

Part No.	Description	BOTH YEAR PH-1	BOTH YEAR PH-2
A	Pressure Parts	21852271	20386878
B	SA Fan / PA fan	804116	839122
C	ID Fan	408952	367312
D	Lube Oil Units & Scanner Air Fan	163748	222275
E	Blowers	1041494	758058
F	Bed Ash Conveying System	3216240	2865258
G	Lignite / Limestone Feeding System	3752935	4018999
H	E.S.P.	1440774	1586457
I	Duct/Damper/NMEJ/MEJ	7319204	4822272
J	Fuel Firing System.	568626	524606
K	Valves	923387	914153
L	Soot Blower	1313664	1302046
M	Fuel Oil Handling	151900	144268
N	Emergency Boiler Feed Pump	132992	121517
O	Hoist	57783	21860
P	External Cleanings	205458	279014
Q	Vortex Finder	1151295	1151295
R	Unforeseen (ANNEXURE B3)	1000000	1000000
	SUB TOTAL PHASE WISE	45504839	41325390
	GRAND TOTAL	86830229	

ANNEXURE -A

PRICE SCHEDULE BMC 2021-23 TENDER ID 449263

Unit rates are excluding GST

PHASE # 1			Part : A		PRESSURE PARTS				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
			Scaffolding Erection						
10	A	1	Erection of scaffolding and platform inside combustor, from grate to roof of the combustor I.e height upto 32 mtr. Size of combustor is 7.5 meter X 12.5 meter and 32 meter height (one entire combustor considered as one no.). Layher all round scaffolding materials to be provided by GIPCL. Combustor grate is 6.5 meter elevation from ground level.	Erection of M/s. Layher make (Ring & wedge type) scaffolding and platform inside combustor from combustor nozzle Grate level to roof of the combustor I.e upto 32 mtr. (Scaffolding shall be given by GIPCL). GA drawing of Boiler is attached.	BD	No.	1	346757	346757
20	A	2	Erection of scaffolding and platform inside combustor from combustor grate to 15 meter elevation, at any one corner or any one wall of Combustor. Size of scaffolding is 6 meter x 6 meter upto 15 meter height. Scaffolding materials in the scope of contractor.	Shift scaffolding material to site. Erect scaffolding. Make proper platform along with hand railing at different elevation & proper climbing approach as ladder as per instruction of E-I-C. Finally dismantle and shift the scaffolding material to store after work completion.	BD	No.	16	35697	571152
30	A	3	Erection of scaffolding and platform inside combustor above 15 mtr elevation on the scaffolding erected as per S NO 1.2. (per meter height). Rate applicable is per meter height. Scaffolding materials in the scope of contractor.	Erect the scaffolding above 15.5mtr elevation as per instruction of E-I-C, on the already erected scaffolding as per S No 1.2 Make the platform at different elevation along with hand railing at different elevation as per instruction of E-I-C.	BD	Per Mtr.	1	2596	2596

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40	A	4	Erection of scaffolding and platform inside combustor from combustor grate to 15 meter elevation, at any one corner or any one wall of Combustor. Size of scaffolding is 6 meter x 6 meter upto 15 meter height. Scaffolding materials in the scope of GIPCL. Scaffolding material will be issued subject to availability of the material and decision of E-I-C.	Shift scaffolding material to site. Erect scaffolding. Make proper platform along with hand railing at different elevation & proper climbing approach as ladder as per instruction of E-I-C. Finally dismantle and shift the scaffolding material to store after work completion.	BD	No.	2	17846	35692
50	A	5	Erection of scaffolding and platform inside combustor above 15 mtr elevation on the scaffolding erected as per S NO 1.3. (per meter height). Rate applicable is per meter height. Scaffolding materials in the scope of GIPCL. Scaffolding material will be issued subject to availability of the material and decision of E-I-C.	Erect the scaffolding above 15.5mtr elevation as per instruction of E-I-C, on the already erected scaffolding as per S No 1.2 Make the platform at different elevation along with hand railing at different elevation as per instruction of E-I-C.	BD	Per Mtr.	2	1298	2596
60	A	6	Erection of scaffolding in combustor windbox. Size of scaffolding - 12mx7mx2m.(One entire windbox considered as one no.). Scaffolding materials in the scope of contractor.	Shift scaffolding material from store to site. Erect scaffolding. Make proper platform at different elevation.as per instruction of EIC. Finally dismantle and shift the scaffolding material to store after work completion.	BD	No.	10	11106	111060

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70	A	7	Erection of scaffolding in FBHE Bundle chamber/Empty chamber/Seal pot / for Miscellaneous work Size of scaffolding - 2mx2mx3m .Scaffolding materials in the scope of contractor.	Shift scaffolding material from store to site. Erect scaffolding. Make proper platform at diiferent elevations as per instruction of EIC. Scaffolding erected may be require to adjust for refractory works as per instruction of EIC. Finally dismantle and shift the scaffolding material to store after work completion.	BD	No.	35	793	27755
80	A	8	Erection of scaffolding in economiser hopper Size of scaffolding - 2mx2mx3m. Scaffolding materials in the scope of contractor.	Shift necessary scaffolding material. Make proper scaffolding & platform as per instruction of EIC. Remove the scaffolding.	BD	No.	1	793	793
90	A	9	Erection of scaffloding for seal pot to cyclone roof. Size of scaffolding - around 10.5 mtr. elevation to cyclone roof at around 40 mtr elevation. Cyclone diameter at bottom is approx. 2 M and at top is approx. 8.8 M. Scaffolding materials in the scope of contractor. Make proper platform at different elevation.	Erection of scaffloding for seal pot to cyclone roof. Size of scaffolding - around 10.5 mtr. elevation to cyclone roof at around 40 mtr elevation. Cyclone diameter at bottom is approx. 2 M and at top is approx. 8.8 M. Scaffolding materials in the scope of contractor. Make proper platform at different elevation.	BD	No.	1	73434	73434
100	A	10	Erection of scaffolding for Miscellaneous work at outside area. Upto 6 meter height. Size - length 3mx breadth 6m, height 6 m is considered as one no of scaffolding erection.Scaffolding materials in the scope of contractor.	Erect the scaffolding outside the boiler up to 6 meter height as per instruction of E-I-C. Make proper approach and platform as per instruction of E-IC.Dismantle the scaffolding & shift material to store.	BD	No.	220	6620	1456400

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110	A	11	Erection of scaffolding for Miscellaneous work. above 6 meter height on the scaffolding erected as per S. No. 1.8. (per mtr. height). Rate applicable is per meter height. Scaffolding materials in the scope of contractor.	Erect the scaffolding outside the boiler above 6 meter height as per instruction of E-I-C on the already erected scaffolding as per S. No. 1.8. Make proper approach and platform as per instruction of EIC. Dismantle the scaffolding & shift material to store.	BD	Per Meter	15	1103	16545
120	A	12	Erection of scaffolding for Miscellaneous work at outside area. Upto 6 meter height. Size - length 3mx breadth 6m, height 6 m is considered as one no of scaffolding erection.Scaffolding materials in the scope of GIPCL. Scaffolding material will be issued subject to availability of the material and decision of E-I-C.	Erect the scaffolding outside the boiler up to 6 meter height as per instruction of E-I-C. Make proper approach and platform as per instruction of E-IC.Dismantle the scaffolding & shift material to store.	BD	No.	20	3310	66200
130	A	13	Erection of scaffolding for Miscellaneous work. above 6 meter height on the scaffolding erected as per S. No. 1.9. (per mtr. height). Rate applicable is per meter height. Scaffolding materials in the scope of contractor.Scaffolding materials in the scope of GIPCL. Scaffolding material will be issued subject to availability of the material and decision of E-I-C.	Erect the scaffolding outside the boiler above 6 meter height as per instruction of E-I-C on the already erected scaffolding as per S. No. 1.8. Make proper approach and platform as per instruction of EIC. Dismantle the scaffolding & shift material to store.	BD	Per Meter	5	552	2760

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140	A	14	Erection of cantilever type scaffolding at different locations. Size of scaffolding is 3meter X 5 meter cantilever length X 6 meter height. Scaffolding materials in the scope of contractor.	Shift the scafflodng material to location. The scafflodng will be cantiliver type.Height of the scafflodng 6 mtr up/down.(approx) The said scafflodng needs to extended @ 5 mtr from the opening.Dismantle the scaffolding & shift material to store.	BD	No.	2	51197	102394
150	A	15	Erection of scaffolding and platform inside combustor for SUBs Repairing/Replacement. Size: 3 meter length X 3 meer width X 4 meter height. Scaffolding materials in the scope of contractor.	Shift scaffolding material to site. Erect scaffolding. Make proper platform as per instruction of E-I-C for SUBs repairing/Replacement work. Finally dismantle and shift the scaffolding material to store after work completion.	BD	No	8	2380	19040
160	A	16	Erection of scaffolding and platform inside combustor for SUBs Repairing/Replacement. Size: 3 meter length X 3 meer width X 4 meter height. Scaffolding materials in the scope of GIPCL. Scaffolding material will be issued subject to availability of the material and decision of E-I-C.	Shift scaffolding material to site. Erect scaffolding. Make proper platform as per instruction of E-I-C for SUBs repairing/Replacement work. Finally dismantle and shift the scaffolding material to store after work completion.	BD	No	1	1190	1190
170	A	17	Erection of scaffolding at Slant Portoin of Seal Pot from inside of Combuster. Size: 5 meter length X 1 meter widthX 6 meter height. Scaffolding materials in the scope of contractor.	Shift scaffolding material to site. Erect scaffolding. Make proper platform as per instruction of E-I-C for for refractory application work Finally dismantle and shift the scaffolding material to store after work completion.	BD	No	20	1983	39660
	A		Boiler Tube Repairs					0	

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180	A	18	Attending tube leakages upto first 10 joints in one frequency (irrespective of total no. of joints) in Combuster waterwall/Steam cooled walls/FBHE Water walls /Economiser/ Evaporator coil/ Hanger tubes/ Loose tubes / Spray water piping by weld joints OR tube metal build up OR existing weld joint repair etc...Note : Material is carbon steel & low alloy steel i.e. upto (SA 209 T1) grade. Any other tube leakage observed during Hydrotest to be attended by weld joints OR tube metal build up OR existing weld joint repair is also included in first 10 joints. Getting Permission from Directors of Boilers during Pressure parts breakdown for Conducting of internal hydrotest.	Inspect and identify the exact location of tube leakage. Lift / lower / pull the coils if required for tube repair. Make necessary cutting of duct/steam cooled wall/water wall for pulling out coils. Clean the tubes for thickness measurement as per instructions of EIC. Cut the tubes by grinding m/cs, hacksaw m/cs. Edge prepare the joint. Prepare the spool piece of required size. Fit up the joint with clearance from Engineer I/C. Root weld with TIG and subsequent by MMAW. Carry out boiler hydrotest. Repair the defect observed in radiography / hydrotest. Any other tube leakage observed in hydro test is also included in first 10 joints. Normalise all earlier cutting as per instruction of E-I-C. Flush grind joints from hot side. Make necessary liaisoning with state Boiler inspecting authority. Minimum 1 IBR approved welder, 01 pressure part fitter, 01 grinders, 01 gas cutter and 02 helpers required during boiler tube leakages upto 10 nos. HP weld joints. If, nos. of weld joints are more than 10 nos. and GIPCL E-I-C intimate to mobilize additional gang consists of 1 IBR approved welder, 01 pressure part fitter, 01 grinders, 01 gas cutter and 02 helpers, contractor shall mobilize additional gang separately within 24 Hrs. If additional gang is not mobilized after intimation from GIPCL, only 60% payment of this clause shall be paid.	BD	One unit	27	76488	2065176
190	A	19	Welding of each additional joint beyond 10 joints including build ups mentioned in para 2.1	--- do ---	BD	No.	4000	1606	6424000

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200	A	20	Attending tube leakages upto first 10 joints in one frequency (irrespective of total no. of joints) OR tube metal build up OR existing weld joint repair etc..in FBHE coils viz. RH-1,SH 2, in Back pass viz SH 1B, RH-2, SH-3 and its hanger tubes, loose tubes . Note : Material is SA 209 T11 and above grade. Argon purging / Nitrogen purging and Pre and Post heat treatment to be done for T-91 material and Alloy steel material.Getting Permission from Directors of Boilers during Pressure parts breakdown for Conducting of internal hydrotest.Any other tube leakage observed in hydro test is also included in first 10 joints.	Inspect and identify the exact location of tube leakage. Lift / lower / pull the coils if required for tube repair. Make necessary cutting of duct/steam cooled wall/water wall for pulling out coils. Clean the tubes for thickness measurement as per instructions of EIC. Cut the tubes by grinding m/cs, hacksaw m/cs. Edge prepare the joint. Prepare the spool piece of required size. Fit up of joint shall be checked by EIC. Root weld with TIG and subsequent by SMAW. stress relieved the welded joint if required. Carry out boiler hydrotest. Repair the defect observed in radiography / hydrotest. Any other tube leakage observed in hydro test is also included in first 10 joints. Normalise all earlier cutting as per instruction of E-I-C.Flush grind joints from hot side. lisioning with state Boiler inspecting authority. During boiler tube leakage: Minimum 1 IBR approved welder, 01 pressure part fitter, 01 grinders, 01 gas cutter and 02 helpers required upto 10 nos. HP weld joints. If, nos. of weld joints are more than 10 nos. and GIPCL E-I-C intimate to mobilize additional gange consists of 1 IBR approved welder, 01 pressure part fitter, 01 grinders, 01 gas cutter and 02 helpers, contractor shall mobilize additional gang seperately within 24 Hrs. If additional gang is not mobilized after intimation from GIPCL, only 60% payment of this clause shall be paid.	BD	One unit	2	76488	152976
210	A	21	Welding of each additional joint beyond 10 joints including build up as mentioned in para 2.2	do	BD	No.	200	1836	367200

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220	A	22	Welding of HP joint in steam/ water line upto 100 mm dia and upto a maximum thickness of 18 mm.(including joints for replacement of valves) Note : It includes pre and post weld HT wherever required.	Carry out welding of joint in supply tubes/Riser tubes/headers/connecting link etc.for attending any leakage/modification/inspection/replacement of pipes etc. works. This will includes removal/application of insulation along with sheeting. Preheat/post heat treatment as per the material specification & instructions of E-I/C. Assist hydro test.	BD	Per Joint	5	3606	18030
230	A	23	Welding of HP joint in steam/ water line from above 100 mm dia to 200 mm dia and upto a maximum thickness of 25 mm.(including joints for replacement of valves) Note : It includes pre and post weld HT wherever required.	do	BD	Per Joint	1	9015	9015
240	A	24	Build up of boiler tube. (build up of 25mm x 50mm = 1 build-up) For SA 209 T1 tubes.	Clean the eroded tube as per instructions of EIC (By grinding or buffing). Carry out thickness measurement. Build-up the eroded tube by TIG and / Or SMAW. Do DP test.Smoothen the surface by Flush grinding as instructions of EIC. Ensure that tube joint withstands in Hydro test.	BD	No.	3000	149	447000
250	A	25	Build up of boiler tube. (build up of 25mm x 50mm = 1 build-up) For T11,T22,T91 grade tubes	do	BD	No.	20	149	2980
260	A	26	FBHE Bundle chamber coil assy installation	Make suitable arrangement for coil assy lifting (that includes fabrication of structure and shifting of chain pulley block etc. Revival of dummy coil assy and placing the the new or repaired coil in position as instruction of E-I-C.(per Coil Assy). One coil assembly consists of 6 nos. tubes. Excluding weld joints.	BD	No.(per coil assembly)	4	41448	165792

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270	A	27	Radiography of welded joints. Tubes upto dia 58 mm , header stub up to 150 mm dia	Radiograph the welded joint after getting clearance from E-I-C. Develop the film in the dark room. Check for any welding defect. Dark room will be provided by GIPCL. Contractor has to bring the radiography source of sufficient capacity so that all the joints to be radiographed will be covered by the source. Contractor has to make necessary safety measures like area coridoring while taking the radiography.	BD	Per inch Length of Film	1000	96	96000
280	A	28	FBHE Bundle chamber coil assy removal and tubes plugging	Cutting and Removing the damage coil assy from position as instruction of E-I-C. One coil assembly consists of 6 nos. tubes. Plugging of tubes at inlet & outlet by High Pressure joint (IBR welding). Total of 12 nos. plugging in one coil assembly.	BD	Per Coil	15	31080	466200
290	A	29	Shielding of boiler tube in Backpass Material : SS . Length of shield up to 1.0 meter	Shift material from store to site. Clean the tube to be shielded. Remove damaged shield if any. Fix new one, clamp and weld. Clamp should be provided at every 250mm pitch	BD	Per shield	800	148	118400
300	A	30	Fins fit up, fins welding and flush grinding of welding from hot side and buttering of joints of two fins by welding from cold side.	Prepare the edge to the tubes where fin to be welded. Fin fit up between tubes. Weld by SMAW on Hot side & cold side i.e 2 sides at hot face and 2 side at cold face. Flush grind weld area from Hot side. buttering of joints of two fins by welding from cold side. Thickness of fins is 8 mm. Welding to be carried out by E 7018 welding electrode. For Annual Overhauling: In combustor, fins welding & flush grinding shall be completed within 32+4 Hrs. after completion of combustor water wall weld joints. If all fins welding with flush grinding not completed within 32+4 Hrs. only 90% of total fins welding payment shall be made by GIPCL to contractor.	BD	Per meter length of welding	16000	234	3744000

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310	A	31	Welding in windboxes of combustor / FBHE / Seal pot. Size - 300 mm welding length is considered as 1 No	Clean the place to be welded, Cut & edge prepare the material. Then weld by MMAW on both sides (Hot side & cold side). Carry out the LPI on the weld joint and ensure the leak proofness.	BD	No	300	278	83400
320	A	32	Opening and closing of Drum Manhole doors Both side Manhole door is considered as 1 No.	Ensure proper cooling. Open both manhole doors. Inspect drum internally. Replace the gaskets and close the man hole doors.	BD	No	4	1665	6660
330	A	33	Inspection and cleaning of drum internal	Ensure proper cooling. Open both manhole doors. Install exhaust fan at one end for forced cooling. Inspect all drum internals namely, cyclone separators, driers, pipings etc, Take necessary precaution to prevent foreign material falling inside drum/drum opening. Remove all drum internals (turboseprator assy. 60 nos. and screen type drier-30 nos.) Replace/repair damage bolts, nuts etc. Clean all internals and refix. Box up the manhole door. Above work is consoder as one no.	BD	NO.	4	14203	56812
340	A	34	Repair / replacement of cassette baffle in Backpass Material: SS	Shift material from store to site. Clean the coils. Remove the old cassette baffles with new ones. Clamp and weld. Repair the damaged ones if required and re-position the fallen ones.	BD	No.	50	630	31500
350	A	35	Replacement/Repair of cap of nozzle in Combustors,FBHE,Seal pot and Ash coolers.(SS material)	Remove the damage nozzle cap by grinding the welded portion. Weld new nozzle cap by welding a bolt plate on it. Do LPI. Rectify the defect found in LPI. Weld the nozzle cap damage portion if required	BD	No.	700	280	196000
360	A	36	Combustor guide pipe dummy.	Remove the damage nozzle cap by grinding the welded portion. Welding a bolt plate on it for dummy of guide pipe.	BD	NO	400	138	55200
370	A	37	Replacement/Repair of nozzle assembly (i.e guide pipe and cap with bolt) in Combustors,FBHE,Seal pot and Ash coolers.(SS material)	Remove the nozzle assly. from position by grinding or gauging. Edge prepare the surface.Assemble the guide pipe, cap and bolt. Put the new nozzle assly. Make alignment of nozzle. Carry out welding. Do LPI. Rectify the the defect found in LPI.	BD	No.	700	441	308700

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380	A	38	Impulse pipe repair / replacement up to 16 mm dia of SS material.	Remove the damaged portion by cutting. Replace new pipeline by TIG/SMAW welding as per E-I-C. Check for any leakage by charging. Repair the joint if required.	BD	Per Mtr.	1	699	699
390	A	39	Erection / Replacement of pipeline in drain and vent piping (Pre.160Kg/sq.cm) Max. 3" dia. MOC: CS.	Remove the damaged portion of pipe. Erect new pipe line by TIG/SMAW welding as per instruction of EIC. MOC: CS / alloy steel. Support to be provided along with clamp if required.	BD	Per Mtr.	150	1679	251850
400	A	40	Erection / Replacement of pipeline in drain and vent piping (Pre.40 kg/sq.cm) Max. 2" dia.	-DO-	BD	Per Mtr.	50	1679	83950
410	A	41	Welding HP joints in economizer: Re-welding of Existing weld joint of economizer bank to bank connecting vertical tubes. Surface cleaning of existing weld joint with grinder / buffing and TIG or SMAW welding on existing weld joint. Size of tube: 38.1 OD X 4.5 mm thick. Material of tube is carbon steel (SA 210 Gr.A1) grade. Conducting of internal hydrotest.	Welding HP joints in economizer: Re-welding of Existing weld joint of economizer bank to bank connecting vertical tubes. Surface cleaning of existing weld joint with grinder / buffing and TIG or SMAW welding on existing weld joint. Size of tube: 38.1 OD X 4.5 mm thick. Material of tube is carbon steel (SA 210 Gr.A1) grade. Conducting of internal hydrotest.	BD	Per Joint	400	539	215600
420	A	42	Convective (back-pass) roof sealing work by installing expansion sheet.	Remove damaged expansion sheet. Cleaning of area. Welding of new scalloped bar with roof tubes & front wall tubes for welding of expansion sheet on scalloped bar. Expansion sheet (SS310) welding with scalloped bar at both side. Stuffing of ceramic wool inside expansion sheet. Length of expansion sheet is @ 10 meter & width @ 600 mm.	BD	per meter length of sheet	12	6101	73212

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430	A	43	Insertion of SS310 pipe (OD 45-50 mm X 3 mm thick and length 6.5 meter) over pressure parts tube (OD 38.1 mm X 7 thick) during replacement of pressure parts tubes and welding at one side of tube.	shifting of SS pipe to 38 meter elevation. Insertion of SS310 pipe (OD 45-50 mm X 3 mm thick) over pressure parts tube (OD 38.1 mm X 7 thick) during replacement of pressure parts tubes and welding at one side of tube	BD	NO	25	271	6775
440	A							0	
450	A							0	
460	A							0	
	A		Insulation :					0	
440	A	44	Removal and Application of insulation and sheeting of two layers of 50mm or one layer of 100mm thickness for one layer.	Remove sheet cladding and insulation of marked portion only as per instructions of E-I-C. Apply insulation with proper hook/washer welding and apply sheeting.	BD	Per Sq. Mtr.	200	331	66200
450	A	45	Removal and Application of insulation and sheeting of two layers of 50mm or one layer of 100mm thickness for one layer.	-- do --	BD	Per Sq. Mtr.	1500	467	700500
460	A	46	Removal and Application of insulation and sheeting of three layers of 50mm or one layer of 100mm + one layer of 50mm thickness for one layer.	-- do --	BD	Per Sq. Mtr.	500	569	284500
470	A	47	Removal and Application of insulation and sheeting of four layers of 50mm or two layer of 50 mm + one layer of 100 mm thickness for one layer.	-- do --	BD	Per Sq. Mtr.	150	637	95550
480	A	48	Only Aluminum sheeting	Remove old damage sheeting. Apply new sheeting and screw finishing as per E-I-C.	BD	Per Sq. Mtr.	100	140	14000
	A		Opening and closing of manhole doors.					0	

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490	A	49	Brick Type.	Open the manhole door by opening bolts & nuts. Remove wool,bricks and rope. Replace damaged ones and put new rope and Box up	BD	No.	300	556	166800
500	A	50	Clamp type	Open manhole door.Replace rope with new one. Box up.	BD	No.	200	70	14000
510	A	51	Bolted type.	Open manhole door.replaced rope with new one. Box up.	BD	No.	450	210	94500
520	A	52	Erection and welding of anchors of all sizes and type(SS).	Erection and welding of anchors as per the instruction of E-I-C.	BD	No.	5500	42	231000
530	A	53	Ground inspection of Boiler pressure parts in presence of Boiler Inspector	The contractor is to liasion with the boiler inspector and arrange the visit of Boiler inspector for ground inspection of boiler pressure parts.Get certification from Boiler inspector.Shift the material at designated place for ground inspection as per the instructions of Engineer I/C. After completion of ground inspection, shift the material to warehouse/site as per the instructions of Engineer I/C.	BD	No	1	26933	26933

ANNEXURE -A

PRICE SCHEDULE BMC 2021-23 TENDER ID 449263

Unit rates are excluding GST

PHASE # 1			Part : A		PRESSURE PARTS				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
540	A	54	Conducting of hydrotest in presence of Boiler inspector or inspection of boiler in presence of boiler inspector for extension of existing certificate	The contractor is to liasion with the boiler inspector for hydraulic test or extension of existing certificate and arrange the visit of Boiler inspector for renewal of license.During the Hydraulic test, ontractor has to clean the area nearby drum, combustor manholes, Backpass manholes,C to C & COD manholes.Make sufficient arrangement of lighting inside the combustor, backpass.Make sufficient arrangement of Torches for checking.Gag the safety valves as per instructions of E-I-C. The contractor is to make necessary arrangement for conducting HT like pressure parts coil cleaning, backpass, combustor m/h door etc.If required, assist in safety valve floating in presence of boiler inspector.Submit the radiogarhy reports , tube replacement report,etc as per instructions of E-I/C.Submit all necessary statutory documents like permission for high pressure works,welder validity certificates, licences , etc .Remove the Gag after completion of Hydro Test.	BD	No.	4	37706	150824
550	A	55	Inspection of Combustor Pent House/ Back Pass Pent House and arresting Flue gas/Bed materials leakages. Comb. Pent house and backpass pent house quantity to be considered separately.	Check throughly for any leakages and arrest Flue gas/Bed materials leakages by Seal box / welding / Castable refractory application.	BD	No.	2	14834	29668
560	A	56	Drum/CBD / IBD tank gauge glass replacement / Cleaning	Isolate the gauge glass, remove the gauge from position if required, repair / replace damaged parts or clean the gauge glass and box up. Carry out charging of gauge glass.	BD	No.	1	2225	2225
570	A	57	Tube thickness/metal spray thickness measurement assistant.	Providing manpower for assisting tube thickness/metal spray thickness measurement on round the clock basis. (2 semi-skilled labour for one shift of 8 hrs)	BD	Per shift	20	1119	22380

ANNEXURE -A

PRICE SCHEDULE BMC 2021-23 TENDER ID 449263

Unit rates are excluding GST

PHASE # 1			Part : A		PRESSURE PARTS				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
580	A	58	Inspection and Rectification of CLH hangers	Thoroughly clean the hanger support. Note down any abnormality. Rectify the problem as per instructions of E I/C. Apply the molyspary as per instructions of E I/C. Note down the cold & hot readings.	BD	No.	50	696	34800
590	A	59	Drum/CBD/IBD tank M/H door opening or for leakage attending work.	Open the door as per the instruction given by EIC by opening of all the bolts of manhole door and remove the gasket. Clean the gasket area. Carry out the inspection work / Identify the leakage. Fix a new gasket and refix the bolts and close the manhole door.	BD	No.	1	833	833
600	A	60	Comb. nozzles cleaning	Comb. nozzles dechocking & cleaning as per instruction of E-I-C. (total 740 nos)	BD	Per unit	1	16073	16073
610	A	61	FBHE / Seal pot & Ash coolers nozzles cleaning	Nozzles dechocking & cleaning as per instruction of E-I-C. (total 100 nos)	BD	Per unit	1	3284	3284

<u>ANNEXURE -A</u>									
<u>PHASE # 1</u>			<u>Part : A</u>			<u>PRESSURE PARTS</u>			
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
####	A	1	Mobilization of additional manpower for pressure part work for forced shutdown of unit as per instruction of GIPCL EIC	GIPCL E-I-C intimate to mobilize additional gang consists of 1 IBR approved welder, 01 pressure part fitter, 01 grinders, 01 gas cutter and 04 helpers, contractor shall mobilize additional gang separately within 24 Hrs. Activity to be consider only if, complete mentioned gang mobilized.Partial mobilization not to be consider.	BD	No.	10	23849	238490
####	A	2	Bed material Leakage inspection	Pressure part area inspection for bed material leakage (i.e area include Combustor ww, FBHE ww, sealpot etc.)	PM	No.	120	280	33600
			Sox point dechoking work	Sox point to be clean and dechoked at ID fan discharge.	BD	No.	96	206	19776
			Fabrication of pressure part bends up to OD 57mm	Fabrication of Bend tube up to Dia 57 mm. To fabricate the Bend tube preparation of Spool length with filling the sand inside the tube and tube to be temporary dummied by welding. Cold or Hot bending to be carried out as per EIC instruction. After bending, tube to be normalised (i.e removal of temporary dummied and cleaning of tubes.	BD	No.	200	630	126000

			FBHE Coil SS Sleeve/tube support welding	FBHE coil's sleeve/tube support welding as per EIC. New SS sleeve/tube support to be weld during replacement of coils tubes. Sleeve to sleeve to be weld each other and tube support to be weld with new tubes.	BD	No.	800	844	675200
			Welding of HP joint in steam/ water line from above 250 mm dia to 610 mm dia and upto a maximum thickness of 32 mm.(including joints for replacement of valves) Note : It includes pre and post weld HT wherever required.	Carry out welding of joint in supply tubes/Riser tubes/headers/connecting link etc.for attending any leakage/modification/inspection/replacement of pipes etc. works. This will includes removal/application of insulation along with sheeting, Edge preparation etc.Preheat/post heat treatment as per the material specification & instructions of E-I/C. Assist hydro test.	BD	No.	4	24496	97984

ANNEXURE -A						
PHASE # 1		Part : A	PRESSURE PARTS			
S.No	Name of the Activity	Scope of Work	Nature of Mntc.	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)
2.8	Radiography of welded joints. Boiler Tubes upto dia 58 mm	Radiograph the welded joint after getting clearance from E-I-C. Develop the film in the dark room. Check for any welding defect. Dark room will be provided by GIPCL. Contractor has to bring the radiography source of sufficient capacity so that all the joints to be radiographed will be covered by the source. Contractor has to make necessary safety measures like area corrdoring while taking the radiogarphy.	BD	Per Weld Joint	320.00	1200

ANNEXURE -A

PRICE SCHEDULE BMC 2021-23 TENDER ID 449263

Unit rates are excluding GST

PHASE # 1			Part : B		SA Fan / PA fan				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
620	B	1	Overhauling of SA/PA Fan during annual shut down	Ensure isolation from Mech/Elect. side. Decouple the fan from motor.Dismantle DE & NDE bearing housing after removing all oil and water connections. Dismantle the bearing , clean it throughly and carry out DP test of white metal and ensure proper bonding with parent metal. Repalce the bearing if required. Check side oil/top oil clearances.Check axial float reading of thrust bearing and ensure as per design value. Check air/oil hoses of fan & motor. Repair/replace any damage hoses. Clean the lub oil unit externally, clean the filters, coolers etc. Check lub oil pump. Replace lub oil pump if require.Clean the oil return view glass internally. Attend any oil/water leakages. Clean the impeller & fan casing, check for any damages & rectify. Apply anti-corrosive paint on casing internal surfaces. Remove the dust from it. Check impeller clearances/impeller overlap etc.Check the coupling between fan & motor. If required, replace it . Grease the coupling halves.check the coupling bolts & replace ,if damaged. Check & tighten all foundation bolts.Check the alignment of fan with motor & rectify if alignment is disturbed. Box up & assist trial run of Fan.Remove all tools, tackles & clean the surrounding area.	PM	No.	10	35643	356430
630	B	2	Servicing/Overhauling of IGV assembly.	Open the manhole doors. Manually operate the IGV.If required, delink the IGV from power cylinder. Adjust the flap if required. Grease IGV Links,Position the guide ring if required. Repair/replace damaged parts of IGV assy like bearing, flap, gland,etc. Remove the entire IGV link assy. if required.Service each link assy.Give IGV trial for full open/full close position in manual as well as pneumatic operation. Close the manholes & normalise.	PM	No.	15	3745	56175

ANNEXURE -A

PRICE SCHEDULE BMC 2021-23 TENDER ID 449263

Unit rates are excluding GST

PHASE # 1			Part : B		SA Fan / PA fan				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
640	B	3	IGV link assy./IGV flap /guide ring / Link shaft bearing/ gland removal or repair. (Any-1)	Open the manhole doors. Check for any damage link assy. / flap/bearing/gland packing.Replace with new one.if required. Check IGV for full operation. Box up.	BD	Per Mtr.	15	1041	15615
650	B	4	Delinking/Linking of IGV mechanisam.	I) For delinking :- Delink the IGV mechanisam from power cylinders or electrical actuator. Manually fix the position of the IGV as per instruction of E-I-C. Lock the IGV in position by welding. II) For Linking:- Remove the lock of IGV after work is complete. Link the IGV with power cyliners or electrical actuator.	BD	No.	20	521	10420
660	B	5	coupling and decoupling for other work	De couple the both halves of coupling as per the requirement for facilitating other work and couple after completion of work.	BD	No.	7	1383	9681
670	B	6	Replacement of DE/NDE bearing	Dismantle bearing housing after removing all oil and water connections.Dismantle the bearing and place the new bearing, carry out blue matching if required. Bearing clearance needs to be corrected by scrubbing if required. Box up the bearing.Restore all hose connections. Do alignment with motor.	BD	No.	3	12160	36480
680	B	7	DE/NDE bearing inspection.	Open the top cover /top half of the bearing. Inspect bearings for clearances/damage etc. Box up.If required replace as per sr. no.6.	BD	No.	2	1733	3466
690	B	8	Assistant for Balancing of Impellar/Fan	Providing manpower for assisting balancing of fan/motor. This includes welding of trial/final weight.	BD	No.	3	5003	15009
700	B	9	Coupling repair / replacement	Decouple the motor.Remove both half of coupling. Change with new coupling. Align properly, Grease the coupling.Box up.	BD	Per Meter	2	2415	4830
710	B	10	Manhole door opening and closing for Inspection	Open the man holedoor of impeller & IGV.Inspect the impeller & IGV.Close the manhole doors.	BD	No.	8	553	4424

ANNEXURE -A

PRICE SCHEDULE BMC 2021-23 TENDER ID 449263

Unit rates are excluding GST

PHASE # 1			Part : B		SA Fan / PA fan				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
720	B	11	Vibration measurement Assistance.	Supply manpower for assisting vibration measurement to GIPCL EIC for all category rotating equipment viz.ID Fan/SA Fan/PA Fan/Blowers/Emergency Boiler feed pump etc.. One Semiskilled labor shall be required.	PM	No.	2	70	140
730	B	12	SA/PA fans alignment work	SA/PA alignment alignmet work.Carryout alignment work as per direction of EIC and incorporate any correction.Assist the couple /decouple trial run.	BD	Per	30	8841	265230
740	B	13	SA/PA fans alignment checking work	Ensure the Elec/Mech isoaltion.Decouple the fan and motor.Check the alignment of fan and motor and take alignment reading and coupling gap.Couple the fan and motor or do alignment as per sr.no-12 and direction of EIC.	BD	Per.	4	1106	4424
750	B	14	Coupling Removal/Re installation work for motor replacement work	Ensure the Elec/Mech isolation,Decouple the fan/motor and remove the motor foundation bolt and coupling half. Re-install the coupling half in motor and re install the foundation bolt.Align the fan and motor. Assist the trail run of fan couple and decouple trial.Clean the surrounding area.	BD	Per.	2	7049	14098
760	B	15	Motor foundation bolt Removal/Re-installation work	Ensure the Elec/Mech isolation, Remove the foundation bolt to facilitate the work and Re- install the foundation bolt as per the direction of EIC.	BD	Per.	2	3847	7694
PHASE # 1			Part : B		TOTAL				804116

ANNEXURE -A

<u>PHASE # 1</u>			<u>Part : C</u>		<u>ID Fan</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
770	C	1	Internal checkings of fan and internal cleaning of impeller	Open manhole doors,Check for Plates/blades. Clean the impeller. Box up	PM	Each fan	7	1382	9674
780	C	2	Servicing of IGV	Open the manhole doors. Manually operate the IGV. Check for IGV for full open/ full close. Adjust the flap if required. Grease IGV Links,Position the guide ring if required, repair/replace damaged parts. Remove the entire IGV link assy. if required.Service each link assy. Restore to normal.	PM	Each fan	8	6996	55968
790	C	3	Servicing of ID fan	Ensure isolation from Mech/Elect. side. Decouple the fan from motor.Dismantle DE & NDE bearing housing after removing all oil and water connections. Dismantle the bearing , clean it thoroughly and carry out DP test of white metal and ensure proper bonding with parent metal. Repalce the bearing if required. Check side oil/top oil clearances.Check axial float reading of thrust bearing and ensure as per design value. Check air/oil hoses of fan & motor. Repair/replace any damage hoses. Clean the lub oil unit externally, clean the filters, coolers etc. Check lub oil pump. Replace lub oil pump if require.Clean the oil return view glass internally. Attend any oil/water leakages. Clean the impeller & fan casing, check for any damages & rectify. Apply anti-corrosive paint on casing internal surfaces. Remove the dust from it.Check impeller clearances/impeller overlap etc.Check the coupling between fan & motor. If required, replace it . Grease the coupling halves.check the coupling bolts & repace ,if damaged. Check &	PM	Each Fan	5	20888	104440

ANNEXURE -A

<u>PHASE # 1</u>			<u>Part : C</u>		<u>ID Fan</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
800	C	4	Hydraulic coupling oil leakages attending.	Check for Oil leak/leaks from HC and its connected piping, connector,flanges, etc. Clean the leakage area, attend the Leakage and Box-up.	BD	Each fan	4	1382	5528
810	C	5	Hydraulic test of oil coolers (One cooler)	Isolate from water side. Dismantle the cooler,take out bundle assly out side the cooler, clean the cooler internal surfaces and tube bundle internally/externally.Box up tube bundle by replacing O-ring/gasket etc.Carry out HT of cooler. Check for tube puncture. Plug the puncture tubes. Box-up. Charge the cooler and ensure leak proofness. Normalise system. Clean surrounding area.	BD	per cooler	2	6849	13698
820	C	6	IGV link assy./IGV flap /guide ring / Link shaft bearing/ gland removal or repair. (any-1)	Open the manhole doors. Check for any damage link assy. / flap/bearing/gland packing.Replace with new one.if required. Check IGV for full operation. Box up.	BD	No.	2	1382	2764
830	C	7	Delinking / Linking of Hydraulic coupling (HC)scoop or IGV.	I) For delinking:-Delink the HC scoop or IGV from the pneumatic actuator. Position the scoop/IGV as per instruction of E-I-C. Lock the scoop/IGV by welding if required.II) For Linking:- Remove the lock. Link the scoop/IGV to power cylinder.	BD	No.	4	140	560
840	C	8	Alignment of hydraulic coupling with Fan.	Decouple the fan with hydraulic coupling. Check alignment. Do alignment if required. Check coupling bolts. Replace if required. Grease the coupling .Box-up the coupling. Assist trial run.	BD	No.	4	7345	29380
850	C	9	Alignment of hydraulic coupling with motor.	-- do --	BD	No.	4	7345	29380
860	C	10	Replacement of DE/NDE bearing	Dismantle bearing housing after removing all oil and water connections.Dismantle the bearing and place the new bearing, carry out blue matching if required. Box up the bearing. Note bearing clearances.	BD	Each brg	2	10103	20206

ANNEXURE -A

<u>PHASE # 1</u>			<u>Part : C</u>		<u>ID Fan</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
870	C	11	DE/NDE bearing inspection.	Open the top cover /top half of the bearing. Inspect bearings for clearances/damage etc. Note bearing clearance. Box up.If required replace as per sr. no.10	BD	Each bearing	2	1382	2764
880	C	12	De-coupling and coupling	De couple the both halves of coupling as per the requirement for facilitating other work and couple after completion of work.	BD	No.	2	973	1946
890	C	13	Checking of Coupling or Greasing of coupling	De couple the both halves of coupling.Check alignment.Correct the alignment if required.Check the condition of coupling bolts (Repair/replace if required). Grease the coupling .Tighten the coupling bolts..	BD	0	0	1444	0
900	C	14	Coupling repair / replacement	Decouple the HC from Fan & motor side.Remove both half of coupling. Change with new coupling. Align properly, Grease the coupling.Box up. Assist trial run.	BD	No.	2	6198	12396
910	C	15	Assistant for Balancing of Impellar/Fan	Providing manpower for assisting balancing of fan/motor. This includes welding of trial/final weight. Correctness of alignment. Inspection of bearings etc.	BD	Each Fan	2	2225	4450
920	C	16	Manhole door opening and closing for Inspection	Open the Manhole door, inspect the volute casing and Box-up Manhole door.	BD	No.	2	520	1040
930	C	17	Replacement of bearing cooling water nipple	Open the side cover of bearing housing.Identify the damaged nipple with new one.Internal cleaning of bearing.Oil top up after boxup of bearing and external cleaning.	BD	Each brg	2	520	1040
940	C	18	Manhole door leakage arresting.	Arrest the air leakage through manhole door by sodium silicate application on line.	BD	No.	4	520	2080

ANNEXURE -A

<u>PHASE # 1</u>			<u>Part : C</u>		<u>ID Fan</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
950	C	19	Hydraulic coupling Overhauling as per the direction of expert engr.	Decouple the HC from Fan & Motor side. Open the top half of the HC. Remove lub oil / water connecting pipe line from HC. Shift the internals of HC to work shop. Dismantle the entire HC as per insruction of EIC. Check for any damage internals. Replace the damage parts. Replace bearings. Check lub oil pump, replace if require. Check oil condition , replace entire oil if require. Box up and align with fan & motor. Assist trial run.	BD	No.	2	44501	89002
960	C	20	Alignment of id fan phase-2	ID fan alignment with Motor.Align and correct coupling between motor and fan.	BD	Per	0	7345	0
970	C	21	ID Fans alignment checking work	Ensure the Elec/Mech isoaltion.Decouple the fan/motor.Check the alignment of fan/motor and take reading alignment and coupling gap.Couple the fan/motor or do alignment as per sr.no-20 and direction of EIC.	BD	Per.	3	1106	3318
980	C	22	Coupling Removal/Re installation work for motor replacement work	Ensure the Elec/Mech isolation,Decouple the fan from motor and remove the motor foundation bolt and coupling half and Re-install the coupling half in motor and re install the foundation bolt.Align the fan and motor. Assist the trail run of fan couple/ decouple condition .Clean the surrounding area.	BD	No.	2	5815	11630
990	C	23	Motor foundation bolt Removal/Re-installation work	Ensure the Elec/Mech isolation, Remove the all foundation bolts to facilitate the work and Re- install the foundation bolts as per the direction of EIC.	BD	No.	2	3844	7688
<u>PHASE # 2</u>			<u>Part : C</u>		<u>TOTAL</u>				408952

ANNEXURE -A

<u>PHASE # 1</u>			<u>Part : D</u>		<u>Lube Oil Units & Scanner Air Fan</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
1000	D	1	PM of scanner air fan	Inspect DE /NDE bearings. Check alignment. Check the Pulley Condition. Replace if required.Clean the suction strainer.Greasing of DE/NDE bearings. Box up.Clean the auxillary.	PM	Each	0	624	0
1010	D	2	External cleaning of scanner air fan.	Clean the fan with compressed air.	PM	No.	0	280	0
1020	D	4	Lub oil sample collection	Open the plug/flange/valve of the lub oil tank/bearing/HC etc. Collect the sample. Submit it to C&L Laboratory. Box up.	PM	No.	70	140	9800
1030	D	5	Attending Leakage of oil from lub oil system of tank and pipes	Identify the leakage . Tighten the flanges, replace the gasket if required. Do welding if required.	BD	No.	20	416	8320
1040	D	6	Lub oil pump servicing	Dismantle pump. Inspect bearings/gears of pump/Relief valve etc. Repair / replace bearings/gears/relief valve if required. Box up.Assist trial run.	BD	No.	5	1106	5530
1050	D	7	Oil topping in ID fan HC lube oil tank	Check oil level in hydraulic tank. Fill the oil up to the normal level. Clean the area.	BD	No.	10	416	4160
1060	D	8	Replacement of coupling of LOP	Check coupling. Repair/replace bush/coupling. Align the pump. Box up. Assist trial run.	BD	No.	5	553	2765
1070	D	9	Oil topping of lube oil in ID fan bearings	Check lub oil level in bearings. Fill the oil up to normal level. Clean the area.	BD	No.	32	208	6656
1080	D	10	Oil topping in PA/SA fan	Check lub oil level in tank. Fill the oil up to the normal level. Clean the area.	BD	No.	100	208	20800
1090	D	11	Filter cleaning of lube oil unit of SA and PA fan	Remove the filter. Clean with air/petrol/diesel. Restore.	BD	No.	50	416	20800
1100	D	12	Cooler Hydro test of PA,SA,ID fans and EBFs.	Dimantle cooler assembly. Carry out hydro test of cooler. Plug any coil if found leaking. Clean cooler.Replace gasket , o-ring, seals etc. Box up. Assist charging of coolers.	BD	No.	15	2211	33165

ANNEXURE -A

<u>PHASE # 1</u>			<u>Part : D</u>		<u>Lube Oil Units & Scanner Air Fan</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
1110	D	13	New oil Filling/Replacement upto 350 litres	Drain complete oil from tank. Clean the tank & view glass after oil draining. Fill the tank with new oil up to normal level. Box up. Clean the area.	BD	No.	6	1659	9954
1120	D	14	New oil Filling/Replacement more than 350 litresDO ...	BD	Once	2	2211	4422
1130	D	15	Pump not developing pressure	Adjust the releif valve.Attend leakage of oil if any and restore.	BD	Each	2	416	832
1140	D	16	Replacement of lub oil pump.	Decouple the pump. Remove all connecting piping and fittings.Replaced with new one. Align and couple it. Assist trial run.	BD	No.	6	829	4974
1150	D	17	Replacements of relief valve of lub oil pump / lub oil system	Isolate the system. Replaced with new relief valve.Assist trial run. Adjust relief valve if required.	BD	No.	2	829	1658
1160	D	18	Valve repair / relacements of lub oil system. Water and oil side. Max up to 1 inch size.	Check for leakage /passing of valve. Attend the leakage/passing problem. Replace the valve if required.	BD	No.	2	624	1248
1170	D	19	Lub oil Filter replacements.	Remove the filter element from the casing. Replace with new one.	BD	No.	3	416	1248
1180	D	20	Sight glass / flow indicator cleaning/replacements. Water and oil side.	Replace/ repair the sight glass / flow indicator with new one.Ensure leakproofness of valve.	BD	No.	12	624	7488
1190	D	21	Flexible hose replacements. Water / oil side.	Replace hose with new one. Check for no-leackage.	BD	No.	12	416	4992
1200	D	22	Replacement of DE/NDE Bearing of Scanner Air Fan	Decouple. Dismantle the damaged bearing.Replace new ones.Lubricate. Align with motor and install V-Belts.	BD	Each	2	833	1666

ANNEXURE -A

<u>PHASE # 1</u>			<u>Part : D</u>		<u>Lube Oil Units & Scanner Air Fan</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
1210	D	23	Replcements of belts/alignment of scanner air fan.	Remove the belt guard. Replaced the set of belts. Adjust the tension , align properly. Fix the belts guard.	BD	Set	2	416	832
1220	D	24	Replacements of suction strainer of scanner air fan.	Remove the strainer by opening of bolts. Replace the strainer with new one. Fix new gasket & box up.	BD	No.	2	416	832
1230	D	25	ID fan bearings oil leakage attending.	Check for any leakage.attend leak as per E-I-C	BD	No.	6	829	4974
1240	D	26	Bearing NDE & DE leakage arresting - water & oil side.	Check for leakages from the bearings. Attend the same.	BD	No.	8	829	6632
<u>PHASE # 1</u>			<u>Part : D</u>		<u>TOTAL</u>				163748

ANNEXURE -A

<u>PHASE # 1</u>			<u>Part : E</u>		<u>Blowers</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
1250	E	1	Suction duct cleaning.	Open the man hole doors, Clean the duct with scapping / cleaning tools & tackles.collect all material at ground floor. Joint inspection carried out By GIPCL Engineer Incharge. Scrap the same Box up man holed door	BD	No.	2	15399	30798
1260	E	2	Suction Stainers cleaning of LT Blower	Unlock the strainer casing. Remove the fabric strainer. , replace it or Clean the fabric as well as internals of strainer with compressed air. Box up.	PM	No.	80	484	38720
1270	E	3	Suction Stainers cleaning of HT blower	_-Do_	PM	No.	225	553	124425
1280	E	4	PM of LT blower	Clean the suction stainers. Check oil level/condition. Top up the oil or replace as per instruction of EIC. Attend leakages if any.Check belt tension, adjust/replace belts set if require.Check the lobe condition varify clearances.rotate blower manually and identify any abnormalities if any.Check and varify condition of pulley by belt guage Clean the blower unit. Check speed sensing disc, replace if require. Check the foundation bolt for tightness.Clean the oil view glass and replace if found damage.	PM	No.	40	1244	49760
1290	E	5	PM of HT blower	-- do --	PM	No.	90	2004	180360
1300	E	6	Decouple/ coupling of HT blower with motor. (belt drive) or Belt replacement of HT blower	Remove the belt guard.Loosen the belt by lifting mechanism of motor using screw jack/hydraulic jack. Remove belt from pulley. Check alignment of motor and blower pulley. Correct alignment if required. Refix/replace the belt & adjust belt tension. Refix belt guard. Assist trial run.	BD	No.	22	691	15202

ANNEXURE -A

<u>PHASE # 1</u>			<u>Part : E</u>		<u>Blowers</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
1310	E	7	Decouple/ coupling of LT blower with motor. (belt drive) or Belt replacement of LT blower	-do-	BD	No.	8	553	4424
1320	E	8	Repair/replacement of pulley	Decouple the blower with motor. Loosen the belt by lifting mechanism of motor using screw jack/hydraulic jack. Check pulley for any damage. Remove the pulley from position. Repair the pulley as per instruction of EIC. Replace the pulley if require. Refix the pulley. Replace the belt if damaged or refix the belts. Box up & assist trial run.	BD	No.	22	1244	27368
1330	E	9	Suction strainer filter element repair/ replacements	Remove the strainer from the position. Repair/replace if any internals found damage I.e filter element, sponge element etc. Box up the strainer.	BD	No.	6	862	5172
1340	E	10	Oil top up /replacements in the gear box of blower	Check the oil condition/colour visually. Refill/Top up /replace oil as per E-I-C.	BD	No	550	208	114400
1350	E	11	Oil level indicator sight glass cleaning/repair / replacements	Drain the oil from the gear box to oil pot. Remove sight glass. Clean it, refix it properly. Fill removed oil again still normal oil level	BD	No	32	312	9984
1360	E	12	Repair/replacements of MEJ at discharge of blower	Remove the MEJ from the position. Inspect for any damage. Repair if possible by welding. Or replaced with new one. Place in position. Check for leakage.	BD	No	2	1732	3464

ANNEXURE -A

<u>PHASE # 1</u>			<u>Part : E</u>		<u>Blowers</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
1370	E	13	Blower Replacements assy.	Remove the belt guard, belts, pulley,suction strainer and connected pipe line. Take out the blower and put it to workshop/maintenance area/Hoist area/Vehicle. Bring new blower from Maintenace bay/Hoist/Vehicle to blower room and then Place the new blower.align blower on platform.insert seam plate if required between leg of blower and platform. Check the pulley, belt, suction strainer & replace if required.Clean the suction strainer Normalise the system and assist trial run.	BD	No.	15	10612	159180
1380	E	14	Belt guard removal and refixing.	Remove the belt guard, inspect for speed sensing flap/belts/pulley refix it.	BD	No.	50	346	17300
1390	E	15	Servicing of blower LT	Shift blower from site to workshop. Open the gear box, inspect for damage of bearings, gears, lobes etc. Repair / replace if reqd. Adjust the clearance as per E-I-C/supervisor. Box up and Normalise.Assist trial run of blower.	BD	No.	2	14677	29354
1400	E	16	Speed sensor flap repair/Replacement	Inspect the speed sensing disc.Reair/replace the same if necessary. Fabricate the sensor plate if require.	BD	No.	6	556	3336
1410	E	17	Servicing of safety valves in blower discharge line.	Dismantle the safety valve and service the same as per instructions of EIC.Replace any damage internals. Box up.	BD	No.	3	2211	6633
1420	E	18	Replacement of Oil seal at DE drive shaft.	Remove the drive pulley and open the end cover of drive side. Install new Oil seal and Box-up	BD	No.	20	1379	27580

ANNEXURE -A

<u>PHASE # 1</u>			<u>Part : E</u>		<u>Blowers</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
1430	E	19	Servicing of NRV in Blower discharge line.	Dismantle the NRV and service the NRV. Fabricate the flap of NRV. Replace the flap of the NRV if required.Box up.	BD	No.	5	1112	5560
1440	E	20	Oil leakage arresting from blower	Identify the leakage. Clean area of leakage. Attend the leakage as per EIC.	BD	No.	20	691	13820
1450	E	21	Suction Filter Replacement	Removal of Existing Suction Filter from Blower Assembly & install new suction filter (Bed Ash , Sealpot blowers)	BD	No.	8	416	3328
1460	E	22	Suction Filter Replacement	Removal of Existing Suction Filter from Blower Assembly & install new suction filter (FBHE BC , FBHE EC, Ash cooler and Seal & Purge blower)	BD	No.	25	468	11700
1480	E	23	Assist trail run /Obsrvation of running Blower	Assist trail run /Obsrvation of running of Blower post repair/attending defect / Under Visual inspection as per instuction by one unskilled labour per hour assistance at blower room	BD	Per Hour	45	68	3060
1500	E	24	Servicing of blower HT	Shift blower from site to workshop. Open the gear box, inspect for damage of bearings, gears, lobes etc. Repair / replace if reqd. Adjust the clearance as per E-I-C/supervisor. Box up and Normalise.Assist trial run of blower.	BD	No.	4	19725	78900

ANNEXURE -A

<u>PHASE # 1</u>			<u>Part : E</u>		<u>Blowers</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
1510	E	25	Belt replacement- HT	Inspect blower belt gurad assembly on intimation by engineer-in charge, verification of failure of belt.Receipt MIV from EIC ,collect belt from ware house,open belt guard,remove old belt (send them to scrap yard) , install new belt , check freeness of both pulley before and after instllation of belt.check tightness of belt ,verify belt alignment do alteration if alignment is not ok ,verify sensing of zero speed switch, box up belt guards, iremove all tools tackles / manpower from site and inform to EIC	BD	No.	30	1112	33360
1520	E	26	Belt replacement- LT (K35 / GM 35 / GM 25)	Inspect blower belt gurad assembly on intimation by engineer-in charge, verification of failure of belt.Receipt MIV from EIC ,collect belt from ware house,open belt guard,remove old belt (send them to scrap yard) , install new belt , check freeness of both pulley before and after instllation of belt.check tightness of belt ,verify belt alignment do alteration if alignment is not ok ,verify sensing of zero speed switch, box up belt guards, iremove all tools tackles / manpower from site and inform to EIC	BD	No.	18	695	12510
1530	E	27	discharge damper inspection & minor repair for any defect	Inspect Discharge damper assembly on intimation by engineer-in charge, verification of defect ,inform to EIC , Work to be carried out as per EIC`s instruction	BD	No.	14	484	6776
1540	E	28	discharge damper replacement work / Major Repair Overhauling	Inspect Discharge damper assembly on intimation by engineer-in charge for Major Repair / OH ,submit assesment for work inform to EIC , Work to be carried out as per EIC`s instruction	BD	No.	6	3058	18348
1550	E	29	Servicing of safety valves in blower discharge line.	Inspect Safety valve assembly on intimation by engineer-in charge for Verify defect , asses the defect and plan work to repair the sameWork to be carried out as per EIC`s instruction	BD	No.	6	1112	6672
<u>PHASE # 1</u>			<u>Part : E</u>		<u>TOTAL</u>				1041494

ANNEXURE -A

<u>PHASE # 1</u>			<u>Part : F</u>		<u>Bed Ash Conveying System</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
1560	F	1	PM of bed ash conveyor.	Open the top cover plates. Check chain flight , pin, circlip etc. Check the damage/worn out plates. as per instruction of EIC, Replace or Straightened the bent links by heating and hammering . Clean the drive mechanisam. Check for wear of driving mechanisam. Check oil level in gear box. Lubricate the drive chain, bearings. Inspect bearings, sprockets, . Take trial run. Adjust chain tension if required And submit Pm report immediately to Engineer in-charge	PM	No.	55	1659	91245
1570	F	2	Lubrication of bed ash conveyer	Bed ash conveyor all bearing greasing, Gear box oil level checking and top-up if required etc.....	PM	No.	180	416	74880
1580	F	3	Greasing of driving chain	Remove the chain guard. Clean the chain & Apply grease.Place the chain guard.	PM	No.	10	210	2100
1590	F	4	Clear out conveyor jam.	Open the conveyor top plates. Bottom plates at tail end of conveyor. Remove any foreign material/bed material. Made conveyor free. Check damage link. Replaced damage link. Adjust chain tension if required. Box up the conveyor & take trial run.	BD	No.	70	553	38710
1600	F	5	Drive Sprocket replacements.	Decouple the drive. Open the top plates at drive station. Remove the chain guard. Replace/buildup the wearout sprocket and grind to original profile. Normalise the conveyor.	BD	No.	3	5076	15228

ANNEXURE -A

<u>PHASE # 1</u>			<u>Part : F</u>		<u>Bed Ash Conveying System</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
1610	F	6	Idler replacements of bed ash conveyor NDE side. Size: OD-400mm & 60mm width.	Open the top cover plate. Delink chain from idler. Remove the bearings. Replace the idler. Box up bearings. Normalise the conveyors.	BD	No.	2	1935	3870
1620	F	7	Driving double roller chain repair / replacements.	Open the chain guard. Remove the double roller chain. Replace if found damaged. Adjust the chain tension and align it. Normalise the conveyor	BD	No.	3	1382	4146
1630	F	8	Shear pin replacements.	Open the chain guard. Remove the damaged shear pin. Replaced with new one. Fix the chain guard.	BD	No.	25	260	6500

ANNEXURE -A

<u>PHASE # 1</u>			<u>Part : F</u>		<u>Bed Ash Conveying System</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
1640	F	9	Bearings inspection DE & NDE side (Any-1)	Open the top half of the bearing. Inspect the bearing. Lubricate and box up.	BD	No.	8	553	4424
1650	F	10	Bearings replacements DE & NDE side (Any-1)	Open the bearing plummer block. Replace the bearing with new one & lubricate. Box up.	BD	No.	2	1659	3318
1660	F	11	Plummer block repair / replacements DE / NDE (Any-1)	Remove the plummer block from shaft. Replace with new one.	BD	No.	2	2488	4976
1670	F	12	Shaft seal replacements	Remove the bearings with plummer block. Replace shaft seal and labyrinth seal with new one.	BD	No.	2	1382	2764

ANNEXURE -A

<u>PHASE # 1</u>			<u>Part : F</u>		<u>Bed Ash Conveying System</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
1680	F	13	Tail end shaft replacements	Remove the top cover. Dismantle the plummer block. Remove the sprocket halves. Replace the new shaft. Normalize as per E-I-C. Take trial run.	BD	No.	2	4511	9022
1690	F	14	Drive end shaft replacements	Remove the top cover. Dismantle the plummer block. Remove the sprocket halves. Replace the new shaft. Normalize as per E-I-C. Take trial run.	BD	No.	2	6805	13610
1700	F	15	Conveyor chain flight replacements	Open the cover plate. Remove the circlip and pin of chain flight. Replace with new one. Normalise the conveyor	BD	No.	750	260	195000
1710	F	16	Chain reclamation flight	Identify the damage flights. Straighten the bent flight by heating / pressing. Weld the plate of broken flight after necessary edge preparation.	BD	No.	300	693	207900

ANNEXURE -A

<u>PHASE # 1</u>			<u>Part : F</u>		<u>Bed Ash Conveying System</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
1720	F	17	Filling of refractory between wear plate and casing (gap 50mm, Height - 150mm).	As per instruction of E-I-C, prepare refractory mix and fill in the gap & cure it.	BD	Meter	5	1382	6910
1730	F	18	Chain tension adjustment	Loosen the tail end. Adjust the chain tension as per E-I-C. Tighten the tail end.	BD	No.	4	208	832
1740	F	19	Lubrication of gear box.	Remove the old oil from the gear box. Fill the new oil. Clean the gear box.	BD	No.	4	208	832

ANNEXURE -A

<u>PHASE # 1</u>			<u>Part : F</u>		<u>Bed Ash Conveying System</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
1750	F	20	Speed sensing disc repair / replacements	Remove the cover of disc. Repair / replace the with new one. Place the cover.	BD	No.	4	416	1664
1760	F	21	Guide rail replacements. Size: 50mm width, 16mm thick, 8m length	Open the top & bottom cover plate. Remove the chain. Inspect for guide rail. Replaced with new one. length of guide rail @ 2 meter in 4 location.	BD	No.	5	6259	31295
1770	F	22	Replacement of motor end small sprocket of duplex roller chain.	Open the Drive chain guard. Remove the drive chain. Remove the worn-out sprocket and replace with new.	BD	No.	2	2008	4016

ANNEXURE -A

<u>PHASE # 1</u>			<u>Part : F</u>		<u>Bed Ash Conveying System</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
1780	F	23	Replacement of Conveyor end bigger sprocket of duplex roller chain.	Open the Drive chain guard.Remove the drive chain.Remove the worn-out sprocket and replace with new.	BD	No.	4	4500	18000
1790	F	24	Dismantling and refixing of Drive Motor (Geared)	Drain the oil from Gear box. Dismantle the drive motor and install new motor .Fill Oil in gear box. Ensure no oil leakages from the Gear box.	BD	No.	4	1386	5544
1800	F	25	Repair/replacement of wear plates.	Identify damaged wear plate & remove the plate from conveyor.Fabricate the plate as per EIC. Repair/replace the plate as per EIC. Box up.	BD	Per Sq. mtr	50	1947	97350

ANNEXURE -A

<u>PHASE # 1</u>			<u>Part : F</u>		<u>Bed Ash Conveying System</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
1810	F	26	Replacement of drive end gear box.	Drain the oil. Remove the motor. Remove the gear box from the position. Replace the gear box with new one.. Place it position. TOP up the oil. Fix its drive sprocket and drive chain in position. Box up.	BD	No.	2	7633	15266
1820	F	27	Servicing of gear box.	Drain the oil. Remove the motor. Dismantle the gear box. Inspection internal and Identify damaged spares. Repair/service the gear box as per instruction of E-I-C. Place it position. TOP up the oil. Fix its drive sprocket and drive chain in position. Box up.	BD	No.	2	4423	8846
	F	2. Rotary air lock feeder 10 TPH / 32 TPH			0	0		0	0
1830	F	28	Preventive maintenance of Rotary Air Lock Feeder	Isolate the Airlock feeder. Clean the annular space between casing and rotor. Grease the bearings. Check the oil level and top-up if necessary. Check the condition of oil seal . Check gland leakage	PM	No.	25	520	13000
1840	F	29	Lubrication of bed ash rotary air lock feeder	bed ash rotary air lock feeder all bearing greasing, Gear box oil level checking and top-up if required etc.....	PM	No.	25	208	5200

ANNEXURE -A

<u>PHASE # 1</u>			<u>Part : F</u>		<u>Bed Ash Conveying System</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
1850	F	30	Replacement of bed material / ash cooler feeders.	Isolate the feeder, remove the feeder, replace new, restore.	BD	No.	2	2781	5562
1860	F	31	Rotary air lock feeder DE/NDE bearing replacements (any-1)	Remove the motor.Replace the bearings and Box-up.	BD	No.	2	829	1658
1870	F	32	Shaft seals replacements of RALF	Open the seal cover on both side. Replace new seal. Box up.	BD	No.	6	416	2496
1880	F	33	Oil seal replacement of RALF	Drain the oil from the gear box. Remove the motor. Replace the oil seal from the gear box. Place the motor and fill the oil in gear box.	BD	No.	4	1041	4164

ANNEXURE -A

<u>PHASE # 1</u>			<u>Part : F</u>		<u>Bed Ash Conveying System</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
1890	F	34	Servicing of Rotary air lock feeder..	Drain the oil from the gear box. Remove the motor. Removed the gear box. Service the rotor assy and gear box. Normalise.	BD	No.	6	4146	24876
1900	F	35	RALF jam clear out.	Hand rotate the feeder for mechanical jamming. Made it free. If reqd. follow the step as in sr, no. 2.6.	BD	No.	15	140	2100
1910	F	36	Lubrication of gear box.	Check for oil level in gear box. Fill oil or totally replace the oil as per E-I_C.	BD	No.	4	520	2080
1920	F	37	Repair replacements of speed sensing disc.	Replace the disc with new one if required.	BD	No.	4	525	2100
	F	3. Ash cooler			0	0		0	0

ANNEXURE -A

<u>PHASE # 1</u>			<u>Part : F</u>		<u>Bed Ash Conveying System</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
1930	F	38	Choking removal of ash cooler spiese valve to ash cooler line/spiese valve mouth.	Remove the ash cooler drain valve/spiese valve sight glass. Carried out pocking through valve /sight glass opening. Carry out hammering of the line if required. Clear chockage. Normalise.	BD	No.	400	829	331600
1940	F	39	Repair / replacemetns of grate drain valve / wind box drain valve.(Up to 150NB)	Remove the valve from position.Dismantle the valve. Clean it.Freeness checking. Assemble the valve. Replace gasket/bolts/nut with new one & box up.	BD	No.	42	1041	43722

ANNEXURE -A

<u>PHASE # 1</u>			<u>Part : F</u>		<u>Bed Ash Conveying System</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
1950	F	40	Cleaning of Ash cooler EC/BC grate. (any-1)	Open the manhole door of ash cooler Empty chamber / Bundle chamber. Clean the EC/BC grate manually. Establish air flow through nozzles.Box up.	BD	Per Chamber	4	0	0
1960	F	41	Choking removal of ash cooler bundle chamber / empty chamber grate drain (Any-1)	Open grate drain valve,check flow of bed material. De chock the line if required till evacuation of chamber.close the valve	BD	No.	1200	624	748800
	F	4. Bed ash conveying line.			0	0		0	0

ANNEXURE -A

<u>PHASE # 1</u>			<u>Part : F</u>		<u>Bed Ash Conveying System</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
1970	F	42	Choking removal of conveying line from I/A bin to bed material silo.	Clear the chock by applying air. Normalise it.	BD	No.	14	520	7280
	F	5.Filter cleaning system			0	0		0	0
1980	F	43	Servicing of Bag filter /Replacement of all bags in bag filter	Open the cover of bag filter. Remove the bag filter. Remove bags from the filter. Clean the bags with service air or replace bag if require. Clean the perging lines and check for air coming from all perging line .Box up.	PM	No	4	2764	11056
1990	F	44	PM of dust extration Fan.	Check the alignment. Inspect coupling/Bearings. Replace if found damage. Align properly. Box up. Take trial run.	PM	No.	4	553	2212

ANNEXURE -A

<u>PHASE # 1</u>			<u>Part : F</u>		<u>Bed Ash Conveying System</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
2000	F	45	Replacements of air hose of filter cleaning system.	Isolate the air supply. Replace the hose with new one.	BD	No.	2	520	1040
2010	F	46	Repair / replacements of NMEJ of dust extraction fan.	Remove / dismantle the damaged NMEJ. Repair / replace as per instruction of E-I-C.	BD	No.	2	1382	2764
2020	F	47	Dust extraction fan coupling replacements.	Open the cover. Decouple fan. Replace coupling with new one. Align the fan & box up.	BD	No.	2	691	1382
2030	F	48	Dust extraction fan replacements.	Decouple from motor. Remove the bearings. Open the casing plate. Replace the entire fan with new one. Box up the fan.	BD	No.	2	20739	41478

ANNEXURE -A

<u>PHASE # 1</u>			<u>Part : F</u>		<u>Bed Ash Conveying System</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
2040	F	49	Bearing replacement	Open the bearing cover. Check condition of the bearing. Change with new one. Box up.	BD	No.	2	1935	3870
2050	F	50	Damper servicing	Open the damper. Check flap of the damper. Repair/replace the damper. Box up.	BD	No.	4	967	3868
2060	F	51	Bed material Draining from FBHE BC/EC	Open the grate drain valve. Drain the chamber as per requirement and Remove chocking if any . Close the valve.	BD	No.	550	276	151800
2070	F	52	Bed material Draining from Combustor.	Open the grate drain valve. Drain the combustor as per requirement and Remove chocking if any . Close the valve.	BD	No.	75	870	65250

ANNEXURE -A

<u>PHASE # 1</u>			<u>Part : F</u>		<u>Bed Ash Conveying System</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
2080	F	53	Bed material filling in grate drain of Combustor/FBHE Empty chamber & Bundle chamber.(Any-1)	Issue bed material from store. Close grate drain valve. Open manhole door. Fill bed material from inside grate drain line.	BD	No.	60	312	18720

ANNEXURE -A

<u>PHASE # 1</u>			<u>Part : F</u>		<u>Bed Ash Conveying System</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
2090	F	54	Chocking clearing of Bed material filling line from bed ash silo to combustor/Chocking clearing of PA windbox conveying line	Check the line for chock up.Hammer the line & pocking.If chock up not cleaned, cut the pocket or open the flange , do pocking and welding the cut pocket or refix the flange. After removal of chock up normalise the system.	BD	No.	420	520	218400

ANNEXURE -A

<u>PHASE # 1</u>			<u>Part : F</u>		<u>Bed Ash Conveying System</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
2100	F	55	Combustor spiess valve to ash cooler line/PA windbox conveying line leakage attending	Identify the leakage, apply sodium silicate or do welding as per E-I-C.	BD	No.	300	556	166800
2110	F	56	PA wind box bed material conveying line Pipe/T piece replacement.	Identify the damage pipe. Check thickness of pipe. Replace damage portion of pipe with new one. End connection of pipe may be Welded or Bolted. Pipe Size Dia.150x15 t mm.	BD	Per Mtr.	45	1321	59445

ANNEXURE -A

<u>PHASE # 1</u>			<u>Part : F</u>		<u>Bed Ash Conveying System</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
2120	F	57	Mixing nozzle replacement in PA coveying line	Replace the damage nozzle and put new nozzle by welding and bolting	BD	No	4	1321	5284
2130	F	58	Bed material leakage attending online in combustor,waterwall,Ash coolers,NMEJ	Open the insulation.Identify the leakage attending the leakage on line by applying.sodium silicateand ceramic wool. Refixing of insulation	BD	No	560	416	232960
2140	F	59	Bed ash silo.Intermediate ash bin level checking.	Open the man hole door. Check the level of ash in bunker/silo.	BD	No.	25	107	2675

ANNEXURE -A

<u>PHASE # 1</u>			<u>Part : F</u>		<u>Bed Ash Conveying System</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
2150	F	60	Bed Ash Conveyors discharge line Inpection	Open the Door & Remove the foreign materials from the disharge line grill. Door box up.	BD	NO	1	350	350
2160	F	61	Bed Ash Conveyor gear box coupling repair/replacement	Bed ash Conveyor gear box coupling repair/replacement as per instruction of E-I-C.	BD	NO	0	1382	0

ANNEXURE -A

<u>PHASE # 1</u>			<u>Part : F</u>		<u>Bed Ash Conveying System</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
2170	F	62	Ash Cooler Bundle Chamber coil remove and its coil and nozzle cleaning	Make scaffolding erection work for proper working approach, Insulation removing and external cleaning Make necessary arrangement for removing of bundle chamber coil, ACW line dismantling, cutting / removing of all fastner of bundle chamber coil flange, remove the coil by jacking / pushing / pulling method from its position, Coil tube cleaning and inspection, take the Hydro test and check coil tube, if any coil tubes identified in hydro test so repaire / replace of coil tubes as per EIC, Baffle plate check and repaired as per EIC, All bed material removing from bundle chamber and clean the nozzle with its hole, check the all nozzle by blower air / Manual air from its wind box, Bundle chamber coil flange clean and new gasket / rope fitting, Bundle chamber coil inserting work and all fastner fitting work and normalising the all arrangement, ACW line fitting work, Insulation application work	BD	No.	1	164000	164000
<u>PHASE # 1</u>			<u>Part : F</u>		<u>TOTAL</u>				3216240

ANNEXURE -A

PRICE SCHEDULE BMC 2021-23 TENDER ID 440263

Unit rates are excluding GST

PHASE # 1			Part : G		Lignite / Limestone Feeding System				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
			1. Lignite Conveyor						
2180	G	1	Conveyor link Sprockets (Both side) replacement. Phase-2	Decouple the drive. Open the top plates.Decouple the chain link . Replace sprocket.Couple the link .Normalise the conveyor.Assist trial run.	OM	No.	4	8877	35508
2190	G	2	Chain tension adjustments.	Check chain looseness. Loosen the tail end bracket. Adjust the chain by tightening the bolts as per E-I-C.Tighten the tail end bracket.	OM	No.	5	346	1730
2200	G	3	Greasing of DE / NDE bearings of conveyors, chain compensation bearings, flow indicator bearings.Total no of bearings - 8 per conveyor	Clean the bearings. Apply the grese with pressure. Remove the additional graese from bearings from outside.	PM	per conveyor	310	260	80600
2210	G	4	Greasing of driving chain	Remove the chain guard. Apply grease with oil mixture.Place the chain guard.	PM	No.	40	210	8400
2220	G	5	Servising/Overhauling of Lignite conveyors.	Ensure Isolation of the conveyor from bunker. Open the cover plates of lignite conveyor. Remove the complete lignite from conveyor length. Remove the entire chain from conveyor & Clean the groove. Check for any damage of guide rail/brackets. Adjust if required or repair/replace the rail/bracket.check the conveyor casing for leakages and replace the casing plate/top cover plate. Inspect all the bearings, replace if required. Check sprocket condition and change if required. Check the idler at tail end. Fix in position if found dislodged or replace if required. Lubricate the conveyor drive chain and bearings. Inspect the bassalt liners & repair/replace as per instructions of Engr I/C. Inspect the lingnite chain link & repair/replace as per instructions of E-I/C. Check the drive chain & repair/replace, if required. Align the gear box with conveyor. Normalise the system. Assist trial run.	PM	No.	6	61957	371742

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PRICE SCHEDULE BMC 2021-23 TENDER ID 440263

Unit rates are excluding GST

PHASE # 1			Part : G		Lignite / Limestone Feeding System				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measure ment (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
2230	G	6	Lignite conveyor chain link inspection	Open the drive end covers. Remove the lignite. Inspect the link pin/flighted link for damage.Replace the damage link.Adjust the chain tension if required. Box up.	PM	No.	500	312	156000
2240	G	7	Shear Pin replacement	Adjust the hole of sprocket,replace the shear pin.Fit circlip on both sides of shear pin.Restore to normal.	BD	Nos.	100	156	15600
2250	G	8	Replacement of entire chain link of conveyor.	Ensure Isolation of the conveyor from bunker. Open the cover plate and remove lignite from conveyor. Remove the entire chain from position. Clean the groove of the conveyor. Place the entire chain link assy. Normalise the bunker gates.Box up and assist trial run.Adjust the chain tension during trial run.	BD	Nos.	7	19642	137494
2260	G	9	Removal of one link of drag link chain by drive end inspection	Isolate the lignite feeder from lignite bunker. Open feeder cover. Remove the lignite from drive end of the conveyor. Remove/Replace one link of conveyor chain.Adjust chain tension.Restore.	BD	per link	120	695	83400
2270	G	10	Inspection of lignite conveyor assembly for conveyor breakdown	Ensure Isolation of the lignite feeder from lignite bunker. Open feeder cover plates at 3-4 places from drive to tail end of conveyor.Remove the lignite conveyor from drive to tail end. Clean the grooves.Check the complete conveyor links. Note the damages.Check the circlip & replace the damaged one. check & replace the shear pin.Adjust chain tension . Restore.Assist the trial run.	BD	No	15	3858	57870
2280	G	11	Replacement of chain link of conveyor as per noted defect in S No 1.10 as above .	Shift the new link from store to site.Remove the damaged chain links & replace it with new one.	BD	per link	300	1239	371700
2290	G	12	Main drive -Gear box mechanism Repacement	Decouple the motor assembly of driving gear box. Repair/replace assembly. Align the gear box with motor. Restore to normal.	BD	No.	2	2413	4826

ANNEXURE -A

PRICE SCHEDULE BMC 2021-23 TENDER ID 440263

Unit rates are excluding GST

PHASE # 1			Part : G		Lignite / Limestone Feeding System				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measure ment (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
2300	G	13	Idler/shaft replacements of lignite conveyor NDE side.Size of shaft :- OD 120 mm & length @ 2 meter, Size of idler:-436 mm OD & width 60 mm	Open the top cover plate. Decouple the chain link . Remove the shaft end seals.Remove the bearings.Remove the shaft & idler. Replace or repair the idler / shaft / bearing, shaft end seals; if required.Put the shaft & idler in position. Fit the bearings & do greasing. Normalise the conveyors.Assist trial run.	BD	No.	4	8877	35508
2310	G	14	Sprocket repair /build up work	Open the top cover plate. Remove the chain links.Repair/Build up the sprocket by welding with hardfacing electrode Flush grind the weld area. Join the chain link and normalize the conveyor.	BD	No.	4	1740	6960
2320	G	15	Driving chain tripple roller repair / replacements.	Open the chain guard. Remove the tripple roller chain. Replaced if damage. Adjust the chain tension and aligned it. Normalise the conveyor	BD	No.	4	1723	6892
2330	G	16	Bearing replacements of lignite conveyors, DE / NDE side.(any-1)	Open the bearing plummer block. Replace the bearing with new one.	BD	No.	4	1723	6892
2340	G	17	Bearing Inspection of Lignite conveyor DE/NDE.(any-1)	Open the bearing plummer block. Inspect the bearing in detail and inform condition to Engineer in charge.After instruction of engineer in charge box up the bearing.	BD	No.	4	829	3316
2350	G	18	Basalt lining / refractory application in the lignite conveyors.	Open the cover plate of conveyors. Identified the damaged liner portion. Remove the chain flights. Apply refractory / basalt lining as per E-I-C	BD	Sq. meter	2	2902	5804
2360	G	19	Lubrication of gear box.	Remove the old oil from the gear box. Fill the new oil. Clean the gear box.	BD	No.	22	416	9152
2370	G	20	Speed sensing disc repair / replacements	Remove the cover of disc. Repair / replace the with new one. Place the cover.	BD	No.	8	208	1664
2380	G	21	Lignite flow indicator adjustments.	Open the cover plate of conveyor. Adjust the flap of flow indicator. Box up	BD	No.	4	520	2080
2390	G	22	Repair / replacements of flow indicator shaft & its bearings	Open the cover plate. Remove the shaft from position.Check the bearings & replace if required. Repair/replace the shaft . Box up	BD	No.	4	1382	5528

ANNEXURE -A

PRICE SCHEDULE BMC 2021-23 TENDER ID 440263

Unit rates are excluding GST

PHASE # 1			Part : G		Lignite / Limestone Feeding System				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measure ment (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
2400	G	23	Assistant for Lignite bunker chocking removal.	Open the cover plate of lignite conveyor at front and rear side of bunker. Check for jamming of bunker.Lignite may be required to remove from the tail end/drive end. Box up the conveyor plate after ensuring smooth flow of lignite.	BD	No.	85	1106	94010
2410	G	24	Lignite Conveyor supervision during rainy season (2 semiskilled labour per 12 hours shift is considered as 1 shift)	2 persons are to be deployed for each conveyor to check the lignite flow. Open the cover plate at drive end.Contineously observe the conveyor .Any abnormality in lignite flow observed , immediately inform to Control Room Desk Operator & Lock the emergency push button at local. Rectify the defect or otherwise inform to Boiler dept E-I/C.	BD	shift	25	2493	62325
2420	G	25	Dismantling and refixing of Drive Motor (Geared)	Drain the oil from Gear box. Dismantle the drive motor and install new motor .Fill Oil in gear box. Ensure no oil leakages from the Gear box.	BD	No.	3	2003	6009
2430	G	26	Conveyor drive chain tension adjustment	Remove the drive chain guard.Adjust the tension as per EIC instruction,Normalise the system	BD	No.	3	691	2073
2440	G	27	DE shaft replacement. Shaft Size 120 mm OD & Length- 2 meter	Open the cover plate. Decouple the conveyor link. Decouple the conveyor from gear box by removing the drive chain. Remove the driven sprocket fitted on shaft. Remove both the bearings. Remove both side shaft end seals. Remove the shaft. Check the bearing, drive chain, sprocket, end seals, drive chain & replace if required. Replace the shaft. Refix the end seals, bearings, sprocket. Fit the chain. Align the conveyor & gear box. take the trial in conveyor link decouple condition & after sucessful trial couple the conveyor link, adjust chain tension.	BD	No.	2	12329	24658
2450	G	28	Lig. Conveyor Flywheel hub gap setting	Lig. Conveyor Flywheel hub gap setting as per instruction of E-I-C.	BD	No	0	208	0
2460	G	29	Lig. Conveyor Flywheel hub repairing/Replacement	Lig. Conveyor Flywheel hub repairing/Replacement as per instruction of E-I-C.	BD	No	0	2425	0
2470	G	30	Lig. Conveyor Flow Adjustment	Lig. Conveyor Flow Adjustment as per instruction of E-I-C.	BD	No	6	208	1248

ANNEXURE -A

PRICE SCHEDULE BMC 2021-23 TENDER ID 440263

Unit rates are excluding GST

PHASE # 1			Part : G		Lignite / Limestone Feeding System				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measure ment (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
2480	G	31	Lig. Conveyor link cleaner repair/replacement work	Lig. Conveyor link cleaner repairing/replacement as per instruction of E-I-C.	BD	No	4	1732	6928
2490	G	32	Lig. Conveyor gear box coupling repair/replacement	Lig. Conveyor gear box coupling repair/replacement as per instruction of E-I-C.	BD	No	0	520	0
	G	2. Lignite rotary air lock feeder.							
2500	G	33	Overhauling/Servising of Lignite RALF	Isolate the system. Remove geared motor, gear box, clutch assy., Open inspection cover and dismatle the entire feeder. Inspect for any damage parts viz. bearings, shaft sleeve, sealing strip, casing sleeve, bucket, rotor of feeder as well as scraper etc. Replace any damaged internals if required. Check for clearances. Carry out lubrication of gear box as well as bearings. Assemble as per E-I-C. Assist trial run.	PM	No.	8	45181	361448
2510	G	34	Greasing of DE / NDE bearings of rotor, scrapper assy. Of lignite RALF.	Clean the bearings. Apply the grease with pressure. Clean the excess grease from outside.	PM	No.	320	520	166400
2520	G	35	Shaft stuffing box leakage arresting.	Tighten the SINGLE shaft seals of scraper and rotor shaft as per instruction of EIC. Clean the area.	BD	No.	150	624	93600
2530	G	36	Lig. RALF Shaft stuffing box seal/gland replacements.(Single side)	Remove the gland follower of any one shaft seals. Remove the all old galnd packing. Placed the new gland packing. Tighten the gland follower. Clean the all area.	BD	No.	60	276	16560
2540	G	37	Lubrication of gear box.	Open the gear box. Drain the old oil/grease. Refill / replaced the new oil / grease.	BD	No.	110	520	57200
2550	G	38	Clearing RALF jamm.	Rotate rotary air lock feeder manually through coupling, Open the top cover plate. Inspect feeder from inside for any foreign material, remove if any, Put mixture of bed material with water from top, hand rotate for 2 to 3 revolution and make free. Box up.	BD	No.	120	1379	165480
2560	G	39	Speed sensing disc repair / replacements	Remove the cover of disc. Repair / replace the with new one. Place the cover.	BD	No.	4	278	1112
2570	G	40	Repair of NMEJ betn feeder and conveyors. Size 1mx2m	pull the top of the lignite conveyor. Remove the expansion joint, replaced with new one. Box up	BD	No.	2	1212	2424

ANNEXURE -A

PRICE SCHEDULE BMC 2021-23 TENDER ID 440263

Unit rates are excluding GST

PHASE # 1			Part : G		Lignite / Limestone Feeding System				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
2580	G	41	On line leakage arresting of NMEJ/MEJ betn feeder and seal pot.	Clean the area properly. Check for any leakage of flue gas of bed material. Apply sodium silicate with refractory, ceramic wool mixture. Make necessary arrangements to hold mixture using plates etc. Arrest leakage.	BD	No.	30	1212	36360
2590	G	42	Dismantling and refixing of RALF Drive Motor (Geared)	Drain the oil from Gear box. Decouple the drive motor and install new motor .Couple the drive motor & align it.Fill Oil in gear box. Ensure no oil leakages from the Gear box.	BD	No.	2	1206	2412
2600	G	43	Replacement of Sealing strips for Rotor / Scrapeer	Isolate the RALF. Open the manhole door remove all damaged sealing strips by cutting / grinding. Replace with new sealing strips as per EIC. Check the clearance between casing and rotor. Box up and check for free rotation of the feeder	BD	Set	2	2082	4164
2610	G	44	Replacement of shaft sleeve and bearing replacement work	Isolate the feeder. Dismantle the feeder by removing gear box, motor, clutch assy, remove the bearings, shaft protection sleeves and replace with new one, check the clearances, check the condition of bearing and replace if required box up and check for free rotation as per EIC	BD	No.	4	8836	35344
2620	G	45	Replacement of Oil seal	Isolate the feeder, drain the oil dismantle the gear box replace the damaged oil seal, box up the gear box check for leakages as per EIC.	BD	No.	2	1106	2212
2630	G	46	Lignite RALF gear box Leakage attending	Identify the leakage. Replace flange gasket or oil plug if required.	BD	No.	2	350	700
2640	G	47	Lignite RALF gear box replacements	Drain the oil from drain plug. Remove the motor & gear box from position.Repair/replace the GB mounting flange bolt. Issue new gear box from store and place in position. Lubricate the gear box. Fit the motor,replace coupling if required. Align gear box with motor. Assist trial.	BD	No.	4	2425	9700
2650	G	48	Lignite RALF clutch servicing	Dismantle the clutch assembly, thoroughly inspect for the problem and replace the damaged parts and box up.	BD	No.	50	1249 61	62450

ANNEXURE -A

PRICE SCHEDULE BMC 2021-23 TENDER ID 440263

Unit rates are excluding GST

PHASE # 1			Part : G		Lignite / Limestone Feeding System				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measure ment (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
2660	G	49	Lignite RALF clutch assy. Replacement.	Isolate the feeder. Remove the clutch assy. Using screw jack, hydraulic jack with puller. Check the shaft for any dent etc. Make it proper and fixed new clutch assy after adjusting key on the shaft. Assist trial run of feeder.	BD	No.	50	1313	65650
2670	G	50	Lig. RALF Clutch torque setting	Lig. RALF Clutch torque setting as per instruction of E-I-C.	BD	No	85	312	26520
2680	G	51	Lig. RALF Inspection	Lig. RALF Inspection for abnormal sound. Inspection door to be opened & work to be carried out /Cleaning of Srapper & Bucket as per instruction of E-I-C.	BD	No	45	1723	77535
2690	G	52	Lig RALF Scraper shaft replacement	0	BD	No	4	24525	98100
	G	3. Master Fuel trip valve.							
2700	G	53	Overhauling/Servising of motorise MFT	Decouple the master fuel trip from electrical actuator & remove the spindle nut. Remove the cover plate. Remove the MFT plate along with spindle. Decouple the plate from spindle. Dismantle the entire gate. Check for damage internals viz. sealing rope, accenders, bearings, spindle nut, etc. Replace/repair any damaged internals. Replace the MFT plate, spindle if required. Ensure purge/service air pressure & flow. Box up. Ensure the free manual operation of MFT for full open/full close position. Assist for the limit switch setting with electrical dept. Assist trial run.	PM	No	10	14649	146490
2710	G	54	Spindle gate lubrication.	Open the cover. Clean the spindle, Lubricate the spindle with grease. Box up.	PM	No.	4	520	2080
2720	G	55	Manual operation of the MFT.	Open /close the MFT manually as per instruction of EIC.	BD	Once Operatio n	30	517	15510
2730	G	56	Internal cleaning of MFT	Open the top flange of MFT cover plates. Remove the bed material by applying air. Clean the entire empty chamber area. Ensure purge/service air pressure & flow. Box up.	BD	No.	5	691	3455

ANNEXURE -A

PRICE SCHEDULE BMC 2021-23 TENDER ID 440263

Unit rates are excluding GST

PHASE # 1			Part : G		Lignite / Limestone Feeding System				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
2740	G	57	Opening/closing of lignite bunker gate.	Open/close the lignite bunker gates as per requirements.	BD	Once Operation	80	431	34480
2750	G	58	Lignite bunker gate servicing.	Remove the spindles of gate. Clean the gear pairs, nut & bearings. Check freeness of gate. Box up.	BD	No.	20	1382	27640
2760	G	59	MFT spindle nut replacements	Open the cover of MFT. Remove the spindle. Remove nut & box up after replacing nut.	BD	No.	10	862	8620
2770	G	60	Bunker inspection & its liner plate (Polymer or SS 310) repairing/ replacement	Ensure that bunker is completely empty. Ensure electrical isolation of lignite conveyor. Open all bunker outlet gates. Make proper approach for inspection. Inspect the liners on all sides of bunker plate. Repair/replace as per E -I/C. Liner size is @ 1x2 meter. Remove the scrap. Normalise the system.	BD	No.	5	29370	146850
	G	4. Limestone air lock feeder. 10 TPH.							
2780	G	61	PM of Lime stone RALF	Isolate the Airlock feeder. Clean the annular space between casing and rotor. Grease the bearings. Check the oil level and top-up if necessary. Check the condition of oil seal and replace if necessary. Tighten the gland or replace the gland, if required.	PM	No.	35	689	24115
2790	G	62	Replacement of limestone air lock feeders.	Isolate the feeder. Remove the motor & Gear box. Remove the feeder & replace it with new feeder. Fit the gear box & motor. Normalise & assist trial run.	BD	No.	2	2413	4826
2800	G	63	Rotary air lock feeder DE/NDE bearing replacements (any-1)	Remove the motor. Replace the bearing using proper tools and tackles. Install new bearing. Normalise & assist trial run	BD	No.	2	689	1378
2810	G	64	Shaft seals replacements of RALF	Open the seal cover on both side. Replace new seal. Box up.	BD	No.	25	553	13825
2820	G	65	Oil seal replacement of RALF	Drain the oil from the gear box. Remove the motor. Replaced the oil seal from the gear box. Place the motor and fill the oil in gear box.	BD	No.	2	553	1106
2830	G	66	Servicing/ Overhauling of RALF.	Drain the oil from the gear box. Remove the motor. Remove the gear box. Remove the rotar assy. Place the new rotar assy. Normalise.	BD	No.	2	2758	5516

ANNEXURE -A

PRICE SCHEDULE BMC 2021-23 TENDER ID 449263

Unit rates are excluding GST

PHASE # 1			Part : G		Lignite / Limestone Feeding System				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
2840	G	67	RALF jamm clear out./Flow establishment of limestone.	Hand rotate the feeder for mechanical jammimg. Open the top inspection door if required. Check for any foreign material. Made it free. Check for Flow through feeder from inspection hole. Carry out hammering of bunker if required to establish the flow.	BD	No.	300	416	124800
2850	G	68	Greasing of DE / NDE bearing of RALF.	Open the DE / NDE bearing cover. Grease properly. Box up	BD	No.	4	208	832
2860	G	69	Lubrication of gear box.	Check for oil level in gear box. Fill oil or totally replaced the oil as per E-I_C.	BD	No.	5	208	1040
2870	G	70	Repair replacements of speed sensing disc.	Replace the disc with new one if required.	BD	No.	4	208	832
2880	G	71	Limestone gearbox overhauling.	Remove the gear box from position. Dismantle the gear box. Replace damage part and box up.	BD	No.	2	1379	2758
2890	G	72	Limestone feeder flow checking	Check the feeder for flow of limestone by opening plug. Rotate feeder in both direction. Do hammering of limestone bunker if required. Normalise.	BD	No.	5	416	2080
2900	G	73	Limestone feeder Gear box view glass replacement.	Drain the oil. Replace the view glass. Oil top up and box up.	BD	No.	4	416	1664
2910	G	74	Limestone bunker level checking	Open the manhole door. Check the level of bunker. Box up.	BD	No.	4	208	832
2920	G	75	Limestone bunker gate servicing.	Remove the spindles of gate. Clean the nut & bearings. Check freeness of gate. Box up.	BD	No.	5	689	3445
2930	G	76	Opening/closing of limestone bunker gate.	Open/close the limestone bunker gates as per requirements.	BD	Once Operation	2	208	416
2940	G	77	Lime Stone RALFs Gland leakage arresting	Lime Stone RALFs Gland leakage arresting by gland tightening	BD	NO	35	260	9100
2950	G	78	Lig. Conveyor Idler repairing work.	Carry out the welding work on Damaged portion of the Sprocket/Idler as per instruction of EIC.	BD	NO	4	2088	8352
2960	G	79	Lig. Conveyor Guide rail repairing/replacement work.	Carry out the lig. Conveyor guid rail replacement/repairing as per EIC. Carry out the side casing plate repairing/replacement , if required. Welding per meter length consider as a one quantity.	BD	Per meter	50	1392	69600

ANNEXURE -A

PRICE SCHEDULE BMC 2021-23 TENDER ID 440263

Unit rates are excluding GST

PHASE # 1			Part : G		Lignite / Limestone Feeding System				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measure ment (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
2970	G	80	Lig. Conveyor Bottom portion link removal work.	Delink the chain and remove bottom portion link from the lignite conveyor and carry out groove cleaning work as per instruction of EIC. After complition of the grrove cleaning insert the bottom part of the coveyor, box up the conveyor and take trial.	BD	per bottom portion links	6	13235	79410
2980	G	81	Lignite conveyor Gear Box Servicing work.	Dismantle the gear box assembly, thoroughly inspect for the problem and replace the damaged parts and box up.	BD	NO	2	7381	14762
2990	G	82	Lignite RALF Gear Box Servicing work.	Dismantle the gear box assembly, thoroughly inspect for the problem and replace the damaged parts and box up.	BD	NO	5	2771	13855
3000	G	83	Lignite conveyor gear box to motor alignment work.	Decouple the gear box and motor , carry out alignment work and coupled the gear box and motor.	BD	NO	4	1112	4448
3010	G	84	Conveyor link Sprockets replacement. Phase-1-(Single/one side)	Decouple the drive. Open the side plates.Decouple the chain link . Replace sprocket.Couple the link .Normalise the conveyor.Assist trial run.	BD	NO	8	1039	8312
3020	G	85	Replacements of NMEJ betn feeder and conveyors. Size 1mx2m	Replacement of NMEJ between feeder and conveyor as per EIC	BD	NO	2	6007	12014
3030	G	86	Lig RALF Scraper shaft repair.	Repair of scraper shaft as per EIC	BD	NO	4	1112	4448
3040	G	87	Single side Gland replacement of Lime RALF	Remove the gland follower of any one shaft seals. Remove the all old galnd packing. Placed the new gland packing. Tighten the gland follower. Clean the all area.	BD	NO	6	553	3318
3050	G	88	Flight bar repair/replacement work	Repair/replace flight bar as per direction of EIC.	BD	No	10	278	2780
3060	G	89	Lignite RALF inspection for tripping	Inspect the Lignite RALF in running condition for frquent tripping or any abnormalities. Inform to EIC.	BD	per Lig.RALF	80	143	11440
3070	G	90	Lignite Bunker liner removal work	Ensure Elec/Mech isolation of conveyor. Isolate the bunker gate if required. Remove the liner from bunker as per direction of EIC.	BD	No.	22	1112	24464

ANNEXURE -A

PRICE SCHEDULE BMC 2021-23 TENDER ID 440263

Unit rates are excluding GST

<u>PHASE # 1</u>			<u>Part : G</u>		<u>Lignite / Limestone Feeding System</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
3080	G	91	Overhauling/Servicing of Manual MFT	Remove the cover plate. Remove the MFT plate along with spindle. Decouple the plate from spindle. Dismantle the entire gate. Check for damage internals viz. sealing rope, accenders, bearings, spindle nut, etc. Replace/repair any damaged internals. Replace the MFT plate, spindle if required. Ensure purge/service air pressure & flow. Box up. Ensure the free manual operation of MFT for full open/full close position.	BD	No.	4	4076	16304
3090	G	92	Limestone RALF flow adjustment	Ensure the Elec/Mech isolation.Dismantal the RALF and inspect the rotor bucket. Blank the rotor bucket by plate welding as per EIC. Box up the RALF and normalise for trail.	BD	No.	2	2225	4450
<u>PHASE # 1</u>			<u>Part : G</u>		<u>TOTAL</u>				3752935

ANNEXURE -A

<u>PHASE # 1</u>			<u>Part : H</u>		<u>E.S.P.</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
3100	H	1	CRM /ERM/GDRM oil top up.	Check for oil level/condition, Oil top up/replace if reqd.	BD	No.	20	140	2800
3110	H	2	PM of CRM /ERM/ GDRM gear box.	clean the ERM/CRM/GDRM (Any one) gear box externally open the Motor/Gear box flange, inspect the internals.Check for any leakage from oil seal, view glass and if required attend the same.	PM	No.	150	624	93600
3120	H	3	Replacement of emitting electrode. ONE ELE-1 QTY	Remove the wire snapped electrode. Inspect for tension / worn out emmitting electrode. Replace new electrode using stretching tool divice only to ensure required tension. Box up.	BD	No.	150	104	15600
3130	H	4	Replacement of shaft insulators for emmitting rapping mechanism	Decouple the motor gear box assembly. Remove the cover plate.. Replace the insulator .	BD	No.	4	1106	4424
3140	H	5	Alignment of collecting / emmitting gear box.	Align the collecting / emmitting gear box assembly with the rapping mechanism shaft.	BD	No.	4	829	3316
3150	H	6	Servicing of collecting / emmitting rapping gear box.	Un load damaged gear box from site and shift it to maintenance area/ work shop. Dismantle whole gear box as per standard maintenance practice or instruction of E-I/C.Identify the damaged,wear & tear parts and hand over list to E-I/C. Issue required spare from ware house. install new parts/spare in existing gear box assemble gear box for ready for install/replace and tagged the same and shift it to site/warehouse/spare assembly area.	BD	No.	4	2211	8844
3160	H	7	Replacemetns of gear box of emmitting / collecting rapping.	Un laod damage gear box from position and shift same to spare assembly area/ware house / work shop.Issue new gear box and shift it from spare assembly area/ware house / work shop to site and install it in position and couple it with existing gearbox/motor/rapping system.	BD	No.	4	4051	16204

ANNEXURE -A

PHASE # 1			Part : H		E.S.P.				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
3170	H	8	Field internal inspection for dead shot One field-1qty	Receipt of key from engineer in charge .Open man hole door as per instruction of E-I/C , open the manhole door, Do the earthing as per standard procedure. Install safety mechanism as per engineer in charge.Check the field for any abnormalities or for dead shot and mark the same . Give the list of finding to E I/C. Normalize the field and handover key to GIPCL E I/C.(Must engage 4 ESP known manpower with properly charged high beam torch with all required PPEs) Note : If 4 high beam torch not used during inspection 33 % amount will be deducted.	BD	No.	150	1665	249750
3180	H	9	Replacements of CRM / ERM coupling.	decouple the gear box, replace the coupling with new one, Align and couple.	BD	No.	4	1659	6636
3190	H	10	ESP casing/hopper manhole door open/leakage attending	Open the manhole door. Attend the leakages by rope fixing or applying sodium silicate, plate welding in the door. Box up.	BD	No	12	1738	20856
3200	H	11	Removal of collecting plate	Identify the damaged plate. Remove the damaged plate after confirmation from GIPCL E I/C.	BD	No	40	1386	55440
3210	H	12	ESP & APH hoppers drian dechocking work	Open the door of hopper as per instruction of E-I-C. Remove the foreign materials from ESP & APH hoppers drain. Door box up.	BD	No.	12	1379	16548
3220	H	13	ESP GD screen plate Deflector/dummy Fixing/removal	ESP GD screen Deflector/Dummy plate fixing and/or removing from primary & secondary screen as per chart / instuction of engineer in-charge	BD	No.	200	210	42000
3230	H	14	Plain/Fix Bearing Replacement/Repairing	On identification of defect,Removing/Repairing of Existing plain/Fix bearing,Install new plain bearing.Includes Seam adjusting,Aligning,Bolting,tack welding and assist trail run.	BD	No.	30	556	16680

ANNEXURE -A

PHASE # 1			Part : H		E.S.P.				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
3240	H	15	Hammer Replacement	Replacement of inner arm &/or outer arm of Rapping mechanism .Includes removing of existing Hammer from rapping shaft and replace it with new one,Tacking,Angle positioning ,Confirm hitting to correct spot on trail.	BD	No.	200	693	138600
3250	H	16	Shock Pad Replacement	Replacement of Shock pad. Includes Cutting of existing shock pad bolt,install new shock pad & tacking/locking bolt.Confirm hitting to correct spot on trail.	BD	No.	300	210	63000
3260	H	17	GD screen /hopper baffles Replacement/repairing	Replacement/installation on new GD screen including joining with existing GD screen	BD	No.	20	2278	45560
3270	H	18	Replacement of support insulator	After identification of defect of support insulator , open top door of respective support insulator and open flange cover also. Remove old damaged support insulator and scap from support insulator chamber. Clean chamber. Shift new support insulator from ware house to site. Open nut from load carrying stud, remove washer plate.Carry out load on temporarily J bolt fix support insulator,re install washer plate and transfer load on new support insulator.Remove J bolts. Normalize the system/chamber varify internal of ESP post repair and on confirmation box up system.	BD	No.	15	4151	62265
3280	H	19	Replacement of Shaft	Replacement of Shaft insulator	BD	No.	4	1034	4136
3290	H	20	Locking of CE	Locking of CE with shock bar if instructed by engineer in charge.	BD	No.	1050	278	291900
3300	H	21	Re-positioning of Collecting Electrode	reposition/removal of Collecting Electrode	BD	No.	75	829	62175
3310	H	22	Repair of collecting plate	On identification of defect The affected / damage plate need to be either lock with shock bar or with casing as per instruction of E I/C. Through welding/ bolting or by installing flats in between damage CE to shock bar to individual CES.	BD	No.	50	556	27800

ANNEXURE -A

PHASE # 1			Part : H		E.S.P.				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
3320	H	23	Locking of row of CE (1 row = 6 Ces)	Some time whole six CE need to locked with shock bar through single pipe/flat in case 3 CE locking cost consider for whole one row. Provide post at two ends and support to linear pipe/flat by post.Linear pipe/flat must be locked with CE at junction point	BD	No. of row	70	866	60620
3330	H	24	inspection of Shaft/Support insulator 1 Qty	Check for oil level/condition, Oil top up/replace if reqd.	BD	No.	10	140	1400
3340	H	25	fly ash cleaning over collecting plate/emitting	fly ash cleaning over collecting plate/emitting electrode for 1 Hr inline with instruction of EIC	BD	No.	200	119	23800
3350	H	26	Detail Field internal inspection for Assesment .One field-1qty for OH preparation	Receipt of key from engineer in charge .Open man hole door as per instruction of E-I/C , open the manhole door, Do the earthing as per strandard procedure. Install safety mechanism as per engineer in charge.Check the field for any abnormalities or for dead shot and mark the same . Give the list of finding to E I/C. Normalize the field and handover key to GIPCL E I/C.submit in-detail report about observation (mutually prescribed) found Must engage 4 ESP known manpower with properly charged high beam torch with all required PPEs) Note : If 4 high beam torch not used during inspection 33 % amount will be deducted.	BD	No.	20	3331	66620

ANNEXURE -A

Unit rates are excluding GST

<u>PHASE # 1</u>			<u>Part : H</u>		<u>E.S.P.</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
3360	H	27	Field internal inspection during partial loading	<p>Receipt of key from engineer in charge .Open man hole door as per instruction of E-I/C , open the manhole door, Do the earthing as per standard procedure. Install safety mechanism as per engineer in charge.Check the field for any abnormalities or for dead shot and mark the same . Give the list of finding to E I/C. Normalize the field and handover key to GIPCL E I/C.(Must engage 4 ESP known manpower with properly charged high beam torch with all required PPEs)</p> <p>Note : If 4 high beam torch not used during inspection 33 % amount will be deducted. . Payment in this clause only given if inspection of individual field complete and prescribed report submitted within 1 Hr from time of handover of front during partial loading other wise clause No. 8 is applicable of part H is applicable</p>	BD	No.	20	2010	40200
<u>PHASE # 1</u>			<u>Part : H</u>		<u>TOTAL</u>				1440774

PHASE # 1			Part : I		Bed Ash Conveying System				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit Measurement (UoM)	Bi-Annual Quantity (A)	First Year Rate (Rs.) Per UoM (B)	Total Price (AXB)
3370	I	1	Servicing of ESP / IDGates (Inlet / outlet).	Clean & Grease the driving chain. Operate the gate & check for full open/ full close. Overhauling of gear box. Check the condition of all the sealing strips and replace if required. Replace the bearings, chain, sprockets if required. Trial operation with limit switch setting in-co-ordination with electrical / C & I people. Scraping and painting of gate. Apply of lubricant dry molycote. (Supply of Molycote on GIPCL scope)	PM	No.	15	10201	153015
3380	I	2	Servicing of ESP gates gear boxes.	Remove the electrical actuator. Clean the old grease from gear box. Check for damage of bearings, internals etc. Replace the damage internals if required. Apply new grease & box up.	PM	No.	2	7417	14834
3390	I	3	Repair of NMEJ in PA/SA duct	Identify the damage NMEJ fabric cloth. Remove bolts of damage cloth area. Patch up the fabric cloth as per instruction of E-I-C. Check for any leakage of air. Hot tighten the bolts.	BD	Each	2	2784	5568
3400	I	4	Replacement of NMEJ assembly in PA/SA duct. Size: Circumferential length of NMEJ up to 6 meter	Remove the fabric cloth by removing bolts. Fix the new NMEJ clothes as per instruction of E-I-C.. Check for air leakage. Hot tighten the bolts.	BD	Each	16	10201	163216
3410	I	5	Replacement of NMEJ assembly in PA/SA duct. Size: Circumferential length of NMEJ more than 06 Meter and up to 10 meter	-- do --	BD	Each	15	14834	222510
3420	I	6	Replacement of casing and duct plate up to 6 mm thick	Shift material from store to site. Inspect the duct wall for wear. Patch with MS plate of 3.15 mm / 6.0 mm /8.00mm /10mm thickness as per E-I-C. for baffles the plate should be as per actual profile only.	BD	MT	15	25946	389190

ANNEXURE -A

PHASE # 1			Part : I		Bed Ash Conveying System				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit Measurement (UoM)	Bi-Annual Quantity (A)	First Year Rate (Rs.) Per UoM (B)	Total Price (AXB)
3430	I	7	Repair / replacements of Metallic Expansion Joints (MEJ) in blower air line. Max. dia 405 mm (Flanged)	Lock the blower air pipe. Loosen the flange joints of Mettalic expansion joints. Remove the MEJ. Fixed new one by fixing rope at flanges. Normalise the air pipe. Check for any air leakage. Hot tighten the bolts.	BD	No.	2	4076	8152
3440	I	8	Internal cleaning of combustor to cyclone Non Metallic Expansion Joints (NMEJ) at bottom portion. Length-@ 4.5 meter	Inspect the expansion joints. Dismantle the bottom portion of the expansion joint Check for ingress of bed material. Clean the material if any. Repair for damage if any. Fill the missing insulation material properly including anchor welding and boxup.	BD	No	8	1665	13320
3450	I	9	Internal cleaning of cyclone to back pass NMEJ at bottom portion. Length - @5 meter	-do-	BD	No.	4	1665	6660
3460	I	10	Replacement of Combustor to Cyclone NMEJ. Width 900 mm. Size:6575 x 4518 mm2	Dismantle the entire NMEJ by cutting the bolts. nos of bolts - @350 nos of M 20 X 80. Remove outer fabrics, cermic bolster & Dust trap. Clean the gap inbetween the flanges, measure the gap & rectify the flange if required. Stud welding for dust trap installation. Stuff the ceramic wool in between the flange gaps in entire peripheral length. erect the new Dust trap, Bolster & NMEJ Fabric. Jointing of NMEJ by heating m/c. check for any leakages. Hot tghtening of all bolts as per E-I-C. NOTE: Engage sufficient skilled manpower/resources & manpower has to work on round the clock to bring the unit as earliest as possible.	BD	No.	6	44286	265716

PHASE # 1			Part : I		Bed Ash Conveying System				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit Measurement (UoM)	Bi-Annual Quantity (A)	First Year Rate (Rs.) Per UoM (B)	Total Price (AXB)
3470	I	11	Replacement of cross over duct to second pass NMEJ Width 400 mm Size: 5636 x 5236 mm ²	Dismantle the entire NMEJ by cutting the bolts. nos of bolts - @350 nos of M 20 X 80. Remove outer fabrics, cermic bolster. Clean the gap inbetween the flanges, measure the gap & rectify the flange if required. Stuff the ceramic wool in between the flange gaps in entire peripheral length. erect the Bolster & NMEJ Fabric. Jointing of NMEJ by heating m/c. check for any leakages. Hot tghtening of all bolts as per E-I-C. NOTE: Engage sufficient skilled manpower/resources & manpower has to work on round the clock to bring the unit as earliest as possible.	BD	No.	4	26614	106456
3480	I	12	Replacement of Cyclone outlet circular NMEJ. Size: Dia 4.54 Meter	Clean the peripheral are around NMEJ. Dismantle the entire NMEJ by cutting the bolts. nos of bolts. Remove outer fabrics and cermic bolster. Clean the gap inbetween the flanges, stuff the ceramic wool in between the flange gaps as in entire perheral length as per the instruction of EIC, erect the new NMEJ along with bolster. Jointing of NMEJ by heating m/c. check for any leakages. Hot tghtening of all bolts as per E-I-C.NOTE:Engage sufficient skilled manpower/resources & manpower has to work on round the clock to bring the unit as earliest as possible.	BD	No.	2	7417	14834

PHASE # 1			Part : I		Bed Ash Conveying System				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit Measurement (UoM)	Bi-Annual Quantity (A)	First Year Rate (Rs.) Per UoM (B)	Total Price (AXB)
3490	I	13	Replacement of Cyclone to Seal pot NMEJ. Size: Dia 2.50 Meter	Clean the peripheral are around NMEJ. Dismantle the entire NMEJ by cutting the bolts. nos of bolts. Remove outer fabrics and cermic bolster. Clean the gap inbetween the flanges, stuff the ceramic wool in between the flange gaps as in entire perheral length as per the instruction of EIC, erect the new NMEJ along with bolster. Jointing of NMEJ by heating m/c. check for any leakages. Hot tghtening of all bolts as per E-I-C.NOTE: Engage sufficient skilled manpower/resources & manpower has to work on round the clock to bring the unit as earliest as possible.	BD	No.	4	10201	40804
3500	I	14	NMEJ patch up work. (during running boiler) Locations : C to C,Backpass inlet, COD inlet NMEJ, Seal pot , Air duct NMEJ., Flue gas duct NMEJ.	Clean the periheral area around NMEJ. Identify leakage. Apply sodium silicate with ceramic wool. Jacking at leakage are for supporting of applied ceramic wool. If required make seal box with 3 to 6 mm M.S plate at punctured area. Fill with sodium silicate. Normalise. Check for flue gas leakage. Hot tighten the bolts.	BD	No.	40	8871	354840
3510	I	15	Combustor to Cyclone / Back pass inlet NMEJ wool stuffing. Size: 6575 x 4518 mm2	Clean the bed material from inside the NMEJ. Stuff the ceramic wool. Box up.	BD	No.	18	833	14994
3520	I	16	Blower line flange joint leakage attending	Identify the leakages in blower line. Remove insulation. Replace rope of flange joints. Do welding if required.	BD	No.	3	1259	3777
3530	I	17	Freeness checking of dampers.	Check damper for mechanical jamming. Made damper free & Lubricate the linkages by applying dry molycote. Open & close the damper. Assist trial run.	BD	No.	14	689	9646
3540	I	18	Attend leakage in air/flue gas duct by welding only. Running meter of welding.	Grind the damaged welding .Attend leakage by welding with 6013 welding electrode with minimum two runs with 6-8 mm fillet	BD	meter	100	262	26200

ANNEXURE -A

PHASE # 1			Part : I		Bed Ash Conveying System				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit Measurement (UoM)	Bi-Annual Quantity (A)	First Year Rate (Rs.) Per UoM (B)	Total Price (AXB)
3550	I	19	Removal and re erection of wind box drain pipes. Size; up to 150 NB & 2 meter length.	Remove the drain pipes of wind box hoppers as per EIC requirement and re erect after completion of activity	BD	Per pipe.	6	696	4176
3560	I	20	Opening & Closing of ESP & ID duct gate	Make necessary arrangement and open and close the gate manually as per instruction of E-I-C	BD	No.	4	1392	5568
3570	I	21	Internal repair of MEJ in ESP and ID duct	Identify the leakages.Wool stuffing of the MEJ leakage area.Sealing it with a 3 mm plate as per instruction of E-I-C.Duct size is 3mX6m(approx)	BD	No.	2	2784	5568
3590	I	22	Fabrication of steel structure work (including transportation of steel from store yard)	Shift steel of proper size from store to site. Fabricate platforms/ approaches etc. as per E-I-C at site.	BD	MT	15	25260	378900
3590	I	23	Cyclone seal box fabrication at Hot spot area Size: 900 X 500 X 250 mm of 6/8mm IS 2062 M.S plate	First apply sodium silicate and ceramic wool on hot spot.Fabricate plate of suitable size and weld plate on cyclone shell maintain gap @150-200mm between shell and plate. Prepare refractory mix as per E-I/C. fill in the gap. If required proper jacking to be done to arrest leakage.	BD	No.	350	7417	2595950
3600	I	24	APH Tubes (size 50.8mmx2mm thick/4mm thick) / Dummy / Sleeves Work	Shifting of dummy (size 46ODX50MM LENGTH) / Sleeve (size 46ODX500MM LENGTH) material to site. Insert Dummy / Sleeve as per instruction of E-I-C . Both sides dummy / sleeve of one tube consider as a one no. quantity. After completion of jobs, Balance materials to be shifted in store.	BD	Per tube	2200	69	151800

PHASE # 1			Part : I		Bed Ash Conveying System				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit Measurement (UoM)	Bi-Annual Quantity (A)	First Year Rate (Rs.) Per UoM (B)	Total Price (AXB)
3610	I	25	APH Tubes (size 50.8mmx2mm thick/4mm thick) Mapping Work. No of tubes in each block are as follow: 1) Primary air tubes block - 3219 tubes in ph1 and 3875 tubes in Ph2 2) Secondary air tubes block - 4329 tubes in ph1 and 5375 tubes in Ph2 3) FBHE air block - 154 X 5 tubes (For FBHE, 5 nos. of block is considered as one block)	APH SA/PA & FBHE blocks tubes mapping with ID fans running. One block is considered as One no. quantity.	BD	Per Block	100	1034	103400
3620	I	26	PA/SA damper servicing work.	Carry out the damper servicing work, check it's open and close movement , coorrect if any gap observed in between plates. Check all the link elements repair/replaced if required. Greasing of all the link assembly. Decoupled and coupled with actuator if required. Take trail run.	PM	NO	29	4076	118204
3630	I	27	Plate patch up work on Cyclone and COD duct.	Shifting of material from store. Prepare the material as per required size (Except bending) (as per EIC),Repaire of cyclone & COD plate by new plate patch up	BD	MT	15	26706	400590

PHASE # 1			Part : I		Bed Ash Conveying System				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit Measurement (UoM)	Bi-Annual Quantity (A)	First Year Rate (Rs.) Per UoM (B)	Total Price (AXB)
3640	I	28	Repaire / Replacement of gap flange / Retainer plate / flange of NMEJ	Shifting of material from store. Fabricate the material as per requirement (as per EIC and drawing), Repaire / Replacement of gap flange / Retainer plate / NMEJ flange of NMEJ (200 mm width /30 mm thickness Gap flange, up to 16 mm thick of NMEJ Bolster and Fabric flange.	BD	Per Meter	75	1672	125400
3650	I	29	Replacement of Combustor to Cyclone NMEJ Fabric Width 900 mm. Size:6575 x 4518 mm2 (Only fabric some portion of NMEJ)	Dismantle the required size of NMEJ by cutting the bolts as per EIC of M 20 X 80. Remove outer fabrics,Clean the gap inbetween the flanges, measure the gap. Stuff the ceramic wool in between the flange gaps in required length.Erect the NMEJ Fabric. Jointing of NMEJ by heating m/c. check for any leakages. Hot tightening of all bolts as per E-I-C. NOTE: Engage sufficient skilled manpower/resources & manpower has to work on round the clock to bring the unit as earliest as possible.	BD	Per Meter	25	1044	26100
3660	I	30	Replacement of Combustor to Cyclone NMEJ fabric and Bolster Width 900 mm. Size:6575 x 4518 mm2 (Only Fabric and Bolster some Portion)	Dismantle the required size of NMEJ by cutting the bolts as per EIC of M 20 X 80. Remove outer fabrics and Bolster,Clean the gap inbetween the flanges, measure the gap.Stuff the ceramic wool in between the flange gaps in required length.Erect the NMEJ Fabric and Bolster. Joining of NMEJ by heating m/c.Check for any leakages. Hot tightening of all bolts as per E-I-C. NOTE: Engage sufficient skilled manpower/resources & manpower has to work on round the clock to bring the unit as earliest as possible.	BD	Per Meter	30	1665	49950

PHASE # 1			Part : I		Bed Ash Conveying System				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit Measurement (UoM)	Bi-Annual Quantity (A)	First Year Rate (Rs.) Per UoM (B)	Total Price (AXB)
3670	I	31	Replacement of Combustor to Cyclone NMEJ. Width 900 mm. Size:6575 x 4518 mm2 (Only some portion of NMEJ fabric, Bolster and Dust trap)	Dismantle the required size NMEJ by cutting the bolts.Remove outer fabrics, cermic bolster & Dust trap. Clean the gap inbetween the flanges, measure the gap. Stuff the ceramic wool in between the flange gaps. Erect the new Dust trap, Bolster & NMEJ Fabric. Jointing of NMEJ by heating m/c. check for any leakages. Hot tightening of all bolts as per E-I-C. NOTE: Engage sufficient skilled manpower/resources & manpower has to work on round the clock to bring the unit as earliest as possible.	BD	Per Meter	40	2498	99920
3680	I	32	Replacement of Combustor to Cyclone NMEJ. Width 900 mm. Size:6575 x 4518 mm2 (Entire NMEJ of fabric and Bolster, without Dust trap)	Dismantle the entire NMEJ by cutting the bolts. nos of bolts - @350 nos of M 20 X 80. Remove outer fabrics, cermic bolster with out Dust trap. Clean the gap inbetween the flanges, measure the gap & rectify the flange if required. Stuff the ceramic wool in between the flange gaps in entire peripheral length. erect the Bolster & NMEJ Fabric. Jointing of NMEJ by heating m/c. check for any leakages. Hot tightening of all bolts as per E-I-C. NOTE: Engage sufficient skilled manpower/resources & manpower has to work on round the clock to bring the unit as earliest as possible.	BD	NO	2	44393	88786

PHASE # 1			Part : I		Bed Ash Conveying System				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit Measurement (UoM)	Bi-Annual Quantity (A)	First Year Rate (Rs.) Per UoM (B)	Total Price (AXB)
3690	I	33	Replacement of cross over duct to second pass NMEJ Width 400 mm Size: 5636 x 5236 mm ² (Only some portion of NMEJ fabric, Bolster/Ceramic wool)	Dismantle the required size of NMEJ by cutting the bolts. Remove outer fabrics, ceramic bolster/Ceramic wool. Clean the gap inbetween the flanges, measure the gap. Stuff the ceramic wool in between the flange gaps. Erect the Bolster/Ceramic wool & NMEJ Fabric. Jointing of NMEJ by heating m/c. check for any leakages. Hot tightening of all bolts as per E-I-C. NOTE: Engage sufficient skilled manpower/resources & manpower has to work on round the clock to bring the unit as earliest as possible.	BD	Per Meter	95	1249	118655
3700	I	34	Replacement of casing and duct plate up to 16 mm thick at COD/cyclone/ Cto C etc.....	Shift material from store to site. Inspect the duct wall for wear. Remove damage/oxidized plate and Prepare new plate as per required size (except bending), Replace with MS plate of up to 16.0 mm thickness as per E-I-C. Remove scrap from site to scrap yard as per EIC	BD	MT	15	38249	573735
3710	I	35	Seal box removing at Hot spot area Size: 900 X 500 X 250 mm of 6/8mm IS 2062 M.S plate	Seal box plate and refractory / Bed material / ceramic wool and all jack removing from shell plate by cutting set, chissel hammer or breaker machine, All metalic and refractory debris / scrap removing from site to scrap yard as per EIC	BD	No.	120	3877	465240
3720	I	36	NMEJ patch up work. (during forced outage/AOH of boiler) Locations : C to C, Backpass inlet, COD inlet NMEJ, Seal pot , Air duct NMEJ., Flue gas duct NMEJ.	Clean the area around NMEJ. Identify leakages/ hot spot. Attending by patch up work by ceramic wool or high temperature cloth as per EIC. Normalise. Check for flue gas leakage. (all leakages in one NMEJ to be considered as one no.)	BD	No.	6	1379	8274

ANNEXURE -A

PHASE # 1			Part : I		Bed Ash Conveying System				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit Measurement (UoM)	Bi-Annual Quantity (A)	First Year Rate (Rs.) Per UoM (B)	Total Price (AXB)
3730	I	37	Fabrication of retainer plate along with two nos. stiffners (as per requirement, drawing / E-I-C) Size: 600x200x10 mm of SS plate	Shifting of material from store. Fabricate the retainer plate and stiffner from 10 mm SS plate, welding of stiffners with plate (as per requirement, drawing / E-I-C)	BD	No.	60	1044	62640
3740	I	38	Erection of retainer plate (as per requirement drawing / E-I-C) Size: 600x200x10 mm of SS plate	Shifting of material from store. Ensure surface preparation of base plate by cleaning, grinding etc. Erection and welding of the retainer plate in Cyclone & COD NMEJ area, Bullnose area, any other area (as per requirement, drawing / E-I-C)	BD	No.	50	696	34800
3750	I	39	Fabrication of anchors of all size of SS material	Cutting and welding of SS clit for fabrication of anchors/ preparation from old anchors for reuse as per requirement, E-I-C.	BD	No.	300	62	18600
3760	I	40	Assistance for Oxygen level measurement work	Assist for opening & closing of measuring port. (One boiler oxygen level level measurement at various points shall be considered as 01 NO)	BD	NO	12	268	3216
3770	I	41	Bending of MS plate up to 16 mm thickness	Receive material from ware house . Bend the plates inplant or outside of plant. To & fro transportation of material or bending machine shall be in the scope of contractor. Preparation of material should be as per drawing/EIC.	BD	MT	6	11000	66000
PHASE # 1			Part : I			TOTAL			7319204

ANNEXURE -A

PHASE # 1			Part : J		Fuel Firing System.				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
3780	J	1	Propane tank safety valve servicing/testing assistance	Assist for safety valve servicing/testing as per following. Isolate the safety valve from tank. Remove it from position. Carry out testing of safety valve with nitrogen gas. Adjust pressure if require. Box up.	BD	Per Day	2	2771	5542
3790	J	2	Start up Burner (SUB) gun cleaning.	Isolate the fuel and steam, air line valve. Remove the hoses from the gun. Remove the gun. Clean with diesel / air. Tag the clean gun, install same as required to set up, Assist trail run. Identify defect if any during trail.	PM	No.	95	1106	105070
3800	J	3	Bed Lance (BL) gun cleaning.	Isolate the fuel and steam, air line valve. Remove the hoses from the gun. Remove the gun. Clean with diesel / air. Tag the clean gun, install same as required to set up, Assist trail run. Identify defect if any during trail.	PM	No.	130	967	125710
3810	J	4	Replacements of hoses of SUB / BL.	Isolate the fuel, steam, air, gas supply. Replace the hose with new one. Assist trail run, Check for any leakage.	BD	No.	30	691	20730
3820	J	5	SUB Block removal and refixing. Elevation of SUB is at 10.5 meter in front & rear wall of boiler. OD of sub block- 1.5 meter & length of SUB assy 2 meter.	A) For Removal :- Remove the all hose connections of SUB after isolating supply. Remove the oil gun from SUB block. Remove the SUB block, use chain pulley block for removal of block. Clean the diffuser of SUB. Box up. B) For refixing :- Put the SUB block in position by chain pulley block. Fit the gun in the block. Connect all hose connections. Tighten flange of SUB block. Charge the oil/steam lines & check for leakage, attend the leakage. assist trial run. Note :- This activity is to be carried out in boiler hot conditions. utmost care is to be taken & necessary PPEs should be utilised while working.	BD	No.	70	1379	96530

ANNEXURE -A

PHASE # 1			Part : J		Fuel Firing System.				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
3830	J	6	Clear out SUB gun jamming	Check for advance / retract motion of SUB gun. Identify of jamming if any and rectify the same. Assist trial advance / retract motion.	BD	No.	3	276	828
3840	J	7	Repair / replacements of gas regulating valve.	Remove the valve from skid. (Flange joint) Open the valve, Check for any damage to seat, disc etc. Replaced if reqd. or replaced the valve with new one.	BD	No.	2	1112	2224
3850	J	8	Repair / replacements of steam, air, fuel oil atomising and trip valve of SUB / BL control station. Size:- Upto 1.5".	Remove the valve from skid. (Flange joint) Open the valve, Check for any damage to seat, disc etc. Replace if reqd. or replace the valve with new one.	BD	No.	8	1112	8896
3860	J	9	Strainer (Oil, steam, air) cleaning from SUB / BL control station.	Open the strainer, clean the element with diesel , air. Box up.	BD	No.	38	829	31502
3870	J	10	Strainer (Oil , Steam , air) replacements from SUB / BL control station.	Replace the strainer with new one.	BD	No.	4	416	1664
3880	J	11	Steam, oil leakage arresting from the SUB / BL control station skid.	Identify the leakage, remove insulation if reqd. Tighten the flange, replace gasket if reqd.	BD	No.	65	829	53885
3890	J	12	Pressure adjustment of valve	Adjust the pressure of steam/oil/air. Open the cover of the valve. Adjust bolt as per E-I-C.	BD	No.	3	72	216
3900	J	13	Bed Lance guide pipe cleaning.	Remove the bed lance from position. Clear the chocking of guide pipe. Fixed the Bed lance.	BD	No.	32	208	6656

ANNEXURE -A

PHASE # 1			Part : J		Fuel Firing System.				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
3910	J	14	Servising/Overhauling of SUB assembly	Isolate the SUB assembly. Remove the all hose connections.Remove the gun from SUB assy.Remove the SUB block from position by chain block.Dismantle the SUB block. Clean all the parts by diesel.Check the guide pipe, retract assy, diffuser plate .Repair/replace as per instructions of E-I/C.Check all hose & its connectors . Replace if required. Check the gun & clean it. Replace the gun/tip /nozzle if required.Assemble the SUB block & make ready as standby.	BD	No.	12	3904	46848
3920	J	15	Open /close wind box drain valve.	Open the wind box drain valve. Remove the bed material from wind box. Close the valve.	BD	No.	5	140	700
3930	J	16	Primary air Hose Inspection/Replacement	Remove the hose from position. Check for any foreign material inside the hose. Clean the bed material with compressed air.Replace the hose if required. Box up.	BD	No.	8	553	4424
3940	J	17	Barrel & Diffuser Installation	Make proper platform as per requirement for work. Barrel & Diffuser Installation Work	BD	No.	3	4076	12228
3950	J	18	Propane tank Hydro test.	Assist for Hydro Test as per following. Open the vent of the tank. Remove residual propane from tank. Flush tank with water. Open the manhole door. Clean internally. Carry out hydro test. Normalise the system. Fill up the propane in the tank.	BD	No.	2	8846	17692
3960	J	19	Propane pump Servising	Ensure isolation of pump. Open the cover. Remove belt set.Dismantle the pump. Clean the internals. Inspect internals & replace the damaged parts. Assemble pump.Replace belt if necessary.Align the belt. Box up.Assist trial run.	BD	No.	2	4051	8102

ANNEXURE -A

Unit rates are excluding GST

<u>PHASE # 1</u>			<u>Part : J</u>		<u>Fuel Firing System.</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
3970	J	20	Oil line replacement work up to 50 NB	Ensure isolation of oil line. Remove the insulation and identify the oil leakage. Replaced the oil line as per the direction of EIC. Check for no leakage. Clean the oil leakage area.	BD	Per Meter	15	1112	16680
3980	J	21	FO Unloading pump oil seal replacement work	Ensure elec/mech isolation of pump. Replace the oil seal. Check for no leakage.	BD	No.	3	833	2499
<u>PHASE # 1</u>			<u>Part : J</u>		<u>TOTAL</u>				568626

ANNEXURE -A

<u>PHASE # 1</u>			<u>Part : K</u>		<u>Valves</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
3990	K	1	Replacement of LP valves upto 2" size (800 Class and below)	Remove the damaged valve from position, make necessary edge preparation and weld the new valve in position. Check for no leakage.	BD	No.	8	1669	13352
4000	K	2	Servicing of LP valves upto 2" size (800 Class and below)	Dismantle the entire valve, repair / replace all damaged parts and gland packings, clean the valve internals properly, Lap the seat for perfect sealing, box up the valve. Check for no leakage, passing and normal operation.	BD	No.	4	560	2240
4010	K	3	Replacement of LP valves above 2" upto 8" size (800 Class and below)	Remove the damaged valve from position make necessary edge preparation and weld the new valve in position. Check for no leakage.	BD	No.	8	2088	16704
4020	K	4	Servicing of LP valves above 2" upto 8" size (800 Class and below)	Dismantle the entire valve, repair / replace all damaged parts and gland packings, clean the valve internals properly, Lap the seat for perfect sealing, box up the valve. Check for no leakage, passing and normal operation.	BD	No.	10	1112	11120
4030	K	5	Gland tightening of valves up to 3" size of various class for water, steam, oil and air applications	Clean the bolts and gland follower, apply cleaner,Tighten the gland follower tightening bolts to the maximum possible extend to arrest the gland leakage. Tighten both the bolts uniformly, apply dry moly spray.	BD	No.	100	140	14000

ANNEXURE -A

<u>PHASE # 1</u>			<u>Part : K</u>		<u>Valves</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
4040	K	6	Gland tightening of valves above 3" size of various class for water, steam, oil and air applications	Clean the bolts and gland follower, apply cleaner,Tighten the gland follower tightening bolts to the maximum possible extend to arrest the gland leakage. Tighten both the bolts uniformly, apply dry moly spray on the bolts.	BD	No.	15	210	3150
4050	K	7	Gland replacement of LP valves upto 2" size.	Remove the gland follower and remove the entire gland packing set. Clean the sprindle and gland follower and replace with new gland packing set and box up. Check for no leakage,apply dry moly spary on the bolts.	BD	No.	10	420	4200
4060	K	8	Gland replacement of LP valves above 2" size upto 6".	Remove the gland follower and remove the entire gland packing set. Clean the sprindle and gland follower and replace with new gland packing set and box up. Check for no leakage,apply dry moly spary on the bolts.	BD	No.	4	839	3356
4070	K	9	Gland replacement of HP valves upto 2" size.	Remove the gland follower and remove the entire gland packing set. Clean the sprindle and gland follower and replace with new gland packing set and box up. Check for no leakage,apply dry moly spary on the bolts.	BD	No.	20	280	5600

ANNEXURE -A

<u>PHASE # 1</u>			<u>Part : K</u>		<u>Valves</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
4080	K	10	Gland replacement of HP valves above 2" size upto 6".	Remove the gland follower and remove the entire gland packing set. Clean the sprindle and gland follower and replace with new gland packing set and box up. Check for no leakage,apply dry moly spary on the bolts.	BD	No.	8	630	5040
4090	K	11	Gland replacement of HP valves above 6" size upto 12".	Remove the gland follower and remove the entire gland packing set. Clean the sprindle and gland follower and replace with new gland packing set and box up. Check for no leakage,apply dry moly spary on the bolts.	BD	No.	4	839	3356
4100	K	12	Gland replacement of HP valves above 12" to 16" size.	Remove the gland follower and remove the entire gland packing set. Clean the sprindle and gland follower and replace with new gland packing set and box up. Check for no leakage,apply dry moly spary on the bolts.	BD	No.	4	1679	6716
4110	K	13	Replacement of HP valves upto 3" size (1500# and above)	Remove the damaged valve from position make neccssary edge preparation and weld the new valve in position. Check for no leakage.	BD	No.	45	1789	80505
4120	K	14	Servicing of HP valves upto 3" size (1500# and above)	Dismantle the entire valve, repair / replace all damaged parts and gland packings, clean the valve internals properly, Lap the seat for perfect sealing, box up the valve. Check for no leakage, passing and normal operation.	BD	No.	30	839	25170

ANNEXURE -A

<u>PHASE # 1</u>			<u>Part : K</u>		<u>Valves</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
4130	K	15	Replacement of HP valves more than 3" to 8" size (1500# and above)	Remove the damaged valve from position make necessary edge preparation and weld the new valve in position. Check for no leakage.	BD	No.	4	2985	11940
4140	K	16	Servicing of HP valves more than 3" to 6" size and any mode of operation (1500# and above)	Remove the actuator, dismantle the entire valve, repair / replace all damaged parts and gland packings, clean the valve internals properly, Lap the seat for perfect sealing, box up the valve and re-erect the actuator. Check for no leakage, passing and normal operation	BD	No.	4	1112	4448
4150	K	17	Servicing of HP valves from 6" to 10"size and any mode of operation (1500# and above)	-- do --	BD	No.	2	3943	7886
4160	K	18	Servicing of HP valves 10" above to 16" size and any mode of operation (1500# and above)	-- do --	BD	No.	2	5101	10202
4170	K	19	Servicing of Safety and Safety relief valves in Drum, Main steam line, HRH, CRH.Line Size:12",14",16"	Make proper approach by scaffolding / platforms. Dismantle the valve entirely, repair / replace the damaged parts, clean the valve internals properly. Lap the seat and body, box up the valve. Check for no leakage, passing and normal operation. Assist in floating of the safety valve as per EIC	BD	No.	2	14834	29668

<u>ANNEXURE -A</u>									
<u>PHASE # 1</u>			<u>Part : K</u>		<u>Valves</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
4180	K	20	Servicing of Safety valve in Soot blower steam line and CBD tank. Size - up to 3'	-- do --	BD	No.	2	3943	7886
4190	K	21	Gaging of Safety valves	Remove the Manual popping lever and erect the Safety valve Gag as per EIC. After completion of HT remove the gag and restore the manual lever	BD	No.	32	420	13440
4200	K	22	Installation of Hydro static plug in Safety valves	Isolate the valve Dismantle the safety valve without disturbing the setting, Remove the seat and replace the Hydro static plug and box up. After completion of HT restore the original seat as per EIC	BD	No.	2	834	1668
4210	K	23	Setting/POP up of Safety valves	Remove the manual popping lever and adjust the Spring compression adjustment nut, Lower adjustment ring and upper adjustment ring as per Instruction of EIC. Repeat the process till the safety valve is set at the design pressures or POP up the safety valve manually by proper arrangement as per E-I-C.	BD	No.	32	1112	35584

ANNEXURE -A

<u>PHASE # 1</u>			<u>Part : K</u>		<u>Valves</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
4220	K	24	Servicing of Knife edge gate valve of various mode of operation	Remove the actuator, dismantle the entire valve, repair / replace all damaged parts and gland packings, clean the valve internals properly, Check the straightness of the plate rectify if required, check the surface of the plate rectify if required from impressions, box up the valve and re-erect the actuator. Check for no leakage, passing and normal operation	BD	No.	20	839	16780
4230	K	25	Choking/Jamming clearout of Knife edge valves	Isolate the valve, loosen the Gland bolts and free the valve by slight hammering as per EIC	BD	No.	82	420	34440
4240	K	26	Servicing of Butterfly valve Size 150-250 Nb of various mode of operation	Remove the actuator, dismantle the entire valve, repair / replace all damaged parts and gland packings, clean the valve internals properly, Check the seat for damage repair / replace as per requirement, check the rubber seal ring repair / replace as per requirement, box up the valve and re-erect the actuator. Check for no leakage, passing and normal operation	BD	No.	2	1392	2784

ANNEXURE -A

<u>PHASE # 1</u>			<u>Part : K</u>		<u>Valves</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
4250	K	27	Servicing of Ball valve of various mode of operation up to 150NB size	Remove the actuator, dismantle the entire valve, repair / replace all damaged parts and gland packings, clean the valve internals properly, Check the ball for external surface damage repair / replace as per requirement, check the sealing ring repair / replace as per requirement, box up the valve and re-erect the actuator. Check for no leakage, passing and normal operation	BD	No.	2	420	840
4260	K	28	Gland replacement of Spiess valves	Isolate the valve from sealing air side, Remove the gland follower and remove the entire gland packing set. Clean the sprindle and gland follower and replace with new gland packing set and box up. Check for no leakage	BD	No.	4	630	2520
4270	K	29	Cooling water hose replacement for Spiess valve	Isolate the valve from cooling water side, remove the damaged cooling water hoses and replace it with new ones as per EIC. Charge the cooling water and check for no leakage.	BD	No.	6	556	3336

ANNEXURE -A

<u>PHASE # 1</u>			<u>Part : K</u>		<u>Valves</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
4280	K	30	Removal / refixing of spiese valve assy./Replacement work	Remove the cooling water hoses from spiese valve. Remove the spiess valve assly from position. Remove any foreign material from inside and checking of bed ash discharge line for any chock up. If line is chocked clear it by pocking. Position spiess valve assly. Carry out alignment with brick.Normalise the system.	BD	No.	18	10201	183618
4290	K	31	Manual operation of spiese valve.	Open/close the spiese valve manually as per EIC.	BD	Once operation	80	278	22240
4300	K	32	Replacement of valves handle upto 4"	Remove the valve handle from position. Replace with new one.	BD	No.	22	420	9240

ANNEXURE -A

<u>PHASE # 1</u>			<u>Part : K</u>		<u>Valves</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
4310	K	33	Servicing/Overhauling of combustor Spiess valve assembly. Size: OD- 80mm, Legth: 2.5 meter.	Isolate the valve from cooling water and seal air side, remove the cooling water, seal air hoses. Remove complete assly of spiess valve from position. Dismantle spiess valve shaft from body. Check the condition, ovality of shaft, condition cone. Remove the damaged shaft and replace with the new one if require. Cleaning of shaft sleeve & replaced gland packing. Build up cone with special electrode as per instruction of EIC. Box up & align the valve as per EIC .Connect the cooling water, seal air hoses. Check for no leakage, passing and normal operation	BD	No.	8	7417	59336

ANNEXURE -A

<u>PHASE # 1</u>			<u>Part : K</u>		<u>Valves</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
4320	K	34	Servicing/Overhauling of FBHE/Seal pot Spiess valve assembly. Size:OD- 135mm, Legth: 3.5 meter.	Isolate the valve from cooling water and seal air side, remove the cooling water, seal air hoses. Remove complete assly of spiess valve from position. Dismantle spiess valve shaft from body. Check the condition, ovality of shaft, condition cone. Remove the damaged shaft and replace with the new one if require. Cleaning of shaft sleeve & replaced gland packing. Build up cone with special electrode as per instruction of EIC. Box up & align the valve as per EIC .Connect the cooling water, seal air hoses. Check for no leakage, passing and normal operation	BD	No.	8	10201	81608
4330	K	35	Freeness checking of various size of gate and globe valves: Size- upto 3"	Check the valve for jamming. Made free if required. Lubricate the spindle of valve. Assist trial run of valve by opening and closing of valve.	BD	No.	300	140	42000
4340	K	36	Freeness checking of various size of gate and globe valves: Size- above 3" upto 16"	Check the valve for jamming. Made free if required. Lubricate the spindle of valve. Assist trial run of valve by opening and closing of valve.	BD	No.	15	556	8340
4350	K	37	Assistance for attending online leakage of valves /pipe line etc.	Make necessary approach for attending on line leakage. Make necessary connection of air etc. Assist the online leakage attending team. Normalise. 01 no. equal to 04 hours work of 01 Fiiter, 01 Welder/Grinder & 02 Helpers.	BD	No.	18	1093	19674

ANNEXURE -A

<u>PHASE # 1</u>			<u>Part : K</u>		<u>Valves</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
4360	K	38	Servicing of Control valve upto 3" size	Remove the actuator, dismantle the entire valve, repair / replace all damaged parts and gland packings, clean the valve internals properly, Lap the seat for perfect sealing, box up the valve and re-erect the actuator. Check for no leakage, passing and normal operation	BD	No.	10	2225	22250
4370	K	39	Cleaning of valves up to 3" size	External cleaning of valves by manually and with spray.It should be cleaned properly without any dust	BD	No.	15	140	2100
4380	K	40	Cleaning of valves above 3" size	External cleaning of valves by manually and with spray.It should be cleaned properly without any dust	BD	No.	18	210	3780
4390	K	41	Steam trap replacement	Steam trap replacement along with end piping to nearest trench,include cutting,fitting,bending,Socket welding of 15NB/25NB line	BD	No.	10	1112	11120
4400	K	42	Replacement/Installation of KGV up to 300 NB pipe size	Remove the damaged valve from position and install the new valve on position. Check for no leakage as per direction of EIC. Remove the scrape from surrounding.	BD	No.	4	1669	6676
4410	K	43	Replacement/installation of air line valve up to 50 NB pipe size	Remove the damaged valve from position and install the new valve on position. Check for no leakage as per direction of EIC.	BD	No.	3	948	2844

<u>ANNEXURE -A</u>									
<u>PHASE # 1</u>			<u>Part : K</u>		<u>Valves</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
4420	K	44	Pipe removal / replacement / erection up to size 100 NB	Make necessary approach for work and Remove/replace/erect the MS/SS/GI pipe as per the direction of EIC.check for no leakage.	BD	per meter	74	556	41144
4430	K	45	Pipe removal / replacement / erection above size 100 NB up to 300 NB	Make necessary approach for work and Remove/replace/erect the MS/SS/GI pipe as per the direction of EIC. Check for no leakage.	BD	per meter	18	1391	25038
4440	K	46	Clamp fabrication for online leakage attending of steam leakage	Fabricate the clamp as per required size of pipe.	BD	No.	4	1112	4448
<u>PHASE # 1</u>			<u>Part : K</u>		<u>TOTAL</u>				923387

ANNEXURE -A

PRICE SCHEDULE DMC 2021-23 TENDER ID 443263

Unit rates are excluding GST

PHASE # 1			Part : L		Soot Blower				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
4450	L	1	PM of soot blower.	Clean the soot blower assembly & area by cotton cloth ,kerosene.Check the rotary & traverse gear box freeness & Lubricate the rotary & traverse gear box. Lubricate the both travelling carriage assy.Adjust the chain tension of both motor & if required , replace the chain. Check for gland / gasket leakage from travelling carriage, puppet valve & replace it if required. Do check of puppet valve operation by forward-retract .Check the lance feed tube for any damage/bending & inform to Engineer I/C and .Check the steam blowingstrip & repair/replace/tighten , if required. Check advance -retract motion manually.Replace gland packing if instructed.	PM	No.	300	692	207600
4460	L	2	Assistance for soot blowing	One person is required for checking of all soot blower during operation per shift per boiler. The above activity will be done in both boilers in three shifts a day. The person also required to identify any problem of soot blower during operation. Same problem may be attended later.	PM	No.	1500	342	513000
4470	L	3	Chain tension adjustments of rotary and traverse motor.	Check for chain tension. Adjust the chain tension with the help of gear box adjustments.Clear the area.	BD	No.	6	104	624
4480	L	4	Drive chain repair / replacements of rotary and transverse motor.	Remove the chain. Add additional link or replace with new one.Clear the area.	BD	No.	40	553	22120

ANNEXURE -A

PRICE SCHEDULE DMC 2021-23 TENDER ID 449263

Unit rates are excluding GST

PHASE # 1

Part : L

Soot Blower

C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
4490	L	5	Gear box servicing of rotary / transverse motor.	De clutch/couple the gear box. Drain the oil from the gear box.Remove the motor. Dismantle the gear box. Inspect the internals and handover list of spare required . Replace the damaged parts . Service the gear box.Lubricate gear box.. Box up.	BD	No.	2	2213	4426
4500	L	6	Replacements of rotary / transverse gear box assy.	Declutch the gear box. Remove the damaged gear box. Place new one. Align it, adjust the chain tension. Fill the oil in gear box.	BD	No.	2	690	1380
4510	L	7	Oil seal replacements of rotary / transverse gear box	Drain the oil. Remove the motor. Replaced the damaged oil seal. Box up.	BD	No.	2	345	690
4520	L	8	Lubrication of rotary / transeverse gear box, chain of jack shaft, drive chain, travelling carraige assy. Etc.	Fill the oil / change the oil from gear box. Grease the chain, travelling carraige assy. As per E-I-C.	BD	No.	12	277	3324
4530	L	9	Decoupling / Coupling of rotary / transverse motor	Declutch the both gear box. Decouple the gear box from motor. Box up.	BD	No.	70	173	12110
4540	L	10	Jack shaft chain replacements/ repair.	Declutch the both drive. Remove the chain from jack shaft. Repair / replaced as per E-IC	BD	No.	2	518	1036
4550	L	11	Travelling carraige assy Servicing.	Dismantle the carraige assy. Inspect for any damage to worm gear/ worm wheel or any other parts.hand over the list of spare required to restore TC.Issues apre from ware house and install same in existing assembly. transfer the TC to ware house/work shop /location for re installation at site.Post repair tagged the same for further identification/ c-ordination.	BD	No.	4	3908	15632

ANNEXURE -A

PRICE SCHEDULE DMC 2021-23 TENDER ID 449263

Unit rates are excluding GST

ANNEXURE -A									
PRICE SCHEDULE BMC 2021-23 TENDER ID 449263									
PHASE # 1			Part : L			Unit rates are excluding GST Soot Blower			
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
4560	L	12	Travelling carriage assy Replacement	Remove the carriage assy as per standrad procedure. Install new assembly .normalize poppet valve assembly and take manual trail.	BD	No.	6	3908	23448
4570	L	13	Travelling carriage assy. Gland packing replacements	Remove the worn out gland. Replaced the gland. Tighten the gland as per E-I-C.	BD	No.	45	415	18675
4580	L	14	Puppet valve gland packing replacements	Replace the gland packing. Adjust the valve pressure.	BD	No.	16	277	4432
4590	L	15	Puppet valve servicing.	Remove the puppet valve from the position. Dummy with the flange. Service the puppet valve for stem. Gland packing etc.	BD	No.	4	830	3320
4600	L	16	Puppet valve pressure adjustments	Adjust the pressure as per E-I-C.	BD	No.	20	70	1400
4610	L	17	Puppet valve replacements.	Replace the puppet valve with new one. Adjust the pressure as per E-I-C. replace gaskets if required	BD	No.	8	557	4456
4620	L	18	Steam blowing bar (strip) replacements.	Remove the damaged strip (blowing bar) Check during operation.	BD	No.	40	277	11080
4630	L	19	Lance tube replacement	Remove the lance from position. Fix new lance in position. Align lance in carriage assy. Box up. Assist trial run.	BD	No.	12	5056	60672
4640	L	20	Puppet valve plug replacement.	Check puppet valve plug thread. If found damage tap new thread. Fix new plug. Box up.	BD	No.	3	69	207
4650	L	21	gasket replacement of Poppet valve	Isolate the system from steam side remove the damaged gasket and replace with new one charge the line and check for any leakage.	BD	No.	20	1035	20700

ANNEXURE -A

PRICE SCHEDULE DMC 2021-23 TENDER ID 449263

Unit rates are excluding GST

PHASE # 1			Part : L		Soot Blower				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
4660	L	22	Lance/Feed pipe Replacement	Removal of Lance/Feed pipe from existing soot blower Assembly by removing SBV head Assembly ,Install new feedpipe/Lance & SBV Head Assembly.normalize	BD	No.	12	7352	88224
4670	L	23	Jack shaft end bearing replacement 1 No. bearing	Remove old bearing of jack shaft assembly and replace it with new one	PM	No.	12	553	6636
4680	L	24	Drive end bearing replacement 1 No. bearing	Remove old bearing of drive shaft assembly and replace it with new one	PM	No.	18	484	8712
4690	L	25	Opening & closing of soot blower manual valve during sootblowing	Opening & closing of soot blower manual valve during sootblowing as per instruction of GIPCL EIC	PM	No.	1500	68	102000
4700	L	26	external cleaning of sootblower	External cleaning of soot blower assembly	PM	No.	80	137	10960
4710	L	27	sootblower retracted manually	On jamming / on intimation. Remove soot blower traveeling carriage along with lance from jamm postion to home postion through required tools and tackles . If required repair chain assembly	PM	No.	150	320	48000
4720	L	28	freeness checking	Check freeness of all four chain from both end between sprocket	PM	No.	350	320	112000
4730	L	29	home position checking	On intimation verified home postion of individual soot blower	PM	No.	100	68	6800
PHASE # 1			Part : L		TOTAL				1313664

ANNEXURE -A

<u>PHASE # 1</u>			<u>Part : M</u>		<u>Fuel Oil Handling</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
4740	M	1	PM of fuel oil pump (Transfer / unloading) Screw type Pump.	Check alignment of pump, correct if required. Check the coupling,bearing condition. Replace if required.Lubricate the bearings. Clean the suction strainer.Box-up.Assist trial run. Adjust pressure of pump if required.	PM	No.	12	526	6312
4750	M	2	PM of pump in drain oil tank (Transfer / unloading) Gear Pump.	--do--	PM	No.	2	394	788
4760	M	3	Steam trap servicing.	Isolate the trap. Dis assemble the trap. Clean it / replaced element if required . Box up.	OM	No.	3	263	789
4770	M	4	Repair/ servicing of steam coil heater	Dismantle the coil. Check for damaged.Plug the damaged tubes.Replace if necessary.Take hydraulic test of heater coil. Boxup	BD	No.	5	4792	23960
4780	M	5	Gasket replacement in Steam coil heater.	Remove the pipe connection from steam heater. Remove the flange of the heater. Put new gasket & Box up.	BD	No.	8	1308	10464
4790	M	6	Assistance to Electrical for removal & fitting of Electric Coil Heater	After removal of electrical connections by electrical dept., remove the coil bundle of electric oil heater , & after clearance from electrical dept fit the heater coil in position.	BD	No.	0	4746	0
4800	M	7	Replacement of coupling & Alignment (Transfer / unloading pump)	Decouple the coupling and replace if required. Align and couple.	BD	No.	2	2616	5232

ANNEXURE -A

<u>PHASE # 1</u>			<u>Part : M</u>		<u>Fuel Oil Handling</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
4810	M	8	Servicing of pump / replacement of pump	Decouple the pump from motor. Take the motor out for pump dismantling. Remove the bearing, mechanical seals. Dismantle the pump & check all internals. Replace/repair the damaged internals. Check the both DE & NDE bearing, mech seal ,its washer, etc & replace if required. Box up the pump, bearing,mech seals. Lubricate the bearing. Ensure the freeness of pump by manual operation. Replace the coupling, if required. Fit the motor & align with pump. assist trial run.and replace if required. Align and couple. Clean the area & remove the scrap.	BD	No.	5	8249	41245
4820	M	9	Pressure adjustments of pump.	Adjust the pressure relief valve as per E-I-C.	BD	No.	2	263	526
4830	M	10	Steam leakage arresting from heater skid.	Arrest the leakage from the flange, strainer flange. Tighten it or replaced the gasket as per E-I-C. Clean the drain oil / water from the skid.	BD	No.	12	1308	15696
4840	M	11	Fuel oil leakage arresting from pump skid and heater skid.	Clean the area.Arrest the leakages from the flange, strainer flanges. Tighten it or replace the gasket as per E-I-C. Clean the drain oil / water from the skid.	BD	No.	3	1308	3924
4850	M	12	Steam strainer cleaning from Pump skid and Heater skid.	Isolate the strainer. Remove the filter elements. Clean with diesel / air. Box up.Clean the area.	BD	No.	4	592	2368
4860	M	13	Fuel oil strainer cleaning from Pump skid and Heater skid.	Isolate the strainer. Remove the filter elements. Clean with diesel / air. Box up.Clean the area.	BD	No.	16	1045	16720
4870	M	14	Replacement of oil valve upto 3" size.	Isolate the system. Cut the damage valve. Replace the valve with new one.	BD	No.	2	1308	2616
4880	M	15	Attending gland leakages of valves upto NB 3"	Tighten the glands. Replace if necessary	BD	No.	4	523	2092

ANNEXURE -A

<u>PHASE # 1</u>			<u>Part : M</u>		<u>Fuel Oil Handling</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
4890	M	16	Replacement of Mechanical Seal of the pump.	Carry out replacement of the mechanical seal as per instruction of EIC. This includes Decoupled the pump and motor, dismentled the Mech. Seal and replaced , align the pump and motor and coupled it and take trial run. One no. mech. Seal replacement consider as a one no. quantity.	BD	No.	4	4792	19168
<u>PHASE # 1</u>			<u>Part : M</u>		<u>TOTAL</u>				151900

ANNEXURE -A

<u>PHASE # 1</u>			<u>Part : N</u>		<u>Fuel Oil Handling</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
4900	N	1	PM of Pump	Ensure isolation of pump, Thoroughly clean the pump skid, gear box and surrounding parts. Check for all bolts tightness, check coupling bolt tightness. Check for any other abnormalities and ensure its healthiness. Check lube oil and ensure its quality and lub-oil level. Clean surrounding area and return the permit.	PM	No.	3	829	2487
4910	N	2	Providing assistant for Diesel Engine servicing.	Providing manpower for assisting supplier representative to carry out servicing of diesel engine. Thoroughly clean equipment / base from oil and dirt. Check the tightness of all bolts of casing, foundation, etc. Replace the engine oil, fuel filters, air filters, oil filters. Fill up the coolant in the radiator. Check condition of radiator fan belt & alternator belt. Box up the entire equipment. Assist trial run.	PM	Per day per Helper	38	546	20748
4920	N	3	PM of EBFP Lube Oil Unit	Tighten the flanges. Check for any abnormalities. Check for oil level / oil quality. If necessary replace / top up. Cleaning of strainer / oil coolers. Box up.	OM	No.	3	829	2487
4930	N	4	PM of Working oil / lub oil cooler	Isolate cooler from water and oil side. Drain oil in the empty barrel. Clean the water box	BD	No.	2	2211	4422
4940	N	5	Replacement of Gear box.	Decouple the gear box from pump as well as engine side. Remove old gear box and place new one. Carry out alignment with pump & engine.	BD	No.	2	8724	17448
4950	N	6	Diesel engine radiator fan replacement.	Open the cover of radiator fan. Remove the old belt by adjusting pulley of fan. Fix the new belt set. Adjust the pulley. Box up. Assist trial run.	BD	No.	2	1659 105	3318

ANNEXURE -A

<u>PHASE # 1</u>			<u>Part : N</u>		<u>Fuel Oil Handling</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
4960	N	7	Assistance for Inter/after cooler of Diesel engine replacement.	Providing manpower for assisting supplier representative for replacement of inter/after cooler of engine from position. Carry out hydro test of cooler after removal. Replace the cooler if found damage. Box up the engine.	BD	No.	2	5890	11780
4970	N	8	Topping of Diesel in EBFP Fuel tank	Shift the diesel barrel from stores and top the oil in fuel oil tank to the level as per EIC	BD	No.	8	1041	8328
4980	N	9	Topping of Lub oil in Lub oil tank	Shift the Lub oil barrel from stores and top the oil in fuel oil tank to the level as per EIC	BD	No.	2	208	416
4990	N	10	Lub oil replacement.	Remove the old oil from lub oil tank completely. Clean the tank from inside. Clean the view glass. Fill the tank as per instruction of EIC.	BD	No.	2	1665	3330
5000	N	11	Fuel(diesel) replacement.	Remove the diesel from tank completely. Clean the tank from inside. Clean the view glass. Fill the tank as per instruction of EIC.	BD	No.	6	3051	18306
5010	N	12	Lub oil filter cleaning	Isolate the lub oil filter from oil side and clean the filter which is choked. After cleaning charge the lub oil filter and check for any leakage attend if any	BD	No.	2	416	832
5020	N	13	EBFP pump suction strainer cleaning	Isolate the strainer from water side. Remove the bucket type strainer. Clear all debris from strainer assy. Check the strainer & replace if damaged or clean the strainer. Replace the flange gasket. Put the strainer in position & Box up.	BD	No.	2	1659	3318
5030	N	14	EBFP mechanical seal replacement NDE side	Isolate the pump from mechanical side. Drain the pump. Remove mechanical seal. Replace with new one. Box up & Normalise.	BD	No.	2	7345	14690

ANNEXURE -A

Unit rates are excluding GST

<u>PHASE # 1</u>			<u>Part : N</u>		<u>Fuel Oil Handling</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
5040	N	15	EBFP mechanical seal replacement DE side	Isolate the pump from mechanical side. Drain the pump.Remove the coupling. Remove mechanical seal. Replace with new one. Box up & Normalise.	BD	No.	2	8724	17448
5050	N	16	Servising of Mechanical Seal	Dismantle the seal. Replace damaged parts. Assemble the seal.	BD	No.	2	1817	3634
<u>PHASE # 1</u>			<u>Part : N</u>		<u>TOTAL</u>				132992

ANNEXURE -A

<u>PHASE # 1</u>			<u>Part : O</u>		<u>Hoist</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
5060	O	1	Inspection & PM of Hoist	Clean the hoist by cotton cloth. Carry out greasing of bearings,gear box, pulley and load hook, rollers as per instruction of E-I-C.Lubricate the hoist wire rope. Check the hoist for verical & horizontal direction of operation.Check the brake.Note the defects & correct it. Clean the travelling beam with blowing of air.	PM	No.	15	789	11835
5070	O	2	Servicing of Hoist	Dismantling of hoist parts. Identify the damaged & replace if required.Assemble the Hoist with proper lubrication. Complete inspection of hoist. Carry out hoist servicing work as per instruction of EIC. After complete servicing/ inspection take a trial for the hoist.	BD	NO	12	3829	45948
<u>PHASE # 1</u>			<u>Part : O</u>		<u>TOTAL</u>				57783

ANNEXURE -A**PHASE # 1****Part : P****External Cleanings**

C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
		A) FANS							
5080	P	1	Inspection and external cleaning of PA fan ,its lub oil unit, IGV & ACW valves	This activity is to be carried out in running unit, so utmost care to be taken while doing the work and dont disturb any valves or cable etc.Clean the whole lube oil units, check for any oil, water, air leakages & inform to E-I-C. Clean the complete foundation of fan, motor & its bottom floor, clean the all valves & apply dry moly spray on foundation bolts & valves stem. clean fans & motor, Inspection and external cleaning of IGV and greasing, bearings.Shift the scrap to scrap yard.	PM	Per Fan	15	789	11835
5090	P	2	Inspection and external cleaning of SA fan ,its lub oil unit & ACW valves	This activity is to be carried out in running unit, so utmost care to be taken while doing the work and dont disturb any valves or cable etc.Clean the whole lube oil units, check for any oil, water, air leakages & inform to E-I-C. Clean the complete foundation of fan, motor & its bottom floor, clean the all valves & apply dry moly spray on foundation bolts & valves stem. clean fans & motor, Inspection and external cleaning of IGV and greasing, bearings.Shift the scrap to scrap yard.	PM	Per Fan	15	789	11835
5100	P	3	Inspection and external cleaning of ID fan ,its hydraulic coupling unit & ACW valves	This activity is to be carried out in running unit, so utmost care to be taken while doing the work and dont disturb any valves or cable etc.Clean the whole Hydraulic coupling unit, check for any oil, water, air leakages & inform to E-I-C. Clean the complete foundation of fan, motor & its bottom floor, clean the all valves & apply dry moly spray on foundation bolts & valves stem. clean fans & motor, Inspection and external cleaning of IGV and greasing, bearings.Shift the scrap to scrap yard.	PM	Per Fan	10	789	7890
	P	B) Valve Station							

ANNEXURE -A**PHASE # 1****Part : P****External Cleanings**

C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
5110	P	4	Inspection and external cleaning of Drain Header 1&2 Station. It consists of around 40 - nos valves upto 2" size is considered as one no.	This activity is to be carried out in running unit, so utmost care to be taken while doing the work and dont disturb any valves or cable etc. Clean all valves ,apply dry molyspray on its stem. Clean the Drain header area .remove all dirt, dust, oil, grease, insulationn scrap, metallic scrap, etc. Note the defects and inform it to E-I/C. Shift the scrap to scrap yard.	PM	No	10	789	7890
5120	P	5	Inspection and external cleaning of valves station at drum level and 33 mtr elevation. It consists of 15 nos valves upto 2" size is considered as one no.	This activity is to be carried out in running unit, so utmost care to be taken while doing the work and dont disturb any valves or cable etc. Clean all valves ,apply dry molyspray on its stem. Clean the Drum area & 33 meter valve station area .Remove all dirt, dust, oil, grease, insulationn scrap, metallic scrap, etc. Note the defects and inform it to E-I/C. Shift the scrap to scrap yard.	PM	No	10	789	7890
5130	P	6	Inspection/ Cleaning of RH attemperator, SH attemperator & Soot blower Control valves station It consists of 30 -nos valves upto 2.5" size is considered as one no.	This activity is to be carried out in running unit, so utmost care to be taken while doing the work and dont disturb any valves or cable etc. Clean all valves ,apply dry molyspray on its stem. Clean the valve station area .Remove all dirt, dust, oil, grease, insulationn scrap, metallic scrap, etc. Note the defects and inform it to E-I/C. Shift the scrap to scrap yard.	PM	No	10	789	7890
5140	P	7	Inspection/ Cleaning of Combustor species valve / FBHE to ash cooler Speciss valve station	This activity is to be carried out in running unit, so utmost care to be taken while doing the work and dont disturb any valves or cable etc. Clean all valves ,apply dry molyspray on its stem. Clean the valve station area .Remove all dirt, dust, oil, grease, insulationn scrap, metallic scrap, etc. Note the defects and inform it to E-I/C. Shift the scrap to scrap yard.	PM	Per Valve	15	197	2955

ANNEXURE -A**PHASE # 1****Part : P****External Cleanings**

C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
5150	P	8	Inspection/ Cleaning of FBHE Speciss valve station	This activity is to be carried out in running unit, so utmost care to be taken while doing the work and dont disturb any valves or cable etc. Clean all valves ,apply dry molyspray on its stem. Clean the valve station area .Remove all dirt, dust, oil, grease, insulationn scrap, metallic scrap, etc. Note the defects and inform it to E-I/C. Shift the scrap to scrap yard.	PM	Per Valve	18	197	3546
	P	C) Bed Ash, Lignite, Limestone							
5160	P	9	Lignite conveyors system Inspection and external cleaning. Lignite conveying system of one unit consists of two nos of lignite conveyor & its drive mechanism, two nos of lignite rotary air lock feeder with drive mechanism, two nos of master fuel trip(MFT) valves and two nos NMEJ between MFT and seal pot.	Thoroughly clean the conveyor system as definid externally for lignite, limestone , dust, dirt etc. Externally clean the plummer block at drive end & tail end assy, gear box with motor & its base plate, Conveyor drive chian & chain guard, Bottom floor of conveyor, air lock feeder NMEJ area, MFT, Clean all the area by air.Check that there is no gas leakage through conveyor cover plates or inspection windows, Inspect the NMEJ carefully for any leakage,Attend the leakage by tightening the joints or properly fitting the windows. Remove the scrap to scrap yard. Note down the defect & informe to E-I-C.	PM	Per Unit	10	1052	10520

ANNEXURE -A

Unit rates are excluding GST

PHASE # 1**Part : P****External Cleanings**

C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
5170	P	10	Inspection and external cleaning of Limestone Bunker & Limestone RALF It consists of Two nos Limestone Bunker, four nos of Limestone Rotary Air Lock feeders,Two nos of Feeder discharge valve in one unit	Clean the entire system with air pressure & cooton cloths, remove all the dirt, oil, grease, ash, foreign material. Clean the top cover plate of bunker and its area, clean the air lock feeder/its discharge valves & its surrounding area, check for any abnormality or limestone leakages & attend it and inform to E-I-C. Box up all inspection doors with applying rope if found open. Shift the scrap to scrap yard.	PM	per unit	8	789	6312
5180	P	11	Inspection and external cleaning of Bed Ash Conveying system, intermediate ash bin. It consists of two nos bed ash conveyor, two nos ashcooler, two nos of rotary air lock feeder, intermediate ash bin	Clean the entire system with air pressure & cooton cloths, remove all the dirt, oil, grease, ash, foreign material. Clean the platform between two ash cooler & top cover plate of intermediate ash bin and its area & its surrounding area, check for any abnormality or bed ash leakages & inform to E-I-C. Box up all inspection doors with applying rope if found open. Shift the scrap to scrap yard.	PM	Per Unit	8	789	6312
	P	D) NMEJ, Boiler							
5190	P	12	Inspection and external cleaning of Combustor to Cyclone NMEJ & its cyclone roof	This activity is to be carried out in hot condition, so utmost care to be taken while doing the work. Clean the entire perpheral area and surrounding are by air. Check for any damages/leakages & if found immidiately inform to E-I-C.Shift the scrap to scrap yard.	PM	No.	15	789	11835

ANNEXURE -A

Unit rates are excluding GST

PHASE # 1**Part : P****External Cleanings**

C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
5200	P	13	Inspection and external cleaning of backpass NMEJ & its Cross over duct Roof	This activity is to be carried out in hot condition, so utmost care to be taken while doing the work. Clean the entire peripheral area and surrounding are by air. Check for any damages/leakages & if found immediately inform to E-I-C. Shift the scrap to scrap yard.	PM	No.	15	789	11835
5210	P	14	Inspection and external cleaning/Inspection of Buck stay of combustor / backpass . One buckstay consists of Front, rear, left & right side of combustor/backpass Size of combustor- 12mx7m size of Backpass - 10mx6m	This activity is to be carried out in hot condition, so utmost care to be taken while doing the work. Remove the metallic scrap, insulation scrap. Clear the buckstay by air blowing . Shift the scrap to scrap yard.	PM	Per Buckstay	35	789	27615
5220	P	15	Inspection and Cleaning of BL/SUB skid station	This activity is to be carried out in running unit, so utmost care to be taken while doing the work and dont disturb any valves or cable etc. Clean all valves . Clean the valve station area . Remove all dirt, dust, oil, grease, insulationn scrap, metallic scrap, etc. Note the defects and inform it to E-I/C. Shift the scrap to scrap yard. One skid station is considered as 01 No.	PM	No.	50	266	13300
5230	P	16	Inspectionand Cleaning of FO control station	This activity is to be carried out in running unit, so utmost care to be taken while doing the work and dont disturb any valves or cable etc. Clean all valves ,. Clean the valve station area . Remove all dirt, dust, oil, grease, insulationn scrap, metallic scrap, etc. Note the defects and inform it to E-I/C. Shift the scrap to scrap yard. One skid station is considered as 01 No.	PM	No.	6	394	2364

ANNEXURE -A

Unit rates are excluding GST

PHASE # 1**Part : P****External Cleanings**

C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
	P	E) ESP,EBFP,							
5240	P	17	Inspection and external cleaning of EBFP, gear box & its engine	Inspection and Inspection and external cleaning of EBFP/gear box /engine of EBFP and surrounding area. Remove oil, dirt, metallic scarp, insulation scarp and shift to scrap yard.Note the defects and inform it to E-I/C.	PM	NO	6	789	4734
	P	F) Blower,Duct,Damper							
5250	P	18	Inspection and external of LT/HT blower Knife Gate valve station in discharge line It consists of @ 22(11 HT+11 LT) Nos of KGV upto 250 Nb. i.e 22 nos of valve station is considered as one unit.	Inspection, Cleaning and greasing of Knife Gate valve station externally.check for any abnormality and inform to E-I-C.	PM	Per Unit	4	789	3156
5260	P	19	Cleaning and greasing of Control / Isolation dampers in air ducting	Inspection, Cleaning and greasing of Control / Isolation dampers externally.check for any abnormality and inform to E-I-C.	PM	Per damper	35	263	9205
	P	G) BOP /OTHER							
5270	P	20	Inspection and external cleaning of fuel oil pump station. It consists 3 nos FO unloading pumps. i.e. it is considered as one no.	clean of all areas as stated in FO pump house station. Remove dirt, oil, metallic scarp etc. Clean all valves in oil-steam line & apply moly spray, check for any leakages & inform to E-I-C.Shift the scrap to scrap yard..	PM	No	3	789	2367

ANNEXURE -A

Unit rates are excluding GST

PHASE # 1**Part : P****External Cleanings**

C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
5280	P	21	Inspection and external cleaning of fuel oil pump station. It consists of 4nos FO transfer pumps, 4 FO steam heater, One electrical heater. i.e. it is considered as one no.	clean of all areas as stated in FO pump house station. Remove dirt, oil, metallic scarp etc. Clean all valves in oil-steam line & apply moly spray, check for any leakages & inform to E-I-C.Shift the scrap to scrap yard..	PM	No	4	1183	4732
5290	P	22	Painting of structure, hopper, tank, cyclone etc.	Clean the surface thoroughly with wire brush, buffing wheel/emery paper, grinding etc. Apply the two coats of primar as per instruction of E-I-C and two coats of paint.	BD	Sq. meter	460	64	29440
<u>PHASE # 1</u>			<u>Part : P</u>			<u>TOTAL</u>			205458

ANNEXURE -B

PHASE # 1 & 2				Part : Q	Vortex Finder				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
5300	Q	1	Vortex finder ring removing	Make necessary arrangement for locking of collapsed / hanging vortex finder ring by providing chain blocks to keep it in fixed position. Cut the damaged vortex finder ring by cutting rod/plasma cutting. Removal of cut pieces of vortex finder either from the cyclone manhole door (Approx. EL 32.0 mtrs) or from the seal pot manhole door (Approx. EL 11.0 mtrs) in the scope of contractor, Shifting of all debris / scrap from site to the scrap yard. All Counsumables in contractor scope for arrangement, cutting and removing complete vortex finder ring.	BD	No.	2	88715.00	177430
5310	Q	2	Vortex finder Eccentric sleeve removing	Make necessary arrangement for locking of collapsed / hanging vortex finder Eccentric Sleeve by providing chain blocks to keep it in fixed position. Cut the damaged vortex finder Eccentric Sleeve by cutting rod/plasma cutting. Removal of cut pieces of vortex finder either from the cyclone manhole door (Approx. EL 32.0 mtrs) or from the seal pot manhole door (Approx. EL 11.0 mtrs) in the scope of contractor, All Counsumables in contractor scope for arrangement, cutting and removing complete vortex finder Eccentric Sleeve. Shifting of all debris / scrap from site to the scrap yard.	BD	No.	2	53229.00	106458

ANNEXURE -B

PHASE # 1 & 2			Part : Q		Vortex Finder				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
5320	Q	3	Vortex finder Support removing (Total 20 nos. Support)	<p>Make necessary arrangement for locking of hanging vortex finder Support by providing chain blocks to keep it in fixed position. Cut the damaged vortex finder Support by cutting rod/plasma cutting/ Grinding from Cyclone casing duct at cyclone top. Removal of cut pieces of vortex finder support from the cyclone manhole door (Approx. EL 32.0 mtrs) or from the seal pot manhole door (Approx. EL 11.0 mtrs) in the scope of contractor, All Counsumables in contractor scope for arrangement, cutting and removing complete vortex finder Support (Total 20 nos. Support)</p> <p>Shifting of all debris / scrap from site to the scrap yard.</p>	BD	No.	1	41448.00	41448

ANNEXURE -B

PHASE # 1 & 2				Part : Q	Vortex Finder				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
5330	Q	4	Vortex Finder Support , Ring, and Eccentric Sleeve removing	<p>Make necessary arrangement for locking of collapsed / hanging vortex finder ring, Support and Eccentric Sleeve by providing chain blocks to keep it in fixed position.</p> <p>Cut the damaged vortex finder ring, support and Eccentric Sleeve by cutting rod/plasma cutting/grinding . Removal of cut pieces of vortex finder support, ring and Eccentric sleeve either from the cyclone manhole door (Approx. EL 32.0 mtrs) or from the seal pot manhole door (Approx. EL 11.0 mtrs) or Cyclone Casing duct in the scope of contractor, cut the cyclone casing plate for removing of vortex finder Ring, support and Eccentric Sleeve in three / two pieces from cyclone cylindrical portion if required, All Consumables in contractor scope for arrangement, cutting and removing of complete vortex finder ring, Support & Sleeve</p> <p>Shifting of all debris / scrap from site to the scrap yard.</p>	BD	No.	1	186804.00	186804

ANNEXURE -B

PHASE # 1 & 2				Part : Q	Vortex Finder				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
5340	Q	5	Vortex Finder Ring Erection	Shifting of new vortex finder Ring at site (Approx. height 35 mtrs) from store. Make necessary arrangement for lifting and cut the cyclone casing plate for insertion of vortex finder Ring in three / two pieces from cyclone cylindrical portion. Fix the vortex finder Ring as per E-I-C and Drawing. Do full welding of vortex finder ring, and welding of stiffeners as per EIC and drawing. Revival of cyclone casing plate by full welding (inside & outside). Scrap material to be shifted to scrap yard. All Consumables in contractor scope for arrangement, erection of complete vortex finder ring Note: Special welding electrodes Sandvik 22.12 HTR and E307-16 shall be provided by GIPCL.	BD	No.	1	112995.00	112995
5350	Q	6	Vortex Finder Support Erection (Total 20 nos. Support)	Shifting of new vortex finder Support at site (Approx. height 35 mtrs) from store. Make necessary arrangement for lifting for insertion of vortex finder Support from cyclone. Check and repair / replacement of the burn/damaged plate of cyclone for fixing of new vortex finder Supports. Fix the vortex finder Support as per E-I-C and Drawing. Do full welding (Inside and Out side) of vortex finder Support with Cyclone duct, and welding of stiffeners as per EIC. Scrap material to be shifted to scrap yard. All Consumables in contractor scope for arrangement, erection of complete vortex finder support. (Total 20 nos. Support) Note: Special welding electrodes Sandvik 22.12 HTR and E307-16 shall be provided by GIPCL.	BD	No.	1	67188.00	67188

ANNEXURE -B

PHASE # 1 & 2			Part : Q		Vortex Finder				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
5360	Q	7	Vortex Finder Eccentric Sleeve Erection	<p>Shifting of new vortex finder Eccentric Sleeve at site (Approx. height 35 mtrs) from store. Make necessary arrangement for lifting and cut the cyclone casing plate for insertion of vortex finder Eccentric Ring in three / two pieces from cyclone cylindrical portion. Fix the vortex finder Eccentric Sleeve as per E-I-C and drawing. Do full welding of vortex finder Eccentric Sleeve with Ring of Vortex finder, and welding of stiffeners as per EIC. Revival of cyclone casing plate by full welding (inside & outside). Scrap material to be shifted to scrap yard. All Consumables in contractor scope for arrangement, erection of complete vortex finder Eccentric Sleeve.</p> <p>Note: Special welding electrodes Sandvik 22.12 HTR and E307-16 shall be provided by GIPCL.</p>	BD	No.	1	84746.00	84746

ANNEXURE -B

PRICE SCHEDULE BMC 2021-23 TENDER ID 449263

Unit rates are excluding GST

ANNEXURE -B									
PHASE # 1 & 2				Part : Q	Vortex Finder				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit Measure ment (UoM)	Bienn ial Quant ity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
5370	Q	8	Vortex Finder Support , Ring, and Eccentric Sleeve Replacement	Shifitng of new vortex finder ring, supports along with eccentric sleeve at site (Approx. height 35 mtrs). Make necessary arrangement for locking of collapsed / hanging vortex finder ring , support , and eccentric sleeve by providing chain blocks to keep it in fixed position. Dismantle the old vortex finder ring, supports (20 nos.) and eccentric sleeve by cutting rod / Plasma cutting machine. Check and repaire / replacement of the burn/damaged plate of cyclone for fixing of new vortex finder Supports. Make necessary arrangement for lifting and cut the cyclone casing plate for new insertion / old removing of vortex finder support , ring and eccentric sleeve from cyclone cylindrical protion. Fix the new supports (20 nos.) as per E-I-C and Drawing. After fixing of all support fix the vortex finder ring and eccentric sleeve as per E-I-C and Drawing. Do full welding of vortex finder ring, supports, stiffners and eccentric sleeve as per EIC and Drawing. Revival of cyclone casing plate by full welding (inside & outside). Scrap	BD	No.	1	463759.00	463759

ANNEXURE -B

PHASE # 1 & 2				Part : Q	Vortex Finder				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
5380	Q	9	Vortex Finder Eccentric Sleeve, Ring and Support Strengthening / Repairing / Reclamation	Make necessary arrangement for Vortex finder Eccentric sleeve , ring and Support strengthening, repairing, reclamation. Shifting of new plates of SANDVIK 253MA material to site for repair/strengthening work of vortex finder support, ring along with eccentric sleeve. Checking of vortex finder ring, all supports and eccentric sleeve for any damage, bend and erosion. Repair the same by cutting, straightening, welding, built-up and additional plate patch-up as per E-I-C. make require size of stiffner plate from SANDVIK 253 MA plate and weld as per EIC.All Consumables in contractor scope for arrangement, repairing, strengthening, reclamation of complete vortex finder Eccentric Sleeve, ring and support. Scrap material to be shifted to scrap yard Note: Special welding electrodes Sandvik 22.12 HTR and E307-16 shall be provided by GIPCL.	BD	No.	5	124704.00	623520
5390	Q	10	Vortex Finder Supprt Strengthening / Repairing / Reclamation (Total 20 nos. Support)	Shifting of new plates of SANDVIK 253MA material to site for repair/strengthening work of vortex finder supports. Checking of vortex finder all supports for any damage, bend and erosion. Repair the same by cutting, straightening, welding, built-up and additional plate patch-up as per E-I-C. make require size of stiffner plate from SANDVIK 253 MA plate and weld as per EIC.All Consumables in contractor scope for arrangement, repairing, strengthening, reclamation of complete vortex finder support. (Total 20 nos. Support). Scrap material to be shifted to scrap yard Note: Special welding electrodes Sandvik 22.12 HTR and E307-16 shall be provided by GIPCL.	BD	No.	1	35630.00	35630

ANNEXURE -B

PHASE # 1 & 2				Part : Q	Vortex Finder				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
5400	Q	11	Vortex Finder Ring Strengthening / Repairing / Reclamation	Shifting of new plates of SANDVIK 253MA material to site for repair/strengthening work of vortex finder ring. Checking of vortex finder ring for any damage, bend and erosion. Repair the same by cutting, straightening, welding, built-up and additional plate patch-up as per E-I-C. make require size of stiffner plate from SANDVIK 253 MA plate and weld as per EIC.All Consumables in contractor scope for arrangement, repairing, strengthening, reclamation of complete vortex finder ring. Scrap material to be shifted to scrap yard Note: Special welding electrodes Sandvik 22.12 HTR and E307-16 shall be provided by GIPCL.	BD	No.	2	35630.00	71260
5410	Q	12	Vortex Finder Eccentric Sleeve Strengthening / Repairing / Reclamation	Shifting of new plates of SANDVIK 253MA material to site for repair/strengthening work of vortex finder eccentric sleeve. Checking of vortex finder eccentric sleeve for any damage, bend and erosion. Repair the same by cutting, straightening, welding, built-up and additional plate patch-up as per E-I-C. make require size of stiffner plate from SANDVIK 253 MA plate and weld as per EIC.All Consumables in contractor scope for arrangement, repairing, strengthening, reclamation of complete vortex finder Eccentric Sleeve. Scrap material to be shifted to scrap yard Note: Special welding electrodes Sandvik 22.12 HTR and E307-16 shall be provided by GIPCL.	BD	No.	2	35630.00	71260

ANNEXURE -B

<u>PHASE # 1 & 2</u>				<u>Part : Q</u>	<u>Vortex Finder</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
5420	Q	13	Vortex Finder Support , Ring, and Eccentric Sleeve Erection	<p>Shifting of new vortex finder ring, supports along with eccentric sleeve at site (Approx. height 35 mtrs). Check and repair / replacement of the burn/damaged plate of cyclone for fixing of new vortex finder Supports. Make necessary arrangement for lifting and cut the cyclone casing plate for new insertion of vortex finder support , ring and eccentric sleeve from cyclone cylindrical portion. Fix the new supports (20 nos.) as per E-I-C and Drawing. After fixing of all support fix the vortex finder ring and eccentric sleeve as per E-I-C and Drawing. Do full welding of vortex finder, supports, stiffeners and eccentric sleeve. Revival of cyclone casing plate by full welding (inside & outside). Scrap material to be shifted to scrap yard. Cutting electrodes and other consumables to be arranged by party. Note: Special welding electrodes Sandvik 22.12 HTR and E307-16 shall be provided by GIPCL.</p>	BD	No.	1	260092.00	260092
<u>PHASE # 1 & 2</u>				<u>Part : Q</u>				<u>TOTAL</u>	2302590
<u>PHASE # 1</u>				<u>Part : Q</u>				<u>TOTAL</u>	1151295
<u>PHASE # 2</u>				<u>Part : Q</u>				<u>TOTAL</u>	1151295

Annexure B3

PRICE SCHEDULE BMC 2021-23 TENDER ID 449263

Unit rates are excluding GST

Phase-1 & 2		unforeseen work	Execution of unforeseen work				
Sr. No.	Name of activity	Scope of Work	Nature Of Work	Unit of Measur ement (UOM)	Biannual Quantity (A)	Rate (Rs.) Per UOM (B)	Total Price (AXB)
A	B	C	D	E	F	G	H
1	Mill Right fitter , IBR Welder-During Normal Duty	Execution of unforeseen work	Unforeseen work	Per Day	255	1100	280500
2	Piping fitter, Structural fitter, Mechanical fitter-During Normal Duty	Execution of unforeseen work	Unforeseen work	Per Day	255	880	224400
3	Welder, cutter, Rigger, grinder, Refractory breaker operator, Painter, Electrician-During Normal Duty	Execution of unforeseen work	Unforeseen work	Per Day	255	836	213180
4	Helper-During Normal Duty	Execution of unforeseen work	Unforeseen work	Per Day	550	770	423500
5	Mill Right fitter , IBR Welder-Additional duty	Execution of unforeseen work	Unforeseen work	Per HR	760	275	209000
6	Piping fitter, Structural fitter, Mechanical fitterAdditional duty	Execution of unforeseen work	Unforeseen work	Per HR	760	220	167200
7	Welder, cutter, Rigger, grinder, Refractory breaker operator, Painter, Electrician-Additional duty	Execution of unforeseen work	Unforeseen work	Per HR	760	209	158840
8	Helper-Additional duty	Execution of unforeseen work	Unforeseen work	Per HR	1684	192	323328
TOTAL							2000000
For Final Cost consideration say 20,00,000 (20 Lakhs)							
Note 1: Rates as given above shall include cost of all manpower, Vehicle, equipment consumables (except free issue materials by GIPCL) labor, supervision, tools and tackles, transport, Safety and statutory compliance, mobilization, Contingency expenditure and supervision charges etc. and such other cost are not specifically mentioned herein but will be incurred by the contractor for the satisfactory and timely completion of the work.							
Note 2: The quantities specified are estimated and for tendering purpose only. Payment will be made, based on actual work done as certified by Engineer-in-charge of GIPCL and inline with "INSTRUCTIONS TO BIDDERS & CONDITIONS OF CONTRACT"							
SUB TOTAL -1 FOR PHASE -1							1000000
SUB TOTAL -2 FOR PHASE -2							1000000

Part No.	Description	BOTH YEAR PH-1	BOTH YEAR PH-2
A	Pressure Parts	21852271	20386878
B	SA Fan / PA fan	804116	839122
C	ID Fan	408952	367312
D	Lube Oil Units & Scanner Air Fan	163748	222275
E	Blowers	1041494	758058
F	Bed Ash Conveying System	3216240	2865258
G	Lignite / Limestone Feeding System	3752935	4018999
H	E.S.P.	1440774	1586457
I	Duct/Damper/NMEJ/MEJ	7319204	4822272
J	Fuel Firing System.	568626	524606
K	Valves	923387	914153
L	Soot Blower	1313664	1302046
M	Fuel Oil Handling	151900	144268
N	Emergency Boiler Feed Pump	132992	121517
O	Hoist	57783	21860
P	External Cleanings	205458	279014
Q	Vortex Finder	1151295	1151295
R	Unforeseen (ANNEXURE B3)	1000000	1000000
	SUB TOTAL PHASE WISE	45504839	41325390
	GRAND TOTAL	86830229	

ANNEXURE -B

PRICE SCHEDULE BMC 2021-23 TENDER ID 449263

Unit rates are excluding GST

PHASE # 2			Part : A		PRESSURE PARTS				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit Measure ment (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
			Scaffolding Erection						
10	A	1	Erection of scaffolding and platform inside combustor, from grate to roof of the combustor I.e height upto 32 mtr. Size of combustor is 7.5 meter X 12.5 meter and 32 meter height (one entire combustor considered as one no.). Layher all round scaffolding materials to be provided by GIPCL. Combustor grate is 6.5 meter elevation from ground level.	Erection of M/s. Layher make (Ring & wedge type) scaffolding and platform inside combustor from combustor nozzle Grate level to roof of the combustor I.e upto 32 mtr. (Scaffolding shall be given by GIPCL). GA drawing of Boiler is attached.	BD	No.	0	346757	0
20	A	2	Erection of scaffolding and platform inside combustor from combustor grate to 15 meter elevation, at any one corner or any one wall of Combustor. Size of scaffolding is 6 meter x 6 meter upto 15 meter height. Scaffolding materials in the scope of contractor.	Shift scaffolding material to site. Erect scaffolding. Make proper platform along with hand railing at different elevation & proper climbing approach as ladder as per instruction of E-I-C. Finally dismantle and shift the scaffolding material to store after work completion.	BD	No.	8	35697	285576
30	A	3	Erection of scaffolding and platform inside combustor above 15 mtr elevation on the scaffolding erected as per S NO 1.2. (per meter height). Rate applicable is per meter height. Scaffolding materials in the scope of contractor.	Erect the scaffolding above 15.5mtr elevation as per instruction of E-I-C, on the already erected scaffolding as per S No 1.2 Make the platform at different elevation along with hand railing at different elevation as per instruction of E-I-C.	BD	Per Mtr.	2	2596	5192

ANNEXURE -B

PRICE SCHEDULE BMC 2021-23 TENDER ID 449263

Unit rates are excluding GST

PHASE # 2			Part : A		PRESSURE PARTS				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit Measure ment (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
40	A	4	Erection of scaffolding and platform inside combustor from combustor grate to 15 meter elevation, at any one corner or any one wall of Combustor. Size of scaffolding is 6 meter x 6 meter upto 15 meter height. Scaffolding materials in the scope of GIPCL. Scaffolding material will be issued subject to availability of the material and decision of E-I-C.	Shift scaffolding material to site. Erect scaffolding. Make proper platform along with hand railing at different elevation & proper climbing approach as ladder as per instruction of E-I-C. Finally dismantle and shift the scaffolding material to store after work completion.	BD	No.	6	17846	107076
50	A	5	Erection of scaffolding and platform inside combustor above 15 mtr elevation on the scaffolding erected as per S NO 1.3. (per meter height). Rate applicable is per meter height. Scaffolding materials in the scope of GIPCL. Scaffolding material will be issued subject to availability of the material and decision of E-I-C.	Erect the scaffolding above 15.5mtr elevation as per instruction of E-I-C, on the already erected scaffolding as per S No 1.2Make the platform at different elevation along with hand railing at different elevation as per instruction of E-I-C.	BD	Per Mtr.	2	1298	2596
60	A	6	Erection of scaffolding in combustor windbox. Size of scaffolding - 12mx7mx2m.(One entire windbox considered as one no.). Scaffolding materials in the scope of contractor.	Shift scaffolding material from store to site. Erect scaffolding. Make proper platform at diiferent elevation.as per instruction of EIC. Finally dismantle and shift the scaffolding material to store after work completion.	BD	No.	30	11106	333180

ANNEXURE -B

PRICE SCHEDULE BMC 2021-23 TENDER ID 449263

Unit rates are excluding GST

PHASE # 2			Part : A		PRESSURE PARTS				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit Measure ment (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
70	A	7	Erection of scaffolding in FBHE Bundle chamber/Empty chamber/Seal pot / for Miscellaneous work Size of scaffolding - 2mx2mx3m .Scaffolding materials in the scope of contractor.	Shift scaffolding material from store to site. Erect scaffolding. Make proper platform at diiferent elevations as per instruction of EIC. Scaffolding erected may be require to adjust for refractory works as per instruction of EIC. Finally dismantle and shift the scaffolding material to store after work completion.	BD	No.	60	793	47580
80	A	8	Erection of scaffolding in economiser hopper Size of scaffolding - 2mx2mx3m. Scaffolding materials in the scope of contractor.	Shift necessary scaffolding material. Make proper scaffolding & platform as per instruction of EIC. Remove the scaffolding.	BD	No.	2	793	1586
90	A	9	Erection of scafflodging for seal pot to cyclone roof. Size of scaffolding - around 10.5 mtr. elevation to cyclone roof at around 40 mtr elevation. Cyclone diameter at bottom is approx. 2 M and at top is approx. 8.8 M. Scaffolding materials in the scope of contractor. Make proper platform at different elevation.	Erection of scafflodging for seal pot to cyclone roof. Size of scaffolding - around 10.5 mtr. elevation to cyclone roof at around 40 mtr elevation. Cyclone diameter at bottom is approx. 2 M and at top is approx. 8.8 M. Scaffolding materials in the scope of contractor. Make proper platform at different elevation.	BD	No.	2	73434	146868
100	A	10	Erection of scaffolding for Miscellaneous work at outside area. Upto 6 meter height. Size - length 3mx breadth 6m, height 6 m is considered as one no of scaffolding erection.Scaffolding materials in the scope of contractor.	Erect the scaffolding outside the boiler up to 6 meter height as per instruction of E-I-C. Make proper approach and platform as per instruction of E-IC.Dismantle the scaffolding & shift material to store.	BD	No.	228	6620	1509360

ANNEXURE -B

PRICE SCHEDULE BMC 2021-23 TENDER ID 449263

Unit rates are excluding GST

PHASE # 2			Part : A		PRESSURE PARTS				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit Measure ment (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
110	A	11	Erection of scaffolding for Miscellaneous work. above 6 meter height on the scaffolding erected as per S. No. 1.8. (per mtr. height). Rate applicable is per meter height. Scaffolding materials in the scope of contractor.	Erect the scaffolding outside the boiler above 6 meter height as per instruction of E-I-C on the already erected scaffolding as per S. No. 1.8. Make proper approach and platform as per instruction of EIC. Dismantle the scaffolding & shift material to store.	BD	Per Meter	5	1103	5515
120	A	12	Erection of scaffolding for Miscellaneous work at outside area. Upto 6 meter height. Size - length 3mx breadth 6m, height 6 m is considered as one no of scaffolding erection.Scaffolding materials in the scope of GIPCL. Scaffolding material will be issued subject to availability of the material and decision of E-I-C.	Erect the scaffolding outside the boiler up to 6 meter height as per instruction of E-I-C. Make proper approach and platform as per instruction of E-IC.Dismantle the scaffolding & shift material to store.	BD	No.	60	3310	198600
130	A	13	Erection of scaffolding for Miscellaneous work. above 6 meter height on the scaffolding erected as per S. No. 1.9. (per mtr. height). Rate applicable is per meter height. Scaffolding materials in the scope of contractor.Scaffolding materials in the scope of GIPCL. Scaffolding material will be issued subject to availability of the material and decision of E-I-C.	Erect the scaffolding outside the boiler above 6 meter height as per instruction of E-I-C on the already erected scaffolding as per S. No. 1.8. Make proper approach and platform as per instruction of EIC. Dismantle the scaffolding & shift material to store.	BD	Per Meter	5	552	2760

ANNEXURE -B

PRICE SCHEDULE BMC 2021-23 TENDER ID 449263

Unit rates are excluding GST

PHASE # 2			Part : A		PRESSURE PARTS				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit Measure ment (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
140	A	14	Erection of cantilever type scaffolding at different locations. Size of scaffolding is 3meter X 5 meter cantilever length X 6 meter height. Scaffolding materials in the scope of contractor.	Shift the scafflodng material to location. The scafflodng will be cantiliver type.Height of the scafflodng 6 mtr up/down.(approx) The said scafflodng needs to extended @ 5 mtr from the opening.Dismantle the scaffolding & shift material to store.	BD	No.	2	51197	102394
150	A	15	Erection of scaffolding and platform inside combustor for SUBs Repairing/Replacement. Size: 3 meter length X 3 meer width X 4 meter height. Scaffolding materials in the scope of contractor.	Shift scaffolding material to site. Erect scaffolding. Make proper platform as per instruction of E-I-C for SUBs repairing/Replacement work. Finally dismantle and shift the scaffolding material to store after work completion.	BD	No	45	2380	107100
160	A	16	Erection of scaffolding and platform inside combustor for SUBs Repairing/Replacement. Size: 3 meter length X 3 meer width X 4 meter height. Scaffolding materials in the scope of GIPCL. Scaffolding material will be issued subject to availability of the material and decision of E-I-C.	Shift scaffolding material to site. Erect scaffolding. Make proper platform as per instruction of E-I-C for SUBs repairing/Replacement work. Finally dismantle and shift the scaffolding material to store after work completion.	BD	No	2	1190	2380
170	A	17	Erection of scaffolding at Slant Portoin of Seal Pot from inside of Combuster. Size: 5 meter length X 1 meter widthX 6 meter height. Scaffolding materials in the scope of contractor.	Shift scaffolding material to site. Erect scaffolding. Make proper platform as per instruction of E-I-C for for refractory application work Finally dismantle and shift the scaffolding material to store after work completion.	BD	No	40	1983	79320
	A		Boiler Tube Repairs				0	0	0

ANNEXURE -B

PRICE SCHEDULE BMC 2021-23 TENDER ID 449263

Unit rates are excluding GST

PHASE # 2			Part : A		PRESSURE PARTS				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit Measure ment (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
180	A	18	Attending tube leakages upto first 10 joints in one frequency (irrespective of total no. of joints) in Combuster waterwall/Steam cooled walls/FBHE Water walls /Economiser/ Evoparator coil/ Hanger tubes/ Loose tubes / Spray water piping by weld joints OR tube metal build up OR existing weld joint repair etc...Note : Material is carbon steel & low alloy steel i.e. upto (SA 209 T1) grade. Any other tube leakage observed during Hydrotest to be attended by weld joints OR tube metal build up OR existing weld joint repair is also included in first 10 joints.Getting Permission from Directors of Boilers during Pressure parts breakdown for Conducting of internal hydrotest.	Inspect and identify the exact location of tube leakage. Lift / lower / pull the coils if required for tube repair. Make necessary cutting of duct/steam cooled wall/water wall for pulling out coils. Clean the tubes for thickness measurement as per instructions of EIC. Cut the tubes by grinding m/cs, hacksaw m/cs. Edge prepare the joint. Prepare the spool piece of required size. Fit up the joint with clearance from Engineer I/C. Root weld with TIG and subsequent by MMAW. Carry out boiler hydrotest. Repair the defect observed in radiography / hydrotest. Any other tube leakage observed in hydro test is also included in first 10 joints. Normalise all earlier cutting as per instruction of E-I-C.Flush grind joints from hot side. Make necessary liasoning with state Boiler inspecting authority. Minimum 1 IBR approved welder, 01 pressure part fitter, 01 grinders, 01 gas cutter and 02 helpers required during boiler tube leakages upto 10 nos. HP weld joints. If, nos. of weld joints are more than 10 nos. and GIPCL E-I-C intimate to mobilize additional gange consists of 1 IBR approved welder, 01 pressure part fitter, 01 grinders, 01 gas cutter and 02 helpers, contractor shall mobilize additional gang seperately within 24 Hrs. If additional gang is not mobilized after intimation from GIPCL, only 60% payment of this clause shall be paid.	BD	One unit	25	76488	1912200
190	A	19	Welding of each additional joint beyond 10 joints including build upas mentioned in para 2.1	--- do ---	BD	No.	3500	1606	5621000

ANNEXURE -B

PRICE SCHEDULE BMC 2021-23 TENDER ID 449263

Unit rates are excluding GST

PHASE # 2			Part : A		PRESSURE PARTS				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit Measure ment (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
200	A	20	Attending tube leakages upto first 10 joints in one frequency (irrespective of total no. of joints) OR tube metal build up OR existing weld joint repair etc..in FBHE coils viz. RH-1,SH 2, in Back pass viz SH 1B, RH-2, SH-3 and its hanger tubes, loose tubes . Note : Material is SA 209 T11 and above grade. Argon purging / Nitrogen purging and Pre and Post heat treatment to be done for T-91 material and Alloy steel material.Getting Permission from Directors of Boilers during Pressure parts breakdown for Conducting of internal hydrotest.Any other tube leakage observed in hydro test is also included in first 10 joints.	Inspect and identify the exact location of tube leakage. Lift / lower / pull the coils if required for tube repair. Make necessary cutting of duct/steam cooled wall/water wall for pulling out coils. Clean the tubes for thickness measurement as per instructions of EIC. Cut the tubes by grinding m/cs, hacksaw m/cs. Edge prepare the joint. Prepare the spool piece of required size. Fit up of joint shall be checked by EIC. Root weld with TIG and subsequent by SMAW. stress relieved the welded joint if required. Carry out boiler hydrotest. Repair the defect observed in radiography / hydrotest. Any other tube leakage observed in hydro test is also included in first 10 joints. Normalise all earlier cutting as per instruction of E-I-C.Flush grind joints from hot side. lisioning with state Boiler inspecting authority. During boiler tube leakage: Minimum 1 IBR approved welder, 01 pressure part fitter, 01 grinders, 01 gas cutter and 02 helpers required upto 10 nos. HP weld joints. If, nos. of weld joints are more than 10 nos. and GIPCL E-I-C intimate to mobilize additional gange consists of 1 IBR approved welder, 01 pressure part fitter, 01 grinders, 01 gas cutter and 02 helpers, contractor shall mobilize additional gang seperately within 24 Hrs. If additional gang is not mobilized after intimation from GIPCL, only 60% payment of this clause shall be paid.	BD	One unit	2	76488	152976
210	A	21	Welding of each additional joint beyond 10 joints including build up as mentioned in para 2.2	do	BD	No.	60	1836	110160

ANNEXURE -B

PRICE SCHEDULE BMC 2021-23 TENDER ID 449263

Unit rates are excluding GST

PHASE # 2			Part : A		PRESSURE PARTS				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit Measure ment (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
220	A	22	Welding of HP joint in steam/ water line upto 100 mm dia and upto a maximum thickness of 18 mm.(including joints for replacement of valves) Note : It includes pre and post weld HT wherever required.	Carry out welding of joint in supply tubes/Riser tubes/headers/connecting link etc.for attending any leakage/modification/inspection/replacement of pipes etc. works. This will includes removal/application of insulation along with sheeting. Preheat/post heat treatment as per the material specification & instructions of E-I/C. Assist hydro test.	BD	Per Joint	15	3606	54090
230	A	23	Welding of HP joint in steam/ water line from above 100 mm dia to 200 mm dia and upto a maximum thickness of 25 mm.(including joints for replacement of valves) Note : It includes pre and post weld HT wherever required.	do	BD	Per Joint	18	9015	162270
240	A	24	Build up of boiler tube. (build up of 25mm x 50mm = 1 build-up) For SA 209 T1 tubes.	Clean the eroded tube as per instructions of EIC (By grinding or buffing). Carry out thickness measurement. Build-up the eroded tube by TIG and / Or SMAW. Do DP test.Smoothen the surface by Flush grinding as instructions of EIC. Ensure that tube joint withstands in Hydro test.	BD	No.	3000	149	447000
250	A	25	Build up of boiler tube. (build up of 25mm x 50mm = 1 build-up) For T11,T22,T91 grade tubes	do	BD	No.	10	149	1490
260	A	26	FBHE Bundle chamber coil assy installation	Make suitable arrangement for coil assy lifting (that includes fabrication of structure and shifting of chain pulley block etc. Revival of dummy coil assy and placing the the new or repaired coil in position as instruction of E-I-C.(per Coil Assy). One coil assembly consists of 6 nos. tubes. Excluding weld joints.	BD	No.(per coil assembly)	8	41448	331584

ANNEXURE -B

PRICE SCHEDULE BMC 2021-23 TENDER ID 449263

Unit rates are excluding GST

PHASE # 2			Part : A		PRESSURE PARTS				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit Measure ment (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
270	A	27	Radiography of welded joints. Tubes upto dia 58 mm , header stub up to 150 mm dia	Radiograph the welded joint after getting clearance from E-I-C. Develop the film in the dark room. Check for any welding defect. Dark room will be provided by GIPCL. Contractor has to bring the radiography source of sufficient capacity so that all the joints to be radiographed will be covered by the source. Contractor has to make necessary safety measures like area corrodoring while taking the radiogarphy.	BD	Per inch Length of Film	440	96	42240
280	A	28	FBHE Bundle chamber coil assy removal and tubes plugging	Cutting and Removing the damage coil assy from position as instruction of E-I-C. One coil assembly consists of 6 nos. tubes. Plugging of tubes at inlet & outlet by High Pressure joint (IBR welding). Total of 12 nos. plugging in one coil assembly.	BD	Per Coil	5	31080	155400
290	A	29	Shielding of boiler tube in Backpass Material : SS . Length of shield up to 1.0 meter	Shift material from store to site. Clean the tube to be shielded. Remove damaged shield if any. Fix new one, clamp and weld. Clamp should be provided at every 250mm pitch	BD	Per shield	300	148	44400
300	A	30	Fins fit up, fins welding and flush grinding of welding from hot side and buttering of joints of two fins by welding from cold side.	<p>Prepare the edge to the tubes where fin to be welded. Fin fit up between tubes. Weld by SMAW on Hot side & cold side i.e 2 sides at hot face and 2 side at cold face. Flush grind weld area from Hot side. buttering of joints of two fins by welding from cold side. Thickness of fins is 8 mm. Welding to be carried out by E 7018 welding electrode.</p> <p>For Annual Overhauling:</p> <p>In combustor, fins welding & flush grinding shall be completed within 32+4 Hrs. after completion of combustor water wall weld joints. If all fins welding with flush grinding not completed within 32+4 Hrs. only 90% of total fins welding payment shall be made by GIPCL to contractor.</p>	BD	Per meter length of welding	15000	234	3510000

ANNEXURE -B

PRICE SCHEDULE BMC 2021-23 TENDER ID 449263

Unit rates are excluding GST

PHASE # 2			Part : A		PRESSURE PARTS				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit Measure ment (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
310	A	31	Welding in windboxes of combustor / FBHE / Seal pot. Size - 300 mm welding length is consideres as 1 No	Clean the place to be welded, Cut & edge prepare the material. Then weld by MMAW on both sides (Hot side & cold side). Carry out the LPI on the weld joint and ensure the leak proofness.	BD	No	550	278	152900
320	A	32	Opening and closing of Drum Manhole doors Both side Manhole door is considered as 1 No.	Ensure proper cooling. Open both manhole doors. Inspect drum internally. Replace the gaskets and close the man hole doors.	BD	No	4	1665	6660
330	A	33	Inspection and cleaning of drum internal	Ensure proper cooling. Open both manhole doors. Install exhaust fan at one end for forced cooling. Inspect all drum internals namely, cyclone separators, driers, pipings etc, Take necessary precaution to prevent foreign material falling inside drum/drum opening. Remove all drum internals (turboseprator assy. 60 nos. and screen type drier 30 nos.) Replace/repair damage bolts, nuts etc. Clean all internals and refix. Box up the manhole door. Above work is consoder as one no.	BD	NO.	2	14203	28406
340	A	34	Repair / replacement of cassette baffle in Backpass Material: SS	Shift material from store to site. Clean the coils. Remove the old cassette baffles with new ones. Clamp and weld. Repair the damaged ones if required and re-position the fallen ones.	BD	No.	10	630	6300
350	A	35	Replacement/Repair of cap of nozzle in Combustors,FBHE,Seal pot and Ash coolers.(SS material)	Remove the damage nozzle cap by grinding the welded portion. Weld new nozzle cap by welding a bolt plate on it. Do LPI. Rectify the defect found in LPI. Weld the nozzle cap damage portion if required	BD	No.	1200	280	336000
360	A	36	Combustor guide pipe dummy.	Remove the damage nozzle cap by grinding the welded portion. Welding a bolt plate on it for dummy of guide pipe.	BD	NO	500	138	69000
370	A	37	Replacement/Repair of nozzle assembly (i.e guide pipe and cap with bolt) in Combustors,FBHE,Seal pot and Ash coolers.(SS material)	Remove the nozzle assly. from position by grinding or gauging. Edge prepare the surface.Assemble the guide pipe, cap and bolt. Put the new nozzle assly. Make alignment of nozzle. Carry out welding. Do LPI. Rectify the the defect found in LPI.	BD	No.	750	441	330750

ANNEXURE -B

PRICE SCHEDULE BMC 2021-23 TENDER ID 449263

Unit rates are excluding GST

PHASE # 2			Part : A		PRESSURE PARTS				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit Measure ment (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
380	A	38	Impulse pipe repair / replacement up to 16 mm dia of SS material.	Remove the damaged portion by cutting. Replace new pipeline by TIG/SMAW welding as per E-I-C. Check for any leakage by charging. Repair the joint if required.	BD	Per Mtr.	5	699	3495
390	A	39	Erection / Replacement of pipeline in drain and vent piping (Pre.160Kg/sq.cm) Max. 3" dia. MOC: CS.	Remove the damged portion of pipe. Erect new pipe line by TIG/SMAW welding as per instruction of EIC. MOC: CS / alloy steel. Support to be provided along with clamp if required.	BD	Per Mtr.	12	1679	20148
400	A	40	Erection / Replacement of pipeline in drain and vent piping (Pre.40 kg/sq.cm) Max. 2" dia.	-DO-	BD	Per Mtr.	70	1679	117530
410	A	41	Welding HP joints in economizer: Re-welding of Existing weld joint of economizer bank to bank connecting vertical tubes. Surface cleaning of existing weld joint with grinder / buffing and TIG or SMAW welding on existing weld joint. Size of tube: 38.1 OD X 4.5 mm thick. Material of tube is carbon steel (SA 210 Gr.A1) grade. Conducting of internal hydrotest.	Welding HP joints in economizer: Re-welding of Existing weld joint of economizer bank to bank connecting vertical tubes. Surface cleaning of existing weld joint with grinder / buffing and TIG or SMAW welding on existing weld joint. Size of tube: 38.1 OD X 4.5 mm thick. Material of tube is carbon steel (SA 210 Gr.A1) grade. Conducting of internal hydrotest.	BD	Per Joint	250	539	134750
420	A	42	Convective (back-pass) roof sealing work by installing expansion sheet.	Remove damaged expansion sheet. Cleaning of area. Welding of new scalloped bar with roof tubes & front wall tubes for welding of expansion sheet on scalloped bar. Expansion sheet (SS310) welding with scalloped bar at both side. Stuffing of ceramic wool inside expansion sheet. Length of expansion sheet is @ 10 meter & width @ 600 mm.	BD	per meter length of sheet	16	6101	97616

ANNEXURE -B

PRICE SCHEDULE BMC 2021-23 TENDER ID 449263

Unit rates are excluding GST

PHASE # 2			Part : A		PRESSURE PARTS				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit Measure ment (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
430	A	43	Insertion of SS310 pipe (OD 45-50 mm X 3 mm thick and length 6.5 meter) over pressure parts tube (OD 38.1 mm X 7 thick) during replacement of pressure parts tubes and welding at one side of tube.	shifting of SS pipe to 38 meter elevation. Insertion of SS310 pipe (OD 45-50 mm X 3 mm thick) over pressure parts tube (OD 38.1 mm X 7 thick) during replacement of pressure parts tubes and welding at one side of tube	BD	NO	15	271	4065
440	A		0	0	0	0	0	0	0
450	A		0	0	0	0	0	0	0
460	A		0	0	0	0	0	0	0
	A		Insulation :		0	0	0	0	0
440	A	44	Removal and Application of insulation and sheeting of 50mm thickness for one layer.	Remove sheet cladding and insulation of marked portion only as per instructions of E-I-C. Apply insulation with proper hook/washer welding and apply sheeting.	BD	Per Sq. Mtr.	800	331	264800
450	A	45	Removal and Application of insulation and sheeting of two layers of 50mm or one layer of 100mm thickness for one layer.	-- do --	BD	Per Sq. Mtr.	1500	467	700500
460	A	46	Removal and Application of insulation and sheeting of three layers of 50mm or one layer of 100mm + one layer of 50mm thickness for one layer.	-- do --	BD	Per Sq. Mtr.	500	569	284500
470	A	47	Removal and Application of insulation and sheeting of four layers of 50mm or two layer of 50 mm + one layer of 100 mm thickness for one layer.	-- do --	BD	Per Sq. Mtr.	100	637	63700
480	A	48	Only Aluminum sheeting	Remove old damage sheeting. Apply new sheeting and screw finishing as per E-I-C.	BD	Per Sq. Mtr.	125	140	138 17500

ANNEXURE -B

PRICE SCHEDULE BMC 2021-23 TENDER ID 449263

Unit rates are excluding GST

PHASE # 2			Part : A		PRESSURE PARTS				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit Measure ment (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
	A		Opening and closing of manhole doors.				0	0	0
490	A	49	Brick Type.	Open the manhole door by opening bolts & nuts. Remove wool,bricks and rope. Replace damaged ones and put new rope and Box up	BD	No.	300	556	166800
500	A	50	Clamp type	Open manhole door.Replace rope with new one. Box up.	BD	No.	200	70	14000
510	A	51	Bolted type.	Open manhole door.replaced rope with new one. Box up.	BD	No.	500	210	105000
520	A	52	Erection and welding of anchors of all sizes and type(SS).	Erection and welding of anchors as per the instruction of E-I-C.	BD	No.	4000	42	168000
530	A	53	Ground inspection of Boiler pressure parts in presence of Boiler Inspector	The contractor is to liasion with the boiler inspector and arrange the visit of Boiler inspector for ground inspection of boiler pressure parts.Get certification from Boiler inspector.Shift the material at designated place for ground inspection as per the instructions of Engineer I/C. After completion of ground inspection, shift the material to warehouse/site as per the instructions of Engineer I/C.	BD	No	1	26933	26933

ANNEXURE -B

PRICE SCHEDULE BMC 2021-23 TENDER ID 449263

Unit rates are excluding GST

PHASE # 2			Part : A		PRESSURE PARTS				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit Measure ment (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
540	A	54	Conducting of hydrotest in presence of Boiler inspector or inspection of boiler in presence of boiler inspector for extension of existing certificate	The contractor is to liasion with the boiler inspector for hydraulic test or extension of existing certificate and arrange the visit of Boiler inspector for renewal of license.During the Hydraulic test, ontractor has to clean the area nearby drum, combustor manholes, Backpass manholes,C to C & COD manholes.Make sufficient arrangement of lighting inside the combustor, backpass.Make sufficient arrangement of Torches for checking.Gag the safety valves as per instructions of E-I-C. The contractor is to make necessary arrangement for conducting HT like pressure parts coil cleaning, backpass, combustor m/h door etc.If required, assist in safety valve floating in presence of boiler inspector.Submit the radiogarhy reports , tube replacement report,etc as per instructions of E-I/C.Submit all necessary statutory documents like permission for high pressure works,welder validity certificates, licences , etc .Remove the Gag after completion of Hydro Test.	BD	No.	4	37706	150824
550	A	55	Inspection of Combustor Pent House/ Back Pass Pent House and arresting Flue gas/Bed materials leakages. Comb. Pent house and backpass pent house quantity to be considered separately.	Check throughly for any leakages and arrest Flue gas/Bed materials leakages by Seal box / welding / Castable refractory application.	BD	No.	2	14834	29668
560	A	56	Drum/CBD / IBD tank gauge glass replacement / Cleaning	Isolate the gauge glass, remove the gauge from position if required, repair / replace damaged parts or clean the gauge glass and box up. Carry out charging of gauge glass.	BD	No.	1	2225	2225
570	A	57	Tube thickness/metal spray thickness measurement assistant.	Providing manpower for assisting tube thickness/metal spray thickness measurement on round the clock basis. (2 semi-skilled labour for one shift of 8 hrs)	BD	Per shift	5	1119	5595

ANNEXURE -B

PRICE SCHEDULE BMC 2021-23 TENDER ID 449263

Unit rates are excluding GST

PHASE # 2			Part : A		PRESSURE PARTS				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
580	A	58	Inspection and Rectification of CLH hangers	Thoroughly clean the hanger support. Note down any abnormality. Rectify the problem as per instructions of E I/C. Apply the molyspary as per instructions of E I/C. Note down the cold & hot readings.	BD	No.	80	696	55680
590	A	59	Drum/CBD/IBD tank M/H door opening or for leakage attending work.	Open the door as per the instruction given by EIC by opening of all the bolts of manhole door and remove the gasket. Clean the gasket area. Carry out the inspection work / Identify the leakage. Fix a new gasket and refix the bolts and close the manhole door.	BD	No.	1	833	833
600	A	60	Comb. nozzles cleaning	Comb. nozzles dechocking & cleaning as per instruction of E-I-C. (total 740 nos)	BD	Per unit	1	16073	16073
610	A	61	FBHE / Seal pot & Ash coolers nozzles cleaning	Nozzles dechocking & cleaning as per instruction of E-I-C. (total 100 nos)	BD	Per unit	1	3284	3284

ANNEXURE -B									
<u>PHASE # 2</u>			<u>Part : A</u>		<u>PRESSURE PARTS</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
####	E	1	Mobilization of additional manpower for pressure part work for forced shutdown of unit as per instruction of GIPCL EIC	GIPCL E-I-C intimate to mobilize additional gang consists of 1 IBR approved welder, 01 pressure part fitter, 01 grinders, 01 gas cutter and 04 helpers, contractor shall mobilize additional gang separately within 24 Hrs. Activity to be consider only if, complete mentioned gang mobilized.Partial mobilization not to be consider.	BD	No.	10	23849	238490
####	E	2	Bed material Leakage inspection	Pressure part area inspection for bed material leakage (i.e area include Combustor ww, FBHE ww, sealpot etc.)	PM	No.	100	280	28000
####	E	3	Sox point dechoking work	Sox point to be clean and dechoked at ID fan discharge.	BD	No.	96	206	19776
####	E	4	Fabrication of pressure part bends up to OD 57mm	Fabrication of Bend tube up to Dia 57 mm. To fabricate the Bend tube preparation of Spool length with filling the sand inside the tube and tube to be temporary dummied by welding. Cold or Hot bending to be carried out as per EIC instruction. After bending, tube to be normalised (i.e removal of temporary dummied and cleaning of tubes.	BD	No.	200	630	126000

####	E	5	FBHE Coil SS Sleeve/tube support welding	FBHE coil's sleeve/tube support welding as per EIC. New SS sleeve/tube support to be weld during replacement of coils tubes. Sleeve to sleeve to be weld each other and tube support to be weld with new tubes.	BD	No.	800	844	675200
####	E	6	Welding of HP joint in steam/ water line from above 250 mm dia to 610 mm dia and upto a maximum thickness of 32 mm.(including joints for replacement of valves) Note : It includes pre and post weld HT wherever required.	Carry out welding of joint in supply tubes/Riser tubes/headers/connecting link etc.for attending any leakage/modification/inspection/replacement of pipes etc. works. This will includes removal/application of insulation along with sheeting, Edge preparation etc.Preheat/post heat treatment as per the material specification & instructions of E-I/C. Assist hydro test.	BD	No.	4	24496	97984

ANNEXURE -A						
PHASE # 2		Part : A	PRESSURE PARTS			
S.No	Name of the Activity	Scope of Work	Nature of Mntc.	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)
2.8	Radiography of welded joints. Boiler Tubes upto dia 58 mm	Radiograph the welded joint after getting clearance from E-I-C. Develop the film in the dark room. Check for any welding defect. Dark room will be provided by GIPCL. Contractor has to bring the radiography source of sufficient capacity so that all the joints to be radiographed will be covered by the source. Contractor has to make necessary safety measures like area corrodoring while taking the radiogarpthy.	BD	Per Weld Joint	320.00	1050

ANNEXURE -A

PRICE SCHEDULE BMC 2021-23 TENDER ID 449263

Unit rates are excluding GST

PHASE # 1			Part : B		SA Fan / PA fan				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
620	B	1	Overhauling of SA/PA Fan during annual shut down	Ensure isolation from Mech/Elect. side. Decouple the fan from motor.Dismantle DE & NDE bearing housing after removing all oil and water connections. Dismantle the bearing , clean it throughly and carry out DP test of white metal and ensure proper bonding with parent metal. Repalce the bearing if required. Check side oil/top oil clearances.Check axial float reading of thrust bearing and ensure as per design value. Check air/oil hoses of fan & motor. Repair/replace any damage hoses. Clean the lub oil unit externally, clean the filters, coolers etc. Check lub oil pump. Replace lub oil pump if require.Clean the oil return view glass internally. Attend any oil/water leakages. Clean the impeller & fan casing, check for any damages & rectify. Apply anti-corrosive paint on casing internal surfaces. Remove the dust from it. Check impeller clearances/impeller overlap etc.Check the coupling between fan & motor. If required, replace it . Grease the coupling halves.check the coupling bolts & replace ,if damaged. Check & tighten all foundation bolts.Check the alignment of fan with motor & rectify if alignment is disturbed. Box up & assist trial run of Fan.Remove all tools, tackles & clean the surrounding area.	PM	No.	10	35643	356430
630	B	2	Servicing/Overhauling of IGV assembly.	Open the manhole doors. Manually operate the IGV.If required, delink the IGV from power cylinder. Adjust the flap if required. Grease IGV Links,Position the guide ring if required. Repair/replace damaged parts of IGV assy like bearing, flap, gland,etc. Remove the entire IGV link assy. if required.Service each link assy.Give IGV trial for full open/full close position in manual as well as pneumatic operation. Close the manholes & normalise.	PM	No.	15	3745	56175

ANNEXURE -A

PRICE SCHEDULE BMC 2021-23 TENDER ID 449263

Unit rates are excluding GST

PHASE # 1			Part : B		SA Fan / PA fan				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
640	B	3	IGV link assy./IGV flap /guide ring / Link shaft bearing/ gland removal or repair. (Any-1)	Open the manhole doors. Check for any damage link assy. / flap/bearing/gland packing.Replace with new one.if required. Check IGV for full operation. Box up.	BD	Per Mtr.	15	1041	15615
650	B	4	Delinking/Linking of IGV mechanism.	I) For delinking :- Delink the IGV mechanism from power cylinders or electrical actuator. Manually fix the position of the IGV as per instruction of E-I-C. Lock the IGV in position by welding. II) For Linking:- Remove the lock of IGV after work is complete. Link the IGV with power cylinders or electrical actuator.	BD	No.	20	521	10420
660	B	5	coupling and decoupling for other work	De couple the both halves of coupling as per the requirement for facilitating other work and couple after completion of work.	BD	No.	7	1383	9681
670	B	6	Replacement of DE/NDE bearing	Dismantle bearing housing after removing all oil and water connections.Dismantle the bearing and place the new bearing, carry out blue matching if required. Bearing clearance needs to be corrected by scrubbing if required. Box up the bearing.Restore all hose connections. Do alignment with motor.	BD	No.	3	12160	36480
680	B	7	DE/NDE bearing inspection.	Open the top cover /top half of the bearing. Inspect bearings for clearances/damage etc. Box up.If required replace as per sr. no.6.	BD	No.	2	1733	3466
690	B	8	Assistant for Balancing of Impellar/Fan	Providing manpower for assisting balancing of fan/motor. This includes welding of trial/final weight.	BD	No.	3	5003	15009
700	B	9	Coupling repair / replacement	Decouple the motor.Remove both half of coupling. Change with new coupling. Align properly, Grease the coupling.Box up.	BD	Per Meter	2	2415	4830
710	B	10	Manhole door opening and closing for Inspection	Open the man hole door of impeller & IGV.Inspect the impeller & IGV.Close the manhole doors.	BD	No.	8	553	4424

ANNEXURE -A

PRICE SCHEDULE BMC 2021-23 TENDER ID 449263

Unit rates are excluding GST

PHASE # 1			Part : B		SA Fan / PA fan				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
720	B	11	Vibration measurement Assistance.	Supply manpower for assisting vibration measurement to GIPCL EIC for all category rotating equipment viz.ID Fan/SA Fan/PA Fan/Blowers/Emergency Boiler feed pump etc.. One Semiskilled labor shall be required.	PM	No.	2	70	140
730	B	12	SA/PA fans alignment work	SA/PA alignment alignmet work.Carryout alignment work as per direction of EIC and incorporate any correction.Assist the couple /decouple trial run.	BD	Per	30	8841	265230
740	B	13	SA/PA fans alignment checking work	Ensure the Elec/Mech isoaltion.Decouple the fan and motor.Check the alignment of fan and motor and take alignment reading and coupling gap.Couple the fan and motor or do alignment as per sr.no-12 and direction of EIC.	BD	Per.	4	1106	4424
750	B	14	Coupling Removal/Re installation work for motor replacement work	Ensure the Elec/Mech isolation,Decouple the fan/motor and remove the motor foundation bolt and coupling half. Re-install the coupling half in motor and re install the foundation bolt.Align the fan and motor. Assist the trail run of fan couple and decouple trial.Clean the surrounding area.	BD	Per.	2	7049	14098
760	B	15	Motor foundation bolt Removal/Re-installation work	Ensure the Elec/Mech isolation, Remove the foundation bolt to facilitate the work and Re- install the foundation bolt as per the direction of EIC.	BD	Per.	2	3847	7694
PHASE # 1			Part : B		TOTAL				804116

ANNEXURE -B

<u>PHASE # 2</u>			<u>Part : C</u>		<u>ID Fan</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit Measure ment (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
770	C	1	Internal checkings of fan and internal cleaning of impeller	Open manhole doors,Check for Plates/blades. Clean the impeller. Box up	PM	Each fan	8	1382	11056
780	C	2	Servicing of IGV	Open the manhole doors. Manually operate the IGV. Check for IGV for full open/ full close. Adjust the flap if required. Grease IGV Links,Position the guide ring if required, repair/replace damaged parts. Remove the entire IGV link assy. if required.Service each link assy. Restore to normal.	PM	Each fan	8	6996	55968
790	C	3	Servicing of ID fan	Ensure isolation from Mech/Elect. side. Decouple the fan from motor.Dismantle DE & NDE bearing housing after removing all oil and water connections. Dismantle the bearing , clean it thoroughly and carry out DP test of white metal and ensure proper bonding with parent metal. Repalce the bearing if required. Check side oil/top oil clearances.Check axial float reading of thrust bearing and ensure as per design value. Check air/oil hoses of fan & motor. Repair/replace any damage hoses. Clean the lub oil unit externally, clean the filters, coolers etc. Check lub oil pump. Replace lub oil pump if require.Clean the oil return view glass internally. Attend any oil/water leakages. Clean the impeller & fan casing, check for any damages & rectify. Apply anti-corrosive paint on casing internal surfaces. Remove the dust from it.Check impeller clearances/impeller overlap etc.Check the coupling between fan & motor. If required, replace it . Grease the coupling halves.check the coupling bolts & repace ,if damaged. Check & tighten all foundation bolts.Check the alignment of fan with motor & rectify if alignment is disturbed. .Box up & assist trial run of Fan.Remove all tools, tackles & clean the surrounding area.	PM	Each Fan	8	20888	167104

ANNEXURE -B

PHASE # 2			Part : C		ID Fan				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit Measure ment (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
800	C	4	Hydraulic coupling oil leakages attending.	Check for Oil leak/leaks from HC and its connected piping, connector,flanges, etc. Clean the leakage area, attend the Leakage and Box-up.	BD	Each fan	0	1382	0
810	C	5	Hydraulic test of oil coolers (One cooler)	Isolate from water side. Dismantle the cooler,take out bundle assly out side the cooler, clean the cooler internal surfaces and tube bundle internally/externally.Box up tube bundle by replacing O-ring/gasket etc.Carry out HT of cooler. Check for tube puncture. Plug the puncture tubes. Box-up. Charge the cooler and ensure leak proofness. Normalise system. Clean surrounding area.	BD	per cooler	0	6849	0
820	C	6	IGV link assy./IGV flap /guide ring / Link shaft bearing/ gland removal or repair. (any-1)	Open the manhole doors. Check for any damage link assy. / flap/bearing/gland packing.Replace with new one.if required. Check IGV for full operation. Box up.	BD	No.	2	1382	2764
830	C	7	Delinking / Linking of Hydraulic coupling (HC)scoop or IGV.	I) For delinking:-Delink the HC scoop or IGV from the pneumatic actuator. Position the scoop/IGV as per instruction of E-I-C. Lock the scoop/IGV by welding if required.II) For Linking:- Remove the lock. Link the scoop/ IGV to power cylinder.	BD	No.	4	140	560
840	C	8	Alignment of hydraulic coupling with Fan.	Decouple the fan with hydraulic coupling. Check alignment. Do alignment if required. Check coupling bolts. Replace if required. Grease the coupling .Box-up the coupling. Assist trial run.	BD	No.	0	7345	0
850	C	9	Alignment of hydraulic coupling with motor.	-- do --	BD	No.	0	7345	0
860	C	10	Replacement of DE/NDE bearing	Dismantle bearing housing after removing all oil and water connections.Dismantle the bearing and place the new bearing, carry out blue matching if required. Box up the bearing. Note bearing clearances.	BD	Each brg	2	10103	20206

ANNEXURE -B

<u>PHASE # 2</u>			<u>Part : C</u>		<u>ID Fan</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit Measure ment (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
870	C	11	DE/NDE inspection. bearing	Open the top cover /top half of the bearing. Inspect bearings for clearances/damage etc. Note bearing clearance. Box up.If required replace as per sr. no.10	BD	Each bearing	2	1382	2764
880	C	12	De-coupling and coupling	De couple the both halves of coupling as per the requirement for facilitating other work and couple after completion of work.	BD	No.	2	973	1946
890	C	13	Checking of Coupling or Greasing of coupling	De couple the both halves of coupling.Check alignment.Correct the alignment if required.Check the condition of coupling bolts (Repair/replace if required). Grease the coupling .Tighten the coupling bolts..	BD	0	2	1444	2888
900	C	14	Coupling repair / replacement	Decouple the HC from Fan & motor side.Remove both half of coupling. Change with new coupling. Align properly, Grease the coupling.Box up. Assist trial run.	BD	No.	2	6198	12396
910	C	15	Assistant for Balancing of Impellar/Fan	Providing manpower for assisting balancing of fan/motor. This includes welding of trial/final weight. Correctness of alignment. Inspection of bearings etc.	BD	Each Fan	4	2225	8900
920	C	16	Manhole door opening and closing for Inspection	Open the Manhole door, inspect the volute casing and Box-up Manhole door.	BD	No.	4	520	2080
930	C	17	Replacement of bearing cooling water nipple	Open the side cover of bearing housing.Identify the damaged nipple with new one.Internal cleaning of bearing.Oil top up after boxup of bearing and external cleaning.	BD	Each brg	4	520	2080
940	C	18	Manhole door leakage arresting.	Arrest the air leakage through manhole door by sodium silicate application on line.	BD	No.	8	520	4160

ANNEXURE -B

<u>PHASE # 2</u>			<u>Part : C</u>		<u>ID Fan</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit Measure ment (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
950	C	19	Hydraulic coupling Overhauling as per the direction of expert engr.	Decouple the HC from Fan & Motor side. Open the top half of the HC. Remove lub oil / water connecting pipe line from HC. Shift the internals of HC to work shop. Dismantle the entire HC as per insruction of EIC. Check for any damage internals. Replace the damage parts. Replace bearings. Check lub oil pump, replace if require. Check oil condition , replace entire oil if require. Box up and align with fan & motor. Assist trial run.	BD	No.	0	44501	0
960	C	20	Alignment of id fan phase-2	ID fan alignment with Motor.Align and correct coupling between motor and fan.	BD	Per	4	7345	29380
970	C	21	ID Fans alignment checking work	Ensure the Elec/Mech isoaltion.Decouple the fan/motor.Check the alignment of fan/motor and take reading alignment and coupling gap.Couple the fan/motor or do alignment as per sr.no-20 and direction of EIC.	BD	Per.	4	1106	4424
980	C	22	Coupling Removal/Re installation work for motor replacement work	Ensure the Elec/Mech isolation,Decouple the fan from motor and remove the motor foundation bolt and coupling half and Re-install the coupling half in motor and re install the foundation bolt.Align the fan and motor. Assist the trail run of fan couple/ decouple condition .Clean the surrounding area.	BD	No.	4	5815	23260
990	C	23	Motor foundation bolt Removal/Re-installation work	Ensure the Elec/Mech isolation, Remove the all foundation bolts to facilitate the work and Re- install the foundation bolts as per the direction of EIC.	BD	No.	4	3844	15376
<u>PHASE # 2</u>			<u>Part : C</u>		<u>TOTAL</u>				367312

ANNEXURE -B

<u>PHASE # 2</u>			<u>Part : D</u>		<u>Lube Oil Units & Scanner Air Fan</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
1000	D	1	PM of scanner air fan	Inspect DE /NDE bearings. Check alignment. Check the Pulley Condition. Replace if required.Clean the suction strainer.Greasing of DE/NDE bearings. Box up.Clean the auxillary.	PM	Each	4	624	2496
1010	D	2	External cleaning of scanner air fan.	Clean the fan with compressed air.	PM	No.	4	280	1120
1020	D	4	Lub oil sample collection	Open the plug/flange/valve of the lub oil tank/bearing/HC etc. Collect the sample. Submit it to C& L Laboratory. Box up.	PM	No.	80	140	11200
1030	D	5	Attending Leakage of oil from lub oil system of tank and pipes	Identify the leakage . Tighten the flanges, replace the gasket if required. Do welding if required.	BD	No.	30	416	12480
1040	D	6	Lub oil pump servicing	Dismantle pump. Inspect bearings/gears of pump/Relief valve etc. Repair / replace bearings/gears/relief valve if required. Box up.Assist trial run.	BD	No.	3	1106	3318
1050	D	7	Oil topping in ID fan HC lube oil tank	Check oil level in hydrulic tank. Fill the oil up to the normal level. Clean the area.	BD	No.	0	416	0
1060	D	8	Replacement of coupling of LOP	Check coupling. Repair/replace bush/coupling. Align the pump. Box up. Assist trial run.	BD	No.	14	553	7742
1070	D	9	Oil topping of lube oil in ID fan bearings	Check lub oil level in bearings. Fill the oil up to normal level. Clean the area.	BD	No.	40	208	8320
1080	D	10	Oil topping in PA/SA fan	Check lub oil level in tank. Fill the oil up to the normal level. Clean the area.	BD	No.	160	208	33280
1090	D	11	Filter cleaning of lube oil unit of SA and PA fan	Remove the filter. Clean with air/petrol/diesel. Restore.	BD	No.	60	416	24960
1100	D	12	Cooler Hydro test of PA,SA,ID fans and EBFPs.	Dimantle cooler assembly. Carry out hydro test of cooler. Plug any coil if found leaking. Clean cooler.Replace gasket , o-ring, seals etc. Box up. Assist charging of coolers.	BD	No.	12	2211	26532

ANNEXURE -B

Unit rates are excluding GST

<u>PHASE # 2</u>			<u>Part : D</u>		<u>Lube Oil Units & Scanner Air Fan</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
1110	D	13	New oil Filling/Replacement upto 350 litres	Drain complete oil from tank. Clean the tank & view glass after oil draining. Fill the tank with new oil up to normal level. Box up. Clean the area.	BD	No.	4	1659	6636
1120	D	14	New oil Filling/Replacement more than 350 litresDO ...	BD	Once	2	2211	4422
1130	D	15	Pump not developing pressure	Adjust the releif valve.Attend leakage of oil if any and restore.	BD	Each	2	416	832
1140	D	16	Replacement of lub oil pump.	Decouple the pump. Remove all connecting piping and fittings.Replaced with new one. Align and couple it. Assist trial run.	BD	No.	5	829	4145
1150	D	17	Replacements of relief valve of lub oil pump / lub oil system	Isolate the system. Replaced with new relief valve.Assist trial run. Adjust relief valve if required.	BD	No.	2	829	1658
1160	D	18	Valve repair / relacements of lub oil system. Water and oil side. Max up to 1 inch size.	Check for leakage /passing of valve. Attend the leakage/passing problem. Replace the valve if required.	BD	No.	4	624	2496
1170	D	19	Lub oil Filter replacements.	Remove the filter element from the casing. Replace with new one.	BD	No.	4	416	1664
1180	D	20	Sight glass / flow indicator cleaning/replacements. Water and oil side.	Replace/ repair the sight glass / flow indicator with new one.Ensure leakproofness of valve.	BD	No.	60	624	37440
1190	D	21	Flexible hose replacements. Water / oil side.	Replace hose with new one. Check for no-leakage.	BD	No.	12	416	4992
1200	D	22	Replacement of DE/NDE Bearing of Scanner Air Fan	Decouple. Dismantle the damaged bearing.Replace new ones.Lubricate. Align with motor and install V-Belts.	BD	Each	2	833	1666

ANNEXURE -B

Unit rates are excluding GST

<u>PHASE # 2</u>			<u>Part : D</u>		<u>Lube Oil Units & Scanner Air Fan</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
1210	D	23	Replcements of belts/alignment of scanner air fan.	Remove the belt guard. Replaced the set of belts. Adjust the tension , align properly. Fix the belts guard.	BD	Set	2	416	832
1220	D	24	Replacements of suction strainer of scanner air fan.	Remove the strainer by opening of bolts. Replace the strainer with new one. Fix new gasket & box up.	BD	No.	2	416	832
1230	D	25	ID fan bearings oil leakage attending.	Check for any leakage.attend leak as per E-I-C	BD	No.	8	829	6632
1240	D	26	Bearing NDE & DE leakage arresting - water & oil side.	Check for leakages from the bearings. Attend the same.	BD	No.	20	829	16580
<u>PHASE # 2</u>			<u>Part : D</u>		<u>TOTAL</u>				<u>222275</u>

ANNEXURE -B

<u>PHASE # 2</u>			<u>Part : E</u>		<u>Blowers</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit Measure ment (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
1250	E	1	Suction duct cleaning.	Open the man hole doors, Clean the duct with scapping / cleaning tools & tackles.collect all material at ground floor. Joint inspection carried out By GIPCL Engineer Incharge. Scrap the same Box up man holed door	BD	No.	2	15399	30798
1260	E	2	Suction Stainers cleaning of LT Blower	Unlock the strainer casing. Remove the fabric strainer. , replace it or Clean the fabric as well as internals of strainer with compressed air. Box up.	PM	No.	60	484	29040
1270	E	3	Suction Stainers cleaning of HT blower	_-Do_	PM	No.	310	553	171430
1280	E	4	PM of LT blower	Clean the suction stainers. Check oil level/condition. Top up the oil or replace as per instruction of EIC. Attend leakages if any.Check belt tension, adjust/replace belts set if require.Check the lobe condition varify clearances.rotate blower manually and identify any abnormalities if any.Check and varify condition of pulley by belt guage Clean the blower unit. Check speed sensing disc, replace if require. Check the foundation bolt for tightness.Clean the oil view glass and replace if found damage.	PM	No.	35	1244	43540
1290	E	5	PM of HT blower	-- do --	PM	No.	80	2004	160320
1300	E	6	Decouple/ coupling of HT blower with motor. (belt drive) or Belt replacement of HT blower	Remove the belt guard.Loosen the belt by lifting mechanism of motor using screw jack/hydraulic jack. Remove belt from pulley. Check alignment of motor and blower pulley. Correct alignment if required. Refix/replace the belt & adjust belt tension. Refix belt guard. Assist trial run.	BD	No.	4	691	2764

ANNEXURE -B

<u>PHASE # 2</u>			<u>Part : E</u>		<u>Blowers</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit Measure ment (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
1310	E	7	Decouple/ coupling of LT blower with motor. (belt drive) or Belt replacement of LT blower	-do-	BD	No.	4	553	2212
1320	E	8	Repair/replacement of pulley	Decouple the blower with motor. Loosen the belt by lifting mechanism of motor using screw jack/hydraulic jack. Check pulley for any damage. Remove the pulley from position. Repair the pulley as per instruction of EIC. Replace the pulley if require. Refix the pulley. Replace the belt if damaged or refix the belts. Box up & assist trial run.	BD	No.	8	1244	9952
1330	E	9	Suction strainer filter element repair/ replacements	Remove the strainer from the position. Repair/replace if any internals found damage I.e filter element, sponge element etc. Box up the strainer.	BD	No.	5	862	4310
1340	E	10	Oil top up /replacements in the gear box of blower	Check the oil condition/colour visually. Refill/Top up /replace oil as per E-I-C.	BD	No	100	208	20800
1350	E	11	Oil level indicator sight glass cleaning/repair / replacements	Drain the oil from the gear box to oil pot. Remove sight glass. Clean it, refix it properly. Fill removed oil again still normal oil level	BD	No	14	312	4368
1360	E	12	Repair/replacements of MEJ at discharge of blower	Remove the MEJ from the position. Inspect for any damage. Repair if possible by welding. Or replaced with new one. Place in position. Check for leakage.	BD	No	2	1732	3464

ANNEXURE -B

<u>PHASE # 2</u>			<u>Part : E</u>		<u>Blowers</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit Measure ment (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
1370	E	13	Blower Replacements assy.	Remove the belt guard, belts, pulley,suction strainer and connected pipe line. Take out the blower and put it to workshop/maintenance area/Hoist area/Vehicle. Bring new blower from Maintenace bay/Hoist/Vehicle to blower room and then Place the new blower.align blower on platform.insert seam plate if required between leg of blower and platform. Check the pulley, belt, suction strainer & replace if required.Clean the suction strainer Normalise the system and assist trial run.	BD	No.	8	10612	84896
1380	E	14	Belt guard removal and refixing.	Remove the belt guard, inspect for speed sensing flap/belts/pulley refix it.	BD	No.	24	346	8304
1390	E	15	Servicing of blower LT	Shift blower from site to workshop. Open the gear box, inspect for damage of bearings, gears, lobes etc. Repair / replace if reqd. Adjust the clearence as per E-I-C/supervisor. Box up and Normalise.Assist trial run of blower.	BD	No.	3	14677	44031
1400	E	16	Speed sensor flap repair/Replacement	Inspect the speed sensing disc.Reair/replace the same if necessary. Fabricate the sensor plate if require.	BD	No.	8	556	4448
1410	E	17	Servicing of safety valves in blower discharge line.	Dismantle the safety valve and service the same as per instructions of EIC.Replace any damage internals. Box up.	BD	No.	6	2211	13266
1420	E	18	Replacement of Oil seal at DE drive shaft.	Remove the drive pulley and open the end cover of drive side. Install new Oil seal and Box-up	BD	No.	6	1379	8274

ANNEXURE -B

<u>PHASE # 2</u>			<u>Part : E</u>		<u>Blowers</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit Measure ment (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
1430	E	19	Servicing of NRV in Blower discharge line.	Dismantle the NRV and service the NRV. Fabricate the flap of NRV. Replace the flap of the NRV if required.Box up.	BD	No.	6	1112	6672
1440	E	20	Oil leakage arresting from blower	Identify the leakage. Clean area of leakage. Attend the leakage as per EIC.	BD	No.	30	691	20730
1450	E	21	Suction Replacement Filter	Removal of Existing Suction Filter from Blower Assembly & install new suction filter (Bed Ash , Sealpot blowers)	BD	No.	11	416	4576
1460	E	22	Suction Replacement Filter	Removal of Existing Suction Filter from Blower Assembly & install new suction filter (FBHE BC , FBHE EC, Ash cooler and Seal & Purge blower)	BD	No.	25	468	11700
1480	E	23	Assist trail run /Observation of running Blower	Assist trail run /Obsrvation of running of Blower post repair/attending defect / Under Visual inspection as per instuction by one unskilled labour per hour assistance at blower room	BD	Per Hour	30	68	2040
1500	E	24	Servicing of blower HT	Shift blower from site to workshop. Open the gear box, inspect for damage of bearings, gears, lobes etc. Repair / replace if reqd. Adjust the clearence as per E-I-C/supervisor. Box up and Normalise.Assist trial run of blower.	BD	No.	2	19725	39450

ANNEXURE -B

Unit rates are excluding GST

<u>PHASE # 2</u>			<u>Part : E</u>		<u>Blowers</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit Measure ment (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
1510	E	25	Belt replacement- HT	Inspect blower belt gurad assembly on intimation by engineer-in charge, verification of failure of belt.Receipt MIV from EIC ,collect belt from ware house,open belt guard,remove old belt (send them to scrap yard) , install new belt , check freeness of both pulley before and after instillation of belt.check tightness of belt ,verify belt alignment do alteration if alignment is not ok ,verify sensing of zero speed switch, box up belt guards, iremove all tools tackles / manpower from site and inform to EIC	BD	No.	6	1112	6672
1520	E	26	Belt replacement- LT (K35 / GM 35 / GM 25)	Inspect blower belt gurad assembly on intimation by engineer-in charge, verification of failure of belt.Receipt MIV from EIC ,collect belt from ware house,open belt guard,remove old belt (send them to scrap yard) , install new belt , check freeness of both pulley before and after instillation of belt.check tightness of belt ,verify belt alignment do alteration if alignment is not ok ,verify sensing of zero speed switch, box up belt guards, iremove all tools tackles / manpower from site and inform to EIC	BD	No.	5	695	3475
1530	E	27	discharge damper inspection & minor repair for any defect	Inspect Discharge damper assembly on intimation by engineer-in charge, verification of defect ,inform to EIC , Work to be carried out as per EIC's instruction	BD	No.	6	484	2904
1540	E	28	discharge damper replacement work / Major Repair Overhauling	Inspect Discharge damper assembly on intimation by engineer-in charge for Major Repair / OH ,submit assesment for work inform to EIC , Work to be carried out as per EIC's instruction	BD	No.	3	3058	9174
1550	E	29	Servicing of safety valves in blower discharge line.	Inspect Safety valve assembly on intimation by engineer-in charge for Verify defect , asses the defect and plan work to repair the sameWork to be carried out as per EIC's instruction	BD	No.	4	1112	4448
<u>PHASE # 2</u>			<u>Part : E</u>		<u>TOTAL</u>				758058

ANNEXURE -B

<u>PHASE # 2</u>			<u>Part : F</u>		<u>Bed Ash Conveying System</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measure ment (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
1560	F	1	PM of bed ash conveyor.	Open the top cover plates. Check chain flight , pin, circlip etc. Check the damage/worn out plates. as per instruction of EIC, Replace or Straightened the bent links by heating and hammering . Clean the drive mechanisam. Check for wear of driving mechanisam. Check oil level in gear box. Lubricate the drive chain, bearings. Inspect bearings, sprockets, . Take trial run. Adjust chain tension if required And submit Pm report immediately to Engineer in-charge	PM	No.	65	1659	107835
1570	F	2	Lubrication of bed ash conveyer	Bed ash conveyor all bearing greasing, Gear box oil level checking and top-up if required etc.....	PM	No.	215	416	89440
1580	F	3	Greasing of driving chain	Remove the chain guard. Clean the chain & Apply grease.Place the chain guard.	PM	No.	20	210	4200
1590	F	4	Clear out conveyor jam.	Open the conveyor top plates. Bottom plates at tail end of conveyor. Remove any foreign material/bed material. Made conveyor free. Check damage link. Replaced damage link. Adjust chain tension if required. Box up the conveyor & take trial run.	BD	No.	70	553	38710
1600	F	5	Drive Sprocket replacements.	Decouple the drive. Open the top plates at drive station. Remove the chain guard. Replace/buildup the wearout sprocket and grind to original profile. Normalise the conveyor.	BD	No.	4	5076	20304

ANNEXURE -B

<u>PHASE # 2</u>			<u>Part : F</u>		<u>Bed Ash Conveying System</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measure ment (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
1610	F	6	Idler replacements of bed ash conveyor NDE side. Size: OD-400mm & 60mm width.	Open the top cover plate. Delink chain from idler. Remove the bearings. Replace the idler. Box up bearings. Normalise the conveyors.	BD	No.	2	1935	3870
1620	F	7	Driving double roller chain repair / replacements.	Open the chain guard. Remove the double roller chain. Replace if found damaged. Adjust the chain tension and align it. Normalise the conveyor	BD	No.	4	1382	5528
1630	F	8	Shear pin replacements.	Open the chain guard. Remove the damaged shear pin. Replaced with new one. Fix the chain guard.	BD	No.	120	260	31200

ANNEXURE -B

<u>PHASE # 2</u>			<u>Part : F</u>		<u>Bed Ash Conveying System</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measure ment (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
1640	F	9	Bearings inspection DE & NDE side (Any-1)	Open the top half of the bearing. Inspect the bearing. Lubricate and box up.	BD	No.	5	553	2765
1650	F	10	Bearings replacements DE & NDE side (Any-1)	Open the bearing plummer block. Replace the bearing with new one & lubricate. Box up.	BD	No.	5	1659	8295
1660	F	11	Plummer block repair / replacements DE / NDE (Any-1)	Remove the plummer block from shaft. Replace with new one.	BD	No.	2	2488	4976
1670	F	12	Shaft seal replacements	Remove the bearings with plummer block. Replace shaft seal and labyrinth seal with new one.	BD	No.	2	1382	2764

ANNEXURE -B

<u>PHASE # 2</u>			<u>Part : F</u>		<u>Bed Ash Conveying System</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measure ment (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
1680	F	13	Tail end shaft replacements	Remove the top cover. Dismantle the plummer block. Remove the sprocket halves. Replace the new shaft. Normalize as per E-I-C. Take trial run.	BD	No.	2	4511	9022
1690	F	14	Drive end shaft replacements	Remove the top cover.Dismantle the plummer block. Remove the sprocket halves. Replace the new shaft. Normalize as per E-I-C. Take trial run.	BD	No.	2	6805	13610
1700	F	15	Conveyor chain flight replacements	Open the cover plate. Remove the circlip and pin of chain flight. Replace with new one. Normalise the conveyor	BD	No.	750	260	195000
1710	F	16	Chain flight reclamation	Identify the damage flights. Straighten the bent flight by heating / pressing. Weld the plate of broken flight after necessary edge prepration.	BD	No.	400	693	277200

ANNEXURE -B

<u>PHASE # 2</u>			<u>Part : F</u>		<u>Bed Ash Conveying System</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measure ment (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
1720	F	17	Filling of refractory between wear plate and casing (gap 50mm, Height - 150mm).	As per instruction of E-I-C, prepare refractory mix and fill in the gap & cure it.	BD	Meter	10	1382	13820
1730	F	18	Chain tension adjustment	Loosen the tail end. Adjust the chain tension as per E-I-C. Tighten the tail end.	BD	No.	5	208	1040
1740	F	19	Lubrication of gear box.	Remove the old oil from the gear box. Fill the new oil. Clean the gear box.	BD	No.	7	208	1456

ANNEXURE -B

<u>PHASE # 2</u>			<u>Part : F</u>		<u>Bed Ash Conveying System</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measure ment (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
1750	F	20	Speed sensing disc repair / replacements	Remove the cover of disc. Repair / replace the with new one. Place the cover.	BD	No.	2	416	832
1760	F	21	Guide rail replacements. Size: 50mm width, 16mm thick, 8m length	Open the top & bottom cover plate. Remove the chain. Inspect for guide rail. Replaced with new one. length of guide rail @ 2 meter in 4 location.	BD	No.	2	6259	12518
1770	F	22	Replacement of motor end small sprocket of duplex roller chain.	Open the Drive chain guard. Remove the drive chain. Remove the worn-out sprocket and replace with new.	BD	No.	2	2008	4016

ANNEXURE -B

<u>PHASE # 2</u>			<u>Part : F</u>		<u>Bed Ash Conveying System</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measure ment (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
1780	F	23	Replacement of Conveyor end bigger sprocket of duplex roller chain.	Open the Drive chain guard.Remove the drive chain.Remove the worn-out sprocket and replace with new.	BD	No.	2	4500	9000
1790	F	24	Dismantling and refixing of Drive Motor (Geared)	Drain the oil from Gear box. Dismantle the drive motor and install new motor .Fill Oil in gear box. Ensure no oil leakages from the Gear box.	BD	No.	2	1386	2772
1800	F	25	Repair/replacement of wear plates.	Identify damaged wear plate & remove the plate from conveyor.Fabricate the plate as per EIC. Repair/replace the plate as per EIC. Box up.	BD	Per Sq. mtr	24	1947	46728

ANNEXURE -B

<u>PHASE # 2</u>			<u>Part : F</u>		<u>Bed Ash Conveying System</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measure ment (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
1810	F	26	Replacement of drive end gear box.	Drain the oil. Remove the motor. Remove the gear box from the position. Replace the gear box with new one.. Place it position. TOP up the oil. Fix its drive sprocket and drive chain in position. Box up.	BD	No.	2	7633	15266
1820	F	27	Servicing of gear box.	Drain the oil. Remove the motor. Dismantle the gear box. Inspection internal and Identify damaged spares. Repair/service the gear box as per instruction of E-I-C. Place it position. TOP up the oil. Fix its drive sprocket and drive chain in position. Box up.	BD	No.	2	4423	8846
	F	2. Rotary air lock feeder 10 TPH / 32 TPH							
1830	F	28	Preventive maintenance of Rotary Air Lock Feeder	Isolate the Airlock feeder. Clean the annular space between casing and rotor. Grease the bearings. Check the oil level and top-up if necessary. Check the condition of oil seal . Check gland leakage	PM	No.	24	520	12480
1840	F	29	Lubrication of bed ash rotary air lock feeder	bed ash rotary air lock feeder all bearing greasing, Gear box oil level checking and top-up if required etc.....	PM	No.	150	208	31200

ANNEXURE -B

<u>PHASE # 2</u>			<u>Part : F</u>		<u>Bed Ash Conveying System</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measure ment (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
1850	F	30	Replacement of bed material / ash cooler feeders.	Isolate the feeder, remove the feeder, replace new, restore.	BD	No.	2	2781	5562
1860	F	31	Rotary air lock feeder DE/NDE bearing replacements (any-1)	Remove the motor.Replace the bearings and Box-up.	BD	No.	2	829	1658
1870	F	32	Shaft seals replacements of RALF	Open the seal cover on both side. Replace new seal. Box up.	BD	No.	5	416	2080
1880	F	33	Oil seal replacement of RALF	Drain the oil from the gear box. Remove the motor. Replace the oil seal from the gear box. Place the motor and fill the oil in gear box.	BD	No.	2	1041	2082

ANNEXURE -B

<u>PHASE # 2</u>			<u>Part : F</u>		<u>Bed Ash Conveying System</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measure ment (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
1890	F	34	Servicing of Rotary air lock feeder..	Drain the oil from the gear box. Remove the motor. Removed the gear box. Service the rotor assy and gear box. Normalise.	BD	No.	2	4146	8292
1900	F	35	RALF jam clear out.	Hand rotate the feeder for mechanical jamming. Made it free. If reqd. follow the step as in sr, no. 2.6.	BD	No.	25	140	3500
1910	F	36	Lubrication of gear box.	Check for oil level in gear box. Fill oil or totally replace the oil as per E-I_C.	BD	No.	2	520	1040
1920	F	37	Repair replacements of speed sensing disc.	Replace the disc with new one if required.	BD	No.	2	525	1050
	F	3. Ash cooler							

ANNEXURE -B

<u>PHASE # 2</u>			<u>Part : F</u>		<u>Bed Ash Conveying System</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measure ment (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
1930	F	38	Choking removal of ash cooler spiese valve to ash cooler line/spiese valve mouth.	Remove the ash cooler drain valve/spiese valve sight glass. Carried out pocking through valve /sight glass opening. Carry out hammering of the line if required. Clear chockage. Normalise.	BD	No.	200	829	165800
1940	F	39	Repair / replacemetns of grate drain valve / wind box drain valve.(Up to 150NB)	Remove the valve from position.Dismentle the valve. Clean it.Freeness checking. Assemble the valve. Replace gasket/bolts/nut with new one & box up.	BD	No.	12	1041	12492

ANNEXURE -B

<u>PHASE # 2</u>			<u>Part : F</u>		<u>Bed Ash Conveying System</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measure ment (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
1950	F	40	Cleaning of Ash cooler EC/BC grate. (any-1)	Open the manhole door of ash cooler Empty chamber / Bundle chamber. Clean the EC/BC grate manually. Establish air flow through nozzles.Box up.	BD	Per Chamber	6	0	0
1960	F	41	Choking removal of ash cooler bundle chamber / empty chamber grate drain (Any-1)	Open grate drain valve,check flow of bed material. De chock the line if required till evacuation of chamber.close the valve	BD	No.	800	624	499200
	F		4. Bed ash conveying line.	0					

ANNEXURE -B

<u>PHASE # 2</u>			<u>Part : F</u>		<u>Bed Ash Conveying System</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measure ment (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
1970	F	42	Choking removal of conveying line from I/A bin to bed material silo.	Clear the chock by applying air. Normalise it.	BD	No.	14	520	7280
	F	5.Filter cleaning system							
1980	F	43	Servicing of Bag filter /Replacement of all bags in bag filter	Open the cover of bag filter. Remove the bag filter. Remove bags from the filter. Clean the bags with service air or replace bag if require. Clean the perging lines and check for air coming from all perging line .Box up.	PM	No	8	2764	22112
1990	F	44	PM of dust extration Fan.	Check the alignment. Inspect coupling/Bearings. Replace if found damage. Align properly. Box up. Take trial run.	PM	No.	0	553	0

ANNEXURE -B

<u>PHASE # 2</u>			<u>Part : F</u>		<u>Bed Ash Conveying System</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measure ment (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
2000	F	45	Replacements of air hose of filter cleaning system.	Isolate the air supply. Replace the hose with new one.	BD	No.	1	520	520
2010	F	46	Repair / replacements of NMEJ of dust extraction fan.	Remove / dismantle the damaged NMEJ. Repair / replace as per instruction of E-I-C.	BD	No.	0	1382	0
2020	F	47	Dust extraction fan coupling replacements.	Open the cover. Decouple fan. Replace coupling with new one. Align the fan & box up.	BD	No.	0	691	0
2030	F	48	Dust extraction fan replacements.	Decouple from motor. Remove the bearings. Open the casing plate. Replace the entire fan with new one. Box up the fan.	BD	No.	0	20739	0

ANNEXURE -B

<u>PHASE # 2</u>			<u>Part : F</u>		<u>Bed Ash Conveying System</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measure ment (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
2040	F	49	Bearing replacement	Open the bearing cover. Check condition of the bearing. Change with new one. Box up.	BD	No.	0	1935	0
2050	F	50	Damper servicing	Open the damper. Check flap of the damper. Repair/replace the damper. Box up.	BD	No.	0	967	0
2060	F	51	Bed material Draining from FBHE BC/EC	Open the grate drain valve. Drain the chamber as per requirement and Remove chocking if any . Close the valve.	BD	No.	700	276	193200
2070	F	52	Bed material Draining from Combustor.	Open the grate drain valve. Drain the combustor as per requirement and Remove chocking if any . Close the valve.	BD	No.	40	870	34800

ANNEXURE -B

<u>PHASE # 2</u>			<u>Part : F</u>		<u>Bed Ash Conveying System</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measure ment (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
2080	F	53	Bed material filling in grate drain of Combustor/FBHE Empty chamber & Bundle chamber.(Any-1)	Issue bed material from store. Close grate drain valve. Open manhole door. Fill bed material from inside grate drain line.	BD	No.	70	312	21840

ANNEXURE -B

<u>PHASE # 2</u>			<u>Part : F</u>		<u>Bed Ash Conveying System</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measure ment (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
2090	F	54	Chocking clearing of Bed material filling line from bed ash silo to combustor/Chocking clearing of PA windbox conveying line	Check the line for chock up.Hammer the line & pocking.If chock up not cleaned, cut the pocket or open the flange , do pocking and welding the cut pocket or refix the flange. After removal of chock up normalise the system.	BD	No.	620	520	322400

ANNEXURE -B

<u>PHASE # 2</u>			<u>Part : F</u>		<u>Bed Ash Conveying System</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measure ment (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
2100	F	55	Combustor spiess valve to ash cooler line/PA windbox conveying line leakage attending	Identify the leakage,apply sodium silicate or do welding as per E-I-C.	BD	No.	480	556	266880
2110	F	56	PA wind box bed material conveying line Pipe/T piece replacement.	Identify the damage pipe. Check thickness of pipe. Replace damage portion of pipe with new one. End connection of pipe may be Welded or Bolted. Pipe Size Dia.150x15 t mm.	BD	Per Mtr.	50	1321	66050

ANNEXURE -B

<u>PHASE # 2</u>			<u>Part : F</u>		<u>Bed Ash Conveying System</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measure ment (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
2120	F	57	Mixing nozzle replacement in PA coveying line	Replace the damage nozzle and put new nozzle by welding and bolting	BD	No	4	1321	5284
2130	F	58	Bed material leakage attending online in combustor,waterwall,As h coolers,NMEJ	Open the insulation.Identify the leakage attending the leakage on line by applying.sodium silicateand ceramic wool. Refixing of insulation	BD	No	565	416	235040
2140	F	59	Bed ash silo.Intermediate ash bin level checking.	Open the man hole door. Check the level of ash in bunker/silo.	BD	No.	25	107	2675

ANNEXURE -B

<u>PHASE # 2</u>			<u>Part : F</u>		<u>Bed Ash Conveying System</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measure ment (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
2150	F	60	Bed Ash Conveyors discharge line Inpection	Open the Door & Remove the foreign materials from the discharge line grill. Door box up.	BD	NO	12	350	4200
2160	F	61	Bed Ash Conveyor gear box coupling repair/replacement	Bed ash Conveyor gear box coupling repair/replacement as per instruction of E-I-C.	BD	NO	4	1382	5528

ANNEXURE -B

<u>PHASE # 2</u>			<u>Part : F</u>		<u>Bed Ash Conveying System</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measure ment (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
2170	F	62	Ash Cooler Bundle Chamber coil remove and its coil and nozzle cleaning	Make scaffolding erection work for proper working approach, Insulation removing and external cleaning Make necessary arrangement for removing of bundle chamber coil, ACW line dismantling, cutting / removing of all fastner of bundle chamber coil flange, remove the coil by jacking / pushing / pulling method from its position, Coil tube cleaning and inspection, take the Hydro test and check coil tube, if any coil tubes identified in hydro test so repaire / replace of coil tubes as per EIC, Baffle plate check and repaired as per EIC, All bed material removing from bundle chamber and clean the nozzle with its hole, check the all nozzle by blower air / Manual air from its wind box, Bundle chamber coil flange clean and new gasket / rope fitting, Bundle chamber coil inserting work and all fastner fitting work and normalising the all arrangement, ACW line fitting work, Insulation application work	BD	No.	0	164000	0
<u>PHASE # 2</u>			<u>Part : F</u>		<u>TOTAL</u>				2865258

ANNEXURE -B

PRICE SCHEDULE BMC 2021-23 TENDER ID 440263

Unit rates are excluding GST

PHASE # 2			Part : G		<u>Lignite / Limestone Feeding System</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
			1. Lignite Conveyor						
2180	G	1	Conveyor link Sprockets (Both side) replacement. Phase-2	Decouple the drive. Open the top plates.Decouple the chain link . Replace sprocket.Couple the link .Normalise the conveyor.Assist trial run.	OM	No.	2	8877	17754
2190	G	2	Chain tension adjustments.	Check chain looseness. Loosen the tail end bracket. Adjust the chain by tightening the bolts as per E-I-C.Tighten the tail end bracket.	OM	No.	180	346	62280
2200	G	3	Greasing of DE / NDE bearings of conveyors, chain compensation bearings, flow indicator bearings.Total no of bearings - 8 per conveyor	Clean the bearings. Apply the grese with pressure. Remove the additional graese from bearings from outside.	PM	per conveyor	340	260	88400
2210	G	4	Greasing of driving chain	Remove the chain guard. Apply grease with oil mixture.Place the chain guard.	PM	No.	24	210	5040
2220	G	5	Servising/Overhauling of Lignite conveyors.	Ensure Isolation of the conveyor from bunker. Open the cover plates of lignite conveyor. Remove the complete lignite from conveyor length. Remove the entire chain from conveyor & Clean the groove. Check for any damage of guide rail/brackets. Adjust if required or repair/replace the rail/bracket.check the conveyor casing for leakages and replace the casing plate/top cover plate. Inspect all the bearings, replace if required. Check sprocket condition and change if required. Check the idler at tail end. Fix in position if found dislodged or replace if required. Lubricate the conveyor drive chain and bearings. Inspect the bassalt liners & repair/replace as per instructions of Engr I/C. Inspect the lignite chain link & repair/replace as per instructions of E-I/C. Check the drive chain & repair/replace, if required. Align the gear box with conveyor. Normalise the system. Assist trial run.	PM	No.	8	61957	495656

ANNEXURE -B

PRICE SCHEDULE BMC 2021-23 TENDER ID 440263

Unit rates are excluding GST

PHASE # 2			Part : G		<u>Lignite / Limestone Feeding System</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
2230	G	6	Lignite conveyor chain link inspection	Open the drive end covers. Remove the lignite. Inspect the link pin/flighted link for damage.Replace the damage link.Adjust the chain tension if required. Box up.	PM	No.	565	312	176280
2240	G	7	Shear Pin replacement	Adjust the hole of sprocket,replace the shear pin.Fit circlip on both sides of shear pin.Restore to normal.	BD	Nos.	200	156	31200
2250	G	8	Replacement of entire chain link of conveyor.	Ensure Isolation of the conveyor from bunker. Open the cover plate and remove lignite from conveyor. Remove the entire chain from position. Clean the groove of the conveyor. Place the entire chain link assy. Normalise the bunker gates.Box up and assist trial run.Adjust the chain tension during trial run.	BD	Nos.	2	19642	39284
2260	G	9	Removal of one link of drag link chain by drive end inspection	Isolate the lignite feeder from lignite bunker. Open feeder cover. Remove the lignite from drive end of the conveyor. Remove/Replace one link of conveyor chain.Adjust chain tension.Restore.	BD	per link	140	695	97300
2270	G	10	Inspection of lignite conveyor assembly for conveyor breakdown	Ensure Isolation of the lignite feeder from lignite bunker. Open feeder cover plates at 3-4 places from drive to tail end of conveyor.Remove the lignite conveyor from drive to tail end. Clean the grooves.Check the complete conveyor links. Note the damages.Check the circlip & replace the damaged one. check & replace the shear pin.Adjust chain tension . Restore.Assist the trial run.	BD	No	22	3858	84876
2280	G	11	Replacement of chain link of conveyor as per noted defect in S No 1.10 as above .	Shift the new link from store to site.Remove the damaged chain links & replace it with new one.	BD	per link	550	1239	681450
2290	G	12	Main drive -Gear box mechanism Repacement	Decouple the motor assembly of driving gear box. Repair/replace assembly. Align the gear box with motor. Restore to normal.	BD	No.	2	2413	4826

ANNEXURE -B

PRICE SCHEDULE BMC 2021-23 TENDER ID 440263

Unit rates are excluding GST

PHASE # 2			Part : G		<u>Lignite / Limestone Feeding System</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
2300	G	13	Idler/shaft replacements of lignite conveyor NDE side. Size of shaft :- OD 120 mm & length @ 2 meter, Size of idler:-436 mm OD & width 60 mm	Open the top cover plate. Decouple the chain link . Remove the shaft end seals.Remove the bearings.Remove the shaft & idler. Replace or repair the idler / shaft / bearing, shaft end seals; if required.Put the shaft & idler in position. Fit the bearings & do greasing. Normalise the conveyors.Assist trial run.	BD	No.	3	8877	26631
2310	G	14	Sprocket repair /build up work	Open the top cover plate. Remove the chain links.Repair/Build up the sprocket by welding with hardfacing electrode Flush grind the weld area. Join the chain link and normalize the conveyor.	BD	No.	4	1740	6960
2320	G	15	Driving chain tripple roller repair / replacements.	Open the chain guard. Remove the tripple roller chain. Replaced if damage. Adjust the chain tension and aligned it. Normalise the conveyor	BD	No.	22	1723	37906
2330	G	16	Bearing replacements of lignite conveyors, DE / NDE side.(any-1)	Open the bearing plummer block. Replace the bearing with new one.	BD	No.	4	1723	6892
2340	G	17	Bearing Inspection of Lignite conveyor DE/NDE.(any-1)	Open the bearing plummer block. Inspect the bearing in detail and inform condition to Engineer in charge.After instruction of engineer in charge box up the bearing.	BD	No.	4	829	3316
2350	G	18	Basalt lining / refractory application in the lignite conveyors.	Open the cover plate of conveyors. Identified the damaged liner portion. Remove the chain flights. Apply refractory / basalt lining as per E-I-C	BD	Sq. meter	2	2902	5804
2360	G	19	Lubrication of gear box.	Remove the old oil from the gear box. Fill the new oil. Clean the gear box.	BD	No.	35	416	14560
2370	G	20	Speed sensing disc repair / replacements	Remove the cover of disc. Repair / replace the with new one. Place the cover.	BD	No.	4	208	832
2380	G	21	Lignite flow indicator adjustments.	Open the cover plate of conveyor. Adjust the flap of flow indicator. Box up	BD	No.	4	520	2080
2390	G	22	Repair / replacements of flow indicator shaft & its bearings	Open the cover plate. Remove the shaft from position.Check the bearings & replace if required. Repair/replace the shaft . Box up	BD	No.	4	1382	5528

ANNEXURE -B

PRICE SCHEDULE BMC 2021-23 TENDER ID 440263

Unit rates are excluding GST

PHASE # 2			Part : G		<u>Lignite / Limestone Feeding System</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
2400	G	23	Assistant for Lignite bunker chocking removal.	Open the cover plate of lignite conveyor at front and rear side of bunker. Check for jamming of bunker.Lignite may be required to remove from the tail end/drive end. Box up the conveyor plate after ensuring smooth flow of lignite.	BD	No.	10	1106	11060
2410	G	24	Lignite Conveyor supervision during rainy season (2 semiskilled labour per 12 hours shift is considered as 1 shift)	2 persons are to be deployed for each conveyor to check the lignite flow. Open the cover plate at drive end.Contineously observe the conveyor .Any abnormality in lignite flow observed , immediately inform to Control Room Desk Operator & Lock the emergency push button at local. Rectify the defect or otherwise inform to Boiler dept E-I/C.	BD	shift	2	2493	4986
2420	G	25	Dismantling and refixing of Drive Motor (Geared)	Drain the oil from Gear box. Dismantle the drive motor and install new motor .Fill Oil in gear box. Ensure no oil leakages from the Gear box.	BD	No.	3	2003	6009
2430	G	26	Conveyor drive chain tension adjustment	Remove the drive chain guard.Adjust the tension as per EIC instruction,Normalise the system	BD	No.	2	691	1382
2440	G	27	DE shaft replacement. Shaft Size 120 mm OD & Length- 2 meter	Open the cover plate. Decouple the conveyor link. Decouple the conveyor from gear box by removing the drive chain. Remove the driven sprocket fitted on shaft. Remove both the bearings. Remove both side shaft end seals. Remove the shaft. Check the bearing, drive chain, sprocket, end seals, drive chain & replace if required. Replace the shaft. Refix the end seals, bearings, sprocket. Fit the chain. Align the conveyor & gear box. take the trial in conveyor link decouple condition & after sucessful trial couple the conveyor link, adjust chain tension.	BD	No.	2	12329	24658
2450	G	28	Lig. Conveyor Flywheel hub gap setting	Lig. Conveyor Flywheel hub gap setting as per instruction of E-I-C.	BD	No	25	208	5200
2460	G	29	Lig. Conveyor Flywheel hub repairing/Replacement	Lig. Conveyor Flywheel hub repairing/Replacement as per instruction of E-I-C.	BD	No	4	2425	9700
2470	G	30	Lig. Conveyor Flow Adjustment	Lig. Conveyor Flow Adjustment as per instruction of E-I-C.	BD	No	4	208	832

ANNEXURE -B

PRICE SCHEDULE BMC 2021-23 TENDER ID 440263

Unit rates are excluding GST

PHASE # 2			Part : G		Lignite / Limestone Feeding System				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
2480	G	31	Lig. Conveyor link cleaner repair/replacement work	Lig. Conveyor link cleaner repairing/replacement as per instruction of E-I-C.	BD	No	4	1732	6928
2490	G	32	Lig. Conveyor gear box coupling repair/replacement	Lig. Conveyor gear box coupling repair/replacement as per instruction of E-I-C.	BD	No	2	520	1040
	G	2. Lignite rotary air lock feeder.							
2500	G	33	Overhauling/Servicing of Lignite RALF	Isolate the system. Remove geared motor, gear box, clutch assy., Open inspection cover and dismatle the entire feeder. Inspect for any damage parts viz. bearings, shaft sleeve, sealing strip, casing sleeve, bucket, rotor of feeder as well as scraper etc. Replace any damaged internals if required. Check for clearances. Carry out lubrication of gear box as well as bearings. Assemble as per E-I-C. Assist trial run.	PM	No.	8	45181	361448
2510	G	34	Greasing of DE / NDE bearings of rotor, scrapper assy. Of lignite RALF.	Clean the bearings. Apply the grease with pressure. Clean the excess grease from outside.	PM	No.	360	520	187200
2520	G	35	Shaft stuffing box leakage arresting.	Tighten the SINGLE shaft seals of scraper and rotor shaft as per instruction of EIC. Clean the area.	BD	No.	140	624	87360
2530	G	36	Lig. RALF Shaft stuffing box seal/gland replacements.(Single side)	Remove the gland follower of any one shaft seals. Remove the all old galnd packing. Placed the new gland packing. Tighten the gland follower. Clean the all area.	BD	No.	70	276	19320
2540	G	37	Lubrication of gear box.	Open the gear box. Drain the old oil/grease. Refill / replaced the new oil / grease.	BD	No.	152	520	79040
2550	G	38	Clearing RALF jamm.	Rotate rotary air lock feeder manually through coupling, Open the top cover plate. Inspect feeder from inside for any foreign material, remove if any, Put mixture of bed material with water from top, hand rotate for 2 to 3 revolution and make free. Box up.	BD	No.	150	1379	206850
2560	G	39	Speed sensing disc repair / replacements	Remove the cover of disc. Repair / replace the with new one. Place the cover.	BD	No.	4	278	1112
2570	G	40	Repair of NMEJ betn feeder and conveyors. Size 1mx2m	pull the top of the lignite conveyor. Remove the expansion joint, replaced with new one. Box up	BD	No.	2	1212	2424

ANNEXURE -B

PRICE SCHEDULE BMC 2021-23 TENDER ID 440263

Unit rates are excluding GST

PHASE # 2			Part : G		<u>Lignite / Limestone Feeding System</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
2580	G	41	On line leakage arresting of NMEJ/MEJ betn feeder and seal pot.	Clean the area properly. Check for any leakage of flue gas of bed material. Apply sodium silicate with refractory, ceramic wool mixture. Make necessary arrangements to hold mixture using plates etc. Arrest leakage.	BD	No.	12	1212	14544
2590	G	42	Dismantling and refixing of RALF Drive Motor (Geared)	Drain the oil from Gear box. Decouple the drive motor and install new motor .Couple the drive motor & align it.Fill Oil in gear box. Ensure no oil leakages from the Gear box.	BD	No.	4	1206	4824
2600	G	43	Replacement of Sealing strips for Rotor / Scrapeer	Isolate the RALF. Open the manhole door remove all damaged sealing strips by cutting / grinding. Replace with new sealing strips as per EIC. Check the clearance between casing and rotor. Box up and check for free rotation of the feeder	BD	Set	6	2082	12492
2610	G	44	Replacement of shaft sleeve and bearing replacement work	Isolate the feeder. Dismantle the feeder by removing gear box, motor, clutch assy, remove the bearings, shaft protection sleeves and replace with new one, check the clearances, check the condition of bearing and replace if required box up and check for free rotation as per EIC	BD	No.	5	8836	44180
2620	G	45	Replacement of Oil seal	Isolate the feeder, drain the oil dismantle the gear box replace the damaged oil seal, box up the gear box check for leakages as per EIC.	BD	No.	5	1106	5530
2630	G	46	Lignite RALF gear box Leakage attending	Identify the leakage. Replace flange gasket or oil plug if required.	BD	No.	2	350	700
2640	G	47	Lignite RALF gear box replacements	Drain the oil from drain plug. Remove the motor & gear box from position.Repair/replace the GB mounting flange bolt. Issue new gear box from store and place in position. Lubricate the gear box. Fit the motor,replace coupling if required. Align gear box with motor. Assist trial.	BD	No.	8	2425	19400
2650	G	48	Lignite RALF clutch servicing	Dismantle the clutch assembly, thoroughly inspect for the problem and replace the damaged parts and box up.	BD	No.	50	1249 186	62450

ANNEXURE -B

PRICE SCHEDULE BMC 2021-23 TENDER ID 440263

Unit rates are excluding GST

PHASE # 2			Part : G		Lignite / Limestone Feeding System				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
2660	G	49	Lignite RALF clutch assy. Replacement.	Isolate the feeder. Remove the clutch assy. Using screw jack, hydraulic jack with puller. Check the shaft for any dent etc. Make it proper and fixed new clutch assy after adjusting key on the shaft. Assist trial run of feeder.	BD	No.	50	1313	65650
2670	G	50	Lig. RALF Clutch torque setting	Lig. RALF Clutch torque setting as per instruction of E-I-C.	BD	No	120	312	37440
2680	G	51	Lig. RALF Inspection	Lig. RALF Inspection for abnormal sound. Inspection door to be opened & work to be carried out /Cleaning of Scraper & Bucket as per instruction of E-I-C.	BD	No	40	1723	68920
2690	G	52	Lig RALF Scraper shaft replacement	0	BD	No	3	24525	73575
	G	3. Master Fuel trip valve.							
2700	G	53	Overhauling/Servising of motorise MFT	Decouple the master fuel trip from electrical actuator & remove the spindle nut. Remove the cover plate. Remove the MFT plate along with spindle. Decouple the plate from spindle. Dismantle the entire gate. Check for damage internals viz. sealing rope, accenders, bearings, spindle nut, etc. Replace/repair any damaged internals. Replace the MFT plate, spindle if required. Ensure purge/service air pressure & flow. Box up. Ensure the free manual operation of MFT for full open/full close position. Assist for the limit switch setting with electrical dept. Assist trial run.	PM	No	10	14649	146490
2710	G	54	Spindle gate lubrication.	Open the cover. Clean the spindle, Lubricate the spindle with grease. Box up.	PM	No.	80	520	41600
2720	G	55	Manual operation of the MFT.	Open /close the MFT manually as per instruction of EIC.	BD	Once Operation	20	517	10340
2730	G	56	Internal cleaning of MFT	Open the top flange of MFT cover plates. Remove the bed material by applying air. Clean the entire empty chamber area. Ensure purge/service air pressure & flow. Box up.	BD	No.	12	691	8292

ANNEXURE -B

PRICE SCHEDULE BMC 2021-23 TENDER ID 440263

Unit rates are excluding GST

PHASE # 2			Part : G		Lignite / Limestone Feeding System				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
2740	G	57	Opening/closing of lignite bunker gate.	Open/close the lignite bunker gates as per requirements.	BD	Once Operation	50	431	21550
2750	G	58	Lignite bunker gate servicing.	Remove the spindles of gate. Clean the gear pairs, nut & bearings. Check freeness of gate. Box up.	BD	No.	56	1382	77392
2760	G	59	MFT spindle nut replacements	Open the cover of MFT. Remove the spindle. Remove nut & box up after replacing nut.	BD	No.	8	862	6896
2770	G	60	Bunker inspection & its liner plate(Polymer or SS 310) repairing/ replacement	Ensure that bunker is completely empty. Ensure electrical isolation of lignite conveyor. Open all bunker outlet gates. Make proper approach for inspection. Inspect the liners on all sides of bunker plate. Repair/replace as per E -I/C. Liner size is @ 1x2 meter. Remove the scrap. Normalise the system.	BD	No.	2	29370	58740
	G	4. Limestone air lock feeder. 10 TPH.							
2780	G	61	PM of Lime stone RALF	Isolate the Airlock feeder. Clean the annular space between casing and rotor. Grease the bearings. Check the oil level and top-up if necessary. Check the condition of oil seal and replace if necessary. Tighten the gland or replace the gland, if required.	PM	No.	22	689	15158
2790	G	62	Replacement of limestone air lock feeders.	Isolate the feeder. Remove the motor & Gear box. Remove the feeder & replace it with new feeder. Fit the gear box & motor. Normalise & assist trial run.	BD	No.	2	2413	4826
2800	G	63	Rotary air lock feeder DE/NDE bearing replacements (any-1)	Remove the motor. Replace the bearing using proper tools and tackles. Install new bearing. Normalise & assist trial run	BD	No.	2	689	1378
2810	G	64	Shaft seals replacements of RALF	Open the seal cover on both side. Replace new seal. Box up.	BD	No.	25	553	13825
2820	G	65	Oil seal replacement of RALF	Drain the oil from the gear box. Remove the motor. Replaced the oil seal from the gear box. Place the motor and fill the oil in gear box.	BD	No.	4	553	2212
2830	G	66	Servicing/ Overhauling of RALF.	Drain the oil from the gear box. Remove the motor. Remove the gear box. Remove the rotar assy. Place the new rotar assy. Normalise.	BD	No.	4	2758	11032

ANNEXURE -B

PRICE SCHEDULE BMC 2021-23 TENDER ID 440263

Unit rates are excluding GST

PHASE # 2			Part : G		Lignite / Limestone Feeding System				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
2840	G	67	RALF jamm clear out./Flow establishment of limestone.	Hand rotate the feeder for mechanical jammimg. Open the top inspection door if required. Check for any foreign material. Made it free. Check for Flow through feeder from inspection hole. Carry out hammering of bunker if required to establish the flow.	BD	No.	100	416	41600
2850	G	68	Greasing of DE / NDE bearing of RALF.	Open the DE / NDE bearing cover. Grease properly. Box up	BD	No.	8	208	1664
2860	G	69	Lubrication of gear box.	Check for oil level in gear box. Fill oil or totally replaced the oil as per E-I_C.	BD	No.	8	208	1664
2870	G	70	Repair replacements of speed sensing disc.	Replace the disc with new one if required.	BD	No.	2	208	416
2880	G	71	Limestone gearbox overhauling.	Remove the gear box from position. Dismantle the gear box. Replace damage part and box up.	BD	No.	2	1379	2758
2890	G	72	Limestone feeder flow checking	Check the feeder for flow of limestone by opening plug. Rotate feeder in both direction. Do hammering of limestone bunker if required. Normalise.	BD	No.	4	416	1664
2900	G	73	Limestone feeder Gear box view glass replacement.	Drain the oil. Replace the view glass. Oil top up and box up.	BD	No.	2	416	832
2910	G	74	Limestone bunker level checking	Open the manhole door. Check the level of bunker. Box up.	BD	No.	2	208	416
2920	G	75	Limestone bunker gate servicing.	Remove the spindles of gate. Clean the nut & bearings. Check freeness of gate. Box up.	BD	No.	7	689	4823
2930	G	76	Opening/closing of limestone bunker gate.	Open/close the limestone bunker gates as per requirements.	BD	Once Operation	2	208	416
2940	G	77	Lime Stone RALFs Gland leakage arresting	Lime Stone RALFs Gland leakage arresting by gland tightening	BD	NO	42	260	10920
2950	G	78	Lig. Conveyor Idler repairing work.	Carry out the welding work on Damaged portion of the Sprocket/Idler as per instruction of EIC.	BD	NO	4	2088	8352
2960	G	79	Lig. Conveyor Guide rail repairing/replacement work.	Carry out the lig. Conveyor guid rail replacement/repairing as per EIC. Carry out the side casing plate repairing/replacement , if required. Welding per meter length consider as a one quantity.	BD	Per meter	20	1392	27840

ANNEXURE -B

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Unit rates are excluding GST

PHASE # 2			Part : G		<u>Lignite / Limestone Feeding System</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
2970	G	80	Lig. Conveyor Bottom portion link removal work.	Delink the chain and remove bottom portion link from the lignite conveyor and carry out groove cleaning work as per instruction of EIC. After completion of the groove cleaning insert the bottom part of the conveyor, box up the conveyor and take trial.	BD	per bottom portion links	4	13235	52940
2980	G	81	Lignite conveyor Gear Box Servicing work.	Dismantle the gear box assembly, thoroughly inspect for the problem and replace the damaged parts and box up.	BD	NO	2	7381	14762
2990	G	82	Lignite RALF Gear Box Servicing work.	Dismantle the gear box assembly, thoroughly inspect for the problem and replace the damaged parts and box up.	BD	NO	6	2771	16626
3000	G	83	Lignite conveyor gear box to motor alignment work.	Decouple the gear box and motor , carry out alignment work and coupled the gear box and motor.	BD	NO	2	1112	2224
3010	G	84	Conveyor link Sprockets replacement. Phase-1-(Single/one side)	Decouple the drive. Open the side plates.Decouple the chain link . Replace sprocket.Couple the link .Normalise the conveyor.Assist trial run.	BD	NO	0	1039	0
3020	G	85	Replacements of NMEJ betn feeder and conveyors. Size 1mx2m	Replacement of NMEJ between feeder and conveyor as per EIC	BD	NO	2	6007	12014
3030	G	86	Lig RALF Scraper shaft repair.	Repair of scraper shaft as per EIC	BD	NO	2	1112	2224
3040	G	87	Single side Gland replacement of Lime RALF	Remove the gland follower of any one shaft seals. Remove the all old gland packing. Placed the new gland packing. Tighten the gland follower. Clean the all area.	BD	NO	8	553	4424
3050	G	88	Flight bar repair/replacement work	Repair/replace flight bar as per direction of EIC.	BD	No	20	278	5560
3060	G	89	Lignite RALF inspection for tripping	Inspect the Lignite RALF in running condition for frequent tripping or any abnormalities. Inform to EIC.	BD	per Lig.RALF	230	143	32890
3070	G	90	Lignite Bunker liner removal work	Ensure Elec/Mech isolation of conveyor. Isolate the bunker gate if required. Remove the liner from bunker as per direction of EIC.	BD	No.	2	1112	2224

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Unit rates are excluding GST

<u>PHASE # 2</u>			<u>Part : G</u>		<u>Lignite / Limestone Feeding System</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
3080	G	91	Overhauling/Servicing of Manual MFT	Remove the cover plate. Remove the MFT plate along with spindle. Decouple the plate from spindle. Dismantle the entire gate. Check for damage internals viz. sealing rope, accenders, bearings, spindle nut, etc. Replace/repair any damaged internals. Replace the MFT plate, spindle if required. Ensure purge/service air pressure & flow. Box up. Ensure the free manual operation of MFT for full open/full close position.	BD	No.	6	4076	24456
3090	G	92	Limstone RALF flow adjustment	Ensure the Elec/Mech isolation.Dismental the RALF and inspect the rotor bucket. Blank the rotor bucket by plate welding as per EIC. Box up the RALF and normalise for trail.	BD	No.	2	2225	4450
<u>PHASE # 2</u>			<u>Part : G</u>		<u>TOTAL</u>				4018999

ANNEXURE -B

PHASE # 2			Part : H		Bed Ash Conveying System				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
3100	H	1	CRM /ERM/GDRM oil top up.	Check for oil level/condition, Oil top up/replace if reqd.	BD	No.	10	140	1400
3110	H	2	PM of CRM /ERM/ GDRM gear box.	clean the ERM/CRM/GDRM (Any one) gear box externally open the Motor/Gear box flange, inspect the internals.Check for any leakage from oil seal, view glass and if required attend the same.	PM	No.	180	624	112320
3120	H	3	Replacement of emitting electrode. ONE ELE-1 QTY	Remove the wire snapped electrode. Inspect for tension / worn out emitting electrode. Replace new electrode using stretching tool divice only to ensure required tension. Box up.	BD	No.	25	104	2600
3130	H	4	Replacement of shaft insulators for emmitting rapping mechanism	Decouple the motor gear box assembly. Remove the cover plate.. Replace the insulator .	BD	No.	8	1106	8848
3140	H	5	Alignment of collecting / emmitting gear box.	Align the collecting / emmitting gear box assembly with the rapping mechanism shaft.	BD	No.	5	829	4145
3150	H	6	Servicing of collecting / emmitting rapping gear box.	Un load damaged gear box from site and shift it to maintenance area/ work shop. Dismantle whole gear box as per standard maintenance practice or instruction of E-I/C.Identify the damaged,wear & tear parts and hand over list to E-I/C. Issue required spare from ware house. install new parts/spare in existing gear box assemble gear box for ready for install/replace and tagged the same and shift it to site/warehouse/spare assembly area.	BD	No.	3	2211	6633
3160	H	7	Replacemetns of gear box of emmitting / collecting rapping.	Un laod damage gear box from position and shift same to spare assembly area/ware house / work shop.Issue new gear box and shift it from spare assembly area/ware house / work shop to site and install it in position and couple it with existing gearbox/motor/rapping system.	BD	No.	2	4051	8102

ANNEXURE -B

PHASE # 2			Part : H		Bed Ash Conveying System				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
3170	H	8	Field internal inspection for dead shot One field-1qty	Receipt of key from engineer in charge .Open man hole door as per instruction of E-I/C , open the manhole door, Do the earthing as per standard procedure. Install safety mechanism as per engineer in charge.Check the field for any abnormalities or for dead shot and mark the same . Give the list of finding to E I/C. Normalize the field and handover key to GIPCL E I/C.(Must engage 4 ESP known manpower with properly charged high beam torch with all required PPEs) Note : If 4 high beam torch not used during inspection 33 % amount will be deducted.	BD	No.	95	1665	158175
3180	H	9	Replacements of CRM / ERM coupling.	decouple the gear box, replace the coupling with new one, Align and couple.	BD	No.	3	1659	4977
3190	H	10	ESP casing/hopper manhole door open/leakage attending	Open the manhole door. Attend the leakages by rope fixing or applying sodium silicate, plate welding in the door. Box up.	BD	No	12	1738	20856
3200	H	11	Removal of collecting plate	Identify the damaged plate. Remove the damaged plate after confirmation from GIPCL E I/C.	BD	No	125	1386	173250
3210	H	12	ESP & APH hoppers drian dechocking work	Open the door of hopper as per instruction of E-I-C. Remove the foreign materials from ESP & APH hoppers drain. Door box up.	BD	No.	32	1379	44128
3220	H	13	ESP GD screen Deflector/dummy plate Fixing/removal	ESP GD screen Deflector/Dummy plate fixing and/or removing from primary & secondary screen as per chart / instuction of engineer in-charge	BD	No.	200	210	42000
3230	H	14	Plain/Fix Bearing Replacement/Repairing	On identification of defect,Removing/Repairing of Existing plain/Fix bearing,Install new plain bearing.Includes Seam adjusting,Aligning,Bolting,tack welding and assist trail run.	BD	No.	30	556	16680

ANNEXURE -B

<u>PHASE # 2</u>			<u>Part : H</u>		<u>Bed Ash Conveying System</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
3240	H	15	Hammer Replacement	Replacement of inner arm &/or outer arm of Rapping mecahnism .Includes removing of existing Hammer from rapping shaft and replace it with new one,Tacking,Angle positioning ,Confirm hitting to correct spot on trail.	BD	No.	150	693	103950
3250	H	16	Shock Pad Replacement	Replacement of Shock pad. Includes Cutting of existing shock pad bolt,install new shock pad & tacking/locking bolt.Confirm hitting to correct spot on trail.	BD	No.	200	210	42000
3260	H	17	GD screen /hopper baffles Replacement/repairing	Replacement/installation on new GD screen including joining with existing GD screen	BD	No.	15	2278	34170
3270	H	18	Replacement of support insulator	After identification of defect of support insulator , open top door of respective support insulator and open flange cover also. Remove old damaged support insulator and scap from support insulator chamber. Clean chamber. Shift new support insulator from ware house to site. Open nut from load carring stud, remove washer plate.Carry out load on temporarily J bolt fix support insulator,re install washer plate and transfer load on new support insulator.Remove J bolts. Normalize the system/chamber varify internal of ESP post repair and on confirmation box up system.	BD	No.	10	4151	41510
3280	H	19	Replacement of Shaft insulator	Replacement of Shaft insulator	BD	No.	2	1034	2068
3290	H	20	Locking of CE	Locking of CE with shock bar if instructed by engineer in charge.	BD	No.	805	278	223790
3300	H	21	Re-positioning of Collecting Electrode	reposition/removal of Collecting Electrode	BD	No.	85	829	70465
3310	H	22	Repair of collecting plate	On identification of defect The affected / damage plate need to be either lock with shock bar or with casing as per instruction of E I/C. Through welding/ bolting or by installing flats in between damage CE to shock bar to individual CES.	BD	No.	445	556 194	247420

ANNEXURE -B

PHASE # 2			Part : H		Bed Ash Conveying System				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
3320	H	23	Locking of row of CE (1 row = 6 Ces)	Some time whole six CE need to locked with shock bar through single pipe/flat in case 3 CE locking cost consider for whole one row. Provide post at two ends and support to linear pipe/flat by post.Linear pipe/flat must be locked with CE at junction point	BD	No. of row	115	866	99590
3330	H	24	inspection of Shaft/Support insulator 1 Qty	Check for oil level/condition, Oil top up/replace if reqd.	BD	No.	30	140	4200
3340	H	25	fly ash cleaning over collecting plate/emitting electrode	fly ash cleaning over collecting plate/emitting electrode for 1 Hr inline with instruction of EIC	BD	No.	80	119	9520
3350	H	26	Detail Field internal inspection for Assesment .One field-1qty for OH preparation	Receipt of key from engineer in charge .Open man hole door as per instruction of E-I/C , open the manhole door, Do the earthing as per standard procedure. Install safety mechanism as per engineer in charge.Check the field for any abnormalities or for dead shot and mark the same . Give the list of finding to E I/C. Normalize the field and handover key to GIPCL E I/C.submit in-detail report about observation (mutually prescribed) found Must engage 4 ESP known manpower with properly charged high beam torch with all required PPEs) Note : If 4 high beam torch not used during inspection 33 % amount will be deducted.	BD	No.	10	3331	33310

ANNEXURE -B

Unit rates are excluding GST

<u>PHASE # 2</u>			<u>Part : H</u>		<u>Bed Ash Conveying System</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
3360	H	27	Field internal inspection during partial loading	<p>Receipt of key from engineer in charge .Open man hole door as per instruction of E-I/C , open the manhole door, Do the earthing as per standard procedure. Install safety mechanism as per engineer in charge.Check the field for any abnormalities or for dead shot and mark the same . Give the list of finding to E I/C. Normalize the field and handover key to GIPCL E I/C.(Must engage 4 ESP known manpower with properly charged high beam torch with all required PPEs)</p> <p>Note : If 4 high beam torch not used during inspection 33 % amount will be deducted. . Payment in this clause only given if inspection of individual field complete and prescribed report submitted within 1 Hr from time of handover of front during partial loading other wise clause No. 8 is applicable of part H is applicable</p>	BD	No.	35	2010	70350
<u>PHASE # 2</u>			<u>Part : H</u>		<u>TOTAL</u>				1586457

ANNEXURE -B

Unit rates are excluding GST

PHASE # 2			Part : I		Bed Ash Conveying System				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
3370	I	1	Servicing of ESP / IDGates (Inlet / outlet).	Clean & Grease the driving chain. Operate the gate & check for full open/ full close. Overhauling of gear box. Check the condition of all the sealing strips and replace if required. Replace the bearings, chain, sprockets if required. Trial operation with limit switch setting in-co-ordination with electrical / C & I people. Scraping and painting of gate. Apply of lubricant dry molycote. (Supply of Molycote on GIPCL scope)	PM	No.	32	10201	326432
3380	I	2	Servicing of ESP gates gear boxes.	Remove the electrical actuator. Clean the old grease from gear box. Check for damage of bearings, internals etc. Replace the damage internals if required. Apply new grease & box up.	PM	No.	2	7417	14834
3390	I	3	Repair of NMEJ in PA/SA duct	Identify the damage NMEJ fabric cloth. Remove bolts of damage cloth area. Patch up the fabric cloth as per instruction of E-I-C. Check for any leakage of air. Hot tighten the bolts.	BD	Each	4	2784	11136
3400	I	4	Replacement of NMEJ assembly in PA/SA duct. Size: Circumferential length of NMEJ up to 6 meter	Remove the fabric cloth by removing bolts. Fix the new NMEJ clothes as per instruction of E-I-C.. Check for air leakage. Hot tighten the bolts.	BD	Each	6	10201	61206
3410	I	5	Replacement of NMEJ assembly in PA/SA duct. Size: Circumferential length of NMEJ more than 06 Meter and up to 10 meter	-- do --	BD	Each	6	14834	89004
3420	I	6	Replacement of casing and duct plate up to 6 mm thick	Shift material from store to site. Inspect the duct wall for wear. Patch with MS plate of 3.15 mm / 6.0 mm /8.00mm /10mm thickness as per E-I-C. for baffles the plate should be as per actual profile only.	BD	MT	20	25946	518920

ANNEXURE -B

PHASE # 2			Part : I		Bed Ash Conveying System				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
3430	I	7	Repair / replacements of Metallic Expansion Joints (MEJ) in blower air line. Max. dia 405 mm (Flanged)	Lock the blower air pipe. Loosen the flange joints of Mettalic expansion joints. Remove the MEJ. Fixed new one by fixing rope at flanges. Normalise the air pipe. Check for any air leakage. Hot tighten the bolts.	BD	No.	4	4076	16304
3440	I	8	Internal cleaning of combustor to cyclone Non Metallic Expansion Joints (NMEJ) at bottom portion. Length-@ 4.5 meter	Inspect the expansion joints. Dismantle the bottom portion of the expansion joint Check for ingress of bed material. Clean the material if any. Repair for damage if any. Fill the missing insulation material properly including anchor welding and boxup.	BD	No	16	1665	26640
3450	I	9	Internal cleaning of cyclone to back pass NMEJ at bottom portion. Length - @5 meter	-do-	BD	No.	16	1665	26640
3460	I	10	Replacement of Combustor to Cyclone NMEJ. Width 900 mm. Size:6575 x 4518 mm2	Dismantle the entire NMEJ by cutting the bolts. nos of bolts - @350 nos of M 20 X 80. Remove outer fabrics, cermic bolster & Dust trap. Clean the gap inbetween the flanges, measure the gap & rectify the flange if required. Stud welding for dust trap installation. Stuff the ceramic wool in between the flange gaps in entire peripheral length. erect the new Dust trap, Bolster & NMEJ Fabric. Jointing of NMEJ by heating m/c. check for any leakages. Hot tghtening of all bolts as per E-I-C. NOTE: Engage sufficient skilled manpower/resources & manpower has to work on round the clock to bring the unit as earliest as possible.	BD	No.	8	44286	354288

ANNEXURE -B

PHASE # 2			Part : I		Bed Ash Conveying System				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
3470	I	11	Replacement of cross over duct to second pass NMEJ Width 400 mm Size: 5636 x 5236 mm ²	Dismantle the entire NMEJ by cutting the bolts. nos of bolts - @350 nos of M 20 X 80. Remove outer fabrics, cermic bolster. Clean the gap inbetween the flanges, measure the gap & rectify the flange if required. Stuff the ceramic wool in between the flange gaps in entire peripheral length. erect the Bolster & NMEJ Fabric. Jointing of NMEJ by heating m/c. check for any leakages. Hot tightening of all bolts as per E-I-C. NOTE: Engage sufficient skilled manpower/resources & manpower has to work on round the clock to bring the unit as earliest as possible.	BD	No.	6	26614	159684
3480	I	12	Replacement of Cyclone outlet circular NMEJ. Size: Dia 4.54 Meter	Clean the peripheral are around NMEJ. Dismantle the entire NMEJ by cutting the bolts. nos of bolts. Remove outer fabrics and cermic bolster. Clean the gap inbetween the flanges, stuff the ceramic wool in between the flange gaps as in entire perheral length as per the instruction of EIC, erect the new NMEJ along with bolster. Jointing of NMEJ by heating m/c. check for any leakages. Hot tightening of all bolts as per E-I-C.NOTE:Engage sufficient skilled manpower/resources & manpower has to work on round the clock to bring the unit as earliest as possible.	BD	No.	2	7417	14834

ANNEXURE -B

PHASE # 2			Part : I		Bed Ash Conveying System				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
3490	I	13	Replacement of Cyclone to Seal pot NMEJ. Size: Dia 2.50 Meter	Clean the peripheral are around NMEJ. Dismantle the entire NMEJ by cutting the bolts. nos of bolts. Remove outer fabrics and cermic bolster. Clean the gap inbetween the flanges, stuff the ceramic wool in between the flange gaps as in entire perheral length as per the instruction of EIC, erect the new NMEJ along with bolster. Jointing of NMEJ by heating m/c. check for any leakages. Hot tghtening of all bolts as per E-I-C.NOTE: Engage sufficient skilled manpower/resources & manpower has to work on round the clock to bring the unit as earliest as possible.	BD	No.	2	10201	20402
3500	I	14	NMEJ patch up work. (during running boiler) Locations : C to C,Backpass inlet, COD inlet NMEJ, Seal pot , Air duct NMEJ., Flue gas duct NMEJ.	Clean the periheral area around NMEJ. Identify leakage. Apply sodium silicate with ceramic wool. Jacking at leakage are for supporting of applied ceramic wool. If required make seal box with 3 to 6 mm M.S plate at punctured area. Fill with sodium silicate. Normalise. Check for flue gas leakage. Hot tighten the bolts.	BD	No.	14	8871	124194
3510	I	15	Combustor to Cyclone / Back pass inlet NMEJ wool stuffing. Size: 6575 x 4518 mm2	Clean the bed material from inside the NMEJ. Stuff the ceramic wool. Box up.	BD	No.	24	833	19992
3520	I	16	Blower line flange joint leakage attending	Identify the leakages in blower line. Remove insulation. Replace rope of flange joints. Do welding if required.	BD	No.	14	1259	17626
3530	I	17	Freeness checking of dampers.	Check damper for mechanical jamming. Made damper free & Lubricate the linkages by applying dry molycote. Open & close the damper. Assist trial run.	BD	No.	24	689	16536
3540	I	18	Attend leakage in air/flue gas duct by welding only. Running meter of welding.	Grind the damaged welding .Attend leakage by welding with 6013 welding electrode with minimum two runs with 6-8 mm fillet	BD	meter	300	262	78600

ANNEXURE -B

Unit rates are excluding GST

PHASE # 2			Part : I		Bed Ash Conveying System				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
3550	I	19	Removal and re erection of wind box drain pipes. Size; up to 150 NB & 2 meter length.	Remove the drain pipes of wind box hoppers as per EIC requirement and re erect after completion of activity	BD	Per pipe.	10	696	6960
3560	I	20	Opening & Closing of ESP & ID duct gate	Make necessary arrangement and open and close the gate manually as per instruction of E-I-C	BD	No.	10	1392	13920
3570	I	21	Internal repair of MEJ in ESP and ID duct	Identify the leakages.Wool stuffing of the MEJ leakage area.Sealing it with a 3 mm plate as per instruction of E-I-C.Duct size is 3mX6m(approx)	BD	No.	4	2784	11136
3580	—	22	Fabrication of steel structure work (including transportation of steel from store yard)	Shift steel of proper size from store to site. Fabricate platforms/ approaches etc. as per E-I-C at site.	BD	MT	20	24579	491580
3590	I	23	Cyclone seal box fabrication at Hot spot area Size: 900 X 500 X 250 mm of 6/8mm IS 2062 M.S plate	First apply sodium silicate and ceramic wool on hot spot.Fabricate plate of suitable size and weld plate on cyclone shell maintain gap @150-200mm between shell and plate. Prepare refractory mix as per E-I/C. fill in the gap. If required proper jacking to be done to arrest leakage.	BD	No.	200	7417	1483400
3600	I	24	APH Tubes (size 50.8mmx2mm thick/4mm thick) / Dummy / Sleeves Work	Shifting of dummy (size 46ODX50MM LENGTH) / Sleeve (size 46ODX500MM LENGTH) material to site. Insert Dummy / Sleeve as per instruction of E-I-C . Both sides dummy / sleeve of one tube consider as a one no. quantity. After completion of jobs, Balance materials to be shifted in store.	BD	Per tube	1600	69	110400

ANNEXURE -B

Unit rates are excluding GST

PHASE # 2			Part : I		Bed Ash Conveying System				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
3610	I	25	APH Tubes (size 50.8mmx2mm thick/4mm thick) Mapping Work. No of tubes in each block are as follow: 1) Primary air tubes block - 3219 tubes in ph1 and 3875 tubes in Ph2 2) Secondary air tubes block - 4329 tubes in ph1 and 5375 tubes in Ph2 3) FBHE air block - 154 X 5 tubes (For FBHE, 5 nos. of block is considered as one block)	APH SA/PA & FBHE blocks tubes mapping with ID fans running. One block is considered as One no. quantity.	BD	Per Block	120	1034	124080
3620	I	26	PA/SA damper servicing work.	Carry out the damper servicing work, check it's open and close movement , coorrect if any gap observed in between plates. Check all the link elements repair/replaced if required. Greasing of all the link assembly. Decoupled and coupled with actuator if required. Take trail run.	PM	NO	60	4076	244560
3630	E	27	Plate patch up work on Cyclone and COD duct.	Shifting of material from store. Prepare the material as per required size (Except bending) (as per EIC),Repaire of cyclone & COD plate by new plate patch up	BD	MT	20	26706	534120
3640	I	28	Repaire / Replacement of gap flange / Retainer plate / flange of NMEJ	Shifting of material from store. Fabricate the material as per requirement (as per EIC and drawing), Repaire / Replacement of gap flange / Retainer plate / NMEJ flange of NMEJ (200 mm width /30 mm thickness Gap flange, up to 16 mm thick of NMEJ Bolster and Fabric flange.	BD	Per Meter	80	1672	133760

ANNEXURE -B

Unit rates are excluding GST

PHASE # 2			Part : I		Bed Ash Conveying System				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
3650	I	29	Replacement of Combustor to Cyclone NMEJ Fabric Width 900 mm. Size:6575 x 4518 mm2 (Only fabric some portion of NMEJ)	Dismantle the required size of NMEJ by cutting the bolts as per EIC of M 20 X 80. Remove outer fabrics,Clean the gap inbetween the flanges, measure the gap. Stuff the ceramic wool in between the flange gaps in required length.Erect the NMEJ Fabric. Jointing of NMEJ by heating m/c. check for any leakages. Hot tightening of all bolts as per E-I-C. NOTE: Engage sufficient skilled manpower/resources & manpower has to work on round the clock to bring the unit as earliest as possible.	BD	Per Meter	50	1044	52200
3660	I	30	Replacement of Combustor to Cyclone NMEJ fabric and Bolster Width 900 mm. Size:6575 x 4518 mm2 (Only Fabric and Bolster some Portion)	Dismantle the required size of NMEJ by cutting the bolts as per EIC of M 20 X 80. Remove outer fabrics and Bolster,Clean the gap inbetween the flanges, measure the gap.Stuff the ceramic wool in between the flange gaps in required length.Erect the NMEJ Fabric and Bolster. Joining of NMEJ by heating m/c.Check for any leakages. Hot tightening of all bolts as per E-I-C. NOTE: Engage sufficient skilled manpower/resources & manpower has to work on round the clock to bring the unit as earliest as possible.	BD	Per Meter	60	1665	99900
3670	I	31	Replacement of Combustor to Cyclone NMEJ. Width 900 mm. Size:6575 x 4518 mm2 (Only some portion of NMEJ fabric, Bolster and Dust trap)	Dismantle the required size NMEJ by cutting the bolts.Remove outer fabrics, cermic bolster & Dust trap. Clean the gap inbetween the flanges, measure the gap. Stuff the ceramic wool in between the flange gaps. Erect the new Dust trap, Bolster & NMEJ Fabric. Jointing of NMEJ by heating m/c. check for any leakages. Hot tightening of all bolts as per E-I-C. NOTE: Engage sufficient skilled manpower/resources & manpower has to work on round the clock to bring the unit as earliest as possible.	BD	Per Meter	40	2498	99920

PHASE # 2			Part : I		Bed Ash Conveying System				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
3680	I	32	Replacement of Combustor to Cyclone NMEJ. Width 900 mm. Size:6575 x 4518 mm ² (Entire NMEJ of fabric and Bolster, without Dust trap)	Dismantle the entire NMEJ by cutting the bolts. nos of bolts - @350 nos of M 20 X 80. Remove outer fabrics, ceramic bolster with out Dust trap. Clean the gap inbetween the flanges, measure the gap & rectify the flange if required. Stuff the ceramic wool in between the flange gaps in entire peripheral length. erect the Bolster & NMEJ Fabric. Jointing of NMEJ by heating m/c. check for any leakages. Hot tightening of all bolts as per E-I-C. NOTE: Engage sufficient skilled manpower/resources & manpower has to work on round the clock to bring the unit as earliest as possible.	BD	NO	2	44393	88786
3690	I	33	Replacement of cross over duct to second pass NMEJ Width 400 mm Size: 5636 x 5236 mm ² (Only some portion of NMEJ fabric, Bolster/Ceramic wool)	Dismantle the required size of NMEJ by cutting the bolts. Remove outer fabrics, ceramic bolster/Ceramic wool. Clean the gap inbetween the flanges, measure the gap. Stuff the ceramic wool in between the flange gaps. Erect the Bolster/Ceramic wool & NMEJ Fabric. Jointing of NMEJ by heating m/c. check for any leakages. Hot tightening of all bolts as per E-I-C. NOTE: Engage sufficient skilled manpower/resources & manpower has to work on round the clock to bring the unit as earliest as possible.	BD	Per Meter	40	1249	49960
3700	I	34	Replacement of casing and duct plate up to 16 mm thick at COD/cyclone/ Cto C etc.....	Shift material from store to site. Inspect the duct wall for wear. Remove damage/oxidized plate and Prepare new plate as per required size (except bending), Replace with MS plate of up to 16.0 mm thickness as per E-I-C. Remove scrap from site to scrap yard as per EIC	BD	MT	20	38249	764980

ANNEXURE -B

PHASE # 2			Part : I		Bed Ash Conveying System				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
3710	I	35	Seal box removing at Hot spot area Size: 900 X 500 X 250 mm of 6/8mm IS 2062 M.S plate	Seal box plate and refractory / Bed material / ceramic wool and all jack removing from shell plate by cutting set, chissel hammer or breaker machine, All metalic and refractory debris / scrap removing from site to scrap yard as per EIC	BD	No.	200	3877	775400
3720	I	36	NMEJ patch up work. (during forced outage/AOH of boiler) Locations : C to C,Backpass inlet, COD inlet NMEJ, Seal pot , Air duct NMEJ., Flue gas duct NMEJ.	Clean the area around NMEJ. Identify leakages/ hot spot. Attending by patch up work by ceramic wool or high temperature cloth as per EIC. Normalise. Check for flue gas leakage. (all leakages in one NMEJ to be considered as one no.)	BD	No.	12	1379	16548
3730	I	37	Fabrication of retainer plate along with two nos. stiffners (as per requirement, drawing / E-I-C) Size: 600x200x10 mm of SS plate	Shifting of material from store. Fabricate the retainer plate and stiffner from 10 mm SS plate, welding of stiffners with plate (as per requirement, drawing / E-I-C)	BD	No.	30	1044	31320
3740	I	38	Erection of retainer plate (as per requirement drawing / E-I-C) Size: 600x200x10 mm of SS plate	Shifting of material from store. Ensure surface preparation of base plate by cleaning, grinding etc. Erection and welding of the retainer plate in Cyclone & COD NMEJ area, Bullnose area, any other area (as per requirement, drawing / E-I-C)	BD	No.	30	696	20880
3750	I	39	Fabrication of anchors of all size of SS material	Cutting and welding of SS clit for fabrication of anchors/ preparation from old anchors for reuse as per requirement, E-I-C.	BD	No.	500	62	31000
3760	I	40	Assistance for Oxygen level measurement work	Assist for opening & closing of measuring port. (One boiler oxygen level level measurement at various points shall be considered as 01 NO)	BD	NO	6	268	1608

ANNEXURE -B

Unit rates are excluding GST

<u>PHASE # 2</u>			<u>Part : I</u>		<u>Bed Ash Conveying System</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
3770	I	41	Bending of MS plate up to 16 mm thickness	Receive material from ware house . Bend the plates inplant or outside of plant. To & fro transportation of material or bending machine shall be in the scope of contractor. Preparation of material should be as per drawing/EIC.	BD	MT	10	11000	110000
<u>PHASE # 2</u>			<u>Part : I</u>		<u>TOTAL</u>				7952730

ANNEXURE -A

PHASE # 1			Part : J		Fuel Firing System.				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
3780	J	1	Propane tank safety valve servicing/testing assistance	Assist for safety valve servicing/testing as per following. Isolate the safety valve from tank. Remove it from position. Carry out testing of safety valve with nitrogen gas. Adjust pressure if require. Box up.	BD	Per Day	2	2771	5542
3790	J	2	Start up Burner (SUB) gun cleaning.	Isolate the fuel and steam, air line valve. Remove the hoses from the gun. Remove the gun. Clean with diesel / air. Tag the clean gun, install same as required to set up, Assist trail run. Identify defect if any during trail.	PM	No.	95	1106	105070
3800	J	3	Bed Lance (BL) gun cleaning.	Isolate the fuel and steam, air line valve. Remove the hoses from the gun. Remove the gun. Clean with diesel / air. Tag the clean gun, install same as required to set up, Assist trail run. Identify defect if any during trail.	PM	No.	130	967	125710
3810	J	4	Replacements of hoses of SUB / BL.	Isolate the fuel, steam, air, gas supply. Replace the hose with new one. Assist trail run, Check for any leakage.	BD	No.	30	691	20730
3820	J	5	SUB Block removal and refixing. Elevation of SUB is at 10.5 meter in front & rear wall of boiler. OD of sub block- 1.5 meter & length of SUB assy 2 meter.	<p>A) For Removal :- Remove the all hose connections of SUB after isolating supply. Remove the oil gun from SUB block. Remove the SUB block, use chain pulley block for removal of block. Clean the diffuser of SUB. Box up.</p> <p>B) For refixing :- Put the SUB block in position by chain pulley block. Fit the gun in the block. Connect all hose connections. Tighten flange of SUB block. Charge the oil/steam lines & check for leakage, attend the leakage. assist trial run.</p> <p>Note :- This activity is to be carried out in boiler hot conditions. utmost care is to be taken & necessary PPEs should be utilised while working.</p>	BD	No.	70	1379	96530

ANNEXURE -A

PHASE # 1			Part : J		Fuel Firing System.				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
3830	J	6	Clear out SUB gun jamming	Check for advance / retract motion of SUB gun. Identify of jamming if any and rectify the same. Assist trial advance / retract motion.	BD	No.	3	276	828
3840	J	7	Repair / replacements of gas regulating valve.	Remove the valve from skid. (Flange joint) Open the valve, Check for any damage to seat, disc etc. Replaced if reqd. or replaced the valve with new one.	BD	No.	2	1112	2224
3850	J	8	Repair / replacements of steam, air, fuel oil atomising and trip valve of SUB / BL control station. Size:- Upto 1.5".	Remove the valve from skid. (Flange joint) Open the valve, Check for any damage to seat, disc etc. Replace if reqd. or replace the valve with new one.	BD	No.	8	1112	8896
3860	J	9	Strainer (Oil, steam, air) cleaning from SUB / BL control station.	Open the strainer, clean the element with diesel , air. Box up.	BD	No.	38	829	31502
3870	J	10	Strainer (Oil , Steam , air) replacements from SUB / BL control station.	Replace the strainer with new one.	BD	No.	4	416	1664
3880	J	11	Steam, oil leakage arresting from the SUB / BL control station skid.	Identify the leakage, remove insulation if reqd. Tighten the flange, replace gasket if reqd.	BD	No.	65	829	53885
3890	J	12	Pressure adjustment of valve	Adjust the pressure of steam/oil/air. Open the cover of the valve. Adjust bolt as per E-I-C.	BD	No.	3	72	216
3900	J	13	Bed Lance guide pipe cleaning.	Remove the bed lance from position. Clear the chocking of guide pipe. Fixed the Bed lance.	BD	No.	32	208	6656

ANNEXURE -A

PHASE # 1			Part : J		Fuel Firing System.				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
3910	J	14	Servising/Overhauling of SUB assembly	Isolate the SUB assembly. Remove the all hose connections.Remove the gun from SUB assy.Remove the SUB block from position by chain block.Dismantle the SUB block. Clean all the parts by diesel.Check the guide pipe, retract assy, diffuser plate .Repair/replace as per instructions of E-I/C.Check all hose & its connectors . Replace if required. Check the gun & clean it. Replace the gun/tip /nozzle if required.Assemble the SUB block & make ready as standby.	BD	No.	12	3904	46848
3920	J	15	Open /close wind box drain valve.	Open the wind box drain valve. Remove the bed material from wind box. Close the valve.	BD	No.	5	140	700
3930	J	16	Primary air Hose Inspection/Replacement	Remove the hose from position. Check for any foreign material inside the hose. Clean the bed material with compressed air.Replace the hose if required. Box up.	BD	No.	8	553	4424
3940	J	17	Barrel & Diffuser Installation	Make proper platform as per requirement for work. Barrel & Diffuser Installation Work	BD	No.	3	4076	12228
3950	J	18	Propane tank Hydro test.	Assist for Hydro Test as per following. Open the vent of the tank. Remove residual propane from tank. Flush tank with water. Open the manhole door. Clean internally. Carry out hydro test. Normalise the system. Fill up the propane in the tank.	BD	No.	2	8846	17692
3960	J	19	Propane pump Servising	Ensure isolation of pump. Open the cover. Remove belt set.Dismantle the pump. Clean the internals. Inspect internals & replace the damaged parts. Assemble pump.Replace belt if necessary.Align the belt. Box up.Assist trial run.	BD	No.	2	4051	8102

ANNEXURE -A

Unit rates are excluding GST

<u>PHASE # 1</u>			<u>Part : J</u>		<u>Fuel Firing System.</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
3970	J	20	Oil line replacement work up to 50 NB	Ensure isolation of oil line. Remove the insulation and identify the oil leakage. Replaced the oil line as per the direction of EIC. Check for no leakage. Clean the oil leakage area.	BD	Per Meter	15	1112	16680
3980	J	21	FO Unloading pump oil seal replacement work	Ensure elec/mech isolation of pump. Replace the oil seal. Check for no leakage.	BD	No.	3	833	2499
<u>PHASE # 1</u>			<u>Part : J</u>		<u>TOTAL</u>				568626

ANNEXURE -B

<u>PHASE # 2</u>			<u>Part : K</u>		<u>Valves</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
3990	K	1	Replacement of LP valves upto 2" size (800 Class and below)	Remove the damaged valve from position, make neccssary edge preparation and weld the new valve in position. Check for no leakage.	BD	No.	26	1669	43394
4000	K	2	Servicing of LP valves upto 2" size (800 Class and below)	Dismantle the entire valve, repair / replace all damaged parts and gland packings, clean the valve internals properly, Lap the seat for perfect sealing, box up the valve. Check for no leakage, passing and normal operation.	BD	No.	4	560	2240
4010	K	3	Replacement of LP valves above 2" upto 8" size (800 Class and below)	Remove the damaged valve from position make neccssary edge preparation and weld the new valve in position. Check for no leakage.	BD	No.	4	2088	8352
4020	K	4	Servicing of LP valves above 2" upto 8" size (800 Class and below)	Dismantle the entire valve, repair / replace all damaged parts and gland packings, clean the valve internals properly, Lap the seat for perfect sealing, box up the valve. Check for no leakage, passing and normal operation.	BD	No.	9	1112	10008
4030	K	5	Gland tightening of valves up to 3" size of various class for water, steam, oil and air applications	Clean the bolts and gland follower, apply cleaner,Tighten the gland follower tightening bolts to the maximum possible extend to arrest the gland leakage. Tighten both the bolts uniformly, apply dry moly spray.	BD	No.	80	140	11200

ANNEXURE -B

<u>PHASE # 2</u>			<u>Part : K</u>		<u>Valves</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
4040	K	6	Gland tightening of valves above 3" size of various class for water, steam, oil and air applications	Clean the bolts and gland follower, apply cleaner,Tighten the gland follower tightening bolts to the maximum possible extend to arrest the gland leakage. Tighten both the bolts uniformly, apply dry moly spray on the bolts.	BD	No.	18	210	3780
4050	K	7	Gland replacement of LP valves upto 2" size.	Remove the gland follower and remove the entire gland packing set. Clean the sprindle and gland follower and replace with new gland packing set and box up. Check for no leakage,apply dry moly spary on the bolts.	BD	No.	9	420	3780
4060	K	8	Gland replacement of LP valves above 2" size upto 6".	Remove the gland follower and remove the entire gland packing set. Clean the sprindle and gland follower and replace with new gland packing set and box up. Check for no leakage,apply dry moly spary on the bolts.	BD	No.	9	839	7551
4070	K	9	Gland replacement of HP valves upto 2" size.	Remove the gland follower and remove the entire gland packing set. Clean the sprindle and gland follower and replace with new gland packing set and box up. Check for no leakage,apply dry moly spary on the bolts.	BD	No.	35	280	9800

ANNEXURE -B

<u>PHASE # 2</u>			<u>Part : K</u>		<u>Valves</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
4080	K	10	Gland replacement of HP valves above 2" size upto 6".	Remove the gland follower and remove the entire gland packing set. Clean the sprindle and gland follower and replace with new gland packing set and box up. Check for no leakage,apply dry moly spary on the bolts.	BD	No.	10	630	6300
4090	K	11	Gland replacement of HP valves above 6" size upto 12".	Remove the gland follower and remove the entire gland packing set. Clean the sprindle and gland follower and replace with new gland packing set and box up. Check for no leakage,apply dry moly spary on the bolts.	BD	No.	9	839	7551
4100	K	12	Gland replacement of HP valves above 12" to 16" size.	Remove the gland follower and remove the entire gland packing set. Clean the sprindle and gland follower and replace with new gland packing set and box up. Check for no leakage,apply dry moly spary on the bolts.	BD	No.	2	1679	3358
4110	K	13	Replacement of HP valves upto 3" size (1500# and above)	Remove the damaged valve from position make neccssary edge preparation and weld the new valve in position. Check for no leakage.	BD	No.	30	1789	53670
4120	K	14	Servicing of HP valves upto 3" size (1500# and above)	Dismantle the entire valve, repair / replace all damaged parts and gland packings, clean the valve internals properly, Lap the seat for perfect sealing, box up the valve. Check for no leakage, passing and normal operation.	BD	No.	20	839	16780

<u>ANNEXURE -B</u>									
<u>PHASE # 2</u>			<u>Part : K</u>		<u>Valves</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
4130	K	15	Replacement of HP valves more than 3" to 8" size (1500# and above)	Remove the damaged valve from position make neccssary edge preparation and weld the new valve in position. Check for no leakage.	BD	No.	4	2985	11940
4140	K	16	Servicing of HP valves more than 3" to 6" size and any mode of operation (1500# and above)	Remove the actuator, dismantle the entire valve, repair / replace all damaged parts and gland packings, clean the valve internals properly, Lap the seat for perfect sealing, box up the valve and re-erect the actuator. Check for no leakage, passing and normal operation	BD	No.	6	1112	6672
4150	K	17	Servicing of HP valves from 6" to 10"size and any mode of operation (1500# and above)	-- do --	BD	No.	4	3943	15772
4160	K	18	Servicing of HP valves 10" above to 16" size and any mode of operation (1500# and above)	-- do --	BD	No.	4	5101	20404
4170	K	19	Servicing of Safety and Safety relief valves in Drum, Main steam line, HRH, CRH.Line Size:12",14",16"	Make proper approach by scaffolding / platforms. Dismantle the valve entierly, repair / replace the damaged parts, clean the valve internals properly. Lap the seat and body, box up the valve. Check for no leakage, passing and normal operation. Assist in floating of the safety valve as per EIC	BD	No.	2	14834	29668

<u>ANNEXURE -B</u>									
<u>PHASE # 2</u>			<u>Part : K</u>		<u>Valves</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
4180	K	20	Servicing of Safety valve in Soot blower steam line and CBD tank. Size - up to 3'	-- do --	BD	No.	2	3943	7886
4190	K	21	Gaging of Safety valves	Remove the Manual popping lever and erect the Safety valve Gag as per EIC. After completion of HT remove the gag and restore the manual lever	BD	No.	60	420	25200
4200	K	22	Installation of Hydro static plug in Safety valves	Isolate the valve Dismantle the safety valve without disturbing the setting, Remove the seat and replace the Hydro static plug and box up. After completion of HT restore the original seat as per EIC	BD	No.	2	834	1668
4210	K	23	Setting/POP up of Safety valves	Remove the manual popping lever and adjust the Spring compression adjustment nut, Lower adjustment ring and upper adjustment ring as per Instruction of EIC. Repeat the process till the safety valve is set at the design pressures or POP up the safety valve manually by proper arrangement as per E-I-C.	BD	No.	22	1112	24464

ANNEXURE -B

<u>PHASE # 2</u>			<u>Part : K</u>		<u>Valves</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
4220	K	24	Servicing of Knife edge gate valve of various mode of operation	Remove the actuator, dismantle the entire valve, repair / replace all damaged parts and gland packings, clean the valve internals properly, Check the straightness of the plate rectify if required, check the surface of the plate rectify if required from impressions, box up the valve and re-erect the actuator. Check for no leakage, passing and normal operation	BD	No.	36	839	30204
4230	K	25	Choking/Jamming clearout of Knife edge valves	Isolate the valve, loosen the Gland bolts and free the valve by slight hammering as per EIC	BD	No.	72	420	30240
4240	K	26	Servicing of Butterfly valve Size 150-250 Nb of various mode of operation	Remove the actuator, dismantle the entire valve, repair / replace all damaged parts and gland packings, clean the valve internals properly, Check the seat for damage repair / replace as per requirement, check the rubber seal ring repair / replace as per requirement, box up the valve and re-erect the actuator. Check for no leakage, passing and normal operation	BD	No.	1	1392	1392

ANNEXURE -B

<u>PHASE # 2</u>			<u>Part : K</u>		<u>Valves</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
4250	K	27	Servicing of Ball valve of various mode of operation up to 150NB size	Remove the actuator, dismantle the entire valve, repair / replace all damaged parts and gland packings, clean the valve internals properly, Check the ball for external surface damage repair / replace as per requirement, check the sealing ring repair / replace as per requirement, box up the valve and re-erect the actuator. Check for no leakage, passing and normal operation	BD	No.	4	420	1680
4260	K	28	Gland replacement of Spiess valves	Isolate the valve from sealing air side, Remove the gland follower and remove the entire gland packing set. Clean the sprindle and gland follower and replace with new gland packing set and box up. Check for no leakage	BD	No.	4	630	2520
4270	K	29	Cooling water hose replacement for Spiess valve	Isolate the valve from cooling water side, remove the damaged cooling water hoses and replace it with new ones as per EIC. Charge the cooling water and check for no leakage.	BD	No.	4	556	2224

ANNEXURE -B

<u>PHASE # 2</u>			<u>Part : K</u>		<u>Valves</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
4280	K	30	Removal / refixing of spiese valve assy./Replacement work	Remove the cooling water hoses from spiese valve. Remove the spiess valve assly from position. Remove any foreign material from inside and checking of bed ash discharge line for any chock up. If line is chocked clear it by pocking. Position spiess valve assly. Carry out alignment with brick.Normalise the system.	BD	No.	8	10201	81608
4290	K	31	Manual operation of spiese valve.	Open/close the spiese valve manually as per EIC.	BD	Once operation	90	278	25020
4300	K	32	Replacement of valves handle upto 4"	Remove the valve handle from position. Replace with new one.	BD	No.	22	420	9240
4310	K	33	Servicing/Overhauling of combustor Spiess valve assembly. Size: OD- 80mm, Legth: 2.5 meter.	Isolate the valve from cooling water and seal air side, remove the cooling water, seal air hoses. Remove complete assly of spiess valve from position. Dismantle spiess valve shaft from body. Check the condition, ovality of shaft, condition cone. Remove the damaged shaft and replace with the new one if require. Cleaning of shaft sleeve & replaced gland packing. Build up cone with special electrode as per instruction of EIC. Box up & align the valve as per EIC .Connect the cooling water, seal air hoses. Check for no leakage, passing and normal operation	BD	No.	6	7417	44502

ANNEXURE -B

<u>PHASE # 2</u>			<u>Part : K</u>		<u>Valves</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
4320	K	34	Servicing/Overhauling of FBHE/Seal pot Spiess valve assembly. Size:OD- 135mm, Legth: 3.5 meter.	Isolate the valve from cooling water and seal air side, remove the cooling water, seal air hoses. Remove complete assly of spiess valve from position. Dismentle spiess valve shaft from body. Check the condition, ovality of shaft, condition cone. Remove the damaged shaft and replace with the new one if require. Cleaning of shaft sleeve & replaced gland packing. Build up cone with special electrode as per instruction of EIC. Box up & align the valve as per EIC .Connect the cooling water, seal air hoses. Check for no leakage, passing and normal operation	BD	No.	9	10201	91809
4330	K	35	Freeness checking of various size of gate and globe valves: Size-upto 3"	Check the valve for jamming. Made free if required. Lubricate the spindle of valve. Assist trial run of valve by opening and closing of valve.	BD	No.	630	140	88200
4340	K	36	Freeness checking of various size of gate and globe valves: Size-above 3" upto 16"	Check the valve for jamming. Made free if required. Lubricate the spindle of valve. Assist trial run of valve by opening and closing of valve.	BD	No.	20	556	11120
4350	K	37	Assistance for attending online leakage of valves /pipe line etc.	Make necessary approach for attending on line leakage. Make necessary connection of air etc. Assist the online leakage attending team. Normalise. 01 no. equal to 04 hours work of 01 Fiiter, 01 Welder/Grinder & 02 Helpers.	BD	No.	9	1093	9837

ANNEXURE -B

<u>PHASE # 2</u>			<u>Part : K</u>		<u>Valves</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
4360	K	38	Servicing of Control valve upto 3" size	Remove the actuator, dismantle the entire valve, repair / replace all damaged parts and gland packings, clean the valve internals properly, Lap the seat for perfect sealing, box up the valve and re-erect the actuator. Check for no leakage, passing and normal operation	BD	No.	14	2225	31150
4370	K	39	Cleaning of valves up to 3" size	External cleaning of valves by manually and with spray.It should be cleaned properly without any dust	BD	No.	13	140	1820
4380	K	40	Cleaning of valves above 3" size	External cleaning of valves by manually and with spray.It should be cleaned properly without any dust	BD	No.	13	210	2730
4390	K	41	Steam trap replacement	Steam trap replacement along with end piping to nearest trench,include cutting,fitting,bending,Socket welding of 15NB/25NB line	BD	No.	12	1112	13344
4400	K	42	Replacement/Installation of KGV up to 300 NB pipe size	Remove the damaged valve from position and install the new valve on position. Check for no leakage as per direction of EIC. Remove the scrape from surrounding.	BD	No.	10	1669	16690
4410	K	43	Replacement/installation of air line valve up to 50 NB pipe size	Remove the damaged valve from position and install the new valve on position. Check for no leakage as per direction of EIC.	BD	No.	8	948	7584

<u>ANNEXURE -B</u>									
<u>PHASE # 2</u>			<u>Part : K</u>			<u>Valves</u>			
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
4420	K	44	Pipe removal / replacement / erection up to size 100 NB	Make necessary approach for work and Remove/replace/erect the MS/SS/GI pipe as per the direction of EIC.check for no leakage.	BD	per meter	98	556	54488
4430	K	45	Pipe removal / replacement / erection above size 100 NB up to 300 NB	Make necessary approach for work and Remove/replace/erect the MS/SS/GI pipe as per the direction of EIC. Check for no leakage.	BD	per meter	15	1391	20865
4440	K	46	Clamp fabrication for online leakage attending of steam leakage	Fabricate the clamp as per required size of pipe.	BD	No.	4	1112	4448
<u>PHASE # 2</u>			<u>Part : k</u>			<u>TOTAL</u>			914153

ANNEXURE -B

PRICE SCHEDULE DMC 2021-23 TENDER ID 449263

Unit rates are excluding GST

PHASE # 2			Part : L		Soot Blower				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
4450	L	1	PM of soot blower.	Clean the soot blower assembly & area by cotton cloth ,kerocine.Check the rotary & traverse gear box freeness & Lubricate the rotary & traverse gear box. Lubricate the both travelling carriage assy.Adjust the chain tension of both motor & if required , replace the chain. Check for gland / gasket leakage from travelling carriage, puppet valve & replace it if required. Do check of puppet valve operation by forward-retract .Check the lance feed tube for any damage/bending & inform to Engineer I/C and .Check the steam blowingstrip & repair/replace/tighten , if required. Check advance -retract motion manually.Replace gland packing if instructed.	PM	No.	350	692	242200
4460	L	2	Assistance for soot blowing	One person is required for checking of all soot blower during operation per shift per boiler. The above activity will be done in both boilers in three shifts a day. The person also required to identify any problem of soot blower during operation. Same problem may be attended later.	PM	No.	1200	342	410400
4470	L	3	Chain tension adjustments of rotary and traverse motor.	Check for chain tension. Adjust the chain tension with the help of gear box adjustments.Clear the area.	BD	No.	4	104	416
4480	L	4	Drive chain repair / replacements of rotary and transverse motor.	Remove the chain. Add additional link or replace with new one.Clear the area.	BD	No.	22	553	12166

ANNEXURE -B

PRICE SCHEDULE DMC 2021-23 TENDER ID 449263

Unit rates are excluding GST

PHASE # 2

Part : L

Soot Blower

C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
4490	L	5	Gear box servicing of rotary / transverse motor.	De clutch/couple the gear box. Drain the oil from the gear box.Remove the motor. Dismantle the gear box. Inspect the internals and handover list of spare required . Replace the damaged parts . Service the gear box.Lubricate gear box.. Box up.	BD	No.	2	2213	4426
4500	L	6	Replacements of rotary / transverse gear box assy.	Declutch the gear box. Remove the damaged gear box. Place new one. Align it, adjust the chain tension. Fill the oil in gear box.	BD	No.	2	690	1380
4510	L	7	Oil seal replacements of rotary / transverse gear box	Drain the oil. Remove the motor. Replaced the damaged oil seal. Box up.	BD	No.	2	345	690
4520	L	8	Lubrication of rotary / transeverse gear box, chain of jack shaft, drive chain, travelling carraige assy. Etc.	Fill the oil / change the oil from gear box. Grease the chain, travelling carraige assy. As per E-I-C.	BD	No.	12	277	3324
4530	L	9	Decoupling / Coupling of rotary / transverse motor	Declutch the both gear box. Decouple the gear box from motor. Box up.	BD	No.	2	173	346
4540	L	10	Jack shaft chain replacements/ repair.	Declutch the both drive. Remove the chain from jack shaft. Repair / replaced as per E-IC	BD	No.	2	518	1036
4550	L	11	Travelling carraige assy Servicing.	Dismantle the carraige assy. Inspect for any damage to worm gear/ worm wheel or any other parts.hand over the list of spare required to restore TC.Issues apre from ware house and install same in existing assembly. transfer the TC to ware house/work shop /location for re installation at site.Post repair tagged the same for further identification/ c-ordination.	BD	No.	8	3908	31264

ANNEXURE -B

PRICE SCHEDULE DMC 2021-23 TENDER ID 449263

Unit rates are excluding GST

PHASE # 2			Part : L		Soot Blower				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
4560	L	12	Travelling carriage assy Replacement	Remove the carriage assy as per standard procedure. Install new assembly .normalize poppet valve assembly and take manual trial.	BD	No.	5	3908	19540
4570	L	13	Travelling carriage assy. Gland packing replacements	Remove the worn out gland. Replaced the gland. Tighten the gland as per E-I-C.	BD	No.	38	415	15770
4580	L	14	Puppet valve gland packing replacements	Replace the gland packing. Adjust the valve pressure.	BD	No.	24	277	6648
4590	L	15	Puppet valve servicing.	Remove the puppet valve from the position. Dummy with the flange. Service the puppet valve for stem. Gland packing etc.	BD	No.	12	830	9960
4600	L	16	Puppet valve pressure adjustments	Adjust the pressure as per E-I-C.	BD	No.	10	70	700
4610	L	17	Puppet valve replacements.	Replace the puppet valve with new one. Adjust the pressure as per E-I-C. replace gaskets if required	BD	No.	11	557	6127
4620	L	18	Steam blowing bar (strip) replacements.	Remove the damaged strip (blowing bar) Check during operation.	BD	No.	38	277	10526
4630	L	19	Lance tube replacement	Remove the lance from position. Fix new lance in position. Align lance in carriage assy. Box up. Assist trial run.	BD	No.	30	5056	151680
4640	L	20	Puppet valve plug replacement.	Check puppet valve plug thread. If found damage tap new thread. Fix new plug. Box up.	BD	No.	4	69	276
4650	L	21	gasket replacement of Poppet valve	Isolate the system from steam side remove the damaged gasket and replace with new one charge the line and check for any leakage.	BD	No.	25	1035	25875

ANNEXURE -B

PRICE SCHEDULE DMC 2021-23 TENDER ID 449263

Unit rates are excluding GST

PHASE # 2			Part : L		Soot Blower				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
4660	L	22	Lance/Feed pipe Replacement	Removal of Lance/Feed pipe from existing soot blower Assembly by removing SBV head Assembly ,Install new feedpipe/Lance & SBV Head Assembly.normalize	BD	No.	12	7352	88224
4670	L	23	Jack shaft end bearing replacement 1 No. bearing	Remove old bearing of jack shaft assembly and replace it with new one	PM	No.	8	553	4424
4680	L	24	Drive end bearing replacement 1 No. bearing	Remove old bearing of drive shaft assembly and replace it with new one	PM	No.	4	484	1936
4690	L	25	Opening & closing of soot blower manual valve during sootblowing	Opening & closing of soot blower manual valve during sootblowing as per instruction of GIPCL EIC	PM	No.	1000	68	68000
4700	L	26	external cleaning of sootblower	External cleaning of soot blower assembly	PM	No.	176	137	24112
4710	L	27	sootblower retracted manually	On jamming / on intimation. Remove soot blower traveling carriage along with lance from jammed position to home position through required tools and tackles . If required repair chain assembly	PM	No.	120	320	38400
4720	L	28	freeness checking	Check freeness of all four chain from both end between sprocket	PM	No.	350	320	112000
4730	L	29	home position checking	On intimation verified home position of individual soot blower	PM	No.	150	68	10200
PHASE # 2			Part : L		TOTAL				1302046

ANNEXURE -B

<u>PHASE # 2</u>			<u>Part : M</u>		<u>Fuel Oil Handling</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
4740	M	1	PM of fuel oil pump (Transfer / unloading) Screw type Pump.	Check alignment of pump, correct if required. Check the coupling,bearing condition. Replace if required.Lubricate the bearings. Clean the suction strainer.Box-up.Assist trial run. Adjust pressure of pump if required.	PM	No.	7	526	3682
4750	M	2	PM of pump in drain oil tank (Transfer / unloading) Gear Pump.	--do--	PM	No.	2	394	788
4760	M	3	Steam trap servicing.	Isolate the trap. Dis assemble the trap. Clean it / replaced element if required . Box up.	OM	No.	6	263	1578
4770	M	4	Repair/ servicing of steam coil heater	Dismantle the coil. Check for damaged.Plug the damaged tubes.Replace if necessary.Take hydraulic test of heater coil. Boxup	BD	No.	3	4792	14376
4780	M	5	Gasket replacement in Steam coil heater.	Remove the pipe connection from steam heater. Remove the flange of the heater. Put new gasket & Box up.	BD	No.	4	1308	5232
4790	M	6	Assistance to Electrical for removal & fitting of Electric Coil Heater	After removal of electrical connections by electrical dept., remove the coil bundle of electric oil heater , & after clearance from electrical dept fit the heater coil in position.	BD	No.	2	4746	9492
4800	M	7	Replacement of coupling & Alignment (Transfer / unloading pump)	Decouple the coupling and replace if required. Align and couple.	BD	No.	2	2616	5232

ANNEXURE -B

<u>PHASE # 2</u>			<u>Part : M</u>		<u>Fuel Oil Handling</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
4810	M	8	Servicing of pump / replacement of pump	Decouple the pump from motor. Take the motor out for pump dismantling. Remove the bearing, mechanical seals. Dismantle the pump & check all internals. Replace/repair the damaged internals. Check the both DE & NDE bearing, mech seal ,its washer, etc & replace if required. Box up the pump, bearing,mech seals. Lubricate the bearing. Ensure the freeness of pump by manual operation. Replace the coupling, if required. Fit the motor & align with pump. assist trial run.and replace if required. Align and couple. Clean the area & remove the scrap.	BD	No.	6	8249	49494
4820	M	9	Pressure adjustments of pump.	Adjust the pressure relief valve as per E-I-C.	BD	No.	2	263	526
4830	M	10	Steam leakage arresting from heater skid.	Arrest the leakage from the flange, strainer flange. Tighten it or replaced the gasket as per E-I-C. Clean the drain oil / water from the skid.	BD	No.	8	1308	10464
4840	M	11	Fuel oil leakage arresting from pump skid and heater skid.	Clean the area.Arrest the leakages from the flange, strainer flanges. Tighten it or replace the gasket as per E-I-C. Clean the drain oil / water from the skid.	BD	No.	4	1308	5232
4850	M	12	Steam strainer cleaning from Pump skid and Heater skid.	Isolate the strainer. Remove the filter elements. Clean with diesel / air. Box up.Clean the area.	BD	No.	4	592	2368
4860	M	13	Fuel oil strainer cleaning from Pump skid and Heater skid.	Isolate the strainer. Remove the filter elements. Clean with diesel / air. Box up.Clean the area.	BD	No.	16	1045	16720
4870	M	14	Replacement of oil valve upto 3" size.	Isolate the system. Cut the damage valve. Replace the valve with new one.	BD	No.	2	1308	2616
4880	M	15	Attending gland leakages of valves upto NB 3"	Tighten the glands. Replace if necessary	BD	No.	4	523	2092

ANNEXURE -B

<u>PHASE # 2</u>			<u>Part : M</u>		<u>Fuel Oil Handling</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
4890	M	16	Replacement of Mechanical Seal of the pump.	Carry out replacement of the mechanical seal as per instruction of EIC. This includes Decoupled the pump and motor, dismantled the Mech. Seal and replaced , align the pump and motor and coupled it and take trial run. One no. mech. Seal replacement consider as a one no. quantity.	BD	No.	3	4792	14376
<u>PHASE # 2</u>			<u>Part : M</u>		<u>TOTAL</u>				144268

ANNEXURE -B

Unit rates are excluding GST

<u>PHASE # 2</u>			<u>Part : N</u>		<u>Fuel Oil Handling</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measure ment (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
4900	N	1	PM of Pump	Ensure isolation of pump, Thoroughly clean the pump skid, gear box and sorroundong parts.check for all bolts tightness, check coupling bolt tightnes.Check for any other abnormalities and ensure its healthyness. Check lube oil and ensure its quality and lub-oil level. Clean surroung area and return the permit.	PM	No.	2	829	1658
4910	N	2	Providing assistant for Diesel Engine servicing.	Providing manpower for assisting supplier representative to carry out servicing of diesel engine. Thoroughly clean equipment / base from oil and dirt. Check the tightness of all bolts of casing, foundation, etc. Replace the engine oil, fuel filters, air filters, oil filters. Fill up the coolant in the radiator. Check condition of radiator fan belt & alternator belt. Box up the entire equipment. Assist trial run.	PM	Per day per Helper	2	546	1092
4920	N	3	PM of EBFP Lube Oil Unit	Tighten the flanges. Check for any abnormalities. Check for oil level / oil quality. If necessary replace / top up. Cleaning of strainer / oil coolers. Box up.	OM	No.	2	829	1658
4930	N	4	PM of Working oil / lub oil cooler	Isolate cooler from water and oil side. Drain oil in the empty barrel. Clean the water box	BD	No.	2	2211	4422
4940	N	5	Replacement of Gear box.	Decouple the gear box from pump as well as engine side. Remove old gear box and place new one. Carry out alignment with pump & engine.	BD	No.	2	8724	17448
4950	N	6	Diesel engine radiator fan replacement.	Open the cover of radiator fan. Remove the old belt by adjusting pulley of fan. Fix the new belt set. Adjust the pulley. Box up. Assist trial run.	BD	No.	2	1659 229	3318

ANNEXURE -B

<u>PHASE # 2</u>			<u>Part : N</u>		<u>Fuel Oil Handling</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measure ment (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
4960	N	7	Assistance for Inter/after cooler of Diesel engine replacement.	Providing manpower for assisting supplier representative for replacement of inter/after cooler of engine from position. Carry out hydro test of cooler after removal. Replace the cooler if found damage. Box up the engine.	BD	No.	2	5890	11780
4970	N	8	Topping of Diesel in EBFP Fuel tank	Shift the diesel barrel from stores and top the oil in fuel oil tank to the level as per EIC	BD	No.	12	1041	12492
4980	N	9	Topping of Lub oil in Lub oil tank	Shift the Lub oil barrel from stores and top the oil in fuel oil tank to the level as per EIC	BD	No.	4	208	832
4990	N	10	Lub oil replacement.	Remove the old oil from lub oil tank completely. Clean the tank from inside. Clean the view glass. Fill the tank as per instruction of EIC.	BD	No.	2	1665	3330
5000	N	11	Fuel(diesel) replacement.	Remove the diesel from tank completely. Clean the tank from inside. Clean the view glass. Fill the tank as per instruction of EIC.	BD	No.	5	3051	15255
5010	N	12	Lub oil filter cleaning	Isolate the lub oil filter from oil side and clean the filter which is choked. After cleaning charge the lub oil filter and check for any leakage attend if any	BD	No.	14	416	5824
5020	N	13	EBFP pump suction strainer cleaning	Isolate the strainer from water side. Remove the bucket type strainer. Clear all debris from strainer assy. Check the strainer & replace if damaged or clean the strainer. Replace the flange gasket. Put the strainer in position & Box up.	BD	No.	4	1659	6636
5030	N	14	EBFP mechanical seal replacement NDE side	Isolate the pump from mechanical side. Drain the pump. Remove mechanical seal. Replace with new one. Box up & Normalise.	BD	No.	2	7345	14690

ANNEXURE -B

Unit rates are excluding GST

<u>PHASE # 2</u>			<u>Part : N</u>		<u>Fuel Oil Handling</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
5040	N	15	EBFP mechanical seal replacement DE side	Isolate the pump from mechanical side. Drain the pump.Remove the coupling. Remove mechanical seal. Replace with new one. Box up & Normalise.	BD	No.	2	8724	17448
5050	N	16	Servising of Mechanical Seal	Dismantle the seal. Replace damaged parts. Assemble the seal.	BD	No.	2	1817	3634
<u>PHASE # 2</u>			<u>Part : N</u>		<u>TOTAL</u>				121517

ANNEXURE -B

<u>PHASE # 2</u>			<u>Part : O</u>		<u>Hoist</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
5060	O	1	Inspection & PM of Hoist	Clean the hoist by cotton cloth. Carry out greasing of bearings,gear box, pulley and load hook, rollers as per instruction of E-I-C.Lubricate the hoist wire rope. Check the hoist for verical & horizontal direction of operation.Check the brake.Note the defects & correct it. Clean the travelling beam with blowing of air.	PM	No.	18	789	14202
5070	O	2	Servicing of Hoist	Dismantling of hoist parts. Identify the damaged & replace if required.Assemble the Hoist with proper lubrication. Complete inspection of hoist. Carry out hoist servicing work as per instruction of EIC. After complete servicing/ inspection take a trial for the hoist.	BD	NO	2	3829	7658
<u>PHASE # 2</u>			<u>Part : O</u>		<u>TOTAL</u>				21860

ANNEXURE -B

PHASE # 2			Part : P		External Cleanings				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
		A) FANS							
5080	P	1	Inspection and external cleaning of PA fan ,its lub oil unit, IGV & ACW valves	This activity is to be carried out in running unit, so utmost care to be taken while doing the work and dont disturb any valves or cable etc.Clean the whole lube oil units, check for any oil, water, air leakages & inform to E-I-C. Clean the complete foundation of fan, motor & its bottom floor, clean the all valves & apply dry moly spray on foundation bolts & valves stem. clean fans & motor, Inspection and external cleaning of IGV and greasing, bearings.Shift the scrap to scrap yard.	PM	Per Fan	18	789	14202
5090	P		Inspection and external cleaning of SA fan ,its lub oil unit & ACW valves	This activity is to be carried out in running unit, so utmost care to be taken while doing the work and dont disturb any valves or cable etc.Clean the whole lube oil units, check for any oil, water, air leakages & inform to E-I-C. Clean the complete foundation of fan, motor & its bottom floor, clean the all valves & apply dry moly spray on foundation bolts & valves stem. clean fans & motor, Inspection and external cleaning of IGV and greasing, bearings.Shift the scrap to scrap yard.	PM	Per Fan	18	789	14202
5100	P		Inspection and external cleaning of ID fan ,its hydraulic coupling unit & ACW valves	This activity is to be carried out in running unit, so utmost care to be taken while doing the work and dont disturb any valves or cable etc.Clean the whole Hydraulic coupling unit, check for any oil, water, air leakages & inform to E-I-C. Clean the complete foundation of fan, motor & its bottom floor, clean the all valves & apply dry moly spray on foundation bolts & valves stem. clean fans & motor, Inspection and external cleaning of IGV and greasing, bearings.Shift the scrap to scrap yard.	PM	Per Fan	18	789	14202
	P	B) Valve Station							

ANNEXURE -B

PHASE # 2			Part : P		External Cleanings				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
5110	P		Inspection and external cleaning of Drain Header 1&2 Station. It consists of around 40 - nos valves upto 2" size is considered as one no.	This activity is to be carried out in running unit, so utmost care to be taken while doing the work and dont disturb any valves or cable etc. Clean all valves ,apply dry molyspray on its stem. Clean the Drain header area .remove all dirt, dust, oil, grease, insulationn scrap, metallic scrap, etc. Note the defects and inform it to E-I/C. Shift the scrap to scrap yard.	PM	No	18	789	14202
5120	P		Inspection and external cleaning of valves station at drum level and 33 mtr elevation. It consists of 15 nos valves upto 2" size is considered as one no.	This activity is to be carried out in running unit, so utmost care to be taken while doing the work and dont disturb any valves or cable etc. Clean all valves ,apply dry molyspray on its stem. Clean the Drum area & 33 meter valve station area .Remove all dirt, dust, oil, grease, insulationn scrap, metallic scrap, etc. Note the defects and inform it to E-I/C. Shift the scrap to scrap yard.	PM	No	18	789	14202
5130	P		Inspection/ Cleaning of RH attemperator, SH attemperator & Soot blower Control valves station It consists of 30 -nos valves upto 2.5" size is considered as one no.	This activity is to be carried out in running unit, so utmost care to be taken while doing the work and dont disturb any valves or cable etc. Clean all valves ,apply dry molyspray on its stem. Clean the valve station area .Remove all dirt, dust, oil, grease, insulationn scrap, metallic scrap, etc. Note the defects and inform it to E-I/C. Shift the scrap to scrap yard.	PM	No	18	789	14202
5140	P		Inspection/ Cleaning of Combustor species valve / FBHE to ash cooler Speciss valve station	This activity is to be carried out in running unit, so utmost care to be taken while doing the work and dont disturb any valves or cable etc. Clean all valves ,apply dry molyspray on its stem. Clean the valve station area .Remove all dirt, dust, oil, grease, insulationn scrap, metallic scrap, etc. Note the defects and inform it to E-I/C. Shift the scrap to scrap yard.	PM	Per Valve	28	197	5516

ANNEXURE -B

PHASE # 2			Part : P		External Cleanings				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
5150	P		Inspection/ Cleaning of FBHE Speciss valve station	This activity is to be carried out in running unit, so utmost care to be taken while doing the work and dont disturb any valves or cable etc. Clean all valves ,apply dry molyspray on its stem. Clean the valve station area .Remove all dirt, dust, oil, grease, insulationn scrap, metallic scrap, etc. Note the defects and inform it to E-I/C. Shift the scrap to scrap yard.	PM	Per Valve	36	197	7092
	P	C) Bed Ash, Lignite, Limestone							
5160	P		Lignite conveyors system Inspection and external cleaning. Lignite conveying system of one unit consists of two nos of lignite conveyor & its drive mechanism, two nos of lignite rotary air lock feeder with drive mechanism, two nos of master fuel trip(MFT) valves and two nos NMEJ between MFT and seal pot.	Thoroughly clean the conveyor system as definid externally for lignite, limestone , dust, dirt etc. Externally clean the plummer block at drive end & tail end assy, gear box with motor & its base plate, Conveyor drive chian & chain guard, Bottom floor of conveyor, air lock feeder NMEJ area, MFT, Clean all the area by air.Check that there is no gas leakage through conveyor cover plates or inspection windows, Inspect the NMEJ carefully for any leakage,Attend the leakage by tightening the joints or properly fitting the windows. Remove the scrap to scrap yard. Note down the defect & informe to E-I-C.	PM	Per Unit	16	1052	16832

ANNEXURE -B

PHASE # 2			Part : P		External Cleanings				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
5170	P		Inspection and external cleaning of Limestone Bunker & Limestone RALF It consists of Two nos Limestone Bunker, four nos of Limestone Rotary Air Lock feeders, Two nos of Feeder discharge valve in one unit	Clean the entire system with air pressure & cotton cloths, remove all the dirt, oil, grease, ash, foreign material. Clean the top cover plate of bunker and its area, clean the air lock feeder/its discharge valves & its surrounding area, check for any abnormality or limestone leakages & attend it and inform to E-I-C. Box up all inspection doors with applying rope if found open. Shift the scrap to scrap yard.	PM	per unit	16	789	12624
5180	P		Inspection and external cleaning of Bed Ash Conveying system, intermediate ash bin. It consists of two nos bed ash conveyor, two nos ashcooler, two nos of rotary air lock feeder, intermediate ash bin	Clean the entire system with air pressure & cotton cloths, remove all the dirt, oil, grease, ash, foreign material. Clean the platform between two ash cooler & top cover plate of intermediate ash bin and its area & its surrounding area, check for any abnormality or bed ash leakages & inform to E-I-C. Box up all inspection doors with applying rope if found open. Shift the scrap to scrap yard.	PM	Per Unit	16	789	12624
	P	D) NMEJ, Boiler							
5190	P		Inspection and external cleaning of Combustor to Cyclone NMEJ & its cyclone roof	This activity is to be carried out in hot condition, so utmost care to be taken while doing the work. Clean the entire peripheral area and surrounding area by air. Check for any damages/leakages & if found immediately inform to E-I-C. Shift the scrap to scrap yard.	PM	No.	30	789	23670

ANNEXURE -B

PHASE # 2			Part : P		External Cleanings				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
5200	P		Inspection and external cleaning of backpass NMEJ & its Cross over duct Roof	This activity is to be carried out in hot condition, so utmost care to be taken while doing the work. Clean the entire peripheral area and surrounding are by air. Check for any damages/leakages & if found immediately inform to E-I-C.Shift the scrap to scrap yard.	PM	No.	30	789	23670
5210	P		Inspection and external cleaning/Inspection of Buck stay of combustor / backpass . One buckstay consists of Front,rear, left & right side of combustor/backpass Size of combustor-12mx7m size of Backpass - 10mx6m	This activity is to be carried out in hot condition, so utmost care to be taken while doing the work.Remove the metallic scrap, insulation scrap.Clear the buckstay by air blowing . Shift the scrap to scrap yard.	PM	Per Buckstay	76	789	59964
5220	P		Inspection and Cleaning of BL/SUB skid station	This activity is to be carried out in running unit, so utmost care to be taken while doing the work and dont disturb any valves or cable etc. Clean all valves . Clean the valve station area .Remove all dirt, dust, oil, grease, insulationn scrap, metallic scrap, etc. Note the defects and inform it to E-I/C. Shift the scrap to scrap yard. One skid station is considered as 01 No.	PM	No.	96	266	25536

ANNEXURE -B

PHASE # 2			Part : P		External Cleanings				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
5230	P		Inspectionand Cleaning of FO control station	This activity is to be carried out in running unit, so utmost care to be taken while doing the work and dont disturb any valves or cable etc. Clean all valves ,. Clean the valve station area .Remove all dirt, dust, oil, grease, insulationn scrap, metallic scrap, etc. Note the defects and inform it to E-I/C. Shift the scrap to scrap yard. One skid station is considered as 01 No.	PM	No.	12	394	4728
	P	E) ESP,EBFP,							
5240	P		Inspection and external cleaning of EBFP, gear box & its engine	Inspection and Inspection and external cleaning of EBFP/gear box /engine of EBFP and surrounding area. Remove oil, dirt, metallic scarp, insulation scarp and shift to scrap yard.Note the defects and inform it to E-I/C.	PM	NO	12	789	9468
	P	F) Blower,Duct,Damper							
5250	P		Inspection and external of LT/HT blower Knife Gate valve station in discharge line It consists of @ 22(11 HT+11 LT) Nos of KGV upto 250 Nb. i.e 22 nos of valve station is considered as one unit.	Inspection, Cleaning and greasing of Knife Gate valve station externally.check for any abnormality and inform to E-I-C.	PM	Per Unit	6	789	4734
5260	P		Cleaning and greasing of Control / Isolation dampers in air ducting	Inspection, Cleaning and greasing of Control / Isolation dampers externally.check for any abnormality and inform to E-I-C.	PM	Per damper	54	263	14202
	P	G) BOP /OTHER							

ANNEXURE -B

PHASE # 2			Part : P		External Cleanings				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit of Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
5270	P		Inspection and external cleaning of fuel oil pump station. It consists 3 nos FO unloading pumps. i.e. it is considered as one no.	clean of all areas as stated in FO pump house station. Remove dirt, oil, metallic scarp etc. Clean all valves in oil-steam line & apply moly spray, check for any leakages & inform to E-I-C.Shift the scrap to scrap yard..	PM	No	6	789	4734
5280	P		Inspection and external cleaning of fuel oil pump station. It consists of 4nos FO transfer pumps, 4 FO steam heater, One electrical heater. i.e. it is considered as one no.	clean of all areas as stated in FO pump house station. Remove dirt, oil, metallic scarp etc. Clean all valves in oil-steam line & apply moly spray, check for any leakages & inform to E-I-C.Shift the scrap to scrap yard..	PM	No	8	1183	9464
5290	P		Painting of structure, hopper, tank, cyclone etc.	Clean the surface thoroughly with wire brush, buffing wheel/emery paper, grinding etc. Apply the two coats of primar as per instruction of E-I-C and two coats of paint.	BD	Sq. meter	50	64	3200
PHASE # 2			Part : P		TOTAL				323270

ANNEXURE -B

PHASE # 1 & 2				Part : Q	Vortex Finder				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
5300	Q	1	Vortex finder ring removing	Make necessary arrangement for locking of collapsed / hanging vortex finder ring by providing chain blocks to keep it in fixed position. Cut the damaged vortex finder ring by cutting rod/plasma cutting. Removal of cut pieces of vortex finder either from the cyclone manhole door (Approx. EL 32.0 mtrs) or from the seal pot manhole door (Approx. EL 11.0 mtrs) in the scope of contractor, Shifting of all debris / scrap from site to the scrap yard. All Counsumables in contractor scope for arrangement, cutting and removing complete vortex finder ring.	BD	No.	2	88715.00	177430
5310	Q	2	Vortex finder Eccentric sleeve removing	Make necessary arrangement for locking of collapsed / hanging vortex finder Eccentric Sleeve by providing chain blocks to keep it in fixed position. Cut the damaged vortex finder Eccentric Sleeve by cutting rod/plasma cutting. Removal of cut pieces of vortex finder either from the cyclone manhole door (Approx. EL 32.0 mtrs) or from the seal pot manhole door (Approx. EL 11.0 mtrs) in the scope of contractor, All Counsumables in contractor scope for arrangement, cutting and removing complete vortex finder Eccentric Sleeve. Shifting of all debris / scrap from site to the scrap yard.	BD	No.	2	53229.00	106458

ANNEXURE -B

PHASE # 1 & 2				Part : Q	Vortex Finder				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
5320	Q	3	Vortex finder Support removing (Total 20 nos. Support)	<p>Make necessary arrangement for locking of hanging vortex finder Support by providing chain blocks to keep it in fixed position. Cut the damaged vortex finder Support by cutting rod/plasma cutting/ Grinding from Cyclone casing duct at cyclone top. Removal of cut pieces of vortex finder support from the cyclone manhole door (Approx. EL 32.0 mtrs) or from the seal pot manhole door (Approx. EL 11.0 mtrs) in the scope of contractor, All Counsumables in contractor scope for arrangement, cutting and removing complete vortex finder Support (Total 20 nos. Support)</p> <p>Shifting of all debris / scrap from site to the scrap yard.</p>	BD	No.	1	41448.00	41448

ANNEXURE -B

PHASE # 1 & 2				Part : Q	Vortex Finder				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
5330	Q	4	Vortex Finder Support , Ring, and Eccentric Sleeve removing	<p>Make necessary arrangement for locking of collapsed / hanging vortex finder ring, Support and Eccentric Sleeve by providing chain blocks to keep it in fixed position.</p> <p>Cut the damaged vortex finder ring, support and Eccentric Sleeve by cutting rod/plasma cutting/grinding . Removal of cut pieces of vortex finder support, ring and Eccentric sleeve either from the cyclone manhole door (Approx. EL 32.0 mtrs) or from the seal pot manhole door (Approx. EL 11.0 mtrs) or Cyclone Casing duct in the scope of contractor, cut the cyclone casing plate for removing of vortex finder Ring, support and Eccentric Sleeve in three / two pieces from cyclone cylindrical portion if required, All Consumables in contractor scope for arrangement, cutting and removing of complete vortex finder ring, Support & Sleeve</p> <p>Shifting of all debris / scrap from site to the scrap yard.</p>	BD	No.	1	186804.00	186804

ANNEXURE -B

PHASE # 1 & 2				Part : Q	Vortex Finder				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
5340	Q	5	Vortex Finder Ring Erection	Shifting of new vortex finder Ring at site (Approx. height 35 mtrs) from store. Make necessary arrangement for lifting and cut the cyclone casing plate for insertion of vortex finder Ring in three / two pieces from cyclone cylindrical portion. Fix the vortex finder Ring as per E-I-C and Drawing. Do full welding of vortex finder ring, and welding of stiffeners as per EIC and drawing. Revival of cyclone casing plate by full welding (inside & outside). Scrap material to be shifted to scrap yard. All Consumables in contractor scope for arrangement, erection of complete vortex finder ring Note: Special welding electrodes Sandvik 22.12 HTR and E307-16 shall be provided by GIPCL.	BD	No.	1	112995.00	112995
5350	Q	6	Vortex Finder Support Erection (Total 20 nos. Support)	Shifting of new vortex finder Support at site (Approx. height 35 mtrs) from store. Make necessary arrangement for lifting for insertion of vortex finder Support from cyclone. Check and repair / replacement of the burn/damaged plate of cyclone for fixing of new vortex finder Supports. Fix the vortex finder Support as per E-I-C and Drawing. Do full welding (Inside and Out side) of vortex finder Support with Cyclone duct, and welding of stiffeners as per EIC. Scrap material to be shifted to scrap yard. All Consumables in contractor scope for arrangement, erection of complete vortex finder support. (Total 20 nos. Support) Note: Special welding electrodes Sandvik 22.12 HTR and E307-16 shall be provided by GIPCL.	BD	No.	1	67188.00	67188

ANNEXURE -B

PHASE # 1 & 2			Part : Q		Vortex Finder				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
5360	Q	7	Vortex Finder Eccentric Sleeve Erection	<p>Shifting of new vortex finder Eccentric Sleeve at site (Approx. height 35 mtrs) from store. Make necessary arrangement for lifting and cut the cyclone casing plate for insertion of vortex finder Eccentric Ring in three / two pieces from cyclone cylindrical portion. Fix the vortex finder Eccentric Sleeve as per E-I-C and drawing. Do full welding of vortex finder Eccentric Sleeve with Ring of Vortex finder, and welding of stiffeners as per EIC. Revival of cyclone casing plate by full welding (inside & outside). Scrap material to be shifted to scrap yard. All Consumables in contractor scope for arrangement, erection of complete vortex finder Eccentric Sleeve.</p> <p>Note: Special welding electrodes Sandvik 22.12 HTR and E307-16 shall be provided by GIPCL.</p>	BD	No.	1	84746.00	84746

ANNEXURE -B

PHASE # 1 & 2			Part : Q		Vortex Finder				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
5370	Q	8	Vortex Finder Support , Ring, and Eccentric Sleeve Replacement	<p>Shifting of new vortex finder ring, supports along with eccentric sleeve at site (Approx. height 35 mtrs). Make necessary arrangement for locking of collapsed / hanging vortex finder ring , support , and eccentric sleeve by providing chain blocks to keep it in fixed position. Dismantle the old vortex finder ring, supports (20 nos.) and eccentric sleeve by cutting rod / Plasma cutting machine. Check and repaire / replacement of the burn/damaged plate of cyclone for fixing of new vortex finder Supports. Make necessary arrangement for lifting and cut the cyclone casing plate for new insertion / old removing of vortex finder support , ring and eccentric sleeve from cyclone cylindrical protion. Fix the new supports (20 nos.) as per E-I-C and Drawing. After fixing of all support fix the vortex finder ring and eccentric sleeve as per E-I-C and Drawing. Do full welding of vortex finder ring, supports, stiffners and eccentric sleeve as per EIC and Drawing. Revival of cyclone casing plate by full welding (inside & outside). Scrap</p>	BD	No.	1	463759.00	463759

ANNEXURE -B

PHASE # 1 & 2				Part : Q	Vortex Finder				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
5380	Q	9	Vortex Finder Eccentric Sleeve, Ring and Support Strengthening / Repairing / Reclamation	Make necessary arrangement for Vortex finder Eccentric sleeve , ring and Support strengthening, repairing, reclamation. Shifting of new plates of SANDVIK 253MA material to site for repair/strengthening work of vortex finder support, ring along with eccentric sleeve. Checking of vortex finder ring, all supports and eccentric sleeve for any damage, bend and erosion. Repair the same by cutting, straightening, welding, built-up and additional plate patch-up as per E-I-C. make require size of stiffner plate from SANDVIK 253 MA plate and weld as per EIC.All Consumables in contractor scope for arrangement, repairing, strengthening, reclamation of complete vortex finder Eccentric Sleeve, ring and support. Scrap material to be shifted to scrap yard Note: Special welding electrodes Sandvik 22.12 HTR and E307-16 shall be provided by GIPCL.	BD	No.	5	124704.00	623520
5390	Q	10	Vortex Finder Supprt Strengthening / Repairing / Reclamation (Total 20 nos. Support)	Shifting of new plates of SANDVIK 253MA material to site for repair/strengthening work of vortex finder supports. Checking of vortex finder all supports for any damage, bend and erosion. Repair the same by cutting, straightening, welding, built-up and additional plate patch-up as per E-I-C. make require size of stiffner plate from SANDVIK 253 MA plate and weld as per EIC.All Consumables in contractor scope for arrangement, repairing, strengthening, reclamation of complete vortex finder support. (Total 20 nos. Support). Scrap material to be shifted to scrap yard Note: Special welding electrodes Sandvik 22.12 HTR and E307-16 shall be provided by GIPCL.	BD	No.	1	35630.00	35630

ANNEXURE -B

PHASE # 1 & 2				Part : Q	Vortex Finder				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
5400	Q	11	Vortex Finder Ring Strengthening / Repairing / Reclamation	Shifting of new plates of SANDVIK 253MA material to site for repair/strengthening work of vortex finder ring. Checking of vortex finder ring for any damage, bend and erosion. Repair the same by cutting, straightening, welding, built-up and additional plate patch-up as per E-I-C. make require size of stiffner plate from SANDVIK 253 MA plate and weld as per EIC.All Consumables in contractor scope for arrangement, repairing, strengthening, reclamation of complete vortex finder ring. Scrap material to be shifted to scrap yard Note: Special welding electrodes Sandvik 22.12 HTR and E307-16 shall be provided by GIPCL.	BD	No.	2	35630.00	71260
5410	Q	12	Vortex Finder Eccentric Sleeve Strengthening / Repairing / Reclamation	Shifting of new plates of SANDVIK 253MA material to site for repair/strengthening work of vortex finder eccentric sleeve. Checking of vortex finder eccentric sleeve for any damage, bend and erosion. Repair the same by cutting, straightening, welding, built-up and additional plate patch-up as per E-I-C. make require size of stiffner plate from SANDVIK 253 MA plate and weld as per EIC.All Consumables in contractor scope for arrangement, repairing, strengthening, reclamation of complete vortex finder Eccentric Sleeve. Scrap material to be shifted to scrap yard Note: Special welding electrodes Sandvik 22.12 HTR and E307-16 shall be provided by GIPCL.	BD	No.	2	35630.00	71260

ANNEXURE -B

<u>PHASE # 1 & 2</u>				<u>Part : Q</u>	<u>Vortex Finder</u>				
C Sr. No	PART	SR. NO	Name of the Activity	Scope of Work	Nature of Work	Unit Measurement (UoM)	Biennial Quantity (A)	Unit Rate (Rs.) Per UoM (B)	Total Price (AXB)
5420	Q	13	Vortex Finder Support , Ring, and Eccentric Sleeve Erection	<p>Shifting of new vortex finder ring, supports along with eccentric sleeve at site (Approx. height 35 mtrs). Check and repair / replacement of the burn/damaged plate of cyclone for fixing of new vortex finder Supports. Make necessary arrangement for lifting and cut the cyclone casing plate for new insertion of vortex finder support , ring and eccentric sleeve from cyclone cylindrical portion. Fix the new supports (20 nos.) as per E-I-C and Drawing. After fixing of all support fix the vortex finder ring and eccentric sleeve as per E-I-C and Drawing. Do full welding of vortex finder, supports, stiffeners and eccentric sleeve. Revival of cyclone casing plate by full welding (inside & outside). Scrap material to be shifted to scrap yard. Cutting electrodes and other consumables to be arranged by party. Note: Special welding electrodes Sandvik 22.12 HTR and E307-16 shall be provided by GIPCL.</p>	BD	No.	1	260092.00	260092
<u>PHASE # 1 & 2</u>				<u>Part : Q</u>				<u>TOTAL</u>	2302590
<u>PHASE # 1</u>				<u>Part : Q</u>				<u>TOTAL</u>	1151295
<u>PHASE # 2</u>				<u>Part : Q</u>				<u>TOTAL</u>	1151295

Annexure B3

PRICE SCHEDULE BMC 2021-23 TENDER ID 449263

Unit rates are excluding GST

Phase-1 & 2		unforeseen work	Execution of unforeseen work				
Sr. No.	Name of activity	Scope of Work	Nature Of Work	Unit of Measur ement (UOM)	Biannual Quantity (A)	Rate (Rs.) Per UOM (B)	Total Price (AXB)
A	B	C	D	E	F	G	H
1	Mill Right fitter , IBR Welder-During Normal Duty	Execution of unforeseen work	Unforeseen work	Per Day	255	1100	280500
2	Piping fitter, Structural fitter, Mechanical fitter-During Normal Duty	Execution of unforeseen work	Unforeseen work	Per Day	255	880	224400
3	Welder, cutter, Rigger, grinder, Refractory breaker operator, Painter, Electrician-During Normal Duty	Execution of unforeseen work	Unforeseen work	Per Day	255	836	213180
4	Helper-During Normal Duty	Execution of unforeseen work	Unforeseen work	Per Day	550	770	423500
5	Mill Right fitter , IBR Welder-Additional duty	Execution of unforeseen work	Unforeseen work	Per HR	760	275	209000
6	Piping fitter, Structural fitter, Mechanical fitter-Additional duty	Execution of unforeseen work	Unforeseen work	Per HR	760	220	167200
7	Welder, cutter, Rigger, grinder, Refractory breaker operator, Painter, Electrician-Additional duty	Execution of unforeseen work	Unforeseen work	Per HR	760	209	158840
8	Helper-Additional duty	Execution of unforeseen work	Unforeseen work	Per HR	1684	192	323328
TOTAL							2000000
For Final Cost consideration say 20,00,000 (20 Lakhs)							
Note 1: Rates as given above shall include cost of all manpower, Vehicle, equipment consumables (except free issue materials by GIPCL) labor, supervision, tools and tackles, transport, Safety and statutory compliance, mobilization, Contingency expenditure and supervision charges etc. and such other cost are not specifically mentioned herein but will be incurred by the contractor for the satisfactory and timely completion of the work.							
Note 2: The quantities specified are estimated and for tendering purpose only. Payment will be made, based on actual work done as certified by Engineer-in-charge of GIPCL and inline with "INSTRUCTIONS TO BIDDERS & CONDITIONS OF CONTRACT"							
SUB TOTAL -1 FOR PHASE -1							1000000
SUB TOTAL -2 FOR PHASE -2							1000000

Part No.	Description	BOTH YEAR PH-1	BOTH YEAR PH-2
A	Pressure Parts	21852271	20386878
B	SA Fan / PA fan	804116	839122
C	ID Fan	408952	367312
D	Lube Oil Units & Scanner Air Fan	163748	222275
E	Blowers	1041494	758058
F	Bed Ash Conveying System	3216240	2865258
G	Lignite / Limestone Feeding System	3752935	4018999
H	E.S.P.	1440774	1586457
I	Duct/Damper/NMEJ/MEJ	7319204	4822272
J	Fuel Firing System.	568626	524606
K	Valves	923387	914153
L	Soot Blower	1313664	1302046
M	Fuel Oil Handling	151900	144268
N	Emergency Boiler Feed Pump	132992	121517
O	Hoist	57783	21860
P	External Cleanings	205458	279014
Q	Vortex Finder	1151295	1151295
R	Unforeseen (ANNEXURE B3)	1000000	1000000
	SUB TOTAL PHASE WISE	45504839	41325390
	GRAND TOTAL	86830229	