CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI

<u>Petition No. 282/GT/2020</u>

Coram:

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

Date of Order: 14th August, 2022

IN THE MATTER OF

Petition for truing up of annual fixed charges for the 2014-19 tariff period and for determination of tariff for the 2019-24 tariff period in respect of Nimoo Bazgo Hydro Electric Power Station (45 MW)

AND

IN THE MATTER OF

NHPC Limited
(A Govt. of India Enterprise)
NHPC Office Complex, Sector-33,
Faridabad (Haryana) - 121 003 **...Petitioner**

Vs

1. Power Development Department,
New Secretariat,
Jammu -180 001 (J&K)

...Respondents

Parties Present:
Shri Sachin Datta, Senior Advocate, NHPC
Shri Rajiv Shankar Dvivedi, Advocate, NHPC
Shri M.G. Gokhale, NHPC
Shri Piyush Kumar, NHPC

<u>ORDER</u>

The Petitioner, NHPC Limited has filed the petition for truing up of tariff of Nimoo Bazgo Hydroelectric Power Station (3 x 15 MW) (hereinafter referred to as“the generating station”) for the 2014-19 tariff period in terms of Regulation 8 of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (in short 'the 2014 Tariff Regulations") and for determination of tariff for the 2019-24 tariff period in accordance with the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (in short 'the 2019 Tariff Regulations").

2. The generating station with a total capacity of 45 MW comprises of 3 units of 15 MW each and the said units were declared under commercial operation on 10.10.2013. The generating station situated in the State of J&K has been designed as a purely run of the river scheme with diurnal pondage to provide peaking for 4 hours (except during winter season). The project involves the construction of 57 m high concrete gravity dam and surface powerhouse at dam toe. The project would generate 239.33 million units in a 90% dependable year. Power Development Department, Govt. of Jammu Kashmir is the sole beneficiary of the project. The Petitioner has entered into a Power Purchase Agreement (PPA) with the Government of J&K on 26.10.2005 for supply of entire power from the project. Subsequently, the Ministry of Power, Govt. of India vide letter dated 8.4.2011 had made the following allocations from this project to the State of J&K as under:

	% share	Equivalent MW
Allocation to state of J&K	72	32.40
Unallocated share	15	6.75
Home state share	12	5.40
Free power to J&K towards local area development	1	0.45

3. The unallocated share of 15% power is also allocated to the State of J&K during winter season. The State Government of J&K will provide matching 1% power from its share of 12% free power, to the corpus of the Local Area Development Fund. Further, as per allocation letter 100 units of electricity per month

is to be provided by the petitioner to each family affected by the project for a period of 10 years from the date of commissioning of the project.

4. The Commission vide its order dated 22.9.2016 in Petition No. 229/GT/2014, had determined the capital cost and annual fixed charges of the generating station for the 2014-19 tariff period, on projection basis, as under:

Capital Cost allowed

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Opening capital cost	98102.08	101946.90	102795.70	105375.41	106205.41
Additional capital expenditure of original scope allowed	877.21	661.35	827.68	530.00	0.00
Additional capital expenditure beyond original scope allowed	33.80	39.32	806.50	300.00	0.00
Liabilities proposed to be discharged out of the existing liabilities	2933.81	148.13	945.53	0.00	0.00
Capital cost as on 31st March of the year	**101946.90**	**102795.70**	**105375.41**	**106205.41**	**106205.41**

Annual Fixed Charges allowed

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Return on Equity	6264.33	6411.31	6518.67	6625.44	6651.43
Interest on Loan	3968.80	3758.55	3455.38	3143.75	2783.73
Depreciation	4977.30	5094.08	5179.38	5264.22	5284.87
Interest on Working Capital	472.51	481.87	487.99	494.47	497.11
O & M Expenses	2215.59	2362.71	2519.59	2686.89	2865.30
Total	**17898.53**	**18108.51**	**18161.01**	**18214.77**	**18082.45**

Present Petition

5. The annual fixed charges determined vide order dated 22.9.2016 in Petition No. 229/GT/2014, were subject to revision based on truing-up exercise in terms of Regulation 8(1) of the 2014 Tariff Regulations. Accordingly, the Petitioner has filed the present petition for the 2014-19 tariff period and has claimed the capital cost and annual fixed charges as under:

Capital Cost claimed

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Capital Cost	98102.08	102215.12	104096.45	105698.87	106337.86
Add: Addition during the year	1583.45	1445.07	1379.14	420.73	635.88
Less: De-capitalization during the year	0.97	0.81	30.59	6.80	0.00
Less: Reversal during the year	0.00	0.00	0.00	0.00	0.00
Add: Discharges during the year	2530.57	437.07	253.87	225.06	38.39
Closing Capital Cost	102215.12	104096.45	105698.87	106337.86	107012.13
Average Capital Cost	**100158.60**	**103155.78**	**104897.66**	**106018.36**	**106675.00**

Annual Fixed Charges claimed

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	4968.85	5116.38	5208.24	5264.75	5293.75
Interest on Loan	3973.40	3760.69	3457.16	2597.31	2232.77
Return on Equity	6336.73	6542.14	6600.05	6715.41	6783.57
Interest on Working Capital	474.09	485.44	490.57	483.97	487.68
O&M Expenses	2215.59	2362.71	2519.59	2686.89	2865.30
Total	**17968.66**	**18267.37**	**18275.61**	**17748.34**	**17663.06**

6. The Respondent has not filed its reply to the petition filed by the Petitioner. The Petitioner has submitted the additional information vide affidavit dated 28.5.2020 and has served copies to the Respondent. Though the Commission had reserved its order in the petition on 25.5.2021, the order could not be passed prior to the Chairperson, Shri P. K. Pujari demitting office. Therefore, the Petition was re-listed and heard on 24.6.2022, through virtual conferencing, and the Commission after permitting the Petitioner to submit certain additional information, reserved its order in the petition. The Petitioner vide affidavit dated 1.7.2022 submitted the additional information after serving copy on the Respondent. Based on the submissions and the documents available on record, we proceed to true-up the tariff of the generating station for the 2014-19 tariff period and determine the tariff for the 2019-24 tariff periods, as stated in the subsequent

paragraphs.

Capital Cost

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

> *"9(1) The Capital cost as determined by the Commission after prudence check in accordance with this regulation shall form the basis of determination of tariff for existing and new projects;*
>
> *(2) The Capital Cost of a new project shall include the following:*
> *(a) the expenditure incurred or projected to be incurred up to the date of commercial operation of the project;*
> *(b) Interest during construction and financing charges, on the loans*
> *(i) being equal to 70% of the funds deployed, in the event of the actual equity in excess of 30% of the funds deployed, by treating the excess equity as normative loan, or*
> *(ii) being equal to the actual amount of loan in the event of the actual equity less than 30% of the funds deployed;*
> *(c) Increase in cost in contract packages as approved by the Commission;*
> *(d) Interest during construction and incidental expenditure during construction as computed in accordance with Regulation 11 of these regulations;*
> *(e) capitalised Initial spares subject to the ceiling rates specified in Regulation 13 of these regulations;*
> *(f) expenditure on account of additional capitalization and de-capitalization determined in accordance with Regulation 14 of these regulations;*
> *(g) adjustment of revenue due to sale of infirm power in excess of fuel cost prior to the COD as specified under Regulation 18 of these regulations; and*
> *(h) adjustment of any revenue earned by the transmission licensee by using the assets before COD.*
>
> *(3) The Capital cost of an existing project shall include the following:*
> *a) the capital cost admitted by the Commission prior to 1.4.2014 duly trued up by excluding liability, if any, as on 1.4.2014;*
> *b) additional capitalization and de-capitalization for the respective year of tariff as determined in accordance with Regulation 14; and*
> *c) expenditure on account of renovation and modernisation as admitted by this Commission in accordance with Regulation 15.*
> *xxxx.."*

8. Clause (1) of Regulation 9 of the 2014 Tariff Regulations provides that the capital cost as determined by the Commission after prudence check in accordance with this regulation shall form the basis of determination of tariff for existing and new projects. The Petitioner has claimed the opening capital cost of Rs. 98102.08 lakh, as on 1.4.2014, as allowed as on 31.3.2014, vide Commission's order dated 22.9.2016 in Petition No. 229/GT/2014. Accordingly, the same has been

considered as opening admitted capital cost as on 1.4.2014, for the purpose of truing-up of tariff for the 2014-19 tariff period.

Cut-off Date

9. The generating station has been declared under commercial operation on 10.10.2013. As per Regulation 3(13) of the 2014 Tariff Regulations, the cut-off date for the generating station is 31.3.2016. The Petitioner vide affidavit dated 28.10.2019 has submitted that the Commission in its order dated 22.9.2016 in Petition No. 229/GT/2014 had extended the cut-off date of the generating station till 31.3.2018, considering the difficulties encountered by the Petitioner, in the execution of the project like extreme weather conditions, difficult terrain etc. The Petitioner has also submitted that it has incurred expenditure on additional capitalization, mainly on deferred works, which were within the original scope of works and has claimed tariff up to the extended cut-off date (i.e. 31.3.2018). It has further submitted that due to the aforesaid reasons, which were beyond the control of the Petitioner, it could not execute all the works for which additional capital expenditure was allowed within the extended cut-off date (i.e. 31.3.2018). Consequent upon this, the Petitioner has submitted that the balance works / supplies are still in progress/process and are being undertaken and a major portion of the same is anticipated to be executed by the generating station by 31.3.2021. Accordingly, the Petitioner has submitted that the works which were executed after original cut-off date (31.3.2016) up to 31.3.2018 and anticipated to be executed during the 2019-24 tariff period, have been claimed by the Petitioner in the present petition. Based on this, the Petitioner has prayed that the Commission may allow such additional capital expenditure claimed for the generating station.

10. We have examined the matter. The relevant portion of the Commission's order dated 22.9.2016 in Petition No. 229/GT/2014, granting extension of cut-off date of the generating station, till 31.3.2018, is extracted hereunder:

> *"We have examined the matter. As stated, the COD of the generating station is 10.10.2013 and in terms of Regulation 3(11) of the 2009 Tariff Regulations, the cut -off date of the generating station is 31.3.2016. However, considering the difficulties being encountered by the petitioner during project execution i.e difficult terrain, extreme weather conditions including sub-zero temperatures for 6-7 months in a year, closure of approach road to the area in which project is located for almost six months in a year leading to stoppage of transportation of necessary material & equipment and non-availability of efficient contractors and skilled labour, we are of the considered view that the prayer of the petitioner for extension of the cut -off date by two years is justified. Accordingly, the prayer of the petitioner for extension of cutoff date of the generating station from 31.3.2016 to 31.3.2018 is accepted and the claim of the petitioner for additional capital expenditure shall be considered in terms of the provisions under Regulation 14(1) and under Regulation 14(3) of the 2014 Tariff Regulations……………………"*

11. We notice from the submissions of the Petitioner that despite the grant of extension of cut-off date of the generating station from 31.3.2016 to 31.3.2018, for the reasons mentioned therein, by order dated 22.9.2016, the Petitioner has not been able to complete the admitted works, within the original scope of work of the project, by the extended cut-off date. In this background, we find no reason to extend the cut-off date further till 31.3.2021, as prayed for by the Petitioner. However, keeping in view that the said works, within the original scope, are in progress, we are inclined to consider the additional capitalization in respect of the said works/ items, initial spares, after cut-off date, on prudence check of the submissions of the Petitioner, subject however, to the balance limit available for capitalization of assets/ works within the original scope. In this background, we examine the claims of the Petitioner for additional capital expenditure for the 2014-19 tariff period as follows:

<u>Additional capital expenditure</u>

12. Regulation 14 of the 2014 Tariff Regulations provides that the application

for determination of tariff shall be based on admitted capital cost including any additional capital expenditure already admitted up to 31.3.2014 (either based on actual or projected additional capital expenditure) and for the respective years of 2014-19 tariff period. Regulation 14 of the 2014 Tariff Regulations provides as under:

"14. Additional Capitalisation and De-capitalisation:
*(**1**) The capital expenditure in respect of the new project or an existing project incurred or projected to be incurred, on the following counts within the original scope of work, after the date of commercial operation and up to the cut-off date may be admitted by the Commission, subject to prudence check:*
(i) Undischarged liabilities recognized to be payable at a future date;
(ii) Works deferred for execution;
(iii) Procurement of initial capital spares within the original scope of work, in accordance with the provisions of Regulation 13;
(iv) Liabilities to meet award of arbitration or for compliance of the order or decree of a court of law; and
(v) Change in law or compliance of any existing law:
Provided that the details of works asset wise/work wise included in the original scope of work along with estimates of expenditure, liabilities recognized to be payable at a future date and the works deferred for execution shall be submitted along with the application for determination of tariff.

(2) *The capital expenditure incurred or projected to be incurred in respect of the new project on the following counts within the original scope of work after the cut-off date may be admitted by the Commission, subject to prudence check:*
(vi) Liabilities to meet award of arbitration or for compliance of the order or decree of a court of law;
(vii) Change in law or compliance of any existing law;
(viii) Deferred works relating to ash pond or ash handling system in the original scope of work; and
(ix) Any liability for works executed prior to the cut-off date, after prudence check of the details of such undischarged liability, total estimated cost of package, reasons for such withholding of payment and release of such payments etc.

(3) *The capital expenditure, in respect of existing generating station or the transmission system including communication system, incurred or projected to be incurred on the following counts after the cut-off date, may be admitted by the Commission, subject to prudence check:*
(x) Liabilities to meet award of arbitration or for compliance of the order or decree of a court of law;
(xi) Change in law or compliance of any existing law;
(xii) Any expenses to be incurred on account of need for higher security and safety of the plant as advised or directed by appropriate Government Agencies of statutory authorities responsible for national security/internal security;
(xiii) Deferred works relating to ash pond or ash handling system in the original scope of work;
(xiv) Any liability for works executed prior to the cut-off date, after prudence check of the details of such un-discharged liability, total estimated cost of package, reasons for such withholding of payment and release of such payments etc.;
(xv) Any liability for works admitted by the Commission after the cut-off date to the

extent of discharge of such liabilities by actual payments;
(xvi) Any additional capital expenditure which has become necessary for efficient operation of generating station other than coal / lignite based stations or transmission system as the case may be. The claim shall be substantiated with the technical justification duly supported by the documentary evidence like test results carried out by an independent agency in case of deterioration of assets, report of an independent agency in case of damage caused by natural calamities, obsolescence of technology, up-gradation of capacity for the technical reason such as increase in fault level;
(xvii) In case of hydro generating stations, any expenditure which has become necessary on account of damage caused by natural calamities (but not due to flooding of power house attributable to the negligence of the generating company) and due to geological reasons after adjusting the proceeds from any insurance scheme, and expenditure incurred due to any additional work which has become necessary for successful and efficient plant operation;
(xviii) In case of transmission system, any additional expenditure on items such as relays, control and instrumentation, computer system, power line carrier communication, DC batteries, replacement due to obsolesce of technology, replacement of switchyard equipment due to increase of fault level, tower strengthening, communication equipment, emergency restoration system, insulators cleaning infrastructure, replacement of porcelain insulator with polymer insulators, replacement of damaged equipment not covered by insurance and any other expenditure which has become necessary for successful and efficient operation of transmission system; and
(xix) Any capital expenditure found justified after prudence check necessitated on account of modifications required or done in fuel receiving system arising due to non-materialization of coal supply corresponding to full coal linkage in respect of thermal generating station as result of circumstances not within the control of the generating station:
Provided that any expenditure on acquiring the minor items or the assets including tools and tackles, furniture, air-conditioners, voltage stabilizers, refrigerators, coolers, computers, fans, washing machines, heat convectors, mattresses, carpets etc. brought after the cut-off date shall not be considered for additional capitalization for determination of tariff w.e.f. 1.4.2014:

13. The Petitioner, in Form- 9C, has submitted the reconciliation statement of the actual additional capital expenditure as against capital additions, as per books of accounts for the 2014-19 tariff period as under:

(Rs. in lakh)

	2014-15	**2015-16**	**2016-17**	**2017-18**	**2018-19**
Closing Gross Block	97009.83	98323.56	99686.57	100124.48	100869.47
Less: Opening Gross Block	95380.56	97009.83	98323.56	99686.57	100124.48
Total Additions as per books	1629.28	1313.73	1363.00	437.92	744.98
Less: Additions pertaining to other Stages (give Stage wise breakup)	0.00	0.00	0.00	0.00	0.00
Net Additions pertaining to instant	**1629.28**	**1313.73**	**1363.00**	**437.92**	**744.98**

	2014-15	2015-16	2016-17	2017-18	2018-19
project / Unit / Stage					
Less: Exclusions (items not allowable / not claimed) [Form 9D - Exclusions under Form 9(B)(i)]	(-) 5.51	(-)165.43	(-) 3.40	(-) 5.59	50.61
Less: Assumed Deletion	0.46	0.00	0.00	0.00	0.00
Net Additional Capital Expenditure claimed as per books	**1634.33**	**1479.15**	**1366.41**	**443.51**	**694.37**
Less: Decapitalisation	(-) 0.97	-0.81	(-) 30.59	(-) 6.80	0.00
Less: Undischarged liabilities	51.89	34.96	17.83	29.52	58.52
Additional capital expenditure on cash basis	1583.45	1445.07	1379.14	420.73	635.88

14. The break-up of the actual additional capital expenditure claimed are as under:

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19	Total
Addition during the year / period	1583.45	1445.07	1379.14	420.73	635.88	5464.27
Less: De-capitalization during the year / period	0.97	0.81	30.59	6.80	0.00	39.17
Add: Discharges during the year / period	2530.57	437.07	253.87	225.06	38.39	3484.96
Net Additional capitalization during the year	4113.04	1881.33	1602.42	638.99	674.27	8910.05

15. The Commission vide order dated 19.4.2017 in Petition No. 252/GT/2014 had allowed the completion cost of the generating station as Rs. 105282.63 lakh [Rs. 98515.00 lakh (RCE considered by the Commission) + Rs. 6767.63 lakh (NIDC)]. As such, based on the completion cost of Rs. 105282.63 lakh, the balance limit available for capitalization of assets/ works, within the original scope of work of the project works is Rs. 7180.55 lakh [(Rs. 105282.63 lakh allowed completion cost by the Commission) - (Rs. 98102.08 lakh closing capital cost as on 1.4.2014 allowed by the Commission)]. The same is considered as the expenditure limit towards assets/ works within the original scope of work of the

generating station.

Initial Spares

16. As regards, initial spares, the Commission vide its order dated 22.9.2016 in Petition No. 229/GT/2014 had observed the following:

> "*<u>Procurement of initial capital spares within the original scope of work</u>*
>
> *The petitioner has claimed initial spares amounting to Rs. 1499.15 lakh as part of the projected additional capital expenditure upto the cut-off date (31.3.2018). It is noticed from the CEA letter dated 23.5.2014 on the "Project cost at completion level", that while examining the completion cost of the project, the CEA has not considered the expenditure on procurement of initial spares and had observed that „the additional initial spares have not been considered essential as the normal requirement of initial spares have already been included in the respective equipments. Since, the completion cost as allowed by the CEA/MOP includes the expenditure towards normal requirement of initial spares, we are not inclined to allow the claim of the petitioner for projected additional capital expenditure of Rs. 1499.15 lakh under this head. However, in case the actual cost of initial spares included in the equipments cost (as stated above) is lesser than the ceiling limit of 1.5% specified under Regulation 8 of the 2009 Tariff Regulations, the petitioner will be at liberty to claim the same at the time of truing-up of tariff of the generating station with proper justification and the same will be considered in accordance with law."*

17. The Petitioner, in this petition, has submitted that certain mandatory spares were supplied along with the mother plant equipment's, by the supplier, as part of the major contract packages and as such the cost of the same has been included in the cost of mother plant equipment, and the segregation of the cost of such spares, from the cost of mother plant, was not possible. It has submitted that as per provisions of Regulation 8(iii) of the 2009 Tariff Regulations, (applicable for the 2009-14 tariff period), the capitalization of initial spares was permitted, subject to a ceiling of 1.5% of the original project cost'. As the original project cost in respect of generating station is approx. Rs. 1052.83 crore (i.e. approved RCE of the project amounting to Rs. 985.15 crore + normative IDC of Rs.67.68 crore allowed by the Commission vide its order dated 13.10.2015), the ceiling limit for capitalization of initial spares works out to Rs. 15.79 crore. The Petitioner has

pointed out that during the 2014-19 tariff period, it has purchased and capitalized initial spares for Rs. 12.75 crore upto the cut-off date (i.e. 31.3.2018) in addition to the spares supplied along with mother plant equipments. Accordingly, the Petitioner has submitted that the Commission may allow the additional capitalization on account of initial spares for Rs.12.75 crore, under Regulation 14(l)(iii) of 2014 Tariff Regulations, on the following grounds:

a) The valuation of the spares supplied along with the mother plant is not possible.
b) Additionally, procured spares are essentially required for smooth running of the power station in long run.
c) The spares purchased and capitalized within cut-off date were in addition to the spares supplied along with the mother plant equipment's.
d) Due to peculiar geographical terrain, extreme weather conditions, closure of approach road to the Power Station for almost 6 months during a year leading to stoppage of transportation of equipments materials etc., it is very much essential to purchase and store necessary spares for catering the emergency situations.

18. The Petitioner, in this petition, has claimed a total amount Rs.1274.84 lakh of initial spares during the period 2014-18. In view of the submissions of the Petitioner and considering the location of the plant, we allow the initial spares claimed by the Petitioner, to the extent of the ceiling limit of the approved completion cost. The COD of the generating station is 10.10.2013, and hence, in terms of Regulation 8(iii) of the 2009 Tariff Regulations, the celling of initial spares @ 1.5% of the original project cost, as on cut-off date (31.3.2018) works out as Rs.1582.13 lakh. Since, the claim of the Petitioner for Rs. 1274.84 lakh, is within the permissible ceiling limit (of Rs.1582.13 lakh), the same is allowed during the year of claim, as stated in the following paragraphs:

(a) Additional Capital Expenditure claimed under original scope of work (admitted items)

19. The Petitioner has claimed following additional capital expenditure during 2014-19 tariff period under this head, as under:

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19	Total
Additional Capitalization allowed during the period 2014-19 (a)	821.44	690.55	171.46	0.00	30.12	1713.57
Additional capitalization on account of pay regularization (b)	0.00	0.00	0.00	0.00	250.19	250.19
Initial Capital Spares within celling of 1.5% of Project Cost till cutoff date as per 2009 Tariff Regulations (c)	45.42	263.43	833.44	132.55	0.00	1274.84
Discharged liabilities (d)	2530.57	437.07	253.87	225.06	38.39	3484.96
Total additional capital expenditure under original scope of work(e)=(a)+(b)+(c)+(d)	3397.43	1391.05	1258.77	357.61	318.70	6723.56

20. The Petitioner has claimed total additional capital expenditure for Rs.6723.56 lakh for works/assets within the original scope/RCE during the 2014-19 tariff period, under Regulation 14(1)(ii) of the 2014 Tariff Regulations. The above claim includes Rs.1713.57 lakh towards deferred works/assets related to the Construction of Executive Field Hostel (Package-2) in existing colony at Left bank NBHEP complex, Alchi, Purchase of Loader cum Excavator, 1/0.25 cum, Compressed Air (cfm) and its accessories, Submersible dewatering pumps, 20/25HP- 2 Nos. & 10HP- 3 Nos, Supply and installation of electric wet steam and hot water pressure machine and De-icing arrangement for Radial Gates, Supply and installation of cover plates, Wall Insulation of Field Hostels, Residential quarters, hospital and club building, Construction of Two Nos. Boiler rooms, Supply and installation of E-DAS (instrumentation)Cabin for E-DAS with computer

Facility, Wall lining and False ceiling at Power House Boom Barriers & Tyre Buster Ripper, Installation of CCTV Cameras at generating station for Power house, dam, switchyard & colony, Leh Guest House etc. Since, the additional capital expenditure of Rs.1713.57 lakh claimed in respect of the assets/works which are within the original scope of work of the project, had been admitted by the Commission in order dated 22.9.2016 in Petition No. 229/GT/2014 and are within the balance ceiling limit of the completion cost, the same are allowed, under Regulation 14(1)(ii) of the 2014 Tariff Regulations.

21. It is also noticed that the Petitioner has claimed expenditure for Rs.250.19 lakh in 2018-19 towards pay revision impact, which does not form part of original scope of work. In justification of the same the Petitioner has submitted as under:

> *a) "Union Cabinet in its meeting held on 16.01.2019 chaired by the Prime Minister has given its approval for regularization of pay scales of below Board level executives of NHPC Limited w.e.f. 01.01.1997 adopted by the petitioner. Ministry of Power vide its letter no. F.No. 2/1/20 14-H.I(Pt) dated 29.01.2019 (Annex-IV) has conveyed the approval of Government to regularize the adopted pay scales of below board level executives of the petitioner w.e.f. 01.01.1997 and the petitioner has been directed to implement the decision of the Government. In line with the direction of Govt., the pay scales of below board level executives were required to be reviewed & re-fixed w.e.f. 01.01.2007. Consequently, the petitioner vide office order no. 16/2019 dated 19.03.2019 (Annex-V) has re-fixed the pay w.e.f. 01.01.2007 in case of below Board level executives based on actual pay drawn by the employees in the pay scales w.e.f 01.01.1997 till 31.12.2006. This has resulted in payment of arrear amount to below Board level executives of the petitioner w.e.f. 0 l.0l.2007 and the same has been paid during FY 2018-19.*
>
> *b) The total arrear amount paid to the employees have been allocated to the under-construction projects, operating Power Stations and projects which were under construction during the period from 01.01.2007 to 31.03.2019 (capitalized through IEDC) based on the Accounting Policy. For recovery of amount allocated to the operating Power Stations, a separate petition has already been submitted by the petitioner. As the generating station was under construction till 10.10.2013, some portion of arrear amount (~2.50 Crore) has been routed through IEDC of the project and capitalized on major assets during 2018-19. Accordingly, the Commission is requested to allow the additional capitalization of Rs.2.50 Crore during FY 2018-19 on account of pay regularization of employees."*

22. With regard to above claim of the Petitioner, it is pertinent to mention that the Petitioner has filed Petition No. 343/MP/2019 before this Commission,

seeking recovery of the additional O&M expenses due to impact of pay/ wage revision of its employees for the period from 1.1.2017 to 31.3.2019. In view of this, the additional capital expenditure claimed is not allowed in this order and shall be guided by the decision in Petition No. 343/MP/2019.

23. It is further noticed that the total claim of Rs. 6723.56 lakh includes initial spares for Rs. 1274.84 lakh in 2014-18 which has been allowed as stated in paragraph 18 above. Further, out of total discharge of liabilities i.e. Rs. 3484.96 lakh claimed by the Petitioner during the 2014-19 tariff period, only an amount of Rs. 3378.98 lakh pertains to liabilities of assets/works of original scope of work. Accordingly, the same is allowed under Regulation 14(l)(i) of the 2014 Tariff Regulations.

24. In view of above, the total additional capital expenditure of Rs.6367.39 lakh (excluding pay revision impact of Rs.250.19 lakh) claimed by the Petitioner for works/assets of original scope including initial spares and discharges of liabilities during 2014-19 tariff period are allowed as summarized below:

(Rs. in lakh)

	2014-15	**2015-16**	**2016-17**	**2017-18**	**2018-19**	**Total**
Additional Capitalization against items allowed by Commission **(a)**	821.44	690.55	171.46	0.00	30.12	1713.57
Initial Capital Spares within celling of 1.5% of Project Cost till cutoff date as per 2009 Tariff Regulations **(b)**	45.42	263.43	833.44	132.55	0.00	1274.84
Addition on account of pay regularization **(c)**	0.00	0.00	0.00	0.00	0.00	0.00
Discharged liabilities of original scope **(d)**	2530.57	406.02	209.71	210.29	22.39	3378.98
Total additional capital expenditure under original scope of work (e)=(a)+(b)+(c)+(d)	**3397.43**	**1360.00**	**1214.61**	**342.84**	**52.51**	**6367.39**

25. The balance limit in respect of works/assets which are within the original

scope of work, after adjustment of the additional capital expenditure, allowed as above, as on 31.3.2019, works out to Rs. 813.16 lakh [Rs.7180.55 (available balance limit for works under original scope) – Rs. 6367.39 lakh (allowed works within the original scope during the 2014-19 tariff period)].

(b) Additional Capital Expenditure claimed as per site requirement

26. As regards the additional capital expenditure claimed as per site requirement (excluding liabilities), the Petitioner has claimed total amount of Rs.2225.67 lakh during the 2014-19 tariff period. which is examined, below:

2014-15

27. The additional capital expenditure claimed by the Petitioner in 2014-15, on cash basis, is examined as under:

(Rs. in lakh)

Sl. No.	Assets/Works	Amount Claimed	Justification and Reason of admissibility	Amount Allowed
	Regulation 14(3)(viii) of the 2014 Tariff Regulations			
1	Land measuring 618 kanals and 12 marlas under khasra no-2230 and 2231 situated at saspol	500.00	The Petitioner has submitted that Land was acquired for project as per Notification dated 29/11/2014 of land Acquisition. Considering the fact that the expenditure claimed is based on direction of Sub divisional magistrate, Khaltsi, the same is **allowed** under Regulation 14(1)(iv) of the 2014 Tariff Regulations.	500.00
2	P/L of premix bituminous macadam & carpet surfacing from Alchi to NHPC RD 6570-7995 m	9.68	The Petitioner has submitted that the road from Alchi to NHPC is the main approach road and for safe vehicular movement of project vehicles, the expenditure on this account has been incurred. Considering the fact that the expenditure incurred is for asset/work which is in the nature of O&M expenses, the additional capitalization claimed is **not allowed**.	0.00
3	Supply and fixation	25.73	The Petitioner has submitted that	25.73

Sl. No.	Assets/Works	Amount Claimed	Justification and Reason of admissibility	Amount Allowed
	of insulating Mat at Powerhouse		as per Electricity Act,2003 all electrical/ electronic panels installed in powerhouse must be surrounded by insulating mats for safety of man and machines from electric shocks and fire which is a statutory requirement for obtaining Electrical clearance License from J&K Govt. and accordingly the instant procurement was initiated. Considering the fact that the assets/works are considered for the successful and efficient plant operation, the expenditure is **allowed** under Regulation 14(3)(viii) of the 2014 Tariff Regulations.	
4	Making platform for unloading tankers at tank area (At Switchyard)	5.91	The Petitioner has submitted that the Power Station was not mapped to Central Grid. The Power Station was operating on island mode. The power feedback available is the power from DG Sets in emergencies. Hence, platform for unloading POL from tankers is essential. Considering the fact that the expenditure incurred is for assets which are in the nature of O&M expenses, the additional capitalization claimed is **not allowed**.	0.00
5	Providing and Fixing Thermal insulation at VIP Guest house New	17.40	The temperature in the region is aggressive in nature and it goes upto sub-zero temperature i.e. -40 degree Celsius. In order to protect visitors and workers from exposure of extreme sub-zero temperature and to avoid chances of occurrence of any health issues, thermal insulation of guest house was provided to maintain ambient temperature condition for visitors as well as working staffs. Considering the fact that the expenditure incurred is for assets which are in the nature of O&M expenses, the additional capitalization claimed is **not allowed**.	0.00
6	Workshop taken	11.60	Considering the fact that the	0.00

Sl. No.	Assets/Works	Amount Claimed	Justification and Reason of admissibility	Amount Allowed
	over from HCC		additional capital expenditure incurred is for assets which are in the nature of O&M expenses, the claim is **not allowed**.	
7	Store Building taken over from HCC	13.50		0.00
8	Providing platform on insulated hydraulic pipeline of all five radial gates	2.81	The Petitioner has submitted that the temperature in the region is extreme more than -40-degree celsius. Thus, platform for providing insulation of hydraulic pipeline for all the 5-radial gate is essential in winter. Considering the fact that the asset/ work is considered necessary for the successful and efficient plant operation, the expenditure is **allowed** under Regulation 14(3)(viii) of the 2014 Tariff Regulations.	2.81
9	Inverter based potable welding set, amp-200, volt-230,1 phase, make-ESAB, model-buddy arc200	0.25	Considering the fact that the expenditure incurred is for assets which are in the nature of tools & tackles, the additional capitalization claimed are **not allowed**.	0.00
10	Inverter based portable welding set, amp-400, volt-440,3 phase, make-ESAB, model: BuddyARC 400i xc	0.67		0.00
11	8" bore well in generating station colony	9.27	The Petitioner has submitted that in order to provide potable and fresh water free from contamination for employees posted at Power Station, a borewell was provided in the colony of generating station. Considering the fact that the expenditure incurred is for assets/works which are not directly related to Plant & Machinery, the claim is **not allowed.**	0.00
12	105 Racks in Store Building taken over from HCC + Renovation of 75 Racks (455017+ 799948)	12.55	Considering the fact that the expenditure incurred is for assets which is in the nature of O&M expenses, the claim is **not allowed.**	0.00
14	Minor assets	8.41	Considering the fact that the	0.00

Sl. No.	Assets/Works	Amount Claimed	Justification and Reason of admissibility	Amount Allowed
	(Laptop, Printer, UPS, LCD Projector etc.,)		expenditure incurred is for assets/works, which are minor in nature, the claims are **not allowed**	
26	Minor assets (Hospital items such as oxygen concentrator 5lpm Pulse-oximeter etc.,),	10.13		0.00
31	Analog extension line card 24 port for hipath 3800 epabx	1.20	The Petitioner has submitted that extension line card is established for smooth communication among office complex, powerhouse complex and Dam complex. Considering the fact that the expenditure incurred is for asset which is in the nature of O&M expenses, the claim is **not allowed**.	0.00
32	Kheraj electrical siren (3.25 km)	0.62	The Petitioner has submitted that sirens are installed at various points of Dam downstream for safety purpose at the time of releasing of water during Flood and make alert the nearby people who may be affected by downstream discharge water. Considering the fact that the assets/works are considered for safety of the plant which will facilitate the successful and efficient plant operation, the expenditures are **allowed** under Regulation 14(3)(viii) of the 2014 Tariff Regulations.	0.62
33	Kheraj make Horizontal Double Mounting type Siren 400/440V, 2800RPM 5HP	1.88		1.88
34	10mm ss chains 304+one ring14x50 at every meter, effective. length=15mtrs, with 14x14 D-Shackle	2.35	The Petitioner has submitted that the snowfall occurs in winter which creates difficulty in movement of vehicle and in order to avoid skidding of vehicles on snow covered roads during winter season, Chain were purchased. Considering the fact that the expenditure incurred is for asset which is in the nature of O&M expenses, the claim is **not allowed**.	0.00
35	Minor Assets such as LED, wooden bed, Pedestal fan, GSM Sim, TV Set	22.93	Considering the fact that the expenditure incurred is for asset which are minor in nature, the claim is **not allowed.**	0.00

Sl. No.	Assets/Works	Amount Claimed	Justification and Reason of admissibility	Amount Allowed
	etc.,			
36	Inter Unit Transfer such as revolving chair, table, tv refrigerator etc.,	25.44	The Petitioner has not clarified if the said assets/works are of temporary or permanent nature. Moreover, the expenditure incurred is for asset which is minor in nature. In view of these, the additional capitalization claimed is **not allowed**	0.00
37	Mini Truck TATA-407	6.33	The Petitioner has submitted that at present one no. Tata-407 mini truck of 2005 model is available at Site. This mini truck has already covered more than 2 lac KM and is not functioning properly in this harsh climate. As per norms, after running more than 1.5 lac km, mini truck can be replaced with a new one. It is observed that the asset is already allowed by the Commission in order dated 22.9.2016 in Petition No. 229/GT/2014 for an amount of Rs. 5.87 lakh. Considering the fact that the asset/work has been allowed by order dated 22.9.2016 and the said asset will facilitate the successful and efficient plant operation of the generating station, the expenditure is **allowed** under Regulation 14(3)(viii) of the 2014 Tariff Regulations. The Petitioner has not submitted the value of de-capitalized old asset, but has submitted the value of 'assumed deletion' of this asset. The value of Rs. 3.89 lakh has been computed as per consistent methodology and adjusted under 'Assumed deletions'	6.33
38	Supply, Installation, Testing & Commissioning of Electrical Heating Panels for Newly Constructed Executive Field Hostels 1, 2 & 3, Non-Executive Field Hostel, Officer	27.93	The Petitioner has submitted that during winter season from period November to April the temperature remains in the range of minus i.e. from -10 degree to -40 degree Celsius. At present this heating system is not installed in these buildings. It is observed that the asset is already allowed by the Commission in order dated	27.93

Sl. No.	Assets/Works	Amount Claimed	Justification and Reason of admissibility	Amount Allowed
	club, Hospital, Old VIP Guest House, Dam Control Room, Switchyard rooms, Leh Guest House & Security Huts for space heating arrangement.		22.9.2016 in Petition No. 229/GT/2014 for an amount of Rs. 27.93 lakh. Considering the fact that the assets/works has been allowed by order dated 22.9.2016 and the same will facilitate the successful and efficient plant operation of the generating station, the claim is **allowed** under Regulation 14(3)(viii) of the 2014 Tariff Regulations.	
	Total Amount claimed	**716.59**		
	Total Amount allowed			**565.30**

28. In view of the above, the total additional capital expenditure of Rs. 565.30 lakh is allowed in 2014-15.

<u>2015-16</u>

29. The additional capital expenditure claimed by the Petitioner in 2015-16 on cash basis, is examined as under:

(a) Items additionally claimed as per actual site requirement

(Rs. in lakh)

Sl. No.	Assets/Works	Amount Claimed	Justification and Reason for admissibility	Amount Allowed
1	Providing & fixing of steel crash barriers at site of powerhouse approach road and Saspol road corners of generating station	79.52	The Petitioner has submitted that the barriers are installed for safety purpose of movement of vehicle and people in Power Station approach road and Saspol road corners. Considering the fact that the expenditure incurred is for asset which is in the nature of O&M expenses, the additional capitalization claimed is **not allowed**.	0.00
2	Providing aluminum framed glass door and panels in the Powerhouse various location at generating station Alchi	1.36	The Petitioner has submitted that the Panels and glass doors are installed for cabinets used for office establishment in the Powerhouse. Considering the fact that the expenditure incurred is for assets/works which are not directly related to Plant & Machinery, the additional capitalization claimed	0.00

Sl. No.	Assets/Works	Amount Claimed	Justification and Reason for admissibility	Amount Allowed
			is **not allowed.**	
3	Supply, installation & commissioning of Thermal Lagging of Cooling water system at generating station	36.13	The Petitioner has submitted that the Since the ambient temperature during peak winter reaches -30 degree Celsius at generating station, there is always a possibility of choking the cooling water pipelines due to ice formation inside the pipe. To prevent ice formation, the case for procurement & installation of thermal lagging was initiated. Considering the fact that the asset/work will facilitate the successful and efficient plant operation of the generating station, the additional capital expenditure claimed is **allowed** under Regulation 14(3)(viii) of the 2014 Tariff Regulations.	36.13
4	Providing and fixing of gauge on windows in NHPC guest house leh at NHPC limited	1.22	The Petitioner has submitted that the Glass windows are in Guest House, for protection & security of guest house GI Wire Mesh was installed at the windows. Considering the fact that the expenditure incurred is for assets/works which are not directly related to Plant & Machinery, the additional capitalization claimed is **not allowed.**	0.00
5	Fencing on the top of boundary wall of office and residential complex including chain link fencing	27.45	The Petitioner has submitted that the as the safety of Power station is of prime concern as per the directions of relevant Ministry, GoI, Fencing is essential for safety of the Power Station in order to avoid any trespassing. Considering the fact that the expenditure incurred is for assets/works which are not directly related to Plant & Machinery, the additional capitalization claimed is **not allowed.**	0.00
6	Providing and fixing concertina fencing around the Dam area & store (121/000301)	22.49	The Petitioner has submitted that the Fencing is essential for safety of the Power Station as directed by The Ministry, GOI. Considering the fact that the assets/works are considered for	22.49

Sl. No.	Assets/Works	Amount Claimed	Justification and Reason for admissibility	Amount Allowed
			safety of the plant which and will facilitate the successful and efficient plant operation of the generating station, the expenditure is **allowed** under Regulation 14(3)(viii) of the 2014 Tariff Regulations.	
7	Construction of one no DG room at NHPCleh guest house, generating station alchileh-ladakh	6.70	Considering the fact that the expenditure incurred is for assets which are in the nature of O&M expenses, the claim is **not allowed**.	0.00
8	Construction of water tank near HCC prefab at generating stationalchi, leh-ladakh	2.20	In order to provide adequate storage of potable and fresh water, water tank near HCC prefab was constructed. Considering the fact that the expenditure incurred is for assets/works which is not directly related to Plant & Machinery, the claim is **not allowed.**	0.00
9	Construction and fixing of Survey Pillars on both banks of reservoir (121/000448)	0.72	Considering the fact that the expenditure incurred is for assets which are in the nature of O&M expenses, the claim is **not allowed**.	0.00
10	Construction of RCC slab on top of cable gallery to protect the inside cables from icing at generating stationalchi	17.52	The Petitioner has submitted that the Constructed for protection of the cables from icing during extreme cold at the dam Complex. Considering the fact that the assets/works are considered for the successful and efficient plant operation of the generating station, the expenditure is **allowed** under Regulation 14(3)(viii) of the 2014 Tariff Regulations.	17.52
11	Protection work at outlet of buried channel, bottom of tail pool wall downstream of the weir	35.95	Considering the fact that the expenditure incurred is for assets which are in the nature of O&M expenses, the claim is **not allowed**.	0.00
12	Providing and fixing of chain link fencing of right banks along river at generating station, lehladakh	36.42	The Petitioner has submitted that the Fencing is essential for safety of the Power Station from the unauthorized intruders as directed by The Ministry, GOI for security point of view. Considering the fact that the assets/works are considered for safety of the plant and will facilitate the successful and efficient plant operation of the generating station, the expenditure is **allowed** under	36.42

Sl. No.	Assets/Works	Amount Claimed	Justification and Reason for admissibility	Amount Allowed
			Regulation 14(3)(viii) of the 2014 Tariff Regulations.	
13	Fork lift, Godrej &Boyce, gx500sb(d)	16.61	The Petitioner has submitted that the forklift is essential for loading and unloading of store/ consumables in Powerhouse/ Store. Considering the fact that the assets/works are considered necessary for the efficient operation of generating station, the expenditure is **allowed** under Regulation 14(3)(viii) of the 2014 Tariff Regulations.	16.61
14	Transasia chem touch semi-automated clinical chemistry analyzer, Erba diagnostics Mannheim gmbh	5.61	The Petitioner has submitted that the There is no Medical Facility/Hospital in the vicinity of Power Station. Medical Equipment for Newly Constructed Power Station Hospital is essential to provide health care services to employees posted in Power Station, Security Personnel etc. Considering the fact that the expenditure incurred is for assets/works which are not directly related to Plant & Machinery, the additional capitalization claimed is **not allowed.**	0.00
15	Accelerograph system along with all accessories, nanometric& titan SMA	12.89	The Petitioner has submitted that the necessary for seismic record at dam Considering the fact that the asset/work is considered necessary for the safety of the plant and will facilitate successful and efficient plant operation of the generating station, the expenditure is **allowed** under Regulation 14(3)(viii) of the 2014 Tariff Regulations.	12.89
16	Minor Assets such as electric steamer, mobile, chisel point, radiator etc.,	158.59	Considering the fact that the expenditure incurred are for assets which are minor in nature, the claim is **not allowed**	0.00
17	Inter Unit Transfer such as dining table sofa set, laptop etc.,	2.09	The Petitioner has not clarified if the said assets/works are of temporary or permanent nature. Moreover, the expenditure incurred is for asset which is minor in nature. In view of these, the additional capitalization claimed is **not allowed**	0.00
18	Supply, Installation, Testing &	27.62	The Petitioner has submitted that Work during the winter season from	27.62

Sl. No.	Assets/Works	Amount Claimed	Justification and Reason for admissibility	Amount Allowed
	Commissioning of Electrical Heating Panels for Newly Constructed Executive Field Hostels 1, 2 & 3, Non Executive Field Hostel, Officer club, Hospital, Old VIP Guest House, Dam Control Room, Switchyard rooms, Leh Guest House & Security Huts for space heating arrangement.		period November to April the temperature remains in the range of minus i.e. from -10 degree to -40 degree Celsius. At present this heating system is not installed in these buildings. It is observed that the asset has been allowed vide order dated 22.9.2016 in Petition No. 229/GT/2014 for Rs. 39.32 lakh, in 2016-17. Considering the fact that the assets/works have been allowed by order dated 22.9.2016 and the asset will facilitate the successful and efficient plant operation, the expenditure is **allowed** under Regulation 14(3)(viii) of the 2014 Tariff Regulations.	
	Total Amount claimed	**491.09**		
	Total Amount allowed			**169.68**

30. In view of the above, the total additional capital expenditure of Rs. 169.68 lakh is allowed in 2015-16.

2016-17

31. The additional capital expenditure claimed by the Petitioner in 2016-17, on cash basis, is examined as under:

(Rs. in lakh)

Sl. No.	Assets/Works	Amount Claimed	Justification and Reason for admissibility	Amount Allowed
1	Balance work of construction of RCC slab on top of cable gallery to protect the inside cables from icing at generating station Alchi	0.39	The Petitioner has submitted that the asset is for balance work of construction of RCC slab on top of cable gallery protection of the cables from icing during extreme cold at the dam Complex. Considering the fact that the work was allowed during 2015-16 for the safety of the plant and will facilitate the successful and efficient plant operation, the expenditure claimed for balance payment of the same, is **allowed** under Regulation 14(3)(viii) of the 2014 Tariff Regulations.	0.39

Sl. No.	Assets/Works	Amount Claimed	Justification and Reason for admissibility	Amount Allowed
2	Balance work of protection work at outlet of buried channel, bottom of tail pool wall downstream of the weir	0.84	Considering the fact that the expenditure incurred is for assets which are in the nature of O&M expenses, the additional capitalization claimed is **not allowed**.	0.00
3	Trivector energy meter 3 phase, 4 wire, 110 v, 5 a, class 0.2, digital	5.70	The Petitioner has submitted that the generating Station has 2 nos 66 KV outgoing feeders in order to transmit power to its sole beneficiary i.e., J&K PDD. As no Energy meter was installed at generating station Switch yard at that time and as per grid code SEM to be installed, accordingly the case file was initiated. Considering the fact that the assets/works are considered necessary for the successful and efficient plant operation, the expenditure is **allowed** under Regulation 14(3)(viii) of the 2014 Tariff Regulations.	5.70
4	Submersible pump model-krtk-100-315,27 kw,head (mtr)-30,discharge-2000 lpm make-ksb (complete set)	6.37	The Petitioner has submitted that the failure of 2 no. 27 KW submersible pumps installed inside dam drainage gallery pit can cause flooding in dam gallery within few hours. As for this reason purchase of submersible pumps is proposed by the Petitioner so that the same may be used in case of failure of operating 2 nos 27 KW pump at Dam Drainage Gallery. Considering the fact that the assets/works are considered necessary for the successful and efficient plant operation, the expenditure is **allowed** under Regulation 14(3)(viii) of the 2014 Tariff Regulations.	6.37
5	Fire tender with accessories, ashok leyland 1616 il chasis	35.75	The Petitioner has submitted that the procurement of additional fire tender vehicle is for fire safety of the generating station. Considering the fact that the asset/work is considered necessary for the safety of the plant, the expenditure is **allowed** under Regulation 14(3)(iii) of the 2014 Tariff Regulations.	35.75
6	Cyberoam cr 100ing appliance long with server	3.30	Considering the fact that the expenditure incurred is for assets which are in minor in nature, the claim is **not allowed**.	0.00
7	Purchase of various security Gadgets	3.82	The Petitioner has submitted that the claimed asset is for the security of Power Station and Dam, IRBn has been deployed and for the security personnel security gadgets like Handheld metal	3.82

Sl. No.	Assets/Works	Amount Claimed	Justification and Reason for admissibility	Amount Allowed
			detectors, Door Frame Metal detectors, Bullet proof jackets & Helmets, vehicle mirror were purchased. Considering the fact that the expenditure is for assets/works, considered necessary for safety of the generating station, the same is **allowed** under Regulation 14(3)(iii) of the 2014 Tariff Regulations.	
8	Automatic water level recorder(digital) with sensor, Type, dwlr-p-d-100-hs	17.62	The Petitioner has submitted that the asset is necessary for water discharge control at dam and collection of hydro-meteorological data on daily basis required for Design and dam safety purpose. Considering the fact that the expenditure is for asset/work, considered necessary for safety of the generating station, the same is **allowed** under Regulation 14(3)(iii) of the 2014 Tariff Regulations.	17.62
9	Providing Ramp in front of Executive F/H No.2 and interlocks paver blocks in f/o Exe F/H Package 2	9.73	Considering the fact that the expenditure incurred is for asset which is not directly related to Plant & Machinery, the additional capitalization of the same is **not allowed**.	0.00
10	Minor assets, furniture fixtures, tools & tackles etc. Purchased within cut-off date.	184.86	Considering the fact that the expenditure incurred is for assets which are in minor the nature, the claim is **not allowed**.	0.00
11	Wall Insulation of Field Hostels, Residential quarters, hospital and club building,	27.41	The Petitioner has submitted that the Power Station is situated in very adverse climate of Ladakh region where the winter temperature falls upto - 40 degree Celsius. and survival of mankind in such harsh climatic conditions is difficult. In order to provide safe and suitable accommodation to the employees, wall insulation and wooden flooring of residential facilities as well as hospital and club building is essential. 'The walls & Floor presently made of concrete blocks/tiles have heat loss property, rendering it impossible to maintain the room temperature at comfortable level in harsh winters. The works of wooden flooring and wall insulation are necessary to maintain the room temperatures of these buildings used by O&M personnel so that they can man the power station in a smooth and safe manner. It is observed that the capitalization of the asset was allowed by order dated 22.9.2016 in Petition No. 229/GT/2014 for	27.41

Sl. No.	Assets/Works	Amount Claimed	Justification and Reason for admissibility	Amount Allowed
			Rs. 39.32 lakh, in 2015-16. Considering the fact that the assets/works is already allowed by the Commission and are considered necessary for successful and efficient plant operation of the generating station, the expenditure is **allowed** under Regulation 14(3)(viii) of the 2014 Tariff Regulations.	
12	Inter Unit Transfer such as Microsoft office, Symantec antivirus.	3.01	The Petitioner has not clarified if the said assets/works are of temporary or permanent nature. Moreover, the expenditure incurred is for asset which is minor in nature. In view of these, the additional capitalization claimed is **not allowed**	0.00
13	Wooden Flooring of Non-Executive and executive Field Hostels	33.01	The Petitioner has submitted that The Power Station is situated in very adverse climate of Ladakh region where the winter temperature falls upto – 40 degree celsius. and survival of mankind in such harsh climatic conditions is difficult. In order to provide safe and suitable accommodation to the employees, wooden flooring of residential facilities is essential. . It is observed that the asset is already allowed by the Commission in order dated 22.9.2016 in Petition No. 229/GT/2014 for an amount of Rs. 39.32 lakh, in 2016-17. Considering the fact that the assets/was allowed by order dated 22.9.2016 and the asset will facilitate the successful and efficient plant operation, the claim is **allowed** under Regulation 14(3)(viii) of the 2014 Tariff Regulations.	33.01
14	Construction of Helipad	42.43	The Petitioner has submitted that the generating station is situated in extreme remote area of the country. Landslides and avalanches are common in this area. In winter season, road remains closed, and the area is cut off from the rest of the country. A helipad is necessary for rescue operation and providing assistance to power station in case of natural calamities. Further it is also required for dignitary movement. It is observed that the asset was allowed by order dated 22.9.2016 in Petition No. 229/GT/2014 for Rs. 34.50 lakh in 2016-17. Considering the fact that the assets/works was allowed, the expenditure is **allowed** under Regulation 14(3)(viii) of the 2014 Tariff Regulations.	42.43

Sl. No.	Assets/Works	Amount Claimed	Justification and Reason for admissibility	Amount Allowed
	Total amount claimed	**374.24**		
	Total amount allowed			**172.50**

32. In view of the above, the total additional capital expenditure of Rs. 172.50 lakh is allowed in 2016-17.

2017-18

33. The additional capital expenditure claimed by the Petitioner in 2017-18 on cash basis, is examined as under:

(Rs. in lakh)

Sl. No.	Assets/Works	Amount Claimed	Justification and Reason for admissibility	Amount Allowed
	Regulation 14(3)(viii)			
1	Raising of boundary wall of CE residence cum VIP guest house (121/000508)	9.59	The Petitioner has submitted that HOP and dignitary/visitors are staying in the building complex named CE Residence cum VIP Guest House and for security point of view it was necessary to raise the boundary wall of this building. Considering the fact that the expenditure incurred is for asset which is not directly related to Plant & Machinery, the claim is **not allowed.**	0.00
2	Construction of badminton court-121/000511 (kacho nissar hussain)	38.68	The Petitioner has submitted that in order to improve the health and mental soundness of officials of this power station which gets deteriorated due to aggressive climate, Badminton court was constructed. Considering the fact that the expenditure incurred is for asset which are not directly related to Plant & Machinery, the claim is **not allowed**.	0.00

Sl. No.	Assets/Works	Amount Claimed	Justification and Reason for admissibility	Amount Allowed
3	Internal electrification of permanent exe. Field hostel no.2 & 3	9.05	The Petitioner has submitted that two permanent executive field hostels were constructed for staying of executives in this Power Station. As such, Internal electrification of these permanent executive field hostel was required so the employees can stay & work in this power station comfortably. Considering the fact that the expenditure incurred is for asset which is in the nature of O&M expenses, the claim is **not allowed**.	0.00
4	Channelizing seepage water from left bank dam galleries &buried channel &protection work in d/s of dam	26.60	The Petitioner has submitted that the project has witnessed flash flood in May 2015 due to outburst of artificial glacier formed at 300 km (approx) of Dam. Though, flood water was released in controlled manner, even then erosion of riverbanks occurred at about 500 mtrs downstream of Dam which needs to be restored to avoid further erosions. Considering the fact that the assets/works are necessary for the successful and efficient plant operation, the expenditure is **allowed** under Regulation 14(3)(viii) of the 2014 Tariff Regulations	26.60
5	Construction of Two nos Permanent Shed for Control Panels of Intake Gates no 1, 2 & 3 at Dam Top	5.18	The Petitioner has submitted that the asset is required for the purpose of efficient operation of intake gates even in winter season. Considering the fact that the asset/ works are necessary for the successful and efficient plant operation, the expenditure is **allowed** under Regulation 14(3)(viii) of the 2014 Tariff Regulations.	5.18

Sl. No.	Assets/Works	Amount Claimed	Justification and Reason for admissibility	Amount Allowed
6	1 mva distribution transformer (11kv/0.415kv) make-MEI, model-Agrosons	12.47	The Petitioner has submitted that the DG Set is procured for meeting the demand of power back up for CISF residential building, residential and office building and the same is covered under "Sanctioned Equipment Strength of Power Station". Considering the fact that the asset/work will facilitate the successful and efficient plant operation, the expenditure is **allowed** under Regulation 14(3)(viii) of the 2014 Tariff Regulations.	12.47
7	Supply & installation of submersible pump, pipes, valves, fitting etc. for improving dewatering	48.20	The Petitioner has submitted that the failure of submersible pumps installed inside dam drainage gallery pit or blockage in seepage water outlet pipelines can cause flooding in dam gallery within few hours. Hence, dedicated pipeline in addition to the existing pipelines and an emergency arrangement of pump is proposed to improve the dewatering capacity of seepage water in dam gallery. Considering the fact that the asset/workwill facilitate successful and efficient plant operation, the expenditure is **allowed** under Regulation 14(3)(viii) of the 2014 Tariff Regulations.	48.20
8	Computer / laptop	1.57	Considering the fact that the expenditure incurred are for minor assets, the claims are **not allowed.**	0.00
9	Printer	0.00		0.00
10	Ricoh photocopier model mp2014ad with network card (2-nos)	2.18		0.00
11	Automatic weather station along with data logger, sensors and access., microcom India ltd., me-1310	1.29	The Petitioner has submitted that gauge &data being the essential parameter for monitoring	1.29

Sl. No.	Assets/Works	Amount Claimed	Justification and Reason for admissibility	Amount Allowed
			water discharge for power Station and ongoing process throughout life of Dam. Therefore, Weather Station is procured. Considering the fact that the asset/work is necessary for the safety of the plant and will facilitate the successful and efficient plant operation, the expenditure is **allowed** under Regulation 14(3)(viii) of the 2014 Tariff Regulations	
12	Large display unit	31.87	The Petitioner has submitted that the units and auxiliaries were controlled and monitored through small size monitors which hampers simultaneous display of Units and auxiliaries as well as monitoring various online station parameters within a single frame which is essential for efficient operation of the power station. No Large Display Units were installed in the project. So, a LDU with a rear projector unit with display screen was required to be installed at control room. Considering the fact that the assets/works are necessary for the successful and efficient plant operation, the expenditure is allowed under Regulation 14(3)(viii) of the 2014 Tariff Regulations. The Petitioner has not furnished the de-capitalised value of the old asset. As such, the value of Rs. 26.90 lakh has been worked out and adjusted under 'Assumed deletions'.	31.87
13	Thermal lagging of firefighting pipelines to generator transformer	13.07	The Petitioner has submitted thatsubzero temperature exists throughout many months of the year in Leh - Ladakh	13.07

Sl. No.	Assets/Works	Amount Claimed	Justification and Reason for admissibility	Amount Allowed
			region and the water gets frozen up in the firefighting pipelines which remains exposed to atmosphere. Hence suitable thermal insulation of those pipelines was initiated. Considering the fact that the assets/works are necessary for the successful and efficient plant operation, the expenditure is **allowed** under Regulation 14(3)(viii) of the 2014 Tariff Regulations.	
14	Purchase of Electric Motor of Gantry Crane	3.67	The Petitioner has submitted that the motor for Gantry crane is critical spare for smooth operation of Hydro mechanical units and since the project is located in a remote location where it is almost impossible to get services from external agencies it is essential to maintain spares for use in case of any eventualities. This spare item is not covered in original Lot - II HM works awarded to M/s PES. Hence motors were purchased to be used as standby for replacement of defective motors on emergent requirement so that work may not suffer during breakdown of motors. Considering the fact that the expenditure incurred is for assets which are in the nature of spares, the claim is **not allowed**.	0.00
15	Furniture for Permanent Office Building and CISF Building	2.00	Considering the fact that the expenditure incurred are for assets which are minor in nature, the claims are **not allowed**.	0.00
16	Installation of Centralized mess (Furnitures & kitchen equipment's) for generating station, Alchi,Leh	4.30		0.00
18	Cable fault locator with standard accessories, make: megger, model: EZ thump-12+digiphone+	26.29	Considering the fact that the expenditure incurred are for assets which are in the	0.00

Sl. No.	Assets/Works	Amount Claimed	Justification and Reason for admissibility	Amount Allowed
19	CT/PT analyzer along with all accessories, make: green-watt techno solutions, model: GWCT/PT analyzer	14.40	nature of tools & tackles, the claims are not **allowed.**	0.00
20	64 window microprocessors based, model pal 2053-s, make Procorn instruments pvt ltd.	3.77		0.00
21	Earth ground clamp meter	2.08		0.00
22	Purchase of Gas Cutting sets along with all accessories along with Cylinders for the powerhouse	3.88		0.00
23	Purchase of variable frequency drive (VFD) along with control panel for 2-Nos of 62 KW drainage pump installed at generating station including installation and commissioning	8.05	The Petitioner has submitted that the VFD helps in energy savings by controlling speed of pump instead of controlling flow, there can be substantial energy savings. CPRI Bangalore had suggested to install 01 no. VFD for each 62 KW drainage pump. 50% of energy savings can be achieved by installing VFDs. Considering the fact that the assets/works are necessary for the successful and efficient plant operation, the expenditure is **allowed** under Regulation 14(3)(viii) of the 2014 Tariff Regulations.	8.05
24	Welding machine	0.40	Considering the fact that the expenditure incurred is for asset which are in the nature of tools & tackles, the claim is **not allowed**.	0.00
25	Purchase of centralized online UPS for Office-10KVA	0.00	Considering the fact that the expenditure incurred are for assets which are of minor in nature, the claims are **not allowed**.	0.00
26	Switches and other Network Devices	0.20		0.00
27	Purchase of GPS slave clock and time synchronization converter	4.04	Considering the fact that the expenditure incurred is for asset which are in the nature of tools & tackles, the claim is **not allowed**.	0.00
28	Health equipments	3.46	Considering the fact that the expenditure incurred is for asset, which are not directly related to Plant & Machinery, the claim is **not**	0.00

Sl. No.	Assets/Works	Amount Claimed	Justification and Reason for admissibility	Amount Allowed
			allowed.	
29	Hot air blower 2kw	0.09	Considering the fact that the expenditure incurred is for asset which are in the nature of tools & tackles, the claim is **not allowed**.	0.00
30	Purchase of LED TV, Projector	5.93	Considering the fact that the expenditure incurred are for assets, which are minor in nature, the claims are **not allowed**.	0.00
32	Minor assets, furniture fixtures etc. Purchased within cut-off date.	4.53		0.00
33	Inter Unit Transfer such as TV, Vacuum Cleaner, LPG Geyser, etc.	1.34	The Petitioner has not clarified if the said assets/works are of temporary or permanent nature. Moreover, the expenditure incurred is for asset which is minor in nature. In view of these, the additional capitalization claimed is **not allowed**	0.00
	Total Amount claimed	**288.18**		
	Total Amount allowed			**146.73**

34. In view of the above, the total additional capital expenditure of Rs. 146.73 lakh is allowed in 2017-18.

<u>2018-19</u>

35. The additional capital expenditure claimed by the Petitioner in 2018-19 on cash basis, is examined as under:

(Rs. in lakh)

Sl. No.	Assets/Works	Amount Claimed	Justification	Amount Allowed
	Regulation 14(3)(viii)			
1	Land-lease hold	0.00	The Petitioner has submitted that the land is acquired for project as per Notification 2642108/2005 02/06/2018 of land Acquisition. Since no amount is claimed, **no** additional capitalization has been **allowed**.	0.00
2	Construction of an Additional Room for Health Equipment in Club at generating station Colony (121/000767)	3.31	The Petitioner ha submitted that in order to improve the health and mental soundness of officials of this power station which gets deteriorated due to aggressive climate, additional health room for accommodating health	0.00

Sl. No.	Assets/Works	Amount Claimed	Justification	Amount Allowed
			equipments was constructed. Considering the fact that the expenditure incurred is for assets which are not directly related to Plant & Machinery, the claim is **not allowed**.	
3	Landscaping by interlocking paver blocks at front of main gate generating station colony (121/000782)	7.03	The Petitioner has submitted that the landscaping of open area in front of main gate of generating station colony was provided by way of laying interlocking paver block in order to check flying of dust particles caused due to vehicular movement and to avoid pulmonary disease. Considering the fact that the expenditure incurred is for asset which are not directly related to Plant & Machinery, the claim is **not allowed**.	0.00
4	Construction of five nos. Toilet Blocks for generating stationAlchisub-cont.121/000684	16.89	The Petitioner has submitted that five checkpoints for security personnel are in project area to provide proper sanitization five nos,of toilet has been constructed near check post. Considering the fact that the expenditure incurred is for asset which is in the nature of O&M expenses, the claim is **not allowed**.	0.00
5	Installation of steel railing in approach way to dam &powerhouse drainage gallery (121/000836)	0.30	The Petitioner has submitted that the asset is required for safe movement of employees working in PH and Damarea via connecting approach, Steel railing was fitted in drainage gallery. Considering the fact that the expenditure incurred is for asset which is in the nature of O&M expenses, the claim is **not allowed**.	0.00
6	Development of platform & protection wall for boat at right bank of dam near switch yard -121/000671	13.22	The Petitioner has submitted that the boat is essentially required at Power Station for regular monitoring of Dam, Reservoir and to facilitate annual reservoir survey work. In order to provide safe parking area for boat at the time when boat is not in use, accordingly, expenditure on account of construction of Platform for halt/parking in the reservoir premises was incurred. Considering the fact that the expenditure incurred is for asset, which is in the nature of O&M expenses, the claim is **not allowed**.	0.00
7	Providing and Fixing of Stairs and Railing for 5 Nos. Spilway block at	13.15	The Petitioner has submitted that dam safety team from corporate office has advised the power station during	0.00

Sl. No.	Assets/Works	Amount Claimed	Justification	Amount Allowed
	Dam Site (121/000625)		inspection of spillway bucket to dewater of bucket. However, there was no provision for shifting of man and material to spillway block. Stairs were not provided for stepping down from 2nd stage Spillway block to 1st stage Spillway block due to this there was always difficulty for inspection of spillway bucket as dewatering of entire bucket has to be done by lowering down pump from dam, 2nd stage block and it was very much essential for smooth functioning at Dam. Considering the fact that the expenditure incurred is for asset which is in the nature of O&M expenses, the claim is **not allowed**.	
8	Purchase of 5 mva 66/11 kv power transformer for generating station	63.00	The Petitioner has submitted that 5 MVA power transformer caters the load of powerhouse auxiliaries, HM auxiliaries and Dam, Residential colony and offices. In case of breakdown of power transformer, only backups are DG sets, (2 x 500 KVA, 600 kVA and 2X 320 KVA) for street lighting and outside of colony. Due to being cut off for more than 6 months from rest of the country, it was difficult to send the damaged/faulty equipments of power transformer and its auxiliaries for repairing, in that case, continuous use of DGs can result in huge consumption of diesel, thereby leading to huge financial burden for power station. Hence, the case file to purchase a spare 5MVa transformer was initiated. Considering the fact that the expenditure incurred is for asset which is in the nature of spare, the claim is **not allowed**.	0.00
9	Purchase of 02 no. Submersible pump of 05 HP capacity	0.85	The Petitioner has submitted that the asset is for facilitating water supply in Dam & Switchyard for day-to-day use. Considering the fact that the expenditure incurred is for asset which is in the nature of O&M expenses, the claim is **not allowed**.	0.00
10	Purchase of 03 no. Pump of 01 HP	0.13	The Petitioner has submitted that discharge of water from different area of dam, powerhouse time to time is necessary to facilitate water for security personnel on duty at different Checkpoints.	0.00

Sl. No.	Assets/Works	Amount Claimed	Justification	Amount Allowed
			Considering the fact that the expenditure incurred is for asset which is in the nature of O&M expenses, the claim is **not allowed**.	
11	Construction of Sewage Treatment plant	4.50	The Petitioner has submitted that in order to make wastewater acceptable for reuse or for returning to the environment, concentration of contaminants should be reduced to a safe level in Powerhouse Building or area. Considering the fact that the asset/work will facilitate the successful and efficient plant operation, the expenditure is **allowed** under Regulation 14(3)(viii) of the 2014 Tariff Regulations.	4.50
12	Insulation/ embedding of water pipelines in colony for water supply in winters	8.07	Considering the fact that the expenditure incurred is for asset which are not directly related to Plant & Machinery, the claim is **not allowed**.	0.00
13	Providing underground water tank & insulated water tank / puff tank & PPR line in temporary sheds of colony at generating station, Alchi, Leh	7.64	Considering the fact that the expenditure incurred is for assets which are not directly related to Plant &Machinery, the claim is **not allowed**.	0.00
14	Drilling of 8" dia Bore well and installation of Submersible Pump at residential colony, Alchi	9.27	Considering the fact that the expenditure incurred is for assets which are not directly related to Plant &Machinery, the claim is **not allowed**.	0.00
15	Purchase of centralized online UPS for Office-10KVA	3.72	Considering the fact that the expenditure incurred are for assets which are minor in nature, the claims are **not allowed**.	0.00
16	Purchase of Networking devices / CCTVs	1.61		0.00
17	Purchase of water filters for field hostels	0.09	Considering the fact that the expenditure incurred is for asset which is not directly related to Plant & Machinery, the claim is **not allowed**.	0.00
18	Stone masonry work in front of power station at generating station	28.70	Project officials, dignitary & visitors visit the powerhouse very frequently. For safety point of view, it was necessary to raise the boundary wall in front of Powerhouse Approach Road. It is observed that the asset was disallowed by the Commission in order dated 22.9.2016 in Petition No. 229/GT/2014, in 2016-17. Considering the fact that the assets/works were earlier disallowed by order dated 22.9.2016 and since the	0.00

Sl. No.	Assets/Works	Amount Claimed	Justification	Amount Allowed
			assets are in the nature of O&M expenses, the claim is **not allowed.**	
19	Construction of road around right bank of generating station (121/000454)	174.09	In case of land slide on the main road, vehicle movement will be stopped. Alternative road has been developed for approach from right bank of upstream to Dam, Powerhouse, Switchyard etc. In addition to this, the road available for approach from Dam/Powerhouse to Alchi Substation, transporting of heavy equipment, spare parts for Powerhouse& Dam from Leh to various stores situated on right bank of generating station. It is observed that the asset is already allowed by the Commission in order dated 22.9.2016 in Petition No. 229/GT/2014 for an amount of Rs. 242.00 lakh, in 2016-17. Considering the fact that the assets/works was allowed by order dated 22.9.2016 and will facilitate the successful and efficient plant operation, the expenditure is **allowed** under Regulation 14(3)(viii) of the 2014 Tariff Regulations.	174.09
	Total Amount claimed	**355.57**		
	Total Amount allowed			**178.59**

36. In view of the above, the total additional capital expenditure of Rs. 178.59 lakh is allowed in 2018-19.

37. Accordingly, the details of the additional capital expenditure allowed in respect of assets/works, within the original scope of work of the project, including spares and discharge of liabilities, for the 2014-19 tariff period are summarized below:

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19	Total
Total Additional capital expenditure under original scope (*including initial spares and discharge of liabilities*)	3397.43	1360.00	1214.61	342.84	52.51	**6367.39**
Additional Capitalisation incurred as per site specific requirement (*excluding liabilities pertaining to*	565.30	169.68	172.50	146.73	178.59	**1232.80**

	2014-15	2015-16	2016-17	2017-18	2018-19	Total
Additional Capitalisation incurred as per site specific requirement)						
Total additions in additional capital expenditure (*excluding liabilities pertaining to Additional Capitalization incurred as per site specific requirement*)	**3962.73**	**1529.68**	**1387.11**	**489.57**	**231.10**	**7600.19**

Exclusions (additions/deletions incurred, capitalized in books but not to be claimed for tariff purpose) as per reconciliation with books of account

38. The year-wise net expenditure excluded by the Petitioner as per (Form 9C) reconciliation, with books of accounts, are as follows:

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Exclusion in Additions (capitalized in books but not to be considered for tariff purpose) as per (Form 9D) of	0.00	0.00	0.00	0.00	53.56
Exclusion in Deletions (De-capitalized in books but not to be considered for tariff purpose) as per (Form 9B(ii)) of the petition.	5.51	165.43	3.40	5.59	2.95
Net Exclusions claimed	**(-)5.51**	**(-)165.43**	**(-)3.40**	**(-)5.59**	**50.61**

39. We examine the year-wise exclusions (additions/deletions incurred, capitalized in books but not to be claimed for tariff purpose) as per reconciliation with books of account claimed by the Petitioner as stated in the subsequent paragraphs.

Exclusions in additions (capitalized in books but not to be considered for tariff purpose) as per (Form 9D) of the petition

40. The exclusions claimed by the Petitioner, include expenditure on additions, capitalized in books of accounts, but not to be claimed for the purpose of tariff are as under:

(Rs. in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19
0.00	0.00	0.00	0.00	53.56

41. It is noticed that the above expenditure is in respect of Digital multimeters, Digital Clamp meters, Portable Loop calibrator, miscellaneous electrical testing tools/ equipments,60 KV Lightning Arrestors, Purchase of one set of Runner & Turbine Shaft Coupling bolt& one no. runner cone, Spares Gov. Hydraulic and OPU system, Spares of HS Lubrication System, Purchase of Demolition Hammer and Breaker machine, Furniture for Permanent Office Building and CISF Building/ and others, Furniture (sofa set, TV trolleys, Ladakhi table) for field hostel and guest house , Purchase of Computer / Laptop, Purchase of Printers, Appliances (vacuum cleaner, washing machine) for field hostel and guest house, Purchase of Air Conditioners, Purchase of LED TV for field hostel, Furniture (plastic cushioned chair) for field hostel and guest house capitalized beyond the cutoff date. The Petitioner has put these additions under exclusion category, including the positive entries arising due to Inter-head re-classification. As such, the exclusion of the positive entries as above is allowed.

Exclusions in deletions (de-capitalized in books but not to be considered for tariff purpose) as per (Form 9B(ii)) of the petition.

42. The Petitioner has de-capitalized the following amounts, in books of accounts, and has kept the same under exclusion, for the purpose of tariff, as below:

(Rs. in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19
5.51	165.43	3.40	5.59	2.95

43. It is noticed that exclusions in deletions claimed are in respect of deletion/disposal of Minor assets, Exclusion against ‘assumed deletion’ and decapitalization of excess liabilities. It is pertinent to mention that the Commission in its order dated 7.9.2010 in Petition No.190/2009 had observed as under:

"20. After careful consideration, we are of the view that the cost of minor assets originally included in the capital cost of the projects and replaced by new assets should not be reduced from the gross block, if the cost of the new assets is not considered on account of implication of the regulations. In other words, the value of the old assets would continue to form part of the gross block and at the same time the cost of new assets would not be taken into account. The generating station should not be debarred from servicing the capital originally deployed on account of procurement of minor assets, if the services of those assets are being rendered by similar assets which do not form part of the gross block."

44. In view of above, the negative entries arising out of de-capitalization of minor assets may be excluded/ ignored for the purpose of tariff, as the corresponding positive entries for purchase of minor assets are not allowed for the purpose of tariff. The exclusion of Rs 0.46 lakh in 2017-18 towards decapitalization of old Tata Pick-up, which was considered under de-capitalization in 2014-15, is in order and allowed. As regards the decapitalization of excess liabilities, it is noticed that these liabilities were not part of the capital cost allowed. Accordingly, the exclusions in deletion, claimed by the Petitioner, is allowed as under and not considered for the purpose of tariff:

(Rs. in lakh)

2014-15	**2015-16**	**2016-17**	**2017-18**	**2018-19**
5.51	165.43	3.40	5.59	2.95

45. Accordingly, the total exclusions (net) allowed for the purpose of tariff is as under:

(Rs. in lakh)

	2014-15	**2015-16**	**2016-17**	**2017-18**	**2018-19**
Exclusions in addition allowed	0.00	0.00	0.00	0.00	53.56
Exclusion in deletion allowed	5.51	165.43	3.40	5.59	2.95
Net Exclusion allowed	**(-) 5.51**	**(-) 165.43**	**(-) 3.40**	**(-) 5.59**	**50.61**

De-capitalization

46. Regulation 14(4) of the 2014 Tariff regulations provides as under:

"In case of de-capitalization 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-capitalization 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-capitalization takes place, duly taking into consideration the year in which it was capitalized."

47. In terms of the above regulations, the Petitioner has claimed de-capitalization of assets as under:

(Rs. in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19
0.97	0.81	30.59	6.80	0.00

48. It is noticed that the Petitioner has submitted that assets/works such as DG Set, Computers, Printers, EDP equipments, Dams and Barrages, Buildings, Chairs, etc., are not in use/unserviceable. As regards the asset 'Mini Truck', the Petitioner has provided assumed deletion value of Rs. 0.46 lakh claimed in 2014-15, which is lower, considering the year in which it was put to use i.e. 2004-05 and therefore, the same is dealt with under the head 'Assumed Deletions'. Considering the fact that the assets decapitalized are not in use, the claim of the Petitioner for de-capitalization of assets, is allowed (excluding decapitalization of Mini Truck in 2014-15), as under:

(Rs. in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19
0.51	0.81	30.59	6.80	0.00

<u>Assumed Deletions</u>

49. As per consistent methodology adopted by the Commission, the expenditure on replacement of assets, if found justified, is allowed for the purpose of tariff, provided that the capitalization of the said asset is followed by de-capitalization of the original value of the old asset. However, in certain cases where de-capitalization is affected in books during the following years, to the year of capitalization of new asset, the de-capitalization of the old asset for the purpose of tariff is shifted to the very same year in which the capitalization of the new asset is allowed. Such de-capitalization which is not a book entry in the year of

capitalization is termed as “Assumed deletion”. Further, in the absence of the gross value of the asset being de-capitalized, the same is calculated by de-escalating the gross value of new asset @ 5% per annum till the year of capitalization of the old asset.

50. It is observed that the Petitioner has claimed the asset/work such as Mini Truck (in 2014-15) and Large display unit (in 2017-18) on replacement basis. As regards ‘Mini Truck’ the Petitioner has provided the assumed deletion value of Rs. 0.46 lakh, which is lower considering the year in which it was put to use i.e 2004-05. It is also noticed that the Petitioner, in this petition, has not provided the de-capitalization value of the old asset, in case of ‘Large display unit’ asset/work which is being replaced. Accordingly, based on above methodology, the assumed deletion considered and allowed for these assets/works worked out during the year of claim are as under:

(Rs. in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19
3.89	0.00	0.00	26.90	0.00

Discharge of Liabilities (Additional capital expenditure capitalized as per actual site requirement)

51. The Petitioner has claimed discharge of liabilities, pertaining to the additional expenditure capitalized as per actual site requirement during the 2014-19 tariff period, as under:

(Rs. in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19	Total
0.00	31.05	44.16	14.77	16.00	105.98

52. The Petitioner has furnished Form-16 in respect of liabilities. Accordingly, on prudence check, the undischarged liabilities for 2014-19 tariff period, corresponding to the allowed assets/works, have been considered with their respective discharges made by the Petitioner. Accordingly, discharge of liabilities allowed during the 2014-19 tariff period are as under:

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19	Total
Opening Un-discharged liabilities **(A)**	4027.47	1544.15	981.14	744.50	532.05	NA
Liability Discharged (created before 1.4.2014) **(B)**	2530.57	406.02	209.71	210.29	22.39	3378.98
Allowed Reversals (For liabilities before 1.4.2014) **(C)**	3.23	151.25	4.27	5.30	0.00	164.05
Allowed Reversals (For liabilities after 1.4.2014) **(D)**	0.00	0.00	0.68	2.43	5.73	8.84
Allowed undischarged liability (created after 1.4.2014) **(E)**	50.48	23.98	13.16	14.92	35.06	137.60
Allowed discharge of liability (created after 1.4.2014) **(F)**	0.00	29.72	35.14	9.35	6.40	80.61
Total allowed liability discharged (G)= (B)+(F)	2530.57	435.74	244.85	219.64	28.79	3459.59
Closing un-discharged liabilities **(H) = (A)-(C)-(D)+(E)-(G)**	1544.15	981.14	744.50	532.05	532.59	NA

Net Additional capital expenditure allowed

53. Based on the above discussions, the net additional capital expenditure allowed is summarized below:

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19	Total
Total additional capital expenditure allowed (*excluding liabilities pertaining to Additional Capitalization incurred as per site specific requirement*)	3962.73	1529.68	1387.11	489.57	231.10	**7600.19**
Less: De- capitalization allowed	0.51	0.81	30.59	6.80	0.00	**38.71**
Less: Assumed deletion	3.89	0.00	0.00	26.90	0.00	**30.79**
Add: Discharge of Liabilities (*pertaining to Additional Capitalization incurred as per site specific requirement)*	0.00	29.72	35.14	9.35	6.40	**80.61**
Additional capital expenditure allowed (Net)	**3958.33**	**1558.59**	**1391.66**	**465.22**	**237.50**	**7611.30**

Capital Cost allowed for 2014-19 tariff period

54. In view of the above, the capital cost allowed for the 2014-19 tariff period is as under:

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Capital Cost	98102.08	102060.41	103618.99	105010.66	105475.88
Additional capital expenditure (Net)	3958.33	1558.59	1391.66	465.22	237.50
Closing Capital Cost	**102060.41**	**103618.99**	**105010.66**	**105475.88**	**105713.38**
Average Capital cost	100081.24	102839.70	104314.83	105243.27	105594.63

Debt: Equity ratio

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

(1) For a project declared under commercial operation on or after 1.4.2014, the debt-equity ratio would be considered as 70:30 as on COD. If the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan, Provided that:
(i) where equity actually deployed is less than 30% of the capital cost, actual equity shall be considered for determination of tariff:
(ii) the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment:
(iii) any grant obtained for the execution of the project shall not be considered as a part of capital structure for the purpose of debt-equity ratio.
Explanation - The *premium, if any, raised by the generating company or the transmission licensee, as the case may be, while issuing share capital and investment of internal resources created out of its free reserve, for the funding of the project, shall be reckoned as paid up capital for the purpose of computing return on equity, only if such premium amount and internal resources are actually utilized for meeting the capital expenditure of the generating station or the transmission system.*
(2) The generating Company or the transmission licensee shall submit the resolution f the Board of the company or approval from Cabinet Committee on Economic Affairs (CCEA) regarding infusion of fund from internal resources in support of the utilization made or proposed to be made to meet the capital expenditure of the generating station or the transmission system including communication system, as the case may be.
(3) In case of the generating station and the transmission system including communication, system declared under commercial operation prior to 1.4.2014, debt-equity ratio allowed by the Commission for determination of tariff for the period ending 31.3.2014 shall be considered.
(4) In case of generating station and the transmission system including communication system declared under commercial operation prior to 1.4.2014, but where debt:equity ratio has not been determined by the Commission for determination of tariff for the period ending 31.3.2014, the Commission shall approve the debt:equity ratio based on actual information provided by the generating company or the transmission licensee as the case may be.

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

56. Gross normative loan and equity amounting to Rs. 68671.46 lakh and Rs. 29430.62 lakh, respectively, as on 31.3.2014, as considered in order dated 22.9.2016 in Petition No.229/GT/2014, has been considered as normative loan and equity as on 1.4.2014. The normative debt equity ratio of 70:30 has been considered for the admitted additional capital expenditure. The opening and closing debt and equity are as under:

(Rs. in lakh)

Asset	**As on 1.4.2014**		**Net Additional Capitalization during 2014-19**		**As on 31.3.2019**	
	Amount	**%**	**Amount**	**%**	**Amount**	**%**
Debt	68671.46	70%	5327.91	70%	73999.37	70%
Equity	29430.62	30%	2283.39	30%	31714.01	30%
Total	98102.08	100%	7611.30	100%	105713.38	100%

Return on Equity

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

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

(2) Return on equity shall be computed at the base rate of 15.50% for thermal generating stations, transmission system including communication system and run of the river hydro generating station, and at the base rate of 16.50% for the storage type hydro generating stations including pumped storage hydro generating stations and run of river generating station with pondage:
Provided that:
i) in case of projects commissioned on or after 1st April, 2014, an additional return of 0.50 % shall be allowed, if such projects are completed within the timeline specified in Appendix-I:
ii) the additional return of 0.5% shall not be admissible if the project is not completed within the timeline specified above for reasons whatsoever:
iii) additional RoE of 0.50% may be allowed if any element of the transmission project is completed within the specified timeline and it is certified by the Regional Power Committee/National Power Committee that commissioning of the particular element will benefit the system operation in the regional/national grid:
iv) the rate of return of a new project shall be reduced by 1% for such

period as may be decided by the Commission, if the generating station or transmission system is found to be declared under commercial operation without commissioning of any of the Restricted Governor Mode Operation (RGMO)/ Free Governor Mode Operation (FGMO), data telemetry, communication system up to load dispatch centre or protection system:
v) as and when any of the above requirements are found lacking in a generating station based on the report submitted by the respective RLDC, RoE shall be reduced by 1% for the period for which the deficiency continues:
vi) additional RoE shall not be admissible for transmission line having length of less than 50 kilometer

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

"Tax on Return on Equity
(1)The base rate of return on equity as allowed by the Commission under Regulation 24 shall be grossed up with the effective tax rate of the respective financial year. For this purpose, the effective tax rate shall be considered on the basis of actual tax paid in the respect of the financial year in line with the provisions of the relevant Finance Acts by the concerned generating company or the transmission licensee, as the case may be. The actual tax income on other income stream (i.e., income of non-generation or non-transmission business, as the case may be) shall not be considered for the calculation of "effective tax rate".
(2) Rate of return on equity shall be rounded off to three decimal places and shall be computed as per the formula given below:
Rate of pre-tax return on equity = Base rate / (1-t)
Where "t" is the effective tax rate in accordance with Clause (1) of this regulation and shall be calculated at the beginning of every financial year based on the estimated profit and tax to be paid estimated in line with the provisions of the relevant Finance Act applicable for that financial year to the company on pro-rata basis by excluding the income of non-generation or non-transmission business, as the case may be, and the corresponding tax thereon. In case of generating company or transmission licensee paying Minimum Alternate Tax (MAT), "t" shall be considered as MAT rate including surcharge and cess.

59. Accordingly, the base rate of ROE has been grossed up, based on the actual tax paid for the 2014-19 tariff period. Accordingly, in terms of the above regulations, ROE has been computed as under:

(Rs. in lakh)

	2014-15	**2015-16**	**2016-17**	**2017-18**	**2018-19**
Gross Notional Equity **(A)**	29430.62	30618.12	31085.70	31503.20	31642.77
Addition due to additional capitalization **(B)**	1187.50	467.58	417.50	139.57	71.25
Closing Notional **Equity (C) = (A + B)**	30618.12	31085.70	31503.20	31642.77	31714.02
Average Equity **(D) = (A+C)/2**	30024.37	30851.91	31294.45	31572.98	31678.39
Return on Equity (Base Rate) **(E)**	16.500%	16.500%	16.500%	16.500%	16.500%
Tax rate for the year **(F)**	20.961%	21.342%	21.342%	21.342%	21.549%

	2014-15	2015-16	2016-17	2017-18	2018-19
Rate of Return on Equity **(G)**	20.876%	20.977%	20.977%	20.977%	21.032%
Return on Equity (H) = (D x G)	**6267.89**	**6471.80**	**6564.64**	**6623.06**	**6662.60**

Interest on Loan

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

> *"26. Interest on loan capital: (1) The loans arrived at in the manner indicated in regulation 19 shall be considered as gross normative loan for calculation of interest on loan.*
> *(2) The normative loan outstanding as on 1.4.2014 shall be worked out by deducting the cumulative repayment as admitted by the Commission up to 31.3.2014 from the gross normative loan.*
> *(3) The repayment for each of the year of 2014-19 tariff period shall be deemed to be equal to the depreciation allowed for the corresponding year/period. In case of de-capitalization of assets, the repayment shall be adjusted by taking into account cumulative repayment on a pro rata basis and the adjustment should not exceed cumulative depreciation recovered upto the date of de-capitalization of such asset.*
> *(4) Notwithstanding any moratorium period availed by the generating company or the transmission licensee, as the case may be, the repayment of loan shall be considered from the first year of commercial operation of the project and shall be equal to the depreciation allowed for the year or part of the year.*
> *(5) The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio after providing appropriate accounting adjustment for interest capitalized:*
> *Provided that if there is no actual loan for a particular year but normative loan is still outstanding, the last available weighted average rate of interest shall be considered:*
> *Provided further that if the generating station or the transmission system, as the case may be, does not have actual loan, then the weighted average rate of interest of the generating company or the transmission licensee as a whole shall be considered.*
> *(6) The interest on loan shall be calculated on the normative average loan of the year by applying the weighted average rate of interest.*
> *(7) The generating company or the transmission licensee, as the case may be, shall make every effort to re-finance the loan as long as it results in net savings on interest and in that event the costs associated with such re-financing shall be borne by the beneficiaries and the net savings shall be shared between the beneficiaries and the generating company or the transmission licensee, as the case may be, in the ratio of 2:1.*
> *(8) The changes to the terms and conditions of the loans shall be reflected from the date of such refinancing.*
> *(9) In case of dispute, any of the parties may make an application in accordance with the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999, as amended from time to time, including statutory reenactment thereof for settlement of the dispute:*
> *Provided that the beneficiaries or the long-term transmission customers /DICs shall not withhold any payment on account of the interest claimed by the generating company or the transmission licensee during the pendency of any dispute arising out of refinancing of loan."*

61. 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, based on 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 and 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 opening loan **(A)**	68671.46	71442.29	72533.30	73507.46	73833.12
Cumulative repayment of loan upto previous year **(B)**	2272.49	7277.17	12378.37	17551.98	22771.17
Net Loan Opening **(C)=(A)-(B)**	66398.97	64165.12	60154.93	55955.48	51061.95
Repayment during the year **(D)**	5004.89	5101.28	5176.61	5225.83	5241.91
Cumulative repayment adjustment on a/c of de-capitalization **(E)**	0.21	0.08	3.00	6.65	0.00
Net Repayment **(F)=(D)-(E)**	5004.68	5101.20	5173.61	5219.19	5241.91
Addition due to additional capital expenditure **(G)**	2770.83	1091.01	974.16	325.65	166.25
Net Loan Closing **(H)= (C+G-F)**	64165.12	60154.93	55955.48	51061.95	45986.29
Average Loan**(I)=(C+H)/2**	65282.04	62160.03	58055.21	53508.72	48524.12
Weighted Average Rate of Interest of loan **(J)**	6.0798%	6.0258%	5.9131%	4.8085%	4.5386%
Interest on Loan (K=I*J)	3969.02	3745.66	3432.84	2572.99	2202.32

62. The Petitioner has prayed for truing-up of tariff, based on re-financing of loan and sharing of gains for the 2014-19 tariff period, in terms of Regulation 8(2)(a)(iv) of the 2014 Tariff Regulations. The Petitioner has also stated that the loans have been refinanced with effect from 2016-17, which has resulted in reduction of the weighted average interest rates and net savings in case of the generating station. In addition, as the 100% gain on account of refinancing of loan is automatically getting passed on to the beneficiary through tariff, the

Petitioner has proposed to recover one-third portion of the gain, due to re-financing of loan and the cost of refinancing from the Respondent in line with Regulation 26(7) of the 2014 Tariff Regulations.

63. We have considered the matter. In line with Regulation 26(7) of the 2014 Tariff Regulations, the Petitioner shall re-finance the loan as long as it results in net savings on interest and, in that event, the costs associated with such re-financing shall be borne by the beneficiaries and net savings shall be shared between the beneficiaries and the generating company in the ratio of 2:1.

<u>Depreciation</u>

64. 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.*
>
> *xxx*
>
> *(4) 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.*
>
> *(5) 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 maybe, shall not be allowed to be recovered at a later stage during the useful life and the extended life.

(6) 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.

(7) 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.

(8) In case of the existing projects, the balance depreciable value as on1.4.2014 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.

(9) 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.

(10) 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."

65. As the COD of the generating station is 10.10.2013, depreciation has been calculated by applying the weighted average rate of depreciation (WAROD), calculated in terms of Regulation 27 of the 2014 Tariff Regulations. The calculation of WAROD is enclosed as Annexure-I to this order. In line with the above Regulation, depreciation has been computed as under:

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross block **(A)**	98102.08	102060.41	103618.99	105010.66	105475.88
Net Additional capital expenditure during 2014-19 **(B)**	3958.33	1558.59	1391.66	465.22	237.50
Closing gross block **(C=A+B)**	102060.41	103618.99	105010.66	105475.88	105713.38
Average gross block **(D)=(A+C)/2**	100081.24	102839.70	104314.83	105243.27	105594.63
Depreciable Value **(E=D*90%)**	90073.12	92555.73	93883.34	94718.94	95035.16
Remaining Depreciable Value at the beginning of the year **(F=E-Cum Dep at 'L' at the end of previous year)**	87800.63	85278.56	81504.97	77166.96	72264.00

	2014-15	2015-16	2016-17	2017-18	2018-19
Rate of Depreciation **(G)**	5.001%	4.960%	4.962%	4.965%	4.964%
Balance useful Life **(H)**	34.53	33.53	32.53	31.53	30.53
Depreciation (I=D*G)	**5004.89**	**5101.28**	**5176.61**	**5225.83**	**5241.91**
Cumulative Depreciation at the end of the year **(J=I+ Cum Dep at 'L' at the end of previous year)**	7277.38	12378.45	17554.98	22777.81	28013.08
Less: Depreciation adjustment on account of de-capitalization **(K)**	0.21	0.08	3.00	6.65	0.00
Cumulative Depreciation at the end of the year **(L)**	7277.17	12378.37	17551.98	22771.17	28013.08

**The cumulative depreciation at the end of 2013-14 is Rs. 2272.49 lakh.*

<u>O&M Expenses</u>

66. Regulation 29(3)(c) of the 2014 Tariff Regulations provides as under:

"(c) In case of the hydro generating stations, which have not been in commercial operation for a period of three years as on 1.4.2014, operation and maintenance expenses shall be fixed at 2% of the original project cost (excluding cost of rehabilitation and resettlement works) for the first year of commercial operation. Further, in such case, operation and maintenance expenses in first year of commercial operation shall be escalated @6.04% per annum up to the year 2013- 14 and then averaged to arrive at the O&M expenses at 2013-14 price level. It shall be thereafter escalated @ 6.64%per annum to arrive at operation and maintenance expenses in respective year of the tariff period."

67. Accordingly, based on the actual capital cost of Rs.105475.88 lakh as allowed, as on the cut-off date (31.3.2018) by this order, the O&M expenses allowed in order dated 22.9.2016 in Petition No. 229/GT/2014 has been revised. As such, the O&M expenses for the period from 29.11.2012 to 31.3.2014 is revised as under:

(Rs. in lakh)

	10.10.2013 to 31.1.2014 (59 days)
	3 Units
Allowed capital cost as on cut-off date	105475.88
Less: R&R cost	1144.00
Capital cost for the purpose of O&M	104331.88
Annualized O&M expenses @ 2% of capital cost	2086.64
O&M expenses (Pro-rata for number of days)	**989.01**

68. The generating station has not completed 3 years of operation as on 1.4.2014, Accordingly, in terms of Regulation 29(3)(c) of the 2014 Tariff Regulations and considering the capital cost of Rs. 105475.88 lakh, allowed as on the cut-off date (31.3.2018) of the generating station, the O&M expenses for the 2014-19 tariff period, is revised and allowed as under:

(Rs. in lakh)

	Amount
Capital cost allowed on cut-off date (31.3.2018)	105475.88
Less: R&R cost submitted by the Petitioner	1144.00
Capital cost for the purpose of O&M	**104331.88**
2013-14	
Annualized O&M expenses (@ 2% of Rs. 104331.88 lakh)	2086.64*

**O&M expenses allowed at 2013-14 price level is further escalated @ 6.64%per annum to arrive at operation and maintenance expenses in respective year of the tariff period*

Additional O&M Expenses

Goods & Services Tax

69. 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 requested for relaxation of the provisions of Regulation 29(3) of the 2014 Tariff Regulations, 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 expenditure 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 (8.7.2017 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 (1.4.2018 to 31.12.2018)**	**2018-19 (1.1.2019 to 31.3.2019)**	**Total**
5974266	6449666	4346079	16770011

70. It is further observed that the Petitioner vide affidavit dated 1.7.2022 has submitted the following details towards the impact of GST:

Particulars	**Additional Impact of GST on O&M Expenses (in Rs.)**		
	2017-18	**2018-19**	**Total**
1. Additional Impact on Security Services-CISF	**1943392**	**4618714**	**6562106**
2. Additional GST impact on works awarded in pre –GST period but executed in post GST period forming part of O&M Expenses – R&M/Manpower and other Work	426889	76,897	503786
3. Additional GST impact on supply order awarded in pre-GST period but executed in post-GST period forming part of O&M expenses	0	0	0
4. Additional GST impact on work awarded & execution in post GST period vis-à-vis in case work would have been awarded in pre-GST period forming part of O&M Expenses-R&M/Manpower and other works	1688994	1752930	3441924
5. Additional GST impact on supply order awarded & executed in post-GST period vis-à-vis in case work would have been awarded in pre-GST period forming part of O&M Expenses	(-) 1365537	(-) 399567	(-) 1765104
6. Additional GST impact on RO/CO Management Expenses,	1239126	2324861	3563987
7. Additional GST Impact other services like Insurance etc.	2041402	2421910	4463312
Total	**5974266**	**10795745**	**16770011**

71. The Petitioner has submitted that Service Tax was first introduced in 1994 through Finance Act, 1994 and as per Section 64 (1) of Finance Act, 1994, Service Tax was applicable to the whole of India except the State of Jammu and Kashmir (J&K). Therefore, any services rendered within the State of Jammu and Kashmir, either by a

person residing within the State or outside the State, was not leviable to Service Tax. Accordingly, Service Tax was not leviable/payable in Pre-GST Regime on Security Services received by the units of the Petitioner located in the State of J&K. Further, as per the provisions of Jammu and Kashmir General Sales Tax Act, 1962 and Rules framed thereunder, Security Services were not falling in the definition of goods or services as defined in Section 2(h) of the said Act. Therefore, Security Services were not eligible to any tax i.e. WCT under Jammu and Kashmir General Sales Tax Act, 1962 or Service Tax in the State of J&K in pre-GST Regime. However, with the introduction of GST w.e.f. 8.7.2017 in the State of J&K, Security Services are being subjected to GST @18%.

72. The matter has been considered. It is observed that the Petitioner has claimed total amount of Rs. 167.70 lakh towards impact of GST. 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..."*

73. 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 of the Petitioner to allow the additional O&M expenses towards payment of GST, in respect of works (in sl Nos. 2 to 7 of the table under para

70 above) which form part of O&M of the generating station.

74. It is however noticed that the claim of the Petitioner, in the table under paragraph 70 above, also includes the impact of GST on Security Services for Rs 19.43 lakh in 2017-18 and Rs 46.19 in 2018-19 on the ground that in terms of the provisions of J&K General Sales Tax Act, 1962 and Rules framed thereunder, Security Services were not falling in the definition of goods or services as defined in Section 2(h) of the said Act and therefore, the same were not eligible to any tax i.e. WCT under Jammu and Kashmir General Sales Tax Act, 1962 or Service Tax in the State of J&K in pre-GST Regime. However, it has submitted that with the introduction of GST w.e.f. 8.7.2017 in J&K, Security Services are being subjected to GST @18%. It is evident from the above that no service tax was applicable on the Security Services prior to 8.7.2017 in J&K, the same were also not factored in, while fixing the O&M expense norms for this generating station located in J&K. However, due to implementation of GST on Security Services, the Petitioner has been obligated to pay GST on Security Services. Accordingly, we allow the impact of GST on Security Services, as claimed by the Petitioner, as under:

(Rs. in lakh)

2014-15	**2015-16**	**2016-17**	**2017-18**	**2018-19**
0.00	0.00	0.00	19.43	46.19

Impact of Wage revision

75. The Petitioner has submitted that it has filed Petition No. 222/MP/2019 claiming recovery of impact of wage revision of its employees and deputed employees of J&K Police in respect of this generating station for the period from1.1.2016 to 31.3.2019. Since the Petitioner, in this petition, has not made any claim for the recovery of impact of wage revision of its employees and deputed employees of J&K Police in respect of the generating station during the period

1.1.2016 to 31.3.2019, the same will be guided by the decision in Petition No. 222/MP/2019.

76. Accordingly, the O&M expenses allowed for the 2014-19 tariff period is as under:

(Rs. in lakh)

	2014-15	**2015-16**	**2016-17**	**2017-18**	**2018-19**
Normative O&M expenses	2225.19	2372.94	2530.51	2698.53	2877.71
Impact due to GST	0.00	0.00	0.00	19.43	46.19
Total O&M expenses	**2225.19**	**2372.94**	**2530.51**	**2717.97**	**2923.90**

<u>Interest on Working Capital</u>

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

> *"28 (1) (c) Hydro generating station including pumped storage hydroelectric generating station and transmission system including communication system:*
> *(i) Receivables equivalent to two months of fixed cost;*
> *(ii) Maintenance spares @ 15% of operation and maintenance expenses specified in regulation 29; and*
> *(iii) Operation and maintenance expenses for one month."*

Working capital for Receivables

78. 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**
2990.12	3029.23	3032.28	2936.99	2919.50

Working capital for Maintenance spares

79. 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**
333.78	355.94	379.58	407.69	438.59

Working capital for O&M expenses for 1 month

80. 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**
185.43	197.75	210.88	226.50	243.66

Rate of Interest on Working Capital

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

> *"(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 therefor the transmission system including communication system or element thereof, as the case may be, is declared under commercial operation, whichever is later."*

82. In terms of the above Regulations, the Bank Rate of 13.50% (Base Rate + 350 Basis Points) as on 1.4.2014 has been considered by the Petitioner. This has been considered in the calculations for the purpose of tariff. Accordingly, interest on working capital is allowed as under:

(Rs. in lakh)

	2014-15	**2015-16**	**2016-17**	**2017-18**	**2018-19**
Working capital for O & M expenses	185.43	197.75	210.88	226.50	243.66
Working capital for Maintenance Spares	333.78	355.94	379.58	407.69	438.59
Working capital for Receivables	2990.12	3029.23	3032.28	2936.99	2919.50
Total Working Capital	**3509.34**	**3582.92**	**3622.73**	**3571.19**	**3601.74**
Rate of Interest	13.50%	13.50%	13.50%	13.50%	13.50%
Total Interest on Working capital	**473.76**	**483.69**	**489.07**	**482.11**	**486.23**

Annual Fixed charges

83. Due to revision of O&M expenses, based on the actual capital cost as on the cut-off date, as above, the annual fixed charges approved for the period from 29.11.2012 to 31.3.2014 stands revised as under:

(Rs. in lakh)

	10.10.2013 to 31.3.2014 (3 Units)
Depreciation	2272.49
Interest on Loan	2274.64
Return on Equity	2860.12
O&M Expenses	989.01
Interest on Working Capital	217.89
Total	**8614.15**

84. Consequently, the annual fixed charges allowed for the 2014-19 tariff period is summarized as under:

(Rs. in lakh)

	2014-15	**2015-16**	**2016-17**	**2017-18**	**2018-19**
Depreciation	5004.89	5101.28	5176.61	5225.83	5241.91
Interest on Loan	3969.02	3745.66	3432.84	2572.99	2202.32
Return on Equity	6267.89	6471.80	6564.64	6623.06	6662.60
Interest on Working Capital	473.76	483.69	489.07	482.11	486.23
O&M Expenses	2225.19	2372.94	2530.51	2717.97	2923.90
Total Annual Fixed Charges	**17940.75**	**18175.38**	**18193.65**	**17621.96**	**17516.97**

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

Normative Annual Plant Availability Factor (NAPAF)

85. As regards deemed generation, the Commission in its order dated 22.9.2016 in Petition No. 229/GT/2014 had decided as under:

"The Commission in its order dated 7.10.2013 in Petition No. 89/GT/2013 had allowed the normative plant availability factor of 65.18% with regard to the recovery of capacity charges and provision of deemed generation was also made for recovery of energy charges till availability of full load. The relevant portion of the order dated 13.10.2015 is extracted as under:

"65. The Commission in order dated 7.10.2013 while considering the prayer of the petitioner for relaxation of Normative Annual Plant Availability Factor (NAPAF) has decided as under:

a) NAPAF of 65.18% is allowed after relaxation of 5% with reference to the NAPAF of 70.18% as mentioned in para-29 above.
b) Infirm power to be charged at the applicable UI rate of `1.65/kWh, corresponding to the frequency in the range of 50 Hz and 50.02 Hz, in terms of the Central Electricity Regulatory Commission (Unscheduled Interchange charges and related matters) (second amendment) Regulations, 2012 .

66. SLDC being an apex body is required to ensure the integrated operation of the power system in the State. Accordingly, we direct the SLDC to certify the Plant

Availability Factor and the deemed generation on monthly basis, after verifying the same with the respondent. The prayer of the petitioner is disposed of in terms of the above."
The directions of the Commission in the said order dated 13.10.2015 as above, shall continue for 2014-19 tariff period, until full load is made available by the respondent. However, the petitioner is directed to submit on affidavit, the status including the date from which the full load was made available by the respondent, at the time of revision of tariff based on truing up exercise in terms of Regulation 8 of the 2014 Tariff Regulations.

86. The Petitioner, during the hearing, has submitted that since the generating station has been connected to the grid from 2.10.2019, with load commensurate to the full capacity of the plant, the Commission may allow the benefits of deemed energy generation up to 1.10.2019. It has also submitted that the recovery of incentives as per formulae for recovery of capacity charges and energy charges for secondary charges from 2.10.2019 onwards may be allowed.

87. Considering that the recovery of energy charges, corresponding to difference between energy declared to be generated, and the energy scheduled by the beneficiary (due to non-availability of load), as deemed generation, along with recovery of monthly energy charges up to 1.10.2019 for scheduled energy is to be calculated as per provisions of the 2014 Tariff Regulations, the prayer of the Petitioner is allowed in terms of the above. Further, recovery of incentives as per formulae for recovery of capacity charges and energy charges from 2.10.2019 onwards, if applicable are also allowed. Clause (4) of Regulation 37 of the 2014 Tariff Regulations provides for the Normative Annual Plant Availability Factor for hydro generating stations already in operation. Accordingly, NAPAF of 65% has been considered for this generating station.

Auxiliary Power Consumption

88. As regards the Auxiliary Power Consumption (APC), the Commission in paragraph 54 of its order dated 22.9.2016 in Petition No. 229/GT/2014 had decided

as under:

> *"……. Considering the location of plant, the extreme weather condition and the data submitted by the petitioner, we, in exercise of the power under Regulation 54 of the 2009 Tariff Regulations, and as a special case relax the provisions of Clause (6) sub-clause (a)(ii) of Regulation 37 of the 2014 Tariff Regulations and allow the auxiliary consumption of up to 6% based on average actual auxiliary consumption for the period 2012-16 as against the claim of the petitioner for 9%. The relaxation granted for this generating station cannot be cited as precedent in future."*

89. As the Petitioner, has claimed APC as allowed by the Commission by order dated 22.9.2016, the same is allowed for the 2014-19 tariff period.

Design Energy

90. The Commission in order dated 22.9.2016 in Petition No.229/GT/2014 had approved the annual Design Energy (DE) of 239.33 Million units (MU) for the 2009-14 tariff period for this generating station. The same has been claimed by the Petitioner for the 2014-19 tariff period. Accordingly, NAPAF of 239.33 MU is considered for the generating station for the 2014-19 tariff period, as per month-wise details below:

Month		Design Energy (MUs)
April	I	3.54
	II	3.75
	III	4.02
May	I	4.85
	II	6.81
	III	11.29
June	I	10.23
	II	10.26
	III	10.26
July	I	10.26
	II	10.26
	III	11.29
August	I	10.26
	II	10.26
	III	11.29
September	I	10.26
	II	10.26
	III	10.26
October	I	7.79
	II	5.99

Month		Design Energy (MUs)
	III	6.05
November	I	5.26
	II	4.93
	III	4.60
December	I	4.38
	II	4.37
	III	4.73
January	I	3.88
	II	3.69
	III	3.90
February	I	3.42
	II	3.36
	III	3.03
March	I	3.36
	II	3.37
	III	3.81
Total		**239.33**

91. The annual fixed charges determined as above shall be adjusted against the annual fixed charges already recovered, in terms of Regulation 8(13) of the 2014 Tariff Regulations.

DETERMINATION OF TARIFF FOR THE 2019-24 TARIFF PERIOD

92. 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	5315.08	5324.62	5365.27	5434.86	5493.86
Interest on Loan	2181.21	1899.00	1651.23	1401.61	1149.92
Return on Equity	6424.05	6434.90	6480.66	6550.97	6609.83
Interest on WC	400.56	405.50	412.40	420.55	428.79
O&M Expenses	4068.87	4262.83	4466.04	4678.94	4901.98
Total	**18389.77**	**18326.84**	**18375.60**	**18486.92**	**18584.37**

Capital Cost

93. 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 up to the receiving end of generating station but does not include the transportation cost and any other appurtenant cost paid to the railway; and*
>
> *(f) Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries…."*

94. The Petitioner vide Form-1(i) 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	107012.13	107197.77	107396.45	108836.03	110201.03
Add: Addition during the year / Period	12.00	204.25	1059.50	1365.00	1013.00
Less: De-capitalization during the year/period	9.17	5.57	0.00	0.00	0.00
Add: Discharges during the period	182.81	0.00	380.08	0.00	0.00
Closing Capital Cost	**107197.77**	**107396.45**	**108836.03**	**110201.03**	**111214.03**
Average Capital Cost	107104.95	107297.11	108116.24	109518.53	110707.53

95. The Commission in this order had allowed the closing capital cost of Rs.105713.38 lakh, as on 31.3.2019. Accordingly, in terms of Regulation 19(3) of the 2019 Tariff Regulations, the capital cost of Rs.105713.38 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

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

(Rs. in lakh)

	2019-20	**2020-21**	**2021-22**	**2022-23**	**2023-24**
Opening Un-discharged liabilities **(a)**	562.94	380.08	380.08	0.00	0.00
Liabilities Discharged of original scope of works (Created before 1.4.2014) (**b)**	104.31	0.00	380.08	0.00	0.00
Reversal of Liabilities **(c)**	0.05	0.00	0.00	0.00	0.00
Liabilities Discharged of assets/work other than original scope of works (Created after 1.4.2014 to 31.3.2019) **(d)**	78.50	0.00	0.00	0.00	0.00
Total Amount Discharged (e) = (b) +(d)	**182.81**	**0.00**	**380.08**	**0.00**	**0.00**
Closing Un-discharged liabilities **(f) = (a)-(c)-(e)**	380.08	380.08	0.00	0.00	0.00

97. As the balance limit available for capitalization of the asset within the original scope of work of the project has been exhausted during 2021-22 in the allowed additional capital expenditure, the year-wise discharge of liabilities of (original scope of works) as claimed by the Petitioner during 2021-22 has not been allowed. As regards liabilities discharged (of assets/works other than original scope of work), of the 2014-19 tariff period, it is to be noted that total allowable amount for such liabilities amounts to Rs. 48.15 lakh [Rs.137.60 lakh (allowed un-discharged liability (created after 1.4.2014) – Rs.80.61 lakh

(allowed discharge of liability (created after 1.4.2014)- Rs.8.84 lakh (allowed reversals for liabilities after 1.4.2014)] as allowed during the 2014-19 tariff period. The same has been considered.

Additional Capital Expenditure

98. 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 in accordance with the 2019 Tariff Regulations.

99. 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.

100. 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-capitalization 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-capitalization 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-capitalization takes place with corresponding adjustments in cumulative depreciation and cumulative repayment of loan, duly taking into consideration the year in which it was capitalized.

101. 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	Total
Additional capital expenditure within the original scope of work						
Regulation 25(1)(a)	0.00	89.75	923.00	850.00	963.00	2825.75
New Claims as per site requirements						
Regulation 25 (2)(a)	12.00	7.50	0.00	0.00	0.00	19.50
Regulation 26(1)(a)	0.00	0.00	0.00	0.00	50.00	50.00
Regulation 26(1)(b)	0.00	75.00	10.00	500.00	0.00	585.00
Regulation 26(1)(d)	0.00	32.00	126.50	15.00	0.00	173.50
Total projected additional capital expenditure claimed	**12.00**	**204.25**	**1059.50**	**1365.00**	**1013.00**	**3653.75**

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

(a) Additional Capital Expenditure claimed under original scope of work

103. As stated in paragraph 9 above, the Petitioner, during the 2014-19 tariff period submitted that due to various reasons (as mentioned in order dated 22.9.2016 in Petition No.229/GT/2014), which were beyond its control , could not execute all the works for which additional capital expenditure was allowed within the extended cut-off date (i.e. 31.3.2018). Consequent upon this, the Petitioner submitted that the balance works / supplies were still in progress/process and are being undertaken and a major portion of the same is anticipated to be executed by the generating station by 31.3.2021. Accordingly, the Petitioner had submitted that the works which were executed after original cut-off date (31.3.2016) up to 31.3.2018 and anticipated to be executed during the 2019-24 tariff period, have been claimed by the Petitioner, in the present petition. In consideration of these submissions, the Commission vide paragraph 11 of this order, decided as under:

"11……….In this background, we find no reason to extend the cut-off date further till 31.3.2021, as prayed for by the Petitioner. However, keeping in view that the said works, within the original scope, are in progress, we are inclined to consider the additional capitalization in respect of the said works/ items, initial spares, after cut-off date, on prudence check of the submissions of the

Petitioner, subject however, to the balance limit available for capitalization of assets/ works within the original scope…"

104. Based on the above, the balance expenditure limit available, as on 31.3.2019, is Rs. 813.16 lakh. As such, the same is considered as the balance expenditure limit available for assets/works within the original scope of work of the project for the 2019-24 tariff period.

105. The Petitioner has claimed additional an amount of Rs. 2825.75 lakh in respect of assets which are within the original scope of works for the 2019-24 tariff period, under Regulation 25(1) of the 2019 Tariff Regulations. It is noticed that the above claim includes an amount of Rs. 583.00 lakh for works/assets which were already allowed vide order dated 22.9.2016 in Petition No. 229/GT/2014. The expenditure claimed under the head is for works/assets such as Execution of Biodiversity Conservation Management plan, Expenditure for health care management, Payment for motorable suspension bridge under R&R, Landscaping in NHPC colony, Development of View Point, 'Entry gates at NPBS office and Dam, Construction of accommodation for security personnel (CISF) Building, etc. As regards discharge of liabilities, claimed by the Petitioner for the 2019-24 tariff period, it is noticed that, out of total amount of Rs.182.81 lakh (2019-20) and Rs. 380.08 lakh (2021-22) claimed for discharge of liabilities, amount of Rs. 104.31 lakh and Rs. 380.08 lakh pertains to assets within the original scope of work. As such, the additional capital expenditure and discharge of liabilities pertaining to assets within the original scope of work is allowed, restricted to the balance limit available, as under:

(Rs. in lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24	Total
Expenditure allowed for assets/works within the original scope of work of the project **(a)** *(allowed under Regulation 25(1)(a) of the 2019 Tariff Regulations)*	0.00	89.75	619.10	0.00	0.00	708.85
Discharge of liabilities allowed for assets/works within the original scope of work of the project **(b)**	104.31	0.00	0.00	0.00	0.00	104.31
Balance limit available	708.85	619.10	0.00	0.00	0.00	
Total (c)=(a)+(b)	**104.31**	**89.75**	**619.10**	**0.00**	**0.00**	**813.16**

106. As regards discharge of liabilities, 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. The Petitioner shall 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.

(b) Additional Capital Expenditure claimed as per site requirement

107. The Petitioner has claimed additional capital expenditure for Rs. 828.00 lakh under this head for 2019-24 tariff period and the same is examined, as stated in the subsequent paragraphs.

<u>2019-20</u>

108. The projected additional capital expenditure claimed by the Petitioner in 2019-20 is examined below:

(Rs. in lakh)

	Amount
Items claimed under Regulation 25(2)(a) **(a)**	12.00
Subtotal (a)	**12.00**
Discharge of liabilities (other than original scope of work, of 2014-19 tariff period**)**	78.50
Total (a) + (b)	**90.50**

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

109. The Petitioner has claimed additional capital expenditure of Rs. 12.00 lakh in 2019-20 for Purchase of 4 Nos. capacitor voltage transformer (CVT)'. The Petitioner has submitted that in generating station total 9 nos. of CVTs are installed for measuring lines & bus voltages. It has also submitted that during condition monitoring of the equipment of switchyard, CPRI recommended to replace four nos. of CVTs installed in the switchyard. Accordingly, the Petitioner has submitted that it has planned to purchase 4 nos. of CVTs against replacement. In view of the submissions and considering the fact that the additional capital expenditure claimed is for replacement of the assets deployed, which are within the original scope of the existing project, but after the cut-off date, the same is **allowed** under Regulation 25(2)(a) of the 2019 Tariff Regulations. However, the decapitalization value of assets has been considered under "De-capitalization/ Assumed Deletions. Accordingly, the additional capital expenditure allowed under this head, in 2019-20 is Rs. 12.00 lakh.

110. As regards the liabilities discharged (of assets/works other than original scope), for the 2014-19 tariff period, it is noted that the total allowable amount for such liabilities amounts to Rs. 48.15 lakh [Rs.137.60 lakh (allowed undischarged liability (created after 1.4.2014)–Rs.80.61 lakh (allowed discharge of liability (created after 1.4.2014) - Rs. 8.84 lakh (allowed reversals (for liabilities after 1.4.2014)] as allowed during the 2014-19 tariff period, as shown in the tables under paragraphs 52 and 53 respectively. The same has been considered for the 2019-24 tariff period.

2020-21

111. The projected additional capital expenditure claimed by the Petitioner in 2020-21 are examined below:

(Rs. in lakh)

	Amount
Items claimed under Regulation 25(2)(a) **(a)**	7.50
Items claimed under Regulation 26(1)(d) **(b)**	32.00
Items claimed under Regulation 26(1)(b) **(c)**	75.00
Total Amount (d)=(a)+(b)+(c)	**114.50**

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

112. The Petitioner has claimed additional capital expenditure of Rs. 7.50 lakh in 2020-21 for Purchase of 2 nos. of 66 KV, 500/1 Amp, 5 Core current transformer'. The Petitioner has submitted that in the generating station, total 21 nos. of CTs are installed for measuring line, unit, SAT & bus coupler phase current. It has submitted that during condition monitoring of the equipment of switchyard, CPRI recommended to replace 2 nos. of CTs installed in the switchyard. Accordingly, it has planned to purchase 2 nos. of CTs for replacement and the amount claimed is as per Budgetary Offer. In view of the submissions and considering the fact that the additional capital expenditure claimed is for replacement of the assets deployed, which are within the original scope of the existing project, but after the cut-off date, the same is **allowed** under Regulation 25(2)(a) of the 2019 Tariff Regulations. However, the decapitalization value of assets has been considered under "De-capitalization/ Assumed Deletions.

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

113. The Petitioner has claimed additional capital expenditure of Rs. 32.00 lakh, in respect of assets/ works such as Provision for Networking, Network Storage & Wireless Equipment's / CCTV's, Purchase of Security Equipment's/

gadgets. We notice that these claims have not been supported by any recommendation of competent/ statutory authority for safety and security, in terms of the regulation under which the said claims are made. Keeping in view that the above-mentioned assets/works are necessary for safety of the plant, the additional capital expenditure for Rs. 32.00 lakh is **allowed** under Regulation 26(1)(d) of the 2019 Tariff Regulations. The Petitioner is, however, directed to furnish relevant documents, at the time of truing of tariff.

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

114. The Petitioner has claimed additional capital expenditure of Rs. 75.00 lakh, for assets/ works such as 'Provision for Sewerage treatment plant including Automation of Sewerage Treatment Plant', 'Provision for Air Quality monitoring Laboratory' and 'Provision for Water Quality monitoring Laboratory'. It is observed that the Petitioner has not submitted any supporting documents in justification of the said claim. As such, in the absence of relevant documentary evidence, the claim of the Petitioner is not allowed. The Petitioner is, however, directed to furnish relevant documents, at the time of truing of tariff.

115. Thus, the total additional capital expenditure allowed under this head, in 2020-21, is Rs. 39.50 lakh.

2021-22

116. The projected additional capital expenditure claimed by the Petitioner in 2021-22 is examined below:

(Rs. in lakh)

	Amount
Items claimed under Regulation 26(1)(b) **(a)**	10.00
Items claimed under Regulation 26(1)(d) **(b)**	126.50
Total Amount (c)=(a)+(b)	**136.50**

(a) Items claimed under Regulation 26(1)(b) of the 2019 Tariff Regulations

117. The Petitioner has claimed additional capital expenditure of Rs. 10.00 lakh, for assets/ works such as 'Provision for Sewerage treatment plant including Automation of Sewerage Treatment Plant', 'Provision for Air Quality monitoring Laboratory' and 'Provision for Water Quality monitoring Laboratory'. It is observed that the Petitioner has not submitted any supporting documents in justification of the said claim. As such, in the absence of relevant documentary evidence, the claim of the Petitioner is not allowed. The Petitioner is, however, directed to furnish relevant documents, at the time of truing of tariff.

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

118. The Petitioner has claimed additional capital expenditure of Rs. 126.50 lakh, in respect of assets/ works such as 'Construction of Store at Right Bank',' Purchase of Security Equipment's/ gadgets' and 'Purchase of Hospital Equipment's'. It is however notices that the claims of the Petitioner have not been supported by documentary evidence indicating that the said claim is based on any direction/advice of the any competent/statutory authority towards the safety and security of the plant as envisaged under Regulation 26(1)(d) of the 2019 Tariff Regulations. However, as the expenditure for the asset viz., 'Purchase of Security Equipment's/ gadgets' assets/works is considered necessary for the safety of the plant, the projected additional capitalization of Rs. 5.00 lakh for the same (out of total claim of Rs.126.50 lakh for these assets/works) is **allowed** under Regulation 26(1)(d) of the 2019 Tariff Regulations. The Petitioner is, however, directed to furnish relevant documentary evidence, for additional capitalization under this head, at the time of truing of tariff.

119. Accordingly, the projected additional capital expenditure allowed under this head in 2021-22 is Rs. 5.00 lakh.

2022-23

120. The projected additional capital expenditure claimed by the Petitioner in 2022-23 are examined below:

(Rs. in lakh)

	Amount
Items claimed under Regulation 26(1) **(a)**	500.00
Items claimed under Regulation 26(1)(d) **(b)**	15.00
Total (c)=(a)+(b)	515.00

(a) Items claimed under Regulation 26(1)(a) of the 2019 Tariff Regulations

121. The Petitioner has claimed additional capital expenditure of Rs. 500.00 lakh, for assets/works such as 'Construction of Permanent Office Building'. The Petitioner has submitted that the said work, which was beyond the original scope of work, was allowed for Rs. 500.00 lakh for the years 2016-17 and 2017-18 vide order dated 22.9.2016 in Petition No. 229/GT/2014. It has submitted that however, the said work, was deferred due to varieties of complex reasons viz adverse weather conditions for almost half of the year, such as the temperature goes up to (–) 30 deg C in winter months. The Petitioner has stated that during this period, the execution of civil work gets affected and setting of cement is also technically not feasible. Moreover, the approach road to Leh and Kargil area remains closed for almost six months in a year and hence, transportation of material from outside valet is also not feasible. It has also stated that due to adverse conditions, the availability of efficient contractor and skilled manpower are also very poor and the said work is required for having permanent office building at project site. It has further submitted that the work

for Construction of Permanent Office Building, has already been awarded and is in progress and all the works including construction, Building Utilities such as Fire Fighting, water supply system, PA & EPBAX System & Furnishing of Permanent Office Buildings are likely to be completed during 2022-23. The Petitioner has added that with price escalation and other factors, including the probability of deviations on quantity as per site requirement, the total expenditure on Construction of Permanent Office Building is to the tune of Rs 500.00 lakh.

122. Considering the fact that the works has been admitted by the Commission during 2014-19 tariff period vide order dated 22.9.2016 in Petition No. 229/GT/2014 and the reasons for deferment of such work is mainly due to certain force majeure events (adverse weather conditions, approach road being closed etc., leading to delay in execution of the work) for which the Petitioner cannot be held responsible, we allow the claim of the Petitioner under Regulation 26(1)(c) of the 2019 Tariff Regulations. The Petitioner is, however, directed to furnish relevant supporting documents, at the time of truing of tariff.

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

123. The Petitioner has claimed additional capital expenditure of Rs. 15.00 lakh, for assets/ works such as ‘Purchase of Security Equipment’s/ gadgets’ and Purchase of Hospital Equipment’s. It is however notices that the claims of the Petitioner have not been supported by documentary evidence indicating that the said claim is based on any direction/advice of the any competent/statutory authority towards the safety and security of the plant as envisaged under Regulation 26(1)(d) of the 2019 Tariff Regulations. However, as the expenditure for the asset viz., ‘Purchase of Security Equipment’s/ gadgets’ assets/works is

considered necessary for the safety of the plant, the projected additional capitalization of Rs. 5.00 lakh for the same (out of total claim of Rs.15.00 lakh for these assets/works) is **allowed** under Regulation 26(1)(d) of the 2019 Tariff Regulations. The Petitioner is, however, directed to furnish relevant documentary evidence, for additional capitalization under this head, at the time of truing of tariff.

124. Accordingly, the additional capital expenditure allowed under this head in 2022-23 is Rs. 505.00 lakh.

2023-24

125. The projected additional capital expenditure claimed by the Petitioner in 2023-24 are examined below:

(Rs. in lakh)

	Amount
Items claimed under Regulation 26(1)(a) **(a)**	50.00

(a) Items claimed under Regulation 26(1)(a) of the 2019 Tariff Regulations

126. The Petitioner has claimed additional capital expenditure of Rs. 50.00 lakh, in respect of assets/ works such as 'Purchase and Installation of VFD along with control panel for primary and secondary cooling water pump'. The Petitioner has submitted that the raw Colling Water (CW) is drawn from the penstock through 45 KW pump / motor (2 nos. for primary) to cool the secondary water (clean), in a plate heat exchanger (HX) and discharged to the draft tube. It has also submitted that filters are installed before secondary CW pump (2 nos. for secondary having capacity 45 KW each) to separate the dirt, if any. The Petitioner has also stated that the cooled secondary water is used for cooling of generator stator air, lower guide bearing (LGB) & thrust bearing, shaft seal and turbine guide bearing in closed loop, the operation of which is a

continuous process, as such installation of VFD is planned. It has added that during energy audit by CPRI, it was advised to minimize the energy consumption of the auxiliary system as a whole.

127. We notice that the aforesaid claims of the Petitioner have not been supported by any documentary proof of award of arbitrator or towards compliance or directions of any statutory authority, or order or decree of any court of law. However, considering the fact that the said assets have been proposed for energy savings as advised by energy audit by CPRI, we allow the projected additional capitalization claimed under Regulation 26(1)(a) of the 2019 Tariff Regulations. However, the Petitioner is directed to furnish the advice of CPRI /relevant documents, at the time of truing of tariff. As the asset is proposed for the purpose of energy saving, the Petitioner is directed to pass on the benefit of energy saving, to the beneficiary. Thus, the additional capital expenditure allowed under this head in 2023-24 is Rs. 50.00 lakh.

128. Based on the above, the total additional capital expenditure allowed for the 2019-24 tariff period is summarized as under:

(Rs. in lakh)

	2019-20	**2020-21**	**2021-22**	**2022-23**	**2023-24**	**Total**
Additional capital expenditure of original scope (a)	0.00	89.75	619.10	0.00	0.00	**708.85**
Additional capital expenditure of original scope allowed on replacement basis (b)	12.00	7.50	0.00	0.00	0.00	**19.50**
Additional capital expenditure allowed other than within the original scope of work of project (c)	0.00	32.00	5.00	505.00	50.00	**592.00**
Discharge of liabilities allowed for assets/works within the original scope of work of the project (d)	104.31	0.00	0.00	0.00	0.00	**104.31**

	2019-20	2020-21	2021-22	2022-23	2023-24	Total
Discharge of liabilities allowed for assets/works other than original scope of work of the project (e)	48.15	0.00	0.00	0.00	0.00	**48.15**
Total Additional capital Expenditure allowed (a)+(b)+(c)+(d)+(e)	**164.46**	**129.25**	**624.10**	**505.00**	**50.00**	**1472.81**

De-capitalization

129. The Petitioner has claimed de-capitalization (Form 9Bi) for assets/works such as, Purchase of 4 Nos. CVT and Purchase of 2 nos. of 66 KV, 500/1 Amp, 5 Core current transformer, which are summarized as under:

(Rs. in lakh)

2019-20	2020-21	2021-22	2022-23	2023-24
9.17	5.57	0.00	0.00	0.00

130. As regards de-capitalization, Regulation 26(2) of the 2014 Tariff Regulations provides as under:

"In case of de-capitalization 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 decapitalization 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-capitalization takes place with corresponding adjustments in cumulative depreciation and cumulative repayment of loan, duly taking into consideration the year in which it was capitalized.."

131. Since these assets are not in use, the de-capitalization as claimed by the Petitioner is allowed. Accordingly, the year-wise details of de-capitalization considered is as under:

(Rs. in lakh)

2019-20	2020-21	2021-22	2022-23	2023-24
9.17	5.57	0.00	0.00	0.00

Capital cost allowed

132. 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	105713.38	105868.67	105992.35	106616.45	107121.45
Total additional capital expenditure allowed (including liabilities)	164.46	129.25	624.10	505.00	50.00
Less: De- capitalization allowed	9.17	5.57	0.00	0.00	0.00
Additional capital expenditure allowed (Net)	155.29	123.68	624.10	505.00	50.00
Closing Capital Cost	**105868.67**	**105992.35**	**106616.45**	**107121.45**	**107171.45**
Average Capital Cost	105791.02	105930.51	106304.40	106868.95	107146.45

Debt-Equity Ratio

133. 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."

134. Gross normative loan and equity amounting to Rs. 73999.37 lakh and Rs. 31714.01 lakh, respectively, as on 31.3.2019 as considered in this order has been considered as normative loan and equity as on 1.4.2019. The normative debt equity ratio of 70:30 has been considered for the admitted additional capital expenditure. The opening and closing debt and equity is as under:

(Rs. in lakh)

	As on 31.3.2019	**in %**	**ACE in 2019-24**	**in %**	**As on 31.3.2024**	**in %**
Debt	73999.37	70.00%	1020.65	70.00%	75020.02	70.00%
Equity	31714.01	30.00%	437.42	30.00%	32151.43	30.00%
Total	**105713.38**	**100.00%**	**1458.07**	**100.00%**	**107171.45**	**100.00%**

Return on Equity

135. Regulations 30 and Regulation 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 2019-24 tariff period 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."

136. Regulation 31(3) of the 2019 Tariff Regulation provides for grossing up of Return on Equity (ROE) with effective tax rate during the 2019-24 tariff period. The ROE for the existing asset base and the additional capital expenditure allowed in this order for asset/works, 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. Regulation 30(1) of the 2019 Tariff Regulations provides for computation of ROE, on the equity base, as determined in accordance with Regulation 18 of the 2019 Tariff Regulations. While clause (1) of Regulation 18 provides for the determination of the debt-equity ratio for new projects, clauses (3) and (4) of the said Regulation provides for consideration/ determination of the debt-equity ratio in respect of the generating stations declared under commercial operation prior to 1.4.2019. Further, clause (5) of the said regulation provides that the admitted additional capital expenditure incurred or projected to be incurred on or after 1.4.2019, is to be serviced in the manner specified in clause (1) of Regulation 18 of the 2019 Tariff Regulations. On the same analogy, Regulation 30(2) of the 2019 Tariff Regulations provides for the computation of ROE at the base rate of 15.50% (for thermal generating stations) while the proviso to

Regulation 30(2) provide for computation of ROE in respect of additional capitalization after cut-off date, beyond the original scope, excluding additional capitalization due to change in law, at the weighted average rate of interest on actual loan portfolio of the generating station. It is however noticed that as per clause (1) of Regulations 31 of the 2019 Tariff Regulations (Tax on ROE), the base rate of return on equity, as allowed by the Commission under Regulation 30 of the said regulations, is required to be grossed up with the effective tax rate of the respective financial year. Thus, we are of the view that on harmonious construction of the provisions of Regulation 18 with Regulation 30 and 31 of the 2019 Tariff regulations, the ROE computed at the pre-determined base rate of 15.50% and ROE computed at the weighted average rate of interest (WAROI) are required to be grossed up with the effective tax rate of the respective financial year. Accordingly, ROE has been worked out and allowed as under:

(Rs. in lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24
Gross Notional Equity **(A)**	31714.01	31760.60	31788.10	31973.83	31973.83
Addition due to additional capitalization **(B)**	46.59	27.50	185.73	0.00	0.00
Closing Notional **Equity (C) = (A + B)**	31760.60	31788.10	31973.83	31973.83	31973.83
Average Equity **(D) = (A+C)/2**	31737.30	31774.35	31880.97	31973.83	31973.83
Return on Equity (Base Rate) **(E)**	16.500%	16.500%	16.500%	16.500%	16.500%
Tax rate for the year **(F)**	17.472%	17.472%	17.472%	17.472%	17.472%
Rate of Return on Equity **(G)**	19.993%	19.993%	19.993%	19.993%	19.993%
Return on Equity (H) = (D x G)	**6345.24**	**6352.65**	**6373.96**	**6392.53**	**6392.53**
Addition due to additional capitalization beyond original scope of work					
Opening Notional equity **(A)**	0.00	0.00	9.60	11.10	162.60
Addition due to Additional Capitalization (after cut of date) **(B)**	0.00	9.60	1.50	151.50	15.00
Repayment of Equity	0.00	0.00	0.00	0.00	0.00

	2019-20	2020-21	2021-22	2022-23	2023-24
(balance of depreciation after repayment of loan) **(C)**					
Closing Equity **(D) = (A +B – C)**	0.00	9.60	11.10	162.60	177.60
Average Equity **(E) = (A+D)/2**	0.00	4.80	10.35	86.85	170.10
Weighted average rate of interest on actual loan portfolio **(F)**	4.936%	4.868%	4.823%	4.701%	4.566%
Tax rate for the year **(G)**	17.472%	17.472%	17.472%	17.472%	17.472%
Rate of Return on Equity **(H)**	5.981%	5.899%	5.844%	5.696%	5.533%
Return on Equity (I) = (E x H)	**0.00**	**0.28**	**0.60**	**4.95**	**9.41**
Total Return on Equity	**6345.24**	**6352.93**	**6374.57**	**6397.47**	**6401.94**

Interest on Loan

137. 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 2019-24 tariff period shall be deemed to be equal to the depreciation allowed for the corresponding year/period. In case of decapitalization of assets, the repayment shall be adjusted by taking into account cumulative repayment on a pro rata basis and the adjustment should not exceed cumulative depreciation recovered up to the date of de-capitalization of such asset.

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

(5) The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio after providing appropriate accounting adjustment for interest capitalized:

Provided that if there is no actual loan for a particular year but normative loan is still outstanding, the last available weighted average rate of interest shall be considered;
Provided further that if the generating station or the transmission system, as the case may be, does not have actual loan, then the weighted average rate of interest of the generating company or the transmission licensee as a whole shall be considered.

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

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

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

a) The gross normative loan as on 31.3.2019 has been considered as on 1.4.2019;

b) Cumulative repayment as on 31.3.2019 has been considered as on 1.4.2019;

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.

139. 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)**	73999.37	74108.07	74194.65	74631.52	74985.02
Cumulative repayment of loan upto previous year **(B)**	28013.08	33260.47	38515.75	43791.11	49094.48
Net Loan Opening **(C)=(A)-(B)**	45986.29	40847.60	35678.89	30840.41	25890.54
Repayment during the year **(D)**	5249.88	5256.80	5275.36	5303.37	5317.14
Cumulative repayment adjustment on a/c of de-capitalization **(E)**	2.49	1.51	0.00	0.00	0.00
Net Repayment **(F)=(D)-(E)**	5247.39	5255.29	5275.36	5303.37	5317.14
Addition due to additional capital expenditure **(G)**	108.70	86.58	436.87	353.50	35.00
Net Loan Closing **(H)= (C+G-F)**	40847.60	35678.89	30840.41	25890.54	20608.40
Average Loan**(I)=(C+H)/2**	43416.95	38263.25	33259.65	28365.47	23249.47
Weighted Average Rate of Interest of loan **(J)**	4.9358%	4.8685%	4.8233%	4.7009%	4.5661%
Interest on Loan (K=I*J)	**2142.99**	**1862.83**	**1604.21**	**1333.42**	**1061.58**

Depreciation

140. 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."

141. Accordingly, the cumulative depreciation amounting to Rs. 28013.08 lakh

as on 31.3.2019, has been considered for the purpose of tariff. The COD of the generating station is 10.10.2013. The project has completed 5.47 years of commercial operation in 2019-20. 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 34.53 years in line with the 2019 Tariff Regulations. As such depreciation for the 2019-24 tariff period is calculated as per weighted average rate of depreciation (calculation attached as Annexure-II), has been computed as under:

(Rs. in lakh)

	2019-20	**2020-21**	**2021-22**	**2022-23**	**2023-24**
Opening Gross block **(A)**	105713.38	105868.67	105992.35	106616.45	107121.45
Net Additional capital expenditure **(B)**	155.29	123.68	624.10	505.00	50.00
Closing gross block **(C=A+B)**	105868.67	105992.35	106616.45	107121.45	107171.45
Average gross block **(D)=(A+C)/2**	105791.02	105930.51	106304.40	106868.95	107146.45
Depreciable Value **(E=D*90%)**	95211.92	95337.46	95673.96	96182.05	96431.80
Remaining Depreciable Value at the beginning of the year **(F=E-Cumulative Depreciation at 'L' at the end of previous year)**	67198.84	62076.99	57158.20	52390.94	47337.32
Rate of Depreciation **(G)**	4.962%	4.962%	4.962%	4.962%	4.962%
Balance useful Life **(H)**	34.53	33.53	32.53	31.53	30.53
Depreciation (I= D*G)	**5249.88**	**5256.80**	**5275.36**	**5303.37**	**5317.14**
Cumulative Depreciation at the end of the year **(J=I+ Cumulative Depreciation at 'L' at the end of previous year)**	33262.96	38517.27	43791.11	49094.48	54411.62
Less: Depreciation adjustment on account of de-capitalization **(K)**	2.49	1.51	0.00	0.00	0.00
Cumulative Depreciation at the end of the year **(L)**	33260.47	38515.75	43791.11	49094.48	54411.62

**Cumulative Depreciation as on 31.3.2019 is Rs.28013.08 lakh*

O&M Expenses

142. Regulation 35(2)(a) of the 2019 Tariff Regulations provides as under:

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

(Rs. in lakh)

	2019-20	*2020-21*	*2021-22*	*2022-23*	*2023-24*
Nimoo Bazgo	3527.43	3695.57	3871.72	4056.27	4249.61

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

143. The Petitioner has claimed O&M expenses as follows:

(Rs. in lakh)

	2019-20	**2020-21**	**2021-22**	**2022-23**	**2023-24**
Normative O&M expenses	3527.43	3695.57	3871.72	4056.27	4249.61
Impact of wage revision	428.33	448.76	470.17	492.59	516.09
Impact of GST	113.11	118.50	124.15	130.08	136.28
Total O&M expenses claimed	**4068.87**	**4262.83**	**4466.04**	**4678.94**	**4901.98**
Estimated security expenses (claimed separately)	325.71	341.24	357.52	374.57	392.44

144. The generating station is in operation for more than three years, as on 1.4.2019. As the O&M expenses claimed by the Petitioner are in terms of Regulation 35(2)(a) of 2019 Tariff Regulations, the same is allowed.

Additional O&M expenses

Impact of wage revision

145. The Petitioner has claimed additional O&M expenses on account of the impact of wage/ pay revision and GST as under:

(Rs. in lakh)

	2019-20	**2020-21**	**2021-22**	**2022-23**	**2023-24**
Impact of Wage/pay Revision	428.33	448.76	470.17	492.59	516.09
Impact of GST	113.11	118.50	124.15	130.08	136.28

146. As regards impact of wage/ pay revision for the generating station, it is noticed that the Petitioner has filed Petition No. 222/MP/2019 seeking recovery

of the additional O&M expenses due to impact of wage/ pay revision and increased ceiling in gratuity for the 2014-19 tariff period. Since the claim of the Petitioner for the 2019-24 tariff period is based on the impact of wage/ pay revision for 2018-19, which is yet to be determined by the Commission in Petition No. 222/MP/2019, the impact of pay revision and increased ceiling in gratuity has not been considered in this order. However, the same will be considered at the time of truing up of tariff and based on the decision in Petition No.222/MP/2019.

Goods & Service Tax

147. The Petitioner has claimed impact of GST for the 2019-24 tariff period on the basis of the actual impact of GST in 2018-19. The Petitioner has submitted the total GST amount of Rs. 167.70 lakh for the period from 1.7.2017 to 31.3.2019, based on actual audited accounts for 21 months (Rs. 59.74 lakh in 2017-18 and Rs. 107.96 lakh in 2018-19). On scrutiny of above details, it is noticed that the claim of Petitioner also 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. 65.62 lakh) and amount of Rs. 58.33 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 the 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
61.11	64.03	67.08	70.28	73.63

Security Expenses

148. Regulation 35(2)(c) of 2019 Tarff Regulations provides as under:

"(c)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."

149. The estimated security expenses claimed by the Petitioner for 2019-24 tariff period based on security requirement of the generating station is as under:

(Rs. in lakh)

2019-20	**2020-21**	**2021-22**	**2022-23**	**2023-24**
325.71	341.24	357.52	374.57	392.44

150. The Petitioner has claimed actual security expenses of Rs 310.88 lakh in 2018-19 and has escalated the same at the rate of 4.77%. 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 the tariff.

Capital Spares

151. As regards capital spares, the Petitioner has submitted that expenditure on account of consumption of capital spares during the 2019-24 tariff period shall be claimed at the time of truing up of tariff. The Petitioner is therefore granted liberty to claim the same in terms of Regulation 35(2)(c) of the 2019 Tariff Regulations, based on actuals, at the time of truing up of tariff with proper justification.

152. Accordingly, the total O&M expenses (including Security expenses) allowed to the generating station for the 2019-24 tariff period is as under:

(Rs. in lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24
Normative O&M expenses	3527.43	3695.57	3871.72	4056.27	4249.61
Impact of GST	61.11	64.03	67.08	70.28	73.63
Total O&M expenses allowed	**3588.54**	**3759.60**	**3938.80**	**4126.55**	**4323.24**
Estimated security expenses (allowed separately)	325.71	341.24	357.52	374.57	392.44

Interest on Working Capital

153. 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

154. 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
2216.75	2210.51	2205.28	2204.02	2193.72

Working capital for Maintenance Spares

155. 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
587.14	615.13	644.45	675.17	707.35

Working capital for O&M expenses

156. 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
326.19	341.74	358.03	375.09	392.97

Rate of Interest of working Capital

157. 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 2019-24 tariff period 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 2019-24 tariff period."*

158. 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). 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)	326.19	341.74	358.03	375.09	392.97
Working capital for	587.14	615.13	644.45	675.17	707.35

	2019-20	2020-21	2021-22	2022-23	2023-24
Maintenance Spares					
Working capital for Receivables	2216.75	2210.51	2205.28	2204.02	2193.72
Total Working capital	**3130.07**	**3167.38**	**3207.75**	**3254.29**	**3294.04**
Rate of interest (%)	12.05%	11.25%	10.50%	10.50%	10.50%
Interest on Working capital for	**377.17**	**356.33**	**336.81**	**341.70**	**345.87**

Annual Fixed Charges

159. 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	5249.88	5256.80	5275.36	5303.37	5317.14
Interest on loan	2142.99	1862.83	1604.21	1333.42	1061.58
Return on Equity	6345.24	6352.93	6374.57	6397.47	6401.94
Interest on Working capital	377.17	356.33	336.81	341.70	345.87
O&M Expenses	3588.54	3759.60	3938.80	4126.55	4323.24
Security Expenses	325.71	341.24	357.52	374.57	392.44
Total	**18029.53**	**17929.73**	**17887.26**	**17877.09**	**17842.22**

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

Normative Annual Plant Availability Factor (NAPAF)

160. Since NAPAF of 70% as claimed by the Petitioner is in accordance with Regulation 50(A)(4) of the 2019 Tariff Regulations, the same is allowed.

Design Energy (DE)

161. The Commission in order dated 22.9.2016 in Petition No.229/GT/2014 had approved the annual Design Energy (DE) of 239.33 Million units (MU) for the 2009- 14 tariff period for this generating station. The same has been claimed by the Petitioner for the 2019-24 tariff period. This DE has been considered for this generating station for 2019-24 tariff period as per month-wise details as under:

Month		Design Energy (MUs)
April	I	3.54
	II	3.75
	III	4.02
May	I	4.85
	II	6.81
	III	11.29
June	I	10.23
	II	10.26
	III	10.26
July	I	10.26
	II	10.26
	III	11.29
August	I	10.26
	II	10.26
	III	11.29
September	I	10.26
	II	10.26
	III	10.26
October	I	7.79
	II	5.99
	III	6.05
November	I	5.26
	II	4.93
	III	4.60
December	I	4.38
	II	4.37
	III	4.73
January	I	3.88
	II	3.69
	III	3.90
February	I	3.42
	II	3.36
	III	3.03
March	I	3.36
	II	3.37
	III	3.81
Total		**239.33**

Application Fee and Publication Expenses

162. 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.

163. 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.

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

165. Petition No. 282/GT/2020 is disposed of in terms of the above.

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

Annexure I: Weighted average rate of Depreciation for 2014-19 tariff Period

(Rs. In Lakh)

Sl. no.	Name of assets	Depreciation Rate			For 2014-15		For 2015-16		For 2016-17		For 2017-18		For 2018-19	
			Gross Block as on 31.3.2014	Depreciation Amount	Gross Block as on 31.3.2015	Depreciation Amount	Gross Block as on 31.3.2016	Depreciation Amount	Gross Block as on 31.3.2017	Depreciation Amount	Gross Block as on 31.3.2018	Depreciation Amount	Gross Block as on 31.3.2019	Depreciation Amount
1	Land – Freehold	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	Land –Leasehold & Right of use	3.34%	1275.93	42.62	1775.93	59.32	1775.93	59.32	1745.34	58.29	1745.34	58.29	1750.46	58.47
3	Roads and Bridges (other than kutcha road)	3.34%	1276.04	42.62	1285.72	42.94	1392.93	46.52	1435.36	47.94	1435.36	47.94	1663.21	55.55
4	Building containing Hydro Electric Generating Plant	3.34%	11071.52	369.79	11294.46	377.23	11299.42	377.40	11299.42	377.40	11299.42	377.40	11334.45	378.57
5	Buildings-Others	3.34%	1503.96	50.23	1898.96	63.43	2234.33	74.63	2377.60	79.41	2437.93	81.43	2504.11	83.64
6	Office building (Temporary)	100%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	Residential Buildings (Temporary)	100%	0.00	61.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	Railway sidings	5.28%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	Dam and Barrages,Power Channels, Power Tunnels and Pipelines, Penstocks, Tailrace Channels, Hydromechanical works- Dams and Barrages, Hydromechanical works- Tunnels and canals, Hydromechanical works- Tail race including Draft Tube Gates	5.28%	50167.62	2648.85	50332.26	2657.54	50345.66	2658.25	50346.89	2658.32	50386.93	2660.43	50591.78	2671.25
10	Main Generating Equipment, Gererator step up transformer , Other power plant transformer, Cooling water sysstems, EHV Switchgear systems, DC Systems / Battery systems, Power and control cables, Air conditioning and ventilation, Control, Metering and Protection	5.28%	29166.69	1540.00	29213.22	1542.46	29485.55	1556.84	30484.44	1609.58	30693.94	1620.64	30786.20	1625.51
11	Plant and machinery Sub station	5.28%	261.59	13.81	261.59	13.81	261.59	13.81	264.13	13.95	264.13	13.95	327.12	17.27
12	Plant and machinery Transmission lines	5.28%	260.43	13.75	260.43	13.75	260.43	13.75	260.43	13.75	260.43	13.75	260.43	13.75
13	Plant and machinery Others	5.28%	15.87	0.84	19.26	1.02	19.04	1.01	19.04	1.01	26.14	1.38	26.14	1.38
14	Construction Equipment	5.28%	31.64	1.67	82.71	4.37	280.21	14.79	327.15	17.27	376.20	19.86	378.40	19.98
15	Water Supply System/Drainage and Sewerage	5.28%	37.85	2.00	47.11	2.49	47.11	2.49	75.60	3.99	75.60	3.99	108.63	5.74
16	Electrical installations	5.28%	49.27	2.60	49.27	2.60	49.27	2.60	49.27	2.60	49.44	2.61	53.57	2.83
17	Vehicles	9.50%	45.11	4.29	50.93	4.84	56.15	5.33	91.90	8.73	91.44	8.69	91.44	8.69
18	Aircraft/ Boats	9.50%	6.90	0.66	6.90	0.66	6.90	0.66	6.90	0.66	6.90	0.66	6.90	0.66
19	Furniture and fixture	6.33%	60.58	3.83	84.89	5.37	154.57	9.78	155.66	9.85	169.53	10.73	171.30	10.84
20	I.T.Equipment-Computers	15.00%	7.31	1.10	19.42	2.91	42.43	6.37	61.70	9.26	65.09	9.76	70.36	10.55
21	Communication Equipment	6.33%	10.47	0.66	11.32	0.72	11.32	0.72	11.32	0.72	15.72	0.99	11.53	0.73
22	Air Conditioner- Portable	9.50%	0.11	0.01	0.11	0.01	0.00	0.00	0.00	0.00	0.09	0.01	5.05	0.48
23	Office Equipments	6.33%	26.85	1.70	36.43	2.31	55.60	3.52	71.05	4.50	80.44	5.09	83.54	5.29

Sl. no.	Name of assets	Depreciation Rate			For 2014-15		For 2015-16		For 2016-17		For 2017-18		For 2018-19	
			Gross Block as on 31.3.2014	Depreciation Amount	Gross Block as on 31.3.2015	Depreciation Amount	Gross Block as on 31.3.2016	Depreciation Amount	Gross Block as on 31.3.2017	Depreciation Amount	Gross Block as on 31.3.2018	Depreciation Amount	Gross Block as on 31.3.2019	Depreciation Amount
24	I.T.Equipment-Intangible Assets	15.00%	0.32	0.05	1.52	0.23	1.52	0.23	4.46	0.67	4.46	0.67	4.46	0.67
25	Other assets	5.28%	102.49	5.41	269.12	14.21	531.74	28.08	586.39	30.96	625.50	33.03	625.50	33.03
26	Capital Expenditure on assets Not Owned by NHPC **	5.28%		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00
27	Fixed assets of minor value	5.28%	2.01	0.11	8.28	0.44	11.85	0.63	12.51	0.66	14.47	0.76	14.88	0.79
	Total		**95380.56**	**4808.47**	**97,009.83**	**4,812.64**	**98,323.56**	**4,876.71**	**99,686.57**	**4,949.51**	**100,124.48**	**4,972.07**	**100,869.47**	**5,005.65**
	Weighted Average Rate of Depreciation				**5.001%**		**4.960%**		**4.962%**		**4.965%**		**4.964%**	

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

(Rs. in lakh)

Sl. No.	Name of the Assets	Depreciation Rate Schedule	For 2019-2024 Same as on 31.03.2019	
			Gross Block	**Depreciation**
1	Land – Freehold	-	0.00	0.00
2	Land –Leasehold & Right of use	3.34%	1750.46	58.47
3	Roads and Bridges (other than kutcha road)	3.34%	1663.21	55.55
4	Building containing Hydro Electric Generating Plant	3.34%	11334.45	378.57
5	Buildings-Others	3.34%	2504.11	83.64
6	Office building (Temporary)	100%	0.00	0.00
7	Residential Buildings (Temporary)	100%	0.00	0.00
8	Railway sidings	5.28%	0.00	0.00
9	Dam and Barrages, Power Channels, Power Tunnels and Pipelines, Penstocks, Tailrace Channels, Hydromechanical works- Dams and Barrages, Hydromechanical works- Tunnels and canals, Hydromechanical works- Tail race including Draft Tube Gates	5.28%	50591.78	2671.25
10	Main Generating Equipment, Generator step up transformer, Other power plant transformer, Cooling water systems, EHV Switchgear systems, DC Systems / Battery systems, Power and control cables, Air conditioning and ventilation, Control, Metering and Protection	5.28%	30786.20	1625.51
11	Plant and machinery Sub station	5.28%	327.12	17.27
12	Plant and machinery Transmission lines	5.28%	260.43	13.75
13	Plant and machinery Others	5.28%	26.14	1.38
14	Construction Equipment	5.28%	378.40	19.98
15	Water Supply System/Drainage and Sewerage	5.28%	108.63	5.74
16	Electrical installations	5.28%	53.57	2.83
17	Vehicles	9.50%	91.44	8.69
18	Aircraft/ Boats	9.50%	6.90	0.66
19	Furniture and fixture	6.33%	171.30	10.84
20	I.T.Equipment-Computers	15.00%	70.36	10.55
21	Communication Equipment	6.33%	11.53	0.73
22	Air Conditioner- Portable	9.50%	5.05	0.48
23	Office Equipment's	6.33%	83.54	5.29
24	I.T. Equipment-Intangible Assets	15.00%	4.46	0.67
25	Other assets	5.28%	625.50	33.03
26	Capital Expenditure on assets Not Owned by NHPC **	5.28%	0.00	0.00
27	Fixed assets of minor value	5.28%	14.88	0.79
	Total as per closing gross block in b/s/		**100869.47**	**5005.65**
	Weighted Average Depreciation Rate (%)		**4.9625%**	