



## ANNEXURE VIII

## BLANK PRICE BID DOCUMENT (Bill of Quantity) - Job Rate Contract

S.No	Equipment	Work Description	UOM	FY 2021-22			FY 2022-23			FY 2023-24		
				Qty	Unit Rate	Amount	Qty	Unit Rate	Amount	Qty	Unit Rate	Amount
1	ESP	Inspection / cleaning / replacement of ESP hopper fluidising pad ( 1 set comprises of two nos. pads) as per annexure 5B	Set	100			100			100		
2	ESP	Flushing of all fluidising line header-16 nos. and fluidising line to all ESP hoppers-160 nos. as per annexure 5B	Set	12			12			12		
3	ESP & SILO Fluidizing Blowers	Preventive maintenance of ESP / Silo Fluidizing Blowers as per annexure 5A	No.	120			120			120		
4	ESP & SILO Fluidizing Blowers	Internal inspection & rectification of defects /overhauling / Refurbishment of ESP or Silo Fluidizing Blowers including replacement of pulleys, belts,lobe ,timing gear , seals and internals,etc with gear settings as per annexure 5B	No.	10			10			10		
5	Vacuum System	Inspection & rectification of defects /overhauling / Refurbishment of 200 NB Air Intake Valve as per annexure 5B	No.	16			16			16		
6	Vacuum System	Inspection & rectification of defects /overhauling / Refurbishment of 250 NB Ash Intake Valve ( With fluidising arrangement for ESP hopper no. 1 to 3 ) as per annexure 5B	No.	400			400			400		
7	Vacuum System	Inspection & rectification of defects /overhauling / Refurbishment of 250 NB Ash Intake Valve ( Without fluidising arrangement for ESP hopper no. 4 to 10 and APH/Duct hoppers) as per annexure 5B	No.	500			500			500		
8	Vacuum System	Inspection, cleaning / replacement of adaptor fluidising pad ( for ESP hopper no. 4 to 10) as per annexure 5B	No.	200			200			200		
9	Vacuum System	Inspection & rectification of defects /overhauling / Refurbishment of Branch Isolation Valve (200 NB / 250 NB) as per annexure 5B	No.	200			200			200		
10	Vacuum System	Inspection & rectification of defects /overhauling / Refurbishment of Vacuum Breaker as per annexure 5B	No.	12			12			12		
11	Buffer Hopper	Preventive maintenance Buffer Hopper & corresponding two ALV's as per annexure 5A	Set	144			144			144		
12	Buffer Hopper	Inspection / Replacement of Bag filter and accessories of Buffer hoppers as per annexure 5B	No.	48			48			48		
13	Air lock vessel /ESP Hopper/ APH& Duct Hopper/Eco Hopper	Inspection & rectification of defects /overhauling / Replacement/Refurbishment of KGV for ALV I/L , ESP Hopper,APH/ Duct Hopper & Eco Hopper O/L as per annexure 5B	No.	350			350			350		
14	Air lock vessel	Inspection & rectification of defects /overhauling / Replacement/Refurbishment of 300 NB Ash Inlet Valve/ 250 NB Ash Outlet Valve as per annexure 5B	No.	150			150			150		
15	Air lock vessel	Inspection & rectification of defects /overhauling / Replacement/Refurbishment of 250 NB line Selection Valve ( Double disc Valve) as per annexure 5B	No.	150			150			150		
16	Air lock vessel	Inspection & rectification of defects /overhauling / Replacement/Refurbishment of 100 NB & 65 NB Vent Valve and 100 NB Equalising Valve for ALV as per annexure 5B	No.	200			200			200		
17	Air lock vessel	Inspection and Cleaning, Repair /Replacement of aeration pad for ALV as per annexure 5B	No.	96			96			96		
18	Conveying Line	Leakage rectification of Conveying Lines	No.	1000			700			650		
19	Vacuum Pump	Preventive maintenance of vacuum pump as per annexure 5A	No.	288			288			288		
20	Vacuum Pump	Inspection & rectification of defects /overhauling/Refurbishment of vacuum pump including replacement of pump internals, bearings,etc. as per annexure 5B	No.	36			36			36		
21	Bottom Ash System	Preventive maintenance of Feed Gate as per annexure 5A	No.	96			96			96		
22	Bottom Ash System	Preventive maintenance of Clinker Grinder along with drive arrangement as per annexure 5A	No.	96			96			96		
23	Bottom Ash System	Preventive maintenance of Jet Pump as per annexure 5A	No.	96			96			96		
24	Bottom Ash System	Internal inspection/Defect rectification, and replacement of Jet Pump internal spares (Nozzle, etc), if reqd.	No.	8			8			8		
25	Bottom Ash System	Feed gate internal inspection & re-fitting / replacement of spares as per annexure 5B	No.	8			8			8		
26	Bottom Ash System	Feed gate alignment as per annexure 5B	No.	48			48			48		
27	Bottom Ash System	Internal inspection / Inspection & rectification of defects /overhauling / Refurbishment of Feed gate pneumatic cylinder and replace the spares along with seal kit if required as per annexure 5B	No.	12			12			12		
28	Bottom Ash	Inspection & defect rectification of Feed gate pneumatic cylinder & indicator rod gland housing and roller assembly as per annexure 5B	No.	32			32			32		
29	Bottom Ash	Inspection & rectification of defects /overhauling/Refurbishment of clinker grinder including replacement of internals ,bearing and gears as per annexure 5B	Set	8			8			8		
30	Bottom Ash	Inspection / Defect rectification / Replacement of Mechanical seal of clinker grinder as per annexure 5B	Set	40			40			40		
31	Bottom Ash	Inspection / Replacement of bearing or bearing housing of clinker grinder as per annexure 5B	Set	24			24			24		



## ANNEXURE VIII

## BLANK PRICE BID DOCUMENT (Bill of Quantity) - Job Rate Contract

S.No	Equipment	Work Description	UOM	FY 2021-22			FY 2022-23			FY 2023-24		
				Qty	Unit Rate	Amount	Qty	Unit Rate	Amount	Qty	Unit Rate	Amount
32	Bottom Ash	Inspection / Replacement of liners of clinker grinder as per annexure 5B	Set	12			12			12		
33	Bottom Ash	Inspection & defect rectification/overhauling/refurbishment / replacement of clinker grinder gearbox /fluid coupling including replacement of bearings and other spares if required as per annexure 5B	Set	24			24			24		
34	Bottom Ash	Inspection / Repair / Replcement work of Clinker grinder drive arrangement ( Including spur gear , chain / chain sproket , multi disc units and other associated spares) with alignment as per annexure 5B	No.	16			16			16		
35	Bottom Ash	BAH Internal inspection and inspection/cleaning / replacement of Flushing Nozzles as per annexure 5B	Set	6			6			6		
36	Bottom Ash	Inspection/Cleaning /Repair/Replacement if required of all flushing nozzles of seal trough as per annexure 5B	Set	6			6			6		
37	Bottom Ash	Dechoking/removal of foreign materials from Clinker Grinder/Feed Sump/Jet Pump as per annexure 5B	No.	48			48			48		
38	Eco Hopper Evacuation System	De-choking rectification of ash slurry conveying line from flushing apparatus to BAH as per annexure 5B	No.	8			8			8		
39	Eco Hopper Evacuation System	Inspection /Cleaning/replacement of flushing nozzle & its line as per annexure 5B	No.	0			0			0		
40	Water Pumps ( As per annexure-1)	Preventive maintenance of multistage water pumps as per annexure 5A	No.	156			156			156		
41	Water Pumps ( As per annexure-1)	Inspection & rectification of defects /overhauling/Refurbishment of multistage water pumps including replacement of shaft ,impeller ,bearings and internals if reqd. as per annexure 5B	No.	26			26			26		
42	Water Pumps ( As per annexure-2)	Preventive maintenance of centrifugal water pumps as per annexure 5A	No.	72			72			72		
43	Water Pumps ( As per annexure-2)	Inspection & rectification of defects /overhauling/Refurbishment of centrifugal water pumps including replacement of shaft ,impeller ,bearings and internals as per annexure 5B	No.	12			12			12		
44	Ash slurry pumps	Preventive maintenance of Ash Slurry Disposal Pumps & BA Overflow Pumps as per annexure 5A	No.	168			168			168		
45	Ash slurry pumps	Preventive maintenance of slurry pump gearbox , fluid coupling and oil cooler as per annexure 5A	No.	24			24			24		
46	Ash slurry pumps	Inspection & rectification of defects /overhauling/Refurbishment of ash slurry pumps including replacement of shaft ,impeller ,gland packings ,bearings and internals as per annexure 5B	No.	10			10			10		
47	Ash slurry pumps	Inspection & rectification of defects /overhauling/Refurbishment of slurry pump gearbox/fluid coupling/oil cooler as per annexure 5B	No.	12			12			12		
48	Drain Sump Pumps	Preventive Maintenance of Drain Sump Pumps as per annexure 5A	No.	144			144			144		
49	Drain Sump Pumps	Inspection & rectification of defects /overhauling/Refurbishment of drain sump pumps including replacement of bearings & internal spares if reqd. as per annexure 5B	No.	15			15			15		
50	Transport Air Compressors	Preventive maintenance of TAC as per annexure 5A	No.	144			144			144		
51	Transport Air Compressors	Inspection & rectification of defects of TAC as per annexure 5B	No.	24			24			24		
52	Transport Air Compressors	Overhauling of TAC as per annexure 5B	No.	12			12			12		
53	TAC Air dryers	Preventive maintenance of TAC air dryers as per annexure 5A	No.	144			144			144		
54	TAC Air dryers	Inspection & rectification of defects of TAC air dryers as per annexure 5B	No.	24			24			24		
55	Instrument Air Compressors	Preventive maintenance of IAC as per annexure 5A	No.	36			36			36		
56	Instrument Air Compressors	Inspection & rectification of defects of IAC as per annexure 5B	No.	6			6			6		
57	Instrument Air Compressors	Overhauling of IAC as per annexure 5B	No.	3			3			3		
58	IAC Air dryers	Preventive maintenance of IAC air dryers as per annexure 5A	No.	36			36			36		
59	IAC Air dryers	Inspection & rectification of defects of IAC air dryers as per annexure 5B	No.	6			6			6		
60	Silo	Preventive maintenance of dust conditioners / Paddle feeder along with Gear Box as per annexure 5A	No.	72			72			72		
61	Silo	Inspection & rectification of defects /overhauling/Refurbishment of dust conditioners / paddle feeder as per annexure 5B	No.	12			12			12		
62	Silo	Preventive maintenance of screw feeders as per annexure 5A	No.	36			36			36		
63	Silo	Inspection & rectification of defects /overhauling/Refurbishment of screw feeder as per annexure 5B	No.	6			6			6		
64	Silo	Preventive maintenance of Rotary Vane Feeder as per annexure 5A	No.	108			108			108		
65	Silo	Inspection & rectification of defects /overhauling/Refurbishment of Rotary Vane Feeder as per annexure 5B	No.	18			18			18		



## ANNEXURE VIII

## BLANK PRICE BID DOCUMENT (Bill of Quantity) - Job Rate Contract

S.No	Equipment	Work Description	UOM	FY 2021-22			FY 2022-23			FY 2023-24		
				Qty	Unit Rate	Amount	Qty	Unit Rate	Amount	Qty	Unit Rate	Amount
66	Silo	Preventive maintenance of Unloading Telescopic Spout as per annexure 5A	No.	36			36			36		
67	Silo	Inspection & rectification of defects /overhauling/Refurbishment of Unloading Telescopic Spout as per annexure 5B	No.	9			9			9		
68	Silo	Preventive Maintenance of Silo vent filter ( Including Bag filters , Purging System & Vent Fan ) of Silo Vent Filter as per annexure 5A	No.	72			72			72		
69	Silo	Inspection / Cleaning/defect and leakage rectification of Bag filters & purging system of Silo Vent Filter as per annexure 5B	No.	18			18			18		
70	Silo	Inspection & defect rectification of Silo vent fan as per annexure 5B	No.	9			9			9		
71	HCS D	Preventive maintenance of ART Agitator & Gearbox as per annexure 5A	No.	36			36			36		
72	HCS D	Inspection & rectification of defects /overhauling/Refurbishment of Agitator retention tank agitator with gearbox as per annexure 5B	No.	6			6			6		
73	HCS D	Preventive maintenance of Charge pump as per annexure 5A	No.	36			36			36		
74	HCS D	Inspection & defect rectification with replacement of spares if reqd. /overhauling/Refurbishment of Charge Pump as per annexure 5A	No.	9			9			9		
75	HCS D	Preventive maintenance of HCS D GEHO pump including strainer as per annexure 5A	No.	36			36			36		
76	HCS D	Inspection & rectification of defects /overhauling of HCS D GEHO gearbox as per annexure 5B	No.	4			4			4		
77	HCS D	Inspection & rectification of defects /overhauling of HCS D GEHO Pump as per annexure 5B	No.	12			12			12		
78	HCS D	Inspection & rectification of defects /overhauling of HCS D GEHO Pump NRV's as per annexure 5B	Set	12			12			12		
79	HCS D	Oil top up in lube oil tanks , equipment housing ,bearing housing and others as per annexure 5B	No.	12			12			12		
80	HCS D	Oil replacement with cleaning in lube oil tanks ,equipment , bearings and others as per annexure 5B	No.	6			6			6		
81	Emergency Flushing Pump	Preventive maintenance of Emergency Flushing Pump as per annexure 5A	No.	6			6			6		
82	Emergency Flushing Pump	Inspection & rectification of defects /overhauling/Refurbishment of Emergency Flushing Pump including replacement of shaft ,piston,seals ,bearings and internals as per annexure 5B	No.	1			1			1		
83	Ash Slurry Disposal Line	Inspection & Leakage rectification from 200NB /350 NB Sleeve coupling / Pipe of ash slurry disposal line inside the plant as per annexure 5B	No.	24			24			24		
84	Ash Slurry Disposal Line	Inspection & Leakage rectification from 350NB Sleeve coupling / Pipe of ash slurry disposal line and HCS D line outside the plant as per annexure 5B	No.	40			40			40		
85	Ash Slurry Disposal Line	Inspection & Leakage rectification from 350NB Sleeve coupling / Pipe of ash slurry disposal line and HCS D line over water body outside the plant as per annexure 5B	No.	20			20			20		
86	Ash Slurry Disposal Line	Ash slurry disposal line / HCS D Line down point changeover as per annexure 5B	No.	30			30			30		
87	Clariflocculator	Preventive Maintenance of Clariflocculator including Carriage Drive,Flocculators & Flash Mixer agitator as per annexure 5B	No.	6			6			6		
88	Clariflocculator	Carriage Drive including gearbox inspection/defect rectification/overhauling as per annexure 5B	No.	4			4			4		
89	Clariflocculator	Flocculator including gearbox inspection/defect rectification/overhauling as per annexure 5B	No.	4			4			4		
90	Clariflocculator	Flash mixer agitator including gearbox inspection/defect rectification/overhauling as per annexure 5B	No.	4			4			4		
91	Clariflocculator	Flocculator Paddles inspection/defect rectification/replacement as per annexure 5B	No.	4			4			4		
92	Lime Recirculation cum feed Pump	Preventive maintenance of Lime Recirculation cum feed Pump as per annexure 5A	No.	12			12			12		
93	Lime Recirculation cum feed Pump	Inspection & rectification of defects /overhauling/Refurbishment of Lime Recirculation cum feed pump as per annexure 5B	No.	2			2			2		
94	Dosing Pump(Alum & Polyelectrolyte)	Preventive maintenance of Dosing Pump(Alum & Polyelectrolyte) as per annexure 5A	No.	16			16			16		
95	Dosing Pump(Alum & Polyelectrolyte)	Inspection & rectification of defects /overhauling/Refurbishment of Dosing pumps as per annexure 5B	No.	2			2			2		
96	Dosing Tank with agitator(Lime,Alum & Polyelectrolyte)	Preventive Maintenance of Dosing Tank agitator(Lime,Alum & Polyelectrolyte) as per annexure 5A	No.	24			24			24		



## ANNEXURE VIII

## BLANK PRICE BID DOCUMENT (Bill of Quantity) - Job Rate Contract

S.No	Equipment	Work Description	UOM	FY 2021-22			FY 2022-23			FY 2023-24		
				Qty	Unit Rate	Amount	Qty	Unit Rate	Amount	Qty	Unit Rate	Amount
97	Dosing Tank with agitator(Lime,Alum & Polyelectrolyte)	Inspection & rectification of defects /overhauling/Refurbishment of Agitator along with gearbox as per annexure 5B	No.	6			6			6		
98	Sludge Pump (Clarriflocculator)	Preventive Maintenance of Sludge Pump(Clarriflocculator) as per annexure 5A	No.	24			24			24		
99	Sludge Pump (Clarriflocculator)	Inspection & rectification of defects /overhauling/Refurbishment of Sludge pump as per annexure 5B	No.	8			8			8		
100	AWRS Recycle Ash Water Pump	Preventive maintenance of AWRS Recycle Ash Water Pump as per annexure 5A	No.	36			36			36		
101	AWRS Recycle Ash Water Pump	Inspection & rectification of defects /overhauling/Refurbishment of AWRS Recycle Ash Water Pump including replacement of shaft ,impeller ,mechanical seals/gland packing ,bearings and internals as per annexure 5B	No.	3			3			3		
102	AWRS Recirculation Pump	Preventive maintenance of AWRS Recirculation Pump as per annexure 5A	No.	24			24			24		
103	AWRS Recirculation Pump	Inspection & rectification of defects /overhauling/Refurbishment of AWRS Recirculation Pump including replacement of shaft ,impeller ,mechanical seals/gland packing ,bearings and internals as per as per annexure 5B	No.	2			2			2		
104	AWRS Sludge Pump	Preventive maintenance of AWRS Sludge Pump as per annexure 5A	No.	24			24			24		
105	AWRS Sludge Pump	Inspection & rectification of defects /overhauling/Refurbishment of AWRS Sludge Pump including replacement of shaft ,impeller ,mechanical seals/gland packing ,bearings and internals as per annexure 5B	No.	2			2			2		
106	AWRS Potable Pump	Preventive maintenance of AWRS Potable Pump as per annexure 5A	No.	12			12			12		
107	AWRS Potable Pump	Inspection & rectification of defects /overhauling/Refurbishment of AWRS Potable Pump including replacement of shaft ,impeller ,mechanical seals/gland packing ,bearings and internals as per annexure 5B	No.	1			1			1		
108	AWRS Borewell Pump	Preventive maintenance of AWRS Borewell Pump as per annexure 5A	No.	12			12			12		
109	AWRS Borewell Pump	Inspection & rectification of defects /overhauling/Refurbishment of AWRS Borewell Pump including replacement of shaft ,impeller ,mechanical seals/gland packing ,bearings and internals as per annexure 5B	No.	1			1			1		
110	AWRS RO Reject Transfer Pump	Preventive maintenance of AWRS RO Reject Transfer Pump as per annexure 5A	No.	24			24			24		
111	AWRS RO Reject Transfer Pump	Inspection & rectification of defects /overhauling/Refurbishment of AWRS RO Reject Transfer Pump including replacement of shaft ,impeller ,mechanical seals/gland packing ,bearings and internals as per annexure 5B	No.	2			2			2		
112	AWRS Dosing System	Preventive maintenance of AWRS Alum/Lime/Polyelectrolyte Pump as per annexure 5A	No.	36			36			36		
113	MRS Compressor	Preventive maintenance of MRS Compressor as per annexure 5A	No	36			36			36		
114	MRS Compressor	Inspection & rectification of defects of MRS Compressor as per annexure 5B	No.	6			6			6		
115	MRS Compressor	Overhauling of MRS Compressor as per annexure 5B	No.	3			3			3		
116	MRS Vent Filter	Preventive Maintenance of MRS vent filter as per annexure 5A	No.	24			24			24		
117	MRS Vent Filter	Inspection / Repacement of Bag filter and accessories of MRS vent filter as per annexure 5B	No.	8			8			8		
118	Under Slung Crane	Preventive Maintenance of under slung crane(ASPH-1 No,AWPH-1 No,HCSH PH-1 No,Comp.House-1 No,Total - 4 No's) as per annexure 5A	No.	12			12			12		
119	Electric Hoist	Preventive Maintenance of Electric hoist(Silo Top- 3 No's,VPH-6 No's,Total - 9 No's) as per annexure 5A	No.	12			12			12		
120	Thickness Survey	Thickness survey of Ash evacuation lines(unit wise) as per annexure 5B	Set	4			6			6		
121	Pipe Rotation	Rotation of Ash extraction/conveying lines as per thickness survey (per 100 mtr on prorata basis) as per annexure 5B	No.	0			10			15		
122	Thickness Survey	Thickness survey of Ash conveying lines(unit wise) as per annexure 5B	Set	4			6			6		
123	Thickness Survey	Thickness survey of Bottom ash evacuation lines(unit wise) as per annexure 5B	Set	4			6			6		
124	Pipe Rotation	Rotation of Bottom ash evacuation lines as per thickness survey (per 100 mtr on prorata basis) as per annexure 5B	No.	0			3			5		
125	Thickness Survey	Thickness survey of Ash slurry lines/HCSH Lines(Line wise) as per annexure 5B	No.	10			15			15		
126	Pipe Rotation	Rotation of Ash slurry lines/HCSH Lines as per thickness survey (per 100 mtr on prorata basis) as per annexure 5B	No.	0			20			60		
127	Common	Fabrication and erection of steel structure on Metric ton basis as per annexure 5B	MT	100			100			100		
128	Common	Erection of scaffolding in cubic metre basis as per annexure 5B	Cub.m	500			500			500		
129	Common	Rectification of gland leakages(BAOF Pump,Vacuum Pump,Slurry Pump,Charge Pump,etc) as per annexure 5B	No.	150			150			150		
130	Common	Inspection / defect rectification / Replacement of all type of water valves(gate/globe),plug valves,NRV,Butterfly valve upto 80 NB as per annexure 5B	No.	100			100			100		

