitioner was required to construct the Transmission System only for a length of approximately 65 km from its generating plant to the Parbati Pooling point at Panarsa. The CEA *vide* letter dated 12.10.2006 also advised PGCIL that:
- i. To permit the Petitioner connectivity at Nalagarh at 220 kV in view of the delay anticipated in the 400 kV Parbati-Koldam Line and switching station at Panarsa (Parbati Pooling Point).
 - ii. To do the needful to resolve the issues relating to the execution of the transmission system for Parbati-II and Parbati-III so that the delay of the transmission system does not become a bottleneck for other ongoing future projects.
 - iii. The Petitioner would now be injecting power into the regional transmission system at 220 kV at CTU's Nalagarh Sub-station.
 - iv. Time schedule for commissioning of Panarsa Pooling Station (Parbati Pooling Point) may be tied up with other ongoing and future projects in the region.
 - v. CEA simultaneously advised the Petitioner for the implementation of the 220 kV ADHPL-Nalagarh immediately to match with the commissioning schedule of Petitioner's Generating Station and tie up with PGCIL for the provision of 220 kV bays.
 - vi. Pursuant to the advice of the CEA and discussions held on 25.4.2007, PGCIL *vide* letter dated 26.4.2007 granted the change in LTOA to the Petitioner at Nalagarh. Consequent upon this revision in LTOA due to non-availability of Parbati Pooling Point, the Petitioner was now required to construct a 176.5 km long transmission line up to Nalagarh instead of a 65



km transmission system up to Parbati Pooling Point.

- vii. The Petitioner has further submitted that it was now required to resurvey the entire line route for assessment of route, private land, forest land, etc., which was falling in four districts of the State of Himachal Pradesh, out of which at least two districts are very rich in forest, horticulture and agriculture, having very high land cost.
- viii. The Petitioner, *vide* letter dated 25.6.2007, approached the Ministry of Power (MoP) for approval under Section 68 (1) of the Act to construct the 220 kV Allain Duhangan- Nalagarh 220 kV double circuit line. The MoP *vide* letter dated 21.8.2007 accorded the approval for the construction of the Petitioner's transmission line as the associated transmission system of Allain Duhangan HEP, subject to the following conditions:
1. *"The implementing agency will commence construction of the project within 3 years, unless this term is extended by Ministry of Power.*
 2. *Ministry of Power may withdraw the approval before the expiry of the period of 3 years after giving a one-month notice.*
 3. *The Implementing Agency shall also abide by the provisions of the Electricity Act-2003 concerning electricity trade."*
- ix. After the survey of the route of the transmission line, the forest proposal was submitted to the State Government, on which the MOEF accorded its final approval under the Forest Conservation Act 1980 on 15th April, 2009, for diversion of 64.3258 Ha of Forest Land from Pirini to Panarsa/Banala (Parbati Pooling Point) and on 15th May, 2009, for diversion of 152.8615 Ha of Forest Land from Panarsa/Banala (Parbati Pooling Point) to Nalagarh (CTU Pooling Point).

D. Filing of all the tariff forms as per 2009-14 and 2014-19 Tariff Regulations, especially, Form-5:



29. The Petitioner expressed its inability to furnish the tariff forms, as initially the transmission line was sanctioned as a composite scheme; therefore, the construction, funding, etc., for the entire composite scheme could not be segregated in the tariff forms. The non-submission of tariff forms was never an issue before the APTEL, either in Appeal No. 410 of 2019 or in Appeal No. 450 of 2019, which held that the transmission system is part of ISTS, and there was no direction from the APTEL in this regard.

E. Auditor's Certificate clearly indicating Hard Cost, IDC and IEDC as well as element-wise (i.e. land, building, transmission line, Sub-station, communication system) capital cost as on COD:

30. The Auditor's Certificate indicating the cost of capitalisation, including the hard cost, IDC and IEDC, etc., was submitted *vide* affidavit dated 3.1.2019 pursuant to the directions of the Commission *vide* letter dated 4.9.2018. Against the above capital cost of ₹ 43736.55 lakh as on the COD. The Petitioner has claimed only ₹41661.35 lakh by deducting the capital cost of the bays of the generating end at Pirni switchyard as per the methodology provided in the original Petition No. 209/MP/2017. The cost of the Initial Spares is to be calculated at the normative level as provided in the 2009 Tariff Regulations.

F. Reasons for huge variation in capital cost claimed vis-à-vis indicative cost of CTUIL of similar voltage levels.

31. Regulation 7(2) of the 2009 Tariff Regulations does not prescribe the indicative cost as a method of prudence check. Regulation 7(2) of the 2009 Tariff Regulations specifies that the comparison of capital cost with the benchmark cost is a method of prudence check. The Commission has not notified the benchmark cost for a similar line in similar terrain. Even if it is assumed that the indicative cost is a method of prudence check, the indicative cost of a similar line in similar terrain has neither been approved by the Commission nor indicated by PGCIL. Indicative cost of the transmission systems in the plains cannot be adopted for determining the



capital cost of a line of similar configuration at very high altitudes.

32. The Commission, in the impugned order dated 17.10.2019, itself has not applied the indicative cost of a similar transmission system in the plains directly to the Petitioner's transmission system, which is in hilly snow-bound terrain. The capital cost of a 220kV transmission line and 220kV bays in terrain similar to the transmission system of the Petitioner is not available for comparison with the capital cost submitted by the Petitioner. If the approved cost of the 220kV transmission line and bays is not available, any "Benchmark Cost" or the "Indicative Cost" also cannot be notified. The Commission is aware of the fact that while determining the benchmark cost for the purpose of prudence check, except for the hard cost, other costs are to be excluded, as can be seen in the Suo Moto Order dated 27.4.2010 in No. L-1/30/2010-CERC, on the benchmark capital cost of 400/765 kV transmission line.

33. Therefore, in the absence of the Benchmark Cost/Indicative Cost (if at all applicable as per regulations) of the similar transmission system in the similar terrain, as per the Tariff Regulations, the Commission will have to undertake the prudence check as specified in Regulation 7(2) of the 2009 Tariff Regulations for approval of the capital cost of the Petitioner's transmission system. The Commission may consider the following facts:

- a) In establishing the 176.5 km long transmission line from its generating plant to Nalagarh, the Petitioner had to construct as many as 580 numbers of transmission towers due to the hilly terrain. Since the number of towers constructed was quite high as compared to a normal transmission line of a 220 kV Voltage Level due to severe site conditions, the Petitioner was required to keep short spans between two towers to provide sufficient loading.

This is evident from the fact that for the first approximately 57/58 km, i.e., from



the Generating Project's Switch Yard to Panarsa Pooling Point, the total number of towers to be kept was 215 in numbers due to heavy snow loading conditions (Approx. 4 Towers per km) for the sustenance of valley crossings at various places. For the balance approximately 119/120 KM, the number of towers required to be kept was 365 owing to heavy hill load conditions (Approx. 3 Towers per km). Also, the transmission line has travelled along its route between the elevation levels of approximately 2000 meters at Pirni to 350 meters at Nalagarh. Before terminating at Nalagarh, at several places it has traversed to as high as 2400 meters.

- b) Most of these towers were constructed in very unapproachable and inhospitable locations because the transmission line was passing through a very difficult terrain. Therefore, many manual transportation and construction activities were involved. The Petitioner, *vide* its affidavit, had placed on record the following capital cost as on the COD for perusal and prudence check, duly supported by the Certificate from Statutory Auditors as desired by the Commission:

S.No.	Description	Sub Total	Total Amount Capitalised in Rs. Lacs	Amount considered for Transmission Assets in Rs. Lacs
1	Righ to use of Land		10300.47	
2	Civil work and other works related to erection, testing and commissioning of towers		17596.37	
3	Switchyard at Nalagarh Sub-station		818.67	
4	Other Capital Expenses		88.93	
5	Project Pre-Operative Expenses Capitalised		9744.14	
	Total Cost of capitalised under the head "Transmission Line in fixed asset"		38548.58	38548.58
6	Switchyard at Prini-Capitalised under the head Plant and Machinery in fixed assets		1750.06	1050.03
7	Switchyard at Prini-Capitalised under the head Plant and Machinery in fixed assets		3437.91	2062.746
	Total Capital Expenditure		43,736.55	41,661.36

- c) For the construction of this transmission line and according to the corridor requirement of 35 meters as per the forest norms, the Petitioner was required to pay the huge land compensation for close to 580.65 hectares towards forest and private land, as per the following table:

Cost of Land	
Description	Amount in Rs. In Lacs
Compensation and other expenses related to forest land	5046.49
Payment for right of use of private land	5253.98
Total	10300.47

- d) The Petitioner had to pay a huge amount of compensation for the land falling in the corridor of this transmission line, more particularly between Manali and Mandi, because it was the most fertile and expensive land having a large number of fruit orchards, especially of very high world class quality apples which have a very high value as compared to any other agriculture land. The line was to pass through a large number of such orchards and, in return, the Petitioner was to pay hefty compensation towards private land for the right of use during the peak season of fruit flowering. Since the terrain is one of the best forest terrains, the Petitioner was required to pay a huge amount to the Forest Department for the diversion of the forest land due to a large number of trees required to be felled /affected.
- e) Out of the total cost under the head of Civil Work and other works related to erection, testing and commissioning of towers amounting to ₹17,596.37 lakh, the cost of tower and line material was only ₹7726.41 lakh as per the following details:

S. No.	Description	Quantity	Average Rate	Amount in Rs. Lacs
1	Length of Line	176.50 KM		
2	No. of Towers	580		
3	Quantity of Steel used in construction of towers	6,598.887 MT	68,890	4,546
4	Quantity of Nut Bolts	288.31 MT	82,572	238.06
5	Length of Conductor for 6 Phases (ACSR Zebra) including length for jumpering	1,094.39 KM	2,64,495 per KM	2,894.61
6	Quantity of Earth Wire	176.54 KM	27,041 per KM	47.74
7	TOTAL			7,726.41

- f) The balance amount of ₹9869.96 lakh was towards the civil cost of the 2 Nos. Bays of 220 kV Voltage Level at CTUIL Nalagarh Sub-station of PGCIL, manual and headload transportation of the tower/ line material, civil works for the protection of towers in very difficult terrain and cost of stringing work.
- g) The Petitioner had spent more than ₹9,744.14 lakh as on the COD towards pre-operative expenditure, of which the major amount was towards the Interest During Construction (IDC), which amounted to ₹6,416.00 lakh. This IDC was mainly due to the change in the length in the middle of the construction.
- h) The construction of the switchyard at Pirni near the underground power house of the Petitioner amounted to ₹1,750.06 lakh towards the civil works and ₹3,437.91 lakh towards the equipment of the switchyard. The major portion of the civil cost of the switchyard was due to the need to create extensive space and provide extensive protection works, given its location near the riverbed in a snow-bound area. Similarly, the cost of the equipment includes the loading of the snow factor in order to prevent it from any malfunctioning in the heavy snowfall.
- i) Further, only 3/5th of the total capitalised cost of the bays at Prini was

considered towards the transmission assets. This apportionment has already been approved by the Commission in the impugned order, and the same was not an issue before the APTEL.

G. Comparison of capital costs of transmission systems in the similar terrain, in the vicinity of the Petitioner:

a) 220 kV Chhaur–Banala Transmission Line of HPPTCL (Length of line 15 km, Year of COD- 2019):

- i. CEA had approved the project for the construction of the 220 kV D/C Transmission Line from Chhaur- Banala for EPPL and other generators in the same region. The approved cost of the project in 2010 was ₹4487.00 lakh, excluding the Sub-station, which works out to approximately ₹300 lakh/km. This cost has also been considered by PSERC while approving the generation tariff for EPPL and Respondent No. 11 (TPDDL). The capital cost of this transmission system has finally been approved by the HPERC at ₹7643 lakh for a 15 km transmission line, which works out to ₹509 lakh/ km.
- ii. The Petitioner is claiming the capital cost of 220 kV transmission line (COD 2010) as ₹236 lakh per km, and that too with the Sub-station Bays for the 220kV level. By escalating the Petitioner's capital cost based on CPI, the escalated capital cost in the 2019 works out to only ₹314 lakh.

b) 132 kV Transmission Line of EPPL:

- i. 132 kV transmission line of the EPPL was executed in August 2011, and the approved capital cost is ₹215 lakh per km without Sub-station bays, whereas the Petitioner has claimed the capital cost of 220 kV transmission line in 2010 as ₹236 lakh per km and that too with the Sub-station Bays for 220 kV Level.

c) **Comparison with PGCIL's Tanakpur Bareilly Transmission Line (Circuit-II):**

- i. In Petition No. 01/2011 (PGCIL), the Commission had approved the capital cost for LILO of 220 kV Tanakpur-Bareilly Transmission Line (Circuit-II) at Sitarganj along with its associated bays (2 nos.) to the tune of ₹2528.66 lakh as on 31.3.2009, which works out to ₹115 lakh/ km. The COD of the asset is March 2009. The approved capital cost has been further increased to ₹2576.79 lakh vide order dated 18.5.2015 in the remand proceedings, which were not taken into consideration by the Commission in the impugned order.
- ii. The Tanakpur-Bareilly line is in a very low hilly area (Called as the Tarai Area) and that too only for Circuit-II for a LILO length, whereas, the Petitioner's double circuit 176.5 km long line having 580 towers with five bays of the Petitioner which originates in the snow bound zone and passes at an altitude of even more than 2400 meter, therefore, its capital cost can never be compared with the line of PGCIL.

H. **The impact of IDC/ IEDC due to the delay in commissioning of the transmission asset:**

34. The Petitioner was directed to construct the transmission line up to CTUIL-Nalagarh in the middle of the construction of its Hydro Generation Project. The permission of the MoP was received only on 21.8.2007, and Forest Clearance was received only on 15.5.2009. The major construction activities on the transmission system in the forest area began only after forest clearance. Therefore, there may not be any substantial impact of the IDC/IEDC due to the delay in commissioning. In fact, it is mainly the expenditure towards speeding up the work re-scheduling due to the time overrun.

I. Reasons for claiming ACE during the 2009-14 tariff period along with the relevant provision of the Tariff Regulations:

35. The Petitioner has submitted the following reasons for the ACE during the 2009-14 tariff period:

Additional Capitalisation as on 31.03.2011 Post DOCO		
Summary	Expenditure from 17.09.2010 to 31.03.2011 Rs. Lacs	Comments
Land	(57.18)	Cost of Land, RWA and Land Acquisition expenses reversed
L&T Contractor	150.43	Being the amount paid to L&T for additional civil work for the protection work of towers.
Smile & other	415.09	Being the work awarded post commissioning and paid for various protection works of towers
Nalagarh (Sub Stn)	12.46	Being the work awarded post commissioning and paid for various works of sub-station at CTU
Other Capital Adv.	(79.26)	Being the Capital Advances reversed
POP Expenses	1.87	Being the balance POP paid during the period
Total transmission Line	443.40	

Details of Additional Capitalisation in FY 2011-12		
Summary	Addition during 11-12	Comments
Land	(22.13)	Excess provision made last year in land.
L&T	627.85	Addition during 11-12 due to Civil work done for protection of towers at various sites.
Smile & other	772.95	Addition during 11-12 is due to Civil work for protection of tower at various sites.
Nalagarh (Sub Stn)	43.46	Additional Cost incurred on sub-station bays at CTU Nalagarh
Other Capital Adv.	(2.11)	Being the Capital Advances reversed
Total transmission Line	1,420.03	

Details of Additional Capitalisation in FY 2012-13		
Summary	Addition during FY 12-13	Comments
Land (SZ&NSZ)	57.93	Addition Land procured during 12-13 for the Civil work for protection of tower at various sites.
L&T	1,119.85	addition during 12-13 is due to Civil work for protection of tower at various sites.
Smile & other	584.84	addition during 12-13 is due to Civil work for protection of tower at various sites.
Nalagarh (Sub Stn)	(7.25)	Reversed in Nalagarh sub- station in 12-13 is on account of M.B Control
Other Capital Adv.	(7.56)	Reversed due to capital expenses adjusted.
Total transmission Line	1,747.81	

Details of Additional Capitalisation in FY 2013-14		
Summary	Addition during 13-14	Comments
Land	5.01	Addition during 13-14 is due to land procurement for protection of tower at various sites.
L&T	201.93	addition during 13-14 is due to Civil work for protection of tower at various sites.
Total transmission Line	206.94	

(All figures are in ₹ Lakh)

J. Whether the Switchyard at Prini is a part of the generating station or part of the transmission system? Clarify the same:

36. The switchyard at Pirni consists of a total of five bays, out of which two bays are for the generating terminal and the three bays, including the Bus Coupler, are for the transmission system. The transmission system would, therefore, include three bays at the Prini end. There is no dispute on this account, as the Commission, in its earlier order, had also included three bays at the generating end as a part of the transmission system in the capital cost of the transmission system.

Hearing dated 24.1.2024

37. *Vide*, Record of Proceedings for the hearing dated 24.1.2024, the Commission observed that since the transmission line has been declared as an ISTS line, all the beneficiaries of the Northern Region should be impleaded as the Respondents in the matter. Accordingly, Petitioner was directed to implead all the beneficiaries of the Northern Region and KPCPL as Respondents and serve all the documents related to the petition on them and file a revised 'Memo of Parties'. The Petitioner amended the 'Memo of Parties' *vide* affidavit dated 2.2.2024.

Hearing dated 15.3.2024

38. During the course of the hearing on 15.3.2024, the learned counsel for the Petitioner submitted that the transmission asset was part of the composite project with the generating station developed by the Petitioner, and expenditure on separate

transmission assets was not envisaged. Therefore, the cost for the composite project was approved. The estimated completion cost of the project was based on an annual rate of escalation applied on a simple rate basis. However, the rate of inflation rose steeply during the period from 2002 to 2009-10, when construction work on the line was in full swing. CEA has approved the cost of the 220kV Chhaur-Banala Transmission Line of HPPTCL in 2010 at an estimated cost of ₹300 lakh per km. However, the Petitioner has completed the work and has already submitted the details for the approval of capital cost at approximately ₹237 lakh, including the cost of 5 bays.

39. The learned counsel for CTUIL submitted that CTUIL had raised bills on behalf of ADHPL in accordance with NLDC notifications for the period from April 2023 to August 2023. However, NLDC stopped notifying the transmission charges for ADHL's transmission assets w.e.f. September 2023. She submitted that CTUIL has furnished the billing details, *vide* affidavit dated 11.3.2024, as per the Commission's direction. She further requested the Commission to issue directions to NLDC to notify the transmission charges of the assets of ADHPL, and accordingly, CTUIL would start billing the transmission assets of ADHPL.

40. In view of the above submissions, NLDC was directed to compute the transmission charges and losses for the transmission assets of the Petitioner, on the basis of the interim tariff granted *vide* order dated 5.2.2024, so that CTUIL may be able to raise bills.

Hearing dated 5.6.2024:

41. During the course of the hearing, the learned counsel for the Petitioner submitted that, considering 80% of the total capital cost as allowed by the Commission, the interim tariff for the period 2023-24 comes to approximately ₹42 crore, against which the Petitioner has received only ₹24 crore. Therefore, the Petitioner may be granted a tariff for the period from September 2023 to December 2023 and extend the interim tariff



granted *vide* order dated 5.2.2024 beyond 31.3.2024 till the grant of the final tariff. The Commission may consider determining the retrospective tariff from the date when the transmission line was declared as an ISTS line so that past adjustments can be made. The learned counsel further submitted that it has deposited the requisite fees as per the Commission's direction *vide* order dated 19.1.2024. The segregated capital costs for the generation and transmission have been furnished in the tariff forms for the 2009-14 and 2014-19 tariff periods, except for the contract and land details. The learned counsel for the CTUIL submitted that since the NLDC did not compute the transmission charges, CTUIL was unable to raise the bills. After the Commission's direction, NLDC has computed the transmission charges, and the CTUIL has raised bills for the period from March 2024 to May 2024.

42. Learned counsel for KPCPL has submitted that the Commission, *vide* its order dated 19.1.2024, in the instant Petition, has declared the instant transmission line as an ISTS line and has also decided the *modus operandi* how the transmission charges may be adjusted/refunded in the PoC pool and this exercise was to be completed by NLDC/CTUIL within a period of three months from the date of the said order. However, no such exercise has till date been undertaken by NLDC/CTUIL.

43. In response, the learned counsel for CTUIL submitted that CTUIL would verify the same.

44. After hearing the representative of the Petitioner and the learned counsel for the parties, the Commission directed the Petitioner to submit the following information:

- a) IDC and IEDC as per Annexures-1 and 2 annexed with this ROP, and
- b) A copy of the Loan Agreements indicating the rate of interest for the applicable period for IDC and IoL.

45. The NLDC was directed to compute the transmission charges of the instant



transmission line for the months of September 2023 to December 2023, based on the interim tariff granted by the Commission *vide* order dated 5.2.2024 in IA No. 8 of 2024. CTUIL was directed to continue the interim tariff granted *vide* order dated 5.2.2024 till 30.9.2024 till the issuance of the final order. The CTUIL was directed to raise the bills based on the NLDC's computation. Accordingly, the order was reserved in the matter. However, the order could not be passed before a Member of the Commission who formed part of the Coram demitted the office. The matter was re-listed for the hearing on 8.10.2024, and the order was further reserved.

Additional Information by the Petitioner *vide* affidavit dated 29.2.2024.

46. The Petitioner has mainly submitted as under:

(a) In compliance with the directions passed by the Commission *vide* order dated 5.2.2024 in Petition I. A. No. 8/IA/2024 (in Petition No. 209/MP/2017), the Petitioner has submitted that the TEC was granted to it for the execution of 192 MW Allain Duhanagan Hydro Electric Project *vide* Office Memorandum No. 2/HP/18/96-PAC/8108-39 dated 20.8.2002 with an “estimated completion cost of ₹92235 lakh” wherein there was no condition for the approval of the Revised Cost Estimate (RCE) of 2X96 MW AD HEP.

(b) Since the work on execution of 192 MW AD HEP had started within the stipulated period as per the TEC, therefore, no revised TEC and no revision in the “Estimated Cost” was required to be obtained by it. The Petitioner further submitted that in terms of the condition stipulated in Clause 3 (xiv), the tariff of the electricity from the project was to be worked out on the basis of the completed capital cost and CEA-approved final financial package and in terms of Clause 3 (xvi), the tariff was to be decided by the Commission.

(c) The project was commissioned on 16.9.2010 at a cost of ₹202100 lakh and



after the enactment of the Act, the approval of the cost of the transmission system which is the part of the ISTS system, and determination of the tariff thereof, are within the authority of the Commission pursuant to the provisions of Section 79 read with Section 178 of the Act. This Commission had issued the 2009 Tariff Regulations, which require the approval of the capital cost in terms of the provisions of the Regulations 7.1 and 7.2 of the 2009 Tariff Regulations and determination of the tariff by considering the debt-equity ratio at 70:30. Because the TEC approval accorded to 192 MW AD HEP was also on the basis of a debt-equity ratio of 70:30 as such no separate approval of the financial package was required by the Petitioner.

(d) With regard to the audited final cost figures, the certificate of Statutory Auditors with a detailed break-up of the capital cost as on the COD and with the ACE has already been provided.

(e) Regarding reasons for cost variation, according to the condition in Clause 2 of the TEC, the CEA had approved only the “Estimated Completed Cost” of ₹922.355 Crores, including the IDC and FC of ₹206.562 crores, out of which ₹89.709 crores were allocated for the transmission line works as under:

17 TRANSMISSION LINES		
	Numbers	220 KV Double Circuit with AAAC Conductor from Allain Duhangan to Nallagarh
	Terminating Station	Nalagarh in Himachal Pradesh
	Length of Line	185 Km

(f) Clause 3(vi) of the TEC stated that the estimated completion cost was based on the annual rate of escalation of 6% on a simple rate basis. The condition further stated that due to the prevailing low rate of inflation as reflected in the wholesale/consumer price indices, the escalation shall be as per the actual rate or 6%, whichever is less. However, the rate of inflation, which stood at 4.30% in

2002, rose steeply to 8.35% and as high as 11.99% during the period 2009-10 when the construction work on the line was at full swing.

(g) As per Clause 3(vii) of 192 MW AD HEP of TEC, the construction of the 220 kV D/C Transmission Line from Allain-Duhangan to Nalagarh was subject to the condition that PGCIL after the route survey shall confirm the adequacy of the land for the construction of the Parbati Pooling Point and, accordingly, the decision of taking the line from Allain Duhangan to Parbati Pooling Point instead of Allain-Duhangan to Nalagarh shall be reviewed. In case it is decided to terminate this line at Parbati Polling Point, the Project Authorities will have to furnish the revised completion cost to the CEA.

(h) Initially, the LTOA was granted at Parbati Pooling Point, which was subsequently shifted to Nalagarh Pooling Point due to the delay in commissioning of the Parbati Pooling Point in the middle of the construction activities at the generating stations, which were at a very advanced stage. With the shifting of the connectivity point to CTUIL Nalagarh, it became incumbent upon the Petitioner to commission the transmission system matching the commissioning schedule of the Petitioner's generating station as well as the generating station of EPPL. Further, the change in LTOA and the approval of the MoP U/S 68(1) of the Act came in August 2007 and by that time, almost fifty percent of the generating project construction activities on both the projects were already over.

(i) Therefore, from 2008 onwards, while there was exposure to the additional cost due to the price increase on account of the high inflation rate, the Petitioner also had to deploy the "additional resources at cost" in order to commission the transmission line matching with the commissioning schedule of Allain-Duhangan HEP as well as Malana-II HEP. The Petitioner was able to complete line matching with the

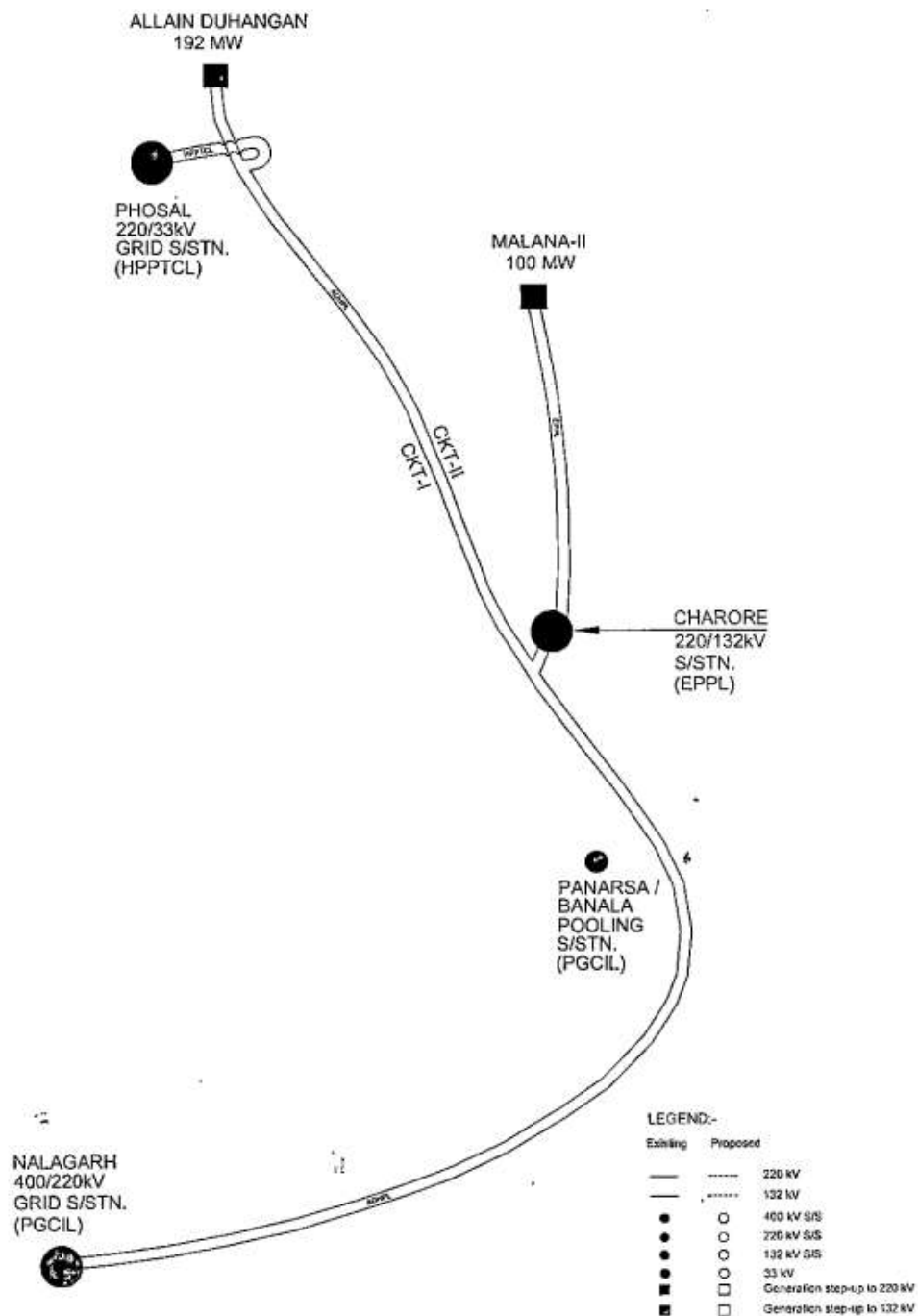
commissioning schedule of the generating project because a portion of the preliminary work, such as contract negotiation, was completed in advance by the Petitioner. Without prejudice, the project, along with the transmission line, was sanctioned in the year 2002. The survey, investigation, design, and detailed engineering work on the transmission line had begun, and construction work on the Prini Switchyard and the main components of the generating projects and contracts had also been awarded. However, the major work on the transmission line could be started only in the year 2007/2008 after obtaining the permission under Section 68(1) of the Act from the MoP, followed by the Final Forest Clearance for about 220 Ha.

(j) When the actual construction work on the transmission line started, the inflation rate, which was at 4.30% in the year of approval, i.e., in 2002, rose as high as 8.35%, 10.99% and 11.35% by the time the line was commissioned. This led to a steep increase in the prices of almost all items, including land rates, forest diversion compensation, steel, cement, and the minimum wage rules applicable in the State of Himachal Pradesh, which were necessary for the construction of the transmission line.

(k) With regard to the submission of the tariff forms for the 2009-14 and 2014-19 tariff periods as per the 2009 and 2014 Tariff Regulations, the Petitioner has submitted that the tariff forms along with detailed calculation of the tariff in terms of the relevant Tariff Regulations have been updated by considering the SBI rate of IWC as decided by this Commission in the impugned order. Since the Transmission System was initially sanctioned as a composite part of the 192 MW Allain Duhangan HEP, the detailed break-up of the information of each and every item for the tariff forms is not available. The Petitioner, however, has endeavoured to provide the details to the extent possible for the sanctions. Moreover, the data for the completed

cost of the transmission system, duly certified by the Statutory Auditor, has been provided.

(l) With regard to legible copy of map along with three route maps, for 65 km planned originally and 176.5 km implemented subsequently, the Petitioner has placed on record the route maps duly marked on the survey sheets of the Survey of India as under:



(m) As regards, the justification for the ACE of ₹11.42 lakh during FY 2011-12 with respect to the switchyard at Prini-Plant and Machinery whether it pertains to the generation or transmission, as per the Certificate of Statutory Auditor, an amount of ₹11.42 lakh have been capitalized under the head of Switchyard-Prini, Plant and Machinery during the year 2011-12 as ACE. The amount pertains to the purchase of Copper PVC Cable, Relay Panel, etc., including freight and entry tax paid thereon. The items pertain to both generating and transmission activities. Therefore, the Petitioner has considered the 3/5th value of the same for the purpose of transmission.

Submission by Respondent No. 10 – Central Transmission Utility of India Limited (CTUIL).

47. In compliance with the Commission's direction *vide* order dated 5.2.2024 in the I.A. No. 8/IA/2024 in Petition No. 209/MP/2017, the CTUIL *vide* affidavit dated 11.3.2024 has submitted the details about the billing of the transmission line as under:

- a) The NLDC has considered the billing of ADHPL for the first time in the April 2023 billing period *vide* its notification dated 25.5.2023. The NLDC stopped considering the billing of ADHPL w.e.f. September 2023 billing period onwards.
- b) The CTUIL has raised the bills on behalf of ADHPL in accordance with the NLDC notifications for the period from April 2023 to August 2023 in terms of the 2020 Sharing Regulations and their amendments thereof. Total transmission charges billed by the CTUIL on behalf of ADHPL are ₹1798 lakh, which includes Bill 1 corresponding to the period April 2023-August 2023 and Bill 2 for the period April 2023-June 2023.
- c) The Late Payment Surcharge (LPS) bills have also been raised on behalf of ADHPL till 31.12.2023, amounting to ₹4 lakh. The total transmission charges billed by the CTUIL on behalf of ADHPL as per the above are ₹1798 lakh. The



tabulation of the transmission charges billed by the CTUIL on behalf of ADHPL is given as under:

Sl. No.	Bill Type	Billing period	Billed amount in ₹ Cr.
1	Bill 1	April 2023	2.96
2	Bill 1	May 2023	3.05
3	Bill 1	June 2023	2.95
4	Bill 1	July 2023	3.05
5	Bill 1	August 2023	3.05
6	Bill 2	April 2023 to June 2023	2.90
7	LPS billed till 31.12.2023		0.04
Total billed amount			17.98

Submissions by PSPCL

48. PSPCL, *vide* its written submission dated 21.10.2024, has mainly submitted as under:

- a) Since the COD of AD Hydro Line is 16.9.2010, the tariff must be determined in accordance with the 2009 Tariff Regulations. The Petitioner had claimed the capital cost to be ₹41108.92 lakh. There is no sanctity to the Petitioner's claim of ₹41108.92 lakh as capital cost. Even as per the audited accounts of the Petitioner for the FY 2010-11, the capital cost of the transmission line is reflected as ₹38992.42 lakh only.
- b) Certain expenditures, such as preoperative expenses and expenditure on office equipment, furniture, computers and IT equipment as claimed by the Petitioner, cannot be included in the capital cost as the same have been excluded by operation of the applicable regulations.
- c) The claim of ₹24,38,19,000/- for 'capital commitment' has not been included as a capital cost. However, it remains unclear as to what the amount represents and why it should be allowed for the ACE outside the provisions of the 2009 Tariff Regulations.



d) The Petitioner has claimed the expenditure incurred for the ‘Switchyard at Prini’ as part of the capital cost. The switchyard is not part of the ISTS system but is part of the Petitioner’s generating station. As a generating company, the Petitioner would have included this cost under the capital costs of the generating station. Therefore, including this expenditure in the capital cost of the transmission line would result in double recovery.

e) As regards the ACE, the Petitioner has claimed a substantial ACE for several years as under:

“Additional Capitalisation after 31.03.2011: The subsequent additions to the Capital Cost are as follows:

Year (Financial Year)	Additional Capitalisation in ₹
2011-12	14,26,34,096.00
2012-13	17,55,36,215.00
2013-14	2,06,94,239.00
2014-15	--
2015-16	--
2016-17	22,23,411.00

Since the COD was achieved on 16.9.2010, the cut-off date is 31.3.2012. Therefore, till FY 2011-12, the ACE can be allowed only as per Regulation 9(1) of the 2009 Tariff Regulations, provided it falls within the original scope of the work. For the balance years, the ACE may be allowed only as per Regulation 9(2) of the 2009 Tariff Regulations.

f) Further in the order dated 19.1.2024, the Commission had noted that after the determination of the tariff of 220 kV Prini Nalagarh Transmission Line (as per order dated 31.8.2023), the transmission charges payable to the Petitioner would be drawn from the PoC pool. These transmission charges are to be settled after adjusting for the payments already made, w.e.f. 1.8.2011 (i.e., date of connectivity of EPPL to 220 kV Prini Nalagarh Transmission Line).

g) The transmission charges must be computed by the NLDC in order to enable the CTUIL to raise the PoC Bills on EPPL. Since 4.12.2019, EPPL has ceased to use the 220 kV Prini-Nalagarh Transmission Line and has instead been using the 220 kV Chhaur-Banala Transmission Line for power evacuation. Therefore, the transmission charges with respect to the Petitioner should be calculated only up to the date of utilisation of the transmission line by EPPL.

h) The NLDC, while calculating the transmission charges payable by EPPL, should consider the payments already received by the Petitioner from EPPL. PSPCL is directly impacted by such a cost that is payable by EPPL. The Commission may direct NLDC to compute the transmission charges at the earliest in a time-bound manner. PSPCL reserves its rights to claim such excess transmission charges paid by it in the past, in accordance with the law.

49. The Petitioner, in response to PSPCL's submission, *vide* its written submissions dated 8.11.2024, has submitted as under:

a) The capital cost of the entire transmission system, including 220 kV transmission bays at both ends and the capital cost of the transmission line is required to be considered for determining the capital cost and tariff. Accordingly, the Petitioner has claimed the capital cost of ₹41661.36 lakh as on the COD.

b) The pre-operative expenses and expenditure on office equipment, furniture, computer and IT equipment, etc., shall be as per the relevant regulations only.

c) An amount of ₹41661.36 lakh has been claimed towards the ACE as on the COD. Further, in terms of the regulations and the relevant tariff forms, only the amount spent, as on the COD, has been claimed as ACE, and any

amount spent subsequent to the date of the COD has been claimed as ACE.

d) The 192 MW Allain-Duhangan Hydro Electric Project consists of 2x96 MW generating stations and requires only 'two' generating bays at Prini Switchyard. The other bays are only for the transmission and are in use by all the beneficiaries of the Petitioner's transmission System. The pro-rata capital cost of the switchyard at Prini towards the transmission bays is required to be considered as a part of the Petitioner's transmission system.

Analysis and Decision

50. We have carefully perused the old records, submissions made by the Petitioner, KPCPL, NLDC, NRLDC, CTUIL, PCPCL, and other available records. Accordingly, this order is issued taking into account the submissions made by the parties in their respective replies, rejoinders and written submissions. Having heard the learned counsels for the parties and having perused the material on record, we proceed to dispose of the Petition.

51. The Petitioner established a generating station of 192 MW in the Kullu District of Himachal Pradesh and constructed a dedicated transmission line, namely, 220 kV D/C ADHPL-Nalagarh Transmission Line, connecting its generating station to the PGCIL's Sub-station at Nalagarh. The MoP, in its sanction letter under Section 68 of the Act, permitted EPPL to wheel its power from Malana-II by LILO of one circuit of the 220 kV D/C ADHPL-Nalagarh Transmission Line till the Nalagarh Sub-station of PGCIL. The Commission, in its order dated 1.6.2011 in Petition No. 259 of 2009 filed by EPPL, held that the portion of the 220 kV D/C ADHPL-Nalagarh Transmission Line to be used by EPPL for the evacuation of power constitutes a part of the inter-State transmission system under Section 2(36) of the Act as it is incidental to the inter-State transmission of electricity. The Commission further held that the Commission is empowered to issue



directions under Section 79(1)(c) of the Act to regulate the inter-State transmission of electricity on the 220 kV D/C ADHPL-Nalagarh Transmission Line. The Commission directed the Petitioner to grant connectivity to EPPL and also issued a slew of directions concerning the technical and commercial aspects to ensure smooth operation and sharing of the charges of the 220 kV D/C ADHPL-Nalagarh Transmission Line. The APTEL, *vide* its judgment dated 2.1.2013 in Appeal No. 81 of 2011, filed by the Petitioner, upheld the decision of the Commission with regard to the nature of the 220 kV D/C ADHPL-Nalagarh Transmission Line and the jurisdiction of the Commission to regulate the transmission of power and adjudicate the dispute between the Petitioner and EPPL regarding the sharing of the transmission charges and losses etc. The APTEL also recorded its findings on various issues raised with regard to the determination and sharing of the transmission charges and losses, and other related issues. The Hon'ble Supreme Court, in its judgment dated 26.4.2017 in Civil Appeal No.1795 of 2013, filed by the Petitioner against the APTEL's order dated 2.1.2013 in Appeal No. 81 of 2011, upheld the order of the APTEL and directed the Commission to decide the matter on merits. Subsequently, the Hon'ble Supreme Court in its judgment dated 12.7.2017 in Review Petition (C) No.1365 of 2017 (in Civil Appeal No.1795 of 2013), directed the Commission to decide the matter on merit with or without regard to the observations of the APTEL's judgment dated 2.1.2013. Pursuant to these directions, the Petitioner filed Petition No. 209/MP/2017 for the determination of the tariff of the 220 kV D/C ADHPL-Nalagarh Transmission Line. The Commission, in its order dated 17.10.2019 in Petition No. 209/MP/2017, determined the tariff of the 220 kV D/C ADHPL-Nalagarh Transmission Line. However, the Commission held that the transmission charges and line losses would be shared by the Petitioner and other generators in proportion to their installed capacity and would not be serviced through the PoC mechanism under the 2010 Sharing Regulations.



52. Two appeals were filed against the order dated 17.10.2019, in Petition No. 209/MP/2017- (i) Appeal No. 410 of 2019 by the Petitioner, challenging the determination of the capital cost of 220 kV D/C ADHPL-Nalagarh Transmission Line, and (ii) Appeal No. 450 of 2019 by KPCPL seeking for inclusion of the transmission charges in the PoC pool under the Sharing Regulations.

53. The APTEL, *vide* its order dated 31.8.2023, disposed of Appeal No. 410 of 2019 by remanding the matter to the Commission for a fresh examination of the Petitioner's claim regarding the capital cost and the Initial Spares in terms of Regulations 7, 8 and 9 of the 2009 Tariff Regulations. Further, the APTEL, *vide* its judgement dated 31.10.2022, disposed of the Appeal No. 450 of 2019 filed by KPCPL, holding that the transmission charges for the usage of the 220 kV D/C ADHPL-Nalagarh Transmission Line shall be determined and levied in accordance with the PoC mechanism under Regulation 3(b) of the 2010 Sharing Regulations. Pursuant to the observations and conclusions recorded by the APTEL in its judgement dated 31.10.2022, in Appeal No. 450 of 2019, the Commission issued the necessary directions *vide* order dated 19.1.2024 in Petition No. 209/MP/2017. The Present order undertakes the exercise for re-determination of the tariff in light of APTEL's directions as set forth in the order dated 31.8.2023 in Appeal No. 410 of 2019.

54. The observations and conclusions recorded by the APTEL in its judgement dated 31.8.2023 in Appeal No. 410 of 2019 are briefly summarised as under:

- a) The Commission took a note of Regulation 7(1) of the 2009 Tariff Regulations in its order dated 17.10.2019 in Petition No. 209/MP/2017 and failed to take into consideration Regulation 7(2) of the 2009 Tariff Regulations and its provisos. The first proviso to Regulation 7(2) prescribed the benchmark norms as the basis. Admittedly, the Commission has not specified any benchmark norms. The second proviso to Regulation 7(2) of the 2009 Tariff



Regulations is attracted where no benchmark norm has been specified, and, in terms thereof, the prudence check may include, among others, scrutiny of the reasonableness of the capital expenditure.

- b) The Commission had failed to note what Regulation 7(2) of the 2009 Tariff Regulations and its two provisos stipulated; it has also not stated how the ratio of indicative cost applied by it would satisfy the requirements of a prudence check on the reasonableness of the capital expenditure in terms of Regulation 7(2) of the 2009 Tariff Regulations.
- c) Regulation 7(1) (b) and (c) of the 2009 Tariff Regulations stipulates that the capital cost of a project shall include capitalised Initial Spares subject to the ceiling rates specified in Regulation 8; and additional capital expenditure determined under Regulation 9.
- d) Since we have set aside that part of the order of the Commission, whereby, the capital cost was determined applying the ratio of the indicative test, and since, restriction of the capital cost forms the basis for denying the Petitioner's claim for the Additional Capital Expenditure (ACE) and capitalized Initial Spares, it follows, as a consequence, that denial of the ACE and Initial Spares on the aforesaid ground is not justified. The Commission shall examine afresh the Petitioner's claims, under the aforesaid heads, in terms of Regulation 7, 8 and 9 of the 2009 Tariff Regulations, and in accordance with the law.

55. Therefore, in terms of the APTEL's judgment dated 31.8.2023 in Appeal No. 410 of 2019, the transmission tariff is being determined as per the 2009 Tariff Regulations, and this Petition is being disposed of accordingly.

Determination of Transmission Tariff for the 2009-2014 Tariff Period.

56. The Petitioner has claimed the following elements as a part of the instant transmission system:

- a) 176.5 km long D/C Line having 580 towers as constructed.
- b) 220 kV Switchyard at Prini, corresponding to 3 bays used for transmission.
- c) Two bays at CTUIL Sub-station at Nalagarh.



Date of Commercial Operation (“COD”)

57. The Commission vide order dated 17.10.2019 in Petition No. 209/MP/2017, held as under:

“60. The Petitioner has claimed the COD of the instant transmission lines as 16.09.2010. In support of COD of the Assets, the Petitioner has filed RLDC and CEA certificate of Trial operation and energisation certificate. Taking into consideration the CEA energization certificate, RLDC charging certificate and CMD certificate, the COD of the instant transmission line is being considered as 16.09.2010. As the nature of the instant transmission line is a dedicated line from 16.9.2010 till the date of start of usage of the line by EPPL, we are of the view that there is no need to determine the transmission tariff for this period. Accordingly, in the instant case, the transmission tariff has been worked out from the date of usage of the line by EPPL/HPPTCL/ KPCPL/ HPSEB started the injection of 24 MW of power into the instant transmission line i.e. during August, 2011. However, the exact date of start of use by EPPL/ HPPTCL/ KPCPL/ HPSEB has not been furnished.

Determination of transmission tariff

61. From the above discussions, it is clear that the transmission charges of the instant transmission line are to be determined from the start date of usage of the said line by EPPL. Since the exact date of start of use of the line by EPPL has not been furnished, we have considered 1.8.2011 as the date from which the transmission tariff of the 220 kV D/C Prini-Nalagarh line is to be determined.

62. Accordingly, in the instant case, the transmission tariff of the instant transmission line is determined from 1.8.2011 by considering the capital cost as on COD i.e. 16.9.2010 and additional capitalization from 16.9.2010 to 31.7.2011 with cumulative depreciation and cumulative repayment. Since the date from which the tariff of the said line is being worked out is falling in 2009-14 period, we have determined the tariff as per the 2009 Tariff Regulations.”

58. No submissions have been made by any of the Respondents on the aspect of the COD. Accordingly, the decision as per the Commission’s order dated 17.10.2019 in Petition No. 209/MP/2017 has been duly considered, and the COD of the transmission asset is considered as 1.8.2011 for the purpose of determination of tariff.

Capital Cost

59. Regulation 7 of the 2009 Tariff Regulations provides as follows:

“7. Capital Cost. (1) Capital cost for a project shall include:

- 1. the expenditure incurred or projected to be incurred , including interest during construction and financing charges, any gain and loss on account of foreign exchange risk variation during construction on the loan – (i) being equal to 70% of the funds deployed , in the event of the actual equity in excess of 30% of the fund deployed, by treating the excess equity normative loan , or (ii) being equal to the actual amount of loan in the event of the actual equity less than 30% of the funds deployed, - up to the date of commercial operation of the project, as*



admitted by the commission after prudent check;

*2. capitalised initial spares subject to the ceiling rates specified in regulation 8;
and*

3. additional capital expenditure determined under regulation 9:

*Provided that the assets forming part of the project, but not in use shall be taken
out of the capital cost.*

.....”

60. The Petitioner, *vide* affidavit dated 3.1.2019, had submitted the Auditor's Certificate dated 6.11.2018 depicting the capital cost up to the COD and the ACE up to 31.3.2013 as under:

Capital Cost on COD (16.9.2010)	Projected ACE				(₹ in lakh) Total Capital Cost as on 31.3.2014
	2010-11	2011-12	2012-13	2013-14	
43736.55	443.84	1431.45	1747.81	0.00	47359.65

61. After remand, the Petitioner, *vide* affidavit dated 2.1.2024, has further submitted that ₹41,661.35 lakh only has been claimed as the capital cost as on the COD, after deducting the capital cost towards the bays of the generating end at Pirni Switchyard, in accordance with the methodology set forth in the original Petition No. 209/MP/2017.

62. Therefore, the capital cost along with the ACE claimed by the Petitioner in the instant Petition is as under:

Capital Cost on COD (16.9.2010)	Projected ACE				(₹ in lakh) Total Capital Cost as on 31.3.2014
	2010-11	2011-12	2012-13	2013-14	
41661.35	443.84	1431.45	1747.81	206.94	45491.39

Capital Expenditure as on the Actual COD (16.9.2010), Tariff from COD (1.8.2011) and up to 31.3.2014

63. The Petitioner, *vide* affidavits dated 3.1.2019 and 29.2.2024, has placed on record the copy of the Auditor's Certificate dated 6.11.2018 for the expenditure incurred for the transmission system of the subject transmission asset as on the actual COD (16.9.2010) and up to 31.3.2013. Therefore, the capital expenditure for the transmission



system has been claimed based on the Auditor's Certificate dated 6.11.2018, read with the submissions made in the Form-5B, Form-6 and Form-9 up to 31.3.2014 *vide* affidavit dated 29.2.2024 is as under:

Particulars	As on Actual COD (16.9.2010)	ACE*				(₹ in lakh) Total Expenditure as on 31.3.2014
		2010-11	2011-12	2012-13	2013-14	
Transmission System	41661.35	443.40	1420.02	1747.81	206.94	45479.52

**as per the details submitted by the Petitioner*

Cost Overrun

64. The Petitioner, *vide* affidavit dated 2.1.2024, has submitted that out of the total investment of ₹922,35.50 lakh made in 192 MW Allain-Duhangan HEP of the Petitioner, ₹41,661.35 lakh as on the COD has been invested in the ADHPL-Nalagarh transmission system. Since the Petitioner constructed the transmission line as an integral and composite part of its 192 MW Allain Duhangan HEP project, the capital cost of the transmission system did not require approval from any competent authority. The Petitioner has submitted the following reasons to explain the variation in cost

- a) In establishing a 176.5 km long transmission line from its generating plant to Nalagarh, the Petitioner had to construct as many as 580 numbers of transmission towers due to the hilly terrain. The number of towers constructed was much higher as compared to a normal transmission line of a 220 kV Voltage Level due to severe site conditions. The Petitioner was compelled to maintain shorter spans between two towers to provide sufficient loading. This is evident from the fact that for the first approximately 57/58 km, i.e., from the Generating Project's Switch Yard to Panarsa Pooling Point, the total number of towers to be kept was 215 in numbers due to heavy snow loading conditions (Approximately 4 Towers per km) for the sustenance of valley crossings at various places. For the balance approximately 119/120 km, the number of towers required to be kept was 365 due to heavy hill load conditions (App. 3 Towers per km). Also, the transmission line has travelled along its route



between the elevation levels of approximately 2000 meters at Pirni to 350 meters at Nalagarh. Before terminating at Nalagarh, at several places it has traversed to as high as 2400 meters.

- b) Most of these towers were constructed in very unapproachable and inhospitable locations because the transmission line was passing through a very difficult terrain. Therefore, lots of manual transportation and construction activities were involved. For the construction of this transmission line and according to the corridor requirement of 35 meters as per the forest norms, the Petitioner was required to pay the huge land compensation for close to 580.65 hectares towards the forest and private land, as per the following table:

Cost of Land	
Description	Amount in Rs. In Lacs
Compensation and other expenses related to forest land	5046.49
Payment for right of use of private land	5253.98
Total	10300.47

- c) The Petitioner had to pay a huge amount of compensation for the land falling in the corridor of this transmission line, more particularly between Manali to Mandi, because it was the most fertile and expensive land having a large number of fruit orchards, specially of very high world class quality apple which have a very high value as compared to any other agriculture land. The line was to pass through a large number of such orchards, and, in return, the Petitioner was to pay hefty compensation towards the private land for the right of use during the peak season of fruit flowering. Similarly, the terrain was one of the best forest terrains and, therefore, the Petitioner was required to pay a huge amount to the Forest Department for diversion of the forest land due to a large number of trees required to be felled /affected.
- d) Out of the total cost under the head of Civil Work and other works related to erection, testing and commissioning of towers amounting to ₹17596.37 lakh and the cost of tower and line material was ₹7726.41 lakh as per the following details:

S. No.	Description	Quantity	Average Rate	Amount in Rs. Lacs
1	Length of Line	176.50 KM		
2	No. of Towers	580		
3	Quantity of Steel used in construction of towers	6,598.887 MT	68,890	4,546
4	Quantity of Nut Bolts	288.31 MT	82,572	238.06
5	Length of Conductor for 6 Phases (ACSR Zebra) including length for jumpering	1,094.39 KM	2,64,495 per KM	2,894.61
6	Quantity of Earth Wire	176.54 KM	27,041 per KM	47.74
7	TOTAL			7,726.41

- e) The balance amount of ₹9869.96 lakh was towards the civil cost of the 2 Nos. Bays of 220 kV Voltage Level at CTUIL Nalagarh Sub-station of PGCIL, manual and headload transportation of tower/ line material, civil works for the protection of towers in very difficult terrain and cost of the stringing work. It is added that due to the difficult terrain, the Petitioner had to spend very high cost towards the civil works for the protection of the towers and land where the towers were located.
- f) The Petitioner had spent more than ₹9,744.14 lakh as on the COD towards the pre-operative expenditure, of which the major amount was towards the Interest During Construction (IDC), which amounted to ₹6416.00 lakh. This IDC was mainly due to the change in the length in the middle of the construction.
- g) The construction of the Switchyard at Prini near the underground power house of the Petitioner amounts to ₹1,750.06 lakh towards the civil works and ₹3437.91 lakh towards the equipment of the Switchyard.
- h) The major portion of the civil cost of the switchyard was due to the fact that the Petitioner had to create a lot of space and provide a lot of protection works due to its location near the river bed in a snow-bound area.
- i) Only 3/5th of the total capitalised cost of the bays at Prini was considered towards the transmission assets. This apportionment has already been approved by the Commission in the impugned order, and the same was not an issue before the APTEL.

65. Further, the Petitioner *vide* affidavit dated 29.2.2024, has also submitted the



following reasons for cost variation:

- a) According to the condition in Clause 2 of the TEC, the CEA had approved only the “Estimated Completed Cost” of ₹922.355 crores, including an IDC and FC of ₹206.562 crores, out of which ₹89.709 crores were allocated for the transmission line works as under:

17 TRANSMISSION LINES	
Numbers	220 KV Double Circuit with AAAC Conductor from Allain Duhangan to Nalagarh
Terminating Station	Nalagarh in Himachal Pradesh
Length of Line	185 Km

- b) Condition No. 3(vi) of the TEC stated that the estimated completion cost was based on the annual rate of escalation of 6% on a simple rate basis. The condition further stated that due to the prevailing low rate of inflation as reflected in the wholesale/consumer price indices, the escalation shall be as per the actual or 6%, whichever is less. However, the rate of inflation, which stood at 4.30% in 2002, rose steeply to 8.35% and as high as 11.99% during the period in 2009-10 when the construction work on the line was at full swing.
- c) The TEC of 192 MW AD HEP was with another Condition No. 3(vii) for the construction of the 220 kV D/C Transmission Line from Allain-Duhangan to Nalagarh subject to the condition that PGCIL after the route survey shall confirm the adequacy of the land for construction of the Parbati Pooling Point and accordingly, the decision of taking the line from Allain-Duhangan to Parbati Pooling Point instead of Allain-Duhangan to Nalagarh shall be reviewed. In case it is decided to terminate this line at Parbati Pooling Point, the Project Authorities would have to furnish the revised completed cost to the CEA.
- d) With shifting, the connectivity point to CTUIL Nalagarh, it became incumbent upon the Petitioner to commission the transmission system matching the commissioning schedule of the Petitioner's generating station, as well as the generating station of EPPL. Petitioner further submits that the change in LTOA and the approval of MoP U/S 68(1) of the Act came in August 2007, and by the time, almost fifty percent of the generating project construction activities on both the projects were already over.

- e) Therefore, from 2008 onwards, while there was exposure to additional cost due to price increase on account of high inflation rate, Petitioner also had to deploy “additional resources at cost” in order to commission the transmission line matching with the commissioning schedule of Allain Duhangan HEP as well as Malana-II HEP. The Petitioner was able to complete the line matching with the commissioning schedule of the generating project because a part of the preliminary work, such as contract negotiation, etc., was completed in advance by the Petitioner.
- f) The project, along with the transmission line, was sanctioned in the year 2002. The survey, investigation, design and detailed engineering work on the transmission line had begun, and construction work on the Prini switchyard and the main components of the generating projects and contracts had also been awarded. However, the major work on the transmission line could be started only in 2007/2008 after obtaining permission under Section 68(1) of the Act from the MoP, followed by the Final Forest Clearance for about 220 Ha.
- g) By the time the actual construction work on the transmission line started, the inflation rate, which was at 4.30% in the year of approval, i.e., 2002, rose to as high as 8.35%, 10.99% and 11.35% by the time the line was commissioned. This led to a steep increase in the prices of almost all the items, such as land rates, forest diversion compensation, steel, cement and the minimum wage rules applicable in the State of Himachal Pradesh, which were necessary for the construction of the transmission line, which can be depicted from the table placed below:

					Amount in Rs.				
Sl.No.	Particulars		1999	2002	2007-2008	2009	2010	Annexure Nos.	Remarks
A.	Inflation Rate								
1	Inflation rate			4.30%	8.35%	10.87%	11.99%		
B.	Forest Land Diversion Charges								
2	NPV Rate on Forest Land Diversion			800,000.00	1,043,000.00			2 & 3	The rates were revised depending on the class of forest and ranged between Rs. 4,38000 to 10,43000.
3	Compensatory Afforestation expenses on Forest Land Diversion			72,272.00		100,437.00		4	The generating project paid CA amounting to Rs. 435.98 Lacs at the rate of Rs. 72272/- Per Ha in 2004 (Annexure # 3) whereas the Transmission Line component had to pay the CA at the average rate of Rs. 1,00437/- per Ha falling in 8 forest
C.	Steel and Aluminium Rates								
4	Steel Rate (TMT)	Rs. Per MT		15,963.00	40,402.00			5 & 6	Steel Prices rose more then 2.5 times from the date of clearance to the actual execution
5	Aluminium Conductor	Rs. Per KM		79,631.00	267,941.00			7 & 8	Cost of Conductor increased due to increase in prices of Aluminium by app. 3 times
6	Earth Wire	Rs. Per KM		15,777.00			106,471.00	9 & 10	Cost of Earthwire also increased due to increase in prices of steel
D.	GI Steel Rates used in Tower Material								
7	GI Steel			33,261.00	66,051.00	89,705.00		11, 12 & 13	Cost of Tower Material increased due tyo increase in prices of GI Steel and designing by app. Two times
E.	Cement Rates								
8	Cement Rate	Rs. Per MT		2,311.00	4,340.00			14 & 15	Cost of Cement Purchase increased by two times from the date of clearance
F.	Minimum Wages Act, HP Rates								
9	Unskilled Worker			1,650.00	3,000.00		3,300.00	16, 17 & 18	Government of Himachal Pradesh revised the minimum wages of different categories of workers by approximately two times.
10	Semi Skilled Worker			1,815.00	3,300.00		3,630.00		
11	Skilled Worker			2,100.00	3,780.00		4,158.00		
12	Highly Skilled			2,672.00	4,845.00		5,330.00		
G.	Scheduled Rate of Civil Works, HPPWD								
13	P.C.C. 1:3 in Cum.		1,400.50	1,400.50		2,879.40		19 & 20	HPPWD also revised the scheduled rates by almost two times
14	RRM - 1:3:6 in Cum.		1,535.50	1,535.50		1,985.60			There is an increase in rate by app. 30%
H	HSD and POL Prices								
	HSD Rates	Rs. Per Lier		16.24	32.10	32.10	36.10	21, 22, 23 & 24	HSD and POL rates were more than double during the pconstruction period resulting into steep rise in the tranisportation and other construction cost for the operation of the construction equipments.

66. In compliance with the Commission`s order dated 19.1.2024 in Petition No. 209/MP/2017 and in support of the submissions made during the hearing on 5.6.2024, the Petitioner, *vide* affidavit dated 6.6.2024, has submitted as under:

- a) The licence fees and Petition filing fees (amounting to ₹119.25 lakh) in terms of the provisions of the Central Electricity Regulatory Commission (Payment of Fees) Regulations 2008, as amended, have been calculated as under:

Statement of Transmission Tariff and ISTS License Fees Payable to CERC for Tariff Regulation Period 2009-14 and 2014-19							
S.No.	Year	No. of days	Tariff Fess Rate as per CERC Regulations	Tariff Claimed (Rs. Is lacs)	Fess for Transmission Charges (Rs. Lacs)	ISTS License Fees rates as per CERC Regulations	ISTS License Fees (Rs. Lacs)
			(1)	(2)	(3)	(4)	(5)
1	2011-12 (Connected on 3.8.2011) Prorata Tariff Claimed	242	0.05%	7,982.54	2.65	0.05%	2.65
2	2012-13		0.10%	8,208.77	8.21	0.10%	8.21
3	2013-14		0.11%	8,062.56	8.87	0.11%	8.87
4	2014-15		0.11%	7,773.53	8.55	0.11%	8.55
5	2015-16		0.11%	7,614.18	8.38	0.11%	8.38
6	2016-17		0.11%	7,253.40	7.98	0.11%	7.98
7	2017-18		0.11%	6,917.74	7.61	0.11%	7.61
8	2018-19		0.11%	6,713.02	7.38	0.11%	7.38
	Total				59.62		59.62
	Total Amount Payable (3+4)				119.25		-

b) The Petitioner has deposited the aforesaid fees as per the following details:

DESCRIPTION	UTR NO.	AMOUNT
Fees Paid at the time of filing of Petition No. 209/MP/2017		300,000.00
Fees Paid on 10.04.2024	HDFCR5202404 1097309059	11,625,000.00
TOTAL		11,925,000.00

c) Accordingly, the Petitioner is eligible for the pass-through in the transmission tariff.

Details and Information for approval of Capital Cost and Tariff:

67. The Petitioner has submitted all relevant information, including financial statements, balance sheets, capitalisation, and financing details, accompanied by a certificate of the Statutory Auditors.

68. The transmission system formed part of the composite scheme of 192 MW Allain-Duhangan HEP, which was concurred by the CEA in August 2002. All details, including financial closure, details of contracts and works and cost thereof, have been furnished in the tariff forms to the best of the Petitioner's efforts.

69. The TEC clearance was accorded by the CEA in August 2002, whereas the final approval for the construction of the line was given by the Ministry of Power under



Section 68 in August 2007 and construction commenced in full swing in 2009, therefore, the cost parameters applicable during the year 2009 which may be considered for the prudence check of the cost of the Petitioner's transmission system instead of the CEA approved cost. In support of its arguments, the Petitioner has provided the details of cost escalations, price index and capital cost of the lines constructed by Respondent No. 1 and HPPTCL in the vicinity of the Petitioner's transmission line. Accordingly, the Petitioner submitted that it is also entitled to the additional RoE of 0.5% in terms of the Regulations, considering the zero date of start of the project from approval.

Grant of Interim Tariff:

70. Following the declaration of the transmission system as ISTS, the Commission, for the first time, directed that the transmission charges be paid from the pool in its order dated 13.4.2023. However, the Petitioner did not receive the tariff beyond 31.8.2023. Subsequently, the Petitioner filed an IA bearing IA No. 8/IA/2024 for the grant of an interim tariff. The Commission, *vide* order dated 5.2.2024, granted an interim tariff of ₹1073.79 lakh for a period of 3 months, i.e., January 2024 to March 2024 only, considering 80% of the claimed capital cost.

71. On one hand, the Petitioner did not receive the transmission charges from August 2023 up to December 2023, and on the other hand, the transmission charges have again been suspended w.e.f. April 2024. Consequently, although the Petitioner was entitled to recover the transmission charges to the tune of ₹42.95 crores during the FY 2023-24, against which it has received only ₹24.76 crores, with no tariff recovery accruing from April 2024 onwards.



72. In addition to the aforesaid, the recovery of the transmission charges is also pending w.e.f. August 2011, i.e., from the date, the transmission system of the Petitioner has been merged into the PoC Pool.

73. In view of the aforesaid, the Petitioner has requested as under:

- a) Grant of recovery of transmission charges from the date the transmission system was put into PoC Pool, i.e., August 2011, on an interim basis as allowed by this Commission in its order in IA No. 8/IA/2024.
- b) Grant of recovery of transmission charges on an interim basis as allowed by the Commission *vide* its order in IA No. 8/IA/2024 w.e.f. the FY 2023-24 and continue the same until the capital cost and transmission charges are finally approved.

74. In compliance with the Commission's directions *vide* RoP for the hearing dated 5.6.2024, the Petitioner, *vide* affidavit dated 19.6.2024, has submitted as under:

- a) The details of IDC and IEDC, Loan Agreements indicating the rate of interest for the applicable period of IDC & IoL, and Draw Down Schedule for calculation of IDC & Financial Charges.
- b) The Draw Down Schedule for the transmission line, viz., ADHPL to CTUIL Nalagarh w.e.f first quarter of the FY 2006-07. Complete statement of the Draw Down Schedule
- c) Total capitalisation value of the project of the Petitioner comprises 192 MW Allain Duhangan HEP generation as well as transmission projects. The amount of loan drawn from Financial Institutions and Banks is ₹254.14 crores. The total loan, IDC & financial charges are as under:

(₹ in Crores)	
Total Loan from Institutions	254.14
Interest During Construction up to COD	62.15
Financial Charges	2.01

- d) In case of the loans from the holding companies (sub-debt), the loans were on need basis to meet the cash flow for the construction works and as on the COD and only ₹41.65 Crores have been allocated to the transmission system

as Loan from Holding Companies (sub-debt), accordingly interest has also been charged on the same amount and capitalized in IDC given above.

- e) The details of the incidental expenditure incurred by the Petitioner during the construction of the transmission line.
- f) The Petitioner company has taken various loans during the construction of the project and, thereafter, the list of all such loans has been submitted to the Commission *vide* affidavit dated 3.1.2019 and 2.1.2024.

75. PSPCL, *vide* written submissions dated 21.10.2024, has submitted the following:

- (a) There is no sanctity to the Petitioner's claim. Even as per the audited accounts of the Petitioner for FY 2010-11, the capital cost of the transmission line is reflected as ₹38,992.42 lakh only.
- (b) Certain expenditures, such as preoperative expenses and expenditure on office equipment, furniture, computers and IT equipment as claimed by the Petitioner, cannot be included in the capital cost as the same have been excluded by operation of the applicable regulations. It is relevant to note that even the other Commissions have rejected the claims towards the minor expenses, such as furniture, computers, and IT equipment.
- (c) The claim of ₹24,38,19,000/- for 'capital commitment' has not been included as a capital cost. However, it remains unclear what amount represents and why it should be allowed for capitalisation outside the provisions of the 2009 Tariff Regulations.
- (d) The Petitioner has claimed the expenditure incurred for the 'Switchyard at Pirni' as part of the capital cost. The switchyard is not part of the ISTS system; rather, it is part of the Petitioner's generating station. As a generating company, the Petitioner would have included this cost in the generating station's capital costs. Therefore, including this expenditure in the transmission line's capital cost would result in double recovery.

76. In response to the PSPCL's reply, the Petitioner *vide* its written submission dated 8.11.2024 has submitted as under:

- (a) The capital cost of the entire transmission system, including 220 kV transmission bays at both ends and the capital cost of the transmission line is required to be



considered for determining the capital cost and tariff. Accordingly, the Petitioner has claimed a capital cost of ₹41,661.36 lakh as on the COD.

(b) The pre-operative expenses and expenditure on office equipment, furniture, computer and IT equipment, etc. shall be as per the relevant regulations only.

(c) An amount of ₹41,661.36 lakh has been claimed towards the capitalisation as on the COD. Further, in terms of the regulations and the relevant tariff forms, only the amount which has been spent, as on the COD, has been claimed as capitalisation, and any amount spent subsequent to the date of the COD has been claimed as ACE.

(d) PSPCL has erred by submitting that the Switchyard at Prini is a part of the generating system and not a transmission system. Further, the 192 MW Allain Duhanagan Hydro Electric Project consists of 2x96 MW generating stations and requires only 'two' generating bays at Prini Switchyard. The other bays are only for the transmission and are in use by all the beneficiaries of the Petitioner's Transmission System. The pro-rata capital cost of the Switchyard at Prini towards transmission bays is required to be considered as part of the Petitioner's Transmission System.

77. We have considered the rival contentions. The related issues of implementation of the APTEL's judgment dated 31.10.2022 (in Appeal No. 450 of 2019) have already been addressed *vide* the Commission's order dated 19.1.2024. Similarly, the order on the interim tariff claimed by the Petitioner was passed by the Commission on 5.2.2024. In the present order, the implementation of the APTEL's judgment dated 31.8.2023 in Appeal No. 410 of 2019 will be discussed.

78. As per the TEC accorded by the CEA *vide* Office Memorandum dated 20.8.2002, the estimated cost amounting to ₹11559.70 lakh (₹8970.90 lakh + IDC ₹2503.85 lakh + FC ₹84.96 lakh) was considered as the cost of the transmission works for Allain-Duhanagan HEP (2x96 MW) against which the Petitioner has claimed the completion cost amounting to ₹41661.35 lakh (Including IDC and FC) as on the COD.



The completion cost claimed by the Petitioner as of the COD significantly exceeds the estimated cost as per the TEC clearance granted by the CEA. The Petitioner has contended that initially, the PGCIL had granted the LTOA at the Parbati Pooling Point, which was subsequently shifted to the Nalagarh PGCIL Sub-station due to delays in commissioning the Parbati Pooling Point during construction activities at the generating stations. Consequent upon this revision in LTOA due to the non-availability of the Parbati Pooling Point, the Petitioner was obligated to construct a 176.5 km long transmission line from Allain-Duhangan HEP to Nalagarh instead of the earlier 65 km transmission line from Allain-Duhangan HEP to the Parbati Pooling Point. Further, the Petitioner has submitted that, in establishing a 176.5 km long transmission line from its generating plant to Nalagarh, it was required to construct approximately 580 transmission towers due to the hilly terrain. Most of these towers were constructed in highly inaccessible and inhospitable locations due to the difficult terrain traversed by the transmission line, necessitating extensive manual labour and construction.

79. The Petitioner has further submitted that a substantial amount of compensation was paid by the Petitioner for the land falling in the corridor of this transmission line, more particularly in the stretch between Manali and Mandi because this area comprises the most fertile and expensive land having a significant amount of fruit orchards, specially of world-class quality apples, which command a premium over the other agricultural land. The transmission line was to pass through a large number of such orchards and, in return, the Petitioner was obliged to pay considerable compensation towards private land for the right of use during the peak season of fruit flowering. Furthermore, the terrain in question constitutes some of the finest forested areas, necessitating the payment of substantial amounts to the Forest Department for the diversion of forest land, given the large number of trees that required felling or were otherwise affected. The Petitioner has also submitted that, owing to the challenging



terrain, significant expenditure was incurred on civil works to ensure the protection of the towers and the land upon which the towers are situated. A major portion of the civil works cost for the switchyard was likewise attributable to extensive protection works, necessitated by its proximity to the riverbed in a snow-bound area. To arrive at the admissible capital cost as per the 2009 Tariff Regulations, we deem it appropriate to mention the relevant Regulations. The relevant provisions of the 2009 Tariff Regulations are as under:

“7. Capital cost.

.....
(2) *The capital cost admitted by the Commission after prudence check shall form the basis for determination of tariff:*

Provided that in case of the thermal generating station and the transmission system, prudence check of capital cost may be carried out based on the benchmark norms to be specified by the Commission from time to time:

Provided further that in cases where benchmark norms have not been specified, prudence check may include scrutiny of the reasonableness of the capital expenditure, financing plan, interest during construction, use of efficient technology, cost over-run and time over-run, and such other matters as may be considered appropriate by the Commission for determination of tariff.....”

80. From the above, it is noted that the Commission did not prescribe any benchmark norms for the determination of capital cost. Consequently, a prudence check of the capital cost has been undertaken based on the Petitioner's submissions.

81. It has been observed that, as per the TEC approved by the CEA vide Office Memorandum dated 20.8.2002, the 220 kV D/C with AAAC conductor transmission lines from Allain-Duhangan to Nalagarh were considered for the 2x96 MW (192 MW) AD Hydro Electric Project. Also, as per Clause No. 3(vii) of the TEC, the project authority is required to furnish the revised completion cost to the CEA if PGCIL decides to terminate the line at the Parbati Pooling Point. Therefore, it is evident from the TEC of the AD Hydro Project that the estimated cost mentioned for the transmission works in the TEC was considered, keeping in mind the development/construction of 185 km transmission



lines from AD HEP for terminating the Station at Nalagarh. Subsequent to the shift of the earlier Long-Term Open Access (LTOA) from the Parbati Pooling Station to the Nalagarh Sub-station, effected by PGCIL, and as per Clause No. 3(vii) of the TEC, the Petitioner has not sought approval for the revised cost estimate from the CEA.

82. The Petitioner has submitted CEA's OM dated 20.8.2002 (TEC of AD Hydro Project), wherein the estimated completion cost of 2X96 MW AD HEP is ₹92,235.50 lakh, including the cost of the transmission works of ₹8,970.90 lakh. In contrast, the completion cost of the instant transmission asset claimed by the Petitioner as on 31.3.2014 is ₹41,661.35 lakh.

83. The Petitioner has submitted that the CEA had approved the cost of 220 kV Chhaur-Banala Transmission Line of HPTCL in 2010 at an estimated cost of ₹300 lakh per km, whereas the Petitioner has completed the work at a cost of ₹237 lakh, including 5 Nos. of 220 kV bays. Upon examination of the capital cost details for the Chhaur-Banala Transmission Line, it has been observed that the capital cost as per DPR was ₹4,487 lakh and the capital cost approved by HPERC was ₹7,643 lakh. The COD of the 220 kV D/C Chhaur-Banala Transmission Line was 24.7.2019, whereas the COD of the instant transmission asset is 16.9.2010; therefore, the capital costs of both the assets are not comparable as they were implemented in different time frames.

84. Additionally, the Petitioner has placed on record Form-5, wherein the capital cost as per the original estimate has been submitted, albeit without reference to the unit rates. The Petitioner has submitted the reasons for variation as under:

(₹ in lakh)					
Sl. No.	Particulars	Cost as per original Estimate	Cost as on COD	Variation	Reasons for variation
A.	Transmission Line				
A.1	Design and Engineering	0.00	1620.00	1620.00	Not submitted
A.2	Preliminary	2015.00	10300.00	8285.00	Due to an



	investigation, Right of way, Forest Clearance, PTCC, General civil works etc.				increase in RoW compensation, forest charges and rates for civil items
A.3	Tower Steel	2525.00	4546.00	2021.00	Due to an increase in the cost of tower material
A.4	Erection, Stringing & Civil works including foundations	594.00	9185.00	8591.00	Due to an increase in cost of cement, steel, and labour charges in Himachal Pradesh
B	Interest During Construction (IDC)	2503.00	6404.00	3901.00	

85. As per the Form-5 details, the Petitioner, as per original estimate, has not mentioned any amount towards the design and engineering; however, an amount of ₹1,620.00 lakh has been ₹1,620.00 lakh has been claimed as on the COD under this category which means that zero cost as per the original estimate shows that the cost belongs to the generation plant and it is a part of the generation tariff. Further, the Petitioner has not submitted any reason for the provision of no-cost design and engineering. Accordingly, we are not inclined to allow the cost of ₹1,620.00 lakh towards design and engineering.

86. As regards the preliminary investigation, right of way, forest clearance, PTCC, and general civil works, etc., the Petitioner had estimated an amount of ₹2,015.00 lakh and the cost incurred as on the COD is ₹10,300.00 lakh. The Petitioner has submitted that an incremental amount of ₹8,285.00 lakh is attributable to increased compensation for right of way, enhanced forest charges, and escalated rates for civil works. For the construction of this transmission line and according to the corridor requirement of 35

meters as per the forest norms, the Petitioner was required to pay substantial land compensation for approximately 580.65 hectares towards the forest and private land, as per the following table:

Cost of Land	
Description	Amount in Rs. In Lacs
Compensation and other expenses related to forest land	5046.49
Payment for right of use of private land	5253.98
Total	10300.47

87. It has been noted that out of the total of ₹10,300.00 lakh, the Petitioner was required to pay ₹ 5046.49 lakh towards the land compensation and other expenses related to the forest land. Upon examination of the documents submitted by the Petitioner, it is observed that the Petitioner applied for the diversion of 64.3258 Ha & 152.8615 Ha of the Forest Land for laying of the 220 kV D/C Transmission Line from Prini to Panarsa/Banala (Parbati Pooling Point) & from Panarsa/Banala (Parbati Pooling Point) to Nalagarh, whereas, the Petitioner has submitted only details about the diversion of 37.629 ha. of forest land and has submitted the payment details of ₹2,57,33,600/-, 11,89,24970/- and 6,00,67,490/-. It is noted that the Petitioner obtained forest clearances on 15.4.2009 and 15.5.2009, but has not submitted the payment details for the period from 2005 to 2009. Accordingly, the compensation and other expenses related to the forest land, amounting to ₹5046.49 lakh, are provisionally allowed, subject to the Petitioner submitting complete details of the forest land diversion and corresponding payment evidence, with valid documentary proof, during the truing-up process. The same shall be reviewed at that time of truing up.

88. Further, an amount of ₹5253.98 lakh has been incurred for the payment for the right of use of private land. We have gone through the Petitioner's submissions of the Petitioner. The Commission specifically directed the Petitioner to submit the



documentary evidence in support of its claim. The Petitioner has not submitted any supporting documents regarding the payment for the right of use of private land. Due to the non-submission of the supporting documents, we are not inclined to allow the cost towards the right of use of the private land under the head of the transmission line. Notwithstanding, the Petitioner is granted liberty to submit supporting documents during the truing-up stage, at which time the matter will be duly reconsidered.

i. Whether the capital cost of bays at Prini Switchyard is part of the transmission line or not?

89. It has been observed that, as per the TEC accorded by the CEA *vide* OM dated 20.8.2002, the bays at Prini Sub-station and Nalagarh Sub-station were considered as a part of the AD Hydro Generating Station. The relevant extracts of CEA OM dated 20.8.2002 are as under:

15. GENERATOR

Type	-	Vertical Shaft Synchronous Machine
Numbers	-	2
Rated capacity	-	106.7 MVA
Speed	-	600 RPM

16. SWITCHYARD (220 KV)

Generation bays	-	2 Nos.
Station Transformer	-	1 No.
Bus Coupler bays	-	1 No.
Line Bays	-	4 Nos. (2 Nos. 220 kV line bays are For terminating line at Nalagarh Sub-Station)

[Signature]
20/8

17. TRANSMISSION LINES

Numbers

220 KV Double Circuit with AAAC
Conductor from Allain Duhangan to
Nallagarh

Terminating Station
Length of Line

Nalagarh in Himachal Pradesh
185 Km

18. Design Energy

678.18 GWh.

lll
20/8

90. Taking into consideration the CEA's OM dated 20.8.2002, the switchyard, which included all the bays of Prini and Nalagarh, does not form part of the transmission line.

91. In view of the above discussion, we are of the view that the pro-rata capital cost amounting to ₹3113.00 lakh is to be considered against 3 Nos. bays (2 Nos. of 220kV Line Bays and 1 No. of 220kV Bus Coupler Bay) at Prini Sub-station should be accounted for as part of the capital cost for the 2x96 MW AD Hydro Generating Station. Accordingly, the Commission is not inclined to recognize the said three 220 kV Bays (02 Nos. 220 kV Line Bays and 01 No. 220 kV Bus Coupler Bay) at Prini Sub-station as a part of the transmission works for the 2x96 MW AD Hydro Generating Station and, hence, the capital cost amounting to ₹3113.00 lakh claimed by the Petitioner against the aforementioned bays at Prini Sub-station is not allowed as a part of the capital cost of the transmission system.

ii. Whether the Capital Cost claimed by the Petitioner towards 2 Nos. bays at Nalagarh Sub-station are justifiable or not?

92. The Petitioner has claimed an amount of ₹818.67 lakh towards the bays at Nalagarh Sub-station, and the same is also part of the generating station switchyard as per the CEA TEC. However, since 2 Nos. of 220 kV bays at Nalagarh are physically not



located at the Generation Switchyard, the capital cost towards the 2 Nos. 220 kV bays at Nalagarh are allowed as a part of the transmission line.

93. As per the above discussion, the capital cost claimed by the Petitioner is provisionally allowed, subject to the prudence check of the above-mentioned items, and is as follows:

(₹ in lakh)			
Sr. No.	Description	Amount	Remarks
1	Capital cost claimed by the Petitioner as on the COD	₹41,661.35*	-
2	Capital cost disallowed on account of the Design and Engineering under the head of Transmission line (-)	₹1620.00	The Petitioner has not provided any justification for the omission of costs related to Design and Engineering. Accordingly, the cost towards Design and Engineering is not allowed
3	Capital cost disallowed on account of the payment for the right of use of the private land under the head of Transmission line (-)	₹5253.98	The Petitioner is granted the liberty to submit valid documentary evidence at the time of truing-up. The same will be reviewed during the truing-up process; however, it is not allowed at this stage.
4	Capital cost disallowed against 03 Nos. bays (02 Nos. 220 kV Line Bay and 01 No. 220 kV Bus Coupler bay) at Prini Sub-station. (-)	₹3,113.00	As per the TEC of 2x96 MW AD Hydro Generating Station given by CEA, the works are not a part of the Transmission Line. We are not inclined to treat these three 220 kV bays at Prini Substation as part of the transmission system and is part of the.
5	Net capital cost {(1)-(2)-(3)-(4)}	₹31674.37	

****The Capital Cost of ₹41661.35 lakh claimed by the Petitioner included the Cost of ₹818.67 lakh towards bays at Nalagarh Sub-station.***

94. The details of the capital cost of ₹31,674.37 lakh (excluding IDC and IEDC) considered for further analysis, subject to the prudence check of the cost variation of certain items at the time of truing up are as follows:



(₹ in lakh)

Sl. No.	Description	Amount	Remarks
1	Preliminary investigation, right of way, forest clearance, PTCC, general civil works etc.	₹ 5046.49	The compensation and other expenses related to forest land, amounting to ₹5,046.49 lakh, are provisionally allowed. This is subject to the submission of complete details regarding the forest land, payment particulars, and valid documentary evidence at the time of truing-up. The admissibility of this amount will be reviewed during the truing-up process.
2	Transmission line Material	₹ 17682.31	-
3	Civil works associated with Nalagarh Switchyard	₹ 250.00	-
4	Sub-station Equipment's associated with Nalagarh Switchyard	₹ 568.67	-
	Total Cost	₹ 23547.47	

95. Further, the details of element-wise capital cost as on the COD (excluding IDC and IEDC) allowed for the 2009-14 tariff period are as follows:

(₹ in lakh)

Particulars	Capital Cost as on COD
Leasehold Land	0.00
Building and Other Civil Works	250.00
Transmission Line	22728.80
Sub-station	568.67
Total (Excluding IEDC and IDC)	23547.47

96. The Petitioner, *vide* affidavit dated 3.1.2019, has submitted that the entire liability pertaining to the IDC, IEDC, and hard cost has been discharged on a cash basis as on the actual COD.

97. Accordingly, the capital expenditure as on the actual COD (16.9.2010) as allowed hereinabove, is being considered for the calculation of the transmission charges.

Time Overrun

98. The Petitioner, *vide* affidavit dated 2.1.2024, has submitted that the transmission system considered in the instant Petition was a part of the composite scheme of 192 MW Allain Duhangan HEP allotted to the Petitioner. In accordance with the terms of the TEC approval, Units 1 & 2 were scheduled to be commissioned in April 2008 and June 2008. Therefore, the SCOD for the transmission system was April 2008. The transmission line was ultimately commissioned on 16.9.2010. The reasons submitted by the Petitioner for the delay are as under:

- a) The TEC was accorded by CEA to set up 2x96 MW (192 MW) Allain-Duhangan Hydro Electric Project in Himachal Pradesh *vide* letter dated 20.8.2002. The TEC included a 220kV double circuit transmission line for the evacuation of power from the Petitioner's project to Nalagarh (Pooling point of CTUIL) along with conditions stipulated in Condition No. vii that:

"POWERGRID after route survey shall confirm the adequacy of land for construction of Parbati Pooling Point, and accordingly, the decision of taking the line from Allain Duhangan to Parbati Pooling Point instead of Allain Duhangan to Nalagarh shall be reviewed. In case, it is decided to terminate this line at Parbati Pooling point, the Project Authorities would have to furnish the revised completed cost to CEA."

- b) Accordingly, the Petitioner, *vide* letter dated 18.7.2005 made an application to PGCIL for the grant of Long Term Open Access (LTOA) at Parbati Pooling Point for the transfer of its power. PGCIL, *vide* letter dated 21.7.2006, granted LTOA to the Petitioner at Parbati Pooling Point. Pursuant to this LTOA, the Petitioner was required to construct a transmission system only for a length of approximately 65 km from its generating plant to the Parbati Pooling point at Panarsa.
- c) The CEA *vide* letter dated 14.8.2006 informed the Petitioner that it had taken up the issue regarding transmission system for power evacuation from the



Petitioner's Power Plant with the PGCIL and asked the PGCIL to take immediate action for implementation of at least one circuit of 400 kV Parbati (II)-Koldam line and if they anticipate any delay in commencement of work on Parbati(II)-Koldam line, the Petitioner may be permitted the connectivity at Nalagarh for 220 kV. Accordingly, the CEA advised the Petitioner to take the matter further with the PGCIL.

d) The CEA, *vide* letter dated 12.10.2006, advised PGCIL as under:

- i. Permit the Petitioner connectivity at Nalagarh at 220 kV in view of the delay anticipated in the 400 kV Parbati-Koldam Line and the switching station at Panarsa (Parbati pooling point).
- ii. Take up the needful action to resolve the issues relating to the execution of the transmission system for Parbati-II and Parbati-III so that the delay of the transmission system does not become a bottleneck for other ongoing future projects.
- iii. The Petitioner would now be injecting power into the regional transmission system at 220 kV at CTUIL's Nalagarh Sub-station.
- iv. Time schedule for commissioning of the Panarsa Pooling Station (Parbati Pooling Point) may be tied up with the other ongoing and future projects in the region.

99. Pursuant to the advice of the CEA and discussions held on 25.4.2007, PGCIL *vide* letter dated 26.4.2007 granted the change in LTOA to the Petitioner at Nalagarh. Consequent upon this revision in LTOA due to the non-availability of Parbati Pooling Point, the Petitioner was now required to construct the 176.5 km long transmission line up to the Nalagarh instead of the 65 km transmission system up to the Parbati Pooling Point.

100. The Petitioner has further submitted that it was necessary to re-survey the entire transmission line route for assessment of the proposed route, private land, forest land,



and other factors across four districts in the State of Himachal Pradesh, out of which at least two districts are notably rich in forest, horticulture, and agriculture, with very high land costs

101. The Petitioner, vide letter dated 25.6.2007, approached the MoP for approval under Section 68 (1) of the Act to construct the 220 kV Allain-Duhangan- Nalagarh 220 kV double circuit line. The MoP vide letter dated 21.8.2007 accorded the approval for the construction of the Petitioner's transmission line as the Associated Transmission System of Allain-Duhangan HEP.

102. After the survey of the route of the transmission line, a forest proposal was submitted to the State Government on which the MOEF accorded its final approval under the Forest Conservation Act 1980 on 15.4.2009 for diversion of 64.3258 Ha of Forest Land from Pirini to Panarsa/Banala (Parbati Pooling Point) and on 15.5.2009 for diversion of 152.8615 Ha of Forest Land from Panarsa/Banala (Parbati Pooling Point) to Nalagarh (CTUIL Pooling Point).

103. The SCOD for the transmission system, as per the TEC, was April 2008, PGCIL, vide letter dated 26.4.2007, granted the change in LTOA to the Petitioner at Nalagarh, pursuant to which the Petitioner took the necessary approvals and constructed the transmission line to match the commissioning schedule of EPPL. The Petitioner's transmission line was commissioned on 16.9.2010, and the delay was not in the hands of the Petitioner.

104. Having considered the submissions made by the Petitioner and the documents on record, it is noted that as per the TEC accorded by the CEA vide Office Memorandum dated 20.8.2002, the instant transmission system was part of the composite scheme of 192 MW Allain-Duhangan HEP allotted to the Petitioner. In accordance with the TEC



approval, Units 1 & 2 were scheduled to be commissioned in April 2008 and June 2008, respectively. Therefore, considering the availability of the transmission line along with the commissioning of the 1st Unit, the SCOD for the transmission system was April 2008, against which the transmission line was commissioned on 16.9.2010, i.e., with a time overrun of 869 days (taking into consideration 30.4.2008 as the SCOD of the Transmission System).

105. The Petitioner has submitted that, after the route survey of the transmission line, a forest proposal was submitted to the State Government, against which the MOEF has accorded its final approval under the Forest Conservation Act 1980 on 15.4.2009 and 15.5.2009 for diversion of 64.3258 Ha & 152.8615 Ha of Forest Land for laying of 220 kV D/C transmission line from Prini to Panarsa/Banala (Parbati Pooling Point) & from Panarsa/Banala (Parbati Pooling Point) to Nalagarh (CTU Pooling Point) respectively.

106. It has been observed that, as per the TEC accorded by the CEA *vide* Office Memorandum dated 20.8.2002, the 01st & 02nd unit of the AD Hydro Electric Project was scheduled to be commissioned in April 2008 and June 2008, respectively. The Petitioner has applied for the grant of the LTOA to PGCIL on 18.7.2005 and, accordingly, PGCIL granted the LTOA at the 400kV bus of Parbati Pooling Station of PGCIL on 21.7.2006. However, due to the delay in completing the Parbati Pooling Sub-station, the CEA advised PGCIL to provide connectivity to Allain-Duhangan at 220 kV at Nalagarh. Accordingly, PGCIL *vide* letter dated 26.4.2007 revised the LTOA and shifted the point of injection of power from the 400kV bus of the Parbati Pooling station to the 220kV Bus of the Nalagarh Sub-station of PGCIL. Further, it has been observed that the approval under Section 68(1) of the Act for the construction of the 220kV D/C Allain-Duhangan-Nalagarh Transmission Line as Associated Transmission System (ATS) was accorded by the MoP *vide* office letter dated 21.8.2007. The final approval for diversion of 64.3258



Ha and 152.8615 Ha of the Forest Land for laying of the 220kV D/C transmission line from Prini to Panarsa/Banala (Parbati Pooling Point) & from Panarsa/Banala (Parbati Pooling Point) to Nalagarh (CTUIL Pooling Point) was accorded by the MOEF on 15th 15.4.2009 and 15.5.2009, respectively.

107. A perusal of the documents reveals that the 'In Principle' approval for diversion of 64.3258 Ha and 152.8615 Ha of the Forest Land for laying of the 220 kV D/C transmission line from Prini to Panarsa/Banala (Parbati Pooling Point) & from Panarsa/Banala (Parbati Pooling Point) to Nalagarh (CTUIL Pooling Point) was already accorded by the MOEF on 21.10.2008 & 27.2.2009, respectively. The same is also evident from the monthly progress reports of different projects published by the CEA that the forest clearance for the transmission system of the Petitioner was received in the month of February 2009, and afterwards the work was in progress.

108. Moreover, as per Form-5C, submitted by the Petitioner, it is observed that the work for the erection, testing, and commissioning of the 220 kV D/C transmission line from Allain-Duhangan-Pansara was completed on 15.12.2009. Further, it is evident from Form-5C that the work for the supply and erection of 2 Nos. Critical Towers was awarded to L&T on 19.3.2010, and the said work was completed on 18.8.2010.

109. Further, it has been observed that the work for Design, Manufacturing, Supply, Installation & Service of civil-related works for the 220 kV Nalagarh Switchyard was awarded on 1.7.2008, i.e., after the SCOD and the said work was completed on 7.8.2010. Also, the work for the supply of LT Powers & Control Cables for Nalagarh Switchyard was awarded in phases after the SCOD, i.e., on 18.7.2009, 9.3.2010, 8.5.2010, 23.7.2010 and the said work was completed from June to August 2010.

110. As discussed above, we are of the view that after the shifting of the LTOA from



the Parbati Pooling Sub-station to the 220 kV Nalagarh Sub-station by PGCIL *vide* letter dated 26.4.2007, the Petitioner diligently pursued approvals from MoP as well as forest clearance from the concerned authorities. Accordingly, after the grant of approval from the MoP *vide* letter dated 21.8.2007 and 'In Principle' approval of diversion of Forest Lands from the MOEF on 21.10.2008 and 27.2.2009, the maximum work of 220 kV D/C transmission line from Allain-Duhangan-Nalagarh was completed on 15.12.2009. However, ancillary works associated with the Nalagarh Switchyard and the supply & erection of 2 Nos. critical towers were awarded by the Petitioner after the SCOD, i.e., April 2008 and the said work was completed by 31.8.2010.

111. The instant transmission line is a dedicated transmission line constructed for the evacuation of 192 MW of the AD Hydro Generation Project. The Petitioner obtained final forest clearance on 15.4.2009 and 15.5.2009, and subsequently took approximately 17 months to commission the instant transmission asset. The Petitioner commissioned the dedicated transmission line along with the generation project on 16.9.2010. Therefore, the time overrun of the transmission line is condoned because, even if the Petitioner had commissioned the dedicated transmission line without commissioning the generating plant, the transmission line would not have been put to use.

Treatment of IDC and IEDC

112. The Petitioner, *vide* Auditor's Certificate dated 6.11.2018, has claimed the IDC of ₹6416.90 lakh. The Commission, *vide* RoP for hearing dated 5.6.2024, directed the Petitioner to submit the details of IDC and IEDC. In response, the Petitioner has submitted the details of IDC. However, there are certain discrepancies in the details/information submitted by the Petitioner, such as the quarter-wise total drawl amount claimed is the same throughout the construction period, finance charges being



claimed in the name of miscellaneous (others), etc., without any details/justification. Further, the Petitioner has stated that the IDC claimed includes amounts attributable to loans availed from its holding company, totalling ₹6,416.90 lakh, inclusive of IDC on such loans. It is noted that the Petitioner did not disclose this borrowing arrangement with the holding company in its initial tariff claim, and has now only disclosed it at this stage via affidavit dated 19.6.2024, without submitting the relevant loan agreements specifying terms, conditions, and interest rates. The Petitioner should have disclosed this arrangement of availing a loan from the holding company at the time of filing the instant Petition. Further, complete data for the calculation of the IDC, such as date-wise drawl of loans, prevailing rate of interest, and actual repayment of loans, etc., is not available, due to which detailed analysis of IDC could not be made.

113. As decided above, we have disallowed the capital cost claimed under the heads Design and Engineering, payment for the right of use of private land and 03 Nos. bays at Prini Sub-station. Therefore, the IDC must also be computed using the capital cost allowed above. Accordingly, keeping in view the above discrepancies, the IDC of ₹6416.90 lakh claimed is considered on a pro-rata basis of the hard cost allowed. The same has been summarised along with the IEDC allowed in the table after the paragraph on IEDC. The IDC allowed shall be reviewed at the time of truing up. The Petitioner is directed to provide comprehensive computations of IDC, including the particulars of each loan (names, dates of drawl, interest rates, repayment schedules) and the terms and conditions governing borrowings from all sources, including holding companies and financial institutions, at the truing-up stage.

114. The Petitioner has claimed ₹1710.00 lakh (₹695.00 lakh, as construction and pre-commissioning expenses, plus ₹1015.00 lakh, as overhead) on account of IEDC. The same is also allowed on a pro-rata basis of the hard cost allowed. Accordingly, the IDC and IEDC allowed, subject to the trued-up, are as under:



(₹ in lakh)	
IDC allowed (Pro-rata of the Hard Cost allowed)	IEDC allowed (Pro-rata of the Hard Cost allowed)
4505.87	1200.74

Treatment of the Initial Spares

115. The Petitioner, vide affidavit dated 2.1.2024, has submitted that against the capital cost of ₹43736.55 lakh as on the COD, the Petitioner has claimed only ₹41661.35 lakh by deducting the capital cost for the bays on the generating ends at Prini switchyard. The Petitioner has further submitted that the cost of the Initial Spares is to be calculated at the normative level as provided in the 2009 Tariff Regulations.

116. Regulation (8) of the 2009 Tariff Regulations provides as under:

*“(8) **Initial Spares.** Initial spares shall be Capitalised as a percentage of the original project cost, subject to following norms:*

- (i) Coal based/lignite fired thermal generating station - 2.5%
- (ii) Gas Turbine /Combined Cycle thermal generating station - 4.0%
- (iii) Hydro generating stations - 1.5%
- (iv) Transmission system
 - (a) Transmission Line - 0.75%
 - (b) Transmission Sub-station - 2.5%
 - (c) Series Compensation Devices and HVDC station - 3.5%

Provided that where the benchmark norms for initial spares have been published as part of the benchmark norms for capital cost under first provision to clause (2) of regulation 7, such norms shall apply to the exclusion of the norms specified herein.”

117. The Petitioner has not claimed any Initial Spares through the Auditor’s Certificate. However, ₹238.00 lakh has been indicated as Initial Spares, in Form-5B, corresponding to the transmission line. Further, the Plant & Machinery Cost of ₹17683.00 lakh has been considered as per Form-5B. Accordingly, as per Regulation 8(iv)(a) of 2009 Tariff Regulations, the Initial Spares are allowed as follows:



Particulars	Plant and Machinery Cost (Excluding IDC, IEDC, Land and other Civil Cost) (₹ in lakh)	Initial Spares included in Plant and Machinery Cost. (₹ in lakh)	Ceiling Limit as per Regulation 8(iv)(a) of Tariff Regulation, 2009 (in %)	Allowable Initial Spares (₹ in lakh)	Excess Initial Spares (₹ in lakh)	Initial Spares Allowed (₹ in lakh)
	(A)	(B)	(C)	$D=(A-B) * C / (100\%-C)$	$E=B-D$	D, if $B>D$, otherwise B
220 kV D/C Transmission line along with associated bays at Nalagarh and Prini Sub-station	17683.00	238.00	0.75	131.83	106.17	131.83

118. Accordingly, the total capital cost allowed as on the actual COD (16.9.2010) after adjustment of the IDC / IEDC and Initial Spares is as follows:

(₹ in lakh)					
Capital Cost as on COD claimed as per Auditors Certificate	Hard Cost allowed (A)	IDC allowed (Pro-rata of the Hard Cost allowed) (B)	IEDC allowed (Pro-rata of the Hard Cost allowed) (C)	Excess Initial Spares (D)	Total Capital Cost allowed as on Actual COD (16.9.2010) $(E)=(A+B+C-D)$
41661.35**	23547.47	4505.87	1200.74	106.17	29147.90

Claimed by the Petitioner after excluding cost towards bays at generating end at Pirni Switchyard.

Additional Capital Expenditure (ACE)

119. The Petitioner, vide affidavit dated 2.1.2024, has submitted the details of the ACE for FYs 2010-11, 2011-12, 2012-13 & 2013-14 as under:

Additional Capitalisation as on 31.03.2011 Post DOCO		
Summary	Expenditure from 17.09.2010 to 31.03.2011 Rs. Lacs	Comments
Land	(57.18)	Cost of Land, RWA and Land Acquisition expenses reversed
L&T Contractor	150.43	Being the amount paid to L&T for additional civil work for the protection work of towers.
Smile & other	415.09	Being the work awarded post commissioning and paid for various protection works of towers
Nalagarh (Sub Stn)	12.46	Being the work awarded post commissioning and paid for various works of sub-station at CTU
Other Capital Adv.	(79.26)	Being the Capital Advances reversed
POP Expenses	1.87	Being the balance POP paid during the period
Total transmission Line	443.40	

Details of Additional Capitalisation in FY 2011-12		
Summary	Addition during 11-12	Comments
Land	(22.13)	Excess provision made last year in land.
L&T	627.85	Addition during 11-12 due to Civil work done for protection of towers at various sites.
Smile & other	772.95	Addition during 11-12 is due to Civil work for protection of tower at various sites.
Nalagarh (Sub Stn)	43.46	Additional Cost incurred on sub-station bays at CTU Nalagarh
Other Capital Adv.	(2.11)	Being the Capital Advances reversed
Total transmission Line	1,420.03	

Details of Additional Capitalisation in FY 2012-13		
Summary	Addition during FY 12-13	Comments
Land (SZ&NSZ)	57.93	Addition Land procured during 12-13 for the Civil work for protection of tower at various sites.
L&T	1,119.85	addition during 12-13 is due to Civil work for protection of tower at various sites.
Smile & other	584.84	addition during 12-13 is due to Civil work for protection of tower at various sites.
Nalagarh (Sub Stn)	(7.25)	Reversed in Nalagarh sub- station in 12-13 is on account of M.B Control
Other Capital Adv.	(7.56)	Reversed due to capital expenses adjusted.
Total transmission Line	1,747.81	

Details of Additional Capitalisation in FY 2013-14		
Summary	Addition during 13-14	Comments
Land	5.01	Addition during 13-14 is due to land procurement for protection of tower at various sites.
L&T	201.93	addition during 13-14 is due to Civil work for protection of tower at various sites.
Total transmission Line	206.94	

120. The brief summary of the ACE claimed by the Petitioner is as under:

(₹ in lakh)

Projected ACE 2009-2014			
2010-11	2011-12	2012-13	2013-14
443.40	1420.02	1747.81	206.94

121. Regulation 9 of the Tariff Regulation 2009 provides as follows:

“9. Additional Capitalization:

(1) the Capital expenditure incurred or projected to be incurred, on the following counts within the original scope of work, after the date of commercial operation and up to the cutoff date may be admitted by the commission, subject to prudence check:

- (i) Undischarged Liabilities;*
- (ii) works deferred for execution;*
- (iii) procurement of initial spares within the original scope of work, subject to the provisions of regulation 8;*
- (iv) Liabilities to meet award of arbitration or for compliance of the order or decree of a court; and*
- (v) change in law:*

Provided that the details of works included in the original scope of work along with estimates of expenditure, undischarged liabilities and the works deferred for execution shall be submitted along with the application for determination of tariff.

(2) The capital expenditure incurred on the following counts after the cut-off date may, in its discretion, be admitted by the Commission, subject to prudence check:

- (i) Liabilities to meet award of arbitration or for compliance of the order or decree of a court;*
- (ii) Change in law;*
- (iii) Deferred works relating to ash pond or ash handling system in the original scope of work;*
- (iv) In case of hydro generating stations, any expenditure which has become necessary on account of damage caused by natural calamities (but not due to flooding of power house attributable to the negligence of the generating company) including due to geological reasons after adjusting for proceeds from any insurance scheme, and expenditure incurred due to any additional work which has become necessary for successful and efficient plant operation; and*
- (v) In case of transmission system any additional expenditure on items such as relays, control and instrumentation, computer system, power line carrier communication, DC batteries, replacement of switchyard equipment due to increase of fault level, emergency restoration system, insulators cleaning*



infrastructure, replacement of damaged equipment not covered by insurance and any other expenditure which has become necessary for successful and efficient operation of transmission system:

Provided that in respect sub-clauses (iv) and (v) above, any expenditure on acquiring the minor items or the assets like tools and tackles, furniture, air-conditioners, voltage stabilizers, refrigerators, coolers, fans, washing machines, heat convectors, mattresses, carpets etc. brought after the cut-off date shall not be considered for additional capitalization for determination of tariff w.e.f. 1.4.2009”

122. We have gone through the details submitted by the Petitioner against the ACE across different financial years. The year-wise analysis of the ACE is as under:

a) ACE from 17.9.2010 to 31.3.2011:

- i. The Petitioner has claimed a total ACE of ₹443.40 lakh from 17.9.2010 to 31.3.2011. The Petitioner has not submitted under which regulations the ACE has been claimed
- ii. An amount of ₹150.43 lakh paid to L&T was claimed for additional civil works related to tower protection. The Petitioner has only submitted an Auditor's Certificate in support thereof. We observe that such additional civil works do not fall under any category eligible under Regulation 9(1) of the 2009 Tariff Regulations; and consequently, the same is disallowed.
- iii. An amount of ₹415.09 lakh was also claimed for similar additional civil works paid to Smile and others, again supported solely by the Auditor's certificate. This claim is likewise disallowed for the same reasons as above.
- iv. The Petitioner has claimed an amount of ₹12.46 lakhs towards payment of various works of substation at CTUIL, and the same is allowed.
- v. An amount of ₹1.87 lakh was claimed by the Petitioner towards the balance payment of POP due to lack of sufficient proof and the same is disallowed accordingly.
- vi. Claims of the ACE of (-) ₹ 57.18 lakh and (-) ₹ 79.26 lakh against the reversal of expenses for Land and Capital Advances, respectively, are allowed.



Based on the above, we are of the view that the net ACE (-) ₹123.98 lakh is hereby allowed for the time period from 17.9.2010 to 31.3.2011.

b) ACE during FY 2011-12:

- i. The Petitioner claimed a total ACE of ₹1420.03 lakh during FY 2011-12 but did not specify the applicable regulation. Only an Auditor's certificate has been furnished. Claims amounting to ₹627.85 lakh and ₹772.95 lakh paid to L&T and Smile for additional civil work for the protection work of towers are disallowed, as such works are not covered under Regulation 9(1).
- ii. An amount of ₹43.46 lakh towards the payment of various works of the Sub-station of CTUIL, and the same are allowed.
- iii. An amount of (-) ₹2.11 lakh against the reversal of the capital advance, and as such, the same is allowed.
- iv. An amount of (-) ₹22.13 lakh against the excess provision made in the last year, and as such, the same is allowed.
- v. Based on the above, we are of the view that the net ACE of ₹19.22 lakh is allowed for the FY 2011-12.

c) ACE during FY 2012-13:

- i. The Petitioner has claimed a total ACE of ₹1747.81 lakh without specifying the relevant regulations and without producing supporting documentary evidence
- ii. The Petitioner has submitted an amount of ₹57.93 lakh claimed towards the procurement of land for the civil work for the protection of the tower at various works. However, it has failed to submit any proof towards the procurement as well as the purpose of the land procurement. Hence, the Petitioner is granted liberty to provide the evidence during truing-up.
- iii. Claims amounting to ₹1119.85 lakh and ₹584.84 lakh paid to L&T and Smile,



respectively, for additional civil work for the protection work of towers, are disallowed, as such works are not covered under Regulation 9(1) of the 2009 Tariff Regulations

- iv. The Petitioner has also claimed the ACE of (-) ₹7.25 lakh and (-) ₹7.56 lakh against the reversal of expenses for Nalagarh Sub-station and adjustment of the capital expenses, respectively. Therefore, the same are hereby allowed.
- v. Based on the above, we are of the view that the ACE (-) ₹14.81 lakh is hereby allowed for the FY 2012-13.

d) ACE during FY 2013-14:

- i) The Petitioner has claimed the COD of the transmission line as 16.9.2010, and the cut-off date of the system works out to be 16.9.2012 as per the COD claimed by the Petitioner. The 'cut-off date' as per the 2009 Tariff Regulations is defined as the 31st March of the year closing after two years of the year of commercial operation of the project, which is 31.3.2013 in the instant case. The Petitioners' claim of ACE is beyond the cut-off date. The relevant provisions of the 2009 Tariff Regulations are extracted as under:

"9. Additional Capitalisation.

.....

(2) The capital expenditure incurred on the following counts after the cut-off date may, in its discretion, be admitted by the Commission, subject to prudence check:

(i) Liabilities to meet award of arbitration or for compliance of the order or decree of a court;

(ii) Change in law;

(iii) Deferred works relating to ash pond or ash handling system in the original scope of work;....."

- ii. As per Regulation 9 (2) (i), (ii) and (iii), the claim of the Petitioner does not fall under any of the above provisions of the 2009 Tariff Regulations. The Petitioner's claim of ₹206.94 lakh is not admissible and, hence, not allowed.



(₹ in lakh)

Sr. No.	Financial Year/ Description	ACE claimed by the Petitioner	ACE not allowed by the commission	Net ACE allowed by the commission	Remarks
		(A)	(B)	C= A-B	
1	2010-11	443.40	567.39	(-)123.98	The Petitioner has also claimed the ACE of (-) ₹57.18 lakh and (-) ₹79.26 lakh against the reversal of expenses for LAND and capital advances, respectively
2	2011-12	1420.03	1400.80	19.22	
3	2012-13	1747.81	1762.62	(-)14.81	The Petitioner has also claimed the ACE of (-) ₹7.25 lakh and (-) ₹7.56 lakh against the reversal of expenses for the Nalagarh Sub-station and adjustment of capital expenses, respectively
4	2013-14	206.94	206.94	0.00	

iii. Accordingly, the ACE allowed for the 2009-14 tariff period is as follows:

(₹ in lakh)

Projected ACE 2009-2014			
2010-11	2011-12	2012-13	2013-14
(-)123.98	19.22	(-)14.81	0.00

- iv. Although the actual COD of the transmission asset is 16.9.2010, as decided above, the COD for the purpose of determination of tariff is considered as 1.8.2011. Accordingly, the ACE for FY 2011-12 has been calculated on a pro-rata basis, which has been worked out as ₹6.42 lakh and added to the capital cost up to 31.7.2011 to arrive at the capital cost as on 1.8.2011.
- v. The element-wise capital cost, as on the actual COD (16.9.2010), tariff COD (1.8.2011) and, thereafter, up to 31.3.2014, considered for the purpose of tariff during the 2009-14 period, is as under:

Capital Cost as on Actual COD (16.9.2010) and up to Tariff COD (1.8.2011)

(₹ in lakh)

Capital Cost Claimed as on 31.03.2014	Capital Cost allowed as on Actual COD (16.9.2010) (A)	ACE		Capital Cost allowed as on 1.8.2011 (Tariff COD) (D) = (A+B+C)
		2010-11 (B)	2011-12 (1.4.2011 to 31.7.2011) (C)	
45479.52	29147.90	-123.98	6.42	29030.35



Capital Cost as on Tariff COD (1.8.2011) and up to 31.3.2014

(₹ in lakh)

Capital Cost allowed as on 1.8.2011 (Tariff COD) (A)	ACE			Capital Cost allowed as on 31.3.2014 (E)=(A+B+C+D)
	2011-12 (1.8.2011 to 31.3.2012) (B)	2012-13 (C)	2013-14 (D)	
29030.35	12.80	-14.81	0.00	29028.33

Debt-Equity Ratio

123. As per Form-6, submitted by the Petitioner *vide* affidavit dated 29.2.2024, the debt-equity ratio considered as on the COD (16.9.2010) is 71:29. Further, the debt-equity ratio for the ACE is not mentioned in the Petition, therefore, the same debt-equity ratio, i.e., 71:29 has also been considered for the ACE during the 2009-14 tariff period subject to the submission of the actual position at the time of truing up.

124. Accordingly, the debt-equity ratio considered as on the actual COD (16.9.2010), Tariff COD (1.8.2011) and 31.3.2014 for calculating the transmission tariff for the 2009-14 period is as under:

(₹ in lakh)

Funding	Capital Cost as on Actual COD (16.9.2010)	(in %)	Capital Cost as on Tariff COD (1.8.2011)	(in %)	Capital Cost as on 31.3.2014	(in %)
Debt	20695.01	71.00	20611.55	71.00	20610.12	71.00
Equity	8452.89	29.00	8418.80	29.00	8418.21	29.00
Total	29147.90	100.00	29030.35	100.00	29028.33	100.00

Depreciation

125. The transmission line was put under commercial operation on 16.9.2010. However, as mentioned earlier in this order, the tariff is to be determined from 1.8.2011 based on the capital cost as on 16.9.2010, ACE from 16.9.2010 to 31.7.2011 and cumulative depreciation up to 31.7.2011.

126. Accordingly, the Petitioner's entitlement to depreciation has been considered on the following basis:



- a. Cumulative depreciation of ₹1334.49 lakh as worked out as on 31.7.2011 has been considered as on 1.8.2011.
- b. Weighted Average Life (WAL) is worked out as 34 years based on the actual COD of the transmission asset as on 16.9.2010.
- c. Depreciation for the tariff period has been calculated annually based on the Straight-Line Method and at the rates specified in the 2009 Tariff Regulations.

127. The depreciation allowed for the 2009-14 tariff period is as follows:

Sl. No.	Particulars	(₹ in lakh)		
		2011-12 (Pro-rata for 244 days)	2012-13	2013-14
A	Opening Gross Block	29030.35	29043.14	29028.33
B	Additional Capitalisation	12.80	-14.81	0.00
C	Closing Gross Block (A+B)	29043.14	29028.33	29028.33
D	Average Gross Block (A+C)/2	29036.75	29035.74	29028.33
E	Freehold Land	0.00	0.00	0.00
F	Weighted Average Rate of Depreciation (WAROD) (in %)	5.2592	5.2592	5.2592
G	Balance useful life of the asset at the beginning of the year (Year)	34	33	32
H	Lapsed life of the asset at the beginning of the year (Year)	0	1	2
I	Aggregated Depreciable Value (D*90%)	26133.07	26132.16	26125.50
J	Depreciation during the year (D*F)	1018.08	1527.06	1526.67
K	Cumulative Depreciation at the end of the year	2352.57	3879.63	5406.30
L	Remaining Aggregated Depreciable Value at the end of the Year (I-K)	23780.50	22252.53	20719.20

Interest on Loan (IoL)

128. The Petitioner, vide affidavit dated 3.1.2019, has submitted that the transmission line under consideration was initially a dedicated transmission line forming part of the generating station. However, the Petitioner has not provided separate details evidencing a standalone infusion of debt specifically for the transmission line

129. The Petitioner has submitted the calculation of the Weighted Average Rate of Interest (WAROI) for actual loans across the entire project, including generation. The Petitioner has claimed the IoL based on the actual interest rates applicable to each year of the 2009-14 tariff period.



130. We have considered the Petitioner's submissions in support of the interest rates; however, the Petitioner's adjustments to the interest rates have not been considered. Accordingly, the interest rates will be reviewed at the time of truing up.

131. The repayment for the 2009-14 tariff period is deemed to be equal to the depreciation allowed. Accordingly, the cumulative repayment of ₹1334.49 lakh, equal to the cumulative depreciation as worked out above, has been considered as on 31.7.2011 as per the 2009 Tariff Regulations.

132. The IoL for the 2009-14 tariff period for the transmission asset has been worked out and allowed as per the methodology provided in Regulation 16 of the 2009 Tariff Regulations, and the same are as follows:

Sl. No.	Particulars	(₹ in lakh)		
		2011-12 (Pro-rata for 244 days)	2012-13	2013-14
A	Gross Normative Loan	20611.55	20620.63	20610.12
B	Cumulative Repayments up to Previous Year	1334.49	2352.57	3879.63
C	Net Loan-Opening(A-B)	19277.05	18268.06	16730.49
D	Addition due to Additional Capitalization	9.09	-10.52	0.00
E	Repayment during the year	1018.08	1527.06	1526.67
F	Net Loan-Closing (C+D-E)	18268.06	16730.49	15203.82
G	Average Loan (C+F)/2	18772.56	17499.27	15967.15
H	Weighted Average Rate of Interest on Loan (in %)	11.4428	10.9140	11.2526
I	Interest on Loan (G*H)	1432.07	1909.88	1796.72

Return on Equity (RoE)

133. As per Form-3, the Petitioner has claimed the base rate of RoE at 16% and has grossed it up with the prevailing MAT rate for the respective years.

134. On perusal of the audited accounts from 2009-10 to 2013-14, as submitted by the Petitioner, it is observed that the Petitioner's Company incurred losses and no tax payment was made during the 2010-14 period. Consequently, the RoE has not been allowed to be grossed-up with the MAT as considered by the Petitioner. The same shall be reviewed at



the time of truing up. The Petitioner is directed to submit copies of the income tax returns filed during the 2009-14 tariff period, along with other relevant supporting documents, in a sealed cover at the time of truing up.

135. The RoE allowed for the 2009-14 tariff period for the transmission asset, as per the methodology provided in Regulation 15 of the 2009 Tariff Regulations, is as follows:

(₹ in lakh)				
Sl. No.	Particulars	2011-12 (Pro-rata for 244 days)	2012-13	2013-14
A	Opening Equity	8418.80	8422.51	8418.22
B	Addition due to ACE	3.71	-4.29	0.00
C	Closing Equity (A+B)	8422.51	8418.22	8418.22
D	Average Equity(A+C)/2	8420.66	8420.36	8418.22
E	Return on Equity (Base Rate) (in %)	15.50	15.50	15.50
F	Tax Rate applicable (in %)	0.00	0.00	0.00
G	Rate of Return on Equity (Pre-tax) (in %)	15.50	15.50	15.50
H	Return on Equity (Pre-tax) (D*G)	870.13	1305.16	1304.82

Operation & Maintenance Expenses (O&M Expenses)

136. The Petitioner has claimed the O&M Expenses as under:

(₹ in lakh)				
Particulars	2010-11	2011-12	2012-13	2013-14
O&M Expenses	131.71	258.13	272.83	288.40

137. Regulation 19 (g) of the 2009 Tariff Regulations provides as under:

“(g) Transmission System

(i) Norms for Operation and maintenance expenses shall be as under:

Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Norms for sub-station Bays (₹ Lakh per bay)					
765 kV	73.36	77.56	81.99	86.68	91.64
400 kV	52.40	55.40	58.57	61.92	65.46
220 kV	36.68	38.78	41.00	43.34	45.82
132 kV and below	26.20	27.70	29.28	30.96	32.73
Norms for AC and HVDC lines (₹ Lakh per km)					
Single Circuit (Bundled conductor with four or more sub-conductors)	0.537	0.568	0.600	0.635	0.671
Single Circuit (Twin & Triple Conductor)	0.358	0.378	0.400	0.423	0.447
Single Circuit (Single Conductor)	0.179	0.189	0.200	0.212	0.224
Double Circuit (Bundled conductor	0.940	0.994	1.051	1.111	1.174

Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
<i>with four or more sub-conductors)</i>					
Double Circuit (Twin & Triple Conductor)	0.627	0.663	0.701	0.741	0.783
Double Circuit (Single Conductor)	0.269	0.284	0.301	0.318	0.336
Norms for HVDC stations					
HVDC Back-to-Back stations (₹ Lakh per 500 MW)	443.00	468.00	495.00	523.00	553.00
Rihand-Dadri HVDC bi-pole scheme (₹ Lakh)	1450.00	1533.00	1621.00	1713.00	1811.00
Talcher-Kolar HVDC bi-pole scheme (₹ Lakh)	1699.00	1796.00	1899.00	2008.00	2122.00

(ii) The Total allowable operation and maintenance expenses for the transmission system shall be calculated by multiplying the number of bays and kms of line length with the applicable norms for the operation and maintenance expenses per bay and per km respectively.”

138. As the tariff is being determined w.e.f. 1.8.2011, considering the 220 kV D/C ADHPL Prini-CTUIL Nalagarh transmission line under the instant transmission asset, the O&M Expenses as per Regulation 19(g) of the 2009 Tariff Regulations, have been allowed as follows:

Particulars	(₹ in lakh)		
	2011-12 (Pro-rata for 244 days)	2012-13	2013-14
220 kV D/C ADHPL Prini- CTUIL Nalagarh Transmission Line			
D/C Single Conductor Transmission Line (km)	176.50	176.50	176.50
Regulation 19(g) of the 2009 Tariff Regulations,	0.301	0.318	0.336
O&M Expenses	35.51	56.13	59.30
220 kV Bays at CTUIL Nalagarh			
220 kV Bays	2	2	2
Regulation 19(g) of the 2009 Tariff Regulations	41.00	43.34	45.82
O&M Expenses	54.82	86.68	91.64
Total O&M Expenses	90.33	142.81	150.94

Interest on Working Capital

139. The rate of IWC considered by the Petitioner for the purpose of computation of tariff is 11.00%.

140. As discussed earlier in this order, the tariff for the transmission asset is to be determined with effect from 1.8.2011. However, the transmission asset was put into

commercial operation on 16.9.2010. Accordingly, the parameters applied for tariff purposes from 1.8.2011 to 31.3.2014 are based on the asset's actual COD (16.9.2010).

141. Consequently, as per the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) (Second Amendment) Regulations, 2011 dated 21.6.2011, the IWC rate considered is 11.00% (SBI Base Rate applicable as on 1.7.2010 of 7.50% plus 350 basis points).

142. The IWC allowed for the 2009-14 tariff period for the transmission asset, as per the methodology provided in Regulation 18 of the 2009 Tariff Regulations, is as follows:

(₹ in lakh)				
Sl. No.	Particulars	2011-12 (Pro-rata for 244 days)	2012-13	2013-14
A	Working capital for Maintenance Spares (15% of O&M Expenses)	20.32	21.42	22.64
B	Working capital for O&M Expenses (O&M expenses for one month)	11.29	11.90	12.58
C	Working capital for Receivables (Equivalent to 2 months of annual fixed cost/ annual transmission charges)	869.17	829.98	812.06
D	Total working capital (A+B+C)	900.78	863.30	847.28
E	Rate of Interest on working capital (in %)	11.00	11.00	11.00
F	Interest of Working Capital (D*E)	66.06	94.96	93.20

Annual Transmission Charges for the 2009-14 tariff period

143. In view of the above, the annual transmission charges for the 2009-14 tariff period have been worked out as under:

(₹ in lakh)			
Particulars	2011-12 (Pro-rata for 244 days)	2012-13	2013-14
Depreciation	1018.08	1527.06	1526.67
Interest on Loan	1432.07	1909.88	1796.72
Return on Equity	870.13	1305.16	1304.82
Interest on Working Capital	66.06	94.96	93.20
O&M Expenses	90.33	142.81	150.94
Total	3476.66	4979.87	4872.36

Transmission Tariff for the 2014-19 Tariff Period

144. The Petitioner has claimed the following transmission charges with respect to

the transmission asset for the 2014-19 tariff period:

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	2202.19	2202.19	2203.13	2204.06	2204.06
Interest on Loan	2642.42	2477.44	2113.44	1773.98	1563.48
Return on Equity	2202.19	2202.19	2203.13	2204.06	2204.06
O&M Expenses	264.53	273.29	282.49	291.70	301.57
Interest on Working Capital	178.25	175.11	167.61	160.65	156.56
Total	7773.53	7614.18	7253.40	6917.74	6713.02

145. The Petitioner has claimed the following Interest on Working Capital (IWC) with respect to the transmission asset for the 2014-19 tariff period:

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	39.68	40.99	42.37	43.76	45.24
O & M expenses	22.04	22.77	23.53	24.30	25.12
Receivables	1258.68	1233.34	1175.62	1121.94	1089.34
Total Working Capital	1320.40	1297.10	1241.52	1190.00	1159.70
Rate of Interest (in %)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	178.25	175.11	167.61	160.65	156.56

Capital Cost

146. The capital cost of ₹29028.33 lakh admitted by the Commission as on 31.3.2014 for the transmission asset has been considered as the opening capital cost as on 1.4.2014. The details of the element-wise capital cost as on 1.4.2014 are as under:

(₹ in lakh)	
Particulars	Capital Cost as on 1.4.2014
Leasehold Land	0.00
Building and Other Civil Works	310.59
Transmission Line	27970.15
Sub-station	747.59
Total	29028.33

147. Further, the Petitioner has not claimed any ACE during the 2014-19 tariff period.

148. Accordingly, the capital cost of ₹29028.33 lakh has been considered as of 31.3.2019 for the purpose of determining the tariff for the 2014-19 period.

Debt-Equity Ratio

149. While computing the tariff for the 2009-14 period, the debt-equity ratio as on 31.3.2014 was considered as 71:29 for the transmission asset. Hence, the same debt-equity ratio for the transmission asset has been applied to the 2014-19 tariff period, in accordance with Regulation 19(3) of the 2014 Tariff Regulations, and shall be reviewed at the time of truing up. The details of the debt-equity ratio considered and allowed with respect to the transmission asset are as follows:

Funding	Capital Cost as on 1.4.2014		Capital Cost as on 31.3.2019	
	Amount (₹ in lakh)	(in %)	Amount (₹ in lakh)	(in %)
Debt	20610.12	71.00	20610.12	71.00
Equity	8418.21	29.00	8418.21	29.00
Total	29028.33	100.00	29028.33	100.00

Depreciation

150. Depreciation has been allowed in accordance with the methodology set out in Regulation 27 of the 2014 Tariff Regulations. Depreciation has been allowed based on the capital expenditure as on 1.4.2014 and the approved ACE during the 2014-19 tariff period. The capital cost approved during the 2014-19 tariff period has been depreciated at the Weighted Average Rate of Depreciation (WAROD). The depreciation allowed for the 2014-19 period for the transmission asset, as per the methodology provided in Regulation 27 of the 2014 Tariff Regulations, is as follows:

(₹ in lakh)						
Sl. No.	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
A	Opening Gross Block	29028.33	29028.33	29028.33	29028.33	29028.33
B	ACE	0.00	0.00	0.00	0.00	0.00
C	Closing Gross Block (A+B)	29028.33	29028.33	29028.33	29028.33	29028.33
D	Average Gross Block (A+C)/2	29028.33	29028.33	29028.33	29028.33	29028.33
E	Freehold Land	0.00	0.00	0.00	0.00	0.00
F	Weighted Average Rate of Depreciation (WAROD) (in %)	5.2592	5.2592	5.2592	5.2592	5.2592



G	Balance useful life of the asset at the beginning of the year (Year)	31	30	29	28	27
H	Lapsed life of the asset at the beginning of the year (Year)	3	4	5	6	7
I	Aggregated Depreciable Value (D*90%)	26125.50	26125.50	26125.50	26125.50	26125.50
J	Depreciation during the year (D*F)	1526.67	1526.67	1526.67	1526.67	1526.67
K	Cumulative Depreciation at the end of the year	6932.97	8459.64	9986.31	11512.98	13039.65
L	Remaining Aggregated Depreciable Value at the end of the Year (I-K)	19192.53	17665.86	16139.19	14612.52	13085.85

Interest on Loan (IoL)

151. The Petitioner, *vide* affidavit dated 3.1.2019, has submitted that the transmission line under consideration was initially a dedicated transmission line forming part of the generating station. No separate details are available to show the standalone debt infusion in the transmission line. The Petitioner has further submitted the calculation of the Weighted Average Rate of Interest (WAROI) on actual loans for the whole project, including the generation. The claim for IoL has been made based on actual interest rates applicable for each year during the 2014-19 tariff period.

152. The Commission has reviewed the documents submitted by the Petitioner in support of the claimed interest rates. While the Petitioner has provided the applicable interest rates, the adjustments undertaken by the Petitioner in those rates have not been considered. Accordingly, the determination of interest rates shall be reviewed at the time of truing-up.

153. The IoL allowed with respect to the transmission asset in accordance with Regulation 26 of the 2014 Tariff Regulations is as follows:

(₹ in lakh)

Sl. No.	Particular	2014-15	2015-16	2016-17	2017-18	2018-19
A	Gross Normative Loan	20610.12	20610.12	20610.12	20610.12	20610.12
B	Cumulative Repayments up to Previous Year	5406.30	6932.97	8459.64	9986.31	11512.98
C	Net Loan-Opening (A-B)	15203.82	13677.15	12150.48	10623.81	9097.14
D	Addition due to ACE	0.00	0.00	0.00	0.00	0.00
E	Repayment during the year	1526.67	1526.67	1526.67	1526.67	1526.67
F	Net Loan-Closing (C+D-E)	13677.15	12150.48	10623.81	9097.14	7570.46
G	Average Loan (C+F)/2	14440.48	12913.81	11387.14	9860.47	8333.80
H	Weighted Average Rate of Interest on Loan (in %)	10.6892	10.4849	9.9993	9.8154	9.7926
I	Interest on Loan (G*H)	1543.57	1354.00	1138.64	967.85	816.10

Return on Equity (RoE)

154. The Petitioner, as per Form-3, has claimed the base rate of RoE at 16% and has grossed up the MAT to 20.961% for each year during the 2014-19 tariff period.

155. On perusal of the audited accounts submitted by the Petitioner for the 2014-15 to 2016-17, it appears that the company was in a profitable position and was liable to pay MAT. However, the audited accounts for the 2017-18 and 2018-19 are not available. As such, the RoE has been worked out after considering the MAT rate for the purpose of grossing up the RoE. Accordingly, the MAT rate of 20.961%, as claimed by the Petitioner, has been considered for the purpose of the RoE for the 2014-19 tariff period. The same shall be reviewed at the time of truing up. The Petitioner is directed to submit copies of the income tax return filed during the 2014-19 tariff period and other supporting documents in a sealed cover at the time of truing up.

156. The RoE allowed for the 2014-19 tariff period for the transmission asset, as per the methodology provided in the 2014 Tariff Regulations, is as follows:

(₹ in lakh)

Sl. No.	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
A	Opening Equity	8418.22	8418.22	8418.22	8418.22	8418.22
B	Addition due to Additional Capitalization	0.00	0.00	0.00	0.00	0.00
C	Closing Equity (A+B)	8418.22	8418.22	8418.22	8418.22	8418.22



Sl. No.	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
D	Average Equity (A+C)/2	8418.22	8418.22	8418.22	8418.22	8418.22
E	Return on Equity (Base Rate) (in %)	15.50	15.50	15.50	15.50	15.50
F	Tax Rate applicable (in %)	20.961	20.961	20.961	20.961	20.961
G	Rate of Return on Equity (Pre-tax) (in %)	19.610	19.610	19.610	19.610	19.610
H	Return on Equity (Pre-tax) (D*G)	1650.81	1650.81	1650.81	1650.81	1650.81

Operation & Maintenance Expenses (O&M Expenses)

157. The Petitioner has claimed the O&M Expenses as under:

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
O&M Expenses	264.53	273.29	282.49	291.70	301.57

158. Regulation 29 (3)(a) of the 2014 Tariff Regulations provides as under:

“(3) Transmission System

(a) The following normative operation and maintenance expenses shall be admissible for the transmission system:

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Norms for sub-station Bays (₹ Lakh per bay)					
765 kV	84.42	87.22	90.12	93.11	96.20
400 kV	60.30	62.30	64.37	66.51	68.71
220 kV	42.21	43.61	45.06	46.55	48.10
132 kV and below	30.15	31.15	32.18	33.25	34.36
400 kV Gas Insulated Substation	51.54	53.25	55.02	56.84	58.73
Norms for AC and HVDC lines (₹ Lakh per km)					
Single Circuit (Bundled conductor with six or more sub-conductors)	0.707	0.731	0.755	0.780	0.806
Single Circuit (Bundled conductor with four or more sub-conductors)	0.606	0.627	0.647	0.669	0.691
Single Circuit (Twin & Triple Conductor)	0.404	0.418	0.432	0.446	0.461
Single Circuit (Single Conductor)	0.202	0.209	0.216	0.223	0.230
Double Circuit (Bundled conductor with four or more sub-conductors)	1.062	1.097	1.133	1.171	1.210
Double Circuit (Twin & Triple Conductor)	0.707	0.731	0.755	0.780	0.806
Double Circuit (Single Conductor)	0.303	0.313	0.324	0.334	0.346
Multi Circuit (Bundled conductor)	1.863	1.925	1.898	2.055	2.123



Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
<i>with four or more sub-conductors)</i>					
Multi Circuit (Twin & Triple Conductor)	1.240	1.282	1.324	1.368	1.413
Norms for HVDC stations					
HVDC Back-to-Back stations (₹ Lakh per 500 MW)	578	627	679	736	797
Rihand-Dadri HVDC bi-pole scheme (₹ Lakh)	1511	1637	1774	1922	2082
Talcher-Kolar HVDC bi-pole scheme (₹ Lakh)	1173	1271	1378	1493	1617
Balia-Bhiwadi HVDC bipole scheme (₹ Lakh)	1537	1666	1805	1955	2119

Provided that operation and maintenance expenses for new HVDC bi-pole scheme for a particular year shall be allowed pro-rata on the basis of normative rate of operation and maintenance expense for 2000 MW, Talcher-Kolar HVDC bi-pole scheme for the respective year:

Provided further that the O&M expenses norms for HVDC bi-pole line shall be considered as Single Circuit quad AC line.

(b) The Total allowable operation and maintenance expenses for the transmission system shall be calculated by multiplying the number of bays and kms of line length with the applicable norms for the operation and maintenance expenses per bay and per km respectively.

(c) The operation and maintenance expenses of communication system forming part of inter-state transmission system shall be derived on the basis of the actual O&M expenses for the period of 2008-09 to 2012-13 based on audited accounts excluding abnormal variations if any after prudence check by the Commission. The normalised O&M expenses after prudence check, for the years 2008-09 to 2012-13 shall be escalated at the rate of 3.02% for computing base year expenses for FY 2012-13 and 2013-14 and at the rate of 3.32% for escalation from 2014-15 onwards.

159. Therefore, the O&M Expenses have been worked out as per Regulation 29(3)(a) of the 2014 Tariff Regulations, and have been allowed as follows:

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
220 kV D/C ADHPL Prini- CTUIL Nalagarh Transmission Line					
D/C Single Conductor Transmission Line (km)	176.50	176.50	176.50	176.50	176.50
Regulation 29(3)(a) of the 2014 Tariff Regulations	0.303	0.313	0.324	0.334	0.346
O&M Expenses	53.48	55.24	57.19	58.95	61.07
220 kV Bays at CTUIL Nalagarh					
220 kV Bays	2	2	2	2	2
Regulation 29(3)(a) of the 2014 Tariff Regulations	42.21	43.61	45.06	46.55	48.10
O&M Expenses	84.42	87.22	90.12	93.10	96.20
Total O&M Expenses	137.90	142.46	147.31	152.05	157.27



Interest on Working Capital (IWC)

160. The IWC has been worked out in accordance with Regulation 28 of the 2014 Tariff Regulations. The IWC rate considered is 13.50% (SBI Base Rate of 10% applicable as on 1.4.2014, plus 350 basis points). The components of the working capital and interest allowed thereon for the transmission assets are as follows:

(₹ in lakh)						
Sl. No.	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
A	Working capital for Maintenance Spares (15% of O&M Expenses)	20.69	21.37	22.10	22.81	23.59
B	Working capital for O&M Expenses (O&M expenses for one month)	11.49	11.87	12.28	12.67	13.11
C	Working capital for Receivables (Equivalent to two months of annual fixed cost/ annual transmission charges)	829.21	797.69	761.82	733.53	708.58
D	Total working capital (A+B+C)	861.38	830.93	796.19	769.01	745.27
E	Rate of Interest on working capital (in %)	13.50	13.50	13.50	13.50	13.50
F	Interest of working Capital (D*E)	116.29	112.18	107.49	103.82	100.61

Annual Transmission Charges for the 2014-19 tariff period

161. In view of the above, the annual transmission charges allowed for the transmission asset for the 2014-19 tariff period are as follows:

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	1526.67	1526.67	1526.67	1526.67	1526.67
Interest on Loan	1543.57	1354.00	1138.64	967.85	816.10
Return on Equity	1650.81	1650.81	1650.81	1650.81	1650.81
Interest on Working Capital	116.29	112.18	107.49	103.82	100.61
O&M Expenses	137.90	142.46	147.31	152.05	157.27
Total	4975.24	4786.12	4570.92	4401.20	4251.46

Sharing of Transmission Charges

162. The Commission, vide its order dated 19.1.2024 in Petition No. 209/MP/2017, has implemented the APTEL's judgment dated 31.10.2022 in Appeal No. 450 of 2019 and held that after the determination of the tariff of the 220 kV ADHPL-Nalagarh Line in terms of the APTEL's judgement in Appeal No. 410 of 2019, the transmission charges



shall be paid to the Petitioner from the PoC pool after adjustment of the recovery of transmission charges already made with effect from 1.8.2011. The relevant extract of the order dated 19.1.2024 in Petition No. 209/MP/2017 is as under:

“Directions

66. In light of the above discussion, it is ordered as under:

(a) The Petitioner shall furnish the transmission charges and losses received by it from AD Hydro, EPPL and HPPTCL (on behalf of KPCPL, HPSEBL and other small Hydro) with effect from 1.8.2011 onwards. NRLDC shall cross-check those figures with AD Hydro, EPPL, and KPPTCL in order to avoid any disputes in the future.

(b) After the determination of the tariff of the 220 KV ADHPL-Nalagarh line in terms of the judgement of APTEL in Appeal No.410 of 2019, the transmission charges shall be paid to the Petitioner from the PoC pool after adjustment of the recovery of transmission charges already made with effect from 1.8.2011.

(c) The transmission charges paid by EPPL and HPPTCL (for KPCPL and HPSEBL and Small Hydro) shall be refunded by CTU from the pool after adjusting their liabilities as DICs for the period 1.8.2011 onwards or their respective dates of connectivity, as the case may be.

(d) The arrears of transmission charges of the 220 KV ADHPL-Nalagarh line for the period from 1.8.2011 to 31.10.2020 shall be computed as per Clause 6 of Regulation 11 of Sharing Regulations, 2010 and shall be recovered by CTU under Bill-2 as per provisions of Regulation 15(2)(b) of the Sharing Regulations, 2020 in proportion to the first bill in the month in which the arrears shall be calculated and recovered in accordance with this order.

(e) The arrears of the transmission charges of 220 kV ADHPL-Nalagarh transmission line for the period from 1.11.2020 to 23.8.2021 and 24.8.2021 onwards (after relinquishment of LTA by the Petitioner) till the issue of the tariff order in respect of the subject transmission line pursuant to the order of the APTEL dated 31.8.2023 in Appeal No.410 of 2019 shall be computed and recovered by CTU under Bill-2 as per provisions of Regulation 15(2)(b) of the Sharing Regulations, 2020 in proportion to the first bill in the month in which the arrears shall be calculated and recovered in accordance with this order.

(f) After the issue of the tariff order in respect of the subject transmission line pursuant to the order of the APTEL dated 31.8.2023 in Appeal No.410 of 2019, the transmission charges of the subject transmission line shall be recovered in accordance with Regulation 15(2)(a) of Sharing Regulations, 2020.

(g) Transmission Losses shall be recovered/adjusted in accordance with para 63 of this order.

67. The above exercise shall be completed by CTU and NLDC/NRLDC/NRPC within a period of three months of this order.”

163. Accordingly, the transmission charges determined for the 2009-14 and 2014-19 tariff periods in the instant order shall be shared as per the directions of the Commission, vide order dated 19.1.2024, in Petition No. 209/MP/2017.

164. To summarise:

a) The Annual Fixed Charges (AFC) approved with respect to the transmission



asset for the 2009-14 tariff period are as follows:

Particulars	(₹ in lakh)			
	2010-11	2011-12 (Pro-rata for 244 days)	2012-13	2013-14
AFC Claimed	5736.02*	7982.54	8208.77	8062.56
AFC Allowed	-	3476.66	4979.87	4872.36

*We have considered the COD of the instant transmission asset as 1.8.2011 for the determination of tariff.

b) The AFC approved with respect to the transmission asset for the 2014-19 tariff period are as follows:

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
AFC Claimed	7773.53	7614.18	7253.40	6917.74	6713.02
AFC Allowed	4975.24	4786.12	4570.92	4401.20	4251.46

165. This order disposes of Petition No. 209/MP/2017 to the extent of the remand.

Sd/-
(Harish Dudani)
Member

sd/-
(Ramesh Babu V.)
Member

sd/-
(Jishnu Barua)
Chairperson

