CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI

Petition No. 283/GT/2020

Coram:

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

Date of Order: 23rd February, 2022

In the matter of

Petition for truing up of tariff for the 2014-19 tariff period and for determination of tariff for the 2019-24 tariff period in respect of the Chutak Power Station (44 MW).

AND

In the matter of

NHPC Limited,
NHPC Office Complex,
Sector-33,
Faridabad-121003, Haryana **…Petitioner**

Vs

Power Development Department,
Government of J&K,
Civil Secretariat Building,
Jammu-180001 (J&K) **…Respondent**

Parties Present:

Shri Sachin Datta, Senior Advocate, NHPC
Shri Rajiv Shankar Dwivedi, Advocate, NHPC
Shri M. G. Gokhale, NHPC
Shri Piyush Kumar, NHPC

ORDER

The Petitioner, NHPC Limited has filed the petition for truing up of tariff of Chutak Power Station (44 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 (hereinafter referred to as 'the 2019 Tariff Regulations').

2. The generating station with a total capacity of 44 MW comprises of four units of 11 MW each. The dates of commercial operation of units of the generating station are given below:

Units	COD
I	29.11.2012
II	29.11.2012
III	29.11.2012
IV (station)	1.2.2013

3. The administrative approval and expenditure sanction for setting up the generating station was accorded by Ministry of Power, GOI vide its letter dated 24.8.2006 at an estimated cost of Rs.62126 lakh, including IDC & FC of Rs.369 lakh, based on December 2005 Price Level. As per administrative approval, the generating station was scheduled to be commissioned within 54 months from the date of its approval, that is, by 23.2.2011. However, the generating station achieved COD on 1.2.2013 with a delay of 23 months.

4. In Petition No. 190/GT/2015 filed by the Petitioner for truing up of tariff for the period 2012-14, the Commission vide its order dated 21.3.2017 revised the capital cost and annual fixed charges of the generating station. Thereafter, the Commission vide its order dated 29.3.2017 in Petition No. 252/GT/2014, determined the capital cost and annual fixed charges of the generating station for the 2014-19 tariff period. Subsequently, by corrigendum order dated 19.4.2017 in

Petition No. 252/GT/2014, the capital cost and annual fixed charges were revised for the 2014-19 tariff period as under:

Capital Cost allowed

(Rs. In lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Capital cost	86865.46	91998.17	93989.88	93989.88	93989.88
Additional Capital expenditure allowed	5132.71	1991.71	0.00	0.00	0.00
Capital cost as on 31st March of the year	91998.17	93989.88	93989.88	93989.88	93989.88

Annual Fixed Charges allowed

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	4486.79	4665.50	4715.47	4715.47	4715.47
Interest on Loan	1954.27	1826.25	1622.24	1406.42	1218.20
Return on Equity	5261.27	5470.84	5529.42	5529.42	5529.42
Interest on Working Capital	383.21	396.76	402.63	406.25	411.09
O&M Expenses	2060.86	2197.70	2343.63	2499.25	2665.20
Total	**14146.40**	**14557.06**	**14613.38**	**14556.81**	**14539.37**

Present Petition

5. In terms of Regulation 8 of the 2014 Tariff Regulations, the Petitioner has filed the present petition for truing-up of tariff determined by order dated 19.4.2017, based on the actual additional capital expenditure incurred for the 2014-19 tariff period. The capital cost and annual fixed charges claimed by the Petitioner in the present petition are as under:

Capital Cost claimed

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Capital Cost	86865.46	89104.93	90740.74	91776.33	92294.89
Add: Addition during the year	971.97	1289.53	938.13	424.31	462.75
Less: De-capitalization during the year	3.21	108.48	0.00	1.28	0.00
Less: Reversal during the year	0.00	0.00	0.00	0.00	0.00
Add: Discharges during the year	1270.71	454.76	97.46	95.53	61.21
Closing Capital Cost	89104.93	90740.74	91776.33	92294.89	92818.85

Annual Fixed Charges claimed

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	4413.94	4510.72	4579.61	4619.25	4642.10
Interest on Loan	1936.55	1789.13	1645.64	1256.63	1110.40
Return on Equity	5229.22	5357.33	5393.93	5476.30	5528.98
Interest on Working Capital	380.39	389.73	396.92	399.37	406.91
O&M Expenses	2060.86	2197.70	2343.63	2499.25	2665.20
Total	14020.96	14244.62	14359.73	14250.80	14353.58

6. The Petitioner has furnished the additional information vide affidavit dated 28.5.2020 and has served copies of the same on the Respondent. No reply has been filed by the Respondent. The Petition was heard on 25.5.2021 through virtual conferencing and the Commission reserved its order in the petition. Based on the submissions and the documents available on record, we proceed for truing-up the tariff of the generating station for the 2014-19 tariff period as stated in the subsequent paragraphs.

Capital Cost

7. Regulation 9(3) 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.

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 the regulation, shall form the basis of determination of tariff for existing and new projects. The Commission vide its order dated 19.4.2017 in Petition No. 252/GT/2014, had allowed the opening capital cost of Rs 86865.46 lakh as on 1.4.2014 (based on the same closing capital cost allowed as on 31.3.2014 in order dated 21.3.2017 in Petition No. 190/GT/2015). Accordingly, the capital cost of Rs 86865.46 lakh has been considered as the opening capital cost as on 1.4.2014, for the purpose of truing-up of tariff for the 2014-19 tariff period.

Additional capital expenditure for the 2014-19 tariff period

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

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

“14.(3) The capital expenditure, in respect of existing generating station or the transmission system including communication system, incurred or projected to be incurred on the following counts after the cut-off date, may be admitted by the Commission, subject to prudence check:

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

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

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

responsible for national security/internal security;
(iv)Deferred works relating to ash pond or ash handling system in the original scope of work;

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

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

(vii) Any additional capital expenditure which has become necessary for efficient operation of generating station other than coal / lignite-based stations or transmission system as the case may be. The claim shall be substantiated with the technical justification duly supported by the documentary evidence like test results carried out by an independent agency in case of deterioration of assets, report of an independent agency in case of damage caused by natural calamities, obsolescence of technology, up-gradation of capacity for the technical reason such as increase in fault level;

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

(ix) In case of transmission system, any additional expenditure on items such as relays, control and instrumentation, computer system, power line carrier communication, DC batteries, replacement due to 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

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

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

11. The Petitioner vide affidavit dated 28.5.2020 has submitted that certain additional capital expenditure which are within the original scope of work and allowed by the Commission upto the cut-off date (31.3.2016) of the generating

station, vide order dated 29.3.2017/19.4.2017 in Petition No. 252/GT/2014, could not be incurred by the Petitioner till 31.3.2016 for the following reasons:

“(a) The Power Station being located at very high altitude approximately 2750 m above sea level, weather remains at subzero temperature for almost six months in a year from November to April. It has been observed that the minimum temperature even dropped down to (-) 25°C in winter months. Due to extreme cold weather and heavy snowfall, the national highway from Srinagar to Kargil remain closed from November to April in a year affecting transportation of materials.

(b) There is acute shortage of skilled labour at Kargil and they are brought from other parts of the country. Due to harsh weather condition and closure of the roads for almost 6 months, these labourers depart the site before closure of road and onset of winter.

(c) This results into only 4-5 effective working months in the year.

(d) The availability of oxygen in the site is approximately 30% lesser than normal places in the country due to which acute decrease in the efficiency of the labourer has also been observed in the site.

(e) In Chutak region, there is also shortage of skilled contractors for executing various works / supplies. Further, it has been observed that skilled / expert contractors are reluctant to execute the works / supplies due to harsh weather conditions.

(f) It has been experienced that, despite of extension of bidding date, the Petitioner could not get the sufficient numbers of bidders for various works / supplies. This has led to substantial delay in award of various supply and installation works.

(g) Due to closure of roads for 6-7 months in a year, the suppliers' take the completion time excluding the winter season, which further delays the supply of materials.

(h) It is also pertinent to mention that civil / cement works cannot be executed during winter months i.e. from November to April due to extreme cold weather conditions.”

12. The Petitioner has further submitted that on account of above reasons, which were beyond the control of the Petitioner, the Petitioner could not execute all the works/ items, for which additional capital expenditure was allowed, within the cut-off date (i.e. 31.3.2016). It has also submitted that the balance works/ supplies are still in process and a major portion of the same is anticipated to be completed/ executed by the generating station by 31.3.2021. In this background, the Petitioner has furnished the details of works which were completed/ executed after the cut-off date till 31.3.2019 and works/ items which are anticipated to be

completed during the 2019-24 tariff period and has claimed the same in the present petition, with a prayer to extend the cut-off date of the generating station till 31.3.2021.

13. We have examined the submissions of the Petitioner. There is no provision in the 2014 Tariff Regulations for extension of cut-off date of the generating station. However, keeping in view that the works/ items could not be completed by the Petitioner on account of extreme conditions, tough location of the generating station and non-availability of resources, we are inclined to allow the additional capitalization of works/ items after cut-off date, which are within the original scope of work (but could not be executed/ completed), on prudence check, subject to the balance limit available for capitalization of assets/ works under the original scope.

14. 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 as under:

(Rs. in lakh)

	2014-15	**2015-16**	**2016-17**	**2017-18**	**2018-19**
Closing Gross Block	86442.46	87659.42	88616.38	89209.02	89728.56
Less: Opening Gross Block	84563.18	86442.46	87659.42	88616.38	89209.02
Total Additions as per books	1879.28	1216.96	956.96	592.64	519.53
Less: Exclusions in addition (items not allowable / not claimed) Form 9(D)	105.28	4.42	15.88	131.52	52.02
Less: Exclusions in deletion (items not allowable / not claimed) Form 9B(i)	(-)116.01	(-)2.09	(-)13.86	0.00	(-)13.37
Net Additional Capital Expenditure Claimed (Form-9(A) Less: Claimable portion of Form 9B(i))	1890.01	1214.64	954.93	461.13	480.88

15. The break-up of the actual additional capital expenditure claimed during 2014- 19 tariff period is as under:

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19	Total
Addition during the year / period	971.97	1289.53	938.13	424.31	462.75	4086.69
Less: De-capitalization during the year / period	3.21	108.48	0.00	1.28	0.00	112.97
Add: Discharges during the year / period	1270.71	454.76	97.46	95.53	61.21	1979.67
Net Additional capitalization during the year	2239.47	1635.81	1035.59	518.56	523.96	5953.39

16. 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.94206.00 lakh [Rs.89376.00 lakh (RCE considered by the Commission) + Rs.4965.00 lakh (NIDC) – Rs.135.00 lakh (deduction in IDC)]. As such, based on the completion cost of Rs.94206.00 lakh, the balance limit available for capitalization of assets/ works within the original scope of work of the project works is Rs.7340.54 lakh [(Rs.94206.00 lakh allowed completion cost by the Commission) - (Rs.86865.46 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. We examine the year-wise additional capital expenditure claimed by the Petitioner, on prudence check, as stated in the subsequent paragraphs.

2014-15

17. The additional capital expenditure claimed by the Petitioner, on cash basis, are as under:

(Rs. in lakh)

Head	Amount
Item already allowed **(a)**	919.81
Items additionally claimed as per actual site requirements **(b)**	52.16
Sub-total (c)=(a)+(b)	**971.97**
Discharge of liabilities **(d)**	1270.71
Total (c)+(d)	2242.68

(a) Items already allowed

18. The Petitioner has claimed additional capital expenditure of Rs.919.81 lakh in 2014-15 in respect of assets/ works such as, Roads and Bridges (other than kutcha road), Buildings-others, Dam and Barrages, Power Channels, Power Tunnels and Pipelines, Penstocks, Tailrace Channels, Hydro-mechanical works- Dams and Barrages, Hydro-mechanical works-Tunnels and canals, Hydro-mechanical works-Tail race including Draft Tube Gates, Communication Equipment, 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, Electrical installations, I.T. Equipment – Computers, Furniture and fixtures, Fixed Assets of Minor Value, I.T. Equipment – Intangible Assets, Other Assets, Construction equipment, Environment and Ecology, Land-Leasehold. It is observed that the expenditure for these assets/ works, which form part of the original scope of work of the project, were allowed on projection basis in 2014-15 by order dated 29.3.2017 in Petition No. 252/GT/2014. In view of this and since the expenditure falls within the balance limit of the completion cost of Rs.7340.54 lakh, the actual additional capital expenditure of Rs.919.81 lakh claimed by the Petitioner in 2014-15 for the said assets/ works within the original scope of work and within the cut-off date is allowed.

(b) Items additionally claimed as per actual site requirement

(Rs. in lakh)

Sl. No.	Assets/Works	Amount Claimed	Justification	Reason for admissibility/ Non-admissibility
1	Land at Minji gound - construction of approach road to	22.25	This land was essentially required for construction of road for better connectivity with	The Petitioner has claimed the expenditures under regulation 14(3)(viii) of

	powerhouse		Powerhouse. Moreover, Kargil is difficult hilly terrain and mountains are fragile and keep sliding. Therefore, this additional land was required to construct safe road to Powerhouse.	the 2014 Tariff Regulations, with in cut-off date. Considering the essential nature of assets/ works, the same is **allowed**/ accounted under assets/ works within the original scope of work of the project. Further, the same has been adjusted from the balance limit available for additional capitalization of assets/ works within the original scope i.e. Rs.7340.54 lakh.
2	25 KVA DG SET Kirloskar make received from RGGVY	3.49	Due to absence of national grid generating units of the generating station runs in isolation mode and feeds power to the local load of Kargil town. When the generating units trip, there will be no external supply to feed the installations at Barrage. Hence, 25 KVA DG was received from RGGVY to provide emergency power supply to Barrage.	
3	Submersible pump 50 hp/ 37 kW power (35 kW-38 kW) with starter: abs model j405hd50hz	16.29	The generating station is an underground powerhouse. There is lot of leakage and seepage inside the powerhouse and the leakage and seepage water goes to the drainage and dewatering sump. To avoid submergence of powerhouse the water collected in the drainage and dewatering sump is pumped outside the powerhouse. When the water level increases in the sump, additional pumps are required to control the sump level. Hence, the purchase was done.	
4	Sub. Drainage/ dewatering pump	6.17		**-as above-**
5	Minor Assets such as pool table, billiards, table tennis board, multigym, treadmill, magnetic bike	3.96	Essentially required for physical fitness of employee as outdoor activity cannot be performed due to adverse climatic condition. Purchase has been made as initial equipping of health club on the recommendation of Doctors.	The additional capital expenditure claimed is towards capitalization of minor assets within the cut-off date. Considering the above, the same are **allowed**/ accounted under 'assets/works within the original scope of work of the project'. Further, the same has been adjusted from the balance limit available for the capitalization for assets/ works within original scope i.e.

				Rs.7340.54 lakh.
	Total amount claimed	**52.16**		
	Total amount allowed			**52.16**

19. In view of the above, the total additional capital expenditure of Rs.971.97 lakh (Rs.919.81 lakh + Rs.52.16 lakh) is allowed in 2014-15. Accordingly, the balance limit available in respect of assets/works within the original scope of work of the project is as under:

(Rs. in lakh)

Balance limit available for assets/works within the original scope of work of the project as on 1.4.2014 **(a)**	7340.54
Expenditure allowed for assets/works within the original scope of work of the project **(b)**	919.81
Expenditure for assets/works claimed under the Regulation 14(3)(viii) but expenditure allowed/accounted under assets/works within the original scope of work of the project **(c)**	52.16
Discharge of liabilities for assets/works within the original scope of work of the project has been allowed as claimed in Form-16 **(d)**	1270.71
Total expenditure allowed for expenditure for assets/works within the original scope of work of the project in 2014-15 **(e)=(b)+(c)+(d)**	2242.68
Balance limit available for assets/works within the original scope of work of the project as on 31.3.2015 (f)=(a)-(e)	5097.86

2015-16

20. The net additional capital expenditure for 2015-16, on cash basis, claimed by the Petitioner are as under:

(Rs. in lakh)

Head	**Amount**
Items already allowed **(a)**	856.77
Items capitalized during the year which were allowed in different years **(b)**	415.40
Items additionally claimed as per actual site requirement **(c)**	17.36
Sub-total (d)=(a)+(b)+(c)	1289.53
Discharge of liabilities **(e)**	454.76
Total (d) +(e)	**1744.29**

(a) Items already allowed

21. The Petitioner has claimed additional capital expenditure of Rs.856.77 lakh in 2015-16 in respect of assets/ works namely, Roads and Bridges (other than Kutcha Road), Buildings-Others, Dam and Barrages, Power Channels, Power Tunnels and Pipelines, Penstocks, Tailrace Channels, Hydro-mechanical works- Dams and Barrages, Hydro-mechanical works-Tunnels and canals, Hydro-mechanical works-Tail race including Draft Tube Gates, Communication Equipment, 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, Communication Equipment, I.T. Equipment – Computers, Furniture and fixtures, Other assets, construction equipment. It is observed that the expenditure in respect of these assets/ works, which form part of the original scope of work of the project, were allowed on projection basis in 2015-16, by order dated 29.3.2017 in Petition No. 252/GT/2014. In view of this and since the expenditure falls within the balance limit of the completion cost of Rs.5097.86 lakh, the actual additional capital expenditure of Rs.856.77 lakh claimed in respect of the assets/ works within the original scope of work and within the cut-off date is allowed.

(b) Items capitalized during the year which were allowed in different years

22. The Petitioner has claimed additional capital expenditure of Rs.415.40 lakh in 2015-16 in respect of the assets/ works under this head, Roads and Bridges (other than Kutcha Road), Buildings-Others, Dam and Barrages, Power Channels, Power Tunnels and Pipelines, Penstocks, Tailrace Channels, Hydro-mechanical works- Dams and Barrages, Hydro-mechanical works-

Tunnels and canals, Hydro-mechanical works-Tail race including Draft Tube Gates, Communication Equipment, 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 Communication Equipment, I.T. Equipment–Computers, Furniture and fixtures, construction equipment and Other assets.

23. It is noticed that the expenditure in respect of these assets/ works claimed under this head were allowed on projection basis in 2014-15 by order dated 29.3.2017 in Petition No. 252/GT/2014. It is noticed that the assets/ works claimed are within the original scope of work of the project. Thus, the additional capital expenditure falls within the balance available cost limit of Rs.5097.86 lakh, as on 1.4.2015 and, therefore, the same are allowed.

(c) Items additionally claimed as per actual site requirement

24. The Petitioner has claimed actual additional capital expenditure of Rs.17.36 lakh, out of which Rs.1.78 lakh has been claimed towards capitalization of 'interest on compensation' on Court award, due to change in accounting policy. In justification of the same, the Petitioner has submitted that the accounting policy requires capitalization of interest on land cases since the date of filing of cases to final decision of the Court. Therefore, after the outcome of decision, such interest was capitalized till the decision of court and interest, after the date of decision to the date of final disbursement is being charged to revenue expenses, as per accounting policy. Considering the fact that the Petitioner has merely stated that the amount claimed is on account of change in accounting policy of the Petitioner but has not furnished corresponding linkage from the previous petitions (as regards

the hard cost pertaining to the expenses incurred), the same is not allowed.

25. The Petitioner has claimed additional capital expenditure for Rs.15.58 lakh towards assets/ works such as accelerograph system along with all accessories, nanometric & titan strong motion accelerograph (2 numbers). In justification of the same, the Petitioner has submitted that this instrument is used in measurement of earthquake and damage which occurred to dam due to earthquake. The Petitioner has submitted that this item is essentially required at each dam site in order to take proactive measures against any damage which occur to dam due to earthquake. Considering the fact that the additional expenditure claimed is towards assets required for the safe operation of the plant and within the cut-off date, the same is allowed as additional capital expenditure under 'assets/works within the original scope of work of the project'. The same has also been adjusted from the balance limit available as on 1.4.2015 for capitalization of assets/ works under original scope i.e. Rs.5097.86 lakh.

26. In view of the above, the total additional capital expenditure of Rs.1287.75 lakh (Rs.856.77 lakh + Rs.415.40 + Rs.15.58 lakh) is allowed in 2015-16. Accordingly, the balance limit available in respect of assets/ works within the original scope of work of the project is as under:

(Rs. in lakh)

Balance limit available for assets/works within the original scope of work of the project as on 1.4.2015**(a)**	5097.86
Expenditure allowed for assets/works within the original scope of work of the project **(b)**	1272.17
Expenditure for assets/works claimed under the Regulation 14 (3)(viii) but expenditure allowed/accounted under assets/works within the original scope of work of the project **(c)**	15.58
Discharge of liabilities for assets/works within the original scope of work of the project **(d)**	454.76

Total expenditure allowed for expenditure for assets/works within the original scope of work of the project in 2015-16 **(e)=(b)+(c)+(d)**	1742.51
Balance limit available for assets/works within the original scope of work of the project as on 31.3.2016 (f)=(a)-(e)	**3355.35**

2016-17

27. The net additional capital expenditure, on cash basis, claimed by the Petitioner are as under:

(Rs. in lakh)

Head	**Amount**
Items capitalized during the year which were allowed in different years **(b)**	923.49
Items additionally claimed as per actual site requirement **(c)**	14.64
Sub-total (d)=(a)+(b)+(c)	938.13
Discharge of liabilities **(e)**	97.46
Total (d) +(e)	**1035.59**

(a) ***Items capitalized during the year which were allowed in different years***

28. The Petitioner has claimed additional capital expenditure of Rs.923.49 lakh in 2016-17 in respect of assets/ works under the heads, Buildings-Others, Main Generating Equipment, Generator step up transformer, Other power plant transformer, Cooling water systems, EHV Switch gear systems, DC Systems/ Battery systems, Power and control cables, Air conditioning and ventilation, Control, Metering and Protection, Communication Equipment, I.T. Equipment – Computers, Fixed Assets of Minor Value, Other Assets, Dam and Barrages, Power Channels, Power Tunnels and Pipelines, Penstocks, Tailrace Channels, Hydro-mechanical works- Dams and Barrages, Hydro-mechanical works-Tunnels and canals, Hydro-mechanical works-Tail race including Draft Tube Gates, Furniture and fixtures, Electrical installations, Fixed Assets of minor value, Other Assets, Construction equipment, Environment and Ecology.

29. It is noticed that the additional expenditure in respect of the assets/ works

claimed under the head were allowed on projection basis for the period 2014-15 and 2015-16 by order dated 29.3.2017 in Petition No. 252/GT/2014. However, the same has been capitalized in 2016-17. As the assets/ works fall within the original scope of the project and the expenditure falls within the balance available cost limit of Rs.3355.35 lakh, as on 1.4.2016, the same is allowed.

(b) Items additionally claimed as per actual site requirement

30. The Petitioner has claimed actual additional capital expenditure of Rs.14.64 lakh towards 'Drilling of 200 mm diameter (2 numbers) bore well at PH (i-2015000930)' & Drilling of 125 mm diameter borewell and installation of submersible pump. As the expenditure incurred is in the nature of O&M expenses, the same is not allowed.

31. In view of the above, the total additional capital expenditure of Rs.923.49 lakh is allowed in 2016-17. Accordingly, the balance limit available in respect of assets/ works within the original scope of work of the project is as under:

(Rs. in lakh)

Balance limit available for assets/works within the original scope of work of the project as on 1.4.2016 **(a)**	3355.35
Expenditure allowed for assets/works within the original scope of work of the project **(b)**	923.49
Expenditure for assets/works claimed under the regulation 14 (3)(viii) but expenditure allowed/accounted under assets/works within the original scope of work of the project **(c)**	0.00
Discharge of liabilities for assets/works within the original scope of work of the project has been allowed as claimed in Form-16 **(d)**	97.46
Total expenditure allowed for expenditure for assets/works within the original scope of work of the project in 2016-17**(e)=(b)+(c)+(d)**	1020.95
Balance limit available for assets/works within the original scope of work of the project as on 31.3.2017 (f)=(a)-(e)	**2334.40**

<u>2017-18</u>

32. The net additional capital expenditure, on cash basis, claimed by the Petitioner are as under:

(Rs. in lakh)

Head	Amount
Items capitalized during the year which were allowed in different years **(b)**	217.37
Items additionally claimed as per actual site requirement **(c)**	206.94
Sub-total (d)=(a)+(b)+(c)	424.31
Discharge of liabilities **(e)**	95.53
Total (d) +(e)	519.84

(a) *Items capitalized during the year which were allowed in different years*

33. The Petitioner has claimed additional capital expenditure of Rs.217.37 lakh in 2017-18 in respect of the assets/ works under the heads, Buildings-Others, Main Generating Equipment, Generator step-up transformer, Other power plant transformer, Cooling water systems Switchgear systems, DC Systems/ Battery systems, Power and control cables, Air conditioning and ventilation, Control, Metering and Protection, Communication Equipment, I.T. Equipment– Computers, Fixed Assets of Minor Value, Other Assets, Dam and Barrages, Power Channels, Power Tunnels and Pipelines, Penstocks, Tailrace Channels, Hydro-mechanical works- Dams and Barrages, Hydro-mechanical works- Tunnels and canals, Hydro-mechanical works- Tail race including Draft Tube Gates, Furniture and fixtures, Electrical installations, Fixed assets of minor value, Other assets.

34. It is noticed that the additional capital expenditure for the assets/ works claimed under this head were allowed on projection basis in 2014-15 and 2015-16 vide order dated 29.3.2017 in Petition No. 252/GT/2014. However, the same has been capitalized in 2017-18. As the assets/ works claimed are within the original scope of the project and the expenditure falls within the balance available cost limit of Rs.2334.40 lakh, as on 1.4.2017, the same is allowed.

(b) Items additionally claimed as per actual site requirements

35. The Petitioner has claimed actual additional capital expenditure of Rs.206.94

lakh as follows:

(Rs in lakh)

Sl. No.	Assets/Works	Amount Claimed	Justification	Reason for admissibility/ Non-admissibility
1	Augmentation/ construction of additional 5 MVA, 66/11 kV transformer bay at 66 kV switchyard of cps	183.35	Not anticipated additional capitalization, but essentially required for safety of Powerhouse. As per the original scheme of switchyard, there was provision for only one 5 MVA transformer bay. This 5 MVA transformer was being used to feed power to the auxiliaries of the powerhouse. In case of failure of this transformer, there will not be any source to feed power to the auxiliaries of Powerhouse.	The Petitioner has submitted that the asset claimed is used to feed power to the auxiliaries of the powerhouse. Considering the fact that the expenditure claimed will facilitate the successful and efficient operation of the generating station, the same is **allowed**. However, it is noticed that the Petitioner has claimed the commissioning related works of this asset in 2018-19 and as per submission, the asset has been be put to use in 2018-19. Accordingly, the additional capital expenditure of Rs. 183.35 lakh claimed for this asset is shifted to 2018-19 i.e. year of actual put to use of asset.
2	Sewage treatment plant of 10 kld (set)	0.28	Not anticipated additional capitalization, but statutory requirement for waste management at powerhouse.	Considering the fact that the Petitioner has not furnished any documents in support of the claim, the same is **not allowed**.
3	Sewage treatment plant 20 kld capacity	13.05	Not anticipated additional capitalization, but statutory requirement for waste management at Colony.	
4	Digital insulation tester, 5 kv, range 10 kohm - 10 tohm, make: megger, model: mit-515	3.48	Not anticipated additional capitalization, but essentially required for smooth operation of powerhouse. It is	Considering the fact that the asset/ work claimed is in the nature of spares, and is after the cut-off date, the claim is **not allowed.**

			an instrument which is used to check the insulation of the electrical installations such as Generator, motors, transformers etc.	
5	LED display panel 86" LG 86uh5cb with Lenovo laptop ip 110 with HDMI cable	6.78	Essentially required for SCADA at PH. The vital parameters of the generating units are displayed on the screen which is monitored by the operator/ shift in charge of the powerhouse.	Considering the fact that the asset/ work claimed is minor in nature and is claimed after the cut-off date, the same is **not allowed.**
	Total amount claimed	**206.94**		
	Total amount allowed			**0.00**

36. In view of the above, the total additional capital expenditure of Rs.217.37 lakh is allowed in 2017-18. Accordingly, the balance limit available in respect of assets/ works within the original scope of work of the project is as under:

(Rs. in lakh)

Balance limit available for assets/works within the original scope of work of the project as on 1.4.2017 **(a)**	2334.40
Expenditure allowed for assets/works within the original scope of work of the project **(b)**	217.37
Expenditure for assets/works claimed under the regulation 14 (3)(viii) but expenditure allowed/accounted under assets/works within the original scope of work of the project **(c)**	0.00
Discharge of liabilities for assets/works within the original scope of work of the project has been allowed as claimed in Form-16 **(d)**	95.53
Total expenditure allowed for expenditure for assets/works within the original scope of work of the project in 2017-18 **(e)=(b)+(c)+(d)**	312.90
Balance limit available for assets/works within the original scope of work of the project as on 31.3.2018 (f)=(a)-(e)	**2021.50**

<u>2018-19</u>

37. The net additional capital expenditure, on cash basis, claimed by the Petitioner is as under:

(Rs. in lakh)

Head	**Amount**
Items capitalized during the year which were allowed in different years **(b)**	163.66
Items additionally claimed as per actual site requirement **(c)**	299.09
Sub-total (d)=(a)+(b)+(c)	462.75
Discharge of liabilities **(e)**	61.21
Total (d) +(e)	**523.96**

(a) Items capitalized during the year which were allowed in different years

38. The Petitioner has claimed additional capital expenditure of Rs.163.66 lakh in 2018-19 in respect of the assets/ works under the heads, Buildings-Others, Main Generating Equipment, Generator step up transformer, Other power plant transformer, Cooling water systems Switchgear systems, DC Systems / Battery systems, Power and control cables, Air conditioning and ventilation, Control, Metering and Protection, Communication Equipment, I.T. Equipment – Computers, Fixed Assets of Minor Value, Other Assets, Dam and Barrages, Power Channels, Power Tunnels and Pipelines, Penstocks, Tailrace Channels, Hydro-mechanical works- Dams and Barrages, Hydro-mechanical works- Tunnels and canals, Hydro-mechanical works-Tail race including Draft Tube Gates, Furniture and fixtures, Electrical installations, Fixed assets of minor value, Other assets.

39. It is noticed that the additional capital expenditure claimed for the assets/ works under this head were allowed on projection basis in 2014-15 and 2015-16 vide order dated 29.3.2017 in Petition No. 252/GT/2014. However, the same has been capitalized in 2018-19. Since the assets/ works claimed are within the original scope of the project and the expenditure falls within the balance available cost limit of Rs.2021.50 lakh, as on 1.4.2018, the same is allowed.

(b) Items additionally claimed as per actual site requirement

40. The Petitioner has claimed actual additional capital expenditure of Rs.206.94

lakh as follows:

(Rs. in lakh)

Sl. No.	Assets/Works	Amount Claimed	Justification	Reason for admissibility/ Non-admissibility
1	Capitalization entry for 4% (Impact of Wage Revision)	35.44	All the expenses incurred during construction has been allocated to major component of this power station and this Pay Anomaly Case since 1997 has been finalized in 2018-19. Expenses on pay anomaly up to COD i.e., 1.2.2013 is being capitalized.	It is noted that the Petitioner has filed Petition No. 343/MP/2019 seeking recovery of impact of pay/ wage revision of its employees for the period from 1.1.2007 to 31.3.2019. In view of this, the additional capital expenditure claimed is **not allowed**.
2		78.87		
3		2.31		
4		60.23		
5	Capitalization entry for 4% (Impact of Wage Revision)	60.19		
6	Construction of fire station adjacent to newly constructed workshop near switchyard of the generating station.	30.23	Fire station is essentially required in the power station as per the safety manual and also a statutory requirement.	Considering the fact that the asset/ work claimed will facilitate the safe and efficient operation of the plant, the claim is **allowed.**
7	Supply, Installation Testing & Commissioning of 100 wt heating panels for conference hall, medical, veg mess, etc.	8.64	Keeping in view the harsh weather condition at Kargil where temperature dips to -30 degree centigrade, such heating arrangement is essential to protect against the extreme cold.	It is evident from the Petitioner's submission that the additional capital expenditure claimed was envisaged at the initial stage, considering the location of the plant. As, the expenditure should have formed part of the original scope of work, the claim in this year is **not allowed.**
8	Augmentation/ construction of additional 5 MVA, 66/11 kV transformer bay at 66kv switchyard of cps	8.58	As per the original scheme of switchyard, there was provision for only one 5 MVA transformer bay. This 5 MVA transformer was being used to feed power to the auxiliaries of the powerhouse. In case of failure of this transformer, there will not be any source to feed power to the auxiliaries of Powerhouse.	The Petitioner has submitted that the assets/works claimed are used to feed power to the auxiliaries of the powerhouse. Considering the fact that the assets/works will facilitate the successful and efficient operation of the generating station, the expenditure is **allowed**. Further, as mentioned at sl. No. 1 of the Table in

9	Const of cable trench & foundation for 5MVA transformer at switchyard	10.89	The cable trench and foundation for 5 MVA transformer is used for the construction of 5 MVA additional transformer bay. This addition required as a precautionary measure as per laid down policy.	paragraph 35 above, the total amount allowed under this head, in 2018-19 amounts to Rs.202.82 lakh [Rs.8.58 lakh + Rs.10.89 lakh + Rs.183.35 (as shifted from 2017-18)]
10	Verticle mounted OPU motor,18.5 kW, 3 phase, 50 hz, ins. class-f, 415 v, 2995 rpm, 0.9 pf-drg. No. Bhel-j2632-201 (4 nos.)	2.61	This motor along with oil pump is used to create pressure inside the oil sump and the pressurized oil is used further for the movement of different servomotors of the generating unit.	Considering the fact that the asset/ work claimed will facilitate the efficient operation of the plant, the claim is **allowed**.
11	Eco sounder-hondex japan he-51c	1.10	It is a very essential instrument. It is used at Barrage to measure the depth of the reservoir and to determine the profile of the river/ reservoir bed.	Considering the fact that the asset/ work claimed is in the nature of tools & tackles, the same is **not allowed.**
	Total amount claimed	**299.09**		
	Total amount allowed			**235.66**

41. In view of the above, the total additional capital expenditure of Rs.399.32 (Rs.163.66 lakh + Rs.235.66 lakh) is allowed in 2018-19. Accordingly, the balance limit available in respect of assets/ works within the original scope of work of the project is as under:

(Rs. in lakh)

Balance limit available for assets/works within the original scope of work of the project as on 1.4.2018 **(a)**	2021.50
Expenditure allowed for assets/works within the original scope of work of the project **(b)**	163.66
Expenditure for assets/works claimed under the regulation 14 (3)(viii) but expenditure allowed/accounted under assets/works within the original scope of work of the project **(c)**	0.00
Discharge of liabilities for assets/works within the original scope of work of the project has been allowed as claimed in Form-16 **(d)**	61.21
Total expenditure allowed for expenditure for assets/works within the original scope of work of the project in 2018-19**(e)=(b)+(c)+(d)**	224.87
Balance limit available for assets/works within the original scope of work of the project as on 31.3.2019 (f)=(a)-(e)	**1796.63**

42. The details of the additional capital expenditure allowed for assets/ works within the original scope of work of the project and discharge of liabilities are

summarized as under:

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19	Total
Expenditure allowed for assets/works under original scope of the project **(a)**	919.81	1272.17	923.49	217.37	163.66	3496.50
Expenditure for assets/ works claimed under the Regulation 14 (3)(viii) but expenditure Allowed/ accounted under Assets/ works under original scope of the project in this order **(b)**	52.16	15.58	0.00	0.00	0.00	67.74
Discharge of liabilities Considered for assets/ works under original scope **(c)**	1270.71	454.76	97.46	95.53	61.21	1979.67
Total (d)=(a)+(b)+(c)	2242.68	1742.51	1020.95	312.90	224.87	5543.91

43. In view of above, the total additional capital expenditure of Rs.5543.91 lakh is allowed in respect of assets/ works within the original scope of work of the project, including initial spares and discharge of liabilities. This amount is within the balance limit of Rs.7340.54 lakh, available for additional capital expenditure in respect of assets/ works within the original scope of work.

44. Based on the above, the total additional capital expenditure allowed for the 2014-19 tariff period is as under:

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Additions allowed within the original scope of work of project	2242.68	1742.51	1020.95	312.90	224.87
Additions allowed other than the original scope of work of project	0.00	0.00	0.00	0.00	235.66
Total additional capital expenditure allowed	**2242.68**	**1742.51**	**1020.95**	**312.90**	**460.53**

Decapitalization

45. 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."

46. The Petitioner has claimed de-capitalization of assets such as long-distance satellite telephone, V-sat, cooling water system, air-conditioning and ventilation system, generating Plant & Machinery, misc. Power plant equipment, bicycle-Kompac ST 6s folding (firefox), main generating equipment etc. Since the assets are not in use/ unserviceable, the claim of the Petitioner for de-capitalization of amounts, is allowed in terms of the said regulation, as under:

(Rs. in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19
3.21	108.48	0.00	1.28	0.00

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

47. 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 the petition	105.28	4.42	15.88	131.52	52.02
Exclusion in Deletions (de-capitalized in books but not to be considered for tariff purpose) as per (Form 9B(ii)) of the petition.	116.01	2.09	13.86	0.00	13.37
Net Exclusions claimed	**(-) 10.73**	**2.33**	**2.03**	**131.52**	**38.65**

48. 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

49. 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 as under:

(Rs. in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19
105.28	4.42	15.88	131.52	52.02

50. It is noticed that the above expenditure is in respect of Inter-head adjustments, Ind-AS adjustments, tools and tackles & spares capitalized beyond the cut-off 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

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

(Rs. in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19
116.01	2.09	13.86	0.00	13.37

52. It is noticed that deletions claimed are in respect of inter-head reclassification of minor assets such as IT equipment, miscellaneous assets/ equipment, etc. 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 after the cut-off date of the generating station. Further, the Petitioner has excluded these negative entries which are against the additional expenditure capitalized in 2014-15 and kept under exclusions.

53. The Petitioner has claimed items in the nature of minor assets, tools &

tackles, furniture, computers etc., and has not linked the claim from the previous orders of the Commission. However, considering the nature of assets/ works, the year when these assets/ works were put to use and the cut-off date of the generating station (31.3.2016), the exclusions in deletions not allowed has to be deleted from the capital cost for the purpose of tariff. In view of the above, the exclusions in deletion allowed/ not allowed are as under:

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Exclusions in deletions allowed	104.64	0.31	0.00	0.00	0.13
Exclusions in deletions not allowed	**11.37**	**1.78**	**13.86**	**0.00**	**13.24**

54. 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	105.28	4.42	15.88	131.52	52.02
Exclusion in deletion allowed	104.64	0.31	0.00	0.00	0.13
Net Exclusion allowed	**0.64**	**4.11**	**15.88**	**131.52**	**51.89**

Net Additional capital expenditure allowed

55. Based on the above discussions, the net additional capital expenditure allowed is summarized as under:

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Total additions allowed (including liabilities)	2242.68	1742.51	1020.95	312.90	460.53
Less: De- capitalization allowed	3.21	108.48	0.00	1.28	0.00
Less: Exclusions in deletions not allowed	11.37	1.78	13.86	0.00	13.24
Net Additional capital expenditure allowed	**2228.10**	**1632.25**	**1007.09**	**311.62**	**447.29**

Capital Cost allowed for 2014-19 tariff period

56. 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	86865.46	89093.56	90725.80	91732.90	92227.87
Additional capital expenditure allowed (Net)	2228.10	1632.25	1007.09	311.62	447.29
Closing Capital Cost	**89093.56**	**90725.80**	**91732.90**	**92044.52**	**92491.81**

Debt: Equity ratio

57. 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-equtiy 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.

58. Gross normative loan and equity amounting to Rs.60805.82 lakh and Rs.26059.64 lakh, respectively, as on 31.3.2014 as considered in order dated 21.3.2017 in Petition No.190/GT/2015 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 is 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	60805.82	70.00%	3938.44	70.00%	64744.26	70.00%
Equity	26059.64	30.00%	1687.90	30.00%	27747.54	30.00%
Total	**86865.46**	**100.00%**	**5626.35**	**100.00%**	**92491.81**	**100.00%**

Return on Equity

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

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

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

Provided that:

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

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

iii).additional RoE of 0.50% may be allowed if any element of the transmission project is completed within the specified timeline and it is certified by the Regional Power Committee/National Power Committee that commissioning of the particular element will benefit the system operation in the regional/national grid:

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

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

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

60. 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.

61. Accordingly, the base rate of ROE has been grossed up based on the actual tax paid for the 2014-19 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**
Notional Equity- Opening (A)	26059.64	26728.07	27217.74	27519.87	27613.36
Addition of Equity due to additional capital expenditure (B)	668.43	489.67	302.13	93.49	134.19
Normative Equity- Closing (C) = (A+B)	26728.07	27217.74	27519.87	27613.36	27747.54
Average Normative Equity (D) = [(A+B)/2]	26393.85	26972.91	27368.81	27566.61	27680.45
Return on Equity (Base Rate) (E)	15.500%	15.500%	15.500%	15.500%	15.500%

	2014-15	2015-16	2016-17	2017-18	2018-19
Effective Tax Rate for the year (F)	21.760%	21.948%	21.328%	21.851%	22.157%
Rate of Return on Equity (Pre-Tax) (G)	19.811%	19.859%	19.702%	19.834%	19.912%
Return on Equity (H) = (DxG)	**5228.89**	**5356.55**	**5392.20**	**5467.56**	**5511.73**

Interest on Loan

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

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

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

(3) The repayment for each of the year of the tariff period 2014-19 shall be deemed to be equal to the depreciation allowed for the corresponding year/period. In case of 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 re-financing of loan."

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

(Rs. in lakh)

	2014-15	**2015-16**	**2016-17**	**2017-18**	**2018-19**
Gross opening loan (A)	60805.82	62365.49	63508.06	64213.03	64431.16
Cumulative repayment of loan upto previous year (B)	5479.10	9891.11	14384.52	18960.23	23571.85
Net Loan Opening (C)=[(A)-(B)]	55326.72	52474.37	49123.54	45252.80	40859.31
Repayment during the year (D)	4413.66	4510.06	4578.15	4611.87	4627.62
Cumulative repayment adjustment on a/c of de-capitalization (E)	1.64	16.65	2.44	0.26	2.92
Net Repayment (F)=[(D)-(E)]	4412.01	4493.41	4575.71	4611.62	4624.70
Addition due to additional capital expenditure (G)	1559.67	1142.57	704.97	218.13	313.10
Loan Closing (H)= (C+G-F)	52474.37	49123.54	45252.80	40859.31	36547.72
Average Loan(I)=[(C+H)/2]	53900.55	50798.96	47188.17	43056.05	38703.51
Weighted Average Rate of Interest of loan (J)	3.59%	3.52%	3.49%	2.91%	2.86%
Interest on Loan (K)=(I*J)	**1936.41**	**1789.18**	**1645.67**	**1254.42**	**1105.75**

64. 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 as per Regulation 8(2)(a)(iv) of the 2014 Tariff Regulations. The Petitioner has stated that the loans have been refinanced with effect from 2017-18, 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.

65. 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. The prayer is disposed of accordingly.

Depreciation

66. 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 availabilityof 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 upto 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."

67. As COD of the generating station is 1.2.2013, depreciation has been calculated by applying 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)

Depreciation	**2014-15**	**2015-16**	**2016-17**	**2017-18**	**2018-19**
Opening Gross block (A)	86865.46	89093.56	90725.80	91732.90	92044.52
Net Additional capital expenditure (B)	2228.10	1632.25	1007.09	311.62	244.47
Closing gross block (C)=(A+B)	89093.56	90725.80	91732.90	92044.52	92491.81
Average gross block (D)=[(A+C)/2]	87979.51	89909.68	91229.35	91888.71	92268.16

Depreciable Value (E)=(D*90%)	79181.56	80918.71	82106.42	82699.84	83041.35
Remaining Depreciable Value at the beginning of the year (F)=[(E)-(Cumulative Depreciation at 'L' at the end of previous year)]	73702.46	71027.60	67721.90	63739.61	59469.50
Rate of Depreciation (G)	5.017%	5.016%	5.018%	5.019%	5.015%
Balance useful life (H)	33.84	32.84	31.84	30.84	29.84
Depreciation (I)=(D*G)	**4413.66**	**4510.06**	**4578.15**	**4611.87**	**4627.62**
Cumulative Depreciation at the end of the year (J)=[(I)+(Cum Dep at 'L' at the end of previous year)]	9892.76	14401.17	18962.67	23572.10	28199.47
Less: Depreciation adjustment on account of de-capitalization (K)	1.64	16.65	2.44	0.26	2.92
Cumulative Depreciation at the end of the year (L)*	9891.11	14384.52	18960.23	23571.85	28196.55

**The cumulative depreciation at the end of 2013-14 is Rs. 5479.10 lakh.*

O&M Expenses

68. 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."*

69. The generating station had not completed three years of commercial operation as on 1.4.2014. It is observed that the Commission in order dated 21.3.2017 in Petition No. 190/GT/2015 had considered the capital cost of Rs. 86865.46 lakh as on 31.3.2014, in absence of actual capital cost as on the cut-off date, for the purpose of calculating O&M expenses of the generating station. In corrigendum order dated 19.4.2017 in Petition No. 252/GT/2014, Rs.93989.88 lakh was allowed as the completion cost of the project. In the absence of the actual capital cost as on the cut-off date, this amount was considered for the purpose of calculating the O&M expenses of the generating station. The O&M expenses

allowed vide corrigendum order dated 19.4.2017 in Petition No. 252/GT/2014 has been claimed by the Petitioner in the present petition.

70. Since the actual cost of Rs.90725.80 lakh as on the cut-off date (31.3.2016) has been allowed in this order, the O&M expenses allowed in order dated 19.4.2017 in Petition No. 252/GT/2014 require to be revised. As regards units which have been commissioned prior to COD of the generating station (Unit-IV), as per the practice, the O&M expenses is calculated based on the capital cost allowed as on COD of the said units. Accordingly, the capital cost of Rs.59721.34 lakh as allowed in order dated 21.3.2017 in Petition No.190/GT/2015 as on 29.11.2012 (for 3 units) has been considered for calculating the O&M expenses for the period between COD of units (29.11.2012) to COD of the generating station (Unit-IV). The same was subject to revision as per order dated 21.3.2017 in Petition No. 190/GT/2015, which was inadvertently revised in order dated 29.3.2017 in Petition No. 252/GT/2014, based on the opening capital cost on cut-off date, on projection basis. As the capital cost as on the cut-off date is approved, the O&M expenses for the period from 29.11.2012 to 31.3.2014 is revised as under:

(Rs. in lakh)

	29.11.2012 to 31.1.2013 (64 days)	**1.2.2013 to 31.3.2013 (59 days)**	**2013-14**
	3 Units	**4 Units**	**4 Units**
Allowed Project cost	59721.34	90725.80	
Less: R&R cost	146.63 (Pro-rata)	195.50	
Capital cost for the purpose of O&M	59574.72	90530.30	
Annualized O&M expenses @ 2% of capital cost	1191.49	1810.61	1914.17*
O&M expenses (Pro-rata for number of days)	**208.92**	**292.67**	**1914.17**

**After escalation of annualized O&M expenses of FY 2012-13 (Rs.1810.61 lakh) at the rate of 5.72%*

71. Based on the above, the O&M expenses for the 2014-19 tariff period stands revised, considering the completion cost of Rs.90725.80 lakh allowed for the generating station, as on the cut-off date, as under:

(Rs. in lakh)

	Amount
Complete capital cost allowed	90725.80
Less: R&R cost submitted by the Petitioner	195.50
Capital cost for the purpose of O&M	**90530.30**
2012-13	
O&M expenses (@ 2% of Rs.90530.30 lakh) **(N1)**	1810.61
2013-14	
O&M Expenses (escalated @6.04 % of O&M expenses of 2012-13) **(N2)**	**1919.97**
O&M Expenses @ 2013-14 Price Level (N)=[(N1+N2)/2]	**1865.29**

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

(Rs. in lakh)

2014-15	**2015-16**	**2016-17**	**2017-18**	**2018-19**
1989.14	2121.22	2262.07	2412.27	2572.45

Additional O&M Expenses

Goods & Services Tax

73. 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) in exercise of the powers vested 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 (1.7.2017 to 31.3.2018) and 2018-19 as submitted by the Petitioner, duly certified by statutory auditors, are as under:

Additional Impact of GST on O&M Expenses (*in Rs.)*			
2017-18	**2018-19 (1.4.2018 to 31.12.2018)**	**2018-19 (1.1.2019 to 31.3.2019)**	**Total**
6635853	6505820	4290046	17431719

74. The matter has been considered. It is observed that the Commission while specifying the O&M expense norms for the 2014-19 tariff period had considered taxes to form part of the O&M expense calculations and, accordingly, had factored the same in the said norms. This is evident from paragraph 49.6 of the SOR (Statement of Objects and Reasons) to the 2014 Tariff Regulations, which is extracted hereunder:

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

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

Wage revision

76. The Petitioner has submitted that it has filed Petition No. 223/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 from

1.1.2016 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 dealt in Petition No. 223/MP/2019.

Interest on Working Capital

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."*

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
2324.09	2360.41	2378.40	2356.71	2369.75

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
298.37	318.18	339.31	361.84	385.87

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
165.76	176.77	188.51	201.02	214.37

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 thereof*

or 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
O & M expenses	165.76	176.77	188.51	201.02	214.37
Maintenance Spares	298.37	318.18	339.31	361.84	385.87
Receivables	2324.09	2360.41	2378.40	2356.71	2369.75
Total Working Capital	**2788.22**	**2855.37**	**2906.22**	**2919.58**	**2969.99**
Rate of Interest	13.50%	13.50%	13.50%	13.50%	13.50%
Total Interest on Working capital	**376.41**	**385.47**	**392.34**	**394.14**	**400.95**

<u>Annual Fixed charges</u>

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

(Rs. in lakh)

	29.11.2012 to 31.1.2013 (3 Units)	1.2.2013 to 31.3.2014 (4 Units)	2013-14 (4 Units)
Depreciation	524.35	669.78	4284.97
Interest on Loan	111.27	335.59	2054.82
Return on Equity	608.73	778.26	5033.29
O&M Expenses	208.92	292.67	1914.17
Interest on Working Capital	40.18	57.22	367.53
Total	**1493.46**	**2133.53**	**13654.78**

84. 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	4413.66	4510.06	4578.15	4611.87	4627.62
Interest on Loan	1936.44	1789.18	1645.67	1254.42	1105.75
Return on Equity	5228.89	5356.55	5392.20	5467.56	5511.73
O&M Expenses	376.41	385.47	392.34	394.14	400.95
Interest on Working Capital	1989.14	2121.22	2262.07	2412.27	2572.45
Total	**13944.54**	**14162.49**	**14270.43**	**14140.27**	**14218.50**

Normative Annual Plant Availability Factor (NAPAF)

85. As regards deemed generation, the Commission in its order dated 31.12.2012 in IA No. 15/2012 in Petition No. 23/GT/2011 had decided as under:

> *"19. Taking into consideration that the recovery of energy charges shall be less if the beneficiary demands/schedules for lesser energy (than declared by the generator) due to non-availability of load, we, in exercise of power under Regulation 44 of the 2009 Tariff Regulations, relax the provisions of Clause (4) of Regulation 22 of the 2009 Tariff Regulations and allow 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 for scheduled energy to be calculated as per provisions of the 2009 Tariff Regulations. The prayer of the petitioner is allowed in terms of the above."*

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.

88. 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 50% has been considered for this generating

station.

Design Energy

89. The Commission in order dated 23.1.2015 in Petition No.3/GT/2013 had approved the annual Design Energy (DE) of 212.93 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 212.93 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	3.29
	II	3.30
	III	3.92
May	I	5.07
	II	6.64
	III	9.67
June	I	10.03
	II	10.03
	III	10.03
July	I	10.03
	II	10.03
	III	11.04
August	I	10.03
	II	9.93
	III	11.04
September	I	10.03
	II	9.15
	III	7.75
October	I	6.17
	II	4.50
	III	4.40
November	I	4.38
	II	3.96
	III	3.78
December	I	2.86
	II	2.76
	III	3.02
January	I	2.75
	II	2.75
	III	3.02
February	I	2.75
	II	2.75
	III	2.20
March	I	2.97

	II	3.19
	III	3.69
Total		**212.93**

Summary

90. The summary of the annual fixed charges allowed vide corrigendum order dated 19.4.2017 in Petition No. 252/GT/2014 and the annual fixed charges allowed in this order (after truing-up) for the 2014-19 tariff period in respect of the generating station are as under:

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Annual fixed charges allowed vide corrigendum order dated 19.4.2017 in Petition No. 252/GT/2014	14146.40	14557.06	14613.38	14556.81	14539.37
Annual fixed charges allowed in this order	13944.54	14162.49	14270.43	14140.27	14218.50

91. The difference between the annual fixed charges recovered by the Petitioner in terms of corrigendum order dated 19.4.2017 in Petition No. 252/GT/2014 and the annual fixed charges determined by this order shall be adjusted in terms of the provisions of Regulation 8(13) of the 2014 Tariff Regulations.

Determination of Tariff for 2019-24 Tariff Period

92. The Petitioner has filed the present petition also for determination of tariff of the generating station for the period from 1.4.2019 to 31.3.2024 in terms of the provisions of the 2019 Tariff Regulations. The capital cost and the annual fixed charges claimed by the Petitioner for the 2019-24 tariff period are as under:

Capital Cost claimed

(Rs.in lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Capital Cost	92818.85	93738.87	94793.13	96163.09	96448.99
Add: Addition during the year / period	707.09	865.02	282.74	225.00	145.00
Less: De-capitalization during the year / period	8.43	22.65	0.00	0.00	0.00
Add: Discharges during	221.36	211.89	1087.22	60.90	4.00

	2019-20	2020-21	2021-22	2022-23	2023-24
the year / period					
Closing Capital Cost	93738.87	94793.13	96163.09	96448.99	96597.99
Average Capital Cost	93278.86	94266.00	95478.11	96306.04	96523.49

Annual Fixed Charges claimed

(Rs.in lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	4678.31	4727.82	4788.61	4830.13	4841.04
Interest on Loan	1260.06	1108.81	964.93	817.86	631.63
Return on Equity	5243.62	5276.28	5333.89	5378.69	5386.11
Interest on Working Capital	359.50	367.43	376.46	385.39	393.16
O & M Expenses	4047.99	4240.96	4443.13	4654.93	4876.83
Total	**15589.49**	**15721.30**	**15907.02**	**16067.00**	**16128.77**

93. Based on the submissions of the parties and the documents available on record and on prudence check, we proceed to determine the tariff of the generating station for the 2019-24 tariff period, as stated in the subsequent paragraphs.

Capital Cost

94. 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 is provided as under:

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

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

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

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

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

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

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

95. The opening capital cost claimed by the Petitioner as on 1.4.2019 is Rs.92818.85 lakh. However, while truing up the tariff of the generating station for the 2014-19 tariff period, the Commission in this order, has allowed the closing capital cost of Rs.92491.81 lakh as on 31.3.2019. Accordingly, in terms of Regulation 19 of the 2019 Tariff Regulations, the closing capital cost of Rs.92491.81 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 2019-24 tariff period.

Discharge of liabilities

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

(Rs.in lakh)

2019-20	2020-21	2021-22	2022-23	2023-24
221.36	211.89	1087.22	60.90	4.00

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

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 period along with the true up for the 2014-19 period in accordance with the 2014 Tariff Regulations. Relevant clauses of Regulation 25 and Regulation 26 of the 2019 Tariff Regulations, provide 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.

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. "

99. In respect of the additional capital expenditure claimed during the 2019-24 tariff period, the Petitioner has submitted that it could not execute the works allowed by the Commission up to cut-off date. As such, the balance works/ supplies are in progress and the same is anticipated to be completed/ executed by 31.3.2024. The Petitioner has, accordingly, prayed that the Commission may allow such additional capitalization which were already allowed up to cut-off date, but executed beyond the cut-off date till 31.3.2019 and, thereafter, up to 31.3.2024, during the 2019-24 tariff period.

100. It is pertinent to mention that while truing up the tariff of the generating station for the 2014-19 tariff period, the Commission has considered the same prayer of the Petitioner and has, in this order, allowed additional capitalization of the assets/ works, which are within the original scope of work, beyond the cut-off date, subject to the balance limit of expenditure available for assets/ works within the original scope of work of the project. Based on this, the balance limit of expenditure available as on 31.3.2019 is Rs.1796.63 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.

101. The Petitioner has furnished the minutes of 427th meeting (MOM) dated 17.9.2019 of its Board of Directors, in which the projected additional capital expenditure of all the generating stations of the Petitioner has been decided and examined. It is noticed that an amount of Rs.2226.00 lakh has been projected for additional capitalization in the said MOM and the same has been claimed by the Petitioner for the 2019-24 tariff period as under:

(Rs. in lakh)

2019-20	**2020-21**	**2021-22**	**2022-23**	**2023-24**	**Total**
707.09	865.02	282.74	225.00	145.00	2224.85

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

2019-20

103. The projected additional capital expenditure claimed by the Petitioner are as under:

(Rs. in lakh)

	Amount
Items claimed under Regulation 25(1)(a) **(a)**	128.83
Items claimed under Regulation 25(2)(a) **(b)**	9.60
Items claimed under Regulation 26(1)(d) **(c)**	568.66
Sub-total (d)=(a)+(b)+(c)	**707.09**
Discharge of liabilities **(e)**	221.36
Total (d) +(e)	**928.45**

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

104. The Petitioner has claimed additional capital expenditure of Rs.128.83 lakh in 2019-20 in respect of assets/ works under the heads, Water supply system/ drainage and sewerage, Building-Others, 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 and Other assets. It is

observed that the Petitioner has claimed the additional capital expenditure in respect of assets/ works within the original scope of work of the project, which are spillover expenditure in respect of works which were allowed during the 2014-19 tariff period vide corrigendum order dated 19.4.2017 in Petition No. 252/GT/2014. Though the claim of the Petitioner dos not fall under Regulation 25(1)(a) of the 2019 tariff Regulations, keeping in view, our observations, in paragraph 13 above and considering the fact that the additional expenditure claimed is within the balance available limit of the completion cost of Rs.1796.63 lakh, as on 1.4.2019, the additional capital expenditure of Rs.128.83 lakh as claimed by the Petitioner in respect of the assets/ works within the original scope of work is allowed.

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

105. The Petitioner has claimed additional capital expenditure Rs.9.60 lakh, towards replacement of assets/ works such as Desktop Computer, UPS, Purchase of printers and other peripherals. Considering the fact that these assets/ works are claimed as replacement of assets/works which are within the original scope of the existing project and after cut-off date, the additional capital expenditure of Rs.9.60 lakh is **allowed** under Regulation 25(2)(a) of the 2019 Tariff Regulations. The Petitioner has furnished the decapitalized value of old asset and the same has been considered as decapitalization in 2019-20.

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

106. The Petitioner has claimed additional capital expenditure of Rs.568.66 lakh, in 2019-20 in respect of assets/ works such as, construction of field hostel at central store complex of the generating station, electrification of field hostel at central store complex the generating station, construction of Security barrack at workshop/ Central Store, electrification of newly constructed Security Barrack at central store,

construction of Fire Station, providing & fixing of chequered plates over open cable trenches in PH and construction of gate at 0 point of barrage, construction of security huts near Boom Barriers at barrage, supply and installation of two (02) Boom Barriers at barrage and another two (02) at Powerhouse and Colony for higher security and safety of the generating station.

107. We notice that the assets/ works such as, construction of field hostel and electrification of field hostel at central store complex of the generating station, do not relate directly to the higher safety & security of the plant. Accordingly, expenditure for these assets are **not allowed**. Except for these assets, the additional capital expenditure for the balance assets/ works claimed viz., construction of security barrack, fire station, security huts, installation of Boom Barriers, etc., amounting to Rs.251.70 lakh (out of Rs.568.66 lakh) relate to the safety of the plant, and are **allowed.** The Petitioner is directed to furnish the relevant document proof in support of the claim at the time of truing-up of tariff.

108. In view of the above, the total additional capital expenditure allowed under original scope and other than original scope of work is Rs.138.43 lakh and Rs.251.70 lakh respectively in 2019-20. Accordingly, the balance limit available in respect of assets/ works within the original scope of work of the project is as under:

(Rs. in lakh)

Balance limit available for assets/works within the original scope of work of the project as on 1.4.2019 **(a)**	**1796.63**
Expenditure allowed for assets/works within the original scope of work of the project **(b)**	138.43
Discharge of liabilities for assets/works within the original scope of work of the project **(c)**	221.36
Total expenditure allowed for expenditure for assets/works within the original scope of work of the project in 2019-20 **(d) = (d)+(b)+(c)**	359.79
Balance limit available for assets/works within the original scope of work of the project as on 31.3.2020 (e)=(a)-(d)	**1436.84**

2020-21

109. The projected additional capital expenditure claimed by the Petitioner are as under:

(Rs. in lakh)

	Amount
Items claimed under Regulation 25(1)(a) **(a)**	332.02
Items claimed under Regulation 25(2)(a) **(b)**	40.00
Items claimed under Regulation 26(1)(d) **(c)**	493.00
Sub-total (d)=(a)+(b)+(c)	**865.02**
Discharge of liabilities **(e)**	211.89
Total (d) +(e)	**1076.91**

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

110. The Petitioner has claimed additional capital expenditure of Rs.332.02 lakh in 2020-21 in respect of assets/ works under the heads such as, Water supply system/ drainage and sewerage, 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, Other Assets, Environment and Ecology. It is observed that the Petitioner has claimed the additional capital expenditure in respect of assets/ works within the original scope of work of the project that are spillover of the expenditure in respect of assets/ works which were allowed for the period 2014-19 vide corrigendum order dated 19.4.2017 in Petition No. 252/GT/2014. Though the claim of the Petitioner does not fall under Regulation 25(1)(a) of the 2019 tariff Regulations, keeping in view our observation in paragraph 13 above and considering the fact that the additional expenditure claimed is within the balance available limit of the completion cost of Rs.1446.44 lakh, as on 1.4.2020, the additional capital expenditure of Rs.128.83 lakh as claimed by the Petitioner in respect of the assets/ works within the original scope of

work is allowed.

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

111. The Petitioner has claimed total additional capital expenditure Rs.40.00 lakh, towards replacement of assets/works, out of which additional capital expenditure of Rs. 30.00 lakh has been claimed for assets/ works such as purchase of computer system, servers and peripherals and purchase of multifunction xerox machines. The Petitioner has furnished the decapitalized value of the old assets and the same has been considered as decapitalization in 2020-21. As regards additional capital expenditure of the balance Rs.10 lakh claimed for assets/ works, such as, purchase of ten (10) numbers of submersible pump of various capacities, the Petitioner has not linked the claim for assets/ works as allowed by the Commission, in its previous orders and has also not furnished the value of the old assets replaced. Accordingly, the decapitalization value of old assets have been worked out as Rs.6.77 lakh in paragraph 129 of this order and has been adjusted under 'Assumed Deletions'. Considering the fact that these assets/ works for Rs.40.00 lakh claimed are for replacement of the assets/works which are within the original scope of work of the project and is after cut-off date, the additional capital expenditure of Rs.40.00 lakh is allowed under Regulation 25(2)(a) of the 2019 Tariff Regulations.

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

112. The Petitioner has claimed additional capital expenditure of Rs.493.00 lakh, in 2020-21 for assets/ works such as supply & installation of crash barrier along the approach road of barrage & PH, payment to M/s BHEL for remote operation of the generating station, payment to M/s BSNL & Airtel for connectivity for remote operation of the generating station, purchase of advance flood warning system, purchase of sirens, providing & fixing aluminum glazing work for covering verandah

in security barrack at central Store of the generating station, towards higher security and safety of the plant.

113. We notice that the above said claims made by the Petitioner has 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. Also, the expenditure claimed towards payment to M/s BHEL and to M/s BSNL & Airtel (for connectivity), for remote operation of the generating station, providing & fixing aluminum glazing work for covering verandah in security barrack at central store, do not directly relate to the higher safety and security of the plant. Hence, the additional capital expenditure claimed is **not allowed**. Except for the above, the additional capital expenditure claimed for other assets/ works such as supply & installation of crash barrier along the approach road of barrage & PH, purchase of sirens is considered necessary for the safety of the plant and, therefore, the expenditure of Rs.35.00 lakh (out of Rs.493.00 lakh) pertaining to these assets/ works are **allowed**. The Petitioner is, however, directed to furnish relevant documentary proof at the time of truing up of tariff in terms of the regulations under which claim has been made. In view of the above, the total additional capital expenditure under original scope and other than original scope of work amounting to Rs.372.02 lakh and Rs.35.00 lakh respectively is allowed in 2020-21. Accordingly, the balance limit available in respect of assets/works within the original scope of work of the project is as under:

(Rs. in lakh)

Balance limit available for assets/works within the original scope of work of the project as on 1.4.2020 **(a)**	1436.84
Expenditure allowed for assets/works within the original scope of work of the project **(b)**	372.02
Discharge of liabilities for assets/works within the original scope of work of the project **(c)**	211.89

Total expenditure allowed for expenditure for assets/works within the original scope of work of the project in 2020-21 **(d) = (b)+(c)**	583.91
Balance limit available for assets/works within the original scope of work of the project as on 31.3.2021 (e)=(a)-(d)	**852.93**

<u>2021-22</u>

114. The projected additional capital expenditure claimed by the Petitioner are as under:

(Rs. in lakh)

	Amount
Items claimed under Regulation 25(1)(a) **(a)**	262.74
Items claimed under Regulation 25(2)(a) **(b)**	20.00
Items claimed under Regulation 26(1)(d) **(c)**	0.00
Sub-total (d)=(a)+(b)+(c)	**282.74**
Discharge of liabilities **(e)**	1087.22
Total (d) +(e)	**1369.96**

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

115. The Petitioner has claimed additional capital expenditure of Rs.262.74 lakh in 2021-22 for assets/ works under the heads such as, 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, Other assets, Environment and Ecology, Electrical installations. It is observed that the Petitioner has claimed the additional capital expenditure in respect of assets/ works within the original scope of work of the project that are spillover of the expenditure in respect of assets/ works which were allowed for the period 2014-19 vide corrigendum order dated 19.4.2017 in Petition No. 252/GT/2014. Though the claim of the Petitioner does not fall under Regulation 25(1)(a) of the 2019 tariff Regulations, keeping in view our observation in paragraph 13 above and considering the fact that the additional expenditure claimed is within the balance available limit of the completion cost of Rs.902.53 lakh, as on 1.4.2019, the

additional capital expenditure of Rs.262.74 lakh claimed by the Petitioner in respect of the assets/works within the original scope of work is **allowed.**

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

116. The Petitioner has claimed total projected additional capital expenditure Rs.20.00 lakh, towards replacement of assets/works i.e. purchase of ten (10) numbers of submersible pump of various capacities. It is noticed that the Petitioner has not linked the claim for assets/ works as allowed by the Commission in its previous orders and has also not furnished the decapitalization value and year of assets/ works put to use of old assets/ works. As such, the decapitalized value of old assets have been worked out as Rs.12.89 lakh in paragraph 130 of this order and has been adjusted under 'Assumed Deletions'. Considering the fact that these assets/ works are claimed as replacement of the assets/works which are within the original scope of work of the project and is after the cut-off date, the additional capital expenditure of Rs.20.00 lakh is **allowed** under Regulation 25(2)(a) of the 2019 Tariff Regulations.

117. In view of the above, the total projected additional capital expenditure of Rs.282.74 lakh is allowed in 2021-22. It is noticed that the balance limit available for additional capitalization of assets/ works within the original scope of work of the project after allowing the additional capital expenditure of Rs.282.74 lakh as above, is only Rs.570.19 lakh. As such the additional capital expenditure claimed by the Petitioner towards discharge of liabilities in 2021-22 has been restricted to the balance limit available for assets/ works within the original scope of work of the project i.e. Rs.570.19 lakh. Accordingly, the balance limit available in respect of assets/ works within the original scope of work of the project is as under:

(Rs. in lakh)

Balance limit available for assets/works within the original scope of work of the project as on 1.4.2021 **(a)**	852.93
Expenditure allowed for assets/works within the original scope of work of the project **(b)**	282.74
Discharge of liabilities for assets/works within the original scope of work of the project **(c)** **(*restricted to balance limit available after allowing works within original scope of the work for the period 2021-22 i.e Rs.639.79 lakh)***	570.19
Total expenditure allowed for expenditure for assets/works within the original scope of work of the project in 2021-22 **(d) = (d)+(b)+(c)**	852.93
Balance limit available for assets/works within the original scope of work of the project as on 31.3.2022 (e)=(a)-(d)	**0.00**

2022-23

118. The projected additional capital expenditure claimed by the Petitioner is as under:

(Rs. in lakh)

	Amount
Items claimed under Regulation 25(1)(a) **(a)**	75.00
Items claimed under Regulation 25(2)(a) **(b)**	60.00
Items claimed under Regulation 26(1)(d) **(c)**	90.00
Sub-total (d)=(a)+(b)+(c)	225
Discharge of liabilities **(e)**	60.90
Total (d) +(e)	**285.90**

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

119. The Petitioner has claimed additional capital expenditure of Rs.75.00 lakh in 2022-23 in respect of assets/ works under the heads such as, Environment and Ecology and Construction equipment. It is observed that the Petitioner has claimed the additional capital expenditure in respect of assets/ works within the original scope of work of the project that are spillover of the expenditure in respect of assets/works which were allowed for the period 2014-19 vide corrigendum order dated 19.4.2017 in Petition No. 252/GT/2014. It is, however, noticed that the balance limit available for capitalization of assets/ works within the original scope of work of the project is 'nil' as the same has been exhausted as on 31.3.2022. In view of this, the additional capital expenditure of Rs.75.00 lakh claimed by the Petitioner is **not allowed.**

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

120. The Petitioner has claimed total additional capital expenditure of Rs.60.00 lakh, towards replacement of assets/ works i.e. purchase of three (3) numbers of Drainage and Dewatering pumps. It is, however, noticed that the balance limit available for capitalization of assets/works which are within the original scope of work of the project is 'nil' as the same has been exhausted during 2021-22. Accordingly, the additional capital expenditure of Rs.60.00 lakh claimed by the Petitioner is **not allowed**.

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

121. The Petitioner has claimed additional capital expenditure of Rs.90.00 lakh, in 2019-20 in respect of assets/ works such as permanent construction work of Security barrack at power house MAT, construction of cable trench for electrifying all permanent buildings in central store of the generating station, concrete cladding at MAT/PH, supply and application of anti-skid epoxy flooring at different floor of power house at the generating station towards higher security and safety of the plant. We notice that the said 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. Also, the additional capital expenditure claimed for assets/ works such as construction of cable trench for electrifying all permanent buildings in central store, concrete cladding at MAT/PH, supply and application of anti-skid epoxy flooring at different floor of powerhouse, do not relate directly for higher safety and security of the plant. Accordingly, the additional capital expenditure for said assets is **not allowed**. Except the above, the additional capital expenditure claimed for other assets/ works such as permanent construction work of security barrack at power house MAT are considered

necessary for the safety of the plant and, accordingly, the additional capital expenditure of Rs.10.00 lakh (out of total Rs.90.00 lakh) for these assets/ works has been **allowed**. The Petitioner is, however, directed to furnish relevant documentary proof, in terms of the regulation under which the said claims are made, at the time of truing up of tariff. Accordingly, the total additional capital expenditure of only Rs.10.00 lakh, has been allowed in 2022-23.

2023-24

122. The projected additional capital expenditure claimed by the Petitioner are as under:

(Rs. in lakh)

	Amount
Items claimed under Regulation 25(1)(a) **(a)**	30.00
Items claimed under Regulation 25(2)(a) **(b)**	0.00
Items claimed under Regulation 26(1)(d) **(c)**	115.00
Sub-total (d)=(a)+(b)+(c)	**145.00**
Discharge of liabilities **(e)**	0.00
Total (d) +(e)	**145.00**

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

123. The Petitioner has claimed additional capital expenditure of Rs.30.00 lakh in 2023-24 for assets/ works namely, Environment and ecology. It is observed that the Petitioner has claimed the additional capital expenditure in respect of assets/ works within the original scope of work of the project and are spillover of the expenditure in respect of assets/ works which were allowed for the period 2014-19 vide corrigendum order dated 19.4.2017 in Petition No. 252/GT/2014. It is, however, noticed that the balance limit available capitalization of assets/ works within the original scope of work of the project is 'nil' as the same has been exhausted as on 31.3.2022. In view of this, the additional capital expenditure of Rs.75.00 lakh claimed by the Petitioner is not allowed.

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

124. The Petitioner has claimed additional capital expenditure of Rs.115.00 lakh,

in respect of assets/ works such as providing and fixing wooden paneling in security barrack & field hostel in central store of the generating station, construction of RCC Morcha at main gate, powerhouse, surge shaft, Switch yard Adit-III, Adit-II and barrage of the generating station, construction of wire crate wall for toe protection at river side of children park, installation of high mast. 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. Also, the additional capital expenditure claimed for assets/ works such as providing and fixing wooden paneling in security barrack & field hostel in Central store and construction of wire crate wall for toe protection at river side of children park Permanent construction work of Security barrack at Powerhouse MAT do not relate directly to higher safety & security of plant and, therefore, the additional capital expenditure claimed for same are **not allowed**. Except for the above, the additional capital expenditure claimed for assets/ works such as construction of RCC Morcha at main gate, powerhouse, surge shaft, switchyard, Adit-III, Adit-II and barrage of generating station, installation of high mast, is considered necessary for safety of the plant and therefore, the claim for Rs.60.00 lakh (out of Rs.115.00 lakh) for these assets/works is **allowed**. The Petitioner is, however, directed to furnish relevant document in terms of the regulation under which the said claims are made, at the time of truing of tariff. In view of the above, the total additional capital expenditure of Rs.60.00 lakh in 2022-23 has only been allowed. Accordingly, the details of the expenditure allowed for assets/ works within the original scope of work of the project and discharge of liabilities are summarized as under:

(Rs. in lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24	Total
Expenditure allowed for Assets/ works under original scope of the project **(a)**	138.43	372.02	282.74	0.00	0.00	793.19
Discharge of liabilities considered for assets/ works under original scope **(b)**	221.36	211.89	570.19	0.00	0.00	1003.04
Total (c)=(a)+(b)	359.79	583.91	852.93	0.00	0.00	1796.63

125. In view of above, the total additional capital expenditure of Rs.1796.63 lakh is allowed in respect of assets/ works within the original scope of work of the project and discharge of liabilities. This amount is restricted as per the ceiling limit of Rs.1796.63 lakh available for additional capital expenditure in respect of assets/ works within the original scope of work. Further, the total additional capital expenditure allowed after considering the assets/ works allowed other than the original scope of work of project is as under:

(Rs. in lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24	Total
Additional capital expenditure allowed within the original scope of work of project **(a)**	359.79	583.91	852.93	0.00	0.00	1796.63
Additional capital expenditure allowed other than the original scope of work of project **(b)**	251.70	35.00	0.00	10.00	60.00	356.70
Total Additional capital Expenditure allowed (c)=(a)+(b)	**611.49**	**618.91**	**852.93**	**10.00**	**60.00**	**2153.33**

Decapitalization

126. The Petitioner has claimed de-capitalization (Form 9Bi) for assets/ works such as, personal computer (desktop), online ups system 1 kVA, UPS 1 kVA offline, printer, laptop, xerox multifunction printer/copier etc., which are summarized as under:

(Rs. in lakh)

2019-20	2020-21	2021-22	2022-23	2023-24
8.43	22.65	0.00	0.00	0.00

127. 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.."*

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

(Rs. in lakh)

2019-20	2020-21	2021-22	2022-23	2023-24
8.43	22.65	0.00	0.00	0.00

Assumed Deletions

129. 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.

130. It is observed that the Petitioner has claimed the asset/work such as submersible pumps of various capacities on replacement basis. However, the

Petitioner in this petition has not provided the de-capitalization value of the old asset/works which have been replaced. Accordingly, based on above methodology, the assumed deletion considered for these assets/works is as under:

(Rs. in lakh)

2019-20	2020-21	2021-22	2022-23	2023-24
0.00	6.77	12.89	0.00	0.00

Capital Cost allowed for the 2019-24 tariff period

131. The closing capital cost of Rs.92491.81 lakh as on 31.3.2019 has been allowed, while truing up the tariff of the generating station for the 2014-19 tariff period in this order. This has been considered as the opening capital cost as on 1.4.2019. 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	92491.81	93094.87	93684.36	94524.40	94534.40
Addition during the year / period	138.43	372.02	282.74	0.00	0.00
Additional capital expenditure allowed other than the original scope of work of project	251.70	35.00	0.00	10.00	60.00
Decapitalization	8.43	22.65	0.00	0.00	0.00
Assumed deletions	0.00	6.77	12.89	0.00	0.00
Discharges	221.36	211.89	570.19	0.00	0.00
Closing Capital cost	93094.87	93684.36	94524.40	94534.40	94594.40
Average capital cost	92793.34	93389.62	94104.38	94529.40	94564.40

Debt-Equity Ratio

132. 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."*

133. The Petitioner has submitted that the funding of additional capital expenditure has been made through internal resources and others. In terms of the above regulations, the debt equity ratio of 70:30 has been considered on the admitted additional capital expenditure, after adjustment of un-discharged liability for the purpose of tariff. Accordingly, debt-equity is worked out as under:

Asset	**As on 1.4.2019**		**Net Additional Capitalization during 2019-24 period**		**As on 31.3.2024**	
	Amount *(Rs. in lakh)*	**%**	**Amount *(Rs. in lakh)***	**%**	**Amount *(Rs. in lakh)***	**%**
Debt	64744.26	70.00%	1471.81	70.00%	66216.08	70.00%
Equity	27747.54	30.00%	630.78	30.00%	28378.32	30.00%
Total	**92491.81**	**100.00%**	2102.59	**100.00%**	**94594.40**	**100.00%**

Return on Equity

134. Regulation 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 FY 2019-20 is Rs. 1,000 crore;

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

(c) Effective Tax Rate for the year 2019-20 = Rs. 240 Crore/Rs. 1000 Crore = 24%;
(d) Rate of return on equity = 15.50/ (1-0.24) = 20.395%.

(3) The generating company or the transmission licensee, as the case may be, shall true up the grossed up rate of return on equity at the end of every financial year based on actual tax paid together with any additional tax demand including interest thereon, duly adjusted for any refund of tax including interest received from the income tax authorities pertaining to the tariff period 2019-24 on actual gross income

of any financial year. However, penalty, if any, arising on account of delay in deposit or short deposit of tax amount shall not be claimed by the generating company or the transmission licensee, as the case may be. Any under-recovery or over-recovery of grossed up rate on return on equity after truing up, shall be recovered or refunded to beneficiaries or the long-term customers, as the case may be, on year to year basis."

135. For grossing up of ROE during the 2019-24 tariff period, the Petitioner has applied the MAT rate of 17.472% for 2019-20 and the same is allowed. This is, however, subject to revision, if any, at the time of truing up of tariff. 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)**	27747.54	27852.95	28019.30	28271.31	28271.31
Addition due to additional capitalization **(B)**	105.41	166.35	252.01	0.00	0.00
Closing Notional **Equity (C) = (A + B)**	**27852.95**	**28019.30**	**28271.31**	**28271.31**	**28271.31**
Average Equity **(D) = [(A+C)/2]**	27800.25	27936.13	28145.31	28271.31	28271.31
Return on Equity (Base Rate) **(E)**	15.500%	15.500%	15.500%	15.500%	15.500%
Tax rate for the year **(F)**	17.472%	17.472%	17.472%	17.472%	17.472%
Rate of Return on Equity **(G)**	18.782%	18.782%	18.782%	18.782%	18.782%
Return on Equity (H) = (D x G)	**5221.44**	**5246.96**	**5286.25**	**5309.92**	**5309.92**

136. In respect of the additional capitalization after the cut-off date and beyond the original scope of work, excluding the additional capitalization due to change in law, ROE shall be computed at the weighted average rate of interest on loan portfolio of the generating station. Accordingly, ROE has been worked out and allowed as under:

(Rs. in lakh)

	2019-20	**2020-21**	**2021-22**	**2022-23**	**2023-24**
Opening Notional equity **(A)**	0.00	75.51	86.01	86.01	89.01
Addition due to additional capitalization (after cut of date) **(B)**	75.51	10.50	0.00	3.00	18.00
Repayment of equity (balance of depreciation after repayment of loan) **(C)**	0.00	0.00	0.00	0.00	0.00
Closing Equity **(D) = (A +B – C)**	75.51	86.01	86.01	89.01	107.01
Average Equity **(E) = [(A+D)/2]**	37.76	80.76	86.01	87.51	98.01
Weighted average rate of interest on actual loan portfolio **(F)**	3.630%	3.612%	3.602%	3.625%	3.533%
Return on Equity (G) = (E x F)	1.37	2.92	3.10	3.17	3.46

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 tariff period 2019-24 shall be deemed to be equal to the depreciation allowed for the corresponding year/period. In case of de- capitalization of assets, the repayment shall be adjusted by taking into account cumulative repayment on a pro rata basis and the adjustment should not exceed cumulative depreciation recovered 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. Necessary calculations for interest on loan are as under:

(a) The gross normative loan amounting to Rs.64744.26 lakh has been considered as on 1.4.2019.

(b) Cumulative repayment amounting to Rs.28196.55 lakh as on 31.3.2019 as considered by the Commission in this order, 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)**	64744.26	65166.41	65579.05	66167.08	66174.08
Cumulative repayment of loan up to previous year **(B)**	28196.55	32847.96	37522.04	42235.48	46976.51
Net Loan Opening (**C)=[(A)-(B)]**	36547.72	32318.45	28057.01	23931.60	19197.57
Repayment during the year **(D)**	4653.96	4683.86	4719.71	4741.03	4742.78
Cumulative repayment adjustment on a/c of de-capitalization **(E)**	2.54	9.78	6.27	0.00	0.00
Net Repayment **(F)=[(D)-(E)]**	4651.41	4674.08	4713.44	4741.03	4742.78
Addition due to additional capital expenditure **(G)**	424.69	422.43	594.30	7.00	42.00
Net Loan Closing **(H)= [(C+G-F)]**	**32318.45**	**28057.01**	**23931.60**	**19197.57**	**14496.79**
Average Loan **(I)=[(C+H)/2]**	34433.08	30187.73	25994.30	21564.58	16847.18
Weighted Average Rate of Interest of loan **(J)**	3.630%	3.612%	3.602%	3.625%	3.533%
Interest on Loan (K)=(I*J)	**1249.96**	**1090.33**	**936.29**	**781.78**	**595.27**

<u>Depreciation</u>

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. The cumulative depreciation amounting to Rs.28196.55 lakh as on 31.3.2019 as allowed while truing up the tariff for the 2014-19 period, in this order, has been considered for the purpose of tariff. In terms of the 2014 Tariff Regulations, the useful life of the hydro generating station is 35 years. The expired life of the generating station till 31.3.2019 is 6.16 years and the balance useful life of the generating station, as on 31.3.2019, is 28.84 years. However, the 2019 Tariff Regulations specify the useful life of the hydro generating station as 40 years. Accordingly, the balance useful life of the generating station as on 1.4.2019

has been considered at 33.84 years in line with the 2019 Tariff Regulations. Depreciation has been calculated by applying the weighted average rate of depreciation (WAROD), calculated in terms of the Regulation 33 of the 2019 Tariff Regulations. The calculation of WAROD is enclosed as Annexure-II to this order. Accordingly, depreciation has been worked out and allowed as under:

(Rs. in lakh)

	2019-20	**2020-21**	**2021-22**	**2022-23**	**2023-24**
Opening Gross block (A)	92491.81	93094.87	93684.36	94524.40	94534.40
Net Additional capital expenditure during 2019-24 (B)	603.06	589.49	840.04	10.00	60.00
Closing gross block (C)=(A+B)	93094.87	93684.36	94524.40	94534.40	94594.40
Average gross block (D)=[(A+C)/2]	92793.34	93389.62	94104.38	94529.40	94564.40
Depreciable Value (E)=(D*90%)	83514.01	84050.65	84693.94	85076.46	85107.96
Remaining Depreciable Value at the beginning of the year (F)=[(E)-(Cum Dep at 'L' at the end of previous year)]	55317.46	51202.69	47171.90	42840.98	38131.45
Rate of Depreciation (G)	5.015%	5.015%	5.015%	5.015%	5.015%
Balance useful Life (H)	33.84	32.84	31.84	30.84	29.84
Depreciation (I)=(D*G)	**4653.96**	**4683.86**	**4719.71**	**4741.03**	**4742.78**
Cumulative Depreciation at the end of the year (J)=[(I)+ (Cum Dep at 'L' at the end of previous year)]	32850.51	37531.82	42241.75	46976.51	51719.29
Less: Depreciation adjustment on account of de-capitalization (K)	2.54	9.78	6.27	0.00	0.00
Cumulative Depreciation at the end of the year (L)*	32847.96	37522.04	42235.48	46976.51	51719.29

**The cumulative depreciation at the end of 2018-19 is Rs. 28196.55 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*
Chutak	3536.67	3705.25	3881.86	4066.89	4260.74

***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	3536.67	3705.25	3881.86	4066.89	4260.74
Impact of wage revision	398.22	417.21	437.11	457.96	479.81
Impact of GST	113.11	118.50	124.16	130.08	136.28
Estimated security expenses (claimed separately)	386.58	405.02	424.34	444.58	465.78
Total O&M expenses claimed	**4434.58**	**4645.98**	**4867.47**	**5099.51**	**5342.61**

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 the 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	398.22	417.21	437.11	457.96	479.81
Impact of GST	113.11	118.50	124.16	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. 223/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 is based on the impact of wage/ pay revision for 2018-19, which is yet to be determined by the Commission in Petition No. 223/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.

Goods & Service Tax

147. As regards the claim for additional O&M expenses towards impact of GST, based on the impact of GST for 2018-19, it is noticed that the actual figures of GST incurred during the 2019-24 tariff period are not available and the claim is based on

auditor certified actual GST of Rs.107.96 lakh for 2018-19 which has been escalated @ 4.77% annually. Taking into account the claim of the Petitioner and considering the actual audited figures for 2018-19, we find it reasonable to allow Rs.107.96 lakh per year as the impact of GST for the 2019-24 tariff period. The Petitioner is, however, directed to furnish the actual impact of GST incurred, duly audited, at the time of truing up of the tariff. Accordingly, the projected impact of GST allowed for the 2019-24 tariff period is as under:

(Rs. in lakh)

2019-20	**2020-21**	**2021-22**	**2022-23**	**2023-24**
107.96	107.96	107.96	107.96	107.96

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 the period 2019-24 based on security requirement of the generating station is as under:

(Rs. in lakh)

2019-20	**2020-21**	**2021-22**	**2022-23**	**2023-24**
386.58	405.02	424.34	444.58	465.78

150. The Petitioner has claimed actual security expenses of Rs.368.98 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 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	3536.67	3705.25	3881.86	4066.89	4260.74
Security Expenses	386.58	405.02	424.34	444.58	465.78
Total O&M expenses including Security expenses	3923.25	4110.27	4306.20	4511.47	4726.52
Additional O&M expenses					
Impact of GST	107.96	107.96	107.96	107.96	107.96

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"

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

"34(3) Rate of interest on working capital shall be on normative basis and shall be considered as the bank rate as on 1.4.2014 or as on 1st April of the year during the tariff period 2019-24 in which the generating station or a unit thereof or the transmission system including communication system or element thereof, as the case may be, is declared under commercial operation, whichever is later."

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

Maintenance Spares in working capital

155. Maintenance spares has been worked out on the basis of 15% of O&M expenses and allowed as under:

(Rs.in lakh)

2019-20	2020-21	2021-22	2022-23	2023-24
588.49	616.54	645.93	676.72	708.98

Receivables in working capital

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

(Rs. in lakh)

2019-20	2020-21	2021-22	2022-23	2023-24
1892.00	1905.61	1918.17	1930.76	1929.88

O&M Expenses for (1 month) in working capital

157. O&M expenses including security expenses for one month for the purpose of working capital is allowed as under:

(Rs. in lakh)

2019-20	2020-21	2021-22	2022-23	2023-24
326.94	342.52	358.85	375.96	393.88

Interest on working capital

158. In accordance with Regulation 34(3) of the 2019 Tariff Regulations, the rate of interest on working capital considered 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 determined in 2021-22, the 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 of the same, as on 1.4.2019 (8.55%). Since the rate of interest on working capital is subject to truing-up, based on the bank rate as on 1st April of each financial year, we 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
O & M expenses	326.94	342.52	358.85	375.96	393.88
Maintenance Spares	588.49	616.54	645.93	676.72	708.98
Receivables	1892.00	1905.61	1918.17	1930.76	1929.88
Total Working Capital	**2807.43**	**2864.67**	**2922.95**	**2983.44**	**3032.74**
Rate of Interest	12.05%	11.25%	10.50%	10.50%	10.50%
Total Interest on Working capital	**338.29**	**322.28**	**306.91**	**313.26**	**318.44**

Annual Fixed Charges

159. Based on the above, the annual fixed charges approved for the 2019-24 tariff period in respect of the generating station are summarized as under:

(Rs. in lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	4653.96	4683.86	4719.71	4741.03	4742.78
Interest on Loan	1249.96	1090.33	936.29	781.78	595.27
Return on Equity	5222.81	5249.88	5289.35	5313.09	5313.38
Interest on Working Capital	338.29	322.28	306.91	313.26	318.44
O&M Expenses	3923.25	4110.27	4306.20	4511.47	4726.52
Total	**15388.28**	**15456.62**	**15558.46**	**15660.63**	**15696.39**

Auxiliary Power Consumption

160. Regulation 50(c) of 2019 Tarff Regulations provides as under:

"50. Norms of Operation for Hydro Generating Stations: The norms of operation as given hereunder shall apply to hydro generating station:

(c) Auxiliary Energy Consumption (AEC):

Type of Station	*AEC*	
	Installed Capacity above 200 MW	*Installed Capacity up to 200 MW*
Surface		
Rotating Excitation	*0.7%*	*0.7%*
Static	*1.0%*	*1.2%*
Underground		
Rotating Excitation	*0.9%*	*0.9%*
Static	*1.2%*	*1.3%*

161. As regards Auxiliary consumption of the generating station, the Petitioner has submitted that the actual auxiliary consumption of the generating station during the previous five years are 5.1%, 6.4%, 5.9%, 5.5% and 5.8% respectively and has prayed that the Commission may allow the normative auxiliary consumption up to 5.75% (i.e. average of actual auxiliary consumption during the 2014-19 tariff period) for the 2019-24 tariff period, considering the location of the plant & extreme weather conditions by relaxing the provisions of Regulation 50(C) of the 2019 Tariff Regulations.

162. It is to mention that the Commission vide order dated 29.3.2017 in Petition No. 252/GT/2014 had allowed the auxiliary consumption of up to 5%, based on the average actual auxiliary consumption for the period 2013-16, as against the claim of the Petitioner for 6%. Since the Commission has already considered auxiliary consumption of up to 5% for the generating station for the 2014-19 tariff period, we find no reason to relax the same at this juncture. In view of this, auxiliary consumption of 5% is allowed for the 2019-24 tariff period. It is, however, observed that there is variation in the Petitioner’s claim for actual auxiliary consumption for the period 2014-17, in this petition as against the details furnished by the Petitioner, while framing the 2019 Tariff Regulations. The reason for such variation shall be clarified by the Petitioner at the time of truing up of tariff.

Normative Annual Plant Availability Factor (NAPAF)

163. Clause (4) of Regulation 50(A) of the 2019 Tariff Regulations provides for the NAPAF of hydro generating stations already in operation. Accordingly, NAPAF of 48% has been considered for this generating station in terms of the said regulation.

Design Energy

164. The Commission in its order dated 23.1.2015 in Petition No.3/GT/2013 had

approved the annual Design Energy (DE) of 212.93 Million units (MUs) for the 2009-14 tariff period for the generating station. The same has been claimed by the Petitioner for the 2019-24 tariff period. Accordingly, the same has been considered for this generating station based on the month-wise details as under:

Month		**Design Energy (MU)**
April	I	3.29
	II	3.30
	III	3.92
May	I	5.07
	II	6.64
	III	9.67
June	I	10.03
	II	10.03
	III	10.03
July	I	10.03
	II	10.03
	III	11.04
August	I	10.03
	II	9.93
	III	11.04
September	I	10.03
	II	9.15
	III	7.75
October	I	6.17
	II	4.50
	III	4.40
November	I	4.38
	II	3.96
	III	3.78
December	I	2.86
	II	2.76
	III	3.02
January	I	2.75
	II	2.75
	III	3.02
February	I	2.75
	II	2.75
	III	2.20
March	I	2.97
	II	3.19
	III	3.69
Total		**212.93**

<u>Application Fee and Publication Expenses</u>

165. The Petitioner has sought the reimbursement of filing fee and also the

expenses incurred towards publication of notices for application of tariff for the period 2019-24. The Petitioner has, submitted that reimbursement towards filing fees and publication expenses are in accordance in terms of the Regulation 70(1) of the 2019 Tariff Regulations. In view of the above, the Petitioner shall be entitled for reimbursement of the filing fees and publication expenses in connection with the present petition, directly from the beneficiaries, on pro-rata basis, in accordance with Regulation 70(1) of the 2019 Tariff Regulations.

Summary

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

(Rs. in lakh)

	2019-20	**2020-21**	**2021-22**	**2022-23**	**2023-24**
Annual fixed charges claimed	15589.49	15721.30	15907.02	16067.00	16128.77
Annual fixed charges allowed	15388.28	15456.62	15558.46	15660.63	15696.39

167. Annexure-I and Annexure-II given hereinafter form part of the order.

168. Petition No.283/GT/2020 is disposed of in terms of the above.

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

Annexure-I

Depreciation for the 2014-19 tariff period

Sl. No.	Name of the Assets[1]	Depreciation Rates as per CERC's Depreciation Rate Schedule (%)	2014-15		2015-16		2016-17		2017-18		2018-19	
			Gross Block	Depreciation Amount	Gross Block	Depreciation Amount	Gross Block	Depreciation Amount	Gross Block	Depreciation Amount	Gross Block	Depreciation Amount
1	Land – Freehold	0		0.00		0.00		0.00		0.00		0.00
2	Land – Leasehold	3.34%	46487614.00	1552686.00	46665942.00	1558642.00	46665942.00	1558642.00	46665942.00	1558642.00	46665942.00	1558642.00
3	Land– Right to Use	3.34%	9423210.00	314735.00	9423210.00	314735.00	9423210.00	314735.00	9423210.00	314735.00	9423210.00	314735.00
4	Roads and Bridges	3.34%	42858855.00	1431486.00	55731494.00	1861432.00	59695373.00	1993825.00	61005250.00	2037575.00	69535578.00	2322488.00
5	Buildings Others	3.34%	84041140.00	2806974.00	98030114.00	3274206.00	106741968.00	3565182.00	110051414.00	3675717.00	121366233.00	4053632.00
6	Building containing GPM	3.34%	1034679988.00	34558312.00	1046504829.00	34953261.00	1050522678.00	35087457.00	1055600238.00	35257048.00	1059165139.00	35376116.00
7	Railway sidings	5.28%	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	Hydraulic Works(Dams, Water Conductor system, Hydro mechanical gates, tunnels)	5.28%	4569144205.00	241250814.00	4605578099.00	243174524.00	4611444460.00	243484267.00	4611444460.00	243484267.00	4625581463.00	244230701.00
9	Generating Plant and machinery	5.28%	2787549910.00	147182635.00	2808694656.00	148299078.00	2867768135.00	151418158.00	2908530095.00	153570389.00	2921525551.00	154256549.00
10	Plant and machinery Sub station	5.28%	1471101.00	77674.00	1471101.00	77674.00	1471101.00	77674.00	1471101.00	77674.00	1471101.00	77674.00
11	Plant and machinery Transmission lines	5.28%	7755643.00	409498.00	9255643.00	488698.00	9255643.00	488698.00	9255643.00	488698.00	9556060.00	504560.00
12	Plant and machinery Others	5.28%	5949118.00	314113.00	5949118.00	314113.00	5949118.00	314113.00	5949118.00	314113.00	5949118.00	314113.00
13	Construction Equipment	5.28%	21580490.00	1139450.00	21751949.00	1148503.00	23903927.00	1262127.00	23903927.00	1262127.00	24077994.00	1271318.00
14	Water Supply System/Drainage and Sewerage	5.28%	941660.00	49720.00	1235663.00	65243.00	1235663.00	65243.00	5487604.00	289745.00	6036104.00	318706.00
15	Electrical installations	5.28%	15750.00	832.00	15750.00	832.00	15750.00	832.00	15750.00	832.00	15750.00	832.00
16	Vehicles	9.50%	1332213.00	126560.00	6039164.00	573721.00	10083202.00	957904.00	10071592.00	956801.00	10071592.00	956801.00
17	Aircraft/ Boats	9.50%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	Furniture and fixture	6.33%	7344788.00	464925.00	7448405.00	471484.00	8762925.00	554693.00	9596705.00	607471.00	9927189.00	628391.00
19	Computers	15.00%	5453970.00	818096.00	5441444.00	816217.00	5490802.00	823620.00	6056884.00	908533.00	6049478.00	907422.00
20	Communication Equipment	6.33%	6457925.00	408787.00	11980473.00	758364.00	11980473.00	758364.00	12417073.00	786001.00	12286958.00	777764.00
21	Office Equipments	6.33%	6388726.00	404406.00	16842215.00	1066112.00	17498975.00	1107685.00	18828279.00	1191830.00	18354704.00	1161853.00
22	Research and Development		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	Computer Software	15.00%	149404.00	22411.00	149404.00	22411.00	149404.00	22411.00	149404.00	22411.00	52504.00	7876.00
24	Other assets	6.33%	4302114.00	272324.00	6725030.00	425694.00	12359632.00	782365.00	13582863.00	859795.00	14594511.00	923833.00
25	Capital Expenditure on assets Not Owned by NHPC	6.33%	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00
26	Tangible Assets of minor value >750 and < Rs.5000	5.28%	918017.00	48471.00	1008560.00	53252.00	1219694.00	64400.00	1395646.00	73690.00	1149380.00	60687.00
27	Obsolete / surplus assets	0.00%	0.00	0.00		0.00		0.00		0.00		0.00
	TOTAL		**8644245841**	**433654909**	**8765942263**	**439718196**	**8861638075**	**444702395**	**8920902198**	**447738094**	**8972855559**	**450024693**
Weighted Average Depreciation Rate (%)				**5.017%**		**5.016%**		**5.018%**		**5.019%**		**5.015%**

Annexure-II

Depreciation for the 2019-24 tariff period

WAROD for 2019-20 has been applied for each year in the 2019-24 tariff period.

Sl. No.	Name of the Assets[1]	Depreciation Rates as per CERC's Depreciation Rate Schedule (%)	2019-20	
			Gross Block	Depreciation Amount
1	Land – Freehold	0		0.00
2	Land – Leasehold	3.34%	46665942.00	1558642.00
3	Land– Right to Use	3.34%	9423210.00	314735.00
4	Roads and Bridges	3.34%	69535578.00	2322488.00
5	Buildings Others	3.34%	121366233.00	4053632.00
6	Building containing GPM	3.34%	1059165139.00	35376116.00
7	Railway sidings	5.28%	0.00	0.00
8	Hydraulic Works(Dams, Water Conductor system, Hydro mechanical gates, tunnels)	5.28%	4625581463.00	244230701.00
9	Generating Plant and machinery	5.28%	2921525551.00	154256549.00
10	Plant and machinery Sub station	5.28%	1471101.00	77674.00
11	Plant and machinery Transmission lines	5.28%	9556060.00	504560.00
12	Plant and machinery Others	5.28%	5949118.00	314113.00
13	Construction Equipment	5.28%	24077994.00	1271318.00
14	Water Supply System/Drainage and Sewerage	5.28%	6036104.00	318706.00
15	Electrical installations	5.28%	15750.00	832.00
16	Vehicles	9.50%	10071592.00	956801.00
17	Aircraft/ Boats	9.50%	0.00	0.00
18	Furniture and fixture	6.33%	9927189.00	628391.00
19	Computers	15.00%	6049478.00	907422.00
20	Communication Equipment	6.33%	12286958.00	777764.00
21	Office Equipments	6.33%	18354704.00	1161853.00
22	Research and Development		0.00	0.00
23	Computer Software	15.00%	52504.00	7876.00
24	Other assets	6.33%	14594511.00	923833.00
25	Capital Expenditure on assets Not Owned by NHPC	6.33%	0.00	0.00
26	Tangible Assets of minor value >750 and < Rs.5000	5.28%	1149380.00	60687.00
27	Obsolete / surplus assets	0.00%		0.00
	TOTAL		**8972855559**	**450024693**
	Weighted Average Depreciation Rate (%)			**5.015%**