

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 28/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: 24th January, 2022

IN THE MATTER OF

Petition for approval of tariff of Rampur Hydro Power Station (412 MW) for the period from 1.4.2019 to 31.3.2024

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 – 147001, Punjab

2. Haryana Power Purchase Center,
Vidyut Sadan, Sector 6
Panchkula – 134009, Haryana

3. Jaipur Vidyut Vitaran Nigam Limited,
Vidyut Bhawan, Janpath, Jyoti Nagar,
Jaipur – 302005, Rajasthan

4. Ajmer Vidyut Vitaran Nigam Limited,
Vidyut Bhawan, Janpath, Jyoti Nagar,
Jaipur – 302005, Rajasthan

5. Jodhpur Vidyut Vitaran Nigam Limited,
Vidyut Bhawan, Janpath, Jyoti Nagar,
Jaipur – 302005, Rajasthan



6. Himachal Pradesh State Electricity Board Limited,
Vidyut Bhawan, Kumar House,
Shimla – 171004, Himachal Pradesh

7. Power Development Department ,
Govt. of J&K, Civil Secretariat Building,
Jammu -180001, Jammu & Kashmir

8. Engineering Department,
1st Floor, U.T Secretariat, Sector 9-D,
Chandigarh – 160009

9. Uttar Pradesh Power Corporation Limited,
Shakti Bhawan, 14 Ashok Marg,
Lucknow – 226001, Uttar Pradesh

10. Uttaranchal Power Corporation Limited,
Urja Bhawan, Kanwali Road,
Dehradun-248001, Uttarakhand

11. Government of Himachal Pradesh,
H.P. Secretariat,
Shimla-171002, Himachal Pradesh

12. M.P. Power Management Company Limited,
Shakti Bhawan, Rampur,
Jabalpur- 482008, Madhya Pradesh

Parties Present:

Ms. Anushree Bardhan, Advocate, SJVNL
Shri Aman Katoch, Advocate, SJVNL
Shri Naveen Yadav, Advocate, SJVNL
Shri Varun Dang, Advocate, SJVNL
Ms. Suparna Srivastava, Advocate, PSPCL
Shri Tushar Mathur, Advocate, PSPCL
Shri Ankit Bansal, Advocate, PSPCL
Shri Ravindra Khare, MPPMCL
Shri Manish Garg, UPPCL
Shri Vikram Singh, UPPCL

ORDER

This petition has been filed by the Petitioner, SJVN Limited for approval of tariff of Rampur Hydro Power Station (412 MW) (in short 'the generating station') for the period from 1.4.2019 to 31.3.2024, in accordance with the Central Electricity



Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (hereinafter referred to as 'the 2019 Tariff Regulations').

Background

2. The generating station is located on the river Satluj in the State of Himachal Pradesh and has been developed as a tail race extension of upstream project (Nathpa Jhakri) and is to be run in tandem with it. The dates of commercial operation of the units of the generating station are as under:

Units	Actual COD
I	13.5.2014
II	13.5.2014
III	8.8.2014
IV	18.6.2014
V	13.5.2014
VI / Generating Station	16.12.2014

3. The Petitioner had filed Petition No.184/GT/2014 for approval of tariff of the generating station from the date of commercial operation (COD) of three units (i.e., 13.5.2014 for Units I, II & V) and the remaining three units which were projected to be declared under commercial operation during June 2014. The Petitioner had also prayed for grant of interim/ ad hoc tariff, pending submission of RCE (revised cost estimates) and DIA (designated independent agency) report on time overrun. Accordingly, the Commission vide its order dated 27.1.2015 in Petition No.184/GT/2014 had granted interim tariff based on the actual COD of all units, for the period from 13.5.2014 to 31.3.2016, subject to adjustment, after determination of final tariff of the generating station for the 2014-19 tariff period. Thereafter, the interim tariff granted vide order dated 27.1.2015, was extended till 31.8.2016, or till the determination of final tariff for the 2014-19 tariff period, whichever was earlier, by the Commission vide its order dated 30.3.2016 in Petition No.184/GT/2014. The Commission disposed of the said petition, granting liberty to the Petitioner to file



fresh petition for determination of tariff for the 2014-19 tariff period, after approval of RCE by the Central Government. The interim tariff granted by order dated 27.1.2015 was directed to be in force till the tariff for the 2014-19 tariff period was determined, based on DIA report and approved RCE.

4. Thereafter, the Petitioner filed Petition No. 315/GT/2018 for approval of tariff of the generating station for the period from actual COD of the first unit i.e., 13.5.2014 to 31.3.2019, in accordance with the 2014 Tariff Regulations. The Commission by order dated 26.6.2019 in Petition No.315/GT/2018 determined the tariff of the generating station for the said period. Aggrieved by order dated 26.6.2019 in Petition No. 315/GT/2018, the Petitioner filed Review Petition No.18/RP/2019 and sought revision of Normative Annual Plant Availability Factor (NAPAF) of the generating station, which was rejected by order dated 8.11.2019.

5. Subsequently, Petition No.29/GT/2020 was filed by the Petitioner for truing-up of tariff of the generating station for the 2014-19 tariff period, in accordance with the provisions of the 2014 Tariff Regulations. By order dated 4.6.2021 in Petition No. 29/GT/2020, the annual fixed charges and the capital cost of the generating station, was approved as under:

Annual Fixed Charges allowed

(Rs.in lakh)

	13.5.2014 to 17.6.2014	18.6.2014 to 7.8.2014	8.8.2014 to 15.12.2014	16.12.2014 to 31.3.2015	2015-16	2016-17	2017-18	2018-19
Return on Equity	824.37	1775.10	6116.80	6543.01	24403.99	25414.28	25726.21	25685.78
Interest on Loan	139.76	262.59	1291.44	1435.23	6192.94	7874.47	7610.02	10313.44
Depreciation	650.22	1405.72	4857.99	5204.02	19244.58	20072.66	20298.52	20062.79
Interest on Working Capital	54.75	117.29	413.67	465.10	1740.92	1861.36	1909.69	2010.39
O&M Expenses	318.37	688.37	2377.31	2926.61	10746.61	11460.18	12221.14	13032.62
Total	1987.47	4249.07	15057.22	16573.97	62329.05	66682.95	67765.58	71105.01



Capital Cost allowed

	(Rs.in lakh)				
	16.12.2014 to 31.3.2015	2015-16	2016-17	2017-18	2018-19
Opening Capital Cost	339820.87	379671.56	395919.85	411811.68	405861.90
Add: Addition during the year/period	39850.69	4823.44	8233.50	3255.91	3532.76
Less: De-capitalization allowed	0.00	2503.34	194.64	7734.78	511.21
Add: Discharge of liabilities	0.00	13928.19	7852.97	(-)1470.91	(-)350.36
Less: LD proceeds received	0.00	12.16	20.11	8.56	110.24
Less: Insurance proceeds received	0.00	0.00	0.00	0.00	22.23
Closing Capital Cost	379671.56	395907.69	411779.41	405821.07	408359.79

Present Petition

6. The Petitioner has filed the present petition for approval of tariff of the generating station for the 2019-24 tariff period, in terms of the provisions of the 2019 Tariff Regulations. The capital cost and annual fixed cost claimed by the Petitioner are as under:

Capital Cost Claimed

	(Rs.in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Capital Cost	414906.81	418013.94	425179.42	428963.17	428963.17
Add: Addition during the year/period	3107.13	2135.28	0.00	0.00	0.00
Less: De-capitalization during the year/ period	0.00	0.00	0.00	0.00	0.00
Less: Reversal during the year/ period	0.00	0.00	0.00	0.00	0.00
Add: Discharges during the year/ period	0.00	5030.20	3783.75	0.00	0.00
Closing Capital Cost	418013.94	425179.42	428963.17	428963.17	428963.17
Average Capital Cost	416460.37	421596.68	427071.29	428963.17	428963.17

Annual Fixed Charges Claimed

	(Rs.in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	20622.04	20804.55	21044.00	21137.22	21137.22
Interest on Loan	10884.30	10871.38	10534.28	10364.30	11037.99
Return on Equity	26277.21	26601.30	26946.72	27066.10	27066.10
Interest on Working Capital	1403.55	1439.44	1469.90	1498.54	1534.92
O&M Expenses	12267.22	12851.94	13464.54	14106.33	14778.72
Total	71454.33	72568.60	73459.45	74172.49	75554.95

7. The Respondents, UPPCL, MPPMCL and PSPCL have filed their replies vide affidavits dated 5.2.2020, 3.2.2020 and 16.2.2021 respectively. The Petitioner vide



affidavits dated 27.2.2020, 17.2.2020 and 22.4.2021 has filed its rejoinder to the said replies. In compliance to the directions of the Commission vide RoP of hearing dated 13.4.2020, the Petitioner has filed the additional information vide affidavit dated 20.5.2021. The Petition was thereafter heard on 13.4.2021 and the Commission, after hearing the parties and directing the Petitioner to submit certain additional information, reserved its order in the matter. Taking into consideration the submissions of the parties and the documents available on record, we proceed to determine the tariff of the generating station for the 2019-24 tariff period, after prudence check, as stated in the subsequent paragraphs.

Capital Cost

8. Regulation 19(3) of the 2019 Tariff Regulations provides as under:

“(3) The Capital cost of an existing project shall include the following:

- (a) Capital cost admitted by the Commission prior to 1.4.2019 duly trued up by excluding liability, if any, as on 1.4.2019;*
- (b) Additional capitalization and de-capitalization for the respective year of tariff as determined in accordance with these regulations;*
- (c) Capital expenditure on account of renovation and modernisation as admitted by this Commission in accordance with these regulations;*
- (d) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;*
- (e) Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal upto the receiving end of generating station but does not include the transportation cost and any other appurtenant cost paid to the railway; and*
- (f) Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.”*

9. The annual fixed charges claimed in the petition are based on the opening capital cost of Rs.414906.81 lakh as on 1.4.2019. However, by order dated 4.6.2021 in Petition No. 29/GT/2020, the closing capital cost of Rs.408359.79 lakh, on cash basis, was approved as on 31.3.2019. Accordingly, in terms of Regulation 19(3) of



the 2019 Tariff Regulations, the closing capital cost of Rs.408359.79 lakh, on cash basis, has been considered as the opening capital cost as on 1.4.2019.

Additional Capital Expenditure

10. Clauses (1) and (2) of Regulation 25 and clause (1) of Regulation 26 of the 2019 Tariff Regulations, provides as under:

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

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

- (a) Liabilities to meet award of arbitration or for compliance of the directions or order of any statutory authority, or order or decree of any court of law;*
- (b) Change in law or compliance of any existing law.*
- (c) Deferred works relating to ash pond or ash handling system in the original scope of work;*
- (d) Liability for works executed prior to the cut-off date;*
- (e) Force Majeure events;*
- (f) Liability for works admitted by the Commission after the cut-off date to the extent of discharge of such liabilities by actual payments; and*
- (g) Raising of ash dyke as a part of ash disposal system.*

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

- (a) The useful life of the assets is not commensurate with the useful life of the project and such assets have been fully depreciated in accordance with the provisions of these regulations.*
- (b) The replacement of the asset or equipment is necessary on account of change in law or Force Majeure conditions;*
- (c) The replacement of such asset or equipment is necessary on account of obsolescence of technology; and*
- (d) The replacement of such asset or equipment has otherwise been allowed by the Commission.*

26. Additional Capitalisation beyond the original scope

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

- (a) Liabilities to meet award of arbitration or for compliance of order or directions of any statutory authority, or order or decree of any court of law;*
- (b) Change in law or compliance of any existing law;*
- (c) Force Majeure events.*



- (d) *Need for higher security and safety of the plant as advised or directed by appropriate Indian Government Instrumentality or statutory authorities responsible for national or internal security.*
- (e) *Deferred works relating to ash pond or ash handling system in additional to the original scope of work, on case-to-case basis:*
Provided also that if any expenditure has been claimed under Renovation and Modernisation (R&M) or repairs and maintenance under O&M expenses, the same shall not be claimed under this Regulation.
- (f) *Usage of water from sewage treatment plant in thermal generating station.*
 xxxx”

11. The year-wise break-up of the projected additional capital expenditure (including discharges of liabilities) claimed by the Petitioner for the 2019-24 tariff period is as under and the same is examined in subsequent paragraphs of this order:

	(Rs.in lakh)				
Claimed on Projected Basis	2019-20	2020-21	2021-22	2022-23	2023-24
Additions during the year/period	3107.13	2135.28	0.00	0.00	0.00
Less: De-capitalization during the year/ period	0.00	0.00	0.00	0.00	0.00
Less: Reversal during the year/ period	0.00	0.00	0.00	0.00	0.00
Add: Discharges during the year/ period	0.00	5030.20	3783.75	0.00	0.00
Net additional capital expenditure	3107.13	7165.48	3783.75	0.00	0.00

12. In order dated 4.6.2021 in Petition No.29/GT/2020, the Commission had observed that out of approved Revised Cost Estimate (RCE), the balance limit of cost available as on 31.3.2019, after providing for the additional capital expenditure for the year 2018-19, in respect of the assets/ works within the original scope of work/ RCE is Rs.3002.23 lakh.

13. We notice that the Petitioner has claimed additional capital expenditure under Regulation 26(1)(d) of the 2019 Tariff Regulations for some of the assets/ works such as instrument for monitoring of surface movement in surge shaft and Powerhouse Complex, EOT Crane, Land, Heat Exchanger for TGB, etc. However, the additional capital expenditure claimed under these heads, does not qualify for approval under the Regulation quoted by the Petitioner, as the Petitioner has not furnished any justification, demonstrating that the expenditure claimed is based on



any advice or direction of the Appropriate Government Instrumentality or Statutory authorities responsible for national or internal security. However, on perusal of these claims, it is observed that the assets/ works claimed are necessary for the operation of the generating station.

14. Further, with regard to the claim of the Petitioner for additional capital expenditure under Regulation 25(1)(d) and Regulation 25(1)(f) of the 2019 Tariff Regulations, it is observed that the expenditure claimed is towards discharge of liabilities of the allowed assets/ works executed as per the original scope/ approved RCE, but the amount claimed is beyond the balance available limit of Rs.3002.23 lakh.

15. Considering the fact that the additional expenditure claimed under Regulation 26(1)(d) of the 2019 Tariff Regulations are necessary for the operation of the generating station and the additional capital expenditure claimed under Regulations 25(1)(d) and 25(1)(f) of the 2019 Tariff Regulations are for discharge of liabilities of admitted assets/ works of the original scope/ RCE, we, in exercise of the power under Regulation 76 of the 2019 Tariff Regulations, relax the Regulation 26(1)(d) and Regulations 25(1)(d) and 25(1)(f) {for expenditure claimed beyond balance limit} of the 2019 Tariff Regulations and allow these additional capital expenditure. The same is referred to in the individual claims in the following paragraphs.

16. The admissibility of the projected additional capital expenditure claimed by the Petitioner and allowed for 2019-20, based on the prudence check of the justification furnished by the Petitioner are as under:

2019-20

(Rs.in lakh)

Works/ Items	Amount claimed	Regulation	Justification by the Petitioner	Admissibility	Amount allowed
(A) Plant & Machinery					
Procurement and installation of new instrument for monitoring of surface movement in surge shaft and Powerhouse Complex.	128.00	26(1)(d)	These instruments are essentially required for safety and pre-warning of any surface movement in Project surge shaft and Powerhouse Complex due to minor earthquake incidents noticed in the past.	Based on the nature of the expenditure, same is allowed in light of paragraph 15.	128.00
Environment monitoring of Rampur HPS by HPSPCB for 40 years (2014-54)	11.67	25(1)(b)	Initially, Rs.75 lakh was approved for Environment Monitoring Plan under Environment Management Plan for the period of 7 years i.e. 4 years construction and 3 years operation. This monitoring was carried out by HPSPCB (Himachal Pradesh State Pollution Control Board). This amount was booked under CAPEX and is mentioned under Cost to Completion of Rs.4233.21 crores. However, HPSPCB issued a notification No. HPSPCB/67th Board Meeting/2013-12285-12330 dated 16.9.2013, which states that Rampur HPS has to remit fees with HPSPCB, amounting to Rs. 836.91 lakh in annual instalments as per the plan, for carrying out environment monitoring of Rampur HPS and its vicinity for 40 financial years (2014-2054) and, accordingly, the proportionate additional capital expenditure for 2019-20 has been taken.	The additional capital expenditure claimed by the Petitioner is in compliance to the notification dated 16.9.2013 of the Himachal Pradesh State Pollution Control Board. Though the said expenditure does not form part of RCE, the claim of the Petitioner is allowed keeping in view that the notification of HPSPCB is a change in law/ compliance with existing law.	11.67



Works/ Items	Amount claimed	Regulation	Justification by the Petitioner	Admissibility	Amount allowed
Providing solar fencing system for plant and colony premises along its periphery for protection from monkeys, menace and domestic animal intrusion	3.69	26(1)(d)	Solar fencing system is required to protect the plant and colony premises along its periphery from monkeys, menace and domestic animal intrusion.	The Petitioner has claimed the additional capital expenditure for need of higher security of plant. However, the Petitioner has not furnished any justification demonstrating that the claim is based on any advice or direction of the Appropriate Government Instrumentality or Statutory Authority. In view of the above, the additional capital expenditure is not allowed .	0.00
Submersible pumps	40.00	25(2)(a) for replacement & 26(1)(d) for additional pumps	New replacement of existing pumps/ additional pumps for capacity addition.	Based on the nature of the expenditure, same is allowed in light of reason/ justification mentioned in paragraph 15. Further, it is noted that the Petitioner has not submitted the details of decapitalization of the pump under replacement. The Petitioner is directed to submit the necessary details pertaining to de capitalization at the time of truing up.	40.00
Advanced Filtration System for Shaft Seal System	30.00	26(1)(d)	Modification is required for more efficiency and to improve the shaft seal system and smooth operation of the generating station	Based on the nature of the expenditure, same is allowed in light of paragraph 15.	30.00
Heat Exchanger For TGB	20.00	26(1)(d)	Modification is required for more efficient and smooth operation of the generating station.		20.00



Works/ Items	Amount claimed	Regulation	Justification by the Petitioner	Admissibility	Amount allowed
Modification of HMC for Back up	89.00	26(1)(d)	Modification of Hydraulic Air Compressors (HAC) for Backup is required to avoid any generation loss during breakdown. Modification of HAC for two machines will be done in 2019-20.		89.00
Guide Vane Servomotor	31.00	26(1)(d)	Spares will be required to replace damaged guide vane servomotor, if any, to avoid any generation loss during breakdown in 2019-20 for efficient and smooth operation of plant.		31.00
420 kV GIS Breaker Pole, Operating Mechanism & Other Pot Head Yard associated equipment	100.00	25(2)(c)	Keeping in mind the frequency of GIS equipment failure, some important GIS equipment need to be purchased as spare.	The additional capital expenditure claimed under this head is for procurement of spares after cut-off date. Since Regulation 25(2)(c) of the 2019 Tariff Regulations do not provide for procurement of spares after the cut-off date of the generating station, the claim is not allowed .	0.00
Procurement of Additional 84 MVA, 11/420 Kv, 3 -phase, 50 HZ Generator Transformer	754.93	25(1)(d)	This work forms part of original scope of work under EM Package of RHPS	The additional capital expenditure claimed by the Petitioner form part of the original scope of work of the project. Since the liability incurred is in respect of the works executed prior to the cut-off date, the claim of the Petitioner is allowed , out of the balance RCE amount of Rs. 3002.23 lakh. Therefore, the balance RCE	754.93



Works/ Items	Amount claimed	Regulation	Justification by the Petitioner	Admissibility	Amount allowed
				amount available is Rs. 2247.30 lakh.	
Procurement and Installation of Central Substation Automation System for Monitoring of Protection Network of RHPS	50.71	26(1)(d)	There was no Central Monitoring System between different protection relays of different units of RHPS. The same was pointed out by Technical Audit Team and, thus, the system was installed for Monitoring of Protection Network.	Based on the nature of the expenditure, same is allowed in light of reason/ justification mentioned in paragraph 15.	50.71
Procurement and instalment of geo-technical instruments	14.96	26(1)(d)	To keep pace with the advancement in technology and for better monitoring of the civil structures of the project, up-gradation/ automation of old instruments is to be done to assess the vulnerable slide prone spots well in time. This forms part of additional capitalization.	The Petitioner has claimed the additional capital expenditure for need of higher security of plant. However, the Petitioner has not submitted any justification demonstrating that the claim is based on any advice or direction of the Appropriate Government Instrumentality or Statutory Authority. In view of the above this additional capital expenditure is not allowed	0.00
Requirement of material for CISF fire wing	10.92	26(1)(d)	Various materials/ equipment for CISF Fire wing like High pressure portable pumps, DCP Trolley, High pressure foam generator, delivery hose, inline inductor, fire helmet, dry chemical powder, rescue rope, fire entry suit and other fire related materials needs to be procured as per CISF requirement for Security purpose. This forms part of additional capitalisation.	The Petitioner has claimed the projected additional capital expenditure for higher security and safety of the plant based on the advice of the central security agency/ Government instrumentality. In view of this, the projected additional capital expenditure claimed is allowed . The Petitioner is,	10.92



Works/ Items	Amount claimed	Regulation	Justification by the Petitioner	Admissibility	Amount allowed
				however, directed to submit the relevant documents in support of the claim at the time of truing up of tariff.	
EOT Crane	128.59	26(1)(d)	EOT Cranes are necessary for shifting of runners from one place to another during their maintenance and shifting of other heavy equipment inside the store/ workshop building at Powerhouse. Hence, it is required for efficient and smooth operation of plant. This forms part of additional capitalisation.	Based on the nature of the expenditure, same is allowed in light of reason/ justification mentioned in paragraph 15.	128.59
Roof Top Solar Power Plant (PPR-400)	10.63	26(1)(d)	As part of Govt. of India's renewable energy vision, installation of solar power plant at Butterfly Valve House (BVH) of Rampur HPS is proposed. Target for reduction of 0.5% auxiliary consumption was given in MOU by MoP, GOI. In compliance of same, roof top solar power plant was successfully commissioned on 30.04.18 at rooftop of Butterfly Valve House (BVH). In continuation of the same, its augmentation to 60 kW has also been proposed. This forms part of Additional Capitalization.	The Petitioner has claimed the additional capital expenditure for need of higher security of plant. However, the Petitioner has not submitted any justification demonstrating that the claim is based on any advice or direction of the Appropriate Government Instrumentality or Statutory Authority. In view of the above this additional capital expenditure is not allowed	0.00
Total amount claimed (A)	1424.10				1294.83
(B) Buildings/ Roads					
Construction of type-A quarters 4 blocks (24 Sets) for CISF at Duttnagar including EI	367.10	26(1)(d)	The construction needs to be done as part of CISF requirement that is required for security of the generating station.	The Petitioner has claimed the additional capital expenditure for need of higher security of plant.	0.00



Works/ Items	Amount claimed	Regulation	Justification by the Petitioner	Admissibility	Amount allowed
works.				However, the Petitioner has not submitted any justification demonstrating that the claim is based on any advice or direction of the Appropriate Government Instrumentality or Statutory Authority. In view of the above this additional capital expenditure is not allowed .	
Slope stabilization in Powerhouse area between BVH and Surge Shaft at Rampur HPS, Bayal	975.00	26(1)(d)	To protect the BVH and Powerhouse area from any possible slides, slope stabilization above PWD road is essentially required for safety of Powerhouse. It is also a part of Project Cost.	The Petitioner has claimed projected additional capital expenditure for safety of the Powerhouse. However, the Petitioner has not submitted any justification for the claim. We also note that if this work was important, it should have been envisaged during construction of the Project and should have been part of original scope of work which is not the case. The Petitioner has failed to justify the reasons for claiming such expenditure once the Project is complete. The Petitioner may furnish detailed justification for this additional capital expenditure at the time of truing-up and furnish reasons for the same not having	0.00



Works/ Items	Amount claimed	Regulation	Justification by the Petitioner	Admissibility	Amount allowed
				been envisaged in the original scope of work. In view of this, the projected additional capital expenditure is not allowed as of now.	
Construction of office accommodation for MMG department in O&M store complex at Averi of Rampur HPS including EI works.	25.70	26(1)(d)	As of now, there is no office accommodation for executives and non-executives for MMG Deptt in O&M store complex at Averi of Rampur HPS and for smooth operation of the same, construction of office accommodation is required for security of Capital equipment and spares lying in store.	The Petitioner has claimed the additional capital expenditure for need of higher security of plant. However, the Petitioner has not submitted any justification demonstrating that the claim is based on any advice or direction of the Appropriate Government Instrumentality or Statutory Authority. In view of the above, this additional capital expenditure is not allowed .	0.00
Construction of road and concrete flooring inside boundary wall of O&M store at Averi at Rampur HPS, Bayal including streetlights.	75.17	26(1)(d)	To facilitate the vehicles carrying spares of O&M Store, construction of road inside the boundary wall has been proposed. Further, O&M Store houses very heavy spares which needs smooth, plain surface to keep them intact or to avoid undesirable settlement of landfill areas of O&M Store site. Therefore, it has been proposed to concrete the floor area of O&M Store after proper landscaping and drainage system so that the heavy spares can be properly housed/ stored. The space presently is uneven and is rockfill. The above work is required for security of Capital equipment and spares lying in store.		0.00
Construction of boundary wall around acquired land of SJVN Ltd. at KoyalTeh. Nirmand Distt. Kullu (H.P)	75.66	26(1)(d)	Permanent fencing is being done for housing Project Facilities. Advance Flood Warning System (AFWS) is also installed within the acquired land. Hence, it is very essential to provide permanent boundary wall.		0.00



Works/ Items	Amount claimed	Regulation	Justification by the Petitioner	Admissibility	Amount allowed
Club cum Guest House for Non-executives.	23.00	26(1)(d)	To promote civic, social and mutual understanding among the families of executives and to organise events on special occasions to encourage mutual trust through gathering of families, construction of officer's club is necessary. Hence, it is required for the welfare of the employees.		0.00
Augmentation of Sewerage Treatment Plant at Jhakri	14.00	26(1)(d)	To cater the needs of Rampur office complex and Colony at Jhakri, Laying/ Connecting of sewerage pipeline of RHPS colony at Jhakri to newly constructed STP of NJHPS is necessary for the welfare of employees.		0.00
Miscellaneous development works in Rampur HPS colony.	30.00	26(1)(d)	Provision for unforeseen works to be carried out in Rampur HPS colony at Duttnagar/ Bayal.		0.00
Construction of Structural Steel Sheds with Pre-Painted sheet Roofing for protection of DG Sets.	12.46	26(1)(d)	This work is required for protection of DG sets.		0.00
Construction of Store near Unit 1.	8.85	26(1)(d)	To facilitate smooth functioning of the plant a store is required Unit 1.		0.00
Construction of Office Accommodation in O&M Store at AveriAr RHPS	3.74	26(1)(d)	There is no office accommodation for executives and non-executives for O&M store department in O&M store complex at Averi of RHPS and for smooth operations of the same construction of office accommodation is must.		0.00
Construction of Toilet Bathroom and Septic Tank in front of Goshai Adit Portal under Rampur HPS at Bayal	2.12	26(1)(d)	The construction is required for use of security staff posted at Goshai Adit	The Petitioner has claimed the projected additional capital expenditure for higher security and safety of the plant based on the advice of statutory agency/	2.12



Works/ Items	Amount claimed	Regulation	Justification by the Petitioner	Admissibility	Amount allowed
				Government instrumentality. In view of this, the projected additional capital expenditure claimed is allowed . The Petitioner is, however, directed to submit the relevant documents in support of the claim at the time of truing up of tariff.	
Construction of type A quarters at Duttnagar	51.26	26(1)(d)	This expenditure was considered for Employee welfare under additional capitalization for smooth and efficient operation of Plant.	The Petitioner has claimed the additional capital expenditure for need of higher security of plant. However, the Petitioner has not submitted any justification demonstrating that the claim is based on any advice or direction of the Appropriate Government Instrumentality or Statutory Authority. In view of the above this additional capital expenditure is not allowed	0.00
Construction of Type-A Qtr 4, Blocks for CISF in Rampur HPS Colony at Duttnagar	1.28	26(1)(d)	The construction needs to be done as a part of CISF requirement and is required for security of the generating station.	The Petitioner has claimed the projected additional capital expenditure for higher security and safety of the plant based on the advice of the central security agency/ government instrumentality. In view of this, the projected additional capital expenditure claimed is	1.28



Works/ Items	Amount claimed	Regulation	Justification by the Petitioner	Admissibility	Amount allowed
				allowed. However, the Petitioner is directed to submit the relevant documents in support of the claim at the time of truing up of tariff.	
Slope protection work in PH Area	2.42	26(1)(d)	This work is required to be taken up immediately due to high probability of slides above the Powerhouse due to loose strata. This forms part of additional capitalisation.	The Petitioner has claimed projected additional capital expenditure for safety of the powerhouse. However, the Petitioner has not submitted any justification for the claim. Moreover, these works are regular in nature and, therefore, may be met from O&M expenses allowed to the generating station. In view of above the projected additional capital expenditure is not allowed.	0.00
River Training By Providing G.I. Wire Crate From East Of Pot Head Yard- End Of Flood Protection Wall	12.37	26(1)(d)	This work is required to be taken up immediately due to high probability of slides above the Powerhouse due to loose strata. This forms part of additional capitalisation		0.00
Construction of slope stabilisation in PH area between BVH and surge shaft	2.91	26(1)(d)	This work is required to be taken up immediately due to high probability of slides above the BVH and Surge Shaft due to loose strata. This forms part of additional capitalisation		0.00
Total amount claimed (B)	1683.03				3.40
Grand Total (A+B)	3107.13				1298.23

2020-21

17. The admissibility of the projected additional capital expenditure claimed by the Petitioner and allowed for the year 2020-21, on prudence check of the justification furnished by the Petitioner are as under:

(Rs.in lakh)

Works/ Items	Amount claimed	Regulation under which claimed	Justification by the Petitioner	Admissibility	Amount allowed
(A) Land	20.00	26(1)(d)	Diversion of 0.8374 hectare. Forest land to SJVN- Rampur HPS involves considerable fund and after its	Based on the nature of the expenditure, same is allowed in light of	20.00



Works/ Items	Amount claimed	Regulation under which claimed	Justification by the Petitioner	Admissibility	Amount allowed
			diversion, it will be added to the tangible asset of SJVN. Also, the case of diversion of this land is in process from the construction stage of the project. Hence, the fund involved in this process may be added to the additional capitalisation of the generating station.	paragraph 15.	
(B) Plant & Machinery					
Environment monitoring of Rampur HPS by HPSPCB for 40 years (2014-54)	12.06	25(1)(b)	Initially, Rs. 75 lakh was approved for Environment Monitoring Plan under Environment Management Plan for the period of 7 years i.e. 4 years construction and 3 years operation. This monitoring was carried out by HPSPCB (Himachal Pradesh State Pollution Control Board). This amount was booked under CAPEX and is mentioned under Cost to Completion of Rs.4233.21 crores. However, HPSPCB issued a notification vide No. HPSPCB/67th Board Meeting/2013-12285-12330, dated 16/09/2013, which states that Rampur HPS has to remit fees with HPSPCB, amounting to Rs. 836.91 lakh in annual instalments as per the plan, for carrying out environment monitoring of Rampur HPS and its vicinity for 40 financial years (2014-2054) and, accordingly, the proportionate budget for 2020-21 has been taken.	The additional capital expenditure claimed by the Petitioner is in compliance to the notification dated 16.9.2013 of the Himachal Pradesh State Pollution Control Board. Though the said expenditure does not form part of the RCE, the claim of the Petitioner is allowed , keeping in view that the same is under change in law.	12.06
Penstock Guard Valve (BFV) Servomotor	50.00	26(1)(d)	No Mandatory spares are held in stock. 2 numbers BFV Servomotor will be kept in mandatory spares to avoid any outages. Hence, it will be required for efficient and smooth operation of plant.	The additional capital expenditure claimed under this head is for procurement of spares after cut-off date, which is not covered under Regulation	0.00



Works/ Items	Amount claimed	Regulation under which claimed	Justification by the Petitioner	Admissibility	Amount allowed
				25(2)(c) of the 2019 Tariff Regulations. Also, the claim of the Petitioner is not covered under Regulation 26(1)(d) of the 2019 Tariff Regulations, as the Petitioner has not furnished any justification demonstrating that the expenditure claimed is based on any advice or direction of the Appropriate Government Instrumentality or Statutory authorities responsible for national or internal security. In view of this, the claim of the Petitioner is not allowed	
Heat Exchanger For TGB	20.00	26(1)(d)	Modification is required for more efficient and smooth operation of the plant.	Based on the nature of the expenditure, same are allowed	20.00
Modification of HMC for Back up	120.00	26(1)(d)	Modification of HAC for Backup is required to avoid any generation loss during breakdown. Modification of HAC for two machines will be done in 2019-20. After checking the performance of the two machines, same modification will be done in next four machines in 2020-21.	in light of reason/ justification mentioned in paragraph 15.	120.00
Procurement of Cast Resin Dry type Transformer 11kV/0.433kV, 630kVA for Unit Auxiliary Transformer	20.00	25(2)(c)	No spares available at store, one no. required to be purchased as a spare.	The additional capital expenditure claimed under this head for procurement of spares after cut-off date, is also not covered under Regulation	0.00
Procurement of Cast Resin Dry	25.00	25(2)(c)			0.00



Works/ Items	Amount claimed	Regulation under which claimed	Justification by the Petitioner	Admissibility	Amount allowed
type Transformer 11kV/0.433kV, 820kVA for Excitation Transformer				25(2)(c) of the 2019 Tariff Regulations as obsolescence of technology is not involved. Hence the expenditure claimed is not allowed .	
Plant, Equipment and Materials including Mandatory Spares, Type Tests and Model tests for Electromechanical works (BHEL Ltd)	2006.26	25(1)(d)	Work executed By BHEL Ltd. However, certain payments made after COD as per payment Terms.	The additional capital expenditure claimed by the Petitioner form part of the original scope of work of the project. Since the liability incurred is in respect of the works executed prior to the cut-off date, the claim of the Petitioner is allowed out of the balance RCE amount of Rs. 2247.30 lakh. Therefore, the balance RCE amount available is Rs. 241.04 lakhs.	2006.26
Total (B)	2253.32				2158.32
(C) Civil / Hydraulic Works / Buildings / Roads & Generating Plant & Machinery					
Construction of type-A quarters 4 blocks (24 Sets) for CISF at Duttnagar including EI works.	20.83	26(1)(d)	The construction needs to be done as a part of CISF requirement and is required for security of the generating station.	The Petitioner has claimed the projected additional capital expenditure for higher security and safety of the plant based on the advice of central security agency/ government instrumentality. In view of this, the projected additional capital expenditure claimed is allowed . The Petitioner is directed to submit the relevant	20.83



Works/ Items	Amount claimed	Regulation under which claimed	Justification by the Petitioner	Admissibility	Amount allowed
				documents in support of the claim at the time of truing up of tariff.	
Construction of office accommodation for MMG department in O&M store complex at Averi of Rampur HPS including EI works.	2.20	26(1)(d)	As of now, there is no office accommodation for executives and non-executives for MMG Department in O&M store complex at Averi of Rampur HPS and for smooth operation of the same, construction of office accommodation is required. Work under progress.	The Petitioner has claimed the additional capital expenditure for need of higher security of plant. However, the Petitioner has not submitted any justification demonstrating that the claim is based on any advice or direction of the Appropriate Government Instrumentality or Statutory Authority. In view of the above this additional capital expenditure is not allowed	0.00
Construction of Commercial complex along with control room for electricity/water and civil complaint at Duttnagar including EI works.	170.00	26(1)(d)	Construction of commercial complex is required to meet out the daily needs of employees and their families residing in the Project area; Hence, it is required for welfare of employees. Drawings already received requested for revision to CHQ for incorporating complaint offices.		0.00
Auditorium at Duttnagar including EI Works, HVAC system installation & illumination.	332.00	26(1)(d)	Rampur HPS has no auditorium of its own. For conducting Knowledge sharing seminars, and for events to stimulate mutual harmony amongst the employees, construction of auditorium is necessary. Hence, it is essentially required for the welfare of the employees.		0.00
Construction of Executive club at Duttnagar including EI Works, HVAC system installation & illumination.	237.00	26(1)(d)	To promote civic, social and mutual understanding among the families of executives and to organize events on special occasions to encourage mutual trust through gathering of families, construction of officers club is necessary. Hence, it is required for the welfare of the employees.		0.00
Club cum Guest House for Non-executives.	212.00	26(1)(d)	To promote civic, social and mutual understanding among the families of Non		0.00



Works/ Items	Amount claimed	Regulation under which claimed	Justification by the Petitioner	Admissibility	Amount allowed
			executives and to organize events on special occasions to encourage mutual trust through gathering of families, construction of officers club is necessary. Hence, it is required for the welfare of the employees.		
Replacement of AC sheets roofing and providing & fixing of pre-painted sheet on shed no. 1&2 of O&M store of Rampur HPS at Averl i/c dismantling of AC sheets and EI works.	70.00	26(1)(d)	The present Asbestos sheets roofing are temporary structures and are also not environment friendly. Hence, it has been proposed to replace them with pre-painted sheet on shed no. 1&2 of O&M store of Rampur HPS at Averl i/c disposing of AC Sheets.		0.00
Const. of Fire Fighting tanks at Averl.	25.00	26(1)(d)	Required for firefighting/ requirement of CISF fire wing.	The Petitioner has claimed the projected additional capital expenditure for higher security and safety of the plant based on the advice of central security agency/ government instrumentality. In view of this, the projected additional capital expenditure claimed is allowed . The Petitioner is directed to submit the relevant documents in support of the claim at the time of truing up of tariff.	25.00
Miscellaneous development works in Rampur HPS colony.	50.00	26(1)(d)	Provision for unforeseen works to be carried out in Rampur HPS colony at Duttnagar/ Bayal.	The Petitioner has claimed the additional capital expenditure for need of higher security of plant. However, the Petitioner has not	0.00



Works/ Items	Amount claimed	Regulation under which claimed	Justification by the Petitioner	Admissibility	Amount allowed
				submitted any justification demonstrating that the claim is based on any advice or direction of the Appropriate Government Instrumentality or Statutory Authority. In view of the above this additional capital expenditure is not allowed	
Requirement of material for CISF security wing including bullet proof jackets and helmet deployed at Project.	4.20	26(1)(d)	It is the requirement of CISF Security Wing and, hence, required.	The Petitioner has claimed the projected additional capital expenditure for higher security and safety of the plant based on the advice of central security agency/ government instrumentality. In view of this, the projected additional capital expenditure claimed is allowed . The Petitioner is directed to submit the relevant documents in support of the claim at the time of truing up of tariff.	4.20
Requirement of material for CISF fire wing.	55.00	26(1)(d)	It is the requirement of CISF Fire Wing and, hence, required.		55.00
Excavator cum backhoe loader	40.00	26(1)(d)	To keep the project running and to carry out digging and loading/ clearing of roads if slides happens etc. in project area, excavator cum backhoe loader along with tipper is required.	Though the Petitioner has claimed the additional capital expenditure for need of higher security of plant. However, the Petitioner has not submitted any justification demonstrating that the claim is based on any advice or direction of the Appropriate	0.00
Tipper	25.00	26(1)(d)			0.00
Protection works inside Goshai Adit of Rampur HPS.	600.00	26(1)(d)	Concreting of the Goshai adit is required due to loose strata. Hence, it is required for efficient and smooth operation of the generating station.		0.00
Providing solar fencing system	24.99	26(1)(d)	Solar Fencing System is required to protect the		0.00



Works/ Items	Amount claimed	Regulation under which claimed	Justification by the Petitioner	Admissibility	Amount allowed
for plant and colony premises along its periphery for protection from monkeys menace and domestic animal intrusion			plant and colony premises along its periphery from monkeys menace and domestic animal intrusion.	Government Instrumentality or Statutory Authority. As regards excavator-cum-bachchue loader, Tipper and protection works inside Goshai Adit of Rampur HPS, we note that if this work was important, it should have been envisaged during construction of the Project and should have been part of original scope of work which is not the case. The Petitioner has failed to justify the reasons for claiming such expenditure once the Project is complete. The Petitioner may furnish detailed justification for this additional capital expenditure at the time of truing-up and furnish reasons for the same not having been envisaged in the original scope of work. In view of the above this additional capital expenditure is not allowed as of now. As regards solar fencing, the claim is not allowed .	
Construction of Civil works for HRT from STA.12900 to 15088 m, Surge Shaft, Pressure Shafts, Valve	1281.93	25(1)(d)	Work executed (Package-2, PGJV). However certain payments made after COD as per payment Terms.	The projected additional capital expenditure claimed by the Petitioner form part of the undischarged	1281.93



Works/ Items	Amount claimed	Regulation under which claimed	Justification by the Petitioner	Admissibility	Amount allowed
House, power House Complex, TRT, adits and Hydro mechanical works,				liabilities admitted by Commission in Order dated 4.6.2021 in Petition No. 29/GT/2020 hence the same is allowed as discharge of the undischarged liabilities.	
Construction of Civil Works for HRT From STA.50.61 to STA.12900M Including Cut and Cover Section, River Diversion Works, Adits, Vehicular Gates etc	184.28	25(1)(d)	Work executed (Package-1, PGJV), however certain payments made after COD as per payment Terms.	The projected additional capital expenditure claimed by the Petitioner form part of the undischarged liabilities admitted by Commission in Order dated 4.6.2021 in Petition No. 29/GT/2020 hence the same is allowed as discharge of the undischarged liabilities.	184.28
C/O Type-B Quarters 6-Blocks (36 Sets) At Jhakri	53.17	25(1)(d)	Work executed; however certain payments made as per payment Terms.	The projected additional capital expenditure claimed by the Petitioner form part of the undischarged liabilities admitted by Commission in Order dated 4.6.2021 in Petition No. 29/GT/2020 hence the same is allowed as discharge of the undischarged liabilities.	53.17
Water Supply Scheme in Power House area of RHEP at bayal	52.80	25(1)(d)			52.80
ONM-205 (Construction of security check post and watch/surveillance tower for CISF at ONM store - Averi and power House Complex, at bayal.)	1.21	25(1)(f)			1.21
ONM- 246 (C/o Control Room for 40 KWA Solar power plant)	0.78	25(1)(f)			0.78
ONM-247 (C/o Slope protection work with PCC steps a/w spill	2.30	25(1)(f)			2.30



Works/ Items	Amount claimed	Regulation under which claimed	Justification by the Petitioner	Admissibility	Amount allowed
tunnel gate)					
ONM-221 (P& Erection of street lighting & LT Distribution in newly constructed Type A & B Quarters (14 numbers)	1.61	25(1)(f)			1.61
ONM-108 (Construction of Type A quarters, 4 blocks (24 sets) in Rampur HPS colony at Duttnagar)	2.73	25(1)(f)			2.73
Work Comprising Of Supply, Erection, Testing & Commissioning Of Underground Ht/Lt Distribution System Street Lighting And Associated Accessories For Duttnagar Colony Tehsil Rampur Bst.	34.72	25(1)(d)			34.72
C/o pre-engineered building for O&M store at Averi, Runner repair shop & Mechanical store near powerhouse.	49.07	25(1)(d)			49.07
PCD-655 (C/o pre-engineered building for O&M store at Averi, Runner repair shop & Mechanical store near powerhouse, Bayal)	64.06	25(1)(d)			64.06
PCD-680 (slope protection with geo green erosion with blanket & grassing within	2.93	25(1)(f)			2.93



Works/ Items	Amount claimed	Regulation under which claimed	Justification by the Petitioner	Admissibility	Amount allowed
in powerhouse)					
CAO,HPSEB,S HIMLA	77.38	25(1)(d)			77.38
Procurement of 80 MVAR Reactor for RHEP (6X 67.67)	43.94	25(1)(d)			43.94
CAT Plan	824.16	25(1)(d)			824.16
R&R (LADC)	346.87	25(1)(d)			346.87
Total amount claimed (C)	4892.16				3128.98
Grand Total (A+B+C)	7165.48				5307.30

2021-22

18. The admissibility of the projected additional capital expenditure claimed by the Petitioner and allowed for 2021-22, on prudence check of the justification furnished by the Petitioner are as under:

(Rs.in lakh)					
Works/ Items	Amount claimed	Regulation under which claimed	Justification by the Petitioner	Admissibility	Amount allowed
(A) Civil / Hydraulic Works					
Construction of Civil Works for HRT From STA.50.61 to STA.12900M Including Cut and Cover Section, River Diversion Works, Audits, Vehicular Gates etc. (Package-1 PGJV)	1520.83	25(1)(d)	Work executed (Package-1, PGJV), however certain payments made after COD as per payment Terms.	The projected additional capital expenditure claimed by the Petitioner form part of the undischarged liabilities admitted by Commission in Order dated 4.6.2021 in Petition No. 29/GT/2020 hence the same is allowed as discharge of the undischarged liabilities.	1520.83
(B) Buildings / Roads					
Construction of Civil Works for HRT from STA.12900 to 15088 m, Surge Shaft, Pressure Shafts, Valve House, power House Complex, TRT, adits and Hvdro Mechanical	2262.92	25(1)(d)	Work executed (Package-2, PGJV), however certain payments made after COD as per payment Terms.		2262.92



Works.					
Grand Total (A+B)	3783.75				3783.75

16. In view of above, the total projected additional capital expenditure (including discharges of liabilities) allowed is Rs.1298.23 lakh in 2019-20, Rs.5307.30 lakh in 2020-21, Rs.3783.75 lakh in 2021-22 and Nil in 2022-24.

Undischarged Liabilities

19. The Commission in its order dated 4.6.2021 had approved un-discharged liability of Rs.28773.83 lakh as on 31.3.2015. Further, the Commission had allowed discharges of admitted liabilities during the 2014-19 tariff period as Rs.13928.19 lakh in 2015-16, Rs.7852.97 lakh in 2016-17, (-) Rs.1470.91 lakh in 2017-18 and (-) Rs.350.36 lakh in 2018-19. Thus, the balance liability as on 31.3.2019 was Rs.8812.94 lakh. The Petitioner has claimed discharges of liability as Rs.5030.20 lakh in 2020-21 and Rs.3783.75 lakh in 2021-22, which has been allowed in the additional capital expenditure table above. Hence, the balance liability as on 31.3.2024 is NIL.

Capital Cost allowed

20. Based on the above, the capital cost allowed for the 2019-24 tariff period is as under:

	(Rs.in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Capital Cost	408359.79	409658.02	414965.32	418749.07	418749.07
Add: Projected additional capital expenditure allowed	1298.23	277.09	0.00	0.00	0.00
Add: Discharges of liabilities	0.00	5030.20	3783.75	0.00	0.00
Closing Capital Cost	409658.02	414965.32	418749.07	418749.07	418749.07
Average Capital Cost	409008.91	412311.67	416857.19	418749.07	418749.07



Debt Equity Ratio

21. Regulation 18 of the 2019 Tariff Regulations provides as under:

“(1) For new projects, the debt-equity ratio of 70:30 as on date of commercial operation shall be considered. 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, as the case may be, shall submit the resolution of the Board of the company or approval of the competent authority in other cases regarding infusion of funds 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 1.4.2019, debt: equity ratio allowed by the Commission for determination of tariff for the period ending 31.3.2019 shall be considered:

Provided that in case of a generating station or a transmission system including communication system which has completed its useful life as on or after 1.4.2019, if the equity actually deployed as on 1.4.2019 is more than 30% of the capital cost, equity in excess of 30% shall not be taken into account for tariff computation;

Provided further that in case of projects owned by Damodar Valley Corporation, the debt: equity ratio shall be governed as per sub-clause (ii) of clause (2) of Regulation 72 of these regulations;

(4) In case of the generating station and the transmission system including communication system declared under commercial operation prior to 1.4.2019, but where debt: equity ratio has not been determined by the Commission for determination of tariff for the period ending 31.3.2019, the Commission shall approve the debt: equity ratio in accordance with clause (1) of this Regulation.

(5) Any expenditure incurred or projected to be incurred on or after 1.4.2019 as may be admitted by the Commission as additional capital expenditure for determination of tariff, and renovation and modernisation expenditure for life extension shall be serviced in the manner specified in clause (1) of this Regulation.”

22. The gross loan and equity amounting to Rs.285851.85 lakh and Rs.122507.94 lakh, respectively as on 31.3.2019, was considered in order dated



4.6.2021 in Petition No. 29/GT/2020. The equity as a percentage of admitted capital cost as on 31.3.2019 is 30%. Accordingly, the gross loan and equity amounting to Rs.285851.85 lakh and Rs.122507.94 lakh, has been considered as gross loan and equity as on 1.4.2019. Further, the projected additional capital expenditure approved above, has been claimed to be funded in debt-equity ratio of 70:30 and the same has been considered. This is subject to truing up.

(Rs. in lakh)

Asset	As on 1.4.2019		Additional Capitalization during 2019-24		As on 31.3.2024	
	Amount	%	Amount	%	Amount	%
Debt	285851.85	70.00%	7272.49	70.00%	293124.35	70.00%
Equity	122507.94	30.00%	3116.78	30.00%	125624.72	30.00%
Total	408359.79	100.00%	10389.28	100.00%	418749.07	100.00%

Return on Equity

23. Regulation 30 of the 2019 Tariff Regulations provides as under:

“(1) Return on equity shall be computed in rupee terms, on the equity base determined in accordance with Regulation 18 of these regulations.

(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 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 return on equity in respect of additional capitalization after cut-off date beyond the original scope excluding additional capitalization due to Change in Law, shall be computed at the weighted average rate of interest on actual loan portfolio of the generating station or the transmission system;

Provided further that:

- i. In case of a new project, the rate of return on equity shall be reduced by 1.00% 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) or Free Governor Mode Operation (FGMO), data telemetry, communication system up to load dispatch centre or protection system based on the report submitted by the respective RLDC;*
- ii. in case of existing generating station, as and when any of the requirements under (i) above of this Regulation are found lacking based on the report submitted by the concerned RLDC, rate of return on equity shall be reduced by 1.00% for the period for which the deficiency continues;*
- iii. in case of a thermal generating station, with effect from 1.4.2020:*
 - a) rate of return on equity shall be reduced by 0.25% in case of failure to achieve the ramp rate of 1% per minute;*



- b) an additional rate of return on equity of 0.25% shall be allowed for every incremental ramp rate of 1% per minute achieved over and above the ramp rate of 1% per minute, subject to ceiling of additional rate of return on equity of 1.00%:

Provided that the detailed guidelines in this regard shall be issued by National Load Dispatch Centre by 30.6.2019"

24. Regulation 31 of the 2019 Tariff Regulations provides as under:

"31. Tax on Return on Equity:

(1) The base rate of return on equity as allowed by the Commission under Regulation 30 of these regulations 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 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 paid on income from other businesses including deferred tax liability (i.e. income from business other than business of generation or transmission, as the case may be) shall be excluded 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.

Illustration-

- (i) In case of the generating company or the transmission licensee paying Minimum Alternate Tax (MAT) @ 21.55% including surcharge and cess:*

Rate of return on equity = $15.50 / (1 - 0.2155) = 19.758\%$

- (ii) In case of a generating company or the transmission licensee paying normal corporate tax including surcharge and cess:*

(a) Estimated Gross Income from generation or transmission business for FY 2019-20 is Rs 1,000 crore;

(b) Estimated Advance Tax for the year on above is Rs 240 crore;

(c) Effective Tax Rate for the year 2019-20 = Rs 240 Crore / Rs 1000 Crore = 24%;

(d) Rate of return on equity = $15.50 / (1 - 0.24) = 20.395\%$.

(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 2019-24 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, as the case may be, on year to year basis."

25. The Petitioner has claimed tariff considering the rate of Return on Equity (ROE) of 21.032% (i.e., base rate of 16.5% and MAT rate of 21.549%) for the 2019-24 tariff period. However, since the MAT rate, as applicable for the period 2019-22 is 17.472% (i.e., MAT rate of 15%, Surcharge of 12% and HEC of 4%), the same has been considered for the 2019-24 tariff period. Accordingly, considering the base rate of ROE of 16.5% and MAT rate of 17.472%, the rate of ROE considered for the 2019-24 tariff period works out as 19.993%. Accordingly, ROE has been worked out as under:

	(Rs.in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Normative Equity- Opening	122507.94	122897.41	124489.59	125624.72	125624.72
Addition of Equity due to additional capital expenditure	389.47	1592.19	1135.13	0.00	0.00
Normative Equity- Closing	122897.41	124489.59	125624.72	125624.72	125624.72
Average Normative Equity	122702.67	123693.50	125057.16	125624.72	125624.72
Return on Equity (Base Rate)	16.500%	16.500%	16.500%	16.500%	16.500%
Effective Tax Rate	17.472%	17.472%	17.472%	17.472%	17.472%
Rate of Return on Equity (Pre-tax)	19.993%	19.993%	19.993%	19.993%	19.993%
Return on Equity (Pre-tax) (annualized)	24531.95	24730.04	25002.68	25116.15	25116.15

Interest on loan

26. Regulation 32 of the 2019 Tariff Regulations provides as under:

"32. Interest on loan capital:

(1) The loans arrived at in the manner indicated in Regulation 18 of these regulations shall be considered as gross normative loan for calculation of interest on loan.

(2) The normative loan outstanding as on 1.4.2019 shall be worked out by deducting the cumulative repayment as admitted by the Commission up to 31.3.2019 from the gross normative loan.

(3) The repayment for each of the year of the tariff period 2019-24 shall be deemed to be equal to the depreciation allowed for the corresponding year/period. In case of de-capitalization 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 upto the date of de-capitalisation 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 changes to the terms and conditions of the loans shall be reflected from the date of such re-financing.”

27. Interest on loan has been worked out as follows:

- (i) The gross normative loan amounting to Rs.285851.85 lakh has been considered as on 1.4.2019;
- (ii) Cumulative repayment amounting to Rs.91796.51 lakh as on 31.3.2019 as considered in order dated 4.6.2021 in Petition No. 29/GT/2020 has been considered as on 1.4.2019.
- (iii) Accordingly, the net normative opening loan as on 1.4.2019 works out to Rs.194055.34 lakh.
- (iv) Addition to normative loan on account of projected additional capital expenditure approved above has been considered.
- (v) Depreciation allowed has been considered as repayment of normative loan during the respective years of the 2019-24 tariff period..
- (vi) The Petitioner has calculated interest by applying the weighted average rate of interest (WAROI) of 5.80%, 6.37%, 6.87%, 7.75% and 9.81% for the years 2019-20, 2020-21, 2021-22, 2022-23 and 2023-24, respectively. The rate of interest corresponding to individual loans along with guarantee fees, as specified by the Petitioner, is considered for the purpose of tariff, subject to truing up.
- (vii) The Petitioner has calculated interest on loan, on accrued basis, for World bank loan. However, for the purpose of calculating weighted average interest on loan, the interest on World bank loan has been calculated on the basis of the average loan for the year and rate of interest. The same shall be subject to true up, at actuals, on submission of the relevant documentary evidence.
- (viii) The Petitioner has applied the 2014 Tariff Regulations for adjustments corresponding to refinancing of loans, which instead should be as per regulation 61 the 2019 Tariff Regulations. The Petitioner is directed to modify its IOL claim in line with the said 2019 Regulations, at the time of truing-up of tariff.



- (ix) Further, we have considered the World Bank loan repayment instalments as submitted by the Petitioner. The Petitioner is directed to furnish supporting documents along with the schedule of repayment of World Bank loan, at the time of truing up. Accordingly, the WAROI to be considered for the purpose of tariff works out to 4.8035% for 2019-20, 4.8112% for 2020-21 4.8404% for 2021-22, 4.9002% for 2022-23 and 5.1018% for 2023-24.

28. Necessary calculations for interest on loan are as under:

	(Rs.in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Gross Loan – Opening	285851.85	286760.61	290475.72	293124.35	293124.35
Cumulative repayment of loan up to previous year/ period	91796.51	112049.57	132395.93	152936.63	173570.56
Net Loan – Opening	194055.34	174711.04	158079.79	140187.71	119553.79
Addition of loan due to additional capital expenditure	908.76	3715.14	2648.63	0.00	0.00
Repayment of loan during the year/ period	20253.06	20346.36	20540.70	20633.92	20633.92
Net Loan – Closing	174711.04	158079.79	140187.71	119553.79	98919.87
Average Loan	184383.19	166395.41	149133.75	129870.75	109236.83
WAROI	4.8035%	4.8112%	4.8404%	4.9002%	5.1018%
Interest on Loan	8856.82	8005.69	7218.60	6363.90	5573.06

Depreciation

29. Regulation 33 of the 2019 Tariff Regulations provides as under:

“33. Depreciation:

(1) Depreciation shall be computed from the date of commercial operation of a generating station or unit thereof or a transmission system or element thereof including communication system. 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:

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 a 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 the salvage value for IT equipment and software shall be considered as NIL and 100% value of the assets shall be considered depreciable;



Provided further that in case of hydro generating stations, the salvage value shall be as provided in the agreement, if any, signed by the developers with the State Government for development of the generating station:

Provided also 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 unit or transmission system as the case may be, shall not be allowed to be recovered at a later stage during the useful life or 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-I** 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 1.4.2019 shall be worked out by deducting the cumulative depreciation as admitted by the Commission up to 31.3.2019 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 five years before the completion of useful life of the project along with justification and proposed life extension. The Commission based on prudence check of such submissions shall approve the depreciation on capital expenditure.

(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 de-capitalized asset during its useful services.

30. Accordingly, the cumulative depreciation amounting to Rs.90124.91 lakh, as on 31.3.2019, as considered in order dated 4.6.2021 in Petition No. 29/GT/2020 has been considered, as on 1.4.2019. The balance useful life as on 1.4.2019, works out to 35.71 years from station COD. The Petitioner has claimed depreciation considering the weighted average rate of depreciation (WAROD) of 4.95% for the year 2019-20 and 4.93% for the period 2020-24 and the same has been considered. The calculations for WAROD are enclosed as Annexure-I & Annexure-II to this order. Accordingly, depreciation has been calculated and allowed as under:

	(Rs.in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Average Capital Cost	409008.91	412311.67	416857.19	418749.07	418749.07
Value of freehold land included in average capital cost	3555.90	3575.90	3575.90	3575.90	3575.90
Value of software and IT equipment included in average capital cost	97.96	97.96	97.96	97.96	97.96
Aggregated Depreciable value	364917.50	367871.99	371962.96	373665.65	373665.65
Remaining Aggregate Depreciable value at the beginning of the year	274792.59	257494.01	241238.63	222400.61	201766.69
No. of completed years at the beginning of the year	4.29	5.29	6.29	7.29	8.29
Balance useful life at the beginning of the year	35.71	34.71	33.71	32.71	31.71
Weighted Average Rate of Depreciation (WAROD)	4.95%	4.93%	4.93%	4.93%	4.93%
Combined Depreciation during the year/ period	20253.06	20346.36	20540.70	20633.92	20633.92
Cumulative depreciation at the end of the year (before adjustment for de-capitalisation)	110377.97	130724.33	151265.03	171898.96	192532.88
Less: Depreciation adjustment on account of de-capitalisation	0.00	0.00	0.00	0.00	0.00
Cumulative depreciation at the end of the year	110377.97	130724.33	151265.03	171898.96	192532.88

Operation & Maintenance Expenses

31. The generating station is in operation for more than three years as on 1.4.2019. With regard to O&M expenses applicable for the generating station for the 2019-24 tariff period, Regulation 35(2)(a) of the 2019 Tariff Regulations provides as under:

“(2) Hydro Generating Station: (a) Following operations and maintenance expense norms shall be applicable for hydro generating stations which have been operational for three or more years as on 1.4.2019:

	(Rs. in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
<i>Rampur</i>	12267.22	12851.94	13464.54	14106.33	14778.72

Note: The impact in respect of revision of minimum wage, pay revision and GST, if any, will be considered at the time of determination of tariff.”

32. The O&M expenses claimed by the Petitioner are in terms of Regulation 35(2)(a) of 2019 Tariff Regulations and hence allowed.



Additional O&M expenses

33. The Petitioner has not claimed any additional O&M expenses on account of the impact of revision of minimum wages, pay revision and GST. The Petitioner has, however, submitted that it would claim the pay revision impact, based on the actual payments made to its employees by way of a separate petition. The Respondent, UPPCL has stated that Commission may consider all the components of O&M expenditure in totality, based on actual numbers. The Respondent, MPPMCL has stated that the Commission has decided that the impact on O&M expenses on account of employees pay revision, escalation in minimum wages and GST shall be considered for each hydro generating station separately during the 2019-24 tariff period and has accordingly submitted that the Commission may direct the Petitioner to submit the year-wise detailed report on the additional expenditure to be incurred on pay revision. The Petitioner, in its rejoinder, has clarified that the wage revision of employees and the CISF staff has been finalized. It has, however, stated that the revision of pay of the HPSEB employees on deputation and DAV school staff has not been finalized till date, which was due from 1.1.2016 and, therefore, the total financial implication on account of salary/ wage revision of employees cannot be determined at this stage. Accordingly, the Petitioner has submitted that it would seek the enhancement in O&M expenses for the 2019-24 tariff period, based on the actual payments made towards wage revision of its employees and employees of CISF, DAV and HPSEB employees w.e.f. 1.1.2017/ 1.1.2016.

34. In view of the aforesaid submissions, the Petitioner is granted liberty to approach the Commission with a separate petition for enhancement of O&M expenses, after finalization of the pay revision of its employees and others as



mentioned, along with all relevant details/ documents and the same will be considered on a case to case basis, in accordance with law.

Interest on Working Capital

35. Regulation 34(1)(c) of the 2019 Tariff Regulations provides as under:

“34. Interest on Working Capital:

(1) The working capital shall cover:

(c) For Hydro Generating Station (including Pumped Storage Hydro Generating Station) and Transmission System:

(i) Receivables equivalent to 45 days of annual fixed cost;

(ii) Maintenance spares @ 15% of operation and maintenance expenses including security expenses; and

(iii) Operation and maintenance expenses, including security expenses for one month.

36. Regulations 34(3) and 34(4) of the 2019 Tariff Regulation provide as under:

(3) Rate of interest on working capital shall be on normative basis and shall be considered as bank rate as on 1.4.2019 or as on 1st April of the year during the tariff period 2019-24 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:

Provided that in case of truing-up, the rate of interest on working capital shall be considered as bank rate as on 1st April of each of the financial year during the tariff period 2019-24.

(4) Interest on working capital shall be payable on normative basis notwithstanding that the generating company or the transmission licensee has not taken loan for working capital from any outside agency.”

37. Working capital for Receivables equivalent to 45 days of annual fixed cost are worked out and allowed as under:

(Rs.in lakh)				
2019-20	2020-21	2021-22	2022-23	2023-24
8268.48	8285.36	8313.20	8314.39	8278.67

38. Working capital for Maintenance spares @ 15% of O&M expenses is worked out and allowed as under:

(Rs.in lakh)				
2019-20	2020-21	2021-22	2022-23	2023-24
1840.08	1927.79	2019.68	2115.95	2216.81



39. Working capital for O&M expenses @ one month of O&M expenses are allowed as under:

(Rs.in lakh)				
2019-20	2020-21	2021-22	2022-23	2023-24
1022.27	1071.00	1122.05	1175.53	1231.56

40. In terms of Regulation 34(3) of the 2019 Tariff Regulations, the rate of interest on working capital shall be considered as 12.05% (i.e. One-year SBI MCLR of 8.55% as on 1.4.2019 *plus* 350 bps) for the tariff period 2019-24. Further, the aforesaid rate of interest is subject to truing up based on one-year SBI MCLR as on 1st April of the respective years of 2019-24 tariff period. The tariff of the generating station is being determined in the year 2021-22 and one-year SBI MCLR as on 1.4.2020 (i.e. 7.75%) and 1.4.2021 (i.e. 7%) is available. Hence, in order to safeguard against additional interest burden due to excess/ under recovery of tariff, we deem it prudent to consider the rate of interest on working capital for the year 2019-20 as 12.05%, for 2020-21 as 11.25% (i.e. One year SBI MCLR of 7.75% as on 1.4.2020 *plus* 350 bps) and for the period 2021-24 as 10.50% (i.e. One year SBI MCLR of 7% as on 1.4.2021 *plus* 350 bps), subject to truing up. Accordingly, interest on working capital is computed as under:

	(Rs.in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Working Capital for Receivables (45 days of annual fixed cost)	8268.48	8285.36	8313.20	8314.39	8278.67
Working Capital for Maintenance spares (15% of O&M Expenses)	1840.08	1927.79	2019.68	2115.95	2216.81
Working Capital for O&M expenses (One month of O&M expenses)	1022.27	1071.00	1122.05	1175.53	1231.56
Total Working Capital	11130.83	11284.15	11454.93	11605.86	11727.04
Rate of interest on working capital (%)	12.050	11.250	10.500	10.500	10.500
Interest on Working Capital	1341.27	1269.47	1202.77	1218.62	1231.34



Annual Fixed Charges

41. Accordingly, the annual fixed charges approved for the generating station for the 2019-24 tariff period are summarized as under:

	(Rs.in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	20253.06	20346.36	20540.70	20633.92	20633.92
Interest on Loan	8856.82	8005.69	7218.60	6363.90	5573.06
Return on Equity	24531.95	24730.04	25002.68	25116.15	25116.15
Interest on Working Capital	1341.27	1269.47	1202.77	1218.62	1231.34
O&M Expenses	12267.22	12851.94	13464.54	14106.33	14778.72
Total	67250.31	67203.49	67429.29	67438.92	67333.20

Note: (1) All figures are on annualized basis. (2) All figures under each head have been rounded. The figure in total column in each year is also rounded. As such the sum of individual items may not be equal to the arithmetic total of the column.

42. The annual fixed charges approved as above are subject to truing up in terms of Regulation 13 of the 2019 Tariff Regulations.

Normative Annual Plant Availability Factor (NAPAF)

43. Regulation 50(A)(4) of the 2019 Tariff Regulations provides for the Normative Annual Plant Availability Factor (NAPAF) for hydro generating stations already in operation.

44. The Respondent, UPPCL has stated that the Commission shall take into account the latest report of the Cost Auditors with regard to capacity utilization factor to decide on NAPAF. The Respondent, PSPCL has stated that NAPAF of 85% claimed by the Petitioner, if accepted, would amount to be a huge liability in the form of undue incentive payments to the Petitioner contrary to the categorical observations of the Commission in its order dated 27.1.2015 in Petition No. 184/GT/2015. Therefore, the Respondent, PSPCL has submitted that the Commission may revise NAPAF of the generating station to 95%-100% instead of 85% for the 2019-24 tariff period, based on past experience of the last five financial years, in accordance with Regulations 50A(c) of the 2019 Tariff Regulations.

45. In response, the Petitioner has clarified that the Commission in its order dated 16.5.2018 in Petition No. 150/MP/2016 has indicated that NAPA F of the generating station needs to be lower by 1.96% in comparison to NAPA F of Naptha Jhakri Project of the Petitioner, so that the generating station does not suffer in terms of capacity charges/ incentive. It has also stated that NAPA F allowed for the 2019-24 tariff period, has taken care of both factors i.e. Regulation 50(1)(c) of the 2019 Tariff Regulations and the Commission's order dated 16.5.2018 in Petition No. 150/MP/2016 by fixing NAPA F as 85%, so that this generating station does not suffer in terms of capacity charges/ incentive.

46. The matter has been examined. As stated, the Commission has notified the NAPA F of the generating station as 85% under Regulation 50(A)(4) of the 2019 Tariff Regulations. Thus, the statement of the Respondent UPPCL and PSPCL if accepted, would amount to review of the said regulation, which is not permissible in tariff determination proceedings. Also, The Respondent PSPCL has referred to the observations of the Commission in order dated 27.1.2015 in Petition No. 184/GT/2015 to seek revision of NAPA F of the generating station to 95%-100% instead of 85% for the 2019-24 tariff period. The observations of the Commission in the said order dated 27.1.2015 is as under:

"However, the same has been revised to 90% during the tariff period 2014-19, based on actual performance of the station during tariff period 2009-14. Thus, keeping in view the teething problems likely to be faced during initial years before stabilization of machines of this generating station, due to its tandem operation, as envisaged by the Petitioner, we allow NAPA F of 82% for a period of two years i.e. from 2014 to 2016. However, the NAPA F shall be reviewed after 2 years based on actual performance of the generating station, considering the fact that the Petitioner may not unduly earn any incentive, after teething problems are resolved."

47. Thus, the Commission, had considered the actual performance of the generating station, while notifying NAPA F of the generating station as 85% under



Regulation 50(A)(4) of the 2019 Tariff Regulations. In view of this, we find no reason to revise NAPAF of the generating station in exercise of the power to relax, as prayed by the Respondent PSPCL. Accordingly, the submissions of the Respondents are rejected and NAPAF of 85% is allowed to the generating station in terms of Regulation 50(A)(4) of the 2019 Tariff Regulations, for the 2019-24 tariff period.

Design Energy

48. CEA vide letter no. 201/18/2014-HPA/3218 dated 3.7.2014 has approved the annual Design Energy of the generating station as 1878.08 MU. Accordingly, the Design Energy of 1878.08 MU has been considered for the generating station for the 2019-24 tariff period as per month wise details as under:

Months	10 days monthly	Design Energy (MU)
April	1-10	27.26
	11-20	29.38
	21-30	31.97
May	1-10	55.73
	11-20	86.78
	21-31	100.30
June	1-10	68.34
	11-20	88.38
	21-30	64.39
July	1-10	77.21
	11-20	68.38
	21-31	96.17
August	1-10	98.47
	11-20	98.54
	21-31	107.41
September	1-10	98.35
	11-20	77.48
	21-30	58.40
October	1-10	46.21
	11-20	43.59
	21-31	44.19
November	1-10	38.54
	11-20	36.78
	21-30	34.00
December	1-10	31.85
	11-20	27.86
	21-31	30.09



January	1-10	25.86
	11-20	25.32
	21-31	27.46
February	1-10	22.04
	11-20	21.92
	21-29	18.09
March	1-10	22.35
	11-20	21.68
	21-31	27.31
Total		1878.08

Application filing fee and publication expenses

49. The Petitioner has sought reimbursement of fees paid by it for filing the petition and for publication expenses and has submitted that the reimbursement of the same are in accordance in terms of the Regulation 70(1) of the 2019 Tariff Regulations. In view of the above, the Petitioner shall be entitled for reimbursement of the filing fees and publication expenses in connection with the filing of this petition, directly from the beneficiaries, on pro-rata basis, in accordance with Regulation 70(1) of the 2019 Tariff Regulations.

50. Similarly, 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 recovery of statutory taxes, levies, duties, cess etc. levied by the statutory authorities in accordance with the 2014 Tariff Regulations.

51. The annual fixed charges as approved in para 41 above are subject to truing-up in terms of Regulation 13 of the 2019 Tariff Regulations.

Summary

52. The annual fixed charges allowed for the 2019-24 tariff period are summarized under:



<i>(Rs. in lakh)</i>				
2019-20	2020-21	2021-22	2022-23	2023-24
67250.31	67203.49	67429.29	67438.92	67333.20

53. Annexure-I and Annexure-II given hereinafter shall form part of the order.
54. Petition No. 28/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 Rate for 2019-24 tariff period

		Depreciation Rates as Per CERC Depreciation Rate Schedule	Gross Block					Depreciation				
			1.4.2019	1.4.2020	1.4.2021	1.4.2022	1.4.2023	2019-20	2020-21	2021-22	2022-23	2023-24
A	Land owned under full title	0.00	3,555.90	3,555.90	3,575.90	3,575.90	3,575.90	0.00	0.00	0.00	0.00	0.00
B	Land held under lease:		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	(a) for investment in land		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	(b) for cost of clearing site	0.00	0.00	0.00	0.00	0.00	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	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	0.00	0.00	0.00	0.00
	(i)Hydro electric	5.28	85,665.20	87,089.30	89,342.62	89,342.62	89,342.62	4,598.32	4,717.29	4,717.29	4,717.29	4,717.29
	(ii) Steam Electric NHRS & Waste Heat Recovery Boilers/Plants	5.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	(iii)Diesel-electric & gas plant	5.28	231.79	231.79	231.79	231.79	231.79	12.24	12.24	12.24	12.24	12.24
b	Cooling towers and circulating water systems	5.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00



		Depreciation Rates as Per CERC Depreciation Rate Schedule	Gross Block					Depreciation				
			1.4.2019	1.4.2020	1.4.2021	1.4.2022	1.4.2023	2019-20	2020-21	2021-22	2022-23	2023-24
c	Hydraulic Works Forming Part of Hydro-Electric system including		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	(i) Dams, Spillways weirs, canals reinforce Concrete Flumes and Syphons	5.28	8,335.64	8,335.64	8,335.64	9,856.47	9,856.47	440.12	440.12	520.42	520.42	520.42
	(ii) Reinforced concrete pipelines and surge tanks, steel pipelines sluice gates, steel surge (tanks), hydraulic control valves and other hydraulic works	5.28	2,09,286.40	2,09,286.40	2,09,286.40	2,09,286.40	2,09,286.40	11,050.32	11,050.32	11,050.32	11,050.32	11,050.32
H	Building and civil engineering works of a permanent character not mentioned above: -											
	(i) Offices & showrooms	3.34	5,072.72	5,175.92	5,175.92	5,175.92	5,175.92	172.88	172.88	172.88	172.88	172.88
	(ii) Containing thermo-electric generating plant	3.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	(iii) Powerhouse	3.34	43,149.79	44,139.58	47,788.51	50,051.43	50,051.43	1,474.26	1,596.14	1,671.72	1,671.72	1,671.72
	(iv) Temporary erection such as wooden structures	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	(v) Roads other than kutcha roads	3.34	2,282.77	2,360.85	2,360.85	2,360.85	2,360.85	78.85	78.85	78.85	78.85	78.85
	(vi) Others	3.34	10,975.06	11,487.02	12,730.25	12,730.25	12,730.25	383.67	425.19	425.19	425.19	425.19



		Depreciation Rates as Per CERC Depreciation Rate Schedule	Gross Block					Depreciation				
			1.4.2019	1.4.2020	1.4.2021	1.4.2022	1.4.2023	2019-20	2020-21	2021-22	2022-23	2023-24
e	Transformers, transformer (Kiosk) substation equipments & other fixed apparatus (including plant foundations)											
	(i) Transformers (including foundations) having a rating of 100 Kilo volt amperes and over	5.28	9,114.92	9,114.92	9,114.92	9,114.92	9,114.92	481.27	481.27	481.27	481.27	481.27
	(ii) Others	5.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
f	Switchgear, including cable connections	5.28	22,611.68	22,611.68	22,611.68	22,611.68	22,611.68	1,193.90	1,193.90	1,193.90	1,193.90	1,193.90
g	Lightning arrestors:	5.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	(i) Station type	5.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	(ii) Pole type	5.28	0.00	0.00	0.00	0.00	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	0.00	0.00	0.00	0.00
h	Batteries:	5.28	469.08	469.08	469.08	469.08	469.08	24.77	24.77	24.77	24.77	24.77
	(i) Underground Cable including joint boxes and Disconnected boxes	5.28	1,922.58	1,922.58	1,922.58	1,922.58	1,922.58	101.51	101.51	101.51	101.51	101.51
	(ii) Cable Duct system	5.28	2,999.58	2,999.58	2,999.58	2,999.58	2,999.58	158.38	158.38	158.38	158.38	158.38
i	Overhead lines including supports:	5.28										
	(i) Lines on Fabricated steel operating at nominal voltage higher than 66 KV	5.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00



		Depreciation Rates as Per CERC Depreciation Rate Schedule	Gross Block					Depreciation				
			1.4.2019	1.4.2020	1.4.2021	1.4.2022	1.4.2023	2019-20	2020-21	2021-22	2022-23	2023-24
	(ii) Lines on Steel supports operating at nominal voltage higher than 13.2 Kilo volts but not exceeding 66 Kilo volts	5.28	935.13	935.13	935.13	935.13	935.13	49.37	49.37	49.37	49.37	49.37
	(iii) Lines on steel or reinforce concrete supports	5.28	0.00	0.00	0.00	0.00	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	0.00	0.00	0.00	0.00
j	Meters	5.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
k	Self propelled vehicles	9.50	448.68	448.68	448.68	448.68	448.68	42.62	42.62	42.62	42.62	42.62
l	Air conditioning plants:											
	(i) Static	5.28	344.85	344.85	344.85	344.85	344.85	18.21	18.21	18.21	18.21	18.21
	(ii) Portable	9.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
m	(i) Office furniture and fittings	6.33	292.09	292.09	292.09	292.09	292.09	18.49	18.49	18.49	18.49	18.49
	(ii) Office equipments:	6.33	503.24	503.24	503.24	503.24	503.24	31.85	31.85	31.85	31.85	31.85
	(iii) Internal wiring including fittings and apparatus	6.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	(iv) Street light fittings	5.28	584.42	584.42	584.42	584.42	584.42	30.86	30.86	30.86	30.86	30.86
n	Apparatus let on hire:											
	(i) Other than motors	9.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00



		Depreciation Rates as Per CERC Depreciation Rate Schedule	Gross Block					Depreciation				
			1.4.2019	1.4.2020	1.4.2021	1.4.2022	1.4.2023	2019-20	2020-21	2021-22	2022-23	2023-24
	(ii) Motors	6.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
o	Communication equipment:											
	(i) Radio and higher frequency carrier system	6.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	(ii) Telephone lines and telephones	6.33	395.13	395.13	395.13	395.13	395.13	25.01	25.01	25.01	25.01	25.01
p	I. T equipments	15.00	97.96	97.96	97.96	97.96	97.96	14.69	14.69	14.69	14.69	14.69
	Any other Assets not included in above											
q	(i) Capital Expenditure not represented by assets	5.28	2,383.00	2,383.00	2,383.00	2,383.00	2,383.00	125.82	125.82	125.82	125.82	125.82
	(ii) Compensatory Afforestation	5.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	(iii) Preliminary Exp.	5.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	(iv) Normative interest on notional loan**	5.28	3,249.21	3,249.21	3,249.21	3,249.21	3,249.21	171.56	171.56	171.56	171.56	171.56
	Total		4,14,906.81	4,18,013.94	4,25,179.42	4,28,963.17	4,28,963.17	20,698.97	20,981.34	21,137.22	21,137.22	21,137.22
	Rate of Depreciation (%)							4.95	4.93	4.93	4.93	4.93
	Weighted Average Rate of Depreciation (%)							4.95	4.93	4.93	4.93	4.93



Annexure II**Depreciation for the 2019-24 Tariff Period**

	<i>(Rs. in lakh)</i>				
	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Capital Cost	408359.79	409658.02	414965.32	418749.07	418749.07
Closing Capital Cost	409658.02	414965.32	418749.07	418749.07	418749.07
Average Capital Cost	409008.91	412311.67	416857.19	418749.07	418749.07
Remaining Depreciable Value	274792.59	257512.01	241256.63	222418.61	201784.69
Balance Life	35.71	34.71	33.71	32.71	31.71
Depreciation during the period	20253.06	20346.36	20540.70	20633.92	20633.92
Effective Weighted Average Rate of Depreciation	4.95%	4.93%	4.93%	4.93%	4.93%