

allowed the closing capital cost of Rs. 25700.10 lakh as on 31.3.2014. The same has been considered as the opening capital cost as on 1.4.2014, in accordance with Regulation 9(3) of the 2014 Tariff Regulations.

Additional Capital Expenditure

12. Regulation 14 of the 2014 Tariff Regulations, provides as under:

“14. Additional Capitalization and De-capitalization:

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

(i) Un-discharged liabilities recognized to be payable at a future date;

(ii) Works deferred for execution;

(iii) Procurement of initial capital spares within the original scope of work, in accordance with the provisions of Regulation 13;

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

(v) Change in law or compliance of any existing law:

Provided that the details of works asset wise/work wise included in the original scope of work along with estimates of expenditure, liabilities recognized to be payable at a future date and the works deferred for execution shall be submitted along with the application for determination of tariff.”

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

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

(iv) 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.

(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 no/t 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 obsolescence 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:

Provided further that any capital expenditure other than that of the nature specified above in (i) to (iv) in case of coal/lignite-based station shall be met out of compensation allowance:

Provided also that if any expenditure has been claimed under Renovation and Modernization (R&M), repairs and maintenance under (O&M) expenses and Compensation Allowance, same expenditure cannot be claimed under this regulation.”

13. The details of the additional capital expenditure allowed in order dated 20.07.2017 in Petition No. 348/GT/2014 is summarized below:



(Rs. in lakh)

Unit	Head of Works/ Equipment	Additional Capital Expenditure allowed	De-capitalization allowed	Depreciation Recovered on de-capitalised Assets	Net Additional Capital Expenditure allowed
2014-15					
Unit III	Electrical package				
	Upgradation of Switchyard package	40.00	5.63	5.05	34.38
	Upgradation of Electrical Protection system	50.00	1.58	1.42	48.42
Unit III	Boiler and auxiliary package				
	Replacement of water wall panel (front and rear) of Unit-III	757.59	23.78	21.40	733.81
Unit III & IV	Common Services	3000.00	0.00	0.00	3000.00
	Sub-Total	3847.59	30.99	27.87	3816.60
2015-16					
Unit III	Turbine and Auxiliaries package				
	Refurbishment of Boiler Feed Pumps-job includes: - a) Procurement of BFP Complete Rotor assembly to replace existing age old one for reliable performance b) Procurement of Gear Box to replace the age-old Gear box having high back lash, resulting enormous noise & vibration c) Lube Oil Cooler of Boiler Feed Pump to replace age old coolers (more than 15-20% plugging) d) Procurement of lube oil Pumps to replace age old pumps of inadequate discharge & for reliable performance.	662.25	106.00	95.00	556.25
Unit IV	Turbine and Auxiliaries package				
	Replacement of 27th and 31st stage diaphragms by new one based on RLA Study Report carried out by BHEL in 2007-08 and also through re-inspection of the diaphragms during AOH of the Unit in 2012.	452.60	13.18	11.86	439.42
	Replacement of HPT 1st stage Blades by new one based on RLA Study Report carried out by BHEL in 2007-08.	99.20	2.86	2.58	96.34
	Replacement of Peak Seals for HPT & IPT Diaphragms by new one based on RLA Study Report carried out by BHEL in 2007-08.	14.40	0.39	0.35	14.01
Unit III	Electrical Package				
	Upgrading of switchyard	20.00	0.79	0.71	19.21



Unit	Head of Works/ Equipment	Additional Capital Expenditure allowed	De-capitalization allowed	Depreciation Recovered on de-capitalised Assets	Net Additional Capital Expenditure allowed
	package				
	Upgradation & Augmentation of Electrical Auxiliary System of Unit- 3	40.00	4.75	4.27	35.25
	Upgradation of Electrical Protection system	190.00	6.39	5.74	183.61
Unit IV	Electrical Package				
	Upgradation of Switchyard package				
	Replacement of 132 kV & 220 kV CT's of DTPS Switchyard	50.00	15.71	14.14	34.29
	Replacement of 198 kV LA's for 220 kV Switch yard and 120 kV LA for 132 kV System.	3.00	1.00	0.90	2.00
	Replacement of existing age old 12 Nos. 220 kV & 3 Nos. 132 kV MOCB with SF6 Breakers	190.0	42.00	37.80	148.00
Unit III	Boiler and auxiliary package				
	Water wall intermediate header (inside goose neck chamber) of Boiler, U-3	38.00	1.19	1.07	36.81
Unit IV	Boiler and auxiliary package				
	Replacement of Platen water wall coil during COH of Boiler U-4	86.38	2.71	2.44	83.67
	Hangers & Supports for critical piping of Boiler U-4, DTPS.	63.00	1.98	1.78	61.02
	ID fan Shaft impeller with conical cover plate type: NDZV-31B one set for Boiler U -4.	148.00	119.18	41.71	28.82
	Sub-Total	2056.83	318.14	220.36	1738.69
2016-17					
Unit III	Electrical Package				
	Upgrading of switchyard package	980.00	103.27	92.86	876.73
Unit IV	Electrical Package				
	Upgradation of Switchyard package	70.00	15.91	14.32	54.09
	Upgradation of Auxiliary Switchgear package	65.00	12.80	11.52	52.20
	Sub-Total	1115.00	131.98	118.70	983.02
2017-18					
Unit IV	Electrical Package				
	Upgradation of Switchyard package:				
	Replacement of 132 kV & 220 CT's of DTPS Switchyard	20.00	6.29	5.66	13.71
	Replacement of 220 kV & 132 Isolators in phase wise manner	40.00	9.09	8.18	30.91
	Replacement of Old ATRs	600.00	93.91	84.52	506.09
	Upgradation of auxiliary switchgear package	50.00	12.00	10.80	38.00
	Sub-total	710.00	121.29	109.16	588.71



Unit	Head of Works/ Equipment	Additional Capital Expenditure allowed	De-capitalization allowed	Depreciation Recovered on de-capitalised Assets	Net Additional Capital Expenditure allowed
2018-19					
Unit III	Electrical Package				
	Upgradation of Switchyard package	300.00	11.87	10.60	288.14
	Sub- total	300.00	11.87	10.60	288.14
	Total Approval	8029.42	614.26	486.68	7415.16

14. The Petitioner, in Form-9A of the petition, has claimed the actual additional capital expenditure incurred for the period 2014-19 as under:

<i>(Rs. in lakh)</i>							
	Regulation	2014-15	2015-16	2016-17	2017-18	2018-19	Total
Buildings							
Balance Payment for of the Concreting/ Gravelling work	14 (3) (vii), 54 & 55	1.20	-	-	-	-	1.20
Power House Building (Main Plant & Building in Equipment Tree)		-	-	-	-	19.83	19.83
Sub-Total		1.20	-	-	-	19.83	21.03
Power House Plant & Machinery							
Boiler & Accessories Equipment DTPS							
Installation of Deflector Plate & Vane wheel assembly for XRP - 763 Bowl Mill	14 (3) (vii), 54 & 55	42.98	-	-	-	-	42.98
Different works performed as part of capital overhauling of the boiler and auxiliaries		263.72	-	-	-	-	263.72
Replacement of riser panel (both front and rear sides) of DTPS Unit-3 Boiler		376.46	-	-	-	-	376.46
Replacement of existing boiler drum level indication system of DTPS Unit-4		-	20.15	-	-	-	20.15
Procurement of spare Reheater bends (outlet and Inlet)		-	0.84	-	-	-	0.84
Replacement of old Lub Oil Pump with motor for DTPS Unit-4		-	-	-	2.44	-	2.44
Turbo Generator & Accessories							
Capital overhauling of the turbine and auxiliaries	14 (3) (vii), 54 & 55	217.05	25.14	-	-	-	242.19
Replacement of the existing Turning Gear Oil Pump (TGOP) of DTPS Unit #3		79.93	-	-	-	-	79.93
Complete set of hydraulic jack and Heavy Duty Square Drive double hex Industrial Socket		1.37	-	-	-	-	1.37
Replacement of old cartridge (rotor assembly) of the BFP of DTPS Unit #3		583.79	-	-	-	-	583.79



	Regulation	2014-15	2015-16	2016-17	2017-18	2018-19	Total
Replacement of the old Oil Catcher assembly for High Speed Shaft for Gear Box of Boiler Feed Pump of DTPS Unit-3		2.88	-	-	-	-	2.88
Replacement of the existing steam jet air ejector of DTPS Unit #3		20.54	-	-	-	-	20.54
Hydrogen Cooling System of DTPS Unit-4		-	0.66	44.43	-	-	45.09
Accessory Elec. Equip. DTPS							
Erection & commissioning of 415V Unit Auxiliary Board	14 (3) (vii), 54 & 55	26.70	-	-	-	-	26.70
Installation of 415 V MCC D(1) for Turbine Auxiliaries of Unit#3		1.54	-	-	-	-	1.54
Replacement of the existing trouble prone isolators of 132KV Switch Yard of DTPS Unit #3		15.40	5.00	-	-	-	20.40
Replacement of old and trouble-prone LT Motors of DTPS Unit-4		3.78	11.34	-	3.78	-	18.90
Replacement of the existing PRECICON-R Controller for ESP Rectifier of DTPS Unit-4		2.33	-	-	-	-	2.33
Replacement of the existing old and trouble-prone Main Seal Oil Pump Motor of DTPS Unit#3		19.18	-	-	-	-	19.18
Replacement of existing old and trouble-prone LT Motors of DTPS Unit-3		8.28	-	-	-	-	8.28
Dismantling of the existing old Disconnections of DTPS Unit-4 and retro fitment of new Disconnections along with arrangements for local and remote operation, indication and interlocks.		5.56	5.64	-	-	-	11.20
Replacement of the non-smart type level transmitters for DTPS Unit-4 HP Heater		0.30	-	-	-	-	0.30
Replacement of the damaged control cable of heat zone area of DTPS Unit#3		14.44	-	-	-	-	14.44
Replacement of the age old Lightning Arrestor of 33KV switch yard of DTPS Unit-3		0.14	-	-	-	-	0.14
Procurement of Diagnostic Insulation Tester for facilitation of condition monitoring activities		12.97	-	-	-	-	12.97
Replacement of the age old Lightning Arrestor of 33KV switch yard (30 KV Heavy Duty Station Class Zinc Oxide Gapless Lighting Arresters) of DTPS Unit-4		-	0.14	-	-	-	0.14
Replacement of the age-old trouble prone motor of PA Fan Lub Oil Pump of DTPS Unit-4 Boiler		-	0.28	-	-	-	0.28
Replacement of the age-old trouble prone voltage transducers	-	0.19	-	-	-	0.19	



	Regulation	2014-15	2015-16	2016-17	2017-18	2018-19	Total
and frequency transducers of DTPS Unit-4							
Expenditure is for replacement of age-old Surge arrestors of deteriorated electrical properties		-	0.96	7.34	0.72	-	9.02
Procurement of special type of IP Converters for DTPS Unit-4		-	-	1.42	-	-	1.42
Installation of 25 KV Vacuum Circuit Breaker for the new Railway Transformer bay.		-	-	4.16	-	-	4.16
Procurement of Single Phase Variac / Dimmer stat to ensure facilitation of testing of different switchgear items which includes motors, transformers, excitation system etc.		-	-	0.37	-	-	0.37
Procurement of Digital Multimeter for measurement of voltage, current, resistance for 24X7 maintenance of C&I system.		-	-	0.06	-	-	0.06
Replacement of age old MOCB breakers with SF6 breaker		-	-	-	69.30	27.72	97.02
Procurement of different testing instruments required for facilitation of testing of different switchgear items which includes motors, transformers, excitation system etc.		-	-	-	0.96	-	0.96
Replacement of age-old 132 KV and 220 KV CT-s having deteriorating electrical properties		-	-	-	-	26.15	26.15
Procurement of aluminum pipe for maintenance works.		-	-	-	-	0.30	0.30
Transformer DTPS							
Deputation charge of Service Engineer for supervision of commissioning of the new Railway Transformer (RT#3)	14 (3) (vii), 54 & 55	0.98	-	-	-	-	0.98
Replacement of the existing two numbers of age-old 150 MVA ATRs with new ones (160 MVA)		589.51	7.39	16.87	5.94	-	619.70
Replacement of existing old and trouble-prone cooling fans of power transformer of DTPS Unit-4		3.28	-	-	-	-	3.28
Installation of Nitrogen Injection-based Fire Prevention System with all accessories for the newly installed 160 MVA Auto Transformers		-	945.99	-	-	-	945.99
Replacement of the damaged distribution transformer with new one		-	-	12.15	-	-	12.15
Procurement of Hydraulic Jack (100 Ton) with accessories for maintenance purpose		-	-	-	1.61	-	1.61
Ash Handling Equip. DTPS							

