

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Petition No.31/GT/2020**

**Coram:**

**Shri P.K. Pujari, Chairperson  
Shri I.S. Jha, Member  
Shri Arun Goyal, Member  
Shri Pravas Kumar Singh, Member**

**Date of Order: 6<sup>th</sup> September, 2021**

**IN THE MATTER OF**

Petition for revision of tariff of Nathpa Jhakri Hydro Power Station (1500 MW) for the period from 1.4.2014 to 31.3.2019 after truing-up exercise

**AND**

**IN THE MATTER OF**

SJVN Limited  
SJVN Corporate Office Complex  
Shanan, Shimla-171006  
Himachal Pradesh

**...Petitioner**

**Vs**

1. Punjab State Power Corporation Limited,  
The Mall, Patiala, Punjab – 147001
2. Haryana Power Purchase Centre,  
Shakti Bhawan, Sector-6,  
Panchkula, Haryana – 134109
3. Tata Power Delhi Distribution Limited,  
NDPL House, Hudson Lane,  
Kingsway Camp, New Delhi-110019
4. BSES Rajdhani Power Limited,  
2<sup>nd</sup>Floor, B-Bock, BSES Bhawan,  
Nehru Place, New Delhi-110019
5. BSES Yamuna Power Limited,  
3<sup>rd</sup>Floor, Shakti Kiran Building,  
Karkardooma, Near Court Road,  
New Delhi-110092



6. Jaipur Vidyut Vitran Nigam Limited,  
Vidyut Bhawan, Janpath, Jyoti Nagar,  
Jaipur – 302005, Rajasthan
7. Ajmer Vidyut Vitran Nigam Limited,  
Vidyut Bhawan, Janpath, Jyoti Nagar,  
Jaipur – 302005, Rajasthan
8. Jodhpur Vidyut Vitran Nigam Limited,  
Vidyut Bhawan, Janpath, Jyoti Nagar,  
Jaipur – 302005, Rajasthan
9. Himachal Pradesh State Electricity Board Limited,  
Vidyut Bhawan, Kumar House,  
Shimla – 171004
10. Power Development Department,  
Government of J&K, Civil Secretariat Building,  
Jammu-180001 (J&K)
11. Engineering Department,  
1<sup>st</sup>Floor, UT Secretariat, Sector 9-D,  
Chandigarh-160009
12. Uttar Pradesh Power Corporation Limited,  
Shakti Bhawan, 14 Ashok Marg,  
Lucknow, Uttar Pradesh – 226001
13. Uttaranchal Power Corporation Limited,  
Urja Bhawan, Kanwali Road,  
Dehradun-248001
14. Government of Himachal Pradesh,  
H.P. Secretariat, Shimla-171002
15. Madhya Pradesh Power Management Company Limited,  
Shakti Bhawan, Rampur,  
Jabalpur-482008

...Respondents

**Parties Present:**

Ms. Anushree Bardhan, Advocate, SJVNL  
Shri Aman Katoch, SJVNL  
Shri Naveen Yadav, SJVNL  
Shri Varun Dang, SJVNL  
Shri Mohit Mudgal, Advocate, BYPL  
Shri R.B. Sharma, Advocate, BRPL  
Ms. Megha Bajpeyi, BRPL  
Shri Ravindra Khare, MPPMCL  
Ms. Ranjana Roy Gawai, Advocate, TPDDL



Ms. Vasudha Sen, Advocate, TPDDL  
Ms. Prachi Golechha, Advocate, TPDDL  
Shri Anurag Bansal, TPDDL  
Ms. Shefali Sobti, TPDDL  
Shri Manish Garg, UPPCL

## **ORDER**

This petition has been filed by the Petitioner, SJVN Limited, for revision of tariff of Nathpa Jhakri Hydroelectric Project (1500 MW) (hereinafter referred to as 'the generating station') for the period from 1.4.2014 to 31.3.2019 in terms of Regulation 8 of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as 'the 2014 Tariff Regulations').

### **Background**

2. The generating station, located in the State of Himachal Pradesh, is a joint venture between the Government of India and the Government of Himachal Pradesh, as a run-of-river project with pondage. The Generating Station comprises of six units of 250 MW each. The dates of commercial operation (COD) of the different units of the generating station are as under:

<b>Units</b>	<b>COD</b>
Unit- 5	6.10.2003
Unit – 6	2.1.2004
Unit – 4	30.3.2004
Unit – 3	31.3.2004
Unit – 2	6.5.2004
Unit – 1 (station)	18.5.2004

3. The Petitioner has entered into Power Purchase Agreement (PPA) with the Respondents and the allocation of power from the generating station was notified by the Ministry of Power (MoP), Government of India. Further, MoP vide its letter dated 28.5.2018 had directed NRPC (Northern Regional Power Committee) to allocate 40 MW power to Madhya Pradesh from unallocated pool of Northern Region.



Thereafter, NRPC vide letter dated 1.6.2018 revised the allocation of power from central generating stations in Northern Region, by which 0.18% power from the unallocated quota of power from the generating station was allocated to Respondent, MPPMCL.

4. The project was originally approved by the Central Government vide its letter dated 5.4.1989 at an estimated cost of Rs.167802 lakh, including IDC of Rs. 20602 lakh (September 1988 price level) with the completion schedule of March 1996 including 1½ years for infrastructure works which were under development. The Revised Cost Estimate (RCE-I) was approved by the Central Government on 24.6.1993 for Rs. 433795 lakh, including IDC of Rs. 64869 lakh with the revised commissioning schedule of December 1998. The Revised Cost Estimate (RCE-II) was approved by the Central Government on 10.5.1999 at an estimated cost of Rs. 766631 lakh, including IDC of Rs. 173479 lakh (June 1998 price level) with the commissioning schedule of March 2002. The Revised Cost Estimate (RCE-III) was approved by the Central Government on 14.8.2007 at the cost of Rs. 818771 lakh, including IDC of Rs.195181 lakh, but excluding an expenditure of Rs. 14500 lakh, which had already been incurred as advances to contractors on account of extension of time (EOT), Dispute Review Board (DRB) and other claims in respect of major civil works. The Revised Cost Estimate (RCE-IV) was approved by the Central Government on 21.8.2018 at the cost of Rs. 857528 lakh, including the cost overrun of Rs.38757 lakh. Further, the Petitioner had been directed to approach MoP, GOI for fresh approval in respect of settlement of the pending claims/ contingent liabilities amounting to Rs. 35252 lakh as on 31.3.2018.



5. The Commission vide its order dated 22.5.2019 in Petition No. 309/GT/2018 had determined the tariff of the generating station for the 2009-14 tariff period and approved the capital cost of Rs.877307.50 lakh as on 31.3.2014, which includes Rs. 853405.45 lakh towards assets/ works within the original scope of works upto 31.3.2014 and Rs.13515.86 lakh over and above RCE-IV, towards assets/ works which have become necessary for the efficient operation of the generating station during the 2009-14 and 2014-19 tariff periods including Rs.10386.19 lakh for interest/ OFC allowed during the 2004-09 tariff period.

6. Petition No. 314/GT/2018 was filed by the Petitioner for approval of tariff for the 2014-19 tariff period, based on the actual additional capital expenditure duly audited up to 31.3.2018 and projected additional capital expenditure for the year 2018-19 in accordance with the provisions of the 2014 Tariff Regulations. Accordingly, the Commission vide its order dated 19.7.2019 in Petition No.314/GT/2018 approved the capital cost and the annual fixed charges of the generating station for the 2014-19 tariff period as stated below:

### Capital Cost

	<i>(Rs. in lakh)</i>				
	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Opening Capital Cost	877307.50	878622.73	879581.11	880919.97	883516.90
Admitted additional capitalization	1315.23	958.38	1338.86	2596.93	5495.95
Closing Capital Cost	878622.73	879581.11	880919.97	883516.90	889012.85

### Annual Fixed Charges

	<i>(Rs. in lakh)</i>				
	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Return on Equity	86461.55	86532.75	86604.68	86727.93	86981.35
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Depreciation	44735.95	44779.82	44813.70	10793.97	10952.92
Interest on Working Capital	4410.55	4505.53	4606.44	3931.22	4052.70
O&M Expenses	25173.44	26844.95	28627.46	30528.32	32555.40
<b>Total</b>	<b>160781.49</b>	<b>162663.05</b>	<b>164652.28</b>	<b>131981.44</b>	<b>134542.36</b>



## Present Petition

7. The annual fixed charges determined vide order dated 19.7.2019 in Petition No.314/GT/2018 as given in the table under paragraph 6 above, were subject to revision based on truing-up exercise in terms of Regulation 8 of the 2014 Tariff Regulations. Accordingly, the Petitioner has filed the present petition for truing-up of the tariff determined by order dated 19.7.2019, based on the actual additional capital expenditure for the 2014-19 tariff period. The capital cost and annual fixed charges claimed by the Petitioner in the present petition are as under:

### Capital cost

	<i>(Rs. in lakh)</i>				
	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Opening Capital Cost	877307.51	878689.83	879813.54	881275.99	883900.28
Add: Addition during the year/ period	1936.87	1270.58	1760.18	2852.11	2732.33
Less: De-capitalization during the year/period	554.54	146.87	297.73	227.82	37.80
<b>Closing Capital Cost</b>	<b>878689.83</b>	<b>879813.54</b>	<b>881275.99</b>	<b>883900.28</b>	<b>886594.81</b>

### Annual Fixed Charges

	<i>(Rs. in lakh)</i>				
	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Depreciation	44671.41	44716.63	44784.11	10973.64	11086.11
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Return on Equity	86463.65	86960.83	87042.20	87170.79	87567.14
Interest on Working Capital	4719.91	4765.59	4930.35	4214.82	4379.02
O&M Expenses	30799.55	31400.36	34320.82	35402.57	38162.78
<b>Total</b>	<b>166654.53</b>	<b>167843.40</b>	<b>171077.48</b>	<b>137761.82</b>	<b>141195.05</b>

8. In compliance with the directions of the Commission vide RoPs (record of proceedings) of the hearing dated 2.6.2020 and 13.8.2020, the Petitioner had filed the additional information vide affidavits dated 29.6.2020 and 9.9.2020, with copy to the Respondents. Replies have been filed by the Respondents UPPCL, MPPMCL, BRPL, and TPDDL vide their affidavits dated 21.1.2020, 3.2.2020, 30.5.2020, 10.8.2020 and 24.9.2020 respectively. The Petitioner has filed its rejoinder to the



said replies vide affidavit dated 19.2.2020, 17.2.2020, 1.6.2020, 9.9.2020 and 8.10.2020 respectively. The Petition was thereafter heard on 13.4.2021 and the Commission, after hearing the parties, reserved its order in the matter. Based on the submissions of the parties and the documents available on record and on prudence check, we proceed for truing up the tariff of the generating station for the 2014-19 tariff period, as stated in the subsequent paragraphs.

### **Truing up the tariff for the 2014-19 Tariff Period**

#### **Capital Cost**

9. Regulation 9 of the 2014 Tariff Regulations provides as under:

*“9 (1) 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;*

*(2) The Capital Cost of a new project shall include the following:*

*(a) the expenditure incurred or projected to be incurred up to the date of commercial operation of the project;*

*(b) Interest during construction and financing charges, on the loans*

*(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;*

*(c) Increase in cost in contract packages as approved by the Commission;*

*(d) Interest during construction and incidental expenditure during construction as computed in accordance with Regulation 11 of these regulations;*

*(e) capitalised Initial spares subject to the ceiling rates specified in Regulation 13 of these regulations;*

*(f) expenditure on account of additional capitalization and de-capitalisation determined in accordance with Regulation 14 of these regulations;*

*(g) adjustment of revenue due to sale of infirm power in excess of fuel cost prior to the COD as specified under Regulation 18 of these regulations; and*

*(h) adjustment of any revenue earned by the transmission licensee by using the assets before COD.*

*xxxx..”*

10. Clause (1) of Regulation 9 of the 2014 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. The Commission in its order dated 19.7.2019 in Petition No. 314/GT/2018 had approved the closing capital cost of Rs.877307.50 lakh as on 31.3.2014. Accordingly, the closing capital cost of Rs.877307.50 lakh as on 31.3.2014 has been considered as the opening capital cost as on 1.4.2014, for the purpose of truing-up of tariff for the 2014-19 tariff period.

### **Additional Capital Expenditure**

11. Clause (3) of Regulation 7 of the 2014 Tariff Regulations provides that the application for determination of tariff shall be based on admitted capital cost including any additional capital expenditure already admitted upto 31.3.2014 (either based on actual or projected additional capital expenditure) and estimated additional capital expenditure for the respective years of the 2014-19 tariff period.

12. Regulation 14(3) of the 2014 Tariff Regulations provides as under:

*“14.(3) 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 after the cut-off date, may be admitted by the Commission, subject to prudence check:*

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

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

*(iii) Any expenses to be incurred on account of need for higher security and safety of the plant as advised or directed by appropriate Government Agencies of statutory authorities responsible for national security/internal security;*

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

*(v) Any liability for works executed prior to the cut-off date, after prudence check of the details of such un-discharged liability, total estimated cost of package, reasons for such withholding of payment and release of such payments etc.;*

*(vi) Any liability for works admitted by the Commission after the cut-off date to the extent of discharge of such liabilities by actual payments;*

*(vii) Any additional capital expenditure which has become necessary for efficient operation of generating station other than coal / lignite-based stations or transmission system as the case may be. The claim shall be substantiated with*





*the technical justification duly supported by the documentary evidence like test results carried out by an independent agency in case of deterioration of assets, report of an independent agency in case of damage caused by natural calamities, obsolescence of technology, up-gradation of capacity for the technical reason such as increase in fault level;*

*(viii) In case of hydro generating stations, any expenditure which has become necessary on account of damage caused by natural calamities (but not due to flooding of power house attributable to the negligence of the generating company) and due to geological reasons after adjusting the proceeds from any insurance scheme, and expenditure incurred due to any additional work which has become necessary for successful and efficient plant operation;*

*(ix) In case of transmission system, any additional expenditure on items such as relays, control and instrumentation, computer system, power line carrier communication, DC batteries, replacement due to obsolescence of technology, replacement of switchyard equipment due to increase of fault level, tower strengthening, communication equipment, emergency restoration system, insulators cleaning infrastructure, replacement of porcelain insulator with polymer insulators, replacement of damaged equipment not covered by insurance and any other expenditure which has become necessary for successful and efficient operation of transmission system; and*

*(x) Any capital expenditure found justified after prudence check necessitated on account of modifications required or done in fuel receiving system arising due to non-materialization of coal supply corresponding to full coal linkage in respect of thermal generating station as result of circumstances not within the control of the generating station:*

*Provided that any expenditure on acquiring the minor items or the assets including tools and tackles, furniture, air-conditioners, voltage stabilizers, refrigerators, coolers, computers, fans, washing machines, heat convectors, mattresses, carpets etc. brought after the cut-off date shall not be considered for additional capitalization for determination of tariff w.e.f. 1.4.2014:*

*Provided further that any capital expenditure other than that of the nature specified above in (i) to (iv) in case of coal/lignite-based station shall be met out of compensation allowance:*

*Provided also that if any expenditure has been claimed under Renovation and Modernisation (R&M), repairs and maintenance under (O&M) expenses and Compensation Allowance, same expenditure cannot be claimed under this regulation.*

13. The tariff for the 2014-19 tariff period approved vide order dated 19.7.2019 in Petition No. 314/GT/2018 was based on the actual additional capital expenditure for the period 2014-18 and projected additional capital expenditure for 2018-19. The Petitioner, in the present petition, has revised its claims for additional capital expenditure for the period 2014-18 as against those allowed vide order dated 19.7.2019 in Petition No. 314/GT/2018 and has also claimed actual additional capital



expenditure for the year 2018-19. The detailed break-up of the additional capital expenditure claimed by the Petitioner are as under:

	<i>(Rs. in lakh)</i>				
	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Additions during the year (a)	1936.87	1270.58	1760.18	2852.11	2732.33
Deletions during the year (b)	554.54	146.87	297.73	227.82	37.80
Net additional capital expenditure claimed (c)=(a)-(b)	1382.32	1123.72	1462.45	2624.29	2694.53

14. The details of the additional capital expenditure claimed under the 2014 Tariff Regulations for the 2014-19 tariff period are as under:

Sl. No	Regulations	Amount <i>(Rs. in lakh)</i>				
		2014-15	2015-16	2016-17	2017-18	2018-19
1	14(3)(i)	18.00	5.22	53.05	52.08	(-) 58.68
2	14(3)(ii)	0.00	0.00	52.32	160.34	66.82
3	14(3)(iii)	627.07	565.68	46.77	424.32	350.16
4	14(3)(viii)	1270.11	340.67	648.95	2207.07	2010.51
5	14(3)(vi)	0.12	359.01	959.09	8.30	363.52
6	14(3) (De-capitalization)	(-) 546.19	(-) 28.45	(-) 297.73	(-) 227.82	(-) 37.80
7	Assets not in use	(-) 8.35	(-)118.42	0.00	0.00	0.00
8	14(3)(vi)	1335.20	5.61	411.20	0.00	0.00
9	14(3) (Exclusions)	(-)1335.20	(-) 5.61	(-) 411.20	0.00	0.00
10	14 - Adjustment for earlier year capitalization	21.57	0.00	0.00	0.00	0.00
	<b>Total as per Form-9A (Net)</b>	<b>1382.32</b>	<b>1123.72</b>	<b>1462.45</b>	<b>2624.29</b>	<b>2694.53</b>

15. The Commission while dealing with additional capital expenditure for the 2014-19 tariff period, had, in its order dated 19.7.2019 in Petition No. 314/GT/2018 approved the expenditure claimed by the Petitioner, based on the books of accounts available for the period 2014-18. However, the Petitioner in the present petition, has claimed additional capital expenditure over and above those allowed vide order dated 19.7.2019, broadly on account of adjustment of capitalization of earlier period and de-capitalization of insurance capital spares consumed and claimed under O&M expenses.



16. The details of the net additional capital expenditure allowed vide order dated 19.7.2019 in Petition No. 314/GT/2018 for the period 2014-18, is as under:

Regulations	Amount (Rs. in lakh)			
	2014-15	2015-16	2016-17	2017-18
14(3)(i)	18.00	5.22	333.34	52.09
14(3)(ii)	0.00	0.00	52.32	160.34
14(3)(iii)	627.07	565.68	46.77	424.32
14(3)(viii)	1270.12	340.70	648.95	2207.07
14(3)(vi)	0.12	359.01	678.80	8.30
14(3) (De-capitalization)*	(-) 600.08	(-)312.23	(-) 421.32	(-) 255.19
<b>Total as per Form-9A (Net)</b>	<b>1315.23</b>	<b>958.38</b>	<b>1338.86</b>	<b>2596.93</b>

\*Including exclusion on account of insurance capital spares de-capitalized and claimed under O&M expenses.

17. Apart from the additional capital expenditure allowed as above, the Petitioner has claimed Rs. 21.57 lakh towards adjustment of negative amount of additional capital expenditure considered in the year 2013-14 in respect of the capital spares which was not allowed for 2012-13 vide order dated 22.5.2019 in Petition No. 309/GT/2018. The same has been added to rectify the gross block for the year 2014-15. Also, the Commission vide its order dated 19.7.2019 had de-capitalized the exclusion on account of insurance capital spares claimed under O&M expenses and the same has been excluded by the Petitioner, the details of which are shown under:

	(Rs. in lakh)			
	2014-15	2015-16	2016-17	2017-18
Additions claimed in the present petition other than allowed by the Commission in order dated 19.7.2019	21.57	0.00	0.00	0.00
De-capitalization claimed under exclusion from the deletions considered in order dated 19.7.2019	(-) 45.54	(-) 165.36	(-) 123.59	(-) 26.05

18. We now deal with the admissibility of the claim of the Petitioner in the following paragraphs:



**2014-15**

19. The admissibility of additional capital expenditure claimed by the Petitioner, over and above the additional capital expenditure approved by the Commission vide its order dated 19.7.2019 in Petition No. 314/GT/2018 are examined below:

Sl. No	Details of the claim	Amount claimed (Rs. in lakh)	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed (Rs. in lakh)
1	Additional capital expenditure claimed in this petition over and above additional capital expenditure allowed in order dated 19.7.2019 in Petition No. 314/GT/2018	21.57	The adjustment of negative amount of additional capital expenditure considered in 2013-14 in respect of the capital spares not allowed by the Commission in its order dated 22.5.2019 in Petition No. 309/GT/2018 during 2012-13 has been added back to rectify the gross block for 2014-15.	The claim pertains to the 2009-14 tariff period. The Commission vide its RoP of hearing dated 13.8.2020 directed the Petitioner to submit the proper linkage between the deleted amount i.e. negative entry of Rs.21.57 lakh in the year 2013-14 and capitalization (positive entry) of spares in the year 2012-13. However, it is observed that the Petitioner has not provided proper linkage between the same. Hence, the additional capital expenditure claimed on account of adjustment entry is <b>not admissible</b> .	0.00
2	De-capitalization claimed under exclusion in the present petition against de-capitalization allowed in order dated 19.7.2019 in Petition No. 314/GT/2018	(-)45.54	Exclusion -Insurance capital Spares-de-capitalised/ consumed and claimed under O&M expenses	Capitalization of Insurance/ capital spares was not allowed by the Commission. Accordingly, to avoid double deduction, de-capitalization against the same is not considered for the purpose of tariff. As such, the exclusion in deletions as claimed by the Petitioner is <b>allowed</b> .	(-) 45.54



20. Accordingly, the additional capital expenditure of (-) Rs.45.54 lakh i.e. exclusion in deletion is allowed for the year 2014-15, over and above the net additional capital expenditure allowed in order dated 19.7.2019 in Petition No.314/GT/2018. As such, the total additional capital expenditure allowed in 2014-15 for the purpose of tariff works out to Rs.1360.75 lakh as per details mentioned below:

<i>(Rs. in lakh)</i>	
	<b>2014-15</b>
Additions allowed in order dated 19.7.2019 in Petition No.314/GT/2018 <b>(a)</b>	1915.31
Additions allowed over and above the additional capital expenditure as allowed by order dated 19.7.2019 in Petition No.314/GT/2018 <b>(b)</b>	0.00
De-capitalization considered in order dated 19.7.2019 in Petition No.314/GT/2018 <b>(c)</b>	600.08
De-capitalization allowed under exclusion from the amount considered above <b>(d)</b>	(-) 45.54
Net additional capital expenditure allowed for the period 2014-15 <b>(e)=(a)+ (b)- (c)-(d)</b>	<b>1360.75</b>

### **2015-18**

21. The Petitioner has claimed de-capitalization allowed under exclusion amounting to Rs. 165.36 lakh in 2015-16, Rs.123.59 lakh in 2016-17 and Rs. 22.97 lakh in 2017-18. In line with the decision on the issue for 2014-15 (in table under paragraph 20 above), the exclusion in deletion claimed by the Petitioner for the period 2015-18 is also allowed. It is also observed that the Petitioner has reduced its claim under 'exclusion' from Rs.26.05 lakh to Rs.22.97 lakh and has reduced the de-capitalization claim from Rs. 255.19 lakh to Rs. 250.79 lakh in 2017-18. Accordingly, the total additional capital expenditure allowed for the period 2015-18 for the purpose of tariff is as under:

<i>(Rs. in lakh)</i>			
	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>
Additions allowed in order dated 19.7.2019 in Petition No.314/GT/2018 and considered in the present petition <b>(a)</b>	1270.58	1760.18	2852.12
De-capitalization considered in order dated 19.7.2019 in Petition No.314/GT/2018 <b>(b)</b>	312.23	421.32	250.79
De-capitalization allowed under exclusion from the amount considered above <b>(c)</b>	(-) 165.36	(-) 123.59	(-) 22.97
Net additional capital expenditure allowed for the period 2015-18 <b>(d)=(a)-(b)-(c)</b>	<b>1123.72</b>	<b>1462.45</b>	<b>2624.30</b>



**2018-19**

22. The details of the actual additional capital expenditure claimed by the Petitioner for the year 2018-19 in terms of Regulation 14(3) of the 2014 Tariff Regulations are as under:

<i>(Rs. in lakh)</i>		
<b>Sl. No.</b>	<b>Regulations</b>	<b>2018-19</b>
1	14(3)(i)	(-) 58.68
2	14(3)(ii)	66.82
3	14(3)(iii)	350.15
4	14(3)(vi)	363.52
5	14(3)(viii)	2010.51
6	14(3)	(-)37.80
	<b>Total as per Form-9A (A)</b>	<b>2694.53</b>
<b>B</b>		
7	Minor Items	227.26
8	Exclusion-Minor Items	(-) 67.89
9	Exclusion-Insurance capital spares- decapitalized / consumed and claimed under O&M expenses	<b>(-) 137.39</b>
10	Corporate Office capital expenses to be claimed under O&M expenses	6667.73
11	Insurance capital spares to be claimed on consumption basis	32.18
12	Other capital spares (Other than above) claimed under O&M expenses	187.97
13	Capital expenditure (Other than Insurance Spares & Other capital spares as above) to be claimed under O&M expenses	49.26
	<b>Total (B)</b>	<b>6959.13</b>
	<b>Grand Total (A+B)</b>	<b>9653.66</b>

23. The Petitioner has claimed the total additional capital expenditure of Rs. 9653.66 lakh, based on the available audited accounts for 2018-19. However, for the purpose of tariff, the Petitioner has claimed additional capital expenditure of Rs 2649.53 lakh in Form 9(A).

24. The Petitioner has claimed an amount of (-) Rs.58.68 lakh as stated in the table under paragraph 22 above, towards meeting liabilities on account of award of arbitration or for compliance of the order or decree of a court of law under Regulation



14(3)(i) of the 2014 Tariff Regulations. The admissibility of the same are discussed as follows:

Sl. No.	Name of Asset	Amount Claimed (Rs. in lakh)	Justification	Remarks for admissibility	Amount allowed (Rs. in lakh)
1.	Land owned under full title	3.00	Alternate Packages to landless families	Since the expenditure is on account of compliance to the order dated 24.9.2018 of the Hon'ble Supreme Court, the expenditure has been incurred and the same is <b>allowed.</b>	3.00
2.		(-) 50.00	The amount of compensation directed to be refunded by order dated 24.9.2018 of the of the Hon'ble Supreme Court on account of dispute in title of land		(-)50.00
3.	Bhaba Tail Race Diversion Tunnel	(-)11.68	De-capitalisation on account of revision of tariff for the 2004-09 tariff period		(-)11.68
	<b>Total amount claimed</b>	<b>(-) 58.68</b>			
	<b>Total amount allowed</b>				<b>(-) 58.68</b>

25. The Petitioner has claimed additional capitalization under provisions of Regulation 14(3)(ii) of the 2014 Tariff Regulations amounting to Rs.66.82 lakh as stated in table under paragraph 22 above for Design, Supply, Installation and Commissioning of Sewage Treatment Plant in compliance to notice dated 27.11.2015 issued by the Himachal Pradesh State Pollution Control Board (HPSPCB) to install a STP in generating station colony area & C/O of Retaining wall and Drain for the new STP site. It is noticed that the Petitioner, in terms of the observations of the HPSPCB, has incurred the additional expenditure towards the sewage treatment plant for proper disposal of sewage waste of the project area. The relevant paragraph of the notice dated 27.11.2015 issued by HPSPCB is as under:

*"... Whereas it has been observed by the undersigned during the inspection of your project that a proper solid waste management system / STP is necessary to dispose off the waste generated from SJVNL Colonies at Jhakri, Nathpa and Jeori...."*



26. Since the expenditure has been incurred by the Petitioner in compliance with the directions of the HPSPCB, the additional capital expenditure of Rs.66.82 lakh is allowed to be capitalized in terms of Regulation 14(3)(ii) of the 2014 Tariff Regulations.

27. The Petitioner has claimed additional capitalization amounting to Rs. 350.15 lakh as stated in table under paragraph 22 above, on account of higher security and safety of the plant under Regulation 14(3)(iii) of the 2014 Tariff Regulations. The admissibility of the same is discussed below:

Sl. No.	Name of Asset	Amount Claimed (Rs. in lakh)	Justification submitted by the Petitioner	Remarks on Admissibility	Amount allowed (Rs. in lakh)
1.	Procurement/ Installation of CCTV cameras	81.25	Various sites & important locations of the Generating Station have not been covered by CCTV Surveillance system till date. As per security recommendation of NSG team, installation of adequate surveillance device/ CCTV at requisite locations of project is required. Further a committee having personnel from CISF has recommended installation of CCTVs at various project locations to enhance security preparedness.	The additional capital expenses claimed is on account of need for higher security and safety of plant as directed by Government agencies/ statutory authorities. Accordingly, the same <b>is allowed</b> under Regulation 14(3)(iii) of the 2014 Tariff Regulations.	81.25
2.	P/F inter-chain link fencing at various locations on road leading to MAT and TRT outfall and at Jhakri	107.31	As per the decision taken in the security co-ordination meeting, the work should be provided/ constructed along both side of the road to check the movement of unauthorised persons and animals keeping in view the security of the Project.		107.31
3.	30 meters high mast lighting	32.77	High mast lights were installed for improving		32.77





Sl. No.	Name of Asset	Amount Claimed (Rs. in lakh)	Justification submitted by the Petitioner	Remarks on Admissibility	Amount allowed (Rs. in lakh)
	system complete with all associated PPR-1541 & P/F led streetlights from the Generating Station HTI complex Kotla to Jeori-PCD (O&M)-641		the illumination of Dam area as per recommendation of IB team, so that any unauthorised access could be avoided and it enhanced security of the Dam area and eased the patrolling of Security	As recommended by Dam Safety Organisation (Nasik), system is required for study and recording of the geographic movement of the surrounding, slopes and other locations of hydro power plant.	
4.	Supply, Installation, Commissioning of strong motion accelerograph and seismometer, including formation of seismic network in and around the Generating Station for earthquake monitoring (pkg-159)	128.82	As per the recommendation of DSO Nasik, micro-seismic instruments and strong motion accelerographs have been installed to measure the micro-seismic activities in Dam and around the Generating Station. As per the recommendation of DSO Nasik, automatic weather station has been installed at Dam for monitoring the various climatic parameters surrounding the Dam. 2-D crack meters were installed at de-silting chambers to monitor the movement between the adjacent cracks around the chambers. As per the recommendation of the internal dam safety committee, inclinometers have been installed at various location of the Generating Station to monitor the movement along the slopes. To fulfil the safety measures of Dam, de-silting chambers and TRT outfall area, all these instruments were installed.	As these assets are critical for the hydro power plant, therefore the additional capital expenditure is <b>allowed</b> .	128.82
	<b>Total amount claimed</b>	<b>350.15</b>			
	<b>Total amount allowed</b>				<b>350.15</b>



28. The Petitioner has claimed additional capital expenditure amounting to Rs. 2010.51 lakh as stated in table under paragraph 22 above towards additional works/ expenditure which has become necessary for efficient and successful operation of the generating station as per Regulation 14(3)(viii) of the 2014 Tariff Regulations as under:

Sl. No.	Name of Asset	Amount Claimed (Rs. in lakh)	Justification submitted by the Petitioner	Remarks on Admissibility	Amount allowed (Rs. in lakh)
<b>Items from Serial No. 1 to 11 were allowed vide Commission's Order dated 19.7.2019 in Petition No. 314/GT/2018 on projection basis under Regulation 14(3)(viii) of the 2014 Tariff Regulations</b>					
1.	Alfa Laval oil purification system MAB 103 (Dam site)	22.79	This machine is required for filtration of hydraulic oil being used in the Hydraulic Hoist of Radial Gates and SFT Gates to enhance the life and efficiency of the equipment.	Considering the fact that the assets/ works will facilitate the successful and efficient operation of the generating station, an amount of Rs.22.47 lakh was allowed on projection basis in order dated 19.7.2019 in Petition No. 314/GT/2018. The same is <b>allowed.</b>	22.79
2.	Integrity status of Discharge Gates Measurement and Display of the Discharge released through the radial gates and BTRDT Outfall in the existing minimum flow measurement system for flow measurement arrangement at Dam Site (PCD-635)	13.95	The discharge released through the Radial Gates and SFT Gates is to be integrated into the flow discharge measurement arrangement and display on the online webpage for public view to meet the statutory requirement.	Considering the submissions of the Petitioner and keeping in view that the assets/ works will facilitate the successful and efficient operation of the generating station, an amount of Rs.13.95 lakh was allowed on projection basis in order dated 19.7.2019 in Petition No. 314/GT/2018. The same is <b>allowed.</b>	13.95
3.	Replacement of Robotic system installed at Hard Coating System supplied along with Hard Coating Equipment	91.88	The existing robotic system was supplied under the scope of EMP -I (Turbine Package) and is of year 1998. This system, after use for several years, is	Considering the submissions of the Petitioner and keeping in view that the assets/ works will facilitate the successful and efficient operation of	91.88



Sl. No.	Name of Asset	Amount Claimed (Rs. in lakh)	Justification submitted by the Petitioner	Remarks on Admissibility	Amount allowed (Rs. in lakh)
	(Pkg-176)		posing difficulty in maintaining costly spare inventory and also facing increased breakdowns. Therefore, in order to ensure efficient and ready availability of robotic system for most vital service to power station (i.e. meeting hard coating requirements) for further ensuring availability of power station throughout the year for efficient generation under extreme silt conditions.	the generating station, an amount of Rs.91.88 lakh was allowed on projection basis in order dated 19.7.2019 in Petition No. 314/GT/2018. Accordingly, an amount of Rs. 91.88 lakh claimed for the same is <b>allowed</b> . It is noticed that the Petitioner has not indicated the de-capitalised value of the old asset in the petition. However, the de-capitalisation of Rs 106.96 lakh claimed by the Petitioner in Petition No. 30/GT/2020 ( <i>determination of tariff of this generating station for the 2019-24 tariff period</i> ) has been de-capitalized in this order.	
4.	Gantry Crane for the operation of Stop Logs for Automatic Slipway (PKG-169)	110.10	There is no permanent hoisting arrangement for operation of Stoplog elements of Automatic Spillway Gates since commissioning. Maintenance of Automatic Gates is possible only if Stoplog elements are lowered to its silt beam. Optimum water level in between 1490 to 1495 is always required to be maintained for optimum generation. The spill level of Automatic Stoplog is 1491.935. Further Small floating bodies/trashes which are accumulated on the right side of Log boom barrier can be taken out with the hydraulic grab of	The assets will facilitate the successful and efficient operation of the generating station, an amount of Rs.109.89 lakh was allowed on projection basis in order dated 19.7.2019 in Petition No. 314/GT/2018. Accordingly, an amount of Rs. 110.10 lakh claimed for the same is <b>allowed</b>	110.10



Sl. No.	Name of Asset	Amount Claimed (Rs. in lakh)	Justification submitted by the Petitioner	Remarks on Admissibility	Amount allowed (Rs. in lakh)
			above Crane so that entry of trashes into the HRT can be minimised. This Crane is a functional requirement to improve the efficiency of plant.		
5.	P/F Aluminium Cabin in Different Security Posts at Dam Site - C/O Aluminium Cabin in SFT, Scolding, Adit-01, Main Circle office, Fire Building-PCD-	4.57	Aluminium Cabin in different security posts are required to be installed for security personnel deployed at different locations. A request letter has been received from Himfecesco supervisor and Dam operation Department Nathpa for construction of cabin in sholding, Audit-I, EIC office & in SFT respectively.	Considering the submissions of the Petitioner and keeping in view that, the expenditure is towards safety of the plant, an amount of Rs.8.48 lakh was allowed on projection basis in order dated 19.7.2019 in Petition No. 314/GT/2018. Accordingly, the claimed amount of Rs.4.57 lakh is <b>allowed.</b>	4.57
6.	Civil structure & other allied works for installation of shunt reactor at pot head yard	133.02	High transmission voltage, particularly during lean season in the range of 430kV to 440kV has been a serious threat to high voltage GIS equipment of the Generating Station as lines have been opened very frequently on high voltage to control the grid voltage. On account of opening of 400kV line at high voltage in the range of 430kV to 440kV, four Nos. 400kV Line Circuit Breaker got flashover in the year 2009-10 which effected the safe evacuation of power to grid. Accordingly, 80MVAR Bus Reactor for the Generating Station was approved by NRPC in order to control the GRID voltage and also to avoid frequent failure	Considering the submissions of the Petitioner and keeping in view that the assets/ works will facilitate the successful and efficient operation of the generating station, an amount of Rs.133.76 lakh was allowed on projection basis in order dated 19.7.2019 in Petition No. 314/GT/2018. Accordingly, the claimed amount of Rs. 133.02 lakh is <b>allowed.</b>	133.02



Sl. No.	Name of Asset	Amount Claimed (Rs. in lakh)	Justification submitted by the Petitioner	Remarks on Admissibility	Amount allowed (Rs. in lakh)
			<p>of GIS Line Circuit Breakers at generating station on account of High GRID Voltage. The Installation &amp; Commissioning of reactor on these parts of the GRID may help in controlling the GRID Voltage &amp; thus increase the overall efficiency of Power Plant (generating station). Since inception, the Generating Station has no arrangement to use its own power supply to meet auxiliary power requirement. The Generating Station has been drawing power from HPSEB to meet the auxiliary power requirement of generating station including Dam site. The power supply from HPSEB is not only erratic and unreliable but also costly and thus effecting the efficient operation of Power Plant. Accordingly, 25 MVA, 400 kV/22 kV, station transformer was approved by CEA in order to use own reliable station Auxiliary Power Supply at the Generating Station.</p> <p>In order to make Bus Reactor &amp; Station Transformer fully operational, the following equipment are divided into five packages:</p> <p>a) Two GIS Bay &amp; associated equipment required for Switching</p>		



Sl. No.	Name of Asset	Amount Claimed (Rs. in lakh)	Justification submitted by the Petitioner	Remarks on Admissibility	Amount allowed (Rs. in lakh)
			<p>of 80 MVAR Bus Reactor &amp; 400 kV/22 kV Station Transformer.</p> <p>b) One 400 kV/22 kV, 25 MVA Station Transformers along with Protection Panel.</p> <p>c) One 80 MVAR Bus Reactor along with Protection Panel.</p> <p>d) Numerical Bus Bar Protection for Bus Reactor &amp; Station Transformer along with complete replacement of existing obsolete Static Bus Bar protection of 13 GIS Bays. As Static &amp; Numerical Bus Bar protection cannot be configured together, replacement of existing obsolete Static Bus Bar protection is inevitable to make the complete Bus Bar scheme workable &amp; safe for the Power Plant.</p> <p>e) Misc. Works such as Gantry Structures, LA, Fire Fighting, 22KV Panel etc. associated with Bus Reactor &amp; Station Transformer.</p>		
7.	Construction and Widening of Road from PH road bifurcation point RD 750 Mtr to 230 Mtr	0.18	Balance payment against works capitalised in 2017-18	The additional capital expenditure claimed is towards the balance payment of works which has already been allowed during 2017-18 in order dated 19.7.2019 in Petition No. 314/GT/2018. Accordingly, the same is <b>allowed</b> .	0.18



Sl. No.	Name of Asset	Amount Claimed (Rs. in lakh)	Justification submitted by the Petitioner	Remarks on Admissibility	Amount allowed (Rs. in lakh)
8.	Construction of canteen in DPS School	10.37	As per the request of Principal DPS, an accommodation for canteen in DPS premises is required to be provided for the welfare of students, school staff and visiting parents as presently there is no space for running canteen in DPS premises. The subject sited accommodation of canteen in DPS premises was agreed during LMC meeting held on 11/07/2017.	Considering the submissions of the Petitioner and expenditure is towards for benefit of the employees working at remote locations, an amount of Rs.13.50 lakh was allowed on projection basis in order dated 19.7.2019 in Petition No. 314/GT/2018. Accordingly, the claimed amount of Rs.10.37 lakh is <b>allowed</b> .	10.37
9.	Design, Manufacture, Quality assurance, Quality control, Shop Assembly, Shop Testing, Packing & Forwarding, Supply, Transportation, & delivery at site, Transport insurance, Site storage and preservation, Installation, Commissioning. Performance testing, Acceptance testing, handing over to SJVN, One No. 420 KV, 2000A, GIS Extension bay at Existing 420KV GIS system of Generating Station & (b) Complete Retrofitting Solution covering design, manufacture, Quality assurance, Quality control,	1459.02	Same reasons as at sl. No. 7 of this table. Also, manufacturing of existing obsolete Line Circuit Breaker has already been stopped by OEM & procuring obsolete Line Circuit Breaker from OEM is a costly affair. So, the Petitioner has procured latest technology based Line CB's for two line bays complete with Operating Mechanism & associated equipment on open tender basis for retrofitting in existing 400kV Line Bays (Panchkula-I &II) so as to obtain a cost effective solution and advanced technology for better efficiency of the systems in 420kV GIS System of the Generating Station. The Line CB Pole being an obsolete model, the lack of spare availability is a major concern for generating station. Also, there is enormous escalation in the price of these	Considering the submissions of the Petitioner and keeping in view that the assets/ works will facilitate the successful and efficient operation of the generating station, an amount of Rs.1620.46 lakh was allowed on projection basis in order dated 19.7.2019 in Petition No. 314/GT/2018. Accordingly, the claimed amount of Rs.1459.05 lakh is <b>allowed</b> .	1459.02



Sl. No.	Name of Asset	Amount Claimed (Rs. in lakh)	Justification submitted by the Petitioner	Remarks on Admissibility	Amount allowed (Rs. in lakh)
	Shop Assembly, Shop Testing, Packing & forwarding, Supply, Transportation & Delivery at Site, Transit Insurance, Site Storage and Preservation, Installation, commissioning, Performance testing, Acceptance Testing handing over to SJVN, One No. 420KV, 2000A, circuit breaker retrofit bay complete with operating mechanism & associated equipment's required for retrofitting at existing One No. 420 KV,2000 A, GIS line Bay of 420KV GIS System of the Generating Station. (25 MVA, 400KV/ 22KV, Station Transformer GIS Extension Bay & Retrofit Circuit Breaker GIS Bay of NJ-Panchkula-I Feeder) (Pkg-149-Variation Order)		obsolete spares with each passing year. Being in continuous operation for more than 14 years, the GIS Circuit Breakers require upgradation. Keeping in view the larger & future interest of the plant, in the long run the retrofitting solution shall not only be economical but also advantageous for the Generating Station in many ways.		
10.	Design, Manufacture, Supply, Erection Storage, Testing & Commissioning of 400kV Numerical Bus Bar Protection System for Bus	51.13	Numerical Bus Bar Protection for Bus Reactor & Station Transformer along with complete replacement of existing obsolete Static Bus Bar protection of 13 GIS Bays as Static & Numerical Bus Bar	Considering the submissions of the Petitioner and keeping in view that the assets/ works will facilitate the successful and efficient operation of the generating station, an amount of	51.13





Sl. No.	Name of Asset	Amount Claimed (Rs. in lakh)	Justification submitted by the Petitioner	Remarks on Admissibility	Amount allowed (Rs. in lakh)
	Reactor & Station Transformer & upgradation of existing obsolete Static Bus Bar Protection of 13 Nos GIS Bays with Numerical Bus Bar Protection		protection cannot be configured together. Hence, replacement of existing obsolete Static Bus Bar protection is inevitable to make the complete Bus Bar scheme workable & safe for the Power Plant.	Rs.54.97 lakh was allowed on projection basis in order dated 19.7.2019 in Petition No. 314/GT/2018. Accordingly, the claimed amount of Rs. 51.13 lakh is <b>allowed</b> .	
11.	Supply, installation, Modification, testing & commissioning of independent water make up expansion tank for secondary cooling water circuit of Powerhouse.	22.09	The primary cooling water system is open circuit and secondary cooling water system is close circuit. In secondary cooling water system, to make up loss of water due to leakage, evaporation etc water make up tank is installed at Transformer Hall & this tank is common for all the six units. In case of sudden loss of excess water from any of the unit the water pressure of all the six units drops which leads to tripping of Generating Units. Hence installation of independent make up tank is necessary to reduce unit down time, safety & reliability and efficiency of generating units of generating station.	Considering the submissions of the Petitioner and keeping in view that the assets/ works will facilitate the successful and efficient operation of the generating station, an amount of Rs.25.70 lakh was allowed on projection basis in order dated 19.7.2019 in Petition No. 314/GT/2018. Accordingly, the claimed amount of Rs. 22.09 lakh is <b>allowed</b> .	22.09
12.	Innova Crysta (2.4g X 7s) HP 06B 1190	15.18	In order to fulfil the needs during the visits of dignitaries to project site, new vehicle is procured as replacement vehicle in place of TATA SAFARI, after condemnation/ de-capitalisation in 2007-08	The Petitioner has claimed these expenditures in order to fulfil the needs during the visits of dignitaries to the project site. As the additional capital expenditure incurred on procurement of vehicles for dignitaries do not contribute to the	0.00
13.	Fortuner Car- No. HP07D0691	13.87	Vehicle Procured as replacement against de-capitalisation of		0.00



Sl. No.	Name of Asset	Amount Claimed (Rs. in lakh)	Justification submitted by the Petitioner	Remarks on Admissibility	Amount allowed (Rs. in lakh)
			vehicles refer Annexure-2 for details.	efficient operation of the generating station, the same is <b>not allowed</b> . Accordingly, the de-capitalization of old assets is also not considered.	
14.	Innova Car-No.HP07D0619	9.16	Vehicle Procured as replacement against de-capitalisation of vehicles refer Annexure-2 for details.		0.00
15.	Altis	10.18	Vehicle Procured as replacement against de-capitalisation of vehicles refer Annexure-2 for details.		0.00
16.	INNOVA-HP07D 0664	9.17	Vehicle Procured as replacement against de-capitalisation of vehicles refer Annexure-2 for details.		0.00
17.	Automatic alternate phase switching lighting control panels having programmable relay/ PLC for switching lights in underground sites as an energy saving measure at Nathpa Dam-PPR-1634	10.21	“Energy saved is energy generated”; this is an innovative measure to save electrical energy by switching of extra lights automatically during odd hours. This will increase efficiency of the plant as the power consumption will decrease.	Considering the submissions of the Petitioner and keeping in view that the asset/ work will facilitate the successful and efficient operation of the generating station, the same is <b>allowed</b> .	10.21
18.	Upgradation of fire alarm system PPR-1668	19.37	The main control panel of the existing system was installed in the back side of control room. This was used to check the fire alarms of fire system. It was very difficult to monitor & acknowledge the fire alarm by the operation engineer as same was not in main control room. Therefore, an operator station with latest fire software was installed at main control room for fire alarm system so that every event/alarm of fire system can be easily monitored and detected. This is done to improve the safety of the plant.	Considering the submissions of the Petitioner and keeping in view that the assets/ works will facilitate the successful and efficient operation of the generating station, the same is <b>allowed</b> .	19.37



Sl. No.	Name of Asset	Amount Claimed (Rs. in lakh)	Justification submitted by the Petitioner	Remarks on Admissibility	Amount allowed (Rs. in lakh)
19.	Cement grouting pump machine with electric motor 7.5 to 10 hp ppr-ponj18/83	4.25	More than thousand cumec of surplus water with heavy silt load/ big boulders have been passing through Radial gates of Nathpa Dam during high flow season/ Flushing. The big boulders/ high silt which passes with high velocity damages the flip bucket end plate and Sill Beam liner. To avoid further damage of Sill Beam liner and flip bucket end plates, new grouting machine was purchased Departmentally.	Since capitalization of tools & tackles after the cut-off date of the generating station is not permissible in terms of the 2014 Tariff Regulations, the additional capital expenditure claimed is <b>not allowed</b> .	0.00
	<b>Total amount claimed</b>	<b>2010.51</b>			
	<b>Total amount allowed</b>				<b>1948.69</b>

29. Based on the above, the total additional capital expenditure of Rs.2306.99 lakh is allowed in 2018-19. The details of the additional capital expenditure allowed for 2018-19 is shown as under:

*(Rs. in lakh)*

Sl. No.	Regulation	Additional capital expenditure allowed for 2018-19
1	14(3)(i) as per table under para 24 above	(-) 58.68
2	14(3)(ii) as per para 26 above	66.82
3	14(3)(iii) as per table under para 27 above	350.15
5	14(3)(viii) as per table under para 28 above	1948.69
	<b>Total as per Form-9A (A)</b>	<b>2306.99</b>

### Discharge of liabilities

30. The Petitioner has claimed the following discharge of liabilities:

*(Rs. in lakh)*

2014-15	2015-16	2016-17	2017-18	2018-19
0.12	359.01	959.09	8.30	363.52

31. In compliance to the directions of the Commission, the Petitioner has furnished the reconciliation of liabilities along with the balance sheet in the present



petition. The Respondent BRPL has submitted that the Petitioner may be directed to justify the capitalization claimed towards un-discharged liabilities and reversal of liabilities, by providing certified yearly head-wise liability flow statement till 31.3.2019. In response, the Petitioner has submitted that the liability flow statement duly certified by the statutory Auditors has been furnished with the present petition. Accordingly, on prudence check, the discharge of liabilities of Rs.363.52 lakh in 2018-19 is allowed.

### **De-capitalization**

32. The Petitioner has claimed the de-capitalization of amounts (as per Form 9Bi) during the 2014-19 tariff period as under:

<i>(Rs. in lakh)</i>				
<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
554.54	146.87	297.73	227.82	37.80

33. The de-capitalization claimed/ allowed for the period 2014-18 has been discussed at paragraphs 18 to 21 above.

34. The Petitioner has de-capitalized an amount of Rs. 37.80 lakh in 2018-19 towards the de-capitalization of 'old vehicles' under the head 'self-propelled vehicles'. The Petitioner has claimed procurement of vehicles under Regulation 14(3)(viii) of the 2014 Tariff Regulations, against de-capitalization of assets claimed during 2018-19. Since the additional capital expenditure claimed are not related to efficient operation of the plant, the same is not allowed (refer sl. no. 12 to 16 of the table under paragraph 28 above). Accordingly, the corresponding de-capitalization claimed by the Petitioner on account of replacement of vehicles/ cars is also not allowed.



35. It is noticed that the Petitioner has claimed certain assets during 2017-18 and 2018-19 on replacement basis. However, the de-capitalization value of the old replaced assets has not been furnished in the petition. It is further noticed that the Petitioner has claimed de-capitalization of these assets in the year 2019-20 in Petition No. 30/GT/2020 (filed by Petitioner for determination of tariff of the instant generating station for the 2019-24 tariff period). In this regard, it is to mention that where the de-capitalization is proposed to be effected during the future years to the year of capitalization of the new asset, the de-capitalization of the old asset for the purpose of tariff is shifted to the same year in which the capitalization of the new asset is allowed.

36. Accordingly, the claim of the Petitioner for de-capitalization of assets, which were replaced in 2017-18 and 2018-19 has been revised from Rs 227.82 lakh to 243.40 lakh in the year 2017-18 and to Rs.106.96 lakh from Rs.37.80 lakh in the year 2018-19, as detailed hereunder:

*(Rs. in lakh)*

Sl. No.	Name of Asset	De-capitalization claimed in 2019-20	Justification submitted by the Petitioner	Remarks on Admissibility	De-capitalization considered in year
1.	Supply of Dry Type Scrubber Unit (Cartridge Type) for Hard Coating Facility of (PPR-1463)	(-)14.26	Dry Type Scrubber Unit was claimed and allowed as capital expenditure in 2017-18 vide Order dated 19.07.19 in 314/GT/2018. However, the item was not de-capitalised in the Books of Account during the period 2014-19. Therefore, the de-cap value has not been considered in the Petition No.31/GT/2020 for 2014-19 instead de-capitalisation is considered in 2019-20.	The Commission has allowed the replacement of these assets vide its order dated 19.7.2019 in Petition No. 314/GT/2018 and in this order. However, the Petitioner has claimed de-capitalization in 2019-20 tariff period. The same has been considered and	(-) 14.26 (in 2017-18)



Sl. No.	Name of Asset	De-capitalization claimed in 2019-20	Justification submitted by the Petitioner	Remarks on Admissibility	De-capitalization considered in year
2.	Replacement of two numbers of Old Fire Tenders (HP-06-1322)& HP-06-1323)	(-)1.32	New Fire Tenders were claimed and allowed as capital expenditure in 2017-18 vide Order 19.07.19 in 314/GT/2018. However, the items were not decapitalised in the Books of Account during the period 2014-19. Therefore, the de-cap value has not been considered in the Petition No. 31/GT/2020 for 2014-19 instead decapitalisation is considered in 2019-20.	<b>allowed</b> to be de-capitalized during the same period.	(-) 1.32 (in 2017-18)
3.	Replacement of robotic system installed at Hard Coating System supplied along with Hard Coating Equipment's	(-)106.96	Robotic System was claimed and allowed as capital expenditure in 2018-19 vide Order dated 19.7.19 in 314/GT/2018. However, the item was not decapitalised in the Books of Account during the period 2014-19. Therefore, the de-cap value has not been considered in the Petition No. 31/GT/2020 for 2014-19 instead decapitalisation is considered in 2019-20.		(-)106.96 (in 2018-19)

37. Accordingly, the de-capitalization considered for the purpose of tariff for the 2014-19 tariff period is as under:

	<i>(Rs. in lakh)</i>				
	2014-15	2015-16	2016-17	2017-18	2018-19
De-capitalization claimed by the Petitioner	554.54	146.87	297.73	227.82	37.80
De-capitalization allowed	554.54	146.87	297.73	243.40	106.96



## Net additional capital expenditure allowed

38. In view of above, the net additional capital expenditure allowed for the 2014-19 tariff period is as under:

	(Rs. in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Additions allowed during the year (a)	1915.18	911.57	801.09	2843.81	2306.99
Discharge of liabilities (b)	0.12	359.01	959.09	8.30	363.52
Deletions considered during the year (c)	554.54	146.87	297.73	243.40	106.96
<b>Net additional capital expenditure allowed (c)=(a)+(b)-(c)</b>	<b>1360.76</b>	<b>1123.71</b>	<b>1462.45</b>	<b>2608.71</b>	<b>2563.55</b>

## Capital cost

39. Accordingly, the capital cost allowed for the purpose of tariff for the 2014-19 tariff period is as under:

	(Rs. in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Opening capital cost	877307.50	878668.25	879791.97	881254.42	883863.13
Net additional capital expenditure allowed	1360.75	1123.72	1462.45	2608.71	2563.55
<b>Closing Capital Cost</b>	<b>878668.25</b>	<b>879791.97</b>	<b>881254.42</b>	<b>883863.13</b>	<b>886426.68</b>

## Debt-Equity Ratio

40. Regulation 19 of the 2014 Tariff Regulations provides as under:

*“19. Debt-Equity Ratio: (1) For a project declared under commercial operation on or after 1.4.2014, the debt-equity ratio would be considered as 70:30 as on COD. If the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan:*

*Provided that:*

*i. where equity actually deployed is less than 30% of the capital cost, actual equity shall be considered for determination of tariff:*

*ii. the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment:*

*iii. any grant obtained for the execution of the project shall not be considered as a part of capital structure for the purpose of debt : equity ratio.*

*Explanation.-The premium, if any, raised by the generating company or the transmission licensee, as the case may be, while issuing share capital and investment of internal resources created out of its free reserve, for the funding of the project, shall be reckoned as paid up capital for the purpose of computing*



return on equity, only if such premium amount and internal resources are actually utilised for meeting the capital expenditure of the generating station or the transmission system.

(2) The generating company or the transmission licensee shall submit the resolution of the Board of the company or approval from Cabinet Committee on Economic Affairs (CCEA) regarding infusion of fund from internal resources in support of the utilization made or proposed to be made to meet the capital expenditure of the generating station or the transmission system including communication system, as the case may be.

(3) In case of the generating station and the transmission system including communication system declared under commercial operation prior to 1.4.2014, debt-equity ratio allowed by the Commission for determination of tariff for the period ending 31.3.2014 shall be considered.

(4) In case of the generating station and the transmission system including communication system declared under commercial operation prior to 1.4.2014, but where debt: equity ratio has not been determined by the Commission for determination of tariff for the period ending 31.3.2014, the Commission shall approve the debt: equity ratio based on actual information provided by the generating company or the transmission licensee as the case may be.

(5) Any expenditure incurred or projected to be incurred on or after 1.4.2014 as may be admitted by the Commission as additional capital expenditure for determination of tariff, and renovation and modernization expenditure for life extension shall be serviced in the manner specified in clause (1) of this regulation.”

41. The debt-equity ratio of 70:30 has been considered in terms of Regulation 19 of the 2014 Tariff Regulations for the purpose of tariff.

### **Return on Equity**

42. Regulation 24 of the 2014 Tariff Regulations provides as under:

“24. Return on Equity: (1) Return on equity shall be computed in rupee terms, on the equity base determined in accordance with regulation 19.

(2) Return on equity shall be computed at the base rate of 15.50% for thermal generating stations, transmission system including communication system and run of the river hydro generating station, and at the base rate of 16.50% for the storage type hydro generating stations including pumped storage hydro generating stations and run of river generating station with pondage:

Provided that:

i. in case of projects commissioned on or after 1st April, 2014, an additional return of 0.50 % shall be allowed, if such projects are completed within the timeline specified in Appendix-I:

ii. the additional return of 0.5% shall not be admissible if the project is not completed within the timeline specified above for reasons whatsoever:

iii. additional RoE of 0.50% may be allowed if any element of the transmission project is completed within the specified timeline and it is certified by the Regional





Power Committee/National Power Committee that commissioning of the particular element will benefit the system operation in the regional/national grid:

iv. the rate of return of a new project shall be reduced by 1% for such period as may be decided by the Commission, if the generating station or transmission system is found to be declared under commercial operation without commissioning of any of the Restricted Governor Mode Operation (RGMO)/ Free Governor Mode Operation (FGMO), data telemetry, communication system up to load dispatch centre or protection system:

v. as and when any of the above requirements are found lacking in a generating station based on the report submitted by the respective RLDC, RoE shall be reduced by 1% for the period for which the deficiency continues:

vi. additional RoE shall not be admissible for transmission line having length of less than 50 kilometers.”

43. Regulation 25 of the 2014 Tariff Regulations provides as under:

*“Tax on Return on Equity: (1) The base rate of return on equity as allowed by the Commission under Regulation 24 shall be grossed up with the effective tax rate of the respective financial year. For this purpose, the effective tax rate shall be considered on the basis of actual tax paid in the respect of the financial year in line with the provisions of the relevant Finance Acts by the concerned generating company or the transmission licensee, as the case may be. The actual tax income on other income stream (i.e., income of non-generation or non-transmission business, as the case may be) shall not be considered for the calculation of “effective tax rate”*

*(2) Rate of return on equity shall be rounded off to three decimal places and shall be computed as per the formula given below:*

*Rate of pre-tax return on equity = Base rate / (1-t)*

*Where “t” is the effective tax rate in accordance with Clause (1) of this regulation and shall be calculated at the beginning of every financial year based on the estimated profit and tax to be paid estimated in line with the provisions of the relevant Finance Act applicable for that financial year to the company on pro-rata basis by excluding the income of non-generation or non-transmission business, as the case may be, and the corresponding tax thereon. In case of generating company or transmission licensee paying Minimum Alternate Tax (MAT), “t” shall be considered as MAT rate including surcharge and cess*

*(3) The generating company or the transmission licensee, as the case may be, shall true up the grossed up rate of return on equity at the end of every financial year based on actual tax paid together with any additional tax demand including interest thereon, duly adjusted for any refund of tax including interest received from the income tax authorities pertaining to the tariff period 2014-15 to 2018-19 on actual gross income of any financial year. However, penalty, if any, arising on account of delay in deposit or short deposit of tax amount shall not be claimed by the generating company or the transmission licensee as the case may be. Any under-recovery or over recovery of grossed up rate on return on equity after truing up, shall be recovered or refunded to beneficiaries or the long term transmission customers/DICs as the case may be on year to year basis.”*



44. The Respondent, BRPL has submitted that the Tax Audit Report furnished by the Petitioner clearly shows that though the Petitioner is enjoying huge benefits under Section 80IA of the Income Tax Act, 1961, it has not calculated the effective tax rate applicable in accordance with Regulation 25 of the 2014 Tariff Regulations. In response, the Petitioner has submitted that the actual tax rate applicable to Petitioner is the MAT rate i.e. Minimum Alternate Tax. It has also clarified that although the Petitioner Company is availing tax holidays under Section 80IA of Income Tax Act, it has to pay tax as per MAT rate applicable from 2009-10 to 2013-14 as under:

<b>Year</b>	<b>Basic MAT Rate (%)</b>	<b>Surcharge and Cess</b>	<b>Effective Actual Applicable Tax Rate (%)</b>
2009-10	15.00	10% & 3%	16.995
2010-11	18.00	7.5% & 3%	19.931
2011-12	18.50	5% & 3%	20.008
2012-13	18.50	5% & 3%	20.008
2013-14	18.50	10% & 3%	20.961

45. The Petitioner has submitted that the basic tax rate as per normal provisions of the Income Tax Act, 1961 is 30% without surcharge and cess and basic tax rate as per MAT provisions is as per above table. The company has paid and recovered tax as per MAT provisions which is lower than the tax as per normal provisions and the benefit of tax paid under MAT provisions is being passed on from 2014-15 onwards. The objective of introduction of MAT is to bring into the tax net "zero tax companies" which in spite of having earned substantial book profits and having paid handsome dividends, do not pay any tax due to various tax concessions and incentives provided under the Income-tax Act.

46. We have considered the submissions of the parties. The Petitioner has submitted that MAT rate is applicable to the Petitioner's Company. In our view, the



entities (generating companies) covered under MAT regime are paying Income Tax as per MAT rate notified for respective financial year under IT Act, 1961, which is levied on the book profits of the entity computed as per the Section 115JB of the IT Act, 1961. Section 115JB(2) defines book profit as net profit in the statement of Profit & Loss prepared in accordance with Schedule-III of the Companies Act, 2013, subject to some additions and deductions as mentioned in the IT Act, 1961. Since the Petitioner has been paying income tax on income computed under Section 115JB of the IT Act, 1961 as per MAT rates of the respective financial year, the notified MAT rate for respective financial year shall be considered as effective tax rate for the purpose of grossing up of RoE for the 2014-19 tariff period in terms of the provisions of the 2014 Tariff Regulations. The interest imposed on any additional income tax demand as per the Assessment Order of the Income Tax authorities shall also be considered on actual payment. However, the penalty (for default on the part of assesses), if any, imposed, shall not be taken into account, for the purpose of grossing up of rate of return on equity. Any under-recovery or over-recovery of grossed up rate on return on equity after truing up, shall be recovered or refunded to beneficiaries, as the case may be, on year to year basis. Accordingly, the grossing up of base rate has been done with the actual MAT rate of the respective financial year and in line with Regulations 24 and 25 of the 2014 Tariff Regulations, RoE has been computed as under:

	<i>(Rs. in lakh)</i>				
	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Opening Equity	413969.95	414378.18	414715.29	415154.03	415936.64
Addition due to Capitalization	408.19	229.41	151.01	780.12	660.01
Addition due to un-discharged liability	0.03	107.70	287.73	2.49	109.06
Assumed Deletion	0.00	0.00	0.00	0.00	0.00
Un-discharged liability	0.00	0.00	0.00	0.00	0.00
Closing Equity	414378.18	414715.29	415154.03	415936.64	416705.70



	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Base Rate (%)	16.500	16.500	16.500	16.500	16.500
Effective Tax Rate (%)	20.961	21.342	21.342	21.342	21.549
Effective ROE Rate (%)	20.876	20.977	20.977	20.977	21.032
<b>Return on Equity</b>	<b>86462.03</b>	<b>86958.56</b>	<b>87039.93</b>	<b>87168.03</b>	<b>87561.43</b>

## Interest on Loan

47. Regulation 26 of the 2014 Tariff Regulations provides as under:

*“26. Interest on loan capital: (1) The loans arrived at in the manner indicated in regulation 19 shall be considered as gross normative loan for calculation of interest on loan.*

*(2) The normative loan outstanding as on 1.4.2014 shall be worked out by deducting the cumulative repayment as admitted by the Commission up to 31.3.2014 from the gross normative loan.*

*(3) The repayment for each of the year of the tariff period 2014-19 shall be deemed to be equal to the depreciation allowed for the corresponding year/period. In case of Decapitalization of assets, the repayment shall be adjusted by taking into account cumulative repayment on a pro rata basis and the adjustment should not exceed cumulative depreciation recovered up to the date of de-capitalization of such asset*

*(4) Notwithstanding any moratorium period availed by the generating company or the transmission licensee, as the case may be, the repayment of loan shall be considered from the first year of commercial operation of the project and shall be equal to the depreciation allowed for the year or part of the year.*

*(5) The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio after providing appropriate accounting adjustment for interest capitalized Provided that if there is no actual loan for a particular year but normative loan is still outstanding, the last available weighted average rate of interest shall be considered: Provided further that if the generating station or the transmission system, as the case may be, does not have actual loan, then the weighted average rate of interest of the generating company or the transmission licensee as a whole shall be considered*

*(6) The interest on loan shall be calculated on the normative average loan of the year by applying the weighted average rate of interest.*

*(7) The generating company or the transmission licensee, as the case may be, shall make every effort to re-finance the loan as long as it results in net savings on interest and in that event the costs associated with such refinancing shall be borne by the beneficiaries and the net savings shall be shared between the beneficiaries and the generating company or the transmission licensee, as the case may be, in the ratio of 2:1.*

*(8) The changes to the terms and conditions of the loans shall be reflected from the date of such re-financing.*

*(9) In case of dispute, any of the parties may make an application in accordance with the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999, as amended from time to time, including statutory re-enactment thereof for settlement of the dispute: Provided that the beneficiaries or the long term transmission customers /DICs shall not withhold any payment on account of the*



*interest claimed by the generating company or the transmission licensee during the pendency of any dispute arising out of re-financing of loan.”*

48. The normative loan for the project has already been repaid. The normative loan on account of admitted additional capital expenditure during the respective years of the entire period has been considered as paid fully, as the admitted depreciation is more than the amount of normative loan in these years. As such, the Interest on loan during the period 2014-19 is 'nil'.

## **Depreciation**

49. Regulation 27 of the 2014 Tariff Regulations provides as under:

*“27. Depreciation: (1) Depreciation shall be computed from the date of commercial operation of a generating station or unit thereof or a transmission system including communication system or element thereof. In case of the tariff of all the units of a generating station or all elements of a transmission system including communication system for which a single tariff needs to be determined, the depreciation shall be computed from the effective date of commercial operation of the generating station or the transmission system taking into consideration the depreciation of individual units or elements thereof.*

*Provided that effective date of commercial operation shall be worked out by considering the actual date of commercial operation and installed capacity of all the units of the generating station or capital cost of all elements of the transmission system, for which single tariff needs to be determined.*

*(2) The value base for the purpose of depreciation shall be the capital cost of the asset admitted by the Commission. In case of multiple units of a generating station or multiple elements of transmission system, weighted average life for the generating station of the transmission system shall be applied. Depreciation shall be chargeable from the first year of commercial operation. In case of commercial operation of the asset for part of the year, depreciation shall be charged on pro rata basis.*

*(3) The salvage value of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the capital cost of the asset: Provided that in case of hydro generating station, the salvage value shall be as provided in the agreement signed by the developers with the State Government for development of the Plant:*

*Provided further that the capital cost of the assets of the hydro generating station for the purpose of computation of depreciated value shall correspond to the percentage of sale of electricity under long-term power purchase agreement at regulated tariff: Provided also that any depreciation disallowed on account of lower availability of the generating station or generating unit or transmission system as the case may be, shall not be allowed to be recovered at a later stage during the useful life and the extended life.*



(4) Land other than the land held under lease and the land for reservoir in case of hydro generating station shall not be a depreciable asset and its cost shall be excluded from the capital cost while computing depreciable value of the asset.

(5) Depreciation shall be calculated annually based on Straight Line Method and at rates specified in Appendix-II to these regulations for the assets of the generating station and transmission system:

Provided that the remaining depreciable value as on 31st March of the year closing after a period of 12 years from the effective date of commercial operation of the station shall be spread over the balance useful life of the assets.

(6) In case of the existing projects, the balance depreciable value as on 1.4.2014 shall be worked out by deducting the cumulative depreciation as admitted by the Commission upto 31.3.2014 from the gross depreciable value of the assets.

(7) The generating company or the transmission licensee, as the case may be, shall submit the details of proposed capital expenditure during the fag end of the project (five years before the useful life) along with justification and proposed life extension. The Commission based on prudence check of such submissions shall approve the depreciation on capital expenditure during the fag end of the project.

(8) In case of de-capitalization of assets in respect of generating station or unit thereof or transmission system or element thereof, the cumulative depreciation shall be adjusted by taking into account the depreciation recovered in tariff by the decapitalized asset during its useful services.”

50. COD of the generating station is 18.5.2004. Since the project has completed 12 years of commercial operation as on 18.5.2016, the weighted average rate of depreciation (WAROD) of 5.09%, 5.09% and 5.09% has been considered for the calculation of depreciation during the years 2014-15, 2015-16 and 2016-17 and WAROD of 1.23% and 1.24% for the years 2017-18 and 2018-19 respectively, in terms of Regulation 27 of the 2014 Tariff Regulations. Calculations for WAROD have been enclosed as Annexures I & II to this order. The remaining depreciable value has been spread over the balance useful life of the project from 2017-18 onwards. Accordingly, depreciation has been computed and allowed as under:

	<i>(Rs. in lakh)</i>				
	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Opening Capital Cost	877307.50	878668.25	879791.97	881254.42	883863.13
Closing Capital Cost	<b>878668.25</b>	<b>879791.97</b>	<b>881254.42</b>	<b>883863.13</b>	<b>886426.68</b>
Average Capital Cost	877987.88	879230.11	880523.19	882558.77	885144.91
Land Value	6866.25	7065.68	7138.08	7184.88	7254.24
Rate of Depreciation (%)	5.09	5.09	5.09	1.23	1.24
Depreciable value	784009.46	784947.99	786046.61	787836.51	790101.60



	2014-15	2015-16	2016-17	2017-18	2018-19
Balance life	25.13	24.13	23.13	22.13	21.13
Cumulative depreciation beginning	413069.51	457740.66	502456.54	547239.95	558113.87
Remaining Depreciable Value	370939.95	327207.33	283590.07	240596.56	231987.73
<b>Depreciation during the period</b>	<b>44671.15</b>	<b>44715.88</b>	<b>44783.41</b>	<b>10873.92</b>	<b>10981.13</b>
Cumulative depreciation	457740.66	502456.54	547239.95	558113.87	569095.00
Less: Adjustment on account of de-capitalisation	0.00	0.00	0.00	0.00	0.00
<b>Net Cumulative Depreciation</b>	<b>457740.66</b>	<b>502456.54</b>	<b>547239.95</b>	<b>558113.87</b>	<b>569095.00</b>

## Operation & Maintenance Expenses

51. Regulation 29(3)(b) of the 2014 Tariff Regulations provides as under:

*“For hydro generating stations of Satluj Jal Vidyut Nigam Limited (SJVNL) and Tehri Development Corporation Limited (THDC), the O&M expenses shall be approved as per the following methodology:*

*i. The operation and maintenance expenses shall be derived on the basis of actual operation and maintenance expenses for the years 2008-09 to 2012-13, based on the audited balance sheets, excluding abnormal operation and maintenance expenses, if any, after prudence check by the Commission.*

*ii. The normalised operation and maintenance expenses after prudence check, for the years 2008-09 to 2012-13, shall be escalated at the rate of 6.04% to arrive at the normalized operation and maintenance expenses at the 2012-13 price level respectively and then averaged to arrive at normalized average operation and maintenance expenses for the 2008-09 to 2012-13 at 2012-13 price level. The average normalized operation and maintenance expenses at 2012-13 price level shall be escalated at the rate of 6.04% to arrive at the operation and maintenance expenses for year 2013-14 and thereafter escalated at the rate of 6.64% p.a., to arrive at the O&M expenses for the period FY 2014-15 to FY 2018-19.”*

52. Based on the above, the Commission in its order dated 19.7.2019 in Petition

No. 314/GT/2018 had allowed the following O&M expenses:

<i>(Rs. in lakh)</i>				
2014-15	2015-16	2016-17	2017-18	2018-19
25173.44	26844.95	28627.46	30528.32	32555.40

53. The Commission in the order dated 19.7.2019 in Petition No. 314/GT/2018 had observed the following:

*“52. The Petitioner has furnished the actual O&M expenses for the period from 2008-09 to 2012-13 based on the audited balance sheets of the said period. On prudence*



check of the actual O&M expenditure for the year 2008-09 to 2012-13, the expenses of following nature have been excluded for arriving at the allowable O&M expenses for the period 2014-19:

- a) **Productivity linked incentive and performance related pay:** The productivity linked incentive and performance related pay made to the employees of the generating station and corporate centre/service centre has not been allowed as the same has to be borne from the "incentive" earned by the Petitioner by way of better performance of the generating station in terms of the provisions of the 2014 Tariff Regulations.
- b) **Donations:** Expenditure is not allowed as the Petitioner is required to bear such expenses from its own profits/ resources.
- c) **Capital spares consumed during the period 2008-2013 and not allowed by Commission for capitalisation:** Expenditure claimed for capital spares is not being considered now. However, the Petitioner is directed to submit the details of capital spares capitalized and consumed during the period 2014-19 in the truing up petition.

53. The Petitioner has furnished details of the expenditure under the head "Other expenses" and the same has been examined. It is observed that for certain years, there is abnormal increase of more than 20% in certain heads compared to previous year expenditure such as expenditure on Repair and Maintenance for Dam, Intake, WCS and De-silting chamber, Insurance, Rent, Rates & Taxes, Travelling and conveyance, Advertising, Entertainment, etc. The same has been considered. However, the Petitioner is directed to furnish reasons for the said increase in expenditure at the time of truing up of tariff in terms of Regulation 8 of the 2014 Tariff Regulations."

54. The O&M expenses claimed by the Petitioner for the 2014-19 tariff period is as under:

(Rs. in lakh)				
2014-15	2015-16	2016-17	2017-18	2018-19
30799.55	31400.36	34320.82	35402.57	38162.78

55. The actual O&M expenses incurred by the Petitioner for the period from 2008-09 to 2012-13, based on the audited balance sheets, is as under:

(Rs. In lakh)						
		2008-09	2009-10	2010-11	2011-12	2012-13
<b>(A)</b>	Breakup of O&M expenses					
1	Consumption of Stores and Spares	1513.25	1884.00	1274.00	725.53	1220.00
2	Repair and Maintenance					
2.1	For Dam, Intake, WCS, De-silting chamber	337.81	308.00	600.99	365.42	380.77
2.2	For Powerhouse and all other works	2071.10	2013.54	1571.24	1746.87	1245.45





		2008-09	2009-10	2010-11	2011-12	2012-13
	<b>Sub-total (Repair and Maintenance)</b>	<b>2408.91</b>	<b>2321.54</b>	<b>2172.23</b>	<b>2112.28</b>	<b>1626.22</b>
3	Insurance	1688.48	1442.04	2008.70	2231.32	2532.89
4	Security	599.11	825.01	769.01	933.33	1120.49
5	Administrative expenses					
5.1	- Rent, Rates & Taxes	1.90	3.25	2.74	3.26	93.79
5.2	- Electricity Charges	743.72	841.06	856.98	976.87	1008.84
5.3	- Travelling and conveyance	40.76	32.93	50.93	48.40	47.91
5.4	- Communication	48.21	55.93	40.26	49.58	52.91
5.5	- Advertising	45.94	63.38	80.39	50.54	64.69
5.6	- Donations					
5.7	- Entertainment	4.25	4.08	4.23	5.77	5.98
	<b>Sub-total (Administrative expenses)</b>	<b>884.78</b>	<b>1000.64</b>	<b>1035.54</b>	<b>1134.41</b>	<b>1274.13</b>
6	Employee Cost					
6.1	Salaries, wages and allowances	3217.93	3394.49	3741.56	4381.75	5001.55
6.2	Staff welfare expenses	373.11	327.34	411.78	397.27	386.35
6.3	Productivity linked incentive	-	-	-	-	-
6.4	Expenditure on VRS	-	-	-	-	-
6.5	Ex-gratia	-	-	-	-	-
6.6	Performance related pay (PRP)	0.00	0.00	0.00	0.00	0.00
	<b>Sub-Total (Employee Cost)</b>	<b>3591.05</b>	<b>3721.84</b>	<b>4153.34</b>	<b>4779.03</b>	<b>5387.90</b>
7	Loss of stores	-	-	-	-	-
8	Provisions	-	-	-	-	-
9	Allocation of Corporate office expenses	2860.59	3223.73	5143.15	6673.69	7632.05
10	Other expenses	4566.87	4559.82	5117.69	3959.09	1670.23
<b>11</b>	<b>Total (1 to 10)</b>	<b>18113.04</b>	<b>18978.61</b>	<b>21673.66</b>	<b>22548.68</b>	<b>22463.91</b>
12	Revenue/Recoveries, if any	40.48	114.60	197.58	63.63	1126.67
<b>13</b>	<b>Net Expenses</b>	<b>18072.56</b>	<b>18864.02</b>	<b>21476.08</b>	<b>22485.04</b>	<b>21337.24</b>
14	Capital spares consumed not included in (1) above and not claimed/allowed by Commission for capitalisation/ minor assets not claimed/ not to be allowed					
14.1	Minor items not allowed/claimed as capital expenditure	297.21	264.58	331.34	157.56	247.61
14.2	Insurance capital spares consumed/ de-capitalised	-	-	-	121.12	100.89
14.3	Other capital spares (Other than Insurance Spares) consumed/ capitalised	-	-	-	4944.91	390.52



		2008-09	2009-10	2010-11	2011-12	2012-13
14.4	Capital expenditure not allowed by Commission (Other than Insurance spares & Capital spares as above)	-	-	-	33.62	337.57
	Sub-Total (14.1 to 14.4)	<b>297.21</b>	<b>264.58</b>	<b>331.34</b>	<b>5257.20</b>	<b>1076.58</b>
	<b>Net O&amp;M Expenses</b>	<b>18369.77</b>	<b>19128.59</b>	<b>21807.42</b>	<b>27742.24</b>	<b>22413.82</b>

56. The O&M expenses incurred for the period from 2008-09 to 2012-13 has been normalized and the Petitioner has, accordingly, worked out the normative O&M expenses for the 2014-19 tariff period as under:

	<i>(Rs in lakh)</i>				
	2014-15	2015-16	2016-17	2017-18	2018-19
<b>Normalized O&amp;M expenses</b>	<b>28564.04</b>	<b>30460.69</b>	<b>32483.28</b>	<b>34640.17</b>	<b>36940.28</b>
<b>O&amp;M Expenses claimed in addition to the above</b>					
Minor items not allowed/claimed as capital expenditure	387.45	102.06	467.91	56.41	227.26
Insurance capital spares consumed/ de-capitalised	45.54	165.36	123.59	22.97	137.39
Other capital spares (other than Insurance spares) consumed/ capitalised	1785.60	648.32	918.67	155.95	187.97
Capital expenditure other than the above heads, not allowed by Commission	-	6.99	52.52	222.03	49.26
Capital expenditure pertaining to Corporate Office not allowed	16.93	16.93	274.86	305.05	620.62
<b>Total O&amp;M expenses claimed</b>	<b>30799.55</b>	<b>31400.36</b>	<b>34320.82</b>	<b>35402.57</b>	<b>38162.78</b>

57. It is noticed that the Petitioner has claimed additional O&M expenses, over and above the O&M expenses allowed in order dated 19.7.2019 in Petition No. 314/GT/2018, on various grounds namely:

- (a) The additional expenses claimed for Rebate to consumers under the head "other expenses" during 2008-09 to 2012-13;
- (b) Social welfare/ CSR expenses (included in serial no. 10 in the table under paragraph 55 above) claimed under the head 'other expenses' during the period 2014-17;



(c) Minor items not allowed to be capitalized by the Commission during 2008-09 to 2012-13 and during the period 2014-19 (not allowed in order dated 19.7.2019);

(d) Insurance and Other capital spares consumed and not allowed to be capitalized during the period from 2008-09 to 2012-13 and during the 2014-19 tariff period order dated 19.7.2019 in Petition No. 314/GT/2018;

(e) Capital expenditure not allowed by Commission (other than minor items, Insurance spares & capital spares as above) during the period from 2012-13 to 2013-14 and during the period from 2015-16 to 2018-19;

(f) Corporate Office Building expenses and other office expenditure not allowed by the Commission during the 2009-14 tariff period in order dated 25.5.2019 in Petition No. 309/GT/2018 and during the 2014-19 tariff period in order dated 19.7.2019 in Petition No. 314/GT/2018.

58. The Respondents BRPL, MPPMCL and TPDDL have submitted that the abnormal O&M expenses may be excluded, after prudence check, and any attempt to increase the O&M expenses may not be permitted, by excluding all illegitimate expenses in working out the allowable O&M expenses. As regards the expenditure pertaining to 'rebate' to customers, the respondents have submitted that the Petitioner may be directed to clarify the provision of the regulation under which the said amount has been claimed. The Respondent, UPPCL has submitted that additional O&M expenses on account of 'Corporate expenses' and 'capital spares' may not be allowed as the same has been considered while fixing the O&M expense norms for the 2014-19 tariff period.

59. In response, the Petitioner has submitted that the 'rebate' to consumers has been claimed under O&M expenses in terms of the directions of the Commission. The Petitioner has further clarified that the corporate office capital expenditure (allocation to generating station) were not charged to P&L account as per accounting standards. It has also submitted that the Commission in its order dated



20.6.2019 in Petition No.168/GT/2013 (determination of tariff of this generating station for the 2009-14 tariff period had observed the following:

*“Expenditure of Rs 411.28 lakh has been claimed towards acquisition of land for the Petitioner's corporate office in Shimla. The Commission in its order dated 26.4.2006 in Petition No.3/2006 while determining the tariff of generating stations of NTPC for 2004-09 had disallowed the expenditure incurred towards the construction of corporate office and other offices in tariff. Only the O&M expenses (including depreciation) incurred is allowed to be recovered by way of allocation of the Corporate O&M expenses to various plants under operation and for plants under construction.”*

60. The matter has been examined. The claim of the Petitioner with respect to 'rebate' to consumers, Social welfare/ CSR expenses, capitalization of minor assets and corporate office expenditure have not been allowed as the same are beyond the scope of the 2014 Tariff Regulations.

61. As regards to the claim for Spares (capital and insurance spares) in the O&M expenses, the Commission in paragraph 52(c) of the order dated 19.7.2019 in Petition No.314/GT/2018 had observed as under:

*“Capital spares consumed during the period 2008-2013 and not allowed by Commission for capitalisation: Expenditure claimed for capital spares are not being considered now. However, the Petitioner is directed to submit the details of capital spares capitalized and consumed during the period 2014-19 in the truing up petition.”*

62. It is noticed that the Petitioner had considered a total amount of Rs. 5557.44 lakh (Rs. 5066.03 lakh in 2011-12 and Rs.491.41 lakh in 2012-13) towards consumption of spares (capital and insurance spares). Further, the Petitioner has also claimed total amount of Rs. 4191.35 lakh during the 2014-19 tariff period towards consumption of spares (capital and insurance spares). The claim for an amount of Rs.5557.44 lakh for the period 2008-13 has not been considered for calculation of O&M expenses. With regard to the claim of Rs. 4191.41 lakh towards consumption of spares during the period 2014-19, it is pertinent to mention that the claim of the Petitioner includes spares of minor value for which details of old/



replaced spares has not been submitted by the Petitioner. It is pertinent to mention that the term 'capital spares' has not been defined in the 2014 Tariff Regulations. The term capital spares, in our view, is a piece of equipment, or a spare part, of significant cost that is maintained in inventory for use in the event that a similar piece of critical equipment fails or must be rebuilt. Keeping in view the principle of materiality and to ensure standardised practices in respect of earmarking and treatment of insurance/capital spares, only insurance/capital spares of value exceeding Rs.1 (one) lakh, on prudence check of the details furnished by the Petitioner, have been considered for the purpose of tariff. The Commission is also of the view that spares of value less than Rs. one lakh would normally form part of normal repair and maintenance expenses. Further, considering the fact that the original value of capital spares taken out of service is neither available nor has been furnished for the 2014-19 tariff period, we are of the view that salvage value of the capital spares taken out of service is required to be deducted from the cost of actual capital spares consumed during the 2014-19 tariff period. Accordingly, the salvage value of 10% has been deducted from the cost of insurance/capital spares allowed during the 2014-19 tariff period, as above. Accordingly, the net capital spares allowed is summarized as under:

	<i>(Rs in lakh)</i>				
	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Insurance spares claimed	45.54	165.36	123.59	22.97	137.39
Capital spares claimed	1785.60	648.32	918.67	155.95	187.94
<b>Total</b>	<b>1831.14</b>	<b>813.68</b>	<b>1042.26</b>	<b>178.92</b>	<b>325.33</b>
Insurance spares / capital spares below Rs 1.0 lakh individually	8.15	8.62	15.11	4.11	5.96
Insurance spares / capital spares above Rs 1.0 lakh	1822.99	805.06	1027.15	174.81	319.37
Salvage value @ 10% on above	182.30	80.51	102.72	17.48	31.94
<b>Net insurance spares / capital spares allowed</b>	<b>1640.69</b>	<b>724.55</b>	<b>924.44</b>	<b>157.33</b>	<b>287.43</b>



63. Further, the Commission vide its order dated 19.7.2019 in Petition No. 314/GT/2018 had directed the Petitioner to furnish the reasons for the abnormal increase in expenses (more than 20%) under certain heads like 'Repair and Maintenance' for Dam, 'Intake', 'Water Conducting System (WCS)' and 'De-silting chamber', 'Insurance', 'Rent, 'Rates & Taxes', 'Travelling and Conveyance', 'Advertising', 'Entertainment', etc. From the submissions of the Petitioner, it is evident, that the major reasons for the increase is on account of increase in tax rate, rent, DA, expenditure on training of employees, high silt, etc. Accordingly, the expenses are found to be in order.

64. Based on the above discussions, the total O&M expenses (net) considered for the generating station for the period 2008-13, for the purpose of calculation of O&M expenses for the 2014-19 tariff period are as under:

		<i>(Rs in lakh)</i>				
		2008-09	2009-10	2010-11	2011-12	2012-13
<b>(A)</b>	<b>Breakup of O&amp;M expenses</b>					
1	Consumption of Stores and Spares	1513.25	1884.00	1274.00	725.53	1220.00
2	Repair and Maintenance	-	-	-	-	-
2.1	For Dam, Intake, WCS, De-silting chamber	337.81	308.00	600.99	365.42	380.77
2.2	For Powerhouse and all other works	2071.10	2013.54	1571.24	1746.87	1245.45
	<b>Sub-Total (Repair and Maintenance)</b>	<b>2408.91</b>	<b>2321.54</b>	<b>2172.23</b>	<b>2112.28</b>	<b>1626.22</b>
3	Insurance	1688.48	1442.04	2008.70	2231.32	2532.89
4	Security	599.11	825.01	769.01	933.33	1120.49
5	Administrative Expenses					
5.1	- Rent, Rates & Taxes	1.90	3.25	2.74	3.26	93.79
5.2	- Electricity Charges	743.72	841.06	856.98	976.87	1008.84
5.3	- Travelling and conveyance	40.76	32.93	50.93	48.40	47.91
5.4	- Communication	48.21	55.93	40.26	49.58	52.91
5.5	- Advertising	45.94	63.38	80.39	50.54	64.69



		2008-09	2009-10	2010-11	2011-12	2012-13
5.6	- Donations					
5.7	- Entertainment	4.25	4.08	4.23	5.77	5.98
	<b>Sub-total (Administrative Expenses)</b>	<b>884.78</b>	<b>1000.64</b>	<b>1035.54</b>	<b>1134.41</b>	<b>1274.13</b>
6	Employee Cost	-	-	-	-	-
6.1	Salaries, wages and allowances	3217.93	3394.49	3741.56	4381.75	5001.55
6.2	Staff welfare expenses	373.11	327.34	411.78	397.27	386.35
6.3	Productivity linked incentive	-	-	-	-	-
6.4	Expenditure on VRS	-	-	-	-	-
6.5	Ex-gratia					
6.6	Performance related pay (PRP)	0.00	0.00	0.00	0.00	0.00
	<b>Sub-total (Employee Cost)</b>	<b>3591.05</b>	<b>3721.84</b>	<b>4153.34</b>	<b>4779.03</b>	<b>5387.90</b>
7	Loss of stores	-	-	-	-	-
8	Provisions	-	-	-	-	-
9	Allocation of Corporate office expenses	2860.59	3223.73	5143.15	6673.69	7632.05
10	Other expenses	<b>2696.75</b>	<b>2288.32</b>	<b>2693.2</b>	<b>2636.29</b>	<b>1623.43</b>
<b>11</b>	<b>Total (1 to 10)</b>	<b>16242.92</b>	<b>16707.12</b>	<b>19249.17</b>	<b>21225.88</b>	<b>22417.11</b>
12	Revenue/Recoveries, if any	40.48	114.60	197.58	63.63	1126.67
<b>13</b>	<b>Net Expenses</b>	<b>16202.44</b>	<b>16592.52</b>	<b>19051.59</b>	<b>21162.25</b>	<b>21290.44</b>
14	Capital spares consumed not included in (A) (1) above and not claimed/allowed by Commission for capitalisation/ minor assets not claimed/ not to be allowed by Commission					
14.1	Minor items not allowed/claimed as capital expenditure	0.00	0.00	0.00	0.00	0.00
14.2	Insurance capital spares consumed/ de-capitalised	-	-	-	0.00	0.00
14.3	Other capital spares (Other than Insurance spares) consumed/ capitalised	-	-	-	0.00	0.00
14.4	Capital expenditure not allowed (Other than insurance spares & capital spares as above)	0.00	0.00	0.00	0.00	0.00
<b>14.5</b>	<b>Net O&amp;M expenses</b>	<b>16202.44</b>	<b>16592.52</b>	<b>19051.59</b>	<b>21162.24</b>	<b>21290.44</b>



65. The O&M expenses considered for the period from 2008-09 to 2012-13 was based on the directions of the Commission in order dated 19.7.2019 in Petition No. 314/GT/2018 and the Petitioner has submitted the details of the same which has been discussed in paragraph 62 above.

66. It is pertinent to mention that the claim of the Petitioner under “Other Expenses” in SI no. 10 of the table under paragraph 55 above has been revised in the table under paragraph 63 above, after excluding the expenses not allowed.

67. Accordingly, the O&M expenses for the period from 2008-09 to 2012-13 considered to arrive at the O&M expenses for the 2014-19 tariff period in Petition No 314/GT/2018, based on Auditor certificate and after normalization, are as follows:

	<i>(Rs in lakh)</i>				
	<b>2008-09</b>	<b>2009-10</b>	<b>2010-11</b>	<b>2011-12</b>	<b>2012-13</b>
O&M expenses considered in Petition No 314/GT/2018	17344.83	17456.76	19608.93	23234.53	21874.58
O&M expenses submitted by the Petitioner in present petition (paragraph 55)	18072.56	18864.02	21476.08	22485.04	21337.24
O&M expenses (after normalization) considered to work out the O&M expenses for the 2014-19 tariff period (paragraph 63)	16202.44	16592.52	19051.59	21162.24	21290.44

68. The normalized O&M expenses, after prudence check, for the period from 2008-09 to 2012-13 has been escalated at the rate of 6.04% to arrive at the normalized O&M expenses at the 2012-13 price level, and then averaged to arrive at the normalized O&M expenses for the year 2012-13. The normalized O&M expenses for the year 2012-13, thus arrived, has been escalated at the rate of 6.04% to arrive at the O&M expenses for year 2013-14 and thereafter escalated at





the rate of 6.64% per annum, to arrive at the permissible O&M expenses for the 2014-19 tariff period as shown under:

	<i>(Rs in lakh)</i>				
	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Normalized O&M expenses allowed based on above methodology	23842.88	25426.04	27114.33	28914.72	30834.66
<b>O&amp;M Expenses allowed in addition to above as discussed at para no. 61</b>					
Minor items not allowed/claimed as capital expenditure	0.00	0.00	0.00	0.00	0.00
Insurance/Capital spares allowed as per table under paragraph 62 above	1640.69	724.55	924.44	157.33	287.43
Capital expenditure other than above heads not allowed	0.00	0.00	0.00	0.00	0.00
Capital expenditure pertaining to Corporate Office not allowed	0.00	0.00	0.00	0.00	0.00
<b>Sub-Total</b>	1640.69	724.55	924.44	157.33	287.43
<b>Total O&amp;M expenses allowed</b>	<b>25483.57</b>	<b>26150.59</b>	<b>28038.77</b>	<b>29072.05</b>	<b>31122.09</b>

69. Accordingly, the year-wise O&M expenses allowed for the generating station for the 2014-19 tariff period is as under:

	<i>(Rs. in lakh)</i>				
	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
O&M expenses allowed in order dated 19.7.2019 in Petition No 314/GT/2018	25173.44	26844.95	28627.46	30528.32	32555.40
<b>O&amp;M expenses allowed in this order</b>	<b>25483.57</b>	<b>26150.59</b>	<b>28038.77</b>	<b>29072.05</b>	<b>31122.09</b>

### **Enhancement of O&M expenses**

70. The Petitioner has submitted that it has claimed O&M expenses on account of pay/ wage revision of its employees and Himachal Pradesh State Electricity Board (HPSEB) employees on deputation, DAV school staff and Central/ State Security forces deployed at the power stations due from 1.1.2017 and 1.1.2016 respectively. The Petitioner has also submitted that the pay/ wage revision of its employees and



central security forces have been finalized. However, the wage revision of HPSEB employees on deputation and DAV school staff have not been finalized yet and, therefore, the total financial implication on this count could not be determined at this stage. Accordingly, the Petitioner sought liberty to seek enhancement in O&M expenses for increase in salary from 1.1.2017/ 1.1.2016 on account of wage revision, based on actual payments, whenever paid to employees. The Respondent, MPPMCL has submitted that the Petitioner, despite specific directions of the Commission in its order, has not filed appropriate application for pay/ salary revision and, hence, the Commission may disallow the claim of the Petitioner.

71. As regards the claim of the Petitioner for enhancement of O&M expenses due to wage revision, the Commission in its order dated 19.7.2019 in Petition No.314/GT/2018 had observed as under:

*“57. As regards the prayer of Petitioner for enhancement of O&M expenses due to pay/salary revision, the same may be examined by the Commission, on a case to case basis, subject to the implementation of pay revision as per DPE guidelines and the filing of an appropriate application by the Petitioner in this regard.”*

72. Considering the submissions of the Petitioner, we grant liberty to the Petitioner to approach the Commission, after finalization of the pay revision along with all relevant details, which will be considered in accordance with law.

### **Interest on Working Capital**

73. Sub-clause (c) of Clause (1) of Regulation 28 of the 2014 Tariff Regulations provides as under:

*“28. Interest on Working Capital: (1) The working capital shall cover  
(c) Hydro generating station including pumped storage Hydroelectric generating Station and transmission system including communication system:  
(i) Receivables equivalent to two months of fixed cost;  
(ii) Maintenance spares @ 15% of operation and maintenance expense specified in regulation 29; and  
(iii) Operation and maintenance expenses for one month.”*



74. Clause (3) of Regulation 28 of the 2014 Tariff Regulations provides as under:

*“Interest on working Capital: (3) Rate of interest on working capital shall be on normative basis and shall be considered as the bank rate as on 1.4.2014 or as on 1st April of the year during the tariff period 2014-15 to 2018-19 in which the generating station or a unit thereof or the transmission system including communication system or element thereof, as the case may be, is declared under commercial operation, whichever is later.”*

75. In terms of the Regulation 28(1)(c) of the 2014 Tariff Regulations, the interest on working capital is worked out as under:

	<i>(Rs. in lakh)</i>				
	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Working Capital for O&M (one month of O&M expenses)	2123.63	2179.22	2336.56	2422.67	2593.51
Working Capital for Maintenance spares (15% of O&M expenses)	3822.53	3922.59	4205.82	4360.81	4668.31
Working Capital for Receivables (equivalent to two months of fixed cost)	26840.49	27050.09	27407.56	21829.46	22275.36
<b>Total Working Capital</b>	<b>32786.65</b>	<b>33151.90</b>	<b>33949.94</b>	<b>28612.94</b>	<b>29537.18</b>
Rate of Working Capital	13.500%	13.500%	13.500%	13.500%	13.500%
<b>Interest on Working Capital</b>	<b>4426.20</b>	<b>4475.51</b>	<b>4583.24</b>	<b>3862.75</b>	<b>3987.52</b>

### **Annual Fixed Charges**

76. Based on the above, the annual fixed charges approved for the generating station for the 2014-19 tariff period is summarized as under:

	<i>(Rs. in lakh)</i>				
	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Depreciation	44671.15	44715.88	44783.41	10873.92	10981.13
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Return on Equity	86462.03	86958.56	87039.93	87168.03	87561.43
O&M Expenses	23842.88	25426.04	27114.33	28914.72	30834.66
Additional O&M expenses	1640.69	724.55	924.44	157.33	287.43
Interest on WC	4426.20	4475.51	4583.24	3862.75	3987.52
<b>Total</b>	<b>161042.94</b>	<b>162300.54</b>	<b>164445.36</b>	<b>130976.75</b>	<b>133652.18</b>



### **Normative Annual Plant Availability Factor (NAPAF)**

77. The Petitioner has claimed NAPAF of 90% in terms of Regulation 37(4) of 2014 Tariff Regulations. The same has been considered for the generating station for the 2014-19 tariff period.

### **Design Energy**

78. The Petitioner has submitted that CEA vide letter dated 7.7.2009 has approved the annual Design Energy (DE) of the generating station as 6612 MU. In consideration of CEA approval and the Commission's order dated 19.7.2019 in Petition No. 314/GT/2018, the Petitioner has prayed for consideration of the annual DE of 6612 MU for the 2014-19 tariff period. The Respondent, BRPL has pointed out that the Petitioner had submitted one set of hydrology data to CEA to seek Techno Economic Clearance (TEC) of the project to justify its economic viability and immediately after construction of the project, the Petitioner had approached CEA with another set of hydrology data with the purpose to reduce DE. Accordingly, the respondent has submitted that DE as set out in TEC may only be considered. The Respondent UPPCL has submitted that the Petitioner may be directed to furnish reasons and calculations for the revised DE of 6612 MU. In response, the Petitioner has clarified that the detailed calculation of DE has been furnished vide affidavits dated 18.12.2018 and 20.12.2018. It has further stated that in view of the approval of CEA vide its letter dated 7.7.2009, the annual DE of 6612 MU has been claimed for the 2014-19 tariff period.

79. We have considered the submissions of the parties. CEA vide its letter dated 7.7.2009 has approved the annual DE of the generating station as 6612 MU and the same has been allowed in order dated 19.7.2019 in Petition No. 314/GT/2018.



Accordingly, DE of 6612 MU has been considered for the purpose of tariff of the generating station for the 2014-19 tariff period as per month-wise details below:

Month	10 days monthly	Design Energy (MU)
APR	1-10	92.55
	11-20	113.87
	21-30	146.61
MAY	1-10	265.59
	11-20	222.91
	21-31	376.07
JUN	1-10	301.80
	11-20	342.00
	21-30	342.00
JULY	1-10	342.00
	11-20	342.00
	21-31	376.00
AUG	1-10	342.00
	11-20	342.00
	21-31	376.20
SEPT	1-10	281.85
	11-20	212.75
	21-30	190.57
OCT	1-10	171.31
	11-20	146.88
	21-31	147.02
NOV	1-10	129.00
	11-20	114.29
	21-30	101.78
DEC	1-10	79.67
	11-20	67.93
	21-31	71.46
JAN	1-10	66.69
	11-20	61.83
	21-31	66.84
FEB	1-10	52.10
	11-20	54.10
	21-29	41.13
MAR	1-10	61.26
	11-20	79.75
	21-31	89.79
<b>Total</b>		<b>6611.77</b>
<b>Say</b>		<b>6612</b>

80. The RLDC Fees & charges paid by the Petitioner in terms of the Central Electricity Regulatory Commission (Fees and Charges of Regional Load Dispatch Centre and other related matters) Regulations, 2015, shall be recovered from the beneficiaries. In addition, the Petitioner is entitled for recovery of statutory taxes,



levies, duties, cess etc. levied by the statutory authorities in accordance with the 2014 Tariff Regulations.

### **Summary**

81. The summary of the annual fixed charges allowed vide order dated 19.7.2019 in Petition No.314/GT/2018 and the annual fixed charges allowed in this order (after truing-up) for the 2014-19 tariff period in respect of the generating station are as under:

	<i>(Rs. in lakh)</i>				
	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Annual fixed charges allowed vide order dated 19.7.2019 in Petition No. 314/GT/2018	160781.49	162663.05	164652.28	131981.44	134542.36
Annual fixed charges allowed in this order	161042.94	162300.54	164445.36	130976.75	133652.18

82. The difference between the annual fixed charges recovered by the Petitioner in terms of order dated 19.7.2019 in Petition No. 314/GT/2018 and the annual fixed charges determined by this order shall be adjusted in terms of the provisions of Regulation 8 of the 2014 Tariff Regulations

83. Petition No. 31/GT/2020 is disposed of in terms of the above.

**Sd/-**  
**(Pravas Kumar Singh)**  
**Member**

**Sd/-**  
**(Arun Goyal)**  
**Member**

**Sd/-**  
**(I.S. Jha)**  
**Member**

**Sd/-**  
**(P.K.Pujari)**  
**Chairperson**



**Annexure-I**

**Depreciation for the period 2014-17**

*(Rs in lakh)*

		Depreciat ion rates as per CERC Depreciat ion rate schedule	Gross Block as on			Depreciation		
			1.4.2014	1.4.2015	1.4.2016	2014-15	2015-16	2016-17
A	Land owned under full ownership	0.00	6715.07	6866.25	7065.68	0.00	0.00	0.00
B	Land held under lease:		0.00	0.00	0.00	0.00	0.00	0.00
	(a) for investment in land.-Parwanoo Land	3.34	36.07	36.07	36.07	1.20	1.20	1.20
	Afforestation	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	(b) for cost of clearing site	3.34	0.00	0.00	0.00	0.00	0.00	0.00
	(c) Land for reservoir in case of hydro generating station	3.34	0.00	0.00	0.00	0.00	0.00	0.00
C	Assets: Purchased new :		0.00	0.00	0.00	0.00	0.00	0.00
a	Plant and Machinery in Generating Stations including Plant Foundation		0.00	0.00	0.00	0.00	0.00	0.00
	(i) Hydro-electric	5.28	141039.38	141140.54	141152.75	7446.88	7452.22	7452.87
	(ii) Steam Electric NHRS & Waste Heat Recovery Boilers/Plants	5.28	0.00	0.00	0.00	0.00	0.00	0.00
	(iii) Diesel-electric & gas plant	5.28	296.53	296.53	296.53	15.66	15.66	15.66
b	Cooling towers and circulating water systems	5.28	89.29	89.29	89.29	4.71	4.71	4.71
c	Hydraulic works forming part of the Hydro-generating station		0.00	0.00	0.00	0.00	0.00	0.00
	(i) Dams, Spillways weirs, canals reinforced Concrete Flumes and Syphons	5.28	167968.26	168366.68	168366.67	8868.72	8889.76	8889.76
	(ii) Reinforced concrete pipelines and surge tanks, steel pipelines sluice gates, steel surge (tanks),	5.28	427887.76	427208.50	427852.02	22592.47	22556.61	22590.59



	hydraulic control valves and other hydraulic works							
d	Building and civil engineering works of a permanent character not mentioned above:-		0.00	0.00	0.00	0.00	0.00	0.00
	(i) Offices & showrooms	3.34	1005.51	2054.64	2033.26	33.58	68.62	67.91
	(ii)Containing thermo- electric generating plant	3.34	0.00	0.00	0.00	0.00	0.00	0.00
	(iii) Containing hydro- electric generating plant	3.34	67183.97	67253.07	67253.09	2243.94	2246.25	2246.25
	(iv) Temporary erection such as wooden structures	100.00	0.00	0.00	0.00	0.00	0.00	0.00
	(v) Roads other than kutcha roads	3.34	4163.54	4410.39	4436.00	139.06	147.31	148.16
	(vi) Others	3.34	6578.93	6609.14	6662.57	219.74	220.75	222.53
e	Transformers, transformer(Kiosk) substation equipment & other fixed apparatus (including plant foundations)		0.00	0.00	0.00	0.00	0.00	0.00
	(i) Transformers (including foundations) having a rating of 100 Kilo volt amperes and over	5.28	5979.94	5979.94	5979.94	315.74	315.74	315.74
	(ii) Others	5.28	0.00	0.00	0.00	0.00	0.00	0.00
f	Switchgear, including cable connections	5.28	22925.88	22925.88	22947.13	1210.49	1210.49	1211.61
g	Lightning arrestors:		0.00	0.00	0.00	0.00	0.00	0.00
	(i) Station type	5.28	2381.58	2381.58	2381.58	125.75	125.75	125.75
	(ii) Pole type	5.28	0.00	0.00	0.00	0.00	0.00	0.00
	(iii) Synchronous condenser	5.28	0.00	0.00	0.00	0.00	0.00	0.00
h	Batteries:	5.28	336.32	336.32	336.32	17.76	17.76	17.76
	(i) Underground Cable including joint boxes and disconnected boxes	5.28	1444.78	1444.78	1444.78	76.28	76.28	76.28
	(ii) Cable duct system	5.28	6592.92	6592.92	6592.92	348.11	348.11	348.11
i	Overhead lines including cable supports:	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	(i) Lines on Fabricated steel	5.28	0.00	0.00	0.00	0.00	0.00	0.00





	operating at terminal voltage higher than 66 KV							
	(ii) Lines on Steel supports operating at terminal voltage higher than 13.2 KV but not exceeding 66 KV	5.28	304.06	304.06	304.06	16.05	16.05	16.05
	(iii) Lines on steel or reinforced concrete supports	5.28	0.00	0.00	0.00	0.00	0.00	0.00
	(iv) Lines on treated wood supports	5.28	0.00	0.00	0.00	0.00	0.00	0.00
j	Meters	5.28	341.17	341.17	341.17	18.01	18.01	18.01
k	Self-propelled vehicles	9.50	1441.28	1441.68	1465.40	136.92	136.96	139.21
l	Air conditioning plants:		0.00	0.00	0.00	0.00	0.00	0.00
	(i) Static	5.28	1564.80	1564.80	1564.80	82.62	82.62	82.62
	(ii) Portable	9.50	29.69	29.69	29.69	2.82	2.82	2.82
m	(i) Office furniture and fittings	6.33	181.16	179.25	179.24	11.47	11.35	11.35
	(ii) Office equipment's:	6.33	405.27	422.33	536.62	25.65	26.73	33.97
	(iii) Internal wiring including fittings and apparatus	6.33	0.00	0.00	0.00	0.00	0.00	0.00
	(iv) Street light fittings	5.28	1316.73	1316.73	1316.73	69.52	69.52	69.52
n	Apparatus let on hire:		0.00	0.00	0.00	0.00	0.00	0.00
	(i) Other than motors	9.50	0.00	0.00	0.00	0.00	0.00	0.00
	(ii) Motors	6.33	0.00	0.00	0.00	0.00	0.00	0.00
o	Communication equipment:		0.00	0.00	0.00	0.00	0.00	0.00
	(i) Radio and higher frequency carrier system	6.33	0.00	0.00	0.00	0.00	0.00	0.00
	(ii) Telephone lines and telephones	6.33	310.36	310.36	340.53	19.65	19.65	21.56
p	I.T. equipment	15.00	1497.86	1497.86	1519.31	224.68	224.68	227.90
	<b>Assets not included in above</b>				0.00	0.00	0.00	0.00
q	Capital Expenditure not represented by assets	5.28	7289.40	7289.40	7289.40	384.88	384.88	384.88
	<b>Total</b>		<b>877307.51</b>	<b>878689.83</b>	<b>879813.54</b>	<b>44652.38</b>	<b>44690.50</b>	<b>44742.78</b>
	<b>Weighted Average Depreciation Rate (%)</b>		-	-	-	<b>5.09%</b>	<b>5.09%</b>	<b>5.09%</b>



**Depreciation for the period 2017-19**

	<i>(Rs. in lakh)</i>	
	<b>2017-18</b>	<b>2018-19</b>
Opening Capital Cost	881254.42	883863.13
Closing Capital Cost	<b>883863.13</b>	<b>886426.68</b>
Average Capital Cost	882558.77	885144.91
Remaining Depreciable Value	240596.56	231987.73
Balance life	22.13	21.13
<b>Depreciation during the period</b>	<b>10873.92</b>	<b>10981.13</b>
<b>Effective Weighted Average Rate of Depreciation</b>	<b>1.23%</b>	<b>1.24%</b>

