CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI

Petition No. 209/MP/2017

Coram:

Shri P.K Pujari, Chairperson
Dr. M. K. Iyer, Member

Date of Order: 17.10.2019

In the matter of:

Petition for approval of transmission charges, transmission losses and other conditions for use of 176.50 km D/C 220 kV Transmission Line of Allain Duhangan Hydro Power Limited (ADHPL) from Prini (generating station of ADHPL) to Nalagarh (Sub-station of CTU).

And in the matter of:

A. D. Hydro Power Ltd.,
BhilwaraTowers, A-12,
Sector 1, Noida-201301(UP) .....**Petitioner**

Vs

1. Everest Power Private Ltd.,
   1st House, Bhumian Estate,
   Navbahar Bhimian Road,
   Chhota Shimla, Shimla-170002 (HP)

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 Ltd,
   Sector 29, Gurgaon,
   Haryana-122001.

5. Northern Regional Load Despatch Centre,
Katwaria Sarai,
New Delhi-110016.

6. Ministry of Power,
Government of Himachal Pradesh,
Shimla-171002.

7. Himachal Pradesh State Electricity Board,
Khalini, Shimla-171002.

8. Himachal Pradesh Power Transmission Corporation Ltd.,
Khalini, Shimla-171002.

9. Department of Forests,
Government of Himachal Pradesh,
Shimla-171002. **….Respondents**

For Petitioner : Shri Sumit Garg, ADHPL
Shri Kakoli Sen Gupta, ADHPL

For Respondents : Shri Ankur Gupta, Advocate, EPPL
Ms. Swapna Seshadri, Advocate, HPPTCL and PSPCL
Ms. Neha Garg, Advocate, HPPTCL and PSPCL
Shri Hemant Singh, Advocate, KPCPL
Shri Nishant Kumar, Advocate, KPCPL
Shri Kumar Uday Pratap, KPCPL
Shri Prasun Kumar, KPCPL
Ms. Kavita Parihar, NRLDC

ORDER

The present petition has been filed by A. D. Hydro Power Ltd. (hereinafter referred to as "ADHPL") for approval of transmission charges, transmission losses and other conditions for use of its 176.50 km D/C 220 kV Transmission Line from Prini (generating station of ADHPL) to Nalagarh (Sub-station of CTU) (hereinafter referred to as "transmission asset") under Regulation 6 of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 (hereinafter referred to as “2009 Tariff Regulations”) based on the actual capital expenditure for the period from COD to 31.3.2014 and from 1.4.2014 to 31.3.2019 under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as “the 2014 Tariff Regulations”) respectively.

2. The Petitioner has made the following prayers.

> “a) The transmission charges and losses for use of the Petitioner's dedicated transmission line may be approved.
> b) The terms and modalities for use of the Petitioner’s line may be approved.
> c) A cap of 350 MW of power may be imposed for injection in the Petitioner's DTL by generators/ utilities.
> d) Any other order/orders may be passed in view of the facts and circumstances of the case.”

3. The Petitioner also filed an Interlocutory Application No. 69 of 2017 seeking directions to EPPL to make outstanding payment of ₹38.01 crore for use of the Petitioner’s Dedicated Transmission Line (DTL) as per the Interim Power Transmission Agreement (IPTA) and also continue to pay the monthly transmission charges till disposal of the petition. The Commission disposed of the said I.A and directed EPPL to pay 60% of the outstanding bills raised by the Petitioner and continue to pay monthly transmission charges at the said rate for use of DTL of the Petitioner, subject to determination of tariff of the said transmission line.

Background

4. The Petitioner has filed the instant petition pursuant to the judgment of Hon’ble Supreme Court dated 26.4.2017 in Civil Appeal No. 1795/2013 for determination of

transmission charges, losses and other related issues for use of its 220 kV Double Circuit Transmission Line.

5. The Petitioner, is a generating company and has also established a 176.50 km long 220 kV D/C Transmission Line from its generating station to sub-station of CTU at Nalagarh. Other generating company, namely, Everest Power Private Ltd. (hereinafter referred to as "EPPL"), has established a 2X50 MW Malana-II Hydro Electric Generating Station, which is connected to the transmission system of A.D. Hydro Electric Project for evacuation of its power outside the State of Himachal Pradesh.

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

7. The Petitioner was granted approval by 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 220 kV Allain Duhangan-Nalagarh D/C line and the transmission line was also approved as the Associated Transmission System of ADHEP subject to certain terms.

8. On 17.6.2008, MOP granted prior approval to EPPL for construction of 132 kV line to be connected to the Petitioner's 220 kV Transmission Line by constructing a

132/220 kV Sub-station at Chhaur its dedicated transmission system. The approval given to EPPL was based on the understanding that power of EPPL through its Malana-II project would be evacuated through the Allian Duhangan-Nalagarh Transmission Line of ADHPL.

9. The Petitioner informed CEA and MOP on 18.6.2008 that technically they have no objection if EPPL establishes 132/220 kV Sub-station and LILOed 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 132/220 kV system after loop in and loop out ("LILO") including the controlling circuit breaker and isolators should 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 CTU/PGCIL.

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

LILO the petitioner's DTL for 132/220 kV sub-station as well as 132 kV line to be dedicated system of EPPL.

11. 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.

12. MOP convened a meeting of the Petitioner with EEPL 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 (iii) EPPL should bear the incremental losses of the Petitioner on account of wheeling the power of EPPL. In the above meeting, CEA 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 Central Electricity Regulatory Commission regarding sharing of the line with EPPL.

13. The Petitioner’s DTL was put into commercial operation on 16.9.2010.

14. EPPL filed Petition No. 259 of 2010 before the Commission under Section 60 of the Act alleging abuse of dominant position by the Petitioner and sought the following directions against it.

> "(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;
>
> (ix) Any other order that the Commission may deem fit and proper in the facts and circumstances of the case."

15. 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 areas follows.

a. The Commission can issue appropriate directions to the Petitioner, even though the 220 kV D/C ADHEP-Nalagarh transmission line is a dedicated transmission line. 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 clause 2(36) of 2003 Act, the said line is an ISTS line after EPPL becomes part of that line.

b. ADHEP shall provide the connectivity to EPPL's dedicated line with immediate effect.

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

d. The Return on Equity 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 a representative of ADHEP to be appointed at the sub-station.

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

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 week's 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 Commission's 2010 Connectivity Regulations.

16. Aggrieved by the Commission's order dated 1.6.2011 in Petition No. 259/2010, ADHEP preferred Appeal No. 81 of 2011 before the Appellate Tribunal for Electricity (hereinafter referred to "APTEL"). APTEL vide its interim order dated 10.6.2011, directed the petitioner to allow connectivity to EPPL as an interim measure and also made the following observations regarding payment of transmission charges and other issues.

a. ADHEP to allow 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 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 ADHEP and Malana-II. NRLDC will also control the switching at Chhaur Sub-station.

17. Pursuant to the aforesaid order of APTEL, ADHPL and EPPL entered into an IPTA on 9.8.2011. APTEL vide its judgment dated 2.1.2013, agreed with the Commission's observations on most of the issues in Petition No. 259 of 2010. The summary of the said judgment of APTEL is as follows.

a. Central Commission has the jurisdiction to regulate the transmission of electricity on 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 220 kV D/C ADHEP-Nalagarh transmission line cannot be granted to ADHEP as EPPL is proportionately sharing the complete capital cost of the transmission line.

c. Directed the Commission to determine capital cost of the transmission line as per 2009 Tariff Regulations, which shall be the basis for 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 ADHEP and EPPL on the same principle as transmission charges are being shared on pro-rata basis on the respective installed capacity.

f. Agreed with the Commission that control of 132/220 kV Chhaur Sub-station will be with EPPL, and ADHEP may appoint its representative at the sub-station for co-ordination purpose. However, the operations at the Chhaur Sub-station of the sections of Allain Dulhangan and Nalagarh have to be carried out by NRLDC.

g. It is not necessary for ADHEP to obtain a transmission license.

h. The Commission shall hear the parties afresh regarding the other operational issues and pass the consequential order.

18. CEA in its meeting of Standing Committee (“SCM”) dated 2.1.2013 on Power System Planning of Northern Region for evacuation of power of EPPL through LILO of one circuit of Petitioner’s DTL, discussed and agreed that (i) Petitioner's line was not adequate for reliable evacuation of power from both the projects especially under contingency condition,(ii) it was agreed to construct a 220 kV line from 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 System ("STU"), and (iv) COD of the 220 kV line would be by 2015.

19. APTEL’s judgment dated 2.1.2013 was challenged by ADHEP before the Hon’ble Supreme Court in Civil Appeal No.1795 of 2013. During pendency of the said appeal before the Supreme Court, HPPTCL filed IA seeking connectivity on Petitioner’s DTL for evacuation of power of electricity generated by State owned generating stations or other generating stations with which HPPTCL has arrangement for transmission of electricity. The Hon’ble Supreme Court vide its order dated 24.8.2015, declined to pass any order and directed HPPTCL to approach the Petitioner.

20. Subsequent to this, the Petitioner 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.

21. The Hon'ble Supreme Court vide its judgment dated 26.4.2017, dismissed the appeal filed by ADHEP, upheld the judgment dated 2.1.2013 of APTEL and referred the matter to the Central Commission to decide the same on merits.

22. Against the judgment dated 26.4.2017 of Hon'ble Supreme Court, ADHEP preferred a Review Petition. The apex Court vide its judgment dated 12.7.2017, dismissed the Review Petition of ADHEP and referred the matter to the Commission with observation that Commission that while deciding the present matter, it may or may not consider the observations of APTEL judgment dated 2.1.2013.

23. Pursuant to the direction of Hon'ble Supreme Court, the Commission directed the Petitioner to file a petition in respect of 220 kV D/C ADHEP-Nalagarh Transmission Line for determination of transmission charges, losses and other related issues. Accordingly, the Petitioner has filed the instant petition.

Submissions of the Petitioner

24. The gist of the submissions made by the Petitioner is as follows.

a. Pursuant to the judgment dated 12.7.2017 of Hon'ble Supreme Court, it is not mandatory for the Commission to entertain the directions of APTEL given in its judgment.

b. The 220 kV D/C line of the Petitioner has been sanctioned as DTL by CEA vide Techno Economic Clearance dated 20.8.2002 from its generating station to Nalagarh CTU. The DTL of the Petitioner was not established to undertake business of transmission. The D/C line was established as per technical standards to cater to redundancy. The DTL of the Petitioner is not commercially pooled with the Regional Transmission System.

c. As no regulations are there governing the use of DTL by other users, CEA in its meeting dated 10.4.2008 concluded that there will be no legal or regulatory impediment if ADHEP and EPPL mutually agree on sharing of the line and modalities for sharing of cost. The Hon'ble Supreme Court in its judgment dated 12.4.2017 made similar observations and held that the Commission can intervene in the matter in case there happens to be disagreement between the parties and adjudicate the issue.

d. CEA in the Standing Committee Meeting on 2.1.2013 on Power System Planning of Northern Region for evacuation of power of EPPL decided to construct a 220 kV line from Chhaur Sub-station to Parbati Pooling Station enabling injection of power from Malana-II at Parbati Pooling Point to ISTS. As such the connectivity of EPPL with DTL of the Petitioner is only a temporary measure till the new system is put in place by HPPTCL.

e. On 21.8.2007, MOP accorded approval for construction of Petitioner's transmission line as the Associated Transmission System of ADHEP. MOP through letter dated 17.6.2008, granted prior approval to EPPL for construction of 132 kV line for evacuation of power from its Malana-II project and its inter-connection with 220 kV Allain Duhangan-Nalagarh line of the

Petitioner by constructing a 132/220 kV Sub-station as its dedicated transmission system.

f. The Petitioner's 220 kV double circuit line has a design capacity of 200 MW in each circuit to carry its own power from its ADHEP keeping in view the fact that in case of any constraint in one circuit of the line, other circuit can be used for the injection of the power from its generating station to the ISTS. Presently, EPPL and HPPTCL have also been added to the system which is as follows.

Name of the Utility	**Capacity in MW**
Allain Duhangan HEP of Petitioner	192 MW
Malana-II HEP of EPPL	100 MW
HPPTCL	35.40 MW
Total capacity	**327.40 MW**

g. The Petitioner has no spare capacity. The design capacity of 220 kV D/C line is for redundancy. The Petitioner informed HPPTCL, State Transmission Utility, regarding the transmission constraints specially during the peak hydro season as all the generators connected to the system are run of the river hydro power generating stations situated in the same river basin, therefore, their generations will be available in the same time and as such overload generation during the peak season, connectivity of more than 350 MW capacity in the line will always be an issue for smooth transmission. HPPTCL is using the Petitioner's DTL for transfer of power generated by Kanchanjunga Power Company Pvt. Ltd. and HPSEBL. The Petitioner, vide its affidavit dated 19.12.2017, has submitted that in future EPPL's power of

100 MW would be evacuated through an alternate route and it will be disconnected from the Petitioner's DTL.

h. The Petitioner's generating station and DTL is a composite project and has not been planned or executed as separate activities. The costs toward the transmission system wherever incurred and expressed separately have been taken and wherever the costs are composite, costs have been taken on pro-rata and on normative basis. Some costs which cannot be apportioned, they have not been considered in calculation of transmission charges.

i. The Petitioner executed its DTL to match with the commissioning schedule of the generating stations of the Petitioner and respondents in the year September, 2010. Therefore, the beneficiaries using the transmission line are required to pay the transmission charges from the date of the commercial operation of the system as per the notified regulations. The regulations meant for transmission licensees should not be strictly made applicable to the Petitioner's DTL as it was constructed in a time frame to match with the execution schedule of the EPPL's generating station despite receiving final forest clearance in May, 2009. Both EPPL and HPPTCL are liable to pay transmission charges from the date of commercial operation of the DTL of the Petitioner in terms of 2009 Tariff Regulations. EPPL started injection of power in the DTL in August, 2011 and HPPTCL started injecting/drawing power in the DTL in June, 2016. The tariff forms in the prescribed format have not been submitted as it is a DTL. However, all relevant information for calculation of tariff as per 2009 Tariff Regulations has been submitted.

j. The Statutory Auditor has certified the capital cost of ` 41661.36 as on COD of transmission. Expenditure incurred in the subsequent years should also be considered for tariff determination. The entire cost incurred by the Petitioner beyond the cut-off date shall also be included towards capital cost. This capital cost has also been duly audited and taken into audited balance sheet of the Petitioner.

k. The total length of the transmission line is 176.50 km. The break-up of various LILOs provided in the transmission line is as under:

Sr. No.	Descriptions	Distance in km
1	Allain Duhangan to Naggar	13.40
2	Naggar to Chhaur	28.30
3	Chhaur to Nalagarh Sub-station of PGCIL	134.80

l. The Petitioner's generating station being DTL does not require any Investment Approval. Revised Cost Estimates was not approved as the DTL of the Petitioner was not envisaged to carry the power of other generator permanently as a public carrier. However, the lending institutions have approved the cost revisions in the re-financing process of the cost over-run.

m. Statutory Auditors have certified the debt:equity ratio and also utilized that for year-wise additional capitalization upto 31.3.2013. This debt equity ratio has been considered to determine the return on equity for use of the dedicated transmission line. The debt equity ratio has been calculated by Statutory Auditors by taking into account the equity and borrowings shown in the balance sheet which also include sub-debt of `46380 lakh from related parties.

n. Year wise revenue earned by ADHPL on its dedicated transmission line under various temporary arrangements is as under.

(₹ in lakh)

Srl. No	Year	Amount of Invoice	Amount Received	Cumulative O/S Balance Amount
1	2011-12	1808.88	1808.88	-
2	2012-13	2787.04	1184.31	1602.73
3	2013-14	2773.65	1184.94	3191.43
4	2014-15	2711.64	-	5903.08
5	2015-16	2737.60	6554.62	2086.06
6	2016-17	3047.95	1782.06	3351.96
7	2017-18	3285.41	3363.44	3273.92
8	2018-19	2148.68	1425.26	3997.34

The revenue has been taken by including the invoices raised on temporary arrangements basis upto December, 2018 for use of dedicated transmission network till November, 2018.

o. The Petitioner entered into several loan agreements for financial closure, subsequently to refinance the cost over-run and during the operation period to reduce the cost of the loan. No such separate details have been prepared or are available to show the stand alone infusion of debt in the transmission line.

p. The entire liability pertaining to IDC and IEDC, hard cost has been discharged on cash basis as on COD. Wherever a liability has become due on 31st March but has been discharged in the following financial years, the same has been taken into tariff calculation because the respondents have been using the line on temporary basis and shall get disconnected from the DTL as soon as the STU provides them a permanent system.

25. The Petitioner has proposed the following other operating norms for use of its DTL.

a. **Line Losses**

In terms of the agreement with the State Government and as per the regulations, the Petitioner is required to bear the losses in respect of its own generation only. With the increase in energy in the line, there is increase in line losses. Accordingly, the increase in line losses, due to injection of power by various utilities, should be dealt in the following manner.

i. ADHPL started injection from September, 2010. Therefore, percentage of month-wise actual losses incurred from September, 2010 till August, 2011 are the losses which the Petitioner is liable to bear.

ii. EPPL started injection from August, 2011. Therefore, percentage of month wise losses over and above the losses of Petitioner may be taken as the losses of EPPL.

iii. HPPTCL started injection of 24 MW of power from June, 2016. HPPTCL added the drawl/injection of 11.40 MW from January, 2017.

The actual losses can be determined by NRLDC on the basis of meter readings in respect of injection and schedule of various utilities connected on ADHEP transmission line to Nalagarh.

b. Transmission System Availability

As per the regulations, the transmission system availability is certified by NRPC in respect of transmission assets which are part of ISTS and are held by licensees. The DTL of the Petitioner is not part of the ISTS, therefore, the availability of the Petitioner's transmission system is not certified by NRPC. In view of this, the Petitioner has proposed to forego the incentive given to a transmission licensee in terms of the Commission's tariff regulations for the availability of its transmission system.

c. First Right of Use in case of line constraint

The instant transmission line was approved as a DTL of the Petitioner. After approval of the line, the Petitioner was directed to carry the power of other utilities on mutually agreed terms. One of the terms put forward by the Petitioner was to use its line on mutually settled terms and one of such terms was to use the line as its first right to use the transmission line in case of any power flow constraint before Nalagarh Sub-station of CTU. The Petitioner has proposed to reduce by way of disincentive calculated for non-availability of Transmission System as per the Tariff Regulations. The Petitioner has further proposed that during the operation of period when the first right of use of the transmission line by the Petitioner is in progress, such charges shall be payable by EPPL. The Petitioner is selling its energy in the short term market as committed energy and there is no regulatory provisions to revise the schedule in case of any emergency due to a constraint in the transmission system before the CTU point. Revision of schedule by Petitioner will result in substantial loss to it on account of UI and other charges. EPPL is selling its energy on long term Power Purchase Agreement with a lot of flexibility of schedule revisions given to it under the regulations. In case, the utilities use the Petitioner's DTL at the time of line constraint for power flow, they should compensate the losses suffered by the Petitioner on account of UI and other charges.

d. Charges for over injection

The petitioner has proposed to claim the transmission charges for over injection at the rates calculated from the Annual Fixed Cost for the period.

e. Payment Terms

EPPL shall deposit the amount payable to ADHEP under invoices into the account nominated by ADHEP as per the following.

- If EPPL pays the full invoice within 1 day of presentation of such invoice, a rebate of *2%* shall be allowed on the basic invoice value (excluding taxes and duties).
- If EPPL pays the full invoice after 1 day but within 30 days of presentation of such invoice, a rebate of 1% shall be allowed on the basic invoice value (excluding taxes and duties).
- If EPPL pays the full invoice beyond 30 days of presentation of such Invoice, but within 60 days, no rebate shall be allowed.
- If EPPL does not pay an invoice on or before the due date, any amount remaining unpaid after the due date, shall bear surcharge @ 1.25% per month. Such surcharge shall be calculated on daily basis on simple rate and shall accrue from the due date until the amount due is actually received by ADHPL.
- Such amount shall be paid through the revolving letter of credit, or immediately available and freely transferable cleared funds by way of bank transfer or cheque payment. For avoidance of doubt, it is expressly clarified that in the case of a cheque, such funds must be cleared and available to be used by ADHPL on or before the due date.
- If EPPL fails to pay any Invoice on or before the due date, ADHPL may, except in the case of an invoice dispute, draw upon the Bank Guarantee for payment of the invoice by presenting to the relevant issuing bank a copy of the invoice that has been delivered to EPPL and accompanied with a declaration by ADHPL that the amount due under such invoice has not been paid by EPPL. In case of an invoice dispute, ADHPL shall only be entitled to draw that amount of the invoice that is not subject to a dispute.

f. Payment Security

The Petitioner has proposed that EPPL shall provide ADHEP, at its own cost, the following towards the security of payments.

a. A fully automatic, irrevocable and revolving Letter of Credit shall be established, so that it will be renewed to its full value immediately upon each call being made on such Letter of Credit. The value of the Letter of Credit will be equal to the estimated value of 1 month Transmission Charges. The Letter of Credit shall be for a term of not less than 12 months. Such Letter of Credit will be a revolving Letter of Credit and shall be replenished forthwith for a further period of 12 months.

b. A Bank Guarantee from a scheduled bank in an acceptable form to ADHPL, equal to 1 month transmission charge as security deposit.

Submissions of EPPL, Respondent No.1

26. The gist of the submissions made by EPPL in reply filed vide affidavits dated 19.12.2017 and 18.6.2018 is as following.

a. The Hon'ble Supreme Court in its judgment dated 26.4.2017 in Civil Appeal No.1395 of 2017 and judgment dated 12.7.2017 in Review Petition duly considered the observations of APTEL in its judgment dated 2.1.2013 in Appeal No. 81 of 2011 and Commission's order dated 1.6.2011 in Petition No. 259 of 2010 and came to the conclusion that the transmission line of the Petitioner is to be considered as an ISTS line and accordingly directed the Commission to proceed with the matter on merits. The observation of the Hon'ble Supreme Court that 220 kV D/C line of the Petitioner is an ISTS line is indicative of the fact that the transmission line was not established to undertake business of transmission or that it was not commercially pooled with the Regional Transmission System. The Petitioner is in the transmission business by virtue of two generators and the STU of Himachal

Pradesh already utilizing its line to evacuate their power under regulated tariff and other generators may be connected to the line in future, but the Petitioner is avoiding being regulated under the garb of a DTL. Based on the observation of Hon'ble Supreme Court judgment dated 26.4.12017 that 220 kV Prini to Nalagarh transmission line is an ISTS line, accordingly the monthly transmission charges are applicable on EPPL as per Point of Connection (PoC) Charges. EPPL has calculated the transmission charges from the date of synchronization of the first unit of EPPL Power Project on 3.8.2011, on the basis of PoC charges notified by the Commission from time to time. The Petitioner has over invoiced an amount of around ₹112 crore on EPPL and it should adjusted before providing any interim relief to the Petitioner.

b. Pursuant to the interim order dated 10.6.2011 of APTEL, the Petitioner and EPPL entered into the IPTA dated 9.8.2011. The Petitioner's DTL was put into commercial operation in 2010-11 and the process of determination of tariff commenced in 2017-18. Based on the earlier orders of the Commission, AFC has been calculated considering 70% of the total capital cost without considering MAT. Accordingly, the amount payable to the Petitioner comes to around ₹10625 lakh. EPPL has already paid more than ₹12142 lakh to the Petitioner on account of monthly transmission charges. EPPL has over paid more than ₹1517 lakh to the Petitioner, which needs to be adjusted before providing any interim relief to the Petitioner. HPPTCL through letter dated 13.12.2017 informed EPPL that 220 kV Chhaur-Banala line will be completed by 30.4.2018, upon which EPPL will be disconnected from the Petitioner's line and will be shifted to the new line of HPPTCL. Once EPPL is shifted to the Chhaur-Banala line, the recovery of excessive amount paid by EPPL may be very difficult.

Computation of Transmission Charges

c. The transmission charges claimed by the Petitioner are not as per the interim order dated 10.6.2011 of APTEL and IPTA, which requires the transmission charges to be worked out on the capital cost of the transmission line as per the audited accounts of the Petitioner and as per the provisions of 2009 Tariff Regulations.

Inflated Capital Cost

d. The Petitioner has submitted the capital cost of ₹41431 lakh at the time of signing IPTA dated 9.8.2011. The capital cost of the Petitioner's transmission line in 2010-11 was not ₹41108.92 lakh. The audited accounts of the Petitioner for financial year 2010-11 show the capital cost of the Petitioner's transmission line is only ₹3899242 lakh and the capital commitments of ₹2438.19 lakh was towards unexecuted works. The capital cost of ₹38992.42 lakh cannot be considered until the Petitioner actually makes payment for the value of such capital commitments. Accordingly, the Petitioner is not entitled to claim depreciation, interest on debt and return on equity on the value of such capital commitments, until the value of such capital commitments is made by the Petitioner. The Petitioner has also not provided the statutory Auditor certificate on cash basis and has also not submitted the details of Form 5, Form 5A and Form 5B.

Inflated Return on Equity

e. Monthly transmission charges are calculated by considering the Return on Equity to be grossed up with applicable MAT/Income Tax rate. The Petitioner has not paid any income tax/MAT from 2010-11 to 2016-17 and any tax payment benefit should be allowed only upon actual tax payments like MAT. The Petitioner cannot notionally gross up the Return on Equity @19.38% including MAT without providing any proof of payment of MAT against the applicable Return on Equity @15.50% as per the Tariff Regulations and is inflating the invoice accordingly.

f. Depreciation is not considered as repayment.

g. As per 2009 Tariff Regulations, one of the components for calculating monthly transmission charges is ‘Interest on Long-term Loan’. This is calculated on the basis of normative debt i.e. 70% of the capital cost, as per Schedule-II of the IPTA, admissible for recovery of the respective year. As per the tariff regulations, year wise transmission charges are to be worked out factoring in the reduction in the interest payments based on annual debt repayments equal to depreciation, which is being paid by the respondent in the transmission charges. The Petitioner is not reducing the normative debt and still charging interest based on debt of the 1st year i.e. 2010-11 for the past 6 years.

Availability of Transmission Line

h. The ‘availability’ of transmission line calculations as furnished by the Petitioner is not as per 2009 Tariff Regulations. The Petitioner is considering transmission line ‘availability’ in terms of circuit length only and is not considering other parameters viz. transformers/ICTs and bus reactors, switchable line reactors and SVCs in the ‘availability’ calculations as specified in the Appendix-IV of 2009 Tariff Regulations. In case, the Petitioner claims that such parameters are not applicable in their transmission system, the Petitioner should get the same certified by NRLDC or any other mutually acceptable independent agency. As per Appendix IV to 2009 Tariff Regulations, transmission system under outage is considered to be ‘availability’ only on account of following reasons.

- Shut down availed for maintenance or construction of elements of another transmission scheme. If other transmission scheme belongs to the transmission licensee, the Member-Secretary, RPC may restrict the deemed ‘availability’ period to that considered reasonable by him for the work involved.
- Switching off of a transmission line to restrict over voltage and manual tripping of switched reactors as per the directions of RLDC.

The Petitioner is claiming all shut downs for whatever reasons taken by it, though not covered by above provisions as ‘available’. As the Petitioner has been taking shutdown for the reasons which are not linked to maintenance or construction of elements of another transmission scheme, the Petitioner is not entitled to claim such outages as ‘available’.

Disputes on inflated invoice

i. A perusal of the disputes raised by EPPL against the inflated monthly invoices of the Petitioner for the last six years for use of the transmission line show that the disputes have arisen in terms of the provisions of IPTA executed by the parties and are based on the interim order dated 10.6.2011 of APTEL. The Petitioner has failed to consider the relevant factors, as prescribed under the relevant regulations of the Commission, which are necessary for purposes of the calculation of transmission tariff payable EPPL for use of 220 kV Allain Duhangan-Nalagarh transmission line. The Petitioner has raised the inflated invoices of `16948 lakh. EPPL on regular basis is raising the disputes and requesting the Petitioner to revise the monthly transmission invoices as per the regulations.

Sharing of Transmission Losses

j. The Petitioner is imposing higher transmission losses on EPPL than the actual since 2011. With the designation of the Petitioner’s line as an ISTS line by the Hon’ble Supreme Court, the Petitioner cannot be allowed continuously to impose higher transmission losses on EPPL during the pendency of the instant petition under the garb of an interim arrangement. The actual transmission losses of the instant transmission line of the Petitioner are available on website of NRLDC and are estimated to be around 2.35% based on the data available from 1.1.2015 to 30.10.2017, which is much less than the 4.75% losses presently being loaded on EPPL over the past more than 6 years, much to the detriment of EPPL and benefit of the Petitioner. The details of the transmission losses based on the data available from the website of NRLDC are as follows.

Srl. No.	Year	Present transmission losses imposed	Actual average transmission losses
1.	2015	4.75%	2.54%
2.	2016	4.75%	2.09%
3.	2017	4.75%	2.46%

Note: Losses data started from 1.1.2015 to 30.10.2017.

NRLDC should confirm the actual transmission losses incurred based on the data available with them from the date of connectivity of EPPL. From the date of connectivity of EPPL, the Petitioner has been benefited tentatively of around 32 MUs which is to be adjusted immediately from the monthly transmission invoices. Accordingly, sharing of transmission losses needs to be corrected and the excessive energy enjoyed by the Petitioner during the past 6 years is to be adjusted in favour of EPPL before giving any interim relief to the Petitioner. There is no justification for allowing the Petitioner to enjoy excessive energy during pendency of the instant petition, which is primarily for determination of the capital cost of the transmission line.

k. EPPL filed an IA No. 4 of 2013 before the Hon'ble Supreme Court with regard to the aforementioned invoice related disputes but the said IA could not be disposed of by the apex Court. The disputes as raised in the said IA are now required to be looked into by the Commission on merits.

l. The cost of switchyard has been wrongly claimed as the same is a component of the generating station and is not the ISTS system in question.

The Petitioner has failed to provide any clarification regarding additional capital expenditure incurred in subsequent years that the capital expenditure belongs to the transmission asset or the generation asset.

27. EPPL vide affidavit dated 2.2.2019 has reiterated its submission. Some of the additional information submitted by the EPPL is as follows.

a) The decision that the DTL of the Petitioner would be used for Malana-II HE Project of EPPL was taken in the meeting of CEA dated 10.4.2008. The relevant extracts of the said meeting is as under.

> "…………………………..
> …………………………..
> ADHPL would take up the issue with CERC regarding sharing of 220 kV ADHEP – Nalagarh line with EPPL for evacuation of power from Malana-II (100 MW) as well. CEA would extend all support to ADHP to obtain the approval of CERC."

b) It was necessary for the Petitioner to maintain account of its transmission line separately. There is no provision in the Regulations to entertain exemptions from submission of mandatory formats.

c) The audited capital cost of the transmission line as claimed by the Petitioner vide affidavit dated 7.9.2017 is ₹41108.92 lakh as on 31.3.2011 whereas the Petitioner vide affidavit dated 3.1.2019 claimed ₹41661.36 lakh to be the capital cost on COD i.e. 16.9.2010 which was also certified by Statutory Auditor. There cannot be two different Audited capital costs for a particular transmission line whose COD is 16.9.2010.

d) The prevalent industrial practice indicates the estimated cost of 220 kV D/C transmission line to be within ₹95 lakh to ₹100 lakh per km. When the Petitioner's DTL was executed during 2010-11, the cost for 220 kV D/C line in snow zone of Himachal Pradesh was approximately estimated at ₹95 lakh per km which included compensation for land, trees, crop etc. In terms of the Commission's order dated 15.2.2016 in Petition No. 286/TT/2013, the cost for 220 kV D/C line of PGCIL was stated to be around ₹59.50 lakh per km during 2011-12. In the meeting of all the stakeholders convened pursuant to the directions of Hon'ble Supreme Court, the cost data notified by HPERC in respect of high voltage transmission line for the year 2008-09 was shared amongst all the stakeholders based on which the estimated cost was around ₹88.4 lakh per km which included compensation for land, trees, crop etc. Considering the length of ADHPL transmission line to be 176.5 km, its completed cost should be around ₹156.02 crore as it was executed in September, 2010. The detail of the calculation is tabulated below.

(₹ in lakh)

Particulars	ADHPL	HPSEB/HPPTCL	PGCIL
Cost of 220 kV DC transmission line per km	236.04	88.4	59.5
Length of ADHPL Transmission Line (km)	176.5	176.5	176.5
Total Cost of the Transmission Line(A*B)	41661.06	15602.6	10501.75

e) In view of above, the cost as claimed by the Petitioner of ₹416.61 crore is unreasonable and very high which requires prudence check.

f) The Petitioner has claimed additional expenditure in subsequent years which does not relate to 220 kV Transmission Line from Prini to Nalagarh nor any reasons have been given as to why the expenditure was incurred beyond the COD and cut-off date. All the claims of the Petitioner qua additional capital expenditure require prudence check on the touchstone of Commission's Regulations and past practice.

g) NRLDC should confirm the actual transmission losses incurred based on the data available with it from the date of connectivity of EPPL.

<u>Petitioner's Rejoinder to the replies of EPPL</u>

28. The Petitioner in its rejoinder filed vide affidavit dated 20.3.2019 has reiterated the submissions made in the petition. The Petitioner has submitted that in the absence of regulations for use of DTL by other generators, the Commission can adjudicate the issue under Section 79(1) of the Act in terms of Hon'ble Supreme Court judgment in the matter of PTC vs. Central Electricity Regulatory Commission. If the principle of incremental loses is not applied in the present case, the generating plant of the Petitioner will be burdened with increased losses of the line because of other temporary users including EPPL. The DTL of the Petitioner was not established to undertake the business of transmission and the subject D/C line was established pursuant to the TEC approval of the 192 MW of ADHEP generating station of the Petitioner and as per technical standards to cater the redundancy only. POC mechanism cannot be made applicable in the case of DTL of the Petitioner as it is applicable to transmission licensees only. The capital cost claimed by the Petitioner of ₹411,08,91,856 initially included the cost of land, land control room

building at Prini Sub-station, expenditure towards 3 bays at the switchyard at Prini Sub-station, transmission line from Prini to Nalagarh and 2 bays at Nalagarh Sub-station of PGCIL, PLCC of various office equipment, computers etc. The said cost was revised to ₹416.61 crore as on COD due to pro-rata cost of the civil works in Prini Sub-station which was not considered earlier. EPPL's reliance on the order of the Commission in Petition No. 286/TT/2013 is misplaced and is not applicable to the facts of the present case.

29. The petitioner has submitted that the actual amounts capitalized in the books of accounts, as certified by the Statutory Auditors, are for the instant DTL. The records and information were not maintained in the forms as per the Tariff Regulations for ISTS lines. The statement of the EPPL that the amounts are inflated is baseless and is a direct challenge to the costs certified by the Statutory Auditors. However, the Petitioner has already supplied the information as sought by this Commission to fix the tariff and other terms for the use of the DTL.

Submissions of KPCPL

30. Kanchanjunga Power Company Private Limited (for short, "KPCPL"), which is using the aforesaid transmission line for the purpose of evacuating power from its power plant, prayed for its impleadment as respondent, to which the Petitioner submitted that there was no requirement of KPCPL to be impleaded as respondent, and it be allowed to participate in the proceedings and submit its reply.

31. KPTCL in its reply filed vide affidavit dated 27.12.2017 and 31.1.2019 submitted that it is also using the Petitioner's transmission line for evacuation of power from its power plant. KPCPL has made the following submissions.

a. The Petitioner has not provided information pertaining to Form 4, 4A, 5, 5A, 5B, 5C, 5D, 6, 7, 8, 9A, 10, 14, 14A for tariff periods 2009-14 and 2014-19. The details pertaining to the transmission assets on Auditor's Certificate against their actual COD thereby disclosing the expenditure of assets in the form of element-wise segregation of capital cost and segregation of IDC and IEDC as on COD has also not been provided by the Petitioner.

b. TEC for the instant assets was accorded by CEA on 20.8.2012 including instant assets with cost for transmission works at ₹89.71 crore. However, in para 57 of the petition, it is mentioned that MOP through letter dated 21.8.2007 accorded the approval for construction of the Petitioner's transmission line as the Associated Transmission System of Allain Duhangan HEP.

c. The Petitioner has not submitted the revised cost estimates towards the Associated Transmission System approved for construction of the instant assets. The Petitioner did not provide DPR, approval of revised cost estimates by concerned authorities and other related project appraisal documents for prudence check of the capital cost of the associated transmission system.

d. The Petitioner has failed to provide details of all liquidated damages, recovered, adjusted or recoverable as a part of its capital cost, expenditure incurred on cash basis thereby clearly specifying the capital liabilities as on COD and thereafter. No details are given whether the entire amount of IDC is discharged as on COD and the un-discharged portion of IDC, if included, in additional capital expenditure. Details of IDC from the date of infusion of debt fund to the scheduled COD and from scheduled COD to actual COD should be furnished. Whether the entire amount of IEDC is discharged as on COD and the details of un-discharged liability portion of IEDC included in additional capital expenditure.

e. The Petitioner did not provide the details of: (i) actual initial spares capitalized in respect of the instant assets in accordance with Regulation 8 of 2009 Tariff Regulations, (ii) whether the claimed additional expenditure is within the original scope of work and whether the project is completed within the cut-off date, (iii) details pertaining to the un-discharged liabilities/liability flow, (iv) copies of the relevant loan agreements/documentary proof in respect of the rate of interest as claimed by the Petitioner in the present petition and (v) undertaking/affidavit whether equity infused in the abovementioned transmission asset is at least 30% as on COD.

f. The Petitioner has claimed RoE of 16% but did not provide information to show that the timeline for completion of the project was met by it in terms of Appendix-II to 2009 Tariff Regulations. The Petitioner has failed to provide the details of any tax including income tax in actual pertaining to the instant assets.

g. The Petitioner has claimed O&M Expenses for the tariff period 2014-19 which is contrary to the norms as specified under Regulation 29 of 2014 Tariff Regulations.

h. The Petitioner has claimed interest on working capital at the same rate throughout the tariff periods which is not in accordance with the provisions of Regulation 28(3) of 2014 Tariff Regulations. However, the Petitioner has failed to revise the same in accordance with the said Regulation.

<u>Petitioner's Rejoinder to the replies of KPCPL</u>

32. The Petitioner vide its affidavit dated 19.9.2018 has made the following submissions.

a) The Petitioner vide its affidavit dated 20.3.2019 submitted that request for furnishing the information for the tariff period in prescribed forms should not be accepted as the said information is maintained by transmission licensees. The relevant information has already been submitted by the Petitioner in the tariff petition. However, the information is not supplied in the formats of Tariff Regulations as the Petitioner enjoys the status of DTL and as such it was not required to do so.

b) The submissions of KPCPL are irrelevant insofar as it contemplates the cost of Petitioner's DTL with that of PGCIL. The order of the Commission in Petition

No. 286/TT/2013 is not applicable to the Petitioner's DTL as it deals with the transmission tariff of the lines executed in Gangetic plains of the Uttar Pradesh not for a line in the snow bound zone or hill terrain.

c) As directed by the Commission, the expenses incurred by the Petitioner for use of private land have been certified by the Statutory Auditors. The submission of KPCPL that the compensation cost of the private land of the line is on the higher side as compared to the cost of the forest land like NPV, CA, cost of trees etc. is for the reason that the line is passing through the private land falling in the fruit orchards of the area where cost of land is very high. The Petitioner made payments of compensation towards damages to orchards, fruit trees, flowerings, fruit crop and other damages like income etc. to the farmers. The record of payment towards compensation being voluminous was not submitted.

d) There cannot be a comparison between the Petitioner Petitioner's DTL with 220 kV Vapi-Khadoli D/C Transmission Line as submitted by KPTCL mainly because Petitioner's DTL is more than 176.5 km line executed in one of the most difficult terrains in a given time when no evacuation facility was provided by CTU or STU.

Submissions of PSPCL

33. PSPCL filed its reply vide affidavit dated 19.9.2018 and made the following submissions.

a. PSPCL is paying the entire transmission charges being billed by the Petitioner to EPPL. EPPL had entered into a Power Purchase Agreement dated 25.7.2005 with the PTC India Limited for supply of electricity from the generating station. Based on the said PPA, PSPCL had entered into a Power Sale Agreement dated 23.3.2006, with PTC providing for the terms and conditions for supply of electricity by PTC from the generating station of EPPL. Therefore, the amount payable by EPPL to the Petitioner has direct impact on PSPCL since it is a pass through to EPPL and is recovered from the consumers in the State of Punjab.

b. Over the years, the Petitioner has been charging exorbitant rates against the transmission charges without giving any due clarification for the same. Therefore, the claims of capital cost sought to be approved in the present petition should be put to strict prudence check by the Commission.

c. The COD of the transmission line of the Petitioner is 16.9.2010. Accordingly, the tariff has to be determined in accordance with 2009 Tariff Regulations. In the original petition, the Petitioner has claimed the capital cost to be ₹41108.92 lakh or ₹411.1 crore. There is no sanctity of the Petitioner's claim of ₹41108.92 lakh towards capital cost. As per the audited accounts of the Petitioner for 2010-11, the capital cost of the transmission line has been shown as ₹38,992.42 lakh only. Pre-operative expenses and expenditure on office equipment, furniture, computers and IT products cannot be included in capital cost.

d. The amount of ₹243819000 claimed as "Capital Commitment" is claimed as capital cost and as such the same cannot be allowed to be capitalized *de hors* the provisions of 2009 Tariff Regulations.

e. The switchyard is not part of the ISTS system and is part of the generating station of the Petitioner. The Petitioner as a generating company would have included these costs under the capital costs of the generating company. Therefore, the Petitioner cannot seek double recovery of the above amounts.

f. Excess recovery of the transmission charges from EPPL in the past, if any, should be refunded to EPPL along with interest to be further passed on to PSPCL.

g. Since the COD of the transmission line is 16.9.2010 and the cut-off date was 31.3.2012. Therefore, till 2011-12, the additional capitalization can be allowed as per Regulation 9(1) of 2009 Tariff Regulations. For the balance years, the Additional Capitalization has to be allowed only as per Regulation 9(2) of 2009 Tariff Regulations.

h. For the purpose of calculation of the Interest on Loan, the Petitioner has considered the full capital cost including the capital commitment and then made the calculations at 70% debt which is not permissible without supporting documents indicating the interest rates.

i. The computation of transmission charges should be as per Regulation 23 of 2009 Tariff Regulations. The Petitioner has simply claimed the AFC of various years without any basis.

j. There is no basis for the Petitioner to claim an additional ROE of 0.5% which is an incentive for early commissioning of the transmission line in the absence of any reference point against which it has pre-commissioned the line. The Petitioner has neither paid any income tax nor MAT for 2010-11 to 2016-17. There is thus no basis for the Petitioner to claim a grossed up ROE component on a notional basis.

k. The NRLDC should be directed to give details of the losses on Allian Duhangan–Nalagarh Transmission Line so that arbitrary and excessive losses of 4.75% imposed by the Petitioner can be discontinued.

Response of the Petitioner to the reply of PSPCL

34. The Petitioner vide its affidavit dated 20.3.2019 has made the following additional submissions.

a) The Petitioner is not a party to the Agreement entered into between PSPCL and EPPL and as such it cannot comment on the submissions of PSPCL.

b) Claims towards pre-operative expenses, expenditure on office equipment, furniture, computers and IT products was made by capitalizing them as expenses are directly associated with the construction of the Petitioner's DTL. The pre-operative expenditure encompasses salary, wages, interest during construction, insurance allocated to transmission line, engineering fees etc. incurred during construction of Petitioner’s DTL upto its COD.

c) The Petitioner in the Petition has already explained that the amount of ₹24,38,19,000/- which was reflected in the balance sheet towards capital commitment was spent and capitalized in the succeeding years and claimed as capital expenditure

Submissions of NRLDC

35. NRLDC vide its affidavit dated 25.1.2019 has made the following submissions.

a. The injection of power by various utilities using the Petitioner’s DTL is resulting in an increase in the line losses. These losses need to be apportioned appropriately among the utilities using the lines. The Petitioner has proposed that the losses may be apportioned using the concept of incremental use of the DTL and has suggested a methodology for the same.

b. Presently, the losses on the Petitioner’s 220 kV D/C DTL are apportioned as per the order of the Appellate Tribunal of Electricity dated 10.6.2011 in IA No. 141 of 2011.

c. At present, the transmission losses for ISTS are ascertained by Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2010 (hereinafter referred to as “2010 Sharing Regulations”). Weekly loss is determined by the RLDC based on the Special Energy Meter readings and is applied to the regional entities based on the POC loss slabs as approved by the Commission on quarterly basis. As per these regulations, for the use of inter-State Transmission System beyond Nalagarh, Point of Connection (POC) losses are applicable.

d. In case of transmission constraints, the priority for use of an inter-State transmission system has been mandated as per the regulation 6.5.27 and 6.5.28 of Central Electricity Regulatory Commission (Indian Electricity Grid Code), Regulations, 2010 (hereinafter referred to as "2010 Grid Code") and the relevant excerpts of the same are as under.

> "6.5.27
> When for the reason of transmission constraints e.g. congestion or in the interest of grid security, it becomes necessary to curtail power flow on a transmission corridor, the transactions already scheduled may be curtailed by the Regional Load Despatch Centre.
>
> 6.5.28
> The short-term customer shall be curtailed first followed by the medium term customers, which shall be followed by the long-term customers and amongst the customers of a particular category, curtailment shall be carried out on pro rata basis.
>
> 6.5.30.
> Collective Transaction through Power Exchange(s) would normally be curtailed subsequent to the Short Term Bilateral Transaction(s)."

Analysis and Decision

36. We have considered the submissions of the Petitioner, EPPL, KPCPL, PSPCL and NRLDC. The Petitioner has inter-alia raised the issue of dedicated nature of its transmission line, treatment of 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 has raised the issue of nature of the instant transmission line, inflated capital cost of the transmission asset, return on equity, depreciation, availability of transmission line, inflated invoices raised by the Petitioner, sharing of transmission losses and handing over the control of its 220 kV

Chhaur Sub-station to the Petitioner. KPCPL has raised some procedural issues, and that the Petitioner has not submitted the required details as specified in the Tariff Regulations and the Petitioner's claim for RoE, O&M Expenses and Interest on Working Capital need to be checked prudently.

37. We would deal with the issues raised by the Petitioner, EPPL and KCPCL in the instant order. PSPCL in its reply dated 15.1.2019 has submitted that transmission charges claimed by EPPL are on higher side. We are of the view that it is purely a bilateral issue between PSPCL and EPPL, which is beyond the scope of the instant petition. PSPCL has further submitted that the Petitioner's claim should be allowed only as per the Tariff Regulations. NRLDC has submitted that the transmission losses should be dealt as per the provisions of the 2010 Sharing Regulations and the Petitioner's plea for priority use of the line should be dealt as per the 2010 Grid Code.

Nature of the instant transmission asset and jurisdiction of the Commission

38. The Petitioner has submitted that the instant transmission asset is a DTL, and EPPL has contended that in terms of the Hon'ble Supreme Court judgment dated 26.4.2017 in Civil Appeal No.1395 of 2017 and judgment of APTEL dated 12.7.2017, the instant transmission line has to be considered as an ISTS line. We have considered the submissions of the Petitioner and EPPL. The 220 kV D/C line of the Petitioner was sanctioned as DTL by CEA vide TEC dated 20.8.2002.The CEA further directed that the Petitioner's 220 kV D/C DTL having surplus capacity could carry the power of other beneficiaries in the region. The line was created as dedicated line but its nature remains unchanged except for the purpose of its

utilization as ISTS as observed by the Commission in its order dated 1.6.2011 in Petition No. 259 of 2010, which was affirmed by APTEL and Hon'ble Supreme Court in their judgments. The relevant extract of the Commission's order dated 1.6.2011 in Petition No. 259 of 2010 is as under.

> "16. We have considered the submissions of the Petitioner and Respondent No.1. There is no doubt that as per the Master Plan envisaged by the Central Electricity Authority, the transmission line is required to wheel the power of other generators in the region till the Nalagarh Sub-station of Power Grid. Since the Petitioner has been permitted by Ministry of Power, Government of India in its sanction letter under section 68 of the Act to wheel its power by LILO of one circuit of Allain Duhangan-Nalagarh transmission line till the Nalagarh Sub-station of Power Grid, the portion of the transmission line to be used by EPPL becomes a part of the inter-State transmission system as "inter-State transmission system" under 2(36) of the 2003 Act which includes conveyance within the State which is incidental to inter-State transmission of electricity. Moreover, permission to EPPL in the sanction letter under section 68 of the Act to use the transmission line of ADHPL is deemed to be read into the sanction letter to ADHPL under section 68 of the Act and such permission to ADHPL is conditional to wheeling the power of other generators in the region whose generating stations were included in the planning process of CTU and CEA. Since the subject transmission line has been planned to evacuate power from the region for injection into the sub-station of Power Grid at Nalagarh, the transmission line is incidental to inter-State transmission system. The Commission which has been vested with the responsibility to regulate inter-State transmission has the jurisdiction to issue directions under section 79(1)(c) of the Act to regulate transmission on the subject transmission line."

39. From the perusal of the aforesaid order dated 1.6.2011, it is apparent that Allain Duhangan-Nalagarh Transmission Line till Nalagarh Sub-station of PGCIL is incidental to inter-State Transmission System and the Commission under section 79(1)(c) of the Act has the jurisdiction to regulate transmission of the subject transmission line.

40. The Hon'ble Supreme Court vide its judgment dated 26.4.2017 observed the following.

> "5) In view of the concurrent finding of fact taking into account Section 2(36)(ii), we find no reason to interfere with the judgment of the Appellate Tribunal and hence the same is upheld. We may only indicate that the said judgment has remanded the

matter to the Central Commission to decide the matter on merits having held that it has jurisdiction to proceed further.

6) The appeal is dismissed. xxxxxxxx”

41. Subsequently, the Petitioner filed a Review Petition before the Hon’ble Supreme Court against its judgment dated 26.4.2017. Hon’ble Supreme Court vide its judgment dated 12.7.2017 in Review Petition observed as under.

> “xxxxxxxx we find that there is no error apparent in our order dated 26th April, 2017.
>
> However, when the Central Electricity Regulatory Commission decides the matter on merits, it may do so without regard to the observations made by the Appellate Tribunal for Electricity in its order dated 2.1.2013.”

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.

<u>Applicability of the Tariff Regulations</u>

43. The Petitioner has contended that there are no specific regulations of the Commission which provide for use of the DTL by others alongwith determination and sharing of transmission charges. The tariff regulations are issued for transmission licensees and they should not be made applicable in entirety to DTL. However, the Petitioner has worked out the tariff proposal based on the basic principles of the tariff regulations issued by the Commission and its related procedures. The Petitioner has further contended that the concerned authorities as well as Hon'ble Supreme Court

directed the Petitioner and EPPL to mutually arrive at the transmission charges and the conditions for use of the Petitioner's DTL by EPPL. Hon’ble Supreme Court vide its judgment dated 12.4.2017, observed that in the event no agreement is arrived at between the parties, the Central Commission can step in to decide the issue. EPPL, KPCPL and PSPCL have submitted that the tariff for the instant transmission assets should be determined as per the provisions of the applicable Tariff Regulations.

44. We have already observed that instant transmission line from Prini (ADHEP) till the Nalagarh Sub-station (PGCIL) is incidental to inter-State Transmission System and the Commission under Section 79(1)(c) of the Act has the jurisdiction to regulate the subject transmission line. Further, the Commission while determining tariff of the cases covered under Section 62 of the Act follows the tariff regulations framed and notified by it. We are of the view that the tariff of the instant transmission line has to be determined in line with the Commission’s applicable Tariff Regulations.

Transmission System Availability

45. The Petitioner has submitted that the Transmission System Availability is certified by NRPC in respect of transmission assets which are part of inter-State Transmission System. The dedicated transmission system of the Petitioner is not part of the inter-State transmission system. Therefore, the availability of the Petitioner's transmission system is not certified by NRPC. The Petitioner has submitted that it is ready to forego the incentive given to a transmission licensee under the provisions of tariff regulations for the availability of its transmission system. EPPL has contended that the transmission line availability calculations should be as per the 2009 Tariff Regulations considering circuit length without other parameters

such as transformers/ICTs and bus reactors, switchable line reactors and SVCs in the availability calculations as specified in Appendix-IV of 2009 Tariff Regulations.

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.

Charges for over injection

47. The Petitioner has contended that the connectivity is for an installed capacity of 100 MW and as such it has proposed to claim the transmission charges for over-injection at the rates calculated from the Annual Fixed Charges for the period. Regulation 8(4) of 2010 Sharing Regulations deals with the issues relating to over injection of power on ISTS lines. Regulation 8(4) of 2010 Sharing Regulations is extracted hereunder.

> "(4) In case the metered MWs (ex-bus) of a power station or the aggregate demand of a Designated ISTS Customer exceeds, in any time block,
>
> (a) In case of generators: The Approved Injection + Approved Additional Medium Term Injection + Approved Short Term Injection or;
>
> (b) In case of demand customers: The Approved Withdrawal + Approved Additional Medium Term Withdrawal + Approved Short Term Demand,
>
> Then for first 20% deviation in any time block, the Designated ISTS Customer shall be required to pay transmission charges for excess generation or demand at the same rate and beyond this limit, the Designated ISTS Customer shall be required to pay additional transmission charges which shall be 25% above the zonal Point of Connection charges determined for zone where the Designated ISTS Customer is physically located. Such additional charges shall not be charged to the generators in case of rescheduling of the planned maintenance program which is beyond the control of the generator and certified to be so by the appropriate RPC. Further, any

payment on account of additional charges for deviation by the generator shall not be charged to its long term customer and shall be payable by the generator;"

48. The Petitioner has relied on 31st NR SCM held on 2.1.2013. We observe that during the said NR SCM, Director (SP&PA), CEA has stated that the Petitioner's line was not adequate for reliable evacuation of power from all the projects especially under contingency condition. As such, over-injection by any generator is not technically desirable and needs to be discouraged. 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.

Cap on Maximum Power Flow

49. The Petitioner has contended that the 220 kV double circuit line with a design capacity of 200 MW in each circuit was to carry its own power from its ADHEP and in

case of any constraint in one circuit of the line, other circuit can be used for injection of power from its generating station to the ISTS sub-station. Presently, due to addition of EPPL and other utilities through HPPTCL, the power flow on 220 kV D/C line is as follows.

Name of Utility	**Capacity in MW**
Allain Duhangan HEP of Petitioner	192 MW
Malana-II HEP of EPPL	100 MW
HPPTCL	35.40 MW
Total capacity	**327.40**

50. As a result there is no spare capacity for the Petitioner. The Petitioner has contended that in the Minutes of the meeting of CEA dated 2.1.2013, CEA has agreed that the Petitioner's line was not adequate for reliable evacuation of power from all the projects especially under contingency condition. It was, therefore, agreed in the said meeting to construct a 220 kV Line from Chhaur Sub-station to Parbati Pooling Station enabling injection of power from Malana-II at Parbati Pooling Point to ISTS. The Petitioner had highlighted the transmission constraints specially during peak hydro season as all the generators connected to the system are run of the river hydro power generating stations situated in the same river basin and as such their generations will be available during the same time. The Petitioner has, therefore, contended that considering the overload generation during the peak season, connectivity of more than 350 MW capacity in the line will always be an issue.

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.

First Right of Use in case of Line Constraints

52. The Petitioner has contended that the instant transmission line was approved and constructed as DTL for injection of its own energy. After approval of the said line, it was directed to carry the power of other utilities on mutually agreed terms. The Petitioner, therefore, has contended that it should have the first right to use the line in case of any power flow constraint before Nalagarh Sub-station.

53. The Petitioner has submitted that it has been selling its energy in the short term market as committed energy and there are no regulatory provisions to revise the schedule in case of any emergency due to a constraint in the transmission system before the CTU Sub-station at Nalagarh. The Petitioner has, therefore, submitted that revision in its scheduling will result in substantial loss to it on account of UI and other charges. The Petitioner has further submitted that EPPL is selling its energy on long term Power Purchase Agreement with flexibility of schedule revisions available to it under the regulations. Therefore, the Petitioner has submitted that in case, the utilities use the DTL at the time of constraint for power flow, they should compensate the losses suffered by the Petitioner on account of UI and other charges. NRLDC has submitted that in case of transmission constraints, the priority for use of an inter-State transmission system should be dealt as per the 2010 Grid Code. The relevant extract of the 2010 Grid Code is as follows:

> "6.5.27
> When for the reason of transmission constraints e.g. congestion or in the interest of grid security, it becomes necessary to curtail power flow on a transmission

corridor, the transactions already scheduled may be curtailed by the Regional Load Despatch Centre.

6.5.28.
The short-term customer shall be curtailed first followed by the medium term customers, which shall be followed by the long-term customers and amongst the customers of a particular category, curtailment shall be carried out on pro rata basis.

6.5.30.
Collective Transaction through Power Exchange(s) would normally be curtailed subsequent to the Short Term Bilateral Transaction(s)."

54. APTEL vide its judgment dated 2.1.2013 in Appeal No. 81 of 2011 has observed that the Petitioner is sharing the entire cost of the instant asset with other connected generators. Therefore, the Petitioner cannot claim for the 'first right of use' of the said line in case of any contingency. The relevant extract from the said order is as follows.

> "53.4 Priority in case of a circuit: The Central Commission has decided that the outage handling and priorities shall be similar to the one enumerated in the concerned Grid Code and in accordance with Connectivity, Long Term Access, and Medium Term Open Access Regulation. We find that these Regulations do not have specific provisions for the present case. For the Allain Duhangan - Nalagarh system in view of peculiar situation we have to give specific findings to avoid any ambiguity. For example in case of outage of Allain Duhangan - Chhaur section, Allain Duhangan - Nalagarh direct line section will evacuate the power output of Allain Duhangan and Chhuar-Nalagarh section will evacuate the output of Malana-II. In that case the evacuation from the respective HEP will be as per the capacity of each line section. However, in case of outage of Allain Duhangan-Nalagarh direct line or Chhaur - Nalagarh line section, both Allain Duhangan and Malana-II shall have to be allowed to send out power on the restricted capacity of the transmission system on pro-rata basis on their respective installed capacities. According to Ld. Counsel for the Appellant, the Appellant's generating station should be given priority over the generation of the Respondent no. l. We have already explained in paragraph 46 above the reason for allowing proportionate use of the transmission system of the Appellant to the Respondent no. I in case of outage of a line section in view of the Respondent no. l bearing the proportionate transmission charges for the entire double circuit line of the Appellant. We direct the Central Commission to give detailed directions to the NRLDC on the above principles after hearing the parties."

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 pro-rata basis to their scheduled energy.

Line Losses

56. The Petitioner has submitted that with the increase in transmission of energy in the line, there is increase in line losses. The Petitioner has, therefore, suggested that the incremental losses should be borne by other generating stations which are using the line. EPPL has questioned the recovery of higher transmission losses on the basis of aforesaid methodology from 2011. EPPL has submitted that as per the information available on the NRLDC's website, the estimated transmission losses of the instant transmission line is around 2.35% for the period 1.1.2015 to 30.10.2017. However, they have been charged transmission losses @ 4.75%. EPPL has requested to direct the Petitioner to refund the excess amount collected from EPPL. NRLDC has submitted that currently the losses on Petitioner's line is being apportioned as per APTEL's judgement dated 10.6.2011 in I.A No. 141 of 2011.

57. APTEL vide its judgement dated 2.1.2013 in Appeal No. 81 of 2011, has observed that the sharing of transmission losses of the instant transmission line, among the connected generating stations, would be as per the estimated percentage

average transmission losses applied to their respective schedules. The relevant extract of the said order is as follows.

> "53.3 Sharing of transmission losses on Allain Duhangan-Nalagarh system: - The Appellant had sought 4% additional loss or loss based on incremental loss to be deducted from generation of Malana II HEP. The Central Commission has decided that the estimated percentage average transmission losses shall be applied to the respective schedules of the generating companies. The estimation shall be based on the previous week's actual percentage average losses worked out through the actual meter readings. We are in agreement with the findings of the Central Commission that the transmission losses for Allain Duhangan - Nalagarh section to be borne by the Respondent no.1 should be on the basis of the average losses based on the actual meter readings on the sending and receiving ends of the lines. There is no basis for claim of 4% additional loss to be apportioned to Malana-II HEP. When the transmission charges are to be shared on a pro-rata basis on the respective installed capacity of the generating stations of the Appellant and the Respondent the same principle of sharing of losses on the basis of average losses in the line section has to be adopted. For the inter-State transmission of energy also the losses are apportioned on the average basis. The Appellant for inter-State transmission of its electricity has also to bear average losses on the inter-State transmission system."

58. We have considered the submissions of the parties and APTEL's judgement dated 2.1.2013. We are of the view that the estimated percentage average transmission losses shall be applied to the respective schedules of the connected generating companies. The estimation shall be based on the previous week's actual percentage average losses worked out through the actual meter readings installed at the inter-connecting points to the said transmission line.

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.

<u>Date of Commercial Operation (COD)</u>

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.

<u>Determination of transmission tariff</u>

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.

63. The sharing of transmission charges amongst the users of transmission line shall be as per para 113 of this order.

Transmission Tariff for 2009-14 Tariff Period

64. The instant transmission system consists of the following three elements.

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 CTU sub-station at Nalagarh.

65. The Petitioner has expressed its inability to furnish the tariff forms in the format prescribed in the Tariff Regulations. However, the Petitioner has submitted the information required for determination of the transmission charges. The transmission charges for the instant transmission asset are determined in the following paragraphs.

66. The transmission charges claimed by the Petitioner are as under.

(₹ in lakh)

Particulars	2011-12	2012-13	2013-14
Depreciation	2062.32	2,145.78	2,196.78
Interest on Loan	3114.66	3,194.65	2,945.23
Return on Equity	2398.08	2,441.70	2,480.48
Interest on Working Capital	163.68	168.52	166.08
O&M Expenses	258.13	272.83	288.40
Total	**7996.87**	**8223.49**	**8076.98**

67. The details of interest on working capital claimed by the Petitioner are as under.

(₹ in lakh)

Particulars	2011-12	2012-13	2013-14
Maintenance Spares	38.72	40.92	43.26
O&M expenses	21.50	22.73	24.02
Receivables	1332.81	1370.58	1346.16
Total	**1393.03**	**1434.23**	**1413.45**
Interest	163.68	168.52	166.08
Rate of Interest	11.75%	11.75%	11.75%

Capital cost & Additional capitalization

68. Regulation 7(1) (a) of the 2009 Tariff Regulations provides as under.

> "(1) Capital cost for a project shall include.
>
> (a)The expenditure incurred or projected to be incurred, including interest during construction and financing charges, any gain or 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 funds deployed, by treating the excess equity as 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 prudence check."

69. The Petitioner, vide affidavit dated 3.1.2019, has submitted Auditor's certificate dated 6.11.2018, for expenditure incurred for the instant transmission line as on COD and up to 31.3.2013. The Petitioner's claims are based on the said certificate and the submissions in the affidavit, which are as follows.

(₹ in lakh)

As on COD (16.9.2010)	Add Cap				Total expenditure as on 31.3.2014
	2010-11	2011-12	2012-13	2013-14	
41661.35	443.84	1431.45	1747.81	0.00	45284.45

70. EPPL has submitted that the estimated capital cost of a 220 kV D/C Transmission line is in the range of ₹95 lakh to ₹100 lakh per km in snow zone

region of Himachal Pradesh, including compensation for land, trees, crop etc. in 2010-2011, the year of commissioning of ADHPL Transmission Line. EPPL has also submitted that in terms of order dated 15.2.2016 in Petition No. 286/TT/2013, the cost of 220 kV D/C line of PGCIL is around ₹59.50 lakh per km in the year 2011-12. Accordingly, EPPL has contended that the capital cost claimed by the Petitioner for the instant asset is on higher side.

71. The Petitioner has submitted that order dated 15.2.2016 in Petition No. 286/TT/2013 is not applicable to the Petitioner's DTL, as the said order is for the transmission lines executed in the Gangetic plains of Uttar Pradesh, and not for transmission lines in the hill/ snow bound hill terrain.

72. We have considered the submissions of the Petitioner and Respondents regarding the capital cost claimed by the Petitioner for its 220 kV D/C Prini-Nalagarh line. The methodology specified in the 2009 Tariff Regulations has been considered for the purpose of computation of capital cost of the instant asset.

73. We observe that Petitioner has claimed tariff for 220 kV D/C line and 5 nos. of 220 kV bays. For capital cost prudence, capital cost of transmission lines and bays in the same hilly/ snow bound region have been considered. However, the approved capital cost of 220 kV transmission line and 220 kV bays in this region is not available. The Commission has approved the capital cost of 400 kV D/C transmission lines and 400 kV bays of the same Region, in various tariff orders and the same has been considered to derive the capital cost of 220 kV D/C transmission line using the ratio of indicative cost between 400 kV and 220 kV lines and bays as used for determining POC slab rates.

74. The Commission has approved the capital cost of 400 kV D/C line in the same region in the following petitions.

a) In Petition No. 3/TT/2015 (PGCIL), the approved completion capital cost for 400 kV D/C (Quad Moose) Koldam-Nalagarh line along with its associated bays (2 nos) is ₹17817.48 lakh as on 31.3.2014 for line length of 46.38 km, which works out to ₹384 lakh/ km. The COD of the asset is April, 2010.
b) In Petition No. 217/TT/2017 (Jaypee Powergrid Ltd.), the approved completion capital cost for 400 kV D/C (Quad Moose) Karcham Wangtoo - Abdullahpur line along with its associated bays (2 nos.) is ₹96367.99 lakhs as on 31.3.2014 for line length of 219.80 km, which works out to ₹438 lakhs/ km. The COD of the asset is April, 2012.
c) In Review Petition Nos. 8/RP/2017 and 9/RP/2017 in Petition No. 312/TT/2014 (PKTCL), the approved completion capital cost of 400 kV D/C (Triple Snowbird) Koldam-Ludhiana line is ₹46740.51 lakh as on 31.3.2019 for line length of 150.642 km, which works out to ₹310 lakh/ km. The COD of the asset is August, 2014.

75. The indicative cost for each voltage level as used for determining POC rates for 2011-12, 2012-13 and 2014-15 as mentioned in order dated 15.2.2016 in Petition No. 286/TT/2013 is as follows.

> "22. The yearly break-up of indicative cost of various configurations owned and operated by PGCIL is as under.

For FY 2011-12

Type	Cost (₹ in lakh)	Cost (₹ in lakh/ckt.)		Co-efficient	
765 kV D/C	315.25	157.625	(A)	a= D/A	0.64
765 kV S/C	159.25	159.25	(B)	b=D/B	0.63
400 kV D/C	109.50	54.75	(C)	c=D/C	1.84
400 kV D/C Quad Moose	202.00	101	(D)	d=D/D	1.00
400 kV S/C	74.25	74.25	(E)	e=D/E	1.36
220 kV D/C	59.50	29.75	(F)	f=D/F	3.39
220 kV S/C	37.00	37.00	(G)	g=D/G	2.73
132 kV D/C	46.75	23.375	(H)	h=D/H	4.32
132 kV S/C	28.50	28.50	(I)	i=D/I	3.54

For FY 2012-13

Type	Cost (₹ in lakh)	Cost (₹ in lakh/ckt.)		Co-efficient	
765 kV D/C	357.00	178.5	(A)	a= D/A	0.63
765 kV S/C	179.20	179.20	(B)	b=D/B	0.63
400 kV D/C	122.60	61.3	(C)	c=D/C	1.83
400 kV D/C Quad. Moose	224.80	112.4	(D)	d=D/D	1.00
400 kV S/C	84.20	84.20	(E)	e=D/E	1.33
220 kV D/C	67.80	33.9	(F)	f=D/F	3.32
220 kV S/C	41.40	41.40	(G)	g=D/G	2.71
132 kV D/C	53.00	26.5	(H)	h=D/H	4.24
132 kV S/C	32.40	32.40	(I)	i=D/I	3.47

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For FY 2014-15

Type	Cost (₹ in lakh)	Cost (₹ in lakh/circuit)		Co-efficient	
765 kV D/C	450	225	(A)	a= D/A	0.53
765 kV S/C	180	180.00	(B)	b=D/B	0.67
400 kV D/C Twin Moose	135	67.5	(C)	c=D/C	1.78
400 kV D/C Quad Moose	240	120.00	(D)	d=D/D	1.00
400 kV S/C Twin Moose	88	88.00	(E)	e=D/E	1.36
220 kV D/C	56	28	(F)	f=D/F	4.29
220 kV S/C	35	35.00	(G)	g=D/G	3.43
132 kV D/C	44	22	(H)	h=D/H	5.45
132 kV S/C	28	28.00	(I)	i=D/I	4.29

”

76. The indicative costs as submitted by CTU quoted above have been considered to work out the ratio of 220 kV D/C and 400 kV D/C lines for the respective year of COD of the transmission system referred in Para 74. The ratios are worked out as follows.

Year	220 kV line cost (₹ in lakh)	400 kV line cost (₹ in lakh)	Ratio of 220 kV: 400 kV
2011-12	59.5	202	0.29
2012-13	67.8	224.8	0.30
2014-15	56	135*	0.41

*400 kV D/C (Triple snow bird)

77. The capital cost for 220 kV D/C line/km as derived from the approved capital cost of the transmission lines as indicated at Para 74 above and indicative cost ratio given above at Para 75 is worked out as under.

(₹ in lakh)

Sr. No.	Asset Name	400 kV D/C cost per km	Ratio of 220 kV and 400 kV	220 kV D/C cost per km
1	Koldam-Nalagarh line along with 2 nos. bays	384	0.29	111
2	Karcham Wangtoo-Abdullahpur line along with 2 nos. bays	438	0.30	131
3	Koldam-Ludhiana line	310	0.41	127

78. Further, the Commission has approved the capital costs of 220 kV D/C transmission lines in its various tariff orders which are as under.

a) In Petition No. 01/2011 (PGCIL), the capital cost approved for LILO of 220 kV Tanakpur–Bareilly transmission line at Sitarganj alongwith its associated bays (2 nos.) is ₹2528.66 lakh as on 31.3.2009, which works out to ₹115 lakh/ km. COD of the asset is March, 2009.

b) In Petition No. 321/2010 (PGCIL), the capital cost approved for 220 kV D/C (single conductor) Vapi-Khadoli along with its associated bays (4 nos.) is ₹2847.25 lakh as on 31.3.2014, which works out to ₹100 lakh/ km. COD of the asset is October, 2010.

79. However, in the instant case, the Petitioner's claim for capital cost of its 220 kV D/C transmission line of 176.50 km length is ₹45284.45 lakh, which works out to ₹257 lakh/ km.

80. On comparison of the approved capital cost of 220 kV D/C lines whose details are mentioned above in para 78, and the worked out cost for 220 kV D/C line given at para 77 above, the Petitioner's claimed capital cost of the instant transmission line on much higher side. Hence, we approve the higher worked out capital cost for 220 kV line alongwith 2 nos. bays for the instant 220 kV D/C Prini- Nalagarh transmission line alongwith 2 bays as ₹131 lakh/km. Accordingly, the allowable completion cost of the said line alongwith 2 nos. bays is worked out as ₹23121.50 lakh (₹131 lakh X 176.50 km).

81. Since the instant transmission line of the Petitioner comprises of total 5 nos. 220 kV bays; 2 nos. bays costs have been considered above and to work out the costs for the balance 3 nos. bays, approved capital cost of similar assets in same region have been considered, which are as follows.

(a) In Petition No. 3/TT/2015 (PGCIL), the approved capital cost for completion of 2 nos. 400 kV bays at Ludhiana as on 31.3.2014 is ₹854.46 lakh i.e. ₹427 lakh/bay. The approved capital cost of bays

(Asset-II in Petition No. 3/TT/2015) has been derived as difference of combined capital cost of Assets-I&II and Asset-I in Petition No. 3/TT/2015 i.e ₹18671.94 lakh - ₹17817 lakh = ₹854.46 lakh. The COD of the asset is April, 2011.

b) In Petition No. 217/TT/2017 (Jaypee Powergrid Ltd.), the approved capital cost for completion of 2 nos. 400 kV bays at Abdullahpur is ₹1168 lakh i.e. ₹584 lakh/ bay. The COD of the asset is April, 2012.

82. The indicative costs of different configuration of bays for the period 2011-12 considered for POC calculations is as under.

Sl. No.	**Description**	**Cost (₹ in lakh)**
1.	765 kV Bay (per bay)	1300.0
2.	400 kV Bay with 3 breakers (for two bays)	950.00
3.	220 kV Bay (per bay)	210.00
4.	132 kV Bay (per bay)	160.00
5.	500 MVA 1 Phase 765/400 kV Transformer	1590.0
6.	315 MVA 3 Phase 400/220 kV Transformer	870.00
7.	Bus Reactor (80 MVAR), 765 kV	845.00
8.	Bus Reactor (80 MVAR), 400 kV	375.00
9.	Line Reactor (80 MVAR), 400 kV	455.00
10.	Auxiliaries	
	a) 765/400 kV	10%
	b) 400/220 kV	15%
	c) 220/132 kV	25%
	d) 132/33 kV	40%

83. As indicated in the above table, the ratio of cost of 220 kV bay and 400 kV bay for period 2011-12 is 0.44. To derive the cost of 220 kV bays corresponding to approved costs for 400 kV bays as referred in para 81 are as follows.

(₹ in lakh)

Sl. No.	**Asset Name**	**400 kV bays cost per bay**	**Ratio of 220 kV & 400 kV**	**220 kV bays cost per bay**
1	400 kV bays at Ludhiana	427	0.44	188
2	400 kV bays at Abdullahpur	584	0.44	257

84. Therefore, the cost of the instant 220 kV bay of the transmission line shall be considered as ₹257 lakh/ bay which is on higher side of the two cases as examined above. Accordingly, the capital cost allowed for 3 nos. 220 kV bays of the instant transmission line is worked out as ₹771 lakh.

85. Accordingly, the completion cost for the 220 kV D/C Prini-Nalagarh line along with its 5 nos. 220 kV bays shall be ₹23892.50 lakh (₹131 lakh X ₹176.50 km + ₹771 lakh). In the light of above discussion, the capital cost as on COD of the instant transmission asset for the purpose of tariff is restricted to ₹23892.50 lakh as against the capital cost claimed as on COD i.e. ₹41661.35 lakh. Since the cost is being restricted, no further additional capital expenditure is admissible beyond COD. Further, the above cost is inclusive of IDC and IEDC.

Initial Spares

86. The Petitioner, vide Auditor's certificates dated 6.11.2018, has submitted that the amount claimed does not include the cost towards initial spares. In view of the fact that capital cost as on COD is being restricted, there is no need of providing initial spares separately.

Debt-Equity Ratio

87. The Petitioner, vide affidavit dated 3.1.2019, has submitted the debt and equity amount, which translates into the debt-equity ratio of 71.16:28.84 as on COD.

88. The said ratio has been considered further as on 1.8.2011 and 31.3.2014. As no additional capitalization is being allowed, the following debt-equity have been considered as on COD i.e. 16.9.2010, 1.8.2011 and 31.3.2014 while calculating transmission tariff for the 2009-14 period.

(₹ in lakh)

Particular	**Capital cost as on 16.9.2010**		**Capital cost as on 1.8.2011**		**Capital cost as on 31.3.2014**	
	Amount	**%**	**Amount**	**%**	**Amount**	**%**
Debt	17001.90	71.16	17001.90	71.16	17001.90	71.16
Equity	6890.60	28.84	6890.60	28.84	6890.60	28.84
Total	**23892.50**	100.00	**23892.50**	100.00	**23892.50**	100.00

Return on Equity (RoE)

89. The Petitioner has claimed the base rate of Return on Equity @ 16% and has grossed-up the same with the prevailing MAT rate for respective years. EPPL has submitted that the Petitioner has not paid any income tax/MAT from 2010-11 to 2016-17 and any tax payment benefit are to be given only upon actual tax payments like MAT. KPCPL has submitted that the RoE should as per the 2009 Tariff Regulations. The Petitioner is directed to submit actual Corporate/MAT tax rate, as applicable as per the Finance Act of the relevant year of 2009-14 tariff period, with supporting documents, at the time of truing up. However, in tariff calculations, ROE has been worked out after considering year wise MAT rate applicable for the purpose of grossing up of ROE in accordance with Regulation 15 of the 2009 Tariff Regulations subject to truing up.

90. Accordingly, RoE allowed is as follows.

(₹ in lakh)

Particulars	**2011-12 (pro–rata)**	**2012-13**	**2013-14**
Opening Equity	6890.60	6890.60	6890.60
Addition due to Additional Capitalisation	0.00	0.00	0.00
Closing Equity	6890.60	6890.60	6890.60
Average Equity	6890.60	6890.60	6890.60
Return on Equity (Base Rate)	15.50%	15.50%	15.50%
Tax rate for the year (MAT)	20.0080%	20.0080%	20.9605%
Rate of Return on Equity (Pre Tax)	19.377%	19.377%	19.610%
Return on Equity (Pre Tax)	892.57	1335.19	1351.25

Interest on loan (IOL)

91. As the instant transmission line was a DTL and a part of generating station, no separate details are available showing standalone infusion of debt in the transmission line. The Petitioner has submitted the calculation of "Weighted Average Rate of Interest on Actual Loans" for the whole project, including generation. The Petitioner has claimed the interest on loan based on actual interest rates for each year during 2009-14 period. The documents submitted by the Petitioner in support of interest rate have been considered for transmission tariff. Cumulative repayment of ₹735.14 lakh has been worked out as on 31.7.2011 as per the tariff regulations. This has been applied as on 1.8.2011 for the purpose of computation of transmission tariff between 1.8.2011 to 31.3.2014.

92. Interest on loan allowed has been calculated as under.

(₹ in lakh)

Particulars	**2011-12 (Pro-rata)**	**2012-13**	**2013-14**
Gross Normative Loan	17001.90	17001.90	17001.90
Cumulative Repayment up to previous	735.14	1297.44	2138.59

Year			
Net Loan-Opening	16266.76	15704.46	14863.32
Addition due to Additional Capitalization	0.00	0.00	0.00
Repayment during the year	562.30	841.15	841.15
Net Loan-Closing	15704.46	14863.32	14022.17
Average Loan	15985.61	15283.89	14442.74
Weighted Average Rate of Interest on Loan	10.8500%	11.4200%	11.0200%
Interest on Loan	1159.46	1745.42	1591.59

Depreciation

93. EPPL has contended that the Petitioner has not considered depreciation as repayment and the Petitioner has not reduced the normative debt and is charging interest based on the debt as on the first year. We have considered the submissions of EPPL. Depreciation is worked out for the instant assets as per Regulation 17 of the 2009 Tariff Regulations. The transmission line has been put under commercial operation on 16.9.2010. However, as discussed above, tariff is to be determined from 1.8.2011 by considering capital cost as on 16.9.2010, additional capitalization from 16.9.2010 to 31.7.2011 and cumulative depreciation. Accordingly, cumulative depreciation of ₹735.14 lakh has been worked out as on 31.7.2011 based on Straight Line Method, as per regulations. This has been applied as on 1.8.2011 for the purpose of computation of transmission tariff from 1.8.2011 to 31.3.2014.Further, the Weighted Average Life is worked out as 26 years based on the actual date of commercial operation of the asset on 16.9.2010. This has been considered for the purpose of computation of transmission tariff from 1.8.2011 to 31.3.2014.

94. Based on the above, the depreciation has been considered and allowed, as under.

(₹ in lakh)

Particulars	2011-12 (Pro rata)	2012-13	2013-14
Opening Gross Block	23892.50	23892.50	23892.50
Additional Capital expenditure	0.00	0.00	0.00
Closing Gross Block	23892.50	23892.50	23892.50
Average Gross Block	23892.50	23892.50	23892.50
Rate of Depreciation	3.5205%	3.5205%	3.5205%
Depreciable Value	14563.63	14563.63	14563.63
Remaining Depreciable Value	13828.49	13266.19	12425.04
Depreciation	562.30	841.15	841.15

Operation and Maintenance Expenses (O&M Expenses)

95. O&M Expenses have been worked out as per Regulation 19 of 2009 Tariff Regulations are as under.

(₹ in lakh)

Asset	2011-12 (pro-rata)	2012-13	2013-14
Transmission Line (176.50 km), 220 kV D/C (single Conductor)	35.51	56.13	59.30
5 nos. 220 kV Bays	137.04	216.70	229.10
Total	**172.56**	**272.83**	**288.40**

Interest on Working Capital (IWC)

96. Sub-clause (c) of clause (1) of Regulation 18 of the 2009 Tariff Regulations provides the components of the working capital for the transmission system and clause (3) of Regulation 18 of the 2009 Tariff Regulations provides for the rate of interest on working capital. The components of the working capital and interest thereon are considered as follows.

(i) Maintenance Spares

Maintenance spares have been worked out based on 15% of Operation and Maintenance expenses specified in clause (g) of Regulation 19 of 2009 Tariff Regulations.

(ii) O & M Expenses

O&M expenses have been considered for one month.

(i) Receivables

The receivables have been worked out on the basis 2 months of annual transmission charges as worked out above.

(ii) Rate of interest on working capital

As tariff is to be determined from 1.8.2011 but the asset/transmission line has been put under commercial operation on 16.9.2010. The parameters applied for the purpose of tariff determination for the period from 1.8.2011 to 31.3.2014 is based on the actual COD i.e. 16.9.2010 of the asset/transmission line. As per the 2009 Tariff Regulations, SBI Base Rate Plus 350 bps as on 1.4.2010 (i.e.11.00%) has been considered as the rate of interest on working capital for the asset.

97. The interest on working capital allowed for the instant asset/transmission line is as under.

(₹ in lakh)

Particulars	**2011-12 (pro-rata)**	**2012-13**	**2013-14**
Maintenance Spares	38.72	40.92	43.26
O & M expenses	21.51	22.74	24.03
Receivables	708.92	713.34	692.66
Total	769.15	777.00	759.96
Interest	**56.56**	**85.47**	**83.60**

Annual Fixed Charges

98. The Annual Fixed Charges being allowed for the instant assets/transmission line are as under.

(₹ in lakh)

Particulars	2011-12 (Pro-rata)	2012-13	2013-14
Depreciation	562.30	841.15	841.15
Interest on Loan	1159.46	1745.42	1591.59
Return on Equity	892.57	1335.19	1351.25
Interest on Working Capital	56.56	85.47	83.60
O&M Expenses	172.56	272.83	288.40
Total	**2843.44**	**4280.06**	**4155.98**

Transmission Tariff for 2014-19 tariff period

99. The AFC claimed by the Petitioner are as under.

(₹ in lakh)

Particular	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	2486.14	2486.14	2486.75	2487.35	2487.35
Interest on Working Capital	161.04	158.58	152.23	146.41	143.20
O&M Expenses	304.90	322.34	340.78	360.27	380.88
Total	**7796.69**	**7646.70**	**7296.32**	**6972.07**	**6778.97**

100. The details of the interest on working capital claimed by the Petitioner are as under.

(₹ in lakh)

Particular	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	45.74	48.35	51.12	54.04	57.13
O&M expenses	25.40	26.85	28.39	30.01	31.73
Receivables	1299.45	1274.45	1216.05	1162.01	1129.83
Total	**1370.59**	**1349.65**	**1295.56**	**1246.06**	**1218.69**
Interest	161.04	158.58	152.23	146.41	143.20
Rate of Interest	11.75%	11.75%	11.75%	11.75%	11.75%

101. The element wise capital cost as admitted by the Commission as on 31.3.2014 for the instant has been considered as the opening capital cost as on 1.4.2014.

(₹ in lakh)

Particulars	**Capital Cost as on 1.4.2014**
Freehold Land	0.00
Leasehold Land	7710.69
Building & Other Civil Works	13958.27
Transmission Line	1544.13
Sub-Station Equipment	679.41
PLCC	0.00
Total	**23892.50**

102. Further, the Petitioner has not claimed any additional capital expenditure during 2014-19 tariff period. Accordingly, the above capital cost has been considered as on 31.3.2019 for the purpose of determination of tariff for 2014-19 Tariff Period.

Debt-Equity Ratio

103. While computing tariff for 2009-2014 period, the debt-equity ratio as on 31.3.2014 was determined as 71.16:28:84 for the asset. Hence, the same debt-equity ratio of the asset as on 1.4.2014 and 31.3.2019 has been considered.The debt-equity considered as on 1.4.2014 and 31.3.2019 is as given below.

(₹ in lakh)

Particular	**Capital cost as on 1.4.2014**		**Capital cost as on 31.3.2019**	
	Amount	%	Amount	%
Debt	17001.90	71.16	17001.90	71.16
Equity	6890.60	28.84	6890.60	28.84
Total	**23892.50**	100.00	**23892.50**	100.00

Return on Equity

104. We have considered the submissions made by the Petitioner. Regulation 24 read with Regulation 25 of 2014 Tariff Regulations provides for grossing up of return on equity with the effective tax rate for the purpose of RoE. It further provides that in case the generating company or transmission licensee is paying Minimum Alternative Tax (MAT), the MAT rate including surcharge and cess will be considered for the grossing up of return on equity. While computing tariff for 2009-14 period, return on equity was worked out after considering year wise applicable MAT rate. Accordingly, MAT rate of 20.9605% applicable during the 2013-14 has been considered for the purpose of return on equity for 2014-19 period. In accordance with clause 25(3) of the 2014 Regulations, these MAT rates shall be trued up with actual tax rate for each year.

105. Accordingly, RoE has been allowed as under.

(₹ in lakh)

Particulars	**2014-15**	**2015-16**	**2016-17**	**2017-18**	**2018-19**
Opening Equity	6890.60	6890.60	6890.60	6890.60	6890.60
Addition due to Additional Capitalization	0.00	0.00	0.00	0.00	0.00
Closing Equity	6890.60	6890.60	6890.60	6890.60	6890.60
Average Equity	6890.60	6890.60	6890.60	6890.60	6890.60
Return on Equity (Base Rate)	15.50%	15.50%	15.50%	15.50%	15.50%
Tax rate for the Financial year 2013-14	20.961%	20.961%	20.961%	20.961%	20.961%
Rate of Return on Equity (Pre-tax)	19.610%	19.610%	19.610%	19.610%	19.610%
Return on Equity (Pre-tax)	**1351.25**	**1351.25**	**1351.25**	**1351.25**	**1351.25**

Interest on loan (IOL)

106. The gross normative loan has been considered based on debt equity ratio applied on allowed capital cost.

a. The depreciation of every year has been considered as normative repayment of loan of concerned year;

b. The weighted average rate of interest on actual loan portfolio has been worked out by considering the gross amount of loan, repayment and rate of interest as mentioned in the petition, which has been applied on the normative average loan during the year to arrive at the interest on loan.

107. The Petitioner has submitted the calculation of statement of “Weighted Average Rate of Interest on Actual Loans” for the whole project including generation. The Petitioner has claimed the interest on loan based on actual interest rates for each year during the 2014-19 period. The documents submitted in support of interest rate have been considered for tariff. The interest on loan allowed for the instant asset is as follows.

(₹ in lakh)

Particulars	**2014-15**	**2015-16**	**2016-17**	**2017-18**	**2018-19**
Gross Normative Loan	17001.90	17001.90	17001.90	17001.90	17001.90
Cumulative Repayment up to previous Year	2979.73	3820.88	4662.02	5503.17	6344.32
Net Loan-Opening	14022.17	13181.03	12339.88	11498.73	10657.59
Addition due to Additional Capitalization	0.00	0.00	0.00	0.00	0.00
Repayment during the year	841.15	841.15	841.15	841.15	841.15
Net Loan-Closing	13181.03	12339.88	11498.73	10657.59	9816.44
Average Loan	13601.60	12760.45	11919.31	11078.16	10237.01
Weighted Average Rate of Interest on Loan	10.7400%	11.0600%	10.4600%	9.8500%	9.8900%
Interest on Loan	**1460.81**	**1411.31**	**1246.76**	**1091.20**	**1012.44**

Depreciation

108. The Petitioner has claimed the actual depreciation as a component of Annual Fixed Cost as per Regulation 27 of the 2014 Tariff Regulations. The instant transmission asset was put under commercial operation on 16.9.2010. Accordingly, it will complete 12 years after 2018-19. As such, the depreciation has been

calculated annually based on Straight Line Method at the rates specified in Appendix-II of the 2014 Tariff Regulations. Thus, the depreciation has been considered and allowed as under.

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross Block	23892.50	23892.50	23892.50	23892.50	23892.50
Additional Capital expenditure	0.00	0.00	0.00	0.00	0.00
Closing Gross Block	23892.50	23892.50	23892.50	23892.50	23892.50
Average Gross Block	23892.50	23892.50	23892.50	23892.50	23892.50
Rate of Depreciation	3.5205%	3.5205%	3.5205%	3.5205%	3.5205%
Depreciable Value	14563.63	14563.63	14563.63	14563.63	14563.63
Remaining Depreciable Value	11583.89	10742.75	9901.60	9060.46	8219.31
Depreciation	**841.15**	**841.15**	**841.15**	**841.15**	**841.15**

Operation and Maintenance Expenses (O&M Expenses)

109. KPCPL has submitted that O&M Expenses should be allowed as per Regulation 29 of the 2014 Tariff Regulations. O&M Expenses have been worked out annually as per 2014 Tariff Regulations as below.

(₹ in lakh)

Asset	2014-15	2015-16	2016-17	2017-18	2018-19
Transmission Line (176.50 km), 220 kV D/C (single Conductor)	53.48	55.24	57.19	58.95	61.07
5 nos. 220 kV Bays	211.05	218.05	225.3	232.75	240.5
TOTAL	**264.53**	**273.29**	**282.49**	**291.7**	**301.57**

Interest on Working Capital ("IWC")

110. KPCPL has submitted that IWC should be allowed as provided under the 2014 Tariff Regulations. Interest on Working Capital for the 2014-19 period is allowed as

per Regulation 28(1)(c) of the 2014 Tariff Regulations and has been calculated as follows.

a. Maintenance Spares

Regulation 28 of the 2014 Tariff Regulations provides for maintenance spares @ 15% per annum of the O &M Expenses. The value of maintenance spares has accordingly been worked out.

b. O & M Expenses

O&M Expenses have been considered for one month of the O&M Expenses.

c. Receivables

The receivables have been worked out on the basis 2 months of annual transmission charges as worked out above.

d. Rate of interest on working capital

As per Regulation 28 (3) of 2014 Tariff Regulations, SBI Base Rate (13.50%) as on 1.4.2014 Plus 350 bps i.e. 13.50% have been considered as the rate of interest on working capital.

111. The interest on working capital allowed for the instant asset is as follows.

(₹ 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	23.54	24.31	25.13
Receivables	669.41	662.51	636.07	611.16	599.47
Total	731.13	726.27	701.98	679.23	669.84
Rate of Interest	**13.50%**	**13.50%**	**13.50%**	**13.50%**	**13.50%**
Interest on Working capital	**98.70**	**98.05**	**94.77**	**91.70**	**90.43**

Annual Fixed Cost

112. Thus, the Annual Fixed Cost allowed for the instant assets are as follows.

(₹ in lakh)

Particulars	**2014-15**	**2015-16**	**2016-17**	**2017-18**	**2018-19**
Depreciation	841.15	841.15	841.15	841.15	841.15
Interest on Loan	1460.81	1411.31	1246.76	1091.20	1012.44
Return on Equity	1351.25	1351.25	1351.25	1351.25	1351.25
Interest on Working Capital	98.70	98.05	94.77	91.70	90.43
O & M Expenses	264.53	273.29	282.49	291.70	301.57
Total	**4016.44**	**3975.04**	**3816.41**	**3666.99**	**3596.83**

Sharing of Transmission Charges

113. EPPL has submitted that the transmission charges shall be calculated and allocated in terms of the 2009 Tariff Regulations. The Petitioner 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, the instant 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 transmission charges 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 by EPPL till utilisation of the line is 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.

115. The transmission losses in case of the instant transmission asset shall be dealt as per the observations made in Para 59 of this order.

116. As regards the EPPL's contention regarding inflated bills and excess recovery, we direct that Petitioner shall raise the adjustment bill, with interest for the relevant tariff period as per respective Tariff Regulations 2009, 2014 and 2019, within 45 days from the date of the issue of this order.

117. This order disposes of Petition No. 209/MP/2017.

sd/-	**sd/-**
(Dr. M. K. Iyer)	**(P. K. Pujari)**
Member	**Chairperson**