the generating company or the transmission licensee during the pendency of any dispute arising out of re-financing of loan."

60. Regulation 26(5) of the 2014 Tariff Regulations provides for consideration of actual loan portfolio at the beginning of each year for computation of weighted average rate of interest. Accordingly, the weighted average rate of interest has been worked out on the basis of the actual loan portfolio of the respective year applicable to the project. The repayment for the 2014-19 tariff period has been considered equal to the depreciation allowed for the respective years. Interest on loan has been calculated on the normative average loan of the year by applying the weighted average rate of interest. Accordingly, Interest on loan is worked out as under:

(Rs. in lakh)

	2014-15	**2015-16**	**2016-17**	**2017-18**	**2018-19**
Gross Normative Loan (A)	317290.76	321530.82	322009.85	322955.77	323283.09
Cumulative repayment of loan up to previous year (B)	172626.01	199487.00	226370.42	253404.58	280450.72
Net Loan Opening (C)=(A)-(B)	144664.75	122043.82	95639.42	69551.19	42832.37
Repayment during the year (D)=Depreciation	26882.89	27000.30	27034.89	27056.88	27261.85
Cumulative repayment adjustment on a/c of de-capitalization (E)	21.90	116.88	0.73	10.74	2.11
Net Repayment (F)=(D)-(E)	26860.99	26883.43	27034.16	27046.14	27259.74
Addition due to additional capital expenditure (G)	4240.06	479.03	945.92	327.32	85.85
Net Loan Closing (H)= (C+G-F)	122043.82	95639.42	69551.19	42832.37	15658.48
Average Loan(I)=[(C+H)/2]	133354.28	108841.62	82595.31	56191.78	29245.42
Weighted Average Rate of Interest of loan (J)	8.02	8.12	8.23	8.11	7.45
Interest on Loan (K)=(I*J)	**10698.18**	**8838.35**	**6800.72**	**4556.55**	**2178.72**

Depreciation

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

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

the transmission system taking into consideration the depreciation of individual units or elements thereof.

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

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

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

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

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

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

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

(6) In case of the existing projects, the balance depreciable value as on 1.4.2014 shall be worked out by deducting the cumulative depreciation as admitted by the Commission up to 31.3.2014 from the gross depreciable value of the assets.
(7) The generating company or the transmission license, as the case may be, shall submit the details of proposed capital expenditure during the fag end of the project (five years before the useful life) along with justification and proposed life extension. The Commission based on prudence check of such submissions shall approve the depreciation on capital expenditure during the fag end of the project.

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

62. The weighted average rate of depreciation has been calculated by the Petitioner in accordance with Regulation 27 of the 2014 Tariff Regulations.The calculation of WAROD is enclosed as Annexure-I to this order. Accordingly, depreciation has been worked out as under:

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross block (A)	515959.43	520199.49	520678.52	521624.44	521951.76
Net Additional capital expenditure during 2014-19 (B)	4240.06	479.03	945.92	327.32	85.85
Closing gross block (C)=(A+B)	520199.49	520678.52	521624.44	521951.76	522037.61
Average gross block (D)=[(A+C)/2]	518079.46	520439.00	521151.48	521788.10	521994.69
Depreciable Value (E)=(D*90%)	466271.51	468395.10	469036.33	469609.29	469795.22
Remaining Depreciable Value at the beginning of the year (F)=[(E)-(Cum Dep at 'L' at the end of previous year)]	293646.50	268909.10	242666.91	216205.71	189345.50
Rate of Depreciation (G)	5.1890%	5.1880%	5.1875%	5.1854%	5.2226%
Balance useful Life (H)	27.01	26.01	25.01	24.01	23.01
Depreciation (I)=(D*G)	**26882.89**	**27000.30**	**27034.89**	**27056.88**	**27261.85**
Cumulative Depreciation at the end of the year (J)=[(I)+(Cum Dep at 'L' at the end of previous year)]	199507.90	226486.30	253404.31	280460.46	307711.57
Less: Depreciation adjustment on account of de-capitalization (K)	21.90	116.88	0.73	10.74	2.11
Cumulative Depreciation at the end of the year (L)*	**199486.00**	**226369.42**	**253403.58**	**280449.72**	**307709.47**

**Cumulative Depreciation as on 31.3.2014 is 172625.01*

Operation & Maintenance Expenses

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

> *"29(3)(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 1.4.2014:*

(Rs. in lakh)

2014-15	***2015-16***	***2016-17***	***2017-18***	***2018-19***
13746.97	*14660.32*	*15634.36*	*16673.10*	*17780.86*

64. The generating station is in operation for three or more years as on 1.4.2014. Accordingly, the year-wise O&M expenses is allowed in terms of Regulation 29(3)(a) of the 2014 Tariff Regulations.

Additional O&M expenses

Impact of Goods & Services Tax

65. The Petitioner has also claimed reimbursement of additional tax paid due to implementation of GST in respect of generating station as additional O&M expenses and for this purpose, it has prayed for relaxation of the provisions of Regulation 29(3) in exercise of the powers under Regulation 54 and Regulation 55 of the 2014 Tariff Regulations. The Petitioner has further submitted that the implementation of GST is a "Change in law" event and the impact of the same should be passed through in tariff. As such, the tax paid in O&M expenses of plants (service portion) is claimed over and above the O&M expenses of the respective power stations. The Petitioner has submitted that it had filed Petition No. 133/MP/2019, which was disposed of by the Commission vide its order dated 22.8.2019, granting liberty to the Petitioner to raise the claim for reimbursement of additional tax on O&M expenses due to implementation of GST Act, 2017 along with the truing up petition for the 2014-19 tariff period. The additional impact of GST in 2017-18 (1.7.2017 to 31.3.2018) and 2018-19 as submitted by the Petitioner, duly certified by statutory auditors, are as under:

Additional Impact of GST on O&M Expenses (in Rs.)			
2017-18	**2018-19 (01.04.2018 to 31.12.2018)**	**2018-19 (01.01.2019 to 31.03.2019)**	**Total**
47066620	61543940	24104832	132715392

66. The matter has been considered. It is observed that the Commission while specifying the O&M expense norms for the 2014-19 tariff period had considered

taxes to form part of the O&M expense calculations and, accordingly, had factored the same in the said norms. This is evident from paragraph 49.6 of the SOR (Statement of Objects and Reasons) to the 2014 Tariff Regulations, which is extracted hereunder:

> *"49.6 With regards to suggestion received on other taxes to be allowed, the Commission while approving the norms of O&M expenses has considered the taxes as part of O&M expenses while working out the norms and therefore the same has already been factored in..."*

67. Further, the escalation rates considered in the O&M expense norms under the 2014 Tariff Regulations is only after accounting for the variations during the past five years of the 2014-19 tariff period, which in our view, takes care of any variation in taxes also. It is pertinent to mention that in case of reduction of taxes or duties, no reimbursement is ordered. In this background, we find no reason to allow the prayer for grant of additional O&M expenses towards payment of GST.

Impact of Wage revision

68. Since the Petitioners claim for recovery of impact of wage revision of the Petitioners employees and deputed employees of Kendriya Vidyalaya (KV) / Dayanand Anglo Vedic (DAV) & Central Industrial Security Force (CISF) in respect of this generating station for the period from 1.1.2016 to 31.3.2019 has been considered and disposed of by the Commission in its order dated 13.11.2021 in Petition No. 221/MP/2019, the same has not been considered in this order.

Capital Spares

69. The last proviso to Regulation 29(2) of the 2014 Tariff Regulations provides as under:

> *"Provided that the generating station shall submit the details of year wise actual capital spares consumed at the time of truing up with appropriate justification for incurring the same and substantiating that the same is not funded through compensatory allowance or special allowance or claimed as a*

part of additional capitalization or consumption of stores and spares and renovation and modernization".

70. In terms of the above proviso, capital spares consumed are admissible separately, at the time of truing up of tariff, based on the details furnished by the Petitioner. The capital spares (not forming part of capital cost) claimed by the Petitioner are as under:

(Rs. in lakh)

2014-15	2015-16	2016-17	2017-18
336.60	221.92	97.56	203.11

71. The Respondent BRPL and Respondent TPDDL have submitted that, there is no provision to capitalize the capital spares in respect of hydro power stations in the 2014 Tariff Regulations and therefore, the claim of the Petitioner has no basis. The Respondent, UPPCL has submitted that the Petitioner has failed to submit the necessary details, substantiating that the same are not part of repair and maintenance expenditure of the power station. In response, the Petitioner has submitted that the Commission had not considered capital spares as part of O&M expenses, while notifying O&M norms for the period 2014-19 and hence the consumption of capital spares has been claimed.

72. We have examined the list of spares furnished by the Petitioner. It is pertinent to mention that the term 'capital spares' has not been defined in the 2014 Tariff Regulations. The term capital spares, in our view, is a piece of equipment, or a spare part, of significant cost that is maintained in inventory for use in the event that a similar piece of critical equipment fails or must be rebuilt. Keeping in view the principle of materiality and to ensure standardized practices in respect of earmarking and treatment of capital spares, the value of capital spares exceeding Rs.1.00 lakh, on prudence check of the details furnished by the Petitioner in the Petition, has been

considered for the purpose of tariff. Based on this, the details of capital spares consumption allowed for the 2014-19 tariff period is summarized as under:

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18
Total capital spares consumed claimed	336.60	221.92	97.56	203.11
Less: Value of capital spares below Rs.1.00 lakh disallowed on individual basis	15.86	6.31	5.59	3.39
Net total value of capital spares considered	**320.74**	**215.61**	**91.97**	**199.73**

73. Further, we are of the view that spares do have a salvage value. Accordingly, in line with the practice of considering salvage value, presumed to be recovered by the Petitioner on sale of capital assets, on becoming unserviceable, the salvage value of 10% has been deducted from the cost of capital spares considered above for 2014-19 tariff period. Therefore, on prudence check of the information furnished by the Petitioner and on applying the said ceiling limit along with deduction of the salvage value @10%, the net capital spares allowed in terms of Regulation 29(2) of 2014 Tariff Regulations is as under:

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18
Net total value of capital spares considered	320.74	215.61	91.97	199.73
Less: Salvage value @ 10%	32.07	21.56	9.20	19.97
Net capital spares allowed	**288.67**	**194.05**	**82.77**	**179.75**

Interest on Working Capital

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

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

Working capital for Receivables

75. Accordingly, the Receivable component of working capital has been worked out on the basis of two months of fixed cost as under:

(Rs. in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19
15896.87	15794.63	15624.41	15428.21	15271.19

Working capital for Maintenance Spares

76. Maintenance spares @15% of O&M expenses are worked out and allowed as under:

(Rs. in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19
2062.05	2199.05	2345.15	2500.97	2667.13

Working capital for O&M Expenses

77. O&M expenses for 1 month for the purpose of working capital are as under:

(Rs. in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19
1145.58	1221.69	1302.86	1389.43	1481.74

Rate of Interest on Working Capital

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

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

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

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Working capital for O&M Expenses (one month)	1145.58	1221.69	1302.86	1389.43	1481.74
Working capital for Maintenance Spares @15% of O&M expenses	2062.05	2199.05	2345.15	2500.97	2667.13
Working capital for Receivables	15896.87	15794.63	15624.41	15428.21	15271.19

	2014-15	2015-16	2016-17	2017-18	2018-19
Total working capital	**19104.50**	**19215.37**	**19272.43**	**19318.60**	**19420.06**
Rate of Interest on Working Capital (%)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	**2579.11**	**2594.07**	**2601.78**	**2608.01**	**2621.71**

Annual Fixed Charges

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

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	26882.89	27000.30	27034.89	27056.88	27261.85
Interest on Loan	10698.18	8838.35	6800.72	4556.55	2178.72
Return on Equity	41474.07	41674.73	41674.73	41674.73	41783.99
O&M Expenses	13746.97	14660.32	15634.36	16673.10	17780.86
Interest on Working Capital	2579.11	2594.07	2601.78	2608.01	2621.71
Total	**95381.22**	**94767.77**	**93746.47**	**92569.27**	**91627.14**

Normative Annual Plant Availability Factor (NAPAF)

81. Since NAPAF of 90% as claimed by the Petitioner is in accordance with Regulation 37(4) of the 2014 Tariff Regulations, the same is allowed.

Design Energy (DE)

82. The Commission in its order dated 30.5.2011 in Petition No.60/2010 had approved the annual Design Energy (DE) of 1907 Million units for the period 2009-14 in respect of this generating station. This DE has been considered for this generating station for the period 2014-19 as per month-wise details as under:

Months	Design Energy (MU)
April	110.7
May	230.3
June	266.7
July	275.6
August	275.6
September	261.3
October	134.5
November	84.0
December	73.4
January	64.3

Months	Design Energy (MU)
February	55.6
March	74.6
Total	**1907**

83. The difference between the annual fixed charges recovered by the Petitioner in terms of order dated 30.8.2016 in Petition No. 231/GT/2014 and the annual fixed charges determined by this order shall be adjusted in terms of the provisions of Regulation 8 (13) of the 2014 Tariff Regulations.

DETERMINATION OF TARIFF FOR THE 2019-24 TARIFF PERIOD

84. The Petitioner, in this petition, has also sought determination of tariff of the generating station for the 2019-24 tariff period, in terms of the provisions of the 2019 Tariff Regulations. The annual fixed charges claimed by the Petitioner for the 2019-24 tariff period are as under:

Annual Fixed Charges claimed

(Rs. in lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	27417.04	5081.44	5096.61	5115.71	5134.28
Interest on Loan	593.83	0.00	0.00	0.00	0.00
Return on Equity	39798.71	39827.92	39839.84	39855.25	39870.43
O&M Expenses	21718.63	22753.96	23838.65	24975.06	26165.63
Interest on WC	2116.73	1818.00	1872.34	1929.37	1989.08
Total	**91644.94**	**69481.33**	**70647.44**	**71875.39**	**73159.42**

Capital Cost

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

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

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

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

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

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

(e) Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal 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…."

86. The Petitioner vide Form-1i of the petition has claimed capital cost as follows:

(Rs. in lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Capital Cost	523756.71	524630.46	524960.79	525379.13	525954.13
Add: Addition during the year / Period	1302.75	413.76	465.32	575.00	452.00
Less: De-capitalisation during the year/period	473.62	88.95	46.98	0.00	36.05
Add: Discharges during the period	44.63	5.53	0.00	0.00	0.00
Closing Capital Cost	**524630.46**	**524960.79**	**525379.13**	**525954.13**	**526370.08**

87. The Commission in paragraph 52 of this order had allowed the closing capital cost of Rs.522037.61 lakh, as on 31.3.2019. Accordingly, in terms of Regulation 19(3) of the 2019 Tariff Regulations, the capital cost of Rs.522037.61 lakh, as on 31.3.2019, has been considered as the opening capital cost as on 1.4.2019, for the purpose of determination of tariff for the 2019 tariff period.

Discharge of liabilities

88. The Petitioner has claimed following discharge of liabilities during the tariff period 2019-24:

(Rs. in lakh)

2019-20	2020-21	2021-22	2022-23	2023-24
44.63	5.53	0.00	0.00	0.00

89. The year-wise discharge of liabilities as claimed in Form-16 has been allowed. However, the Petitioner is directed to submit the reconciliation statement, showing details of such liabilities as per balance sheet for the 2019-24 tariff period, duly certified by auditor, and also furnish the break-up of discharges included in the liabilities discharged within the original scope of work or other than within the original scope of work of the project, at the time of truing-up of tariff.

Additional Capital Expenditure

90. Clause (2) of Regulation 9 of the 2019 Tariff Regulations provides that the application for determination of tariff shall be on admitted capital cost including additional capital expenditure already admitted and incurred up to 31.3.2019 (either based on actual or projected additional capital expenditure) and estimated additional capital expenditure for the respective years of the 2019-24 tariff period along with the true up for the 2014-19 period in accordance with the 2014 Tariff Regulations.

91. Regulation 25 of the 2019 Tariff Regulations provides as under:

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

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

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

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

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

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

(e) Force Majeure events;

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

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

(2) In case of replacement of assets deployed under the original scope of the existing project after cut-off date, the additional capitalization may be admitted by the

Commission, after making necessary adjustments in the gross fixed assets and the cumulative depreciation, subject to prudence check on the following grounds:

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

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

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

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

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

26. Additional Capitalization beyond the original scope

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

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

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

(c) Force Majeure events;

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

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

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

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

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

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

from the 2014-19 tariff period. Based on this, the details of additional capital expenditure claimed by the Petitioner are as under:

(Rs. in lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24
Gross Capital Cost as on 31.3.2019: Rs.523756.71					
Opening cumulative capitalized expenditure projected at the beginning of respective years	523756.71	524630.46	524960.79	525379.13	525954.13
Regulation 25(1)(a)	0.00	0.00	0.00	375.00	0.00
Regulation 25 (2)(a)	21.43	166.22	99.58	0.00	75.00
Regulation 25(2)(b)	0.00	0.00	10.00	0.00	0.00
Regulation 25(2)(c)	1147.41	46.56	8.67	0.00	20.00
Regulation 25(2)(d)	0.00	0.00	0.00	0.00	0.00
Regulation 26(1)(a)	0.00	30.00	0.00	0.00	0.00
Regulation 26(1)(b)	20.48	0.00	170.00	70.00	0.00
Regulation 26(1)(d)	113.43	192.98	177.07	130.00	357.00
Total projected additional capital expenditure to be incurred	**1302.76**	**435.76**	**465.32**	**575.00**	**452.00**

94. We examine the additional capital expenditure claimed by the Petitioner, on prudence check, as stated in the subsequent paragraphs.

Additional Capital Expenditure for 2019-20

95. The Petitioner has claimed total projected additional capital expenditure of Rs.1302.76 lakh in 2019-20 under the provisions of Regulation 25 and Regulation 26 of the 2019 Tariff Regulations which are discussed below:

(Rs. in lakh)

Sl. No.	Regulation		2019-20
1	25(2)(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	21.43
2	25(2)(c)	The replacement of such asset or equipment is necessary on account of obsolescence of technology	1147.41
3	26(1)(b)	Change in law or compliance of any existing law	20.48
4	26(1)(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	113.43
5	**Total projected additional capital expenditure as per Form 9A**		**1302.76**

(a) Claims under Regulation 25(2)(a) of the 2019 Tariff Regulations

(Rs. in lakh)

Head of Work/ Equipment	Actual additional capital expenditure claimed	Justification submitted by the Petitioner	Remarks on Admissibility	Amount Allowed
Purchase of Pump & Motors for water supply	8.84	The Petitioner has claimed this item as replacement item. The Power Station has set up a water lift supply system of 310 Meter head with100 Cubic Meter/Hour water pumping capacity to cater the need of water supply for office and residential purpose. This item was purchased and capitalized in 2010-11. The use is to lift the drinking water from old HRT site to Colony of Power Station at Chenab Nagar. The existing item was got repaired and but still giving trouble and not functioning properly and is now beyond economic repair. As Drinking water is essential requirement the employees cannot work efficiently if water supply to their houses are improper. So, this motor pump set is required to be replaced with new one for efficient and effective functioning. Now after replacement the new pump will cater the need of water supply to residential and official purpose efficiently and without any trouble. P.O. placed on 20.9.2018 for Rs. 8.84 lakh with 6 Months delivery period. The pump and motor so purchased, has been installed at Stage-III of lift water scheme. The actual date of 'put-to-use is 1.4.2019. The gross value of existing asset is not available. Derived original value of the asset is Rs 3.95 lakh considering the de-accelerate rate @6% p.a.	Since the expenditure claimed is in the nature of O&M expenses and does not directly relate to the operation of the plant, the claim of the Petitioner is **not allowed.**	0.00
Supply Installation and Commissioning of EPABX System for Dulhasti Power Station	12.59	The Petitioner has submitted that the existing telephone exchange was acquired on 9.3.1988 (CG Make) and it is not functional as its support service is not available in the market due to which we are not able to get it repaired. For internal communication of Power Station components such as Main Office, Powerhouse, Dam, Store and with security agency CISF, its very important and effective communication medium. During the recent ban on mobile phone communication by Govt. of India in J&K, its need was felt at the most.	The Petitioner has submitted that the additional capital expenditure claimed is towards the replacement of the existing asset, which was deployed under the original scope of the Project. It has stated that the old asset has completed its useful life and as	12.59

Head of Work/ Equipment	Actual additional capital expenditure claimed	Justification submitted by the Petitioner	Remarks on Admissibility	Amount Allowed
		After replacement with new Telephone Exchange, Power Station will have an effective internal communication medium for smooth operation of Power Station. S.O. has been placed on 28.11.2018 and is likely to be capitalized in 2019-20, The present gross block amount is Rs. 5.39 lakh only.	such the additional capitalization claimed is for the replacement of the said asset. The Petitioner has further submitted that it has claimed de-capitalisation of Rs.5.39 lakh for this asset, which have been considered under 'De-capitalization' in paragraph 105 of this order. In view of this, the additional capital expenditure claimed is **allowed**	
Total mount claimed	**21.43**			
Total amount allowed				**12.59**

(b) Claims under Regulation 25(2)(c) of the 2019 Tariff Regulations

(Rs. in lakh)

Head of Work/ Equipment	Actual additional capital expenditure claimed	Justification submitted by the Petitioner	Remarks on Admissibility	Amount allowed
Renovation/ upgradation of SCADA and Controller System and excitation system	1108.20	The software uploading interface of the controllers is a floppy based console which has become obsolete. The technical service support for the system is not available from the OEM. Black start of the power station is not possible in the present system. Also Power system stabilizer (PSS) feature and N+1 thyristor bridge configuration in line with the Commissions Regulations are not available in excitation system. In addition the present SCADA system either malfunctions or hangs now & then, subsequently leading to tripping of the units. The For this following P.O.s have been placed:- 1.NH/Conts(E&M)-1/Dul-10 /PR10915/177/SO-7/2017/154, dated 14.3.2017, supply completed, work in progress and is likely to be capitalized in 2019-20.	The Petitioner has submitted that the existing asset has now become obsolete, and no service support is available from OEM. Considering the fact that the Petitioner has claimed the expenditure for replacement of asset on account of obsolescence of technology, the additional capital expenditure claimed is **allowed** under Regulation 25(2)(c) of the 2019 Tariff	1108.20

Head of Work/ Equipment	Actual additional capital expenditure claimed	Justification submitted by the Petitioner	Remarks on Admissibility	Amount allowed
		2. Modification in Programming, setting and Tuning of existing Governor of each Unit for interfacing with new SCADA, awarded on 10.12.2018 (Rs. 56.45 Lakh). Work in progress and is likely to be capitalized in 2019-20. Additional Information 1. The work of upgradation of SCADA, Controller System and excitation system" was started in the year 2018-19 during annual maintenance and completed & capitalised in the year 2019-20 on 03.02.2020. There was some technical problem witnessed in Unit # 3, therefore the work in Unit#1 & 2 was taken up in the next year during annual maintenance (2019-20). 2. The installation of the Control and monitoring (SCADA) system was completed on 03.02.2020. and the tuning of governor with new SCADA system was completed on 20.02.2020.The total capitalized value of the work is Rs. 105477415/- (Rs.100134903/- for SCADA, protection and Excitation system and Rs. 5342511/- for modification in programming, setting and tuning of existing governor with new SCADA system. 3. The installation shall result in more efficient operation, monitoring of generating assets to ensure optimum operation. Moreover, upgraded systems is envisaged to give protection from cyber threats, firmware malfunction etc. Since the work involves with operation and maintenance of generating units and asset management, it is beneficial to the beneficiaries. The value of old asset is Rs 446.97 lakhs.	Regulations on replacement basis. The Petitioner has submitted the de-capitalisation value of Rs.446.97 lakh for old asset against which the expenditure is claimed. Accordingly, the same has been considered under 'De-capitalization' in paragraph 105 of this order. The Petitioner is, however directed to submit management certificate of competent authority with regard to certification for obsolescence of old asset at the time of truing up of tariff.	
Replacement of Control panel for Fire alarm system of Power House	15.93	The existing Fire Fighting system being old hangs & mal-operates and giving false signals to the operator creating panic. sometimes it may also cause unwanted outage of GSU transformers leading to generation loss. To avoid this type of unwanted problems as well as any generation loss, the existing Fire Fighting system has proposed to be replaced	It is evident from the Petitioner's submission that the claim is for replacement of equipment as considered necessary for the functioning of plant. In view of this, the	15.93

Head of Work/ Equipment	Actual additional capital expenditure claimed	Justification submitted by the Petitioner	Remarks on Admissibility	Amount allowed
		with the modern firefighting system. The P.O. for the same has been placed on 28.2.2019 for Rs. 15.93 Lakh and is likely to be capitalized in FY 2019-20.The gross value of existing assets is not available. Derived original value of the asset is Rs 7.11 lacs considering the de-accelerate rate @6% p.a.	additional capital expenditure claimed is **allowed.** Further the Petitioner has also submitted gross block of the asset as Rs. 7.11 lakh and the same has been considered as de-capitalization.	
Penstock discharge Measurement system for turbine units	23.28	The existing penstock discharge measurement system which was capitalized along with commissioning of the Power Station in 2007, is not working due to choking of embedded pressure taps and not possible to repair the embedded pressure taps. Therefore, installation of discharge measurement instruments/flow meter is proposed in all generating units of penstock i.e. upstream of MIV for providing discharge through units as per flow meter data. This discharge measuring system will be utilized for monitoring / improvement of efficiency of the Power station/Units. The work is proposed in a phased manner. The gross value of existing asset is not available. Derived original value of the asset is Rs 10.20 lakh considering the de-accelerate rate @6% p.a for unit-1 only.	It is evident from the Petitioner's submission that the claim is for replacement of equipment as considered necessary for the functioning of plant. In view of this, the additional capital expenditure claimed is **allowed.** Further, the Petitioner has also submitted gross block of the asset as Rs. 10.20 lakh and the same has been considered as de-capitalization.	23.28
Total mount claimed	**1147.41**			
Total amount allowed				**1147.41**

(c) Claims under Regulation 26(1)(b) of the 2019 Tariff Regulations

(Rs in lakh)

Head of Work/ Equipment	Actual additional capital expenditure claimed	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed
Installation of incinerator along with construction of CGI shed for incinerator for Power House, DPS, Kishtwar.	20.48	As per the guidelines/norms issued by Central/J&K State Pollution Control Board in a proper and environmentally friendly manner through without causing any deterioration to the existing environment. The CTO of Dulhasti Power Station has been granted in	The Petitioner has claimed the installation of incinerator under change in law and has provided the documentary evidence in support	20.48

Head of Work/ Equipment	Actual additional capital expenditure claimed	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed
		the Red category. As such to comply with the above-mentioned norms incinerator of capacity 30kg/hr which is a pollution control device has been installed for handling of Solid Waste as per Solid Waste handling and management rules 2016. After installation, all the solid waste generated from power house shall be properly disposed off instead of dumping in open area. P.O. for Rs. 20.483 Lakh was placed on 10.1.2018. An amount of Rs.4.56 Lakh has been capitalised in FY 2018-19 for construction of CGI Shed.	of the same. Since the requirement of incinerator is in accordance with the norms/guidelines of the J&K Pollution control Board, the expenditure for the same is **allowed**	
Total amount claimed	**20.48**			
Total amount allowed				**20.48**

(d) Claims under Regulation 26(1)(d) of the 2019 Tariff Regulations

(Rs in lakh)

Head of Work/ Equipment	Actual additional capital expenditure claimed	Justification submitted by the Petitioner	Admissibility on admissibility	Amount Allowed
P/F of CGI sheets/Ceiling in MAT (Main Access Tunnel) and Ventilation Tunnel at Power House	23.43	Dulhasti Power Station being an underground Powerhouse, has a Main Access Tunnel (MAT) and Ventilation Tunnel to enter the Powerhouse. The tunnel has developed cracks and loose rocks are also falling as well as water is also seeping from the roof. Therefore, for safety of powerhouse as well as safety of staff and visitors using the tunnel and to channelize the seepage water, work has been awarded on 6.3.2019. The MAT is used for movement of all the manpower and materials into the powerhouse. The ventilation tunnel is used for movement of materials, draft tube operation as well as escape route for emergency powerhouse evacuation. Falling loose rocks may cause accident leading to damage of life / property. This has been pointed out and advised by the Safety Officer of the Power Station as well as the Security Agency CISF from time to time as their staff is also posted	Since the expenditure claimed is in the nature of O&M expenses and the Petitioner has also not furnished any documentary evidence in support of the claim. In view of this, the expenditure claimed is **not allowed.**	0.00

Head of Work/ Equipment	Actual additional capital expenditure claimed	Justification submitted by the Petitioner	Admissibility on admissibility	Amount Allowed
		inside the tunnel. CGI sheets has been installed as a safety measure.		
Construction of permanent boundary wall of Semna and Shalimar colony	40.00	It is submitted that an amount of Rs. 288.78 has been capitalized during the 2014-19. However the complete area could be covered and there are still some places where security wall is required for which an amount of Rs.80 lakh has been proposed. Barbered wire fencing at several locations have been planned to be replaced with permanent boundary wall based on the requirement of CISF and security survey. These works are large in volume hence planned to be taken up in phase manner. Boundary walls are required as per recommendations of security agency . In this head following works has been awarded so far:- 1.Construction of boundary wall right bank near timber hut and CISF observation post and A-Coy area at Shalimar for Rs.35.42 lakh awarded on 13.11.2018 with 6 months completion period. Work is in progress. 2.Construction of permanent boundary wall on right bank of nallah from back side of club to STP at Shalimar, DPS Kishtwar, work awarded for Rs. 30.62 Lakh. 3.Boundary wall around Hospital Building and increasing the height with concertina coil for security and installation of steel gate at main entry of Shalimar Colony, Parking area, DPS Kishtwar for Rs.11.73 Lakh awarded on 15.03.2019.	It is noticed that the additional capital expenditure claimed for the asset/ work was earlier allowed vide order dated 30.8.2016 in Petition No. 231/GT / 2014 for Rs. 27.04 lakh and Rs. 90.00 lakh during 2014-15 and 2015-16 respectively based on the recommendations of IB. Further, the Commission had approved Rs. 150 lakh during the period 2009-14. As the Commission had already allowed additional capital expenditure claimed for this asset/works during the earlier tariff periods as stated above, we find **no reason to allow** the additional expenditure claimed by the Petitioner.	0.00
Security Gadgets- Tyre Killer, Binoculars Day / Night Vision, Baggage X-Ray Machine etc.	50.00	As per the record of discussion held on the meeting taken by Joint Secretary & CVO, MoP with IG (NS), CISF in the presence of CMD NHPC regarding security of vital installations of NHPC located in J&K on 15.4.2019, Security gadgets are required for CISF unit, DPS. Taking into account the security scenario of J&k , a proposal for purchase of security gadgets amounting to Rs 100 lacs has been prepared.	The expenditure is related to the security and safety of the generating station as advised by CISF and the Petitioner has also furnished relevant documentary evidence in support of the same. In view of this, the expenditure claimed is **allowed**	50.00
Total amount claimed	**113.43**			

Head of Work/ Equipment	Actual additional capital expenditure claimed	Justification submitted by the Petitioner	Admissibility on admissibility	Amount Allowed
Total amount allowed				**50.00**

96. Based on the above, the total additional expenditure of Rs.1230.49 lakh (Rs.12.59 lakh +Rs.1147.41 lakh + Rs.20.48 lakh + Rs.50.00 lakh) in 2019-20 is allowed.

Additional Capital Expenditure for 2020-21

97. The Petitioner has claimed projected additional capital expenditure of Rs.435.76 lakh in 2020-21 under the provisions of Regulation 25 and Regulation 26 of the 2019 Tariff Regulations which are discussed under:

(Rs. in lakh)

Sl. No.	Regulations		2020-21
1	25(2)(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	166.22
2	25(2)(c)	The replacement of such asset or equipment is necessary on account of obsolescence of technology	46.56
3	26(1)(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;	30.00
4	26(1)(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	192.98
5	**Total additional capital expenditure claimed as per Form 9A**		**435.76**

(a) Claims under Regulation 25(2)(a) of the 2019 Tariff Regulations

(Rs. in lakh)

Head of Work/ Equipment	Actual additional capital expenditure claimed	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed
Car-Innova	22.00	The existing Bullet proof Car was purchased 1998-99 and has completed its useful life. Based on the operational requirement, it has been proposed to purchase a Innova car with estimated cost of Rs. 22.00 lac against the replacement of bullet proof car having gross block of Rs.10 lakh.	Since the capitalization of additional capital expenditure incurred is necessary for the successful and efficient operation of the plant, the same is **allowed** on	22.00

Head of Work/ Equipment	Actual additional capital expenditure claimed	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed
			replacement basis. The de-capitalization value of the old car is considered as Rs. 10.00 lakh as submitted by the Petitioner.	
Purchase of 110V,1100 AH lead acid Battery bank for Dulhasti Power Station	38.62	The existing battery bank of Powerhouse was capitalized during the commissioning of Power plant in 2007 and it has completed its useful life, copy of certificate in this regard has been enclosed. It is used for control, protection and operation purpose of 3X130 MW Generating Units and 400 KV GIS System. To perform the above functions properly and effectively and to avoid any forced outage of plant, replacement is necessary. The new battery bank will be beneficial for smooth and effective functioning of Powerhouse System to avoid any forced outage and also will increase the reliability and longevity of the system. The gross value of existing assets is not available. Derived original value of the asset is Rs 13.78 lakh considering the de-accelerate rate @6% p.a.	The Petitioner has submitted that the additional capital expenditure claimed is for replacement of the existing asset, which was deployed within the original scope of the Project. It has stated that the old asset has completed its useful life and as such, the additional capitalization claimed is for the replacement of the said asset. The Petitioner has further submitted that it has claimed de-capitalisation of Rs. 13.78 lakh for this asset, which has been considered under 'De-capitalization'. In view of this, the additional capital expenditure claimed is **allowed**	38.62
Purchase of submersible pumps and Control Panels for drainage, dewatering & flooding system.	105.60	The existing pumps are becoming old and unserviceable and keeping in view of the recent flood incidence in one of the NHPC Power Stations, pumps are required to be replaced for safety of Powerhouse due to flooding. These pumps and control panels are proposed to strengthen the dewatering capacity to avoid any flooding in powerhouse. Technical bid of the NIT opened on 20.4.2019, under evaluation stage (Rs. 105.60 Lakh). The gross value of existing asset is not available. Derived original value of the asset is Rs 45.26 lacs considering the de-accelerate rate @6% p.a.	The Petitioner has submitted that the additional capital expenditure claimed is for replacement of the existing asset, which was deployed within the original scope of the Project. It has stated that the old asset has completed its useful life and as such, the additional capitalization claimed is for the replacement of the said asset. The Petitioner has further submitted that it has claimed de-capitalisation of	105.60

Head of Work/ Equipment	Actual additional capital expenditure claimed	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed
			Rs.45.26 lakh for this asset, which have been considered under 'De-capitalization. ' In view of this, the additional capital expenditure claimed is **allowed**.	
Total amount claimed	**166.22**			
Total amount allowed				**166.22**

(b) Claims under Regulation 25(2)(c) of the 2019 Tariff Regulations

(Rs. in lakh)

Head of Work/ Equipment	Actual additional capital expenditure claimed	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed
Penstock discharge Measurement system for turbine units	46.56	The existing penstock discharge measurement system which was capitalized along with commissioning of the Power Station in 2007, is not working due to choking of embedded pressure taps and not possible to repair the embedded pressure taps. Therefore, installation of discharge measurement instruments/flow meter is proposed in all generating units of penstock i.e. upstream of MIV for providing discharge through units as per flow meter data. This discharge measuring system will be utilized for monitoring / improvement of efficiency of the Power station/Units. The work is proposed in a phased manner. The gross value of existing asset is not available. Derived original value of the asset is Rs 19.91 lakh considering the de-accelerate rate @6% p.a for two units.	It is evident from the Petitioner's submission that the expenditure claimed is for replacement of equipment as considered necessary for the functioning of plant. In view of this, the additional capital expenditure claimed is **allowed.** Further the Petitioner has also submitted the gross block of the asset as Rs. 19.91 lakh and the same has been considered as de-capitalization.	46.56
Total amount claimed	**46.56**			
Total amount allowed				**46.56**

(c) Claims under Regulation 26(1)(a) of the 2019 Tariff Regulations

(Rs. in lakh)

Head of Work/ Equipment	Actual additional capital expenditure claimed	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed
Purchase of Mobile truck mounted hydraulic scissor lift / work platform	30.00	The Petitioner has submitted that the Commission vide its Order dated 30.8.2016 in Petition No. 231/GT/2014 (at Sl. No.9, Page No. 49) has approved the additional capital expenditure. The purchase could not be materialised due change in the norms of BS-IV vehicles for adherence of pollution norms. Maintenance of Outdoor Street lights, Transmission lines and Pot head yard equipment's require access at height with mobility. The vehicle has been purchased in 2019 and hydraulic platform has been installed and the same has been capitalized on 25.03.2021. In view of above this item may be allowed by CERC.	It is noticed that the Commission vide order dated 30.8.2016 in Petition No. 231/GT/2014 had allowed additional capitalisation of Rs.55 lakh for this asset/ work. Keeping in view that there has been change in pollution norms with regard to vehicle, we **allow** the additional capital expenditure within the limits allowed by the Commission**.** The Petitioner is however, directed to furnish the reasons for spill over at the time of truing of tariff, failing which the expenditure may not be considered**.**	30.00
Capitalisation against other than admitted items				
Total amount claimed	**30.00**			
Total amount allowed				**30.00**

(d) Claims under Regulation 26(1)(d) of the 2019 Tariff Regulations

(Rs. in lakh)

Head of Work/ Equipment	Actual additional capital expenditure claimed	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed
Actual additional capitalization against admitted items				
Installation of CCTV system	62.81	The expenditure has already been allowed by Commission during 2016-17. Earlier case was processed for kote / Qtr. Guard as per CISF requirement intimated vide letter no. IC-11026/(2)/CISF/DHEP/CIW/ NHPC/EPABX/2016-1561 dated 08.07.2016. But later on as per the recommendation of IB, a centralized integrated CCTV monitoring system was proposed	It is noticed that the Commission vide its order dated 30.8.2016 in Petition No. 231/GT/2014 had allowed the additional capital expenditure for this asset/ work for Rs. 20.00 lakh. However, the claim of the Petitioner is beyond	62.81

Head of Work/ Equipment	Actual additional capital expenditure claimed	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed
		by CISF vide letter no. PR-15016/CISF/DHEP/VP/MGT/18-2820 dated 07.06.2018. In view of above, a re-survey was conducted at all locations of Power Station and requirement was finalized for CISF, DAM, PH & various other location of Power Station. Final requirement sheet of 39 CCTV Camera is attached for reference. Hence, projected expenditure has been increased from Rs 20 Lakh. All required 39 Camera has been installed. Work has been completed on 10.11.2020 for Rs 62.81 Lakh.	the amount approved vide order dated 30.8.2016. The Petitioner has clarified that the projected additional capital expenditure claimed/ allowed earlier was based on the preliminary estimates. However, the additional capital expenditure claimed is based on the actual expenditure incurred, after following the requisite public procurement process. In view of the justification and since the additional capitalisation is in respect of work which has been spilled over, the claim of the Petitioner is **allowed**.	
Construction of Security Gates at Dam site	7.17	There was no gate at the entry point of Dam at Tam Ruchi, only barrier is exiting. Now due to start of works of Pakal Dul of CVPPL, the movement of people and vehicles has increased for which this security gate has been required by the security agency CISF. Similarly, another gate is also required at Dam gallery. This has been demanded by the security agency CISF also vide letter no. PR-15022/CISF/DHEP/A&A/QM/2019-656, dated 16.04.2019. The case is in tendering stage.	The expenditure incurred is related to the security and safety of the generating station as advised by CISF. The Petitioner has also furnished documentary evidence in support of the claim. In view of this, the expenditure claimed is **allowed**.	7.17
Purchase of MOTORIZED RETRACTABLE GATE Size 6 M (W) X 2 M (H) at Power House (MAT) DPS, Kishtwar.	8.00	There is no gate in front of the Main Access Tunnel of the Powerhouse, only a barrier is there. Therefore, for proper security of Power House Tunnel, a gate is proposed to be installed there. This item has also been advised by the security agency IB. In view of the above this amount may be allowed by Commission.	The expenditure incurred is related to the security and safety of the generating station as advised by IB. The Petitioner has also furnished documentary evidence in support of the claim. In view	8.00

Head of Work/ Equipment	Actual additional capital expenditure claimed	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed
			of this, the expenditure claimed is **allowed**.	
Construction of permanent boundary wall of Semna and Shalimar colony	35.00	The Petitioner has submitted that Barbered wire fencing at several locations have been planned to be replaced with permanent boundary wall based on the requirement of CISF and security survey. These works are large in volume hence planned to be taken up in phase manner It is submitted that an amount of Rs. 288.78 has been capitalized during the 2014-19. However the complete area could not be covered and there are still places where security wall is required as per recommendations of the security agency following are the areas where the security wall needs to be developed:- 1. Construction of boundary wall right bank near timber hut and CISF observation post and A-Coy area at Shalimar. 2. Construction of permanent boundary wall on right bank of nallah from back side of club to STP at Shalimar, DPS Kishtwar. 3.Boundary wall around Hospital Building and increasing the height with concertina coil for security and installation of steel gate at main entry of Shalimar Colony 4.Strengthening and raising of boundary wall on back side and construction of permanent boundary wall on left side of DSB Colony . 5.Peripheral development work of 250 KWp Solar plant area near OM Mehta Gate no.2 etc. 6.Strengthening and raising of boundary wall on periphery of Type-C, backside of type-B quarter and Construction of permanent boundary wall alongwith C-0 type quarter, in front of CVPP office .	It is noticed that the additional capital expenditure for the asset/ work was allowed vide order dated 30.8.2016 in Petition No. 231/GT/2014 for Rs. 27.04 lakh and Rs. 90.00 lakh during 2014-15 and 2015-16 based on the recommendation of IB. Further, the Commission has approved Rs. 150 lakh during the period 2009-14. As the Commission had already allowed the additional capital expenditure claimed for this asset/works during the earlier tariff periods as stated above, we find **no reason to allow** the additional expenditure claimed by the Petitioner.	0.00
Construction of accommodation & security post/pucca morcha for CISF	20.00	Dulhasti Power Station being located in militancy prone area. CISF put up its requirements for the new security post/ morcha on the basis of the recommendations	The expenditure incurred is related to the security and safety of the generating station as	20.00

Head of Work/ Equipment	Actual additional capital expenditure claimed	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed
at Chenab Nagar, Shalimar & Tamruchi Dam site.		coming up from the security survey by the security agencies . The work is taken up as and when requirement from CISF is received, hence as per the requirement/recommendations of security agency, for providing proper security to all the installations, following works have been awarded and are likely to be capitalized in FY 2020-21: 1.Construction of 02 No. Pucca morcha with toilet for CISF at Dam site DPS Kishtwar (Rs. 11.32 Lakh). Work awarded on 30.01.2019 2.Construction of security Morcha near RO Plant DSB Colony, DSP Kishtwar, awarded on 1.01.2019 for Rs. 2.99 lakh, Following works are in tendering stage and are likely to be capitalized in FY 2021-22:- 1. Pucca Morcha at Chenab Nagar for Rs. 16.00 Lakh, 2. Pucca Morcha at Dul Dam site for Rs. 10.5 Lakh.	advised by CISF. The Petitioner has also furnished documentary evidence in support of the claim. In view of this, the expenditure claimed is **allowed**.	
Security Gadgets- Tyre Killer, Binoculars Day / Night Vision, Baggage X-Ray Machine etc.	50.00	As per the record of discussion held on the meeting taken by Joint Secretary & CVO, MoP with IG (NS), CISF in the presence of CMD NHPC regarding security of vital installations of NHPC located in J&K on 15.4.2019, Security gadgets are required for CISF unit, DPS. Taking into account the security scenario of J&K , a proposal for purchase of security gadgets amounting to Rs 100 lacs has been prepared.		50.00
Automatic External Deflator(AED) for Hospital	102.63	Automated External Defibrillator is a battery-operated device that checks the heart's rhythm and in case there is any irregularity, a shock is sent through it to the heart to restore a normal rhythm. The device is used to revive people having sudden cardiac arrest. It was purchased in accordance with an official order from Corporate Office, NHPC Ltd., Faridabad. This equipment is an essential requirement for all projects wherein the precious lives of employees and other staff	Since the additional capital expenditure claimed is not related to the operation of the plant, the same is **not allowed.**	0.00

Head of Work/ Equipment	Actual additional capital expenditure claimed	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed
		members can be saved easily till the patient is admitted to hospital for further management.		
Total amount clamed	**192.98**			
Total amount allowed				**147.98**

98. Based on the above, the total additional expenditure of Rs.390.76 lakh (Rs.166.22 lakh + Rs.46.56 lakh + Rs.30.00 lakh + Rs.147.98 lakh) in 2020-21 is allowed.

Additional Capital Expenditure for 2021-22

99. The additional capital expenditure clamed under various provisions of Regulation 25 and Regulation 26 of the 2019 Tariff Regulations for Rs.465.32 lakh in 2021-22 is discussed as under:

Sl. No.	Regulations		2021-22
1	25(2)(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	99.58
2	25(2)(b)	The replacement of the asset or equipment is necessary on account of change in law or Force Majeure conditions	10.00
3	25(2)(c)	The replacement of such asset or equipment is necessary on account of obsolescence of technology	8.67
4	26(1)(b)	Change in law or compliance of any existing law	170.00
5	26(1)(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	177.07
6	**Total additional capital expenditure claimed as per Form 9A**		**465.32**

(a) Claims under Regulation 25(2)(a) of the 2019 Tariff Regulations

(Rs. in lakh)

Head of Work/ Equipment	Actual additional capital expenditure claimed	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed
Purchase of Pump & Motors for water supply	8.84	This is a replacement item. Power Station has set up a water lift supply system of 310 Meter head with100 Cubic Meter/Hour water pumping	Since the expenditure claimed is in the nature of O&M expenses and	0.00

Head of Work/ Equipment	Actual additional capital expenditure claimed	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed
		capacity to cater the need of water supply for office and residential purpose. This item was purchased and capitalized in 2010-11. The use is to lift the drinking water from old HRT site to Colony of Power Station at Chenab Nagar. The existing item was got repaired and but still giving trouble and not functioning properly and is now beyond economic repair. So this motor pump set is required to be replaced with new one for efficient and effective functioning. Now after replacement the new pump will cater the need of water supply to residential and official purpose efficiently and without any trouble. P.O. placed on 20.9.2018 for Rs. 8.84 Lakh with 6 Months delivery period. The gross value of existing asset is not available. Derived original value of the asset is Rs 3.62 lakh considering the de-accelerate rate @6% p.a.	does not directly relate to the operation of the plant, the claim of the Petitioner is **not allowed.**	
Supply & installation of Pipeline for firefighting system from pump to Tank	90.74	This is a replacement item. The existing pipeline from pump to tank is used for supplying water for fire-fighting system of Powerhouse. It was capitalized in 2007 along with commissioning of the Power Station. This pipeline has got punctured at several locations due to rusting, silty water and continues use leading to leakage of water. Therefore, requires replacement. The new pipeline will be beneficial in terms of reliability and strengthening of fire-fighting system of Powerhouse as well as will arrest the wastage of water due to leakage. The item being part of mother asset, the old value will be derived after capitalization. The gross value of existing assets is not available. Derived original value of the asset is Rs 37.16 lakh considering the de-accelerate rate @6% p.a..	It is evident from the Petitioner's submission that the claim is for replacement of equipment as considered necessary for the functioning of plant. In view of this, the additional capital expenditure claimed is **allowed.** Further the Petitioner has also submitted gross block of the asset as Rs. 37.16 lakh and the same has been considered as de-capitalization.	90.74
Total amount claimed	**99.58**			
Total amount allowed				**90.74**

(b) Claims under Regulation 25(2)(b) of the 2019 Tariff Regulations

(Rs. in lakh)

Head of Work/ Equipment	Actual additional capital expenditure claimed	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed
Purchase of Dry Type 500 KVA Transformer at Dam	10.00	As per regulation 44(2)(vii) of CEA, 2010 dry type transformer is required to placed inside a building/ indoor to avoid any fire hazards. This point has been raised by the safety audit conducted by National Institute of Industrial Safety during 29.01.2019 to 1.2.2019 (refer point no. 4 of 2of Dam site of audit report) as well as IMS Audit. Hence to replace the existing oil type transformer this item is proposed to procure and capitalized in 2021-22.	It is evident that the additional capital expenditure claimed is in compliance to the existing law (CEA Regulations, 2010), the additional capital expenditure claimed is **allowed.** The de-capitalization of Rs. 2.18 lakh as submitted by the Petitioner has been considered.	10.00
Total amount claimed	**10.00**			
Total amount allowed				**10.00**

(c) Claims under Regulation 25(2)(c) of the 2019 Tariff Regulations

(Rs. in lakh)

Head of Work/ Equipment	Actual additional capital expenditure claimed	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed
Inverter, Capacity-10 kVA, Input - 110VDC, Output - 240V AC, Single Phase, 50HZ	7.67	This is a replacement item. The existing item was capitalized during 2007 along with commissioning of 390 MW power Plant. Two no. Inverters were provided for supplying un-interrupted Power Supply to the SCADA (Supervisor Control and Data Acquisition) System of Power house. Presently one inverter is not in working condition. Item being of foreign origin, its spare parts are not available in India, hence its beyond economical repair, so needs to be replaced with new one. After replacement with new one, the Power Station will have two inverters for supplying un-interrupted power supply to the SCADA System which will increase the reliability and smooth function of Power Plant. The gross value of existing asset is not available. Derived original value of the asset is Rs 3.14 lakh considering the de-accelerate rate @6% p.a .	It is evident from the Petitioner's submission that the claim is for replacement of equipment as considered necessary for functioning of plant. In view of this, the additional capital expenditure claimed is **allowed.** Further the Petitioner has also submitted gross block of the asset as Rs. 3.14 lakh and the same has been considered as de-capitalization.	7.67

Total amount claimed	**7.67**			
Total amount allowed				**7.67**

(d) Claims under Regulation 26(1)(b) of the 2019 Tariff Regulations

(Rs. in lakh)

Head of Work/ Equipment	Actual additional capital expenditure claimed	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed
Construction of Treatment plant for drinking water and distribution system in Semna and Shalimar colony	100.00	The expenditure has already been allowed by the Commission during 2018-19. The delay in execution is due to the time taken for testing of water samples and firming up the technical specification of LOA.	It is noticed that the additional capital expenditure with respect to construction of Treatment Plant for drinking water & distribution system and Construction of sewerage treatment plant in Semna and Shalimar colony were allowed during 2014-19 tariff period vide order dated 30.8.2016 in Petition No. 231/GT/2014 based on the reason that these expenditure were allowed during 2009-14 tariff period vide order dated 30.5.2011 in Petition No. 60/2010. As the Commission had already allowed additional capital expenditure claimed for these assets/works during two tariff periods as stated above, we find **no reason to allow** the additional expenditure claimed by the Petitioner.	0.00
Construction of sewerage treatment plant at Semna & Shalimar colony	70.00	The expenditure has already been allowed by Commission during 2016-17 and 2018-19. Total Expenditure allowed by Hon'ble Commission under this head in 2014-19 period was Rs 500 lakhs (Rs 180 lakhs in 16-17 and Rs 320 lakhs in 2018-19). An amount of Rs 420.93 lakhs has been capitalized in 2016-17 (Refer Item no 3 of Form 9A) and 2017-18 (Refer item no 5 of form 9A). The work could not be completed in the stipulated time period. Now the following works have been taken up which are in the tendering stage:- (i) Construction of plant building for installation of STP of 80 KLD near Hospital and laying of sewerage pipeline for collection of savage in Chenab Nagar Sector-II & III,DPS Kishtwar (Rs. 58.82 Lakh), (ii) Providing, installation and commissioning of Sewage Treatment Plant capacity 80 KLD near Hospital, DPS Kishtwar (Rs. 36.96 Lakh). (iii). Providing, installation and commissioning of Sewage Treatment Plant capacity 20 KLD at Tamruchi (Dam site), DPS Kishtwar (Rs. 14.45 Lakh) (iv) Civil construction of works of STP 20 KLD capacity, building, tank etc. and laying sewerage pipeline upto STP building, DPS Kishtwar. (Rs. 26.95 Lakh)		0.00
Total amount claimed	**170.00**			
Total amount allowed				**0.00**

(e) Claims under Regulation 26(1)(d) of the 2019 Tariff Regulations

(Rs. in lakh)

Head of Work/ Equipment	Actual additional capital expenditure claimed	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed
Construction of quarter guard for CISF Unit at Semna	100.07	It is intimated that Quarter is a major component of security system in every CISF Unit which is a central Armoury/Store of Arms, Ammunition and other ordinance items. The existing quarter guard is located very near to the National Highway, Shalimar Colony which is not a safe location for security point of view. The security agency CISF has demanded time and again to relocate the same to a safe location. Therefore, by considering reports of security agencies a new quarter guard is proposed at Semna Colony which a quiet safe location. After vacating the existing quarter guard, it will be used as bachelor accommodation/transit camp for CISF. The work of this item was awarded on 10.4.2019 for Rs. 100.07 Lakh and is expected to be capitalised in FY 2021-22.	Since the expenditure claimed is in the nature of O&M expenses and does not directly relate to the operation of the plant, the claim of the Petitioner is **not allowed.**	0.00
Construction of permanent boundary wall of Semna and Shalimar colony	40.00	The Petitioner has submitted that Barbered wire fencing at several locations have been planned to be replaced with permanent boundary wall based on the requirement of CISF and security survey. These works are large in volume hence planned to be taken up in phase manner It is submitted that an amount of Rs. 288.78 has been capitalized during the 2014-19. However the complete area could not be covered and there are still places where security wall is required as per recommendations of the security agency following are the areas where the security wall needs to be developed:- 1. Construction of boundary wall right bank near timber hut and CISF observation post and A-Coy area at Shalimar. 2. Construction of permanent boundary wall on right bank of nallah from back side of club to STP at Shalimar, DPS Kishtwar. 3.Boundary wall around Hospital Building and increasing the height with concertina coil for security and installation of steel gate at main entry	It is noticed that the additional capital expenditure for the asset/ work was allowed vide order dated 30.8.2016 in Petition No. 231/GT/2014 for Rs. 27.04 lakh and Rs. 90.00 lakh during 2014-15 and 2015-16 based on the recommendation of IB. Further the Commission has approved expenditure of Rs. 150 lakh during 2009-14 for this asset/work. As the Commission had already allowed additional capital expenditure claimed for this asset/works during the earlier tariff periods as stated	0.00

Head of Work/ Equipment	Actual additional capital expenditure claimed	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed
		of Shalimar Colony 4.Strengthening and raising of boundary wall on back side and construction of permanent boundary wall on left side of DSB Colony . 5.Peripheral development work of 250 KWp Solar plant area near OM Mehta Gate no.2 etc. 6.Strengthening and raising of boundary wall on periphery of Type-C, backside of type-B quarter and Construction of permanent boundary wall alongwith C-0 type quarter, in front of CVPP office .	above, we find **no reason to allow** the additional expenditure claimed by the Petitioner.	
Construction of accommodation& security post/pucca morcha for CISF at Chenab Nagar, Shalimar & Tamruchi Dam site.	20.00	Dulhasti Power Station being located in militancy prone area. CISF put up its requirements for the new security post/ morcha on the basis of the recommendations coming up from the security survey by the security agencies . The work is taken up as and when requirement from CISF is received, hence as per the requirement/recommendations of security agency, for providing proper security to all the installations, following works have been awarded and are likely to be capitalized in FY 2020-21: 1.Construction of 02 No. Pucca morcha with toilet for CISF at Dam site DPS Kishtwar (Rs. 11.32 Lakh). Work awarded on 30.01.2019. 2.Construction of security Morcha near RO Plant DSB Colony, DSP Kishtwar, awarded on 1.01.2019 for Rs. 2.99 lakh, Following works are in tendering stage and are likely to be capitalized in FY 2021-22:- 1. Pucca Morcha at Chenab Nagar for Rs. 16.00 Lakh, 2. Pucca Morcha at Dul Dam site for Rs. 10.5 Lakh.	The expenditure incurred is related to the security and safety of the generating station as advised by CISF. The Petitioner has also furnished documentary evidence in support of the claim. In view of this, the expenditure claimed is **allowed**.	20.00
Construction of toilet blocks at Chenab Nagar, Shalimar &Tamruchi Dam site	17.00	Various barriers and security posts have been developed for security of DPS and security personnel operate in shift duty approximately 8 hours, there is no toilets for them, therefore new toilets are proposed to be constructed there. These toilets are essential for cleanliness and avoiding security lapse.	Since the expenditure claimed is in the nature of O&M expenses and does not directly relate to the operation of the plant, the claim of the Petitioner is **not allowed.**	0.00
Total amount	**177.07**			

Head of Work/ Equipment	Actual additional capital expenditure claimed	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed
claimed				
Total amount allowed				**20.00**

100. Based on the above, the total additional expenditure of Rs.128.41 lakh (Rs. 90.74 lakh + Rs.10.00 lakh +Rs.7.67 lakh + Rs.20.00 lakh) in 2021-22 is allowed.

Additional Capital Expenditure for 2022-23

101. The additional capital expenditure claimed under the provisions of Regulation 25 and Regulation 26 of the 2019 Tariff Regulations for Rs.575.00 lakh in 2022-23 is discussed below:

(Rs. in lakh)

Sl. No.	Regulations		2022-23
1	25(1)(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	375.00
2	26(1)(b)	Change in law or compliance of any existing law	70.00
3	26(1)(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	130.00
4	**Total additional capital expenditure claimed as per Form 9A**		**575.00**

(a) Claims under Regulation 25(1)(a) of the 2019 Tariff Regulations

(Rs. in lakh)

Head of Work/ Equipment	Actual additional capital expenditure claimed	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed
Payment of land compensation	375.00	The expenditure has already been allowed by Commission during 2017-18 at Land acquisition case for acquisition of land measuring 213 Kanal 13 marlas falling in Village Kawar Tanji for reservoir is under process wherein tentative compensation to the tune of Rs.258 .00 lakh has been assessed. Accordingly, provision for payment of actual compensation has been made. ii) Compensation of land measuring 20 kanal 01 marlas	The expenditure relates to R&R works of the generating station and is in compliance to the directions of the Court. The Petitioner has submitted that process of claim and objections are still going on. Since the process of claim and objection is in process, the expenditure on this	0.00

Head of Work/ Equipment	Actual additional capital expenditure claimed	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed
		transferred from Horticulture Department is yet to be paid. Accordingly, provision of tentative compensation of 60.00 lacs has been made. iii) An amount of Rs.24.60 lakh is unpaid on account of cost of Government/ Shamhat land (Un-claimed/disputed cases) Accordingly provision for payment of compensation of unpaid amount has been made. In addition to above provision for payment of compensation in unforeseen cases has also been made. An amount of Rs. 350 lakh already deposited in 2015-16 on account of compensation against the total expected expenditure of Rs. 375 Lakh. Remaining payment will be made during 2022-23 will be capitalized in 2022-23. The matter has been taken up with the Collector (Land Acquisition / Assistant Commissioner (Revenue) Kishtwar to provide the details about utilization of the amount deposited. Last Letter in this regard was written on 27.4.2019 & 19.5.2019. The final award is yet to be issued by Collector, LA. The matter is being pursued regularly.	account is **not allowed,** pending finalisation/disposal of the matter. The Petitioner shall furnish documentary evidence/ final orders of court, if any, for consideration at the time of truing-up of tariff.	
Total amount claimed	**375.00**			
Total amount allowed				**0.00**

(b) Claims under Regulation 26(1)(b) of the 2019 Tariff Regulations

(Rs. in lakh)

Head of Work/ Equipment	Actual additional capital expenditure claimed	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed
Construction of sewerage treatment plant at Semna & Shalimar colony	70.00	The expenditure has already been allowed by Commission during 2016-17 and 2018-19 (Refer item no.3, page no.52 and item no 1, page 59 of order dtd. 30.8.2016 in petition no. 231/GT/2014. Total Expenditure allowed by Hon'ble Commission under this head in 2014-19 period was Rs 500 lakhs	It is noticed that the additional capital expenditure with respect to Construction of sewerage treatment plant in Semna and Shalimar colony was allowed during 2014-19 tariff period vide order	0.00

Head of Work/ Equipment	Actual additional capital expenditure claimed	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed
		(Rs 180 lakhs in 16-17 and Rs 320 lakhs in 2018-19).An amount of Rs 420.93 lakhs has been capitalized in 2016-17 (Refer Item no 3 of Form 9A) and 2017-18 (Refer item no 5 of form 9A). The work could not be completed in the stipulated time period. Now the following works have been taken up which are in the tendering stage:- (i) Construction of plant building for installation of STP of 80 KLD near Hospital and laying of sewerage pipeline for collection of sewage in Chenab Nagar Sector-II & III,DPS Kishtwar (Rs. 58.82 Lakh), (ii) Providing, installation and commissioning of Sewage Treatment Plant capacity 80 KLD near Hospital , DPS Kishtwar (Rs. 36.96 Lakh). (iii).Providing , installation and commissioning of Sewage Treatment Plant capacity 20 KLD at Tamruchi (Dam site), DPS Kishtwar (Rs. 14.45 Lakh) (iv) Civil construction of works of STP 20 KLD capacity, building, tank etc. and laying sewerage pipeline upto STP building, DPS Kishtwar. (Rs. 26.95 Lakh)	dated 30.8.2016 in Petition No. 231/GT/2014 based on the reason that this expenditure was allowed during 2009-14 tariff period vide order dated 30.5.2011 in Petition No. 60/2010. As the Commission had already allowed additional capital expenditure claimed for this asset/work during two tariff periods as stated above, we find **no reason to allow** the additional expenditure claimed by the Petitioner.	
Total amount claimed	**70.00**			
Total amount allowed				**0.00**

(c) Claims under Regulation 26(1)(d) of the 2019 Tariff Regulations

(Rs. in lakh)

Head of Work/ Equipment	Actual additional capital expenditure claimed	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed
Actual additional capitalization against admitted items				
Construction of permanent boundary wall of Semna and Shalimar colony	100.00	The Petitioner has submitted that Barbered wire fencing at several locations have been planned to be replaced with permanent boundary wall based on the requirement of CISF and security survey. These works are large in volume hence planned to be taken up in phase	It is noticed that the additional capital expenditure for the asset/ work was allowed vide order dated 30.8.2016 in Petition No. 231/GT/2014 for Rs. 27.04 lakh and Rs. 90.00 lakh during 2014-15 and 2015-16 based on the	0.00

Head of Work/ Equipment	Actual additional capital expenditure claimed	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed
		manner It is submitted that an amount of Rs. 288.78 has been capitalized during the 2014-19. However the complete area could not be covered and there are still places where security wall is required as per recommendations of the security agency following are the areas where the security wall needs to be developed:- 1. Construction of boundary wall right bank near timber hut and CISF observation post and A-Coy area at Shalimar. 2. Construction of permanent boundary wall on right bank of nallah from back side of club to STP at Shalimar, DPS Kishtwar. 3.Boundary wall around Hospital Building and increasing the height with concertina coil for security and installation of steel gate at main entry of Shalimar Colony 4.Strengthening and raising of boundary wall on back side and construction of permanent boundary wall on left side of DSB Colony . 5.Peripheral development work of 250 KWp Solar plant area near OM Mehta Gate no.2 etc. 6.Strengthening and raising of boundary wall on periphery of Type-C, backside of type-B quarter and Construction of permanent boundary wall alongwith C-0 type quarter, in front of CVPP office .	recommendation of IB. Further the Commission had approved Rs. 150 lakh during 2009-14. As the Commission had already allowed the additional capital expenditure claimed for this asset/works during the earlier tariff periods as stated above, we find **no reason to allow** the additional expenditure claimed by the Petitioner.	
Construction of accommodation & security post/pucca morcha for CISF at Chenab Nagar, Shalimar & Tamruchi Dam site.	30.00	Dulhasti Power Station being located in militancy prone area. CISF put up its requirements for the new security post/ morcha on the basis of the recommendations coming up from the security survey by the security agencies . The work is taken up as and when requirement from CISF is received, hence as per the requirement/recommendations of security agency, for providing proper security to all the installations, following works	The expenditure incurred is related to the security and safety of the generating station as advised by CISF. In view of this, the expenditure claimed is **allowed**.	30.00

Head of Work/ Equipment	Actual additional capital expenditure claimed	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed
		have been awarded and are likely to be capitalized in FY 2020-21: 1.Construction of 02 No. Pucca morcha with toilet for CISF at Dam site DPS Kishtwar (Rs. 11.32 Lakh). Work awarded on 30.01.2019 2.Construction of security Morcha near RO Plant DSB Colony, DSP Kishtwar, awarded on 1.01.2019 for Rs. 2.99 lakh, Following works are in tendering stage and are likely to be capitalized in FY 2021-22:- 1. Pucca Morcha at Chenab Nagar for Rs. 16.00 Lakh, 2. Pucca Morcha at Dul Dam site for Rs. 10.5 Lakh.		
Total amount claimed	**130.00**			
Total amount allowed				**30.00**

102. Based on the above, the total additional expenditure of Rs.30.00 lakh in 2022-23 is allowed.

Additional Capital Expenditure for 2023-24

103. The additional capital expenditure claimed under the provisions of Regulation 25 and Regulation 26 of the 2019 Tariff Regulations for Rs.452.00 lakh is discussed below:

(Rs in lakh)

Sl. No.	Regulations		2023-24
1	25(2)(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	75.00
2	25(2)(c)	The replacement of such asset or equipment is necessary on account of obsolescence of technology	20.00
3	26(1)(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	357.00
4	**Total Claimed**		**452.00**

(a) Claims under Regulation 25(2)(a) of the 2019 Tariff Regulations

(Rs. in lakh)

Head of Work/ Equipment	Actual additional capital expenditure claimed	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed
Replacement of water supply distribution line at Shalimar & Semna	75.00	Shalimar and Semna water supply pipeline project has been installed at the time of commission. Due to continuous use pipeline often gets damaged. This leads to heavy loss of water. This requires the installation of a new pipeline. By reducing the above loss, water supply can be facilitated. The replacement value will be made available after award of work and de-capitalization of the old item. The gross value of existing assets is not available. Derived original value of the asset is Rs 28.46 lacs considering the de-accelerate rate @6% p.a.	It is evident from the Petitioner's submission that the claim is for replacement of equipment is considered necessary for the functioning of plant. As the old asset has completed its useful life, the additional capitalization is for replacement of the old asset. In view of this, the additional capital expenditure claimed is **allowed.**	75.00
Total amount claimed	**75.00**			
Total amount allowed				**75.00**

(b) Claims under Regulation 25(2)(c) of the 2019 Tariff Regulations

(Rs. in lakh)

Head of Work/ Equipment	Actual additional capital expenditure claimed	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed
Purchase of Control Panel for SFT Gates	20.00	The existing panel is used for control, protection and operation of Silt Flushing Tunnel Gates as and when required, mostly during monsoon season to flushout the silt from the Desilting Chamber of Dam. The item was capitalized during 2007along with commissioning of Power Plant. Presently its remote and automatic control functions are out of order due to heavy moisture inside the Silt Flushing Tunnel, only the local manual operation mode is functional, hence requires replacement for effective functioning. The new control panel will be beneficial in terms of automatic and remote operation of the SFT Gates in efficient and smooth operation.	It is evident from the Petitioner's submission that the claim is for replacement of equipment as considered necessary for the functioning of plant. As the old asset has completed its useful life, the additional capitalization is for replacement of the old asset. In view of this, the additional capital expenditure claimed is **allowed.** This is, however, subject to the Petitioner furnishing management certificate/ OEM certificate for obsolescence in support of its claim at the time of truing-up of tariff, failing which the expenditure will not be considered. Further	20.00

Head of Work/ Equipment	Actual additional capital expenditure claimed	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed
		The gross value of existing assets is not available. Derived original value of the asset is Rs 7.59 lakh considering the de-accelerate rate @6% p.a.	the Petitioner has also submitted gross block of the asset as Rs. 7.59 lakh and the corresponding De-capitalization of Rs. 6.13 lakh which have been considered.	
Total amount claimed	**20.00**			**20.00**
Total amount allowed				

(c) Claims under Regulation 26(1)(d) of the 2019 Tariff Regulations

(Rs. in lakh)

Head of Work/ Equipment	Actual additional capital expenditure claimed	Justification	Remarks on admissibility	Amount Allowed
Actual additional capitalization against admitted items				
Construction of permanent boundary wall of Semna and Shalimar colony	70.00	The Petitioner has submitted that barbed wire fencing at several locations have been planned to be replaced with permanent boundary wall based on the requirement of CISF and security survey. These works are large in volume hence planned to be taken up in phase manner It is submitted that an amount of Rs. 288.78 has been capitalized during the 2014-19. However the complete area could not be covered and there are still places where security wall is required as per recommendations of the security agency following are the areas where the security wall needs to be developed:- 1. Construction of boundary wall right bank near timber hut and CISF observation post and A-Coy area at Shalimar. 2. Construction of permanent boundary wall on right bank of nallah from back side of club to STP at Shalimar, DPS Kishtwar. 3.Boundary wall around Hospital Building and increasing the height with concertina coil for security and installation of steel gate at main entry of Shalimar Colony 4.Strengthening and raising of	It is noticed that the additional capital expenditure for the asset/ work was allowed vide order dated 30.8.2016 in Petition No. 231/GT/2014 for Rs. 27.04 lakh and Rs. 90.00 lakh during 2014-15 and 2015-16 based on the recommendation of IB. Further the Commission has approved Rs. 150 lakh during 2009-14. As the additional capital expenditure claimed by the Petitioner is exceeds the expenditure limit of allowed vide order dated 30.8.2016 the same is **not allowed**.	0.00

Head of Work/ Equipment	Actual additional capital expenditure claimed	Justification	Remarks on admissibility	Amount Allowed
		boundary wall on back side and construction of permanent boundary wall on left side of DSB Colony . 5.Peripheral development work of 250 KWp Solar plant area near OM Mehta Gate no.2 etc. 6.Strengthening and raising of boundary wall on periphery of Type-C, backside of type-B quarter and Construction of permanent boundary wall alongwith C-0 type quarter, in front of CVPP office .		
Construction of accommodation & security post/pucca morcha for CISF at Chenab Nagar, Shalimar & Tamruchi Dam site.	32.00	Dulhasti Power Station being located in militancy prone area. CISF put up its requirements for the new security post/ morcha on the basis of the recommendations coming up from the security survey by the security agencies . The work is taken up as and when requirement from CISF is received, hence as per the requirement/recommendations of security agency, for providing proper security to all the installations, following works have been awarded and are likely to be capitalized in FY 2020-21: 1.Construction of 02 No. Pucca morcha with toilet for CISF at Dam site DPS Kishtwar (Rs. 11.32 Lakh). Work awarded on 30.01.2019 2.Construction of security Morcha near RO Plant DSB Colony, DSP Kishtwar, awarded on 1.01.2019 for Rs. 2.99 lakh, Following works are in tendering stage and are likely to be capitalized in FY 2021-22:- 1. Pucca Morcha at Chenab Nagar for Rs. 16.00 Lakh, 2. Pucca Morcha at Dul Dam site for Rs. 10.5 Lakh.	The expenditure incurred is related to the security and safety of the generating station as advised by CISF. In view of this, the expenditure claimed is **allowed**.	32.00
Construction of footpath bridge on D/s of Dul Dam.	255.00	At present the local people of village Chandri which is situated on the right bank of the Dam are crossing from top of the Dam and this has been pointed out by security agency CISF/ IB for security reasons. IB Team on	Since the capitalization of additional capital expenditure is not related to the operation of the plant, the same is not **allowed.** The expenditure on account of this item may be	0.00

Head of Work/ Equipment	Actual additional capital expenditure claimed	Justification	Remarks on admissibility	Amount Allowed
		their visit to NHPC project on 20/21-06-2014 suggested for alternate path for local people of Chandri village. Therefore to provide alternate path to the local villagers this bridge is proposed in the downstream of Dul Dam. With start of Pakkal Dul HE Project near Dul Dam, an alternate motorable path shall be constructed shortly up to the Surge Shaft of Pakal HEP which is closed to Chandri Village.	met from CSR .	
Total amount claimed	**357.00**			
Total amount allowed				**32.00**

104. Based on the above, the total additional expenditure of Rs.127 lakh (Rs.75.00 lakh + Rs.20.00 lakh + Rs.32.00 lakh) is allowed in 2023-24.

De-capitalization

105. The Petitioner has claimed the de-capitalization, as per Form 9Bi, as under:

(Rs. in lakh)

2019-20	2020-21	2021-22	2022-23	2023-24
473.62	88.95	46.98	0.00	36.05

106. The Petitioner has submitted the year of 'put to use' of the de-capitalized assets and accordingly, the de-capitalization value of the assets has been calculated. The total de-capitalization considered and allowed for the assets/works during the 2019-24 tariff period, as dealt with in the relevant paragraphs relating to the additional capital expenditure allowed as above, are summarized below:

(Rs in lakh)

2019-20	2020-21	2021-22	2022-23	2023-24
473.62	88.95	46.98	0.00	36.05

Additional capital expenditure allowed (Net) for the 2019-24 period

107. In view of above, the net additional capital expenditure allowed for the 2019-24 tariff period is as under:

(Rs. in lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24
Additional capital expenditure allowed (a)	1230.49	390.76	128.41	30.00	127.00
Less: De-capitalisation considered (b)	473.62	88.95	46.98	0.00	36.05
Net additional capital expenditure allowed (c)=(a)-(b)	**756.87**	**301.81**	**81.43**	**30.00**	**90.95**

Capital cost allowed

108. Accordingly, the capital cost allowed for the purpose of tariff 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	522037.61	522794.48	523096.28	523177.71	523207.71
Net Additional capital expenditure allowed during the year/ period	756.87	301.81	81.43	30.00	90.95
Closing Capital Cost	**522794.48**	**523096.28**	**523177.71**	**523207.71**	**523298.66**

Debt-Equity Ratio

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

> *"18. Debt-Equity Ratio: (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."

110. The Commission in its order dated 9.3.2010 in Petition No. 204/2009 relating to revision of tariff based on additional capital expenditure for the period 2007-09, had observed as under:

"24. The petitioner has stated that the additional capital expenditure has been financed through internal resources. As per the approved revised cost estimate (RCE-II) of the Govt. of India letter dated 22.8.2008, corresponding to an approved capital cost of ₹522849.00 lakh, the equity was frozen at ₹198668.67 lakh. The Commission in its order dated 30.11.2009 in Petition No. 72/2009 had allowed the equity of ₹198668.67 lakh on the date of commercial operation for the purpose of tariff. Accordingly, any additional capital expenditure incurred after the date of commercial operation, till the admitted capital cost becomes ₹522849.00 lakh, is to be considered as debt. After consideration of the admitted additional capital expenditure of ₹3188.55 lakh and ₹567.58 lakh during the year 2007-08 and 2008-09 respectively, the admitted capital cost for works out to ₹511037.92 lakh and ₹511605.50 lakh for the year 2007-08 and 2008-09 respectively, which is below the admitted capital cost of ₹522849.00 lakh. Accordingly, the admitted additional capital expenditure has been considered as debt for the purpose of tariff."

111. In line with the above decision, the additional capital expenditure has been considered as debt up to RCE cost of Rs.522849.00 lakh. Further, the additional

capital expenditure beyond the RCE cost of Rs.522849.00 is considered in the normative debt equity ratio of 70:30.

Return on Equity

112. Regulations 30 and 31 of the 2019 tariff Regulations provide as under:

"30. Return on Equity

(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 station, 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.

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 a generating company or a 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 a transmission licensee paying normal corporate tax including surcharge and cess:

(a) Estimated Gross Income from generation or transmission business for 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 customers, as the case may be, on year to year basis."

113. The Return on Equity (ROE) for the existing asset base and additional capital expenditure allowed in this order for asset/work, within the original scope of work has been calculated by grossing up of base RoE at MAT rate of 17.472% as submitted by the Petitioner. Further, based on the additional capital expenditure which are beyond the original scope and allowed in this order, ROE has been calculated,

considering the weighted average rate of interest of the relevant year. Accordingly, RoE has been worked out and allowed as under:

(Rs. in lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Equity (A)	198668.67	198668.67	198742.86	198761.28	198761.28
Total addition due to Capitalization (B)	0.00	100.87	38.52	9.00	38.10
Addition due to additional capitalization within the original scope of work (C)	**0.00**	**100.87**	**32.52**	**0.00**	**28.50**
Addition due to de-capitalization (D)	0.00	26.69	14.09	0.00	10.82
Closing Equity (E)=[(A)+(C)-(D)]	198668.67	198742.86	198761.28	198761.28	198778.97
Average Equity (F)=[(A+E)/2]	**198668.67**	**198705.76**	**198752.07**	**198761.28**	**198770.13**
Base rate (%) (G)	16.500%	16.500%	16.500%	16.500%	16.500%
Effective Tax rate (%) (H)	17.472%	17.472%	17.472%	17.472%	17.472%
Effective ROE rate (%) (I)	19.993%	19.993%	19.993%	19.993%	19.993%
Return on Equity within the original scope of work (J)=[(F)*(I)]	**39719.83**	**39727.24**	**39736.50**	**39738.34**	**39740.11**
Addition due to additional capitalization beyond original scope of work					
Opening Equity (J)	0.00	0.00	0.00	6.00	15.00
Addition due to Capitalization beyond scope of work (k)=[(B)-(C)]	0.00	0.00	6.00	9.00	9.60
Closing Equity (L)=[(J)+(K)]	0.00	0.00	6.00	15.00	24.60
Average Equity (M)=[(J+L)/2]	0.00	0.00	3.00	10.50	19.80
Rate of return for additional capitalization beyond original scope (i.e. weighted average rate of interest approved by the Commission) (%) (N)	7.09%	5.20%	5.20%	5.20%	5.20%
Return on equity for additional capitalization beyond original scope (O)=[(M)*(N)]	**0.00**	**0.00**	**0.16**	**0.55**	**1.03**
Total Return on Equity (P)=[(O)+(I)]	**39719.83**	**39727.24**	**39736.66**	**39738.89**	**39741.14**

Interest on Loan

114. 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 decapitalization of assets, the repayment shall be adjusted by taking into account cumulative repayment on a pro rata basis and the adjustment should not exceed cumulative depreciation recovered up to the date of de-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."

115. The salient features for computation of interest on loan are summarized below:

a) The gross normative loan has been considered as on 1.4.2019;
b) Cumulative repayment as on 31.3.2019 has been considered;
c) The repayment for the year of the 2019-24 tariff period has been considered equal to the depreciation allowed for that year;

d) Interest on loan has been calculated on the normative average loan of the year by applying the weighted average rate of interest as claimed by the Petitioner.

116. Accordingly, Interest on loan has been worked out as under:

(Rs in lakh)

	2019-20	**2020-21**	**2021-22**	**2022-23**	**2023-24**
Gross opening loan (A)	323368.94	324125.81	324353.43	324410.43	324431.43
Cumulative repayment of loan up to previous year (B)	307710.47	335032.82	340052.65	345079.11	350107.57
Net Loan Opening (C)=[(A)-(B)]	**15658.48**	**0.00**	**0.00**	**0.00**	**0.00**
Repayment during the year (D)	27322.36	227.62	57.00	21.00	63.67

	2019-20	2020-21	2021-22	2022-23	2023-24
Cumulative repayment adjustment on a/c of de-capitalization (E)*	0.00	0.00	0.00	0.00	0.00
Net Repayment (F)=[(D)-(E)]	27322.36	227.62	57.00	21.00	63.67
Addition due to additional capital expenditure (G)	756.87	227.62	57.00	21.00	63.67
Net Loan Closing (H)= (C+G-F)	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Average Loan (I)=[(C+H)/2]	7829.24	0.00	0.00	0.00	0.00
Weighted Average Rate of Interest of loan (J)	7.09%	5.20%	5.20%	5.20%	5.20%
Interest on Loan (K)=(I*J)	**555.46**	**0.00**	**0.00**	**0.00**	**0.00**

**The adjustment on account of de-capitalization shall be taken at the time of true up when the additional capitalization and de-capitalization gets firmed up.*

Depreciation

117. 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."

118. Accordingly, the cumulative depreciation amounting to Rs.307709.47 lakh as on 31.3.2019, has been considered for the purpose of tariff. The COD of the generating station is 7.4.2007. The project has completed 12 years of commercial operation in 2019-20 and the remaining depreciable value has been spread over the balance useful life of the generating station from 2020-21 onwards. In terms of the 2014 Tariff Regulations, the useful life of a hydro generating station was 35 years. However, the 2019 Tariff Regulations stipulates that the useful life of a hydro generating station is 40 years. Accordingly, the balance useful life of the generating station as on 1.4.2019 has been considered as 28.02 years in line with the 2019 Tariff Regulations. Accordingly, depreciation has been computed as under:

(Rs. in lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Gross block (A)	522037.61	522794.48	523096.28	523177.71	523207.71
Net Additional capital expenditure during2019-24 (B)	756.87	301.81	81.43	30.00	90.95
Closing gross block (C)=(A+B)	522794.48	523096.28	523177.71	523207.71	523298.66
Average gross block (D)=[(A+C)/2]	522416.05	522945.38	523137.00	523192.71	523253.19
Depreciable Value (E)=(D*90%)	470174.44	470650.84	470823.30	470873.44	470927.87
Remaining Depreciable Value at the beginning of the year (F)=[(E)-(Cum Dep at 'K' at the end of previous year)}	162464.98	135619.02	130771.65	125795.33	120821.30
Rate of Depreciation (G)	5.23%	0.96%	0.96%	0.96%	0.96%
Balance useful Life (H)	28.02	27.02	26.02	25.02	24.02
Depreciation (I)=(D*G)	**27322.36**	**5019.83**	**5026.46**	**5028.46**	**5030.73**
Cumulative Depreciation at the end of the year (J)=[(I)+ (Cum Dep at 'K' at the end of previous year)]**	335031.82	340051.65	345078.11	350106.57	355137.30
Cumulative Depreciation at the end of the year (K)*	**335031.82**	**340051.65**	**345078.11**	**350106.57**	**355137.30**

**Cumulative Depreciation as on 31.3.2019 is Rs. 307709.47 lakh*
*** The adjustment on account of de-capitalization shall be taken at the time of true up when the additional capitalization and de-capitalization gets firmed up.*

Operation & Maintenance Expenses

119. 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)*
>
> | *Particulars* | ***2019-20*** | ***2022-21*** | ***2021-22*** | ***2022-23*** | ***2023-24*** |
> |---|---|---|---|---|---|
> | *Dulhasti* | *18563.04* | *19447.85* | *20374.84* | *21346.02* | *22363.49* |
>
> *xxxxxx"*

120. The Petitioner has claimed O&M expenses for 2019-24 Tariff period as given below:

(Rs. in lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24
Normative O&M expenses Regulation 35(2)(a) of the 2019 Tariff Regulations (a)	18563.04	19447.85	20374.84	21346.02	22363.49
Impact of pay revision of NHPC staff (b)	2236.56	2343.24	2455.02	2572.12	2694.81
Impact of pay revision of	21.69	22.72	23.80	24.94	26.13

	2019-20	2020-21	2021-22	2022-23	2023-24
KV Staff (c)					
Impact of Goods & Service Tax (d)	897.34	940.15	984.99	1031.97	1081.20
Total additional O&M Expenses (a+b+c+d)	**21718.63**	**22753.96**	**23838.65**	**24975.06**	**26165.63**

121. As the Petitioner has claimed normative O&M expenses in accordance with Regulation 35(2)(a) of the 2019 Tariff Regulations as above, the same is allowed. However, as per note under Regulation 35(2)(a) of the 2019 Tariff Regulations impact in respect of revision of pay/wage and GST is also required to be considered at the time of determination of tariff for the 2019-24 tariff period. As per Para 10.7.4 of the Statement of Reasons to the 2019 Tariff Regulations, in case of hydro generating stations, the O&M expenses norms are provided for each of the generating stations in absolute terms, i.e. Rs.in lakh for each year. As it was not practicable to derive a common impact for all the hydro generating stations on account of employees pay revision, escalation in minimum wages and GST, it was decided that the impact on O&M expenses due to these components shall be considered for each hydro generating station separately at the time of their tariff petition for the 2019-24 tariff period. Accordingly, the allowable impact of pay revision and GST in addition to normative O&M expenses in accordance with Regulation 35(2)(a) of the 2019 Tariff Regulations are dealt in the following paragraphs.

Additional O&M expenses

122. The Petitioner has claimed additional O&M expenses on account of the impact of pay revision of NHPC staff and KV staff and impact of GST as under:

(Rs. in lakh)

Period	2019-20	2020-21	2021-22	2022-23	2023-24
Impact of pay revision of NHPC staff (a)	2236.56	2343.24	2455.02	2572.12	2694.81
Impact of pay revision of KV Staff (b)	21.69	22.72	23.80	24.94	26.13
Impact of Goods & Service Tax (c)	897.34	940.15	984.99	1031.97	1081.20

Impact of pay revision NHPC staff

123. The Petitioner has claimed Rs.2236.56 lakh in 2019-20 as additional O&M expenses due pay revision of the Petitioners staff, based on impact of pay revision of Petitioners staff during 2018-19. In this regard, it is pertinent to mention that in Petition No. 221/MP/2019 filed by the Petitioner seeking recovery of the additional O&M expenses for the generating station due to impact of wage/ pay revision for the 2014-19 tariff period, the Commission vide its order dated 13.11.2021 had allowed an amount of Rs. 2135.00 lakh as impact of wage revision during 2018-19. As such, the impact of wage revision in 2019-20 (after escalating @ 4.77% the above amount allowed in 2018-19) works out to Rs. 2236.84 lakh, which is almost same to the claim of the Petitioner in 2019-20. Accordingly, the claim of the Petitioner (for Rs 2236.56 lakh in 2019-20 is considered (being lower) and is thereafter escalated @4.77% per annum during the relevant years of the 2019-24 tariff period and allowed as additional O&M expenses due to pay revision of the Petitioner’s staff.

Impact of pay revision of KV staff

124. As regards the claim of Petitioner towards the impact of pay revision of KV staff, it is pertinent to mention that the Commission in its order dated 13.11.2021 in Petition No. 221/MP/2019 (as stated above) had allowed an amount of Rs. 23.00 lakh as impact of wage revision of KV staff in 2018-19. As such, the impact of wage revision in 2019-20 (after escalating @ 4.77% on the above allowed amount in 2018-19) works out to Rs.24.10 lakh, which is more than the claim of the Petitioner in

2019-20. Accordingly, the claim of the Petitioner for Rs 23.00 lakh in 2019-20 is considered (being lower) and the same is thereafter escalated @4.77% per annum for the relevant years of the 2019-24 tariff period and is allowed as additional O&M expenses due to pay revision of KV staff.

Impact of Goods & Service Tax

125. The Petitioner has claimed impact of GST for the period 2019-24 on the basis of the actual impact of GST during 2018-19. The Petitioner has submitted the total GST amount of Rs.1327.15 lakh for the period from 1.7.2017 to 31.3.2019, based on actual audited accounts for 21 months (Rs.470.66 lakh in 2017-18 and Rs.856.49 lakh in 2018-19). On scrutiny of above of the details it is noticed that the claim of Petitioner includes impact of GST on security expenses. As per Regulation 35(2)(d) of the 2019 Tariff Regulations, security expenses shall be allowed separately after prudence check. As such, based on the actual audited GST for the period from 1.7.2017 to 31.3.2019, the same has been normalized (excluding impact on security expenses of Rs.1031.91 lakh) and amount of Rs.176.76 lakh has been worked out for 2019-20 (after escalating @ 4.77%). Accordingly, the base value of 2019-20 has been escalated @4.77% and GST impact has been worked out and allowed for the 2019-24 tariff period, as per note under Regulation 35(2)(a) of the 2019 Tariff Regulations as under:

(Rs. in lakh)

2019-20	**2020-21**	**2021-22**	**2022-23**	**2023-24**
176.76	185.19	194.02	203.27	212.97

Security Expenses

126. Further, Regulation 35(2) (d) of the 2019 Tariff Regulations provides as under:

> *"The Security Expenses and Capital Spares for hydro generating stations shall be allowed separately after prudence check:*
>
> *Provided further that the generating station shall submit the assessment of the security requirement and estimated expenses, the details of year-wise actual capital*

spares consumed at the time of truing up with appropriate justification."

127. The Petitioner has also claimed Security expenses as part of O&M expenses in terms of clause 35(2)(d) of the 2019 Tariff Regulations. Further, the Petitioner has submitted that based on the actual security expenses incurred during 2018-19, year-wise escalation rate of 4.77% has been considered to arrive at the security expenses for the 2019-24 tariff period. Accordingly, the estimated security expenses claimed by the Petitioner are as under:

(Rs. in lakh)

2019-20	2020-21	2021-22	2022-23	2023-24
4469.83	4683.04	4906.42	5140.46	5385.66

128. The Petitioner has claimed actual security expenses of Rs.4266.33 lakh in 2018-19 and has escalated the same at the rate of 4.77% to work out the projected security expenses from 2019-20 onwards. Considering the security requirements of the generating station, we allow the projected security expenses as claimed by the Petitioner for the 2019-24 tariff period. The Petitioner is however, directed to submit the actual security expenses incurred, duly audited, at the time of truing up of tariff. Accordingly, the estimated security expenses allowed during 2019-24 has been allowed as under:

(Rs. in lakh)

2019-20	2020-21	2021-22	2022-23	2023-24
4469.83	4683.04	4906.42	5140.46	5385.66

<u>Capital Spares</u>

129. As regards capital spares, the Petitioner has submitted that same will be claimed at the time of truing-up of tariff, based on the actual expenses incurred. In view of this, the claim for capital spares has not been considered in this order.

130. Accordingly, based on above the O&M expenses allowed for the generating station are as under:

(Rs. in lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24
Normative O&M expenses Regulation 35(2)(a) of the 2019 Tariff Regulations (a)	18563.04	19447.85	20374.84	21346.02	22363.49
Impact of pay revision of NHPC staff (b)	2236.56	2343.24	2455.02	2572.12	2694.81
Impact of pay revision of KV Staff (c)	21.69	22.72	23.80	24.94	26.13
Impact of Goods & Service Tax (d)	176.76	185.19	194.02	203.27	212.97
Total O&M Expenses allowed (a+b+c+d)	**20998.05**	**21999.00**	**23047.68**	**24146.35**	**25297.40**
Security Expenses allowed separately	4469.83	4683.04	4906.42	5140.46	5385.66

Interest on Working Capital

131. Sub-section (c) of clause (1) of Regulation 34 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 expense including security expenses; and*
>
> *(iii) Operation and maintenance expenses including security expenses for one month"*

Working capital for Receivables

132. Receivable component of working capital has been worked out and allowed on the basis of 45 days of fixed cost as under:

(Rs. in lakh)

2019-20	2020-21	2021-22	2022-23	2023-24
11703.92	9017.75	9168.26	9339.33	9492.21

Working capital for Maintenance Spares

133. Maintenance spares component of Working Capital has been worked out on the basis of 15% of annual O&M expenses and allowed as under:

(Rs. in lakh)

2019-20	2020-21	2021-22	2022-23	2023-24
3820.18	4002.31	4193.12	4393.02	4602.46

Working capital for O&M expenses

134. O&M expenses component of Working Capital has been worked out on the basis of one month of O&M expenses including security expenses and allowed as under:

(Rs. in lakh)

2019-20	2020-21	2021-22	2022-23	2023-24
2122.32	2223.50	2329.51	2440.57	2556.92

Rate of Interest of working Capital

135. Regulation 34(3) of the 2019 Tariff Regulations provides as under:

> *"34(3) Rate of interest on working capital shall be on normative basis and shall be considered as the bank rate as on 1.4.2014 or as on 1st April of the year during the tariff period 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 at bank rate as on 1st April of each of the financial year during the tariff period 2019-24."*

136. In accordance with Regulation 34(3) of the 2019 Tariff Regulations, the rate of interest on working capital considered on projection basis, for the 2019-24 tariff period is 12.05% (i.e.1-year SBI MCLR of 8.55% as on 1.4.2019 + 350 basis points). As the tariff of the generating station for 2019-24 tariff period is being determined during 2022-23, SBI MCLR as on 1.4.2020 (7.75%) and as on 1.4.2021 (7.00%) is also available which is lower in comparison to the same, as on 1.4.2019 (8.55%). Since the rate of interest on working capital is subject to revision at the time of truing-up of tariff, based on the bank rate as on 1st April of each financial year, we find it prudent to allow the rate of interest as on 1.4.2020 and 1.4.2021, for the subsequent financial years. Accordingly, the rate of interest for the year 2019-20 is 12.05%, 2020-21 is 11.25% and for the subsequent years the rate of interest of 10.50% has

been considered (i.e. 1 year SBI MCLR of 7.75% as on 1.4.2020 + 350 basis points and 1 year SBI MCLR of 7.00% as on 1.4.2021 + 350 basis points).

137. Accordingly, Interest on working capital is allowed as under:

(Rs. in lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24
Working capital for O&M expenses (one month)	2122.32	2223.50	2329.51	2440.57	2556.92
Working capital for Maintenance Spares	3820.18	4002.31	4193.12	4393.02	4602.46
Working capital for Receivables	11703.92	9017.75	9168.26	9339.33	9492.21
Total Working capital	**17646.43**	**15243.56**	**15690.88**	**16172.92**	**16651.60**
Rate of interest (%)	12.050	11.250	10.500	10.500	10.500
Interest on Working capital for	**2126.39**	**1714.90**	**1647.54**	**1698.16**	**1748.42**

Annual Fixed Charges

138. Based on the above, 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	27322.36	5019.83	5026.46	5028.46	5030.73
Interest on loan	555.46	0.00	0.00	0.00	0.00
Return on Equity	39719.83	39727.24	39736.66	39738.89	39741.14
O&M Expenses	20998.05	21999.00	23047.68	24146.35	25297.40
Security Expenses	4469.83	4683.04	4906.42	5140.46	5385.66
Interest on Working capital	2126.39	1714.90	1647.54	1698.16	1748.42
Total	**95191.92**	**73144.01**	**74364.76**	**75752.32**	**77203.35**

Normative Annual Plant Availability Factor (NAPAF)

139. Since NAPAF of 90% as claimed by the Petitioner is in accordance with Regulation 37(4) of the 2014 Tariff Regulations, the same is allowed.

Design Energy (DE)

140. The Commission in its order dated 30.5.2011 in Petition No.60/2010 had approved the annual Design Energy (DE) of 1907 Million units for the period 2009-14 in respect of this generating station. This DE has been considered for this generating station for the period 2019-24 as per month-wise details as under:

Months	Design Energy (MU)
April	110.7
May	230.3
June	266.7
July	275.6
August	275.6
September	261.3
October	134.5
November	84.0
December	73.4
January	64.3
February	55.6
March	74.6
Total	**1907**

Application Fee and Publication Expenses

141. The Petitioner has sought the reimbursement of fees paid by it for filing the tariff petition and for publication expenses in respect of the same. Accordingly, in terms of the Regulation 70(1) of the 2019 Tariff Regulations, the Petitioner shall be entitled for the reimbursement of filing fees and publication expenses in connection with the present petition, directly from the beneficiaries, on pro-rata basis.

142. 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.

Summary

143. The annual fixed charges claimed and allowed for the 2014-19 tariff period are summarized below:

	2014-15	2015-16	2016-17	2017-18	2018-19
Annual fixed charges claimed	95828.91	95130.63	93818.35	93018.76	92184.35
Annual fixed charges allowed	95381.22	94767.77	93746.47	92569.27	91627.14

144. The annual fixed charges claimed and allowed for the 2019-24 tariff period are summarized below:

	2019-20	2020-21	2021-22	2022-23	2023-24
Annual fixed charges claimed*	91644.94	69481.33	70647.44	71875.39	73159.42
Annual fixed charges allowed	95191.92	73144.01	74364.76	75752.32	77203.35

**Security Expenses not included in above claim, however the same have been claimed and allowed separately, so the same is included in the Annual fixed charges allowed amount indicated in the above table.*

145. Annexure-I and Annexure-II attached herewith form part of this order.

146. Petition No. 146/GT/2020 is disposed of in terms of the above.

Sd/-	Sd/-	Sd/-	Sd/-
(Pravas Kumar Singh)	**(Arun Goyal)**	**(I. S. Jha)**	**(P. K. Pujari)**
Member	**Member**	**Member**	**Chairperson**

Annexure I: Weighted average rate of Depreciation for the period 2014-19

Sl. No.	Name of the Assets[1]		Gross Block as on 31.03.2014	Gross Block as on 31.03.2015	Gross Block as on 31.03.2016	Gross Block as on 31.03.2017	Gross Block as on 31.03.2018	Gross Block as on 31.03.2019	Depreciation Rates as per CERC's Depreciation Rate Schedule	Depreciation Amount for 31.03.2014	Depreciation Amount for 31.03.2015	Depreciation Amount for 31.03.2016	Depreciation Amount for 31.03.2017	Depreciation Amount for 31.03.2018	Depreciation Amount for 31.03.2019
	1		2	3	4	5	6	7	8	9=Col.2XCol.8	10=Col.3XCol.8	11=Col.4XCol.8	12=Col.5XCol.8	13=Col.6XCol.8	14=Col.7XCol.7
1	Land – Freehold	410101	0	0	0	0	0	0	0.00%	0	0	0	0	0	0
2	Land – Leasehold	410111	35814893	3,58,14,893	3,58,14,893	3,58,14,893	3,88,14,893	3,88,14,893	3.34%	11,96,217	11,96,217	11,96,217	11,96,217	12,96,417	12,96,417
3	Roads and Bridges	4102	112747134	12,06,14,558	12,91,28,076	14,01,90,573	15,48,26,868	15,48,26,868	3.34%	37,65,754	40,28,526	43,12,878	46,82,365	51,71,217	51,71,217
4	Buildings Others	4103	126778309	14,33,40,972	15,70,43,034	16,71,08,194	20,35,77,626	20,33,02,740	3.34%	42,34,396	47,87,588	52,45,237	55,81,414	67,99,493	67,90,312
5	INTERNAL ELECTRIFICATION WORK -BUILDINGS-OTHERS	4104	0	0		0	45,005	45,005	6.33%	0	0	0	0	2,849	2,849
6	Building containing GPM	410301,410303	2445977419	2,45,38,35,096	2,45,38,35,096	2,45,38,35,096	2,45,38,35,096	2,45,38,35,096	3.34%	8,16,95,646	8,19,58,092	8,19,58,092	8,19,58,092	8,19,58,092	8,19,58,092
7	BUILDINGS-TEMPORARY	410305,	2888711	28,88,711	28,88,711	28,88,711	2,45,23,466	2,80,35,981	100%	28,88,711	28,88,711	28,88,711	28,88,711	2,45,23,466	2,80,35,981
8	Railway sidings	4105	0	0	0	0	0	0	5.28%	0	0	0	0	0	0
9	Hydraulic Works (Dams, Water Conductor system, Hydro mechanical gates, tunnels)	4106	29650191336	29,65,50,74,720	29,66,48,83,861	29,69,42,84,161	29,73,41,64,789	29,73,41,64,789	5.28%	1,56,55,30,103	1,56,57,87,945	1,56,63,05,868	1,56,78,58,204	1,56,99,63,901	1,56,99,63,901
10	Generating Plant and machinery	4107	19682123699	19,70,38,66,983	19,80,81,21,924	19,89,03,59,384	19,89,18,70,120	20,06,88,56,148	5.28%	1,03,92,16,131	1,04,03,64,177	1,04,58,68,838	1,05,02,10,975	1,05,02,90,742	1,05,96,35,605
11	Plant and machinery Sub station	4108	7776092	77,76,092	1,04,77,773	1,04,77,773	1,12,04,522	1,12,04,522	5.28%	4,10,578	4,10,578	5,53,226	5,53,226	5,91,599	5,91,599
12	Plant and machinery Transmission lines	4109	56690987	5,66,90,987	5,73,15,928	5,73,15,928	5,73,15,928	5,74,56,418	5.28%	29,93,284	29,93,284	30,26,281	30,26,281	30,26,281	30,33,699
13	Plant and machinery Others	4110	4469493	44,69,493	53,42,930	56,15,685	91,49,049	91,49,049	5.28%	2,35,989	2,35,989	2,82,107	2,96,508	4,83,070	4,83,070
14	Construction Equipment	4111	37616014	3,95,68,653	3,95,68,653	7,48,20,110	7,50,18,029	7,50,17,529	5.28%	19,86,126	20,89,225	20,89,225	39,50,502	39,60,952	39,60,926
15	Water Supply System / Drainage and Sewerage	4112	58899006	7,41,69,927	8,49,95,070	12,30,49,795	12,94,47,857	12,99,04,328	3.34%	19,67,227	24,77,276	28,38,835	41,09,863	43,23,558	43,38,805
16	Electrical installations	4114	0	0	0	0	0	0	5.28%	0	0	0	0	0	0
17	Vehicles	4115	18592816	1,94,30,599	1,92,16,298	2,06,40,665	1,90,20,803	1,89,22,328	9.50%	17,66,318	18,45,907	18,25,548	19,60,863	18,06,976	17,97,621
18	Aircraft/ Boats	4116	389875	3,89,875	3,89,875	3,89,875	3,89,875	2,65,267	9.50%	37,038	37,038	37,038	37,038	37,038	25,200
19	Furniture and fixture	4117	10996689	1,14,21,055	1,20,89,167	1,26,69,062	1,34,12,637	1,36,24,462	6.33%	6,96,090	7,22,953	7,65,244	8,01,952	8,49,020	8,62,428
20	Computers	4118	20116241	1,40,12,105	1,59,31,488	1,30,87,986	1,46,33,508	1,57,19,704	15.00%	30,17,436	21,01,816	23,89,723	19,63,198	21,95,026	23,57,956
21	NETWORKING DEVICES & SERVER	411806	0	88,77,182	89,25,645	89,25,645	91,87,147	1,01,60,200	15.00%	0	13,31,577	13,38,847	13,38,847	13,78,072	15,24,030
22	Communication Equipment	4119	3146026	34,15,141	49,35,801	50,92,500	56,39,418	56,39,418	6.33%	1,99,143	2,16,178	3,12,436	3,22,355	3,56,975	3,56,975
23	Office Equipments	4120	20815346	2,11,00,314	2,11,92,214	2,31,22,994	2,43,13,559	1,52,77,805	6.33%	13,17,611	13,35,650	13,41,467	14,63,686	15,39,048	9,67,085
24	OFFICE EQUIPT- AIR CONDITIONER	412008	559345	6,87,932	7,85,032	8,31,032	10,11,532	1,01,60,200	9.50%	53,138	65,354	74,578	78,948	96,096	9,65,219
25	Research and Development	4121	0	0	0	0	0	0	0.00	0	0	0	0	0	0
26	Computer Software	4122	2041929	20,41,929	20,41,929	20,41,929	21,63,812	21,63,812	15.00%	3,06,289	3,06,289	3,06,289	3,06,289	3,24,572	3,24,572
27	Other assets	4125	20537382	2,25,31,757	2,66,81,696	2,89,82,329	3,73,48,945	5,32,51,602	6.33%	13,00,016	14,26,260	16,88,951	18,34,581	23,64,188	33,70,826
28	Capital Expenditure on assets Not Owned by NHPC	4126	0	0	0	0	0	0	0.00%	0	0	0	0	0	0
29	Tangible Assets of minor value >750 and < 5000	4128	2699323	28,41,531	33,04,489	37,98,516	47,44,231	48,25,162	5.28%	1,42,524	1,50,033	1,74,477	2,00,562	2,50,495	2,54,769
30															
	TOTAL		**52,32,18,68,065**	**52,40,48,60,505**	**52,56,49,09,583**	**52,77,53,42,836**	**52,91,56,58,715**	**53,11,46,23,326**		**2,71,49,55,766**	**2,71,87,56,664**	**2,72,68,20,115**	**2,73,66,20,678**	**2,76,35,89,145**	**2,77,80,69,153**
									Weighted Average Depreciation Rate (%) of depreciation	**5.1890%**	**5.1880%**	**5.1875%**	**5.1854%**	**5.2226%**	**5.2303%**

Annexure II: Weighted average rate of Depreciation for 2019-24 period

Sl. No.	Name of the Assets[1]		Gross Block as on 31.03.2019	Depreciation Rates as per CERC's Depreciation Rate Schedule	Depreciation Amount for 31.03.2019
	1		2	3	4=Col.2XCol.3
1	Land – Freehold	410101	0	0.00%	0
2	Land – Leasehold	410111	3,88,14,893	3.34%	12,96,417
3	Roads and Bridges	4102	15,48,26,868	3.34%	51,71,217
4	Buildings Others	4103	20,33,02,740	3.34%	67,90,312
5	INTERNAL ELECTRIFICATION WORK - BUILDINGS-OTHERS	4104	45,005	6.33%	2,849
6	Building containing GPM	410301,410303	2,45,38,35,096	3.34%	8,19,58,092
7	BUILDINGS-TEMPORARY	410305, 410326	2,80,35,981	100%	2,80,35,981
8	Railway sidings	4105	0	5.28%	0
9	Hydraulic Works (Dams, Water Conductor system, Hydro mechanical gates, tunnels)	4106	29,73,41,64,789	5.28%	1,56,99,63,901
10	Generating Plant and machinery	4107	20,06,88,56,148	5.28%	1,05,96,35,605
11	Plant and machinery Sub station	4108	1,12,04,522	5.28%	5,91,599
12	Plant and machinery Transmission lines	4109	5,74,56,418	5.28%	30,33,699
13	Plant and machinery Others	4110	91,49,049	5.28%	4,83,070
14	Construction Equipment	4111	7,50,17,529	5.28%	39,60,926
15	Water Supply System / Drainage and Sewerage	4112	12,99,04,328	3.34%	43,38,805
16	Electrical installations	4114	0	5.28%	0
17	Vehicles	4115	1,89,22,328	9.50%	17,97,621
18	Aircraft/ Boats	4116	2,65,267	9.50%	25,200
19	Furniture and fixture	4117	1,36,24,462	6.33%	8,62,428
20	Computers	4118	1,57,19,704	15.00%	23,57,956
21	NETWORKING DEVICES & SERVER	411806	1,01,60,200	15.00%	15,24,030
22	Communication Equipment	4119	56,39,418	6.33%	3,56,975
23	Office Equipments	4120	1,52,77,805	6.33%	9,67,085
24	OFFICE EQUIPT- AIR CONDITIONER	412008	1,01,60,200	9.50%	9,65,219
25	Research and Development	4121	0	0.00	0
26	Computer Software	4122	21,63,812	15.00%	3,24,572
27	Other assets	4125	5,32,51,602	6.33%	33,70,826
28	Capital Expenditure on assets Not Owned by NHPC	4126	0	0.00%	0
29	Tangible Assets of minor value >750 and < 5000	4128	48,25,162	5.28%	2,54,769
30				0.00%	0
	TOTAL		**53,11,46,23,326**		**2,77,80,69,153**
Weighted Average Depreciation Rate (%) of depreciation					**5.2303%**