

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Petition No. 244/GT/2020**

**Coram:**

**Shri I.S. Jha, Member  
Shri Arun Goyal, Member  
Shri Pravas Kumar Singh, Member**

**Date of Order: 3<sup>rd</sup> October, 2022**

**IN THE MATTER OF**

Determination of tariff of Koteshwar Hydroelectric Project (400 MW) for the period from 1.4.2019 to 31.3.2024.

**AND**

**IN THE MATTER OF**

THDC India Limited,  
(A Joint Venture of Govt. of India and Govt. of UP)  
Pragatipuram, Bypass Road,  
Rishikesh – 249201 (Uttarakhand)

**...Petitioner**

Vs

1. Punjab State Power Corporation Limited,  
The Mall, Near Kali Badi Mandir, Patiala - 147 001 (Punjab)
2. Haryana Power Utilities,  
(DHBVNL & UHBVNL),  
Shakti Bhawan, Sector – 6, Panchkula-134 109 (Haryana).
3. Uttar Pradesh Power Corporation Limited,  
Shakti Bhawan, 14 Ashok Marg, Lucknow – 226001
4. BSES Rajdhani Power Limited,  
BSES Bhawan, Nehru Place,  
Behind Nehru Place Bus Terminal, New Delhi-110019
5. BSES Yamuna Power Limited,  
3rd Floor, Shakti Kiran Building,  
Karkardooma, Near Court, New Delhi-110092.
6. Tata Power Delhi Distribution Limited,  
33 kV, Grid Sub-Station Building,  
Hudson Lines, Kingsway Camp, Delhi-110009



7. Engineering Department,  
Chandigarh Administration, 1<sup>st</sup> Floor,  
UT Secretariat, Sector 9-D, Chandigarh-160009
8. Uttarakhand Power Corporation Limited,  
Urja Bhawan, Kanwali Road, Dehradun-248001
9. Himachal Pradesh State Electricity Board,  
Vidyut Bhawan, Shimla-171004
10. Jaipur Vidyut Vitran Nigam Limited, Vidyut Bhawan,  
Janpath, Jyotinagar, Jaipur-302005 (Rajasthan)
11. Ajmer Vidyut Vitran Nigam Limited,  
Old Powerhouse, Hatthi Bhatta, Jaipur road,  
Ajmer-305001 (Rajasthan)
12. Jodhpur Vidyut Vitran Nigam Limited,  
New Powerhouse, Industrial Area  
Jodhpur-342003 (Rajasthan)
13. Power Development Department (PDD),  
Govt. of J&K, Civil Secretariat, Jammu -180001
14. Madhya Pradesh Power Management Company Limited,  
3rd Floor, Block No. 11, Shakti Bhawan,  
Rampur, Jabalpur-482008
15. Rajasthan Urja Vikas Nigam Limited,  
Vidyut Bhawan, Jyoti Nagar, Jaipur – 302005 (Rajasthan)
16. Jammu and Kashmir State Power Trading Company Limited,  
PDD Complex, Bemina, Srinagar – 190010 (J& K)

...Respondents

**Parties Present:**

Ms. Anushree Bardhan, Advocate, THDC  
Shri Rajesh Sharma, THDC  
Shri Mukesh Kumar Verma, THDC  
Shri Ajay Vaish, THDC  
Shri Rakesh Singh, THDC  
Shri Brijesh Kumar, UPPCL  
Shri R.B. Sharma, Advocate, BRPL  
Ms. Megha Bajpeyi, BRPL  
Shri Mohit Mudgal, Advocate, BYPL  
Shri Sachin Dubey, Advocate, BYPL  
Shri Abhishek Srivastava, BYPL  
Shri Sameer Singh, BYPL  
Shri Ravindra Khare, MPPMCL

## **ORDER**

This petition has been filed by the Petitioner, Tehri Hydro Development Corporation. Ltd. for determination of tariff of the generating station for the period from 1.4.2019 to 31.3.2024, in accordance with the provisions of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (hereinafter referred to as “the 2019 Tariff Regulations”).

### **Background**

2. The Petitioner is a joint venture company of Government of India (GOI) and Government of Uttar Pradesh, with GOI holding majority and controlling shares. The generating station form part of the Tehri Hydro Power Complex with an aggregate capacity of 2400 MWs, which comprises of Tehri HPP Stage-I (1000 MW), Tehri Pumped Storage Plant (1000 MW) and downstream power station Koteshwar Hydroelectric Project (400 MW) in Tehri Garhwal in the State of Uttarakhand. The Koteshwar reservoir is designed to function as lower reservoir for Tehri Pumped Storage Plant and to regulate the water release from main Tehri reservoir for irrigation and drinking water requirements. The Ministry of Power GOI vide its letter dated 8.8.2007, had allocated the power from the generating station to various beneficiaries. Accordingly, the Petitioner has entered into Power Purchase Agreements with the Respondents for the capacity generated from the project. The generating station with a total capacity of 400 MW comprises of four units of 100 MW each and the COD of the units / generating station is given below:

	Date
Unit-I	1.4.2011
Unit-II	26.10.2011
Unit-III	13.2.2012
Unit-IV / Generating Station	1.4.2012

3. The Commission vide its order dated 9.10.2018 in Petition No. 117/GT/2018 had determined the tariff of the generating station for the 2014-19 tariff period. Thereafter, the Commission vide its order dated 4.6.2019 in Review Petition No. 47/RP/2018 (in Petition No. 117/GT/2018), revised the capital cost and annual fixed charges for the 2014-19 tariff period. Further, the Commission vide its order dated 14.9.2022 in Petition No. 245/GT/2020 revised the tariff of the generating station for the 2014-19 tariff period after truing-up exercise and accordingly, the capital cost and the annual fixed charges approved by the said order are as under:

### Capital Cost allowed

	<i>(Rs. in lakh)</i>				
	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Capital Cost	262240.26	266477.38	272373.24	273011.24	282089.81
Admitted additional capitalization	4237.12	5895.86	638.01	9078.57	3922.27
Closing Capital Cost	266477.38	272373.24	273011.24	282089.81	286012.08

### Annual Fixed Charges allowed

	<i>(Rs. in lakh)</i>				
	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	12529.83	12672.93	12960.70	13106.26	13427.33
Return on Equity	12392.76	12772.42	12978.21	13284.05	13729.07
Interest on Loan	21094.10	19790.25	18294.32	13497.69	12294.88
Interest on Working Capital	1377.39	1380.53	1379.99	1304.00	1319.57
O&M Expenses	5759.61	6142.05	6549.88	6984.79	7448.58
<b>Total</b>	<b>53153.68</b>	<b>52758.19</b>	<b>52163.11</b>	<b>48176.79</b>	<b>48219.43</b>

4. The Petitioner vide its affidavit dated 23.10.2019 has filed the present petition for determination of tariff of the generating station for the 2019-24 tariff period, in terms of the provisions of the 2019 Tariff Regulations. The capital cost and the annual fixed charges claimed by the Petitioner for the 2019-24 tariff period are as follows:

### Capital Cost claimed

	<i>(Rs. in lakh)</i>				
	2019-20	2020-21	2021-22	2022-23	2023-24
Opening capital cost	286903.95	289426.99	290105.20	290378.20	290390.20
Add: Additional during the year	2160.48	678.21	273.00	12.00	23.00

	2019-20	2020-21	2021-22	2022-23	2023-24
Less: De-capitalisation during the year	0.00	0.00	0.00	0.00	0.00
Add: Discharges during the year	362.56	0.00	0.00	0.00	0.00
Closing capital cost	289426.99	290105.20	290378.20	290390.20	290413.20
Average capital cost	288165.47	289766.09	290241.70	290384.20	290401.70

### Annual Fixed Charges claimed

(Rs. in lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	13643.79	13714.36	13735.77	13741.52	13742.88
Interest on Loan	11253.60	10090.24	8853.83	7621.88	6338.13
Return on Equity	13262.83	13316.93	13333.11	13338.51	13339.10
Interest on Working Capital	1405.16	1420.90	1448.01	1477.53	1508.89
O&M Expenses	17444.24	18404.84	19421.27	20498.49	21637.58
<b>Total</b>	<b>57009.63</b>	<b>56947.28</b>	<b>56791.99</b>	<b>56677.94</b>	<b>56566.59</b>

5. The Petitioner had filed the additional information vide its affidavit dated 15.12.2020 and has served copies on the Respondents. The Respondent UPPCL, Respondent MPPMCL and the Respondent BRPL have filed their replies vide affidavits dated 9.9.2020, 2.2.2021 and 1.4.2021, respectively. The Petitioner has filed its rejoinder affidavits on 9.11.2020, 9.3.2021 and 25.5.2021 respectively to the above replies. The matter was heard through video conferencing along with Petition No. 245/GT/2020 (for truing up of tariff of the generating station for the period 2014-19 tariff period) on 17.3.2021 and the Commission directed the Petitioner to file certain additional information. In compliance to the directions, the Petitioner has filed the additional information on 25.5.2021, after serving copies on the Respondents. Thereafter, this Petition was heard along with Petition No.245/GT/2020 through video conferencing on 25.1.2022, and the Commission, after hearing the parties and directed the Petitioner to submit certain additional information, which was submitted by the Petitioner on 19.2.2022. The Commission reserved its order in these matters. Based on the submissions of the parties and the documents available on record and

on prudence check, we proceed to determine the tariff of the generating station for 2019-24 tariff period as stated in the subsequent paragraphs.

### **Capital Cost**

6. Clause (1) of Regulation 19 of the 2019 Tariff Regulations provides that the capital cost as determined by the Commission, after prudence check, in accordance with this regulation, shall form the basis of determination of tariff for existing and new projects. Further, capital cost for an existing project is governed as per clause (3) of Regulation 19 of the 2019 Tariff Regulations, which provides as under:

*“The Capital cost of an existing project shall include the following:*

*(a) Capital cost admitted by the Commission prior to 1.4.2019 duly trued up by excluding liability, if any, as on 1.4.2019;*

*(b) Additional capitalization and de-capitalization for the respective year of tariff as determined in accordance with these regulations;*

*(c) Capital expenditure on account of renovation and modernization as admitted by this Commission in accordance with these regulations;*

*(d) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;*

*(e) Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal up to the receiving end of generating station but does not include the transportation cost and any other appurtenant cost paid to the railway; and*

*(f) Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries....”*

7. The Petitioner vide Form-1(i) of the petition, has claimed the capital cost as follows:

**(Rs. in lakh)**

		<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
A	Opening Capital Cost	286903.95	289426.99	290105.20	290378.20	290390.20
B	Addition during the year / Period	2160.48	678.21	273.00	12.00	23.00
C	De-capitalisation during the year/period	0.00	0.00	0.00	0.00	0.00
D	Discharges during the year	362.56	0.00	0.00	0.00	0.00
E	Closing Capital Cost (A+B-C+D)	<b>289426.99</b>	<b>290105.20</b>	<b>290378.20</b>	<b>290390.20</b>	<b>290413.20</b>

8. The Commission vide order dated 14.9.2022 in Petition No. 245/ GT/2020 had approved the closing capital cost of Rs.286012.08 lakh, as on 31.3.2019. Accordingly, in terms of Regulation 19 of the 2019 Tariff Regulations, the capital cost of Rs.286012.08 lakh, as on 31.3.2019, has been considered as the opening capital cost as on 1.4.2019, for the purpose of determination of tariff of the generating station, for the 2019 tariff period.

### **Additional Capital Expenditure**

9. Clause (2) of Regulation 9 of the 2019 Tariff Regulations provide that the application for determination of tariff shall be on admitted capital cost including additional capital expenditure already admitted and incurred up to 31.3.2019 (either based on actual or projected additional capital expenditure) and estimated additional capital expenditure for the respective years of the 2019-24 tariff period along with the true up for the 2014-19 period in accordance with the 2014 Tariff Regulations. The year wise additional capital expenses claimed by the Petitioner are as follows:

<i>(Rs. in lakh)</i>				
<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
2160.48	678.21	273.00	12.00	23.00

10. Regulation 25(1) of the 2019 Tariff Regulations provides as under:

*“25. Additional Capitalization within the original scope and after the cut-off date:*

*(1) The additional capital expenditure incurred or projected to be incurred in respect of an existing project or a new project on the following counts within the original scope of work and after the cut-off date may be admitted by the Commission, subject to prudence check:*

*(a) Liabilities to meet award of arbitration or for compliance of the directions or order of any statutory authority, or order or decree of any court of law;*

*(b) Change in law or compliance of any existing law;*

*(c) Deferred works relating to ash pond or ash handling system in the original scope of work;*

*(d) Liability for works executed prior to the cut-off date;*

*(e) Force Majeure events;*

(f) *Liability for works admitted by the Commission after the cut-off date to the extent of discharge of such liabilities by actual payments; and*

(g) *Raising of ash dyke as a part of ash disposal system.*

(2) *In case of replacement of assets deployed under the original scope of the existing project after cut-off date, the additional capitalization may be admitted by the Commission, after making necessary adjustments in the gross fixed assets and the cumulative depreciation, subject to prudence check on the following grounds:*

(a) *The useful life of the assets is not commensurate with the useful life of the project and such assets have been fully depreciated in accordance with the provisions of these regulations;*

(b) *The replacement of the asset or equipment is necessary on account of change in law or Force Majeure conditions;*

(c) *The replacement of such asset or equipment is necessary on account of obsolescence of technology; and*

(d) *The replacement of such asset or equipment has otherwise been allowed by the Commission.*

11. Regulation 26 of the 2019 Tariff Regulations provides as under:

*26. Additional Capitalization beyond the original scope*

(1) *The capital expenditure, in respect of existing generating station or the transmission system including communication system, incurred or projected to be incurred on the following counts beyond the original scope, may be admitted by the Commission, subject to prudence check:*

(a) *Liabilities to meet award of arbitration or for compliance of order or directions of any statutory authority, or order or decree of any court of law;*

(b) *Change in law or compliance of any existing law;*

(c) *Force Majeure events;*

(d) *Need for higher security and safety of the plant as advised or directed by appropriate Indian Government Instrumentality or statutory authorities responsible for national or internal security;*

(e) *Deferred works relating to ash pond or ash handling system in additional to the original scope of work, on case to case basis:*

*Provided also that if any expenditure has been claimed under Renovation and Modernization (R&M) or repairs and maintenance under O&M expenses, the same shall not be claimed under this Regulation;*

(f) *Usage of water from sewage treatment plant in thermal generating station.*

(2) *In case of de-capitalisation of assets of a generating company or the transmission licensee, as the case may be, the original cost of such asset as on the date of de-capitalisation shall be deducted from the value of gross fixed asset and corresponding loan as well as equity shall be deducted from outstanding loan and the equity respectively in the year such de-capitalisation takes place with corresponding adjustments in cumulative depreciation and cumulative repayment of loan, duly taking into consideration the year in which it was capitalized.*



12. The Petitioner has submitted that the projected additional capital expenditure has been claimed under various provisions of Regulation 25 and Regulation 26 of the 2019 Tariff Regulations, wherein, some of the admitted capital works have spilled over from the 2014-19 tariff period.

13. The Commission vide ROP of the hearing dated 17.3.2021 directed the Petitioner to submit the year-wise detailed justification for the new additional capital expenditure incurred and details of approvals for incurring the additional capital expenditure over and above the expenditure approved by the Commission. In response, the Petitioner vide its affidavit dated 19.2.2022 has resubmitted Form 9A i.e. justification for additional capital expenditure along with the regulations. It is noticed that the Petitioner has claimed most of the projected additional capital expenditure under more than one Regulation of the 2019 Tariff Regulations. Based on the submissions of the parties on the individual items and applicable Regulations thereof, the additional capital expenditures are examined in subsequent paragraphs:

**2019-20**

*(Rs. in lakh)*

Sl No	Head of Works/ Equipment's	Claim	Justification	Remarks for Admissibility	Amount allowed
<b>Regulation 26(1)(c), 26(1)(d), 76 &amp; 77 of the 2019 Tariff Regulations</b>					
1	Works at Power-house building	225.64	The Petitioner submitted that due to geological reasons and to control seepage in and around powerhouse- cladding wall, flooring, and false ceiling these works are necessary for safety and efficient plant operation.	It is observed that the Petitioner has claimed the asset / work due to force majeure events under Regulation 26(1)(c) of the 2019 Tariff Regulations. However, the Petitioner in its rejoinder to the reply of the Respondent BRPL, has clarified that the asset has been claimed under Regulation 26(1)(d) of the 2019 Tariff Regulations. It is observed that the Petitioner has not submitted any documentary evidence, in support of the claim under this head. However, keeping in view that the proposed expenditure is	225.64

				only on account of geological reasons and to control seepage, the same is <b>allowed</b> under Regulation 26(1)(d) of the 2019 Tariff Regulations. It is also noticed that the Petitioner has claimed Rs. 397.20 lakh towards 'Wall cladding false ceiling flooring work for powerhouse building' during 2014-19 tariff period and the same was allowed in order dated 14.9.2022 in Petition No. 245/GT/2020. The Petitioner is directed to submit relevant supporting documents along with complete details of the subject works and total expenditure envisaged for the same including details of the amount already claimed, allowed by Commission, balance amount to be claimed, decapitalization etc, at the time of truing up of tariff.	
2	Extension of Existing Jetty	36.00	The Petitioner submitted that during monsoon season, there is frequent road blockage. The alternate way to reach powerhouse for operation of plant is by mooring and extension of jetty for boarding of KHEP staff. The work is essential for safety and efficient plant operation.	After considering the submissions of the parties, it is noticed that the Petitioner has already claimed boats, approach road to boat point etc, in Petition no. 245/GT/2020 and the same were allowed by the Commission vide order dated 14.9.2022 in Petition no. 245/GT/2020. Considering the nature of works, the proposed claim is <b>allowed</b> under Regulation 26(1)(d) of the 2019 Tariff Regulations.  The Petitioner is however directed to submit relevant supporting documents to substantiate its claim under this head, at the time of truing up of tariff.	36.00
3	Drilling Grouting Work at left Bank	30.24	The Petitioner submitted that, there were landslides due to geology of area and	It is noticed that the proposed expenditure are on account of geological reasons and excessive rainfall in left bank of dam.	30.24