

Sl. No.	Head of Work/ Equipment	Claimed	Regulation	Justification and reasons of admissibility	Allowed
				<p>due to non-maintenance of the required temperature, the module fails frequently and resulting in the outage of the unit for long time. So, it is required to make the closed cabinet as well as provide air condition environment to all electronic module panels so that their life may be extended and provide reliable operation for better performance of the plant and safety reason.</p> <p>Since the claim of the Petitioner is of in the nature of O&M nature expenses, the additional capital expenditure claimed is not allowed.</p>	
8	Concreting & stone spreading of 33KV switchyard including cable trench	30.00	25(2)(c)	<p>The Petitioner has submitted that the existing stones are not adequate for the safety purpose of operation against touch potential and growth of frequent vegetations. So, the treatment of switchyard with concreting and proper stone spreading is required including construction of proper cable trench.</p> <p>Since the claim of the Petitioner is in the nature of O&M expenses, the additional capital expenditure claimed is not allowed.</p>	0.00
9	New 24 Volt Battery Bank with Charger for Control System Supply	15.00	25(2)(c)	<p>The Petitioner has submitted that the additional expenditure is as a backup of DC/DC converter system. Outage of DC/DC converter cards had led to outage of the unit for almost one month in the year 2017-18. So, it was decided to have dedicated DC power supply source for the control system.</p> <p>The Petitioner has claimed the expenditure for replacement of asset on account of</p>	15.00



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				obsolescence of technology/ upgradation. In view of this, the additional capital expenditure claimed is allowed under Regulation 25(2)(c) of the 2019 Tariff Regulations, on replacement basis. It is noticed that the Petitioner has not considered the de-capitalisation of old asset against which the expenditure is claimed. Accordingly, the amount of Rs.6.54 lakh has been considered for the old, replaced asset under 'Assumed Deletions' in paragraph 24 of this order. The Petitioner is, however, is directed to submit management certificate with regard to certification for obsolescence of old asset at the time of truing up.	
10	Procurement of One 14 Ton Hydra Crane	19.50	25(2)(c)	The Petitioner has submitted that as the existing Hydra is nearly 35 years old and no spare parts available for repairing of the same, one new Hydra Crane is required for maintenance activities of the plant. The Petitioner has claimed the expenditure for replacement of asset on account of obsolescence of technology/ upgradation. In view of this, the additional capital expenditure claimed is allowed under Regulation 25(2)(c) of the 2019 Tariff Regulations, on replacement basis. It is noticed that the Petitioner has not considered the de-capitalisation of old asset against which the expenditure is claimed. Accordingly, the amount of Rs.8.51 lakh has been considered for the old, replaced asset under 'Assumed	19.50



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				Deletions' in paragraph 24 of this order. The Petitioner is, however, directed to submit management certificate with regard to certification for obsolescence of old asset at the time of truing up.	
11	New UPS for emergency AC supply	10.00	25(2)(c)	The Petitioner has submitted that emergency dedicated AC power supply is required in case of grid supply failure to run all equipment excluding those which are running from UAT for smooth operation of the plant. Since the claim of the Petitioner is in the nature of O&M expenses, the additional capital expenditure claimed is not allowed .	0.00
12	Treatment of Underwater parts with Coating/Tiling	25.00	25(2)(b)	The Petitioner has submitted that the operations have to be carried out regularly in acid affected underwater parts which are embedded in concrete and can't be replaced. In order to replace these parts, the complete excavation of concrete is not possible and thus in situ treatment is most necessary to protect the underwater parts from further erosion and to extend its life span and to avoid complete outage of the unit. Since the claim of the Petitioner is in the nature of O&M expenses, the additional capital expenditure claimed is not allowed .	0.00
14	Up-gradation of dewatering & Drainage System	25.00	25(2)(b)	The Petitioner has submitted that due to acidic corrosion, unforeseen leakages appear now and then and the additional expenditure is required to ensure safety of the power house. Presently, two nos. dewatering & drainage pumps	25.00



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				<p>are available which are not sufficient to evacuate leakage water in case of emergency. So, to provide safety of the plant for avoiding flooding, the upgradation is required.</p> <p>Based on submissions, the additional capital expenditure claimed is allowed under Regulation 25(2)(c) of the 2019 Tariff Regulations on replacement basis. It is noticed that the Petitioner has not considered the de-capitalisation of old asset against which the expenditure is claimed. Accordingly, the amount of Rs.10.91 lakh has been considered for the old, replaced asset under 'Assumed Deletions' in paragraph 24 of this order. The Petitioner is, however, directed to submit management certificate with regard to certification for obsolescence of old asset at the time of truing up.</p>	
15	Replacement of Generator Circuit Breaker and Station Supply Transformer Circuit Breaker, related bay equipment like CT, isolators, hardware, conductors, Las, insulators etc.	50.00	25(2)(b)	<p>The Petitioner has submitted that the existing circuit breakers are pneumatic type and thus facing problems of spares as they were installed during commissioning of the plant. So, the spring operated SF6 CBs are required to replace the same for better & reliable operation. Again, due to upgradation of Khandong for increasing loading capacity as per NERPC/RLDC requirement, the existing bay equipment like CT, conductor, isolators, hardware may be required to be replaced.</p> <p>Based on submissions, the additional capital expenditure claimed is allowed under</p>	50.00



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				Regulation 25(2)(c) of the 2019 Tariff Regulations on replacement basis. It is noticed that the Petitioner has not considered the de-capitalisation of old asset against which the expenditure is claimed. Accordingly, the amount of Rs.21.81 lakh has been considered for the old, replaced asset under 'Assumed Deletions' in paragraph 24 of this order. The Petitioner is, however, directed to submit management certificate with regard to certification for obsolescence of old asset and clarification.	
16	Replacement of Neutral CT and Lightning Arrestor of Generator Transformer	10.00	25(2)(b)	<p>The Petitioner has submitted that the EOT was manufactured by WMI and the OEM has already conducted the detailed survey & testing of the crane and suggested for replacement of its components so that the service life can be extended as well as reliability of the EOT for handling the Turbine-Generator components can be increased.</p> <p>Based on submissions, the additional capital expenditure claimed is allowed under Regulation 25(2)(c) of the 2019 Tariff Regulations on replacement basis. It is noticed that the Petitioner has not considered the de-capitalisation of old asset against which the expenditure is claimed. Accordingly, the amount of Rs.4.36 lakh has been considered for the old, replaced asset under 'Assumed Deletions' in paragraph 24 of this order. The Petitioner is, however, is directed to submit</p>	10.00



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				management certificate with regard to certification for obsolescence of old asset at the time of truing up.	
17	Replacement of 100/25 T capacity EOT crane aux hoist rope & other accessories	20.00	25(2)(b)	<p>The Petitioner has submitted that the EOT was manufactured by WMI and the OEM already conducted detailed survey & testing of the crane and suggested for replacement of its components so that service life as well as reliability of the EOT can be extended.</p> <p>Based on submissions, the additional capital expenditure claimed is allowed under Regulation 25(2)(c) of the 2019 Tariff Regulations on replacement basis. It is noticed that the Petitioner has not considered de-capitalisation of old asset against which the expenditure is claimed. Accordingly, the amount of Rs.8.73 lakh has been considered for the old, replaced asset under 'Assumed Deletions' in paragraph 24 of this order. The Petitioner is, however, directed to submit management certificate of competent authority with regard to certification for obsolescence of old asset at the time of truing up.</p>	20.00
20	Procurement of LED luminaries	5.00	25(2)(b)	<p>The Petitioner has submitted that as per directives of different Government agencies, the energy efficient illumination is required to be used for saving energy consumption. So, the present conventional type illumination has to be replaced with high energy efficient LED illumination which will reduce the Auxiliary energy consumption and will also be</p>	0.00



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				financially beneficial. Since the claim of the Petitioner is in the nature of O&M nature expenses, the additional capital expenditure claimed is not allowed .	
	Total Amount Claimed	753.00			
	Total Amount Allowed				309.50

15. Accordingly, the total projected additional capital expenditure of Rs.309.50 lakh is allowed in 2020-21.

2021-22

(Rs. in lakh)

Sl. No.	Head of Work/ Equipment	Claimed	Regulation	Justification and Reasons of admissibility	Allowed
1	Replacement of All static Relays with Numerical Relays and laying of OFC for Line Differential Protection	100.00	25(1)(a)	The Petitioner has submitted that as per IEGC and CEA/CERC guidelines, all protection relays should be of numerical type and line differential protection should be used for short lines for better protection. The Petitioner has claimed the expenditure for replacement of asset for compliance to IEGC and the CEA/CERC guidelines. In view of this, the additional capital expenditure claimed is allowed under Regulation 25(1)(a) of the 2019 Tariff Regulations. It is noticed that the Petitioner has not considered the de-capitalization of old asset against which the expenditure is claimed. Accordingly, the amount of Rs.41.55 lakh has been considered for the old, replaced asset under 'Assumed Deletions' in paragraph 24 of this order.	100.00



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				The Petitioner is, however, directed to submit management certificate with regard to certification for obsolescence of old asset at the time of truing up.	
2	Up-gradation of SCADA/ HMI system with modern Technology including automation and AGC as per CERC guidelines and NLDC requirement	100.00	25(2)(c)	<p>The Petitioner has submitted that presently only online vibration monitor is available in the plant which was installed since commissioning of the plant. In order to provide continuous running of the equipment for better operation and extend the life by avoiding forced outage with proper preventive maintenance, regular monitoring of Generators and Transformers is required.</p> <p>The Petitioner has claimed the expenditure for replacement of asset on account of obsolescence of technology/ upgradation. In view of this, the additional capital expenditure claimed is allowed under Regulation 25(2)(c) of the 2019 Tariff Regulations on replacement basis. It is noticed that Petitioner has not considered the de-capitalization of old asset against which the expenditure is claimed. Accordingly, the amount of Rs.41.55 lakh has been considered for the old, replaced asset under 'Assumed Deletions' in paragraph 24 of this order. The Petitioner is, however, directed to submit management certificate with regard to certification for obsolescence of old asset at</p>	100.00



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				the time of truing up.	
3	Condition Monitoring of Transformers and Generators	100.00	25(2)(b)	<p>The Petitioner has submitted that presently only online vibration monitor is available in the plant which was installed since commissioning of the plant. To provide continuous condition monitoring of the equipment for better operation and to extend the life of equipment by avoiding forced outage, the condition monitoring of Generators and Transformers is required.</p> <p>The Petitioner has claimed the expenditure for replacement of asset on account of obsolescence of technology/upgradation. In view of this, the additional capital expenditure claimed is allowed under Regulation 25(2)(c) of the 2019 Tariff Regulations on replacement basis. It is noticed that Petitioner has not considered the de-capitalization of old asset against which the expenditure is claimed. Accordingly, the amount of Rs.41.55 lakh has been considered for the old, replaced asset under 'Assumed Deletions' in paragraph 24 of this order. The Petitioner is, however, directed to submit management certificate with regard to certification for obsolescence of old asset at the time of truing up.</p>	100.00
4	Pro-control System upgradation including	1000.00	25(2)(c)	<p>The Petitioner has submitted that the present Pro-control technology of M/s BHEL is outdated and not</p>	1000.00



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	governor & DVR			<p>communicable with latest protocol like IEC 60870-5-101,104. Again, new AGC regulation also came for 25MW hydro units. Keeping all the latest requirements, the upgradation of complete plant & SCADA is must so that it can be run remotely & smoothly with better event & disturbance loggers to identify & troubleshoot the problems in case of emergency. These features will provide user-friendly, reliable operation as well as all information to RLDC for smooth operation of national grid.</p> <p>The Petitioner has claimed the expenditure for replacement of asset on account of obsolescence of technology/upgradation. In view of this, the additional capital expenditure claimed is allowed under Regulation 25(2)(c) of the 2019 Tariff Regulations on replacement basis. It is noticed that Petitioner has not considered the de-capitalization of old asset against which the expenditure is claimed. Accordingly, the amount of Rs. 415.52 lakh has been considered for the old, replaced asset under 'Assumed Deletions' in paragraph 24 of this order. The Petitioner is, however, directed to submit management certificate with regard to certification for obsolescence of old asset. at the time of truing up.</p>	
5	Procurement of	350.00	25(2)(d)	The Petitioner has submitted	120.00



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	Turbine Shaft with New SS material			<p>that Rs.120.00 lakh was allowed in the year 2017-18 by the Commission in order dated 22.2.2016 in 45/GT/2015. However, the same couldn't be completed due to ongoing analysis for up-rating of Khandong. The Shaft has a history of repeated failures due to acidic corrosion and is being repaired locally. A new shaft of acid proof material will eliminate the problem permanently.</p> <p>Considering the fact that the additional capitalization is on account of replacement of the asset which had been allowed by the Commission earlier and has spilled over, the expenditure claimed is allowed under Regulation 25(2)(d) of the 2019 Tariff Regulations by restricting the same to Rs.120.00 lakh as allowed earlier. The Petitioner is, however, directed to submit management certificate at the time of truing up.</p>	
6	High Mast Tower at Kopili stage-II P.S.	50.00	26(1)(d)	<p>The Petitioner has submitted that the asset installation is important in order to provide improved illumination in the generating station, Switchyard and surrounding areas for the Plant operation as well as for security reasons. Presently the conventional Halogen and LED illumination is available which are not sufficient for night working condition. Since the claim of the Petitioner is in the nature of O&M expenses, the additional capital expenditure claimed is not</p>	0.00



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				allowed.	
	Total Amount Claimed	1700.00			
	Total Amount Allowed				1420.00

16. Accordingly, the total projected additional capital expenditure of Rs.1420.00 lakh is allowed in 2021-22.

2022-23

(Rs. in lakh)

Sl. No.	Head of Work/ Equipment	Claimed	Regulation	Justification and Reasons of admissibility	Allowed
1	Renovation of 100/25 T capacity EOT crane with modern Technology	50.00	25(2)(c)	The Petitioner has submitted that The EOT was manufactured by WMI and the OEM already conducted detailed survey & testing of the crane and suggested for renovation / replacement of its components so that it can extend the service life as well as reliability of the EOT for handling the Turbine-Generator components efficiently. The Petitioner has claimed the expenditure for replacement of asset on account of obsolescence of technology/ upgradation. In view of this, the additional capital expenditure claimed is allowed under Regulation 25(2)(c) of the 2019 Tariff Regulations on replacement basis. It is noticed that the Petitioner has not considered the de-capitalization of old asset against which the expenditure is claimed. Accordingly, the amount of Rs.19.79 lakh has been considered for the old replaced asset under 'Assumed Deletions' in paragraph 24 of this order. The	50.00



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				Petitioner is, however, directed to submit management certificate with regard to certification for obsolescence of old asset at the time of truing up.	
	Total Amount Claimed	350.00			
	Total Amount Allowed				50.00

17. Accordingly, the total projected additional capital expenditure of Rs.50.00 lakh is allowed in 2022-23.

2023-24

(Rs. in lakh)

Sl. No.	Head of Work / Equipment	Claimed	Regulation	Justification and reasons of admissibility	Allowed
1	Replacement/ Up gradation of 220 V battery Charger	20.00	25(2)(c)	<p>The Petitioner has submitted that the existing 220 V charger was installed during commissioning of the plant. Due to ageing, it's some components/ modules have become outdated and thus the manufacturer is not able to provide them as and when required. So, it is required to be upgraded / replaced for better safety of the plant as without the DC source, the plant protection system can't run.</p> <p>The Petitioner has claimed the expenditure for replacement of asset on account of obsolescence of technology/ upgradation. In view of this, the additional capital expenditure claimed is allowed under Regulation 25(2)(c) of the 2019 Tariff Regulations on replacement basis. It is noticed that the Petitioner has not considered</p>	20.00



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				the de-capitalization of old asset against which the expenditure is claimed. Accordingly, the amount of Rs.7.54 lakh has been considered for the old, replaced asset under 'Assumed Deletions' in paragraph 24 of this order. The Petitioner is, however, directed to submit management certificate with regard to certification for obsolescence of old asset at the time of truing up.	
2	Procurement of generator transformer	200.00	25(2)(b)	The Petitioner has submitted that the existing GT has been taken from Khandong power station. So, there is a chance of failure of the same as it is already aged. So, a new GT is required to replace as & when required. Since the claim of the Petitioner is in the nature of spares, which is not permissible after the cut-off date of the generating station, the additional capital expenditure claimed is not allowed .	0.00
3	New HS lubricating Oil system & brake-jack system	15.00	25(2)(c)	The Petitioner has submitted that the existing HS lubrication system & brake jack system has become old and requires more times than desirable to make ready the unit. So, to minimize the outage time, the systems should be replaced which will provide reliability and safety of the T-G unit. The Petitioner has claimed the expenditure for replacement of asset on account of obsolescence of technology/upgradation. In	15.00



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				view of this, the additional capital expenditure claimed is allowed under Regulation 25(2)(c) of the 2019 Tariff Regulations which is on replacement basis. It is noticed that Petitioner has not considered the de-capitalization of old asset against which the expenditure is claimed. Accordingly, the amount of Rs.5.65 lakh has been considered for the old, replaced asset under 'Assumed Deletions' in paragraph 24 of this order. The Petitioner is, however, is directed to submit management certificate with regard to certification for obsolescence of old asset at the time of truing up.	
	Total Amount Claimed	235.00			
	Total Amount Allowed				35.00

18. Accordingly, the total projected additional capital expenditure of Rs.35.00 lakh is allowed in 2023-24.

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

	<i>(Rs. in lakh)</i>				
	2019-20	2020-21	2021-22	2022-23	2023-24
Additional capital expenditure allowed within the original scope of work of project (a)	28.50	289.50	1420.00	50.00	35.00
Additional capital expenditure allowed other than the original scope of work of project (b)	0.00	20.00	0.00	0.00	0.00
Total Additional capital Expenditure allowed (c)=[(a)+(b)]	28.50	309.50	1420.00	50.00	35.00

