

Procurement Projections for next 05 years

Name of the Organisation : **Numaligarh Refinery Limited**

Website Link: http://www.nrl.co.in/UPLOAD/LeftMenuFile/NRL_Procurement_Plan_5_Years.pdf

Ministry / Department: **Ministry of Petroleum and Natural Gas**

Financial Year 2020-21

Sr. No.	Description of Item	Broad Specification Parameters	Qty.	Accounting Units	Estimated Value of Procurement INR (Lacks)
1	Procurement of Loading Assembly for Rail for SMT	Loading Assembly for Rail loading in marketing terminals(BCU/PD meter/DCV/SDV etc)	26	Set	280.00
2	Modernisation of TAS at NRMT	Procurement of field instruments of TAS(BCU/SDV/DCV)	16	Set	120.00
3	Upgradation of Machine monitoring system	Upgradation of obsolete Bentley make 3300 series machine condition monitoring system along with obsolete accessories	1	Set	100.00
4	Installation of Steam Water Analysis System(SWAS) in UB,HRSG & BFW	Steam Water Analysis System(SWAS) in UB,HRSG & BFW of NRL Captive Power Plant utility units	1	Set	69.00
5	Upgrade/Replacement of old & obsolete Control System	Yokogawa DCS/PLC front end software upgradation	4	Nos	50.00
6	Tank farm management system upgradation	E&H TFMS front end upgradation including HMI redundancy	1	Set	90.00
7	Upgradation of Prognost make machine monitoring system	Prognost make Machine Monitoring system front end upgradation	1	Set	100.00
8	Capital spares for Captive Power Plant	Spares for Gas Turbine Generator(LFBV, Stop Valve, GCV/SRV, IGV etc)	4	Nos	242.00
9	Capital spares for Refinery Units	Refinery Hydro cracker unit Dump Valve, RGC Antisurge Valve, Antisurge Controller, MSP units Woodward Antisurge Controller etc	6	NOS	200.00

10	Upgradation of old refinery field instruments	Phase wise Upgradation/replacement of old transmitters, Mass flow meters, SOVs, Control Valves & SDVs of corrosive service environments, Self actuated PCV's etc	100	Nos	300.00
11	Field Instruments & Sensor Spares	Spares for exiting field instruments (PT, DPT, FT, LG, Pressure gauges, temperature gauges etc)	30	Nos	150.00
12	Instrument control and shutdown valve spares	Spares for exiting instrument control valves and shut down valves of various refinery units	120	Nos	80.00
13	Process Control System (PLC/DCS) Spares	Spares of DCS and various PLC's of refinery units	50	Nos	75.00
14	Surveillance System Spares	Spares for existing CCTV systems of refinery along with accessories	50	Nos	20.00
15	Process & Environment Analyzer Spares	Spares of Stack Emission Monitoring , Ambient Air quality monitoring Analyzers, spares of Process monitoring various hydrocarbon measuring analyzer	40	Nos	50.00
16	Laboratory Equipments Spares	Spares for various QC lab equipments (Distillation apparatus, GCs, Sufur analyzers, ICP, Sprectrophotometers, product quality analysis and certification equipments	35	Nos	50.00
17	Gas detection System Spares	Spares for existing gas detectors of various refinery units	30	Nos	32.00
18	Gas detectors_additional Facility	Additional LEL Gas detector(H2, H2S, HC LEL gas) system units as per gap analysis	50	Nos	110.00
19	Eathing system for Hydrocarbo storage tank for safety	Retractable type bypass conductor as per API RP545	164	Nos.	200.00
20	Plant Illumination: High Mast	LED High mast luminairs-200 Watt each, 230 Volt ac	450	Nos.	100.00
21	Lightning protection system for Refinery asset	Adequacy Study of lightning protection systemas per IS/IEC 62305 and OISD GDN 180	1	Lumpsum	25.00
22	Electric Motors	LT(415V- 15 KW to 125 KW)=6 nos. & HT(6.6KV- 540 KW and 500 KW) motor= 2 nos.	8	Nos.	50.00

23	Electrical cables	Power cable (11KV- 1CX1000 sqmm.,3CX185 sqmm= 5000 meter, 6.6KV-3CX185 sqmm = 2000 meter& 415V- 185 sqmm, 300 sqmm.,240 sqmm, 6 sqmm., 4 sqmm, 10 sqmm, 25 sqmm.)= 58000 meter	65000	meter	200.00
24	Electrical lighting materials	LED bulb= 500 nos. LED Tube, fittings= 5000 nos. FLP light & fittings= 100 nos. Fans= 100 nos.	5800	Nos.	100.00
25	Battery Charger	Dual FCBC Charger 110 V DC, 400 Amps- 2 sets 80 Amps= 1sets, 48 V DC-30 Amps=1 sets, 30 Volt DC- 20 Amps- 4 sets	8	sets	50.00
26	Battery (Lead-Acid/ Ni-Cd)	Ni-Cd battery banks- 110 Volt DC -625 Ah, 110 Volt DC-35 Ah, 48 Volt DC -60 Ah for UPS & Dc system	3	Sets	50.00
27	500KVA DG set	Air Cooled DG -500KVA-415 Volts, 3 Phase with AMF panel	2	Nos.	100.00
28	Split Type Air conditioners	1.5T Split AC Inverter -5 Star BEE rating= 25 nos. 3T Slimline AC = 10 nos.	30	Nos.	25.00
29	Electrical Miscellaneous items	Electrical Breaker assembly, CT, PT, Capacitor bank, Insulation mat, Lugs, MCB, Meters, Electrical Contractor, Indication lamp, switches etc)	1	Lumpsum	100.00
30	Refractory	Bricks,Castables Etc as per EIL standard specifications 6-79-02/03/04/0005/008 etc	40	MT	40.00
31	Insulation LRB material	IS 8183/ASTM C-592 CLASS II	1500	SQM	6.00
32	Aluminium sheet for cladding	ASTM B-209 ALLOY 3003 /IS-737 DESIGNATION 31000 CONDITION H3	5	MT	15.00
33	PPC CEMENT	IS-1489	0	MT	0.00
34	TMT BAR	IS-1786, Gr. Fe-500/500D	0	MT	0.00
35	Structural Steel	IS-2062, Gr. A	0	MT	0.00
36	HILTI MACHINERY SPARES	HILTI MAKE	0		0.00
37	ROAD ROLLER SPARES	Escort MAKE	0		0.00
38	MINI EXCAVATOR SPARES	JCB MAKE	0		0.00
39	SKID LOADER SPARES	CASE MAKE	0		0.00
40	Misc Building Material,GI piping and accessories	IS 1239 (GI ITEMS),IS 6315 (FLOOR SPRINGS),IS 3564 (DOOR CLOSED) ETC	30	nos	20.00

41	Industrial and building paints	EPOXY/TWO PACK ALIPHATIC ACRYLIC POLYURETHANE FINISH PAINT /ZINK ETHYL SILICATE PRIMER etc as per NRL painting manual; PLASTIC EMULSION PAINT (IS:5411) /CEMENT PAINT (IS:5410)/ SYNTHETIC ENAMEL PAINT (IS:2932)	1000	Lit	5.00
42	Brick	IS:1077	5000	Nos	0.50
43	Sand	IS :383	500	cum	10.00
44	Stone aggregates	IS: 383	100	cum	3.00
45	Line pipe, fittings, valves etc.				5784.59
46	Static Equipment (Scraper Trap, Vessel, Basket Filter etc.)				43.36
47	Rotary Equipment (Centrifugal Pump, Dosing Skid etc.)				29.98
48	Electrical Equipment (DG Set, UPS, MV Switch Board, HVAC etc.)				728.60
49	Instrumentation (Trunking, SCADA, Telecommunication etc.)				2234.86
50	Boiler	SS/CS/Alloy steel		No.	
51	Column	CS	2	No.	6525.42
52	Compressor	CS		No.	
53	DG	CS/ Casting		No.	
54	Electrical cables	CS		Lot	
55	Exchanger	SS/CS/Alloy steel		No.	
56	Field Instrument	SS/CS/Alloy steel		Lot	
57	Firewater Hydrant System	SS/CS/Alloy steel		Lot	
58	Flare System	SS/CS/Alloy steel		Lot	
59	Instr. Control system	CS/ Alloy		No.	
60	Instrument cables	CS/ Alloy		Lot	
61	Piping and Valves	CS/ Alloy		Lot	
62	Pump	CS/Alloy steel/Casting		No.	
63	Reactor	CS/MS etc.		No.	
64	Sump	CS/MS etc.		No.	
65	Tank	CS		No.	
66	Transformer	CS/MS etc.		No.	
67	Turbine	CS/MS etc.		No.	
68	UPS	CS/MS etc.		No.	
69	Vessel	CS/MS etc.		No.	
70	Electrical Switch Gear/ MCC	CS		No.	
71	Fan/ Blower	SS/CS/Alloy steel		No.	

72	Others (Structure/ Fire proffing/ Insulation/ Painting etc.)	CS/ Alloy		Lot	
73	Furnace/ heater	CS/ Alloy		No.	
74	Centralized AC	Centralized AC		No.	
75	Pipe racks	CS/ Alloy		Lot	
76	Cooling Tower	CS		No.	
77	Air Dryer	CS		No.	
78	PIPING		1	LOT	917.00
79	ELECTRICAL		1	LOT	288.00
80	INSTRUMENTATION		1	LOT	243.00
81	COATED LINE PIPE (26")		100	KM	13000.00
82	SCADA & APPS		1	LOT	1170.00
83	Pipings	CS/AS pipes of different sizes	2000	Meter	170
84	Fittings	CS/AS Elbow, flange, Tee etc. of diferent size	1	Lumpsum	30
85	Electrochlorinator spares(OEM)	Spares of equipment	1	Lumpsum	10
86	Drum Skimmer spares(OEM)	Gear box, bearing, hydraulic motor & pumps	1	Lumpsum	10
87	ETP spares	Spares of equipment	1	Lumpsum	40
88	GTG spares(OEM)	Combustion Components	1	Lumpsum	300
89	STG spares(OEM)	Misc Components	1	Lumpsum	20
90	Cooling Tower spares	Drive Shafts, Fan Blades, Clamps Fasteners, etc.	1	Lumpsum	10
91	LP compressor spares(OEM)	Discharge NRVs, Intercoolers, etc.	1	Lumpsum	40
92	UB & HRSB spares	Boiler MUWH, SH, Eco Tubes & other pressure parts	1	Lumpsum	30
93	DM Plant Spares	Alkali storage tank, Diaphragm/ Butterfly Valves, FRP/ Rubber Lining Contract, etc.	1	Lumpsum	50
94	Procurement of plug valves for NRMT NSU Tanks	Plug valves of different sizes	22	nos.	139.00
95	Design, Engineering, supply , Instalation & commisioning of 20 no of Safety swing ladders at NRMT TLF gantry.	Safety swing ladders	20	nos.	45
96	Furnance Bends for DCU Heater, 03-FF-002	U-Bend Alloy steel	50	nos.	15
97	Heat exchangers for MSP	Shell & Tube heat exchanger	7	nos.	200
98	Pump spares(OEM)	Equipment spares	453	nos.	272
99	Mechanical seal spares(OEM)	Equipment spares	430	nos.	250
100	Bearings	Different types	150	nos.	15
101	Turbine spares(OEM)	Equipment spares	100	nos.	20
102	Coupling spares	Equipment spares	120	nos.	2
103	Electric Car	4 wheel electric car	1	no.	12

104	Gaskets	Spiral & Octagonal type	1000	nos.	10
105	Design, Engineering, supply , Instalation & commisioning of 20 no of Safety swing ladders at NRMT TLF gantry.	Safety swing ladders	20	nos.	45
106	Bottling plant LPG Cylinder carousel filling guns	Filling gun spares	24	nos.	30

Financial Year 2021-22

Sr. No.	Description of Item	Broad Specification Parameters	Qty.	Accounting Units	Estimated Value for Procurement INR(Lakhs)
1	Conversion of existing single bay to dual bays at NRMT road loading gantry	Loading Assembly with all accessories, including BCU, PD meter/MFT, DCV/SDV etc	14	Set	250.00
2	Gas detectors_additional Facility	Additional LEL Gas detector(H2, H2S, HC LEL gas) system units as per gap analysis	120	NOS	150.00
3	Field Instruments and Sensor Spares	Spares for exiting field instruments(PT, DPT, FT, LG, Pressure gauges, temperature gauges etc)	60	NOS	130.00
4	Control System upgradation	Phase wise replacement/upgradation of Obsolete PLC based Control Systems of refinery	1	Set	100.00
5	Instrument control and shutdown valve spares	Spares for exiting instrument control valves and shut down valves of various refinery units	60	NOS	145.00
6	Control system Spares	Spares of DCS and various PLC's of refinery units	50	NOS	80.00
7	Spares for Refinery & NRMT CCTV System	CCTV along with accessories	30	NOS	50.00
8	Process & Environment Analyzer Spares	Spares of Stack Emission Monitoring , Ambient Air quality monitoring Analyzers, spares of Process monitoring various hydrocarbon measuring analyzer	80	NOS	55.00
9	Laboratory Equipments Spares	Spares for various QC lab equipments (Distillation appratus, GCs, Sufur analyzers, ICP, Sprectrophotometers, product quality analysis and certification equipments	60	NOS	35.00
10	Fire Alarm Systems Spares	Fire alarm System detectors, MCP, Panel Spares etc	35	NOS	28.00

11	Gas detection System Spares	Spares for existing gas detectors of various refinery units	35	Nos	38.00
12	Security Equipments & related spares	Security equipment items like DFMS. HHMD etc	10	NOS	8.00
13	PA, VHF spares	Spares of existing PA and VHF systems	25	NOS	22.00
14	Additional facility: Communication system (PA/VHF etc)	Additional field PA and VHF systems	30	NOS	120.00
15	Instrumentation cables	Procurement of various types of signal and power cables	10000	Meters	50.00
16	Analyzer Additional Facility	Replacement of Old obsolete analyzers of Process Units	6	NOS	75.00
17	Earthing system for Hydrocarbon storage tank for safety	Retractable type bypass conductor as per API RP545	164	Nos.	200.00
18	Plant Illumination: High Mast	LED High mast luminaires-200 Watt each, 230 Volt ac	450	Nos.	100.00
19	Lightning protection system for Refinery asset	Lightning protection system as per IS/IEC 62305 and OISD GDN 180- Materials: Down conductors, clamps, earth electrode, maintenance free earthing compound, GI strips, lightning strike counter and accessories.	1	Lumpsum	200.00
20	Electric Motors	LT(415V- 15 KW to 125 KW)=12 nos. & HT(6.6KV- 160 KW and 600 KW) motor= 2 nos.	14	Nos.	100.00
21	Electrical lighting materials	LED bulb= 600 nos. LED Tube, fittings= 4000 nos. FLP Distribution Board: 40 nos. FLP Junction board: 50 nos. FLP light & fittings= 100 nos.	4790	Nos.	100.00
22	Transformer 16MVA	Power transformer 11KV/6.9 KVA 12/16 MVA	1	Nos.	125.00
23	Battery Charger	Dual FCBC Charger 110 V DC,300 Amps- 2 sets 80 Amps= 1sets , 48 Volt 100 Amps- 2nos	5	Sets	50.00
24	Battery (Lead-Acid/ Ni-Cd)	Lead acid battery banks- 110 Volt DC -800 Ah-1 nos, Lead acid battery banks- 110 Volt DC -600 Ah-2 nos 110 Volt DC-60 Ah-=1 nos.	4	Sets	50.00
25	Split Type Air conditioners	1.5T Split AC Inverter -5 Star BEE rating= 50 nos. 3T Slimline AC = 20 nos.	70	nos.	50.00

26	500KVA DG set	Spares for Air Cooled DG -500KVA-415 Volts, 3 Phase	1	Lumpsum	50.00
27	Electric Heat Tracing materials	Self regulating Heat tracing cables, FLP Electrical panels, RTDs, Controller, FLP junction box and power and control cable.	1	Lumpsum	100.00
28	Central Air-conditioning system	HVAC packages included for range 60 to 150 Ton(Compressor, Chiller, pump, AHU, piping, electrical panel etc)	1	Lumpsum	100.00
29	Industrial Air-Conditioner	Industrial Air-conditioner package Unit (3TR/5TR)Precision Air-condition airconditioning- 5 nos.	5	Nos.	50.00
30	Electrical Miscellaneous items	Electrical Breaker assembly for 11 KV, 6.6 KV and 0.415 KV, CT, PT, Capacitor bank, Insulation mat, Lugs, MCB, Meters, Electrical Contractor, Indication lamp, switches etc)	1	Lumpsum	100.00
31	Refractory	Bricks,Castables Etc as per EIL standard specifications 6-79-02/03/04/0005/008 etc	40	MT	40.00
32	Insulation LRB material	IS 8183/ASTM C-592 CLASS II	1500	SQM	6.00
33	Aluminium sheet for cladding	ASTM B-209 ALLOY 3003 /IS-737 DESIGNATION 31000 CONDITION H3	5	MT	15.00
34	PPC CEMENT	IS-1489	60	MT	60.00
35	TMT BAR	IS-1786, Gr. Fe-500/500D	50	MT	30.00
36	Structural Steel	IS-2062, Gr. A	50	MT	30.00
37	HILTI MACHINERY SPARES	HILTI MAKE	25	nos	15.00
38	ROAD ROLLER SPARES	Escort MAKE	15	nos	10.00
39	MINI EXCAVATOR SPARES	JCB MAKE	10	nos	5.00
40	SKID LOADER SPARES	CASE MAKE	5	nos	5.00
41	Misc Building Material,GI piping and accessories	IS 1239 (GI ITEMS),IS 6315 (FLOOR SPRINGS),IS 3564 (DOOR CLOSED) ETC	50	nos	50.00
42	Industrial and building paints	EPOXY/TWO PACK ALIPHATIC ACRYLIC POLYURETHANE FINISH PAINT /ZINK ETHYL SILICATE PRIMER etc as per NRL painting manual; PLASTIC EMULSION PAINT (IS:5411) /CEMENT PAINT (IS:5410)/ SYNTHETIC ENAMEL PAINT (IS:2932)	3000	Lit	15.00
43	Brick	IS:1077	100000	nos	1.00
44	Sand	IS :383	1500	cum	30.00
45	Stone aggregates	IS: 383	500	cum	13.00
46	Boiler	SS/CS/Alloy steel	1	No.	829.94
47	Column	CS	29	No.	22793.42
48	Compressor	CS	27	No.	47022.04

49	DG	CS/ Casting	5	No.	720.48
50	Electrical cables	CS	8	Lot	11548.22
51	Exchanger	SS/CS/Alloy steel	219	No.	36026.10
52	Field Instrument	SS/CS/Alloy steel	17	Lot	34206.08
53	Firewater Hydrant System	SS/CS/Alloy steel	1	Lot	2405.62
54	Flare System	SS/CS/Alloy steel	1	Lot	420.98
55	Instr. Control system	CS/ Alloy	23	No.	9875.10
56	Instrument cables	CS/ Alloy	17	Lot	3040.31
57	Piping and Valves	CS/ Alloy	18	Lot	135388.25
58	Pump	CS/Alloy steel/Casting	539	No.	26370.34
59	Reactor	CS/MS etc.	15	No.	79237.13
60	Sump	CS/MS etc.	17	No.	668.40
61	Tank	CS	89	No.	31966.89
62	Transformer	CS/MS etc.	30	No.	1165.52
63	Turbine	CS/MS etc.	14	No.	2008.69
64	UPS	CS/MS etc.	2	No.	487.14
65	Vessel	CS/MS etc.	202	No.	16799.82
66	Electrical Switch Gear/ MCC	CS	54	No.	7838.36
67	Fan/ Blower	SS/CS/Alloy steel	49	No.	371.55
68	Others (Structure/ Fire proffing/ Insulation/ Painting etc.)	CS/ Alloy	55	Lot	8600.99
69	Furnace/ heater	CS/ Alloy	15	No.	44239.52
70	Centralized AC	Centralized AC	1	No.	75.18
71	Pipe racks	CS/ Alloy	1	Lot	9875.79
72	Cooling Tower	CS	1	No.	1106.58
73	Air Dryer	CS	3	No.	429.88
74	MAINLINE PUMPS		15@	Nos	3196.00
75	BOOSTER PUMPS		4@	Nos	300.00
76	PIPING		1	LOT	550.00
77	ELECTRICAL		1	LOT	173.00
78	INSTRUMENTATION		1	LOT	146.00
79	COATED LINE PIPE (26")		600	KM	78000.00
80	SCADA & APPS		1	LOT	702.00
81	PRODUCT PUMP		2	Nos	40.00
82	FIRE WATER PUMP		8	Nos	248.00
83	JOCKY PUMP		2	Nos	12.00
84	Hydrant/CP/Hose Box/ULFM Monitors		1	Lot	340.00
85	HVLR		16	Nos	345.00
86	ROSOV		16	Nos	720.00
87	HC detector with cabling		1	LS	100.00
88	Air compressor / DRIER		1	LS	20.00
89	MEFG		1	LS	12.00
90	Emergency Kit		1	LS	50.00

91	Sprinkler System for tanks & PH		1	LS	200.00
92	CCTV with cabling		1	LS	400.00
93	Rimseal on FR Tanks		8	Nos	1200.00
94	Fire fighting Automation		1	Ls	300.00
95	Four Wheel Drive Hydra	20 T capacity	1	no.	50
96	Paraffin Wax pastillator system	2 X 3 MT/hr capacity, steel belt, Chiller package and pumping system, Bucket Elevator System,PEB Shed, Monorails & Hoist for pastillation unit	1	set	2340
97	Carton Maker for ASPU	500 cartoon per hour	1	set	29
98	Pipings	CS/AS pipes of different sizes	2000	meter	70
99	Fittings	CS/AS Elbow, flange, Tee etc. of different size	200	nos.	40
100	Electrochlorinator spares(OEM)	Equipment spares	1	Lumpsum	12
101	GTG spares	Turbine components	1	Lumpsum	600
102	STG spares	Misc Components	1	Lumpsum	40
103	Cooling Tower spares	Fan Blades,Hubs, Butterfly Valves	1	Lumpsum	20
104	LP compressor	Filters, Intercoolers	1	Lumpsum	30
105	UB & HRSG spares	Pressure parts, IBD Valves, etc.	1	Lumpsum	10
106	N2P Spares	Expansion turbine, Critical Spares	1	Lumpsum	100
107	DM Plant Spares	Revamp project	1	Lumpsum	300
108	Reactor Effluent air fin cooler	High pressure equipment	4	nos.	1300
109	DHDT MUG Compressor revamp spares(OEM)	Equipment spares	1	Lumpsum	150
110	HCU RGC dry gas seal	Mech. Seal	2	set	200
111	Furnance Tubes for DCU Heater, 03-FF-001	AS fittings od different size	110	nos.	180
112	Pump spares(OEM)	Equipment spares	400	nos.	200
113	Mechanical seal spares(OEM)	Equipment spares	450	nos.	270
114	Bearings	Different types	200	nos.	20
115	Gaskets	Spiral & Octagonal type	2000	nos.	20
116	Valves	different sizes & types	100	nos.	20
117	Procurement of plug valves for NRMT NSU Tanks	Different size	22	nos.	139
118	LPG Cylinder Evacuation System	Compressor, piping etc	1	set	120

Financial Year 2022-23

Sr. No.	Description of Item	Broad Specification Parameters	Qty.	Accounting Units	Estimated Value for Procurement INR(Lakhs)
1	Field Instruments & Sensor Spares	Spares for exiting field instruments(PT, DPT, FT, LG, Pressure gauges, temperature gauges etc)	30	Nos	180.00
2	Instrument control and shutdown valve spares	Spares for exiting instrument control valves and shut down valves of various refinery units	400	Nos	140.00
3	Captive Power plants GTG, STG Spares	Instrumentation Spares for Captive Power plants GTG, STG units	50	Nos	97.00
4	Machine Monitoring system Spares	Spares for existing machine monitoring systems of refinery	50	Nos	55.00
5	Process Control System(PLC/DCS) Spares	Spares of DCS and various PLC's of refinery units	100	Nos	120.00
6	Surveillance System Spares	Spares for existing CCTV systems of refinery along with accessories	50	Nos	182.00
7	Process & Environment Analyzer Spares	Spares of Stack Emission Monitoring , Ambient Air quality monitoring Analyzers, spares of Process monitoring various hydrocarbon measuring analyzer	40	Nos	60.00
8	Laboratory Equipments Spares	Spares for various QC lab equipments (Distillation apparatus, GCs, Sulfur analyzers, ICP, Spectrophotometers, product quality analysis and certification equipments	35	Nos	65.00
9	Fire Alarm Systems Spares	Fire alarm System detectors, MCP, Panel Spares etc	30	Nos	25.00
10	Test and Measurement Instruments and Tools	Various measuring instruments and calibrators	20	Nos	22.00
11	Gas detection System Spares	Spares for existing gas detectors of various refinery units	30	Nos	33.00
12	Additional facility_CCTV-PA system	Additional refinery field PA, VHF and CCTV systems	80	Nos	240.00
13	Control System Upgradation	Phase wise replacement/upgradation of Obsolete PLC based Control Systems of refinery	1	Nos	100.00
14	Gas detectors_additional Facility	Additional LEL Gas detector(H2, H2S, HC LEL gas) system units as per gap analysis	150	Nos	180.00

15	Field Instrument & Valves (new Replacement)	Phase wise replacement/ Upgradation of old transmitters, Mass flow meters, SOVs, Control Valves & SDVs of corrosive service environments, Self actuated PCV's etc	150	Nos	275.00
16	Electric Motors	LT(415V- 15 KW to 125 KW)=12 nos. & HT(6.6KV- 180 KW and 625 KW) motor= 2 nos.	14	Nos.	100.00
17	Electrical cables	Power cable (11KV- 1CX1000 sqmm.,3CX185 sqmm= 5000 meter, 6.6KV-3CX185 sqmm = 2000 meter& 415V- 185 sqmm, 300 sqmm.,240 sqmm, 6 sqmm., 4 sqmm, 10 sqmm, 25 sqmm.)= 58000 meter	65000	meter	200.00
18	Electrical lighting materials	LED bulb= 700 nos. LED Tube, fittings= 2000 nos. Lighting Transformer 415/415 Volt 200 KVA- 1nos. Lighting Transformer 415/415 Volt 180 KVA- 3nos FLP light & fittings= 100 nos. Fans= 100 nos.	2904	Nos.	100.00
19	Battery (Lead-Acid/ Ni-Cd)	Lead acid battery banks- 110 Volt DC -300 Ah-3 nos, VRLA 48 Volt DC-1000 Ah=1 nos.	4	Sets	50.00
20	Split Type Air conditioners	1.5T Split AC Inverter -5 Star BEE rating= 50 nos.3T Slimline AC = 20 nos.	70	nos.	50.00
21	Electrical Miscellaneous items	Electrical Breaker assembly for 11 KV, 6.6 KV and 0.415 KV, CT, PT, Capcitor bank, Insulation mat, connector Lugs, MCB, Meters, Electrical Contractor, Indication lamp, switches etc)	1	Lumpsum	100.00
22	Refractory	Bricks,Castables Etc as per EIL standard specifications 6-79- 02/03/04/0005/008 etc	20	MT	20.00
23	Insulation LRB material	IS 8183/ASTM C-592 CLASS II	1500	SQM	6.00
24	Aluminium sheet for cladding	ASTM B-209 ALLOY 3003 /IS-737 DESIGNATION 31000 CONDITION H3	5	MT	15.00
25	PPC CEMENT	IS-1489	60	MT	60.00
26	TMT BAR	IS-1786, Gr. Fe-500/500D	50	MT	30.00
27	Structural Steel	IS-2062, Gr. A	50	MT	30.00
28	HILTI MACHINERY SPARES	HILTI MAKE	0	nos	0.00
29	ROAD ROLLER SPARES	Escort MAKE	5	nos	3.00
30	MINI EXCAVATOR SPARES	JCB MAKE	5	nos	3.00

31	SKID LOADER SPARES	CASE MAKE	10	nos	3.00
32	Misc Building Material,GI piping and accessories	IS 1239 (GI ITEMS),IS 6315 (FLOOR SPRINGS),IS 3564 (DOOR CLOSED) ETC	30	nos	30.00
33	Industrial and building paints	EPOXY/TWO PACK ALIPHATIC ACRYLIC POLYURETHANE FINISH PAINT /ZINK ETHYL SILICATE PRIMER etc as per NRL painting manual; PLASTIC EMULSION PAINT (IS:5411) /CEMENT PAINT (IS:5410)/ SYNTHETIC ENAMEL PAINT (IS:2932)	2500	Lit	15.00
34	Brick	IS:1077	100000	nos	1.00
35	Sand	IS :383	1500	cum	30.00
36	Stone aggregates	IS: 383	500	cum	13.00
37	Boiler	SS/CS/Alloy steel	1	No.	528.14
38	Column	CS	18	No.	14504.91
39	Compressor	CS	17	No.	29923.12
40	DG	CS/ Casting	3	No.	458.49
41	Electrical cables	CS	5	Lot	7348.87
42	Exchanger	SS/CS/Alloy steel	140	No.	24153.88
43	Field Instrument	SS/CS/Alloy steel	11	Lot	21767.50
44	Firewater Hydrant System	SS/CS/Alloy steel		Lot	1530.85
45	Flare System	SS/CS/Alloy steel		Lot	267.90
46	Instr. Control system	CS/ Alloy	14	No.	6284.15
47	Instrument cables	CS/ Alloy	11	Lot	1934.74
48	Piping and Valves	CS/ Alloy	11	Lot	86156.16
49	Pump	CS/Alloy steel/Casting	343	No.	16781.12
50	Reactor	CS/MS etc.	10	No.	50423.63
51	Sump	CS/MS etc.	11	No.	425.35
52	Tank	CS	57	No.	20342.57
53	Transformer	CS/MS etc.	19	No.	741.70
54	Turbine	CS/MS etc.	9	No.	1278.26
55	UPS	CS/MS etc.	1	No.	310.00
56	Vessel	CS/MS etc.	128	No.	10690.80
57	Electrical Switch Gear/ MCC	CS	34	No.	4988.05
58	Fan/ Blower	SS/CS/Alloy steel	31	No.	236.44
59	Others (Structure/ Fire proffing/ Insulation/ Painting etc.)	CS/ Alloy	35	Lot	5473.36
60	Furnace/ heater	CS/ Alloy	9	No.	28152.42
61	Centralized AC	Centralized AC	1	No.	47.84
62	Pipe racks	CS/ Alloy	1	Lot	6284.59
63	Cooling Tower	CS	1	No.	704.19
64	Air Dryer	CS	2	No.	273.56
65	SUMP PUMP		1	LOT	7.00
66	SLOP TRANSFER PUMP		1	LOT	44.00

67	LAUNCHER/RECEIVER		1	LOT	50.00
68	SUMP TANK		1	LOT	10.00
69	PIPING		1	LOT	275.00
70	ELECTRICAL		1	LOT	86.00
71	INSTRUMENTATION		1	LOT	73.00
72	COATED LINE PIPE (26")		800	KM	108000.00
73	SCADA & APPS		1	LS	351.00
74	ELECTRICAL		1	LOT	4222.00
75	AUTOMATION		1	LOT	4000.00
76	PLANT PIPELINE		11	KM	1980.00
77	VALVES & FITTINGS		1	LS	2000.00
78	FIRE WATER LINE		13	KM	1012.00
79	F/W VALVES & FITTINGS		1	LS	250.00
80	Furnance Tubes & Bends for CDU/VDU Heater	Tube & Fittings	70	nos.	22
81	Diesel Engine Driven Hydroblast machine having output of 95LPM & 1500 Bar along with complete Heat exchanger tube internal and external cleaning system	95LPM & 1500 Bar	1	set	200
82	Packaging, Control and electrical system for pastillation unit	Packaging, Control and electrical system	1	set	850
83	Pipings	CS/AS pipes of different sizes	2000	meter	80
84	Fittings	CS/AS Elbow, flange, Tee etc. of diferent size	200	nos.	50
85	Electrochlorinator spares	Equipment spares	1	Lumpsum	13
86	Drum Skimmer spares (OEM)	Equipment spares	1	Lumpsum	20
87	ETP spares	Spares of equipment	1	Lumpsum	50
88	GTG spares	Aux components	1	Lumpsum	400
89	STG spares	Critical Spares	1	Lumpsum	20
90	LP compressor	Critical Spares, Aftercooler, etc.	1	Lumpsum	40
91	UB & HRSB spares	Pressure parts, Diverter Damper Hydraulic spares	1	Lumpsum	10
92	Heater Tubes & fittings (04-FF-001/002/003)	Tube & Fittings	1	Lumpsum	20
93	Heater Buners	Different Burner spares	1	Lumpsum	50
94	Centrifugal compressor Components (OEM)	Rotor & End covers	1	Lumpsum	180
95	Bag Filters for CCU	Filters	864	nos.	82
96	Column internal for MSP, 16-CC-01 Cartridge tray	Tray spares	1	Lumpsum	10
97	Pump spares	Equipment spares of different make	500	nos.	300
98	Mechanical seal spares	Equipment spares of different make	400	nos.	300
99	Bearings	Different types & sizes	180	nos.	25
100	Turbine spares	Equipment spares of different make	150	nos.	30

101	Coupling spares	Equipment spares of different make	150	nos.	2
102	Truck with Trailer	45-80T Capacity	1	set	150
103	Alloy Analyzer; Thickness Gauge	Metal type detection & thickness measure equipment	1	set	70
104	Gaskets	Spiral & Octagonal type	1000	nos.	10
105	Valves	Different types and sizes	125	nos.	30

Financial Year 2023-24

Sr. No.	Description of Item	Broad Specification Parameters	Qty.	Accounting Units	Estimated Value for Procurement INR(Lakhs)
1	Field Instruments & Sensor Spares	Spares for exiting field instruments(PT, DPT, FT, LG, Pressure gauges, temperature gauges etc)	30	NOS	200.00
2	Instrument control and shutdown valve spares	Spares for exiting instrument control valves and shut down valves of various refinery units	450	NOS	160.00
3	Captive Power plants GTG, STG Spares	Instrumentation Spares for Captive Power plants GTG, STG units	50	NOS	100.00
4	Machine Monitoring system Spares	Spares for existing machine monitoring systems of refinery	50	NOS	65.00
5	Process Control System(PLC/DCS) Spares	Spares of DCS and various PLC's of refinery units	20	NOS	45.00
6	Surveillance System Spares	Spares for existing CCTV systems of refinery along with accessories	30	NOS	25.00
7	Communication system(PA/VHF etc)	Spares for existing field PA and VHF systems of refinery	50	NOS	106.00
8	Process & Environment Analyzer Spares	Spares of Stack Emission Monitoring , Ambient Air quality monitoring Analyzers, spares of Process monitoring various hydrocarbon measuring analyzer	40	NOS	65.00
9	Laboratory Equipments Spares	Spares for various QC lab equipments (Distillation apparatus, GCs, Sulfur analyzers, ICP, Spectrophotometers, product quality analysis and certification equipments	35	NOS	66.00
10	Fire Alarm Systems Spares	Fire alarm System detectors, MCP, Panel Spares etc	30	NOS	27.00
11	Security Equipments & related spares	Security equipment items like DFMS. HHMD, Torch etc	15	NOS	8.00

12	Test and Measurement Instruments and Tools	Various measuring instruments and calibrators	15	NOS	22.00
13	Gas detection System Spares	Spares for existing gas detectors of various refinery units	30	NOS	65.00
14	Instrument Cables	Procurement of various types of signal and power cables	10000	Mtr.	55.00
15	Additional facility_CCTV-PA system	Additional refinery field PA and VHF systems	75	NOS	300.00
16	Control System Upgradation	Phase wise replacement/upgradation of Obsolete PLC based Control Systems of refinery	2	NOS	400.00
17	TFMS system spares	Spares of existing refinery tank farm management systems	25	NOS	60.00
18	Gas detectors_additional Facility	Additional LEL Gas detector(H ₂ , H ₂ S, HC LEL gas) system units as per gap analysis	120	NOS	180.00
19	Field Instrument & Valves (new Replacement)	Phase wise replacement/ Upgradation of old transmitters, Mass flow meters, SOVs, Control Valves & SDVs of corrosive service environments, Self actuated PCV's etc	130	NOS	250.00
20	Analyzer systems: Additional Facility	Phasewise Replacement of Old obsolete analyzers of Process Units	3	NOS	69.00
21	Electric Motors	LT(415V- 15 KW to 125 KW)=6 nos. & HT(6.6KV- 310-KW and 540 KW) motor= 2 nos.	8	Nos.	50.00
22	Electrical lighting materials	LED bulb= 500 nos. High mast lights: : 10 nos. 24 Volt Hand lamp: 100 nos. FLP 24 Volt Hand lamp: 100 nos. FLP light & fittings= 100 nos. FLP Exhaust Fans= 100 nos.	910	Nos.	100.00
23	Battery (Lead-Acid/ Ni-Cd)	Ni-Cd battery banks- 110 Volt DC - 105Ah-2 nos,Ni-Cd battery banks- 110 Volt DC -345Ah-2 nos,	4	Sets	50.00
24	Split Type Air conditioners	1.5T Split AC Inverter -5 Star BEE rating= 50 nos. 3T Slimline AC = 20 nos.	70	nos.	50.00
25	Electric Heat Tracing materials	Self regulating Heat tracing cables, FLP Electrical panels, RTDs, Controller, FLP junction box and power and control cable.	1	Lumpsum	150.00

26	Central Air-conditioning system	HVAC packages included for range 60 to 150 Ton(Compressor, Chiller, pump, AHU, piping, electrical panel etc)	1	Lumpsum	100.00
27	Industrial Air-Conditioner	Industrial Air-conditioner package Unit (3TR/5TR)Precision Air-condition airconditioning- 5 nos.	5	Nos.	50.00
28	Electrical Miscellaneous items	Electrical Breaker assembly for 11 KV, 6.6 KV and 0.415 KV, CT, PT, Capcitor bank, Insulation mat, Lugs, MCB, Meters, Electrical Contractor, Indication lamp, switches etc)	1	Lumpsum	100.00
29	Refractory	Bricks,Castables Etc as per EIL standard specifications 6-79-02/03/04/0005/008 etc	60	MT	60.00
30	Insulation LRB material	IS 8183/ASTM C-592 CLASS II	1500	SQM	6.00
31	Aluminium sheet for cladding	ASTM B-209 ALLOY 3003 /IS-737 DESIGNATION 31000 CONDITION H3	5	MT	15.00
32	PPC CEMENT	IS-1489	60	MT	60.00
33	TMT BAR	IS-1786, Gr. Fe-500/500D	80	MT	45.00
34	Structural Steel	IS-2062, Gr. A	80	MT	45.00
35	HILTI MACHINERY SPARES	HILTI MAKE	0	nos	0.00
36	ROAD ROLLER SPARES	Escort MAKE	10	nos	4.00
37	MINI EXCAVATOR SPARES	JCB MAKE	5	nos	3.00
38	SKID LOADER SPARES	CASE MAKE	5	nos	3.00
39	Misc Building Material,Gi piping and accessories	IS 1239 (GI ITEMS),IS 6315 (FLOOR SPRINGS),IS 3564 (DOOR CLOSED) ETC	50	nos	50.00
40	Industrial and building paints	EPOXY/TWO PACK ALIPHATIC ACRYLIC POLYURETHANE FINISH PAINT /ZINK ETHYL SILICATE PRIMER etc as per NRL painting manual; PLASTIC EMULSION PAINT (IS:5411) /CEMENT PAINT (IS:5410)/ SYNTHETIC ENAMEL PAINT (IS:2932)	7000	lit	35.00
41	Brick	IS:1077	100000	nos	1.00
42	Sand	IS :383	1500	cum	30.00
43	Stone aggregates	IS: 383	500	cum	13.00
44	Boiler	SS/CS/Alloy steel		No.	120.72
45	Column	CS	4	No.	3315.41
46	Compressor	CS	4	No.	6839.57
47	DG	CS/ Casting	1	No.	104.80
48	Electrical cables	CS	1	Lot	1679.74
49	Exchanger	SS/CS/Alloy steel	32	No.	5520.89

50	Field Instrument	SS/CS/Alloy steel	2	Lot	4975.43
51	Firewater Hydrant System	SS/CS/Alloy steel		Lot	349.91
52	Flare System	SS/CS/Alloy steel		Lot	61.23
53	Instr. Control system	CS/ Alloy	3	No.	1436.38
54	Instrument cables	CS/ Alloy	2	Lot	442.23
55	Piping and Valves	CS/ Alloy	3	Lot	19692.84
56	Pump	CS/Alloy steel/Casting	78	No.	3835.69
57	Reactor	CS/MS etc.	2	No.	11525.40
58	Sump	CS/MS etc.	2	No.	97.22
59	Tank	CS	13	No.	4649.73
60	Transformer	CS/MS etc.	4	No.	169.53
61	Turbine	CS/MS etc.	2	No.	292.17
62	UPS	CS/MS etc.		No.	70.86
63	Vessel	CS/MS etc.	29	No.	2443.61
64	Electrical Switch Gear/ MCC	CS	8	No.	1140.13
65	Fan/ Blower	SS/CS/Alloy steel	7	No.	54.04
66	Others (Structure/ Fire proffing/ Insulation/ Painting etc.)	CS/ Alloy	8	Lot	1251.05
67	Furnace/ heater	CS/ Alloy	2	No.	6434.84
68	Centralized AC	Centralized AC	0.2	No.	10.93
69	Pipe racks	CS/ Alloy	0.2	Lot	1436.48
70	Cooling Tower	CS	0.2	No.	160.96
71	Air Dryer	CS		No.	62.53
72	CI DOSING PUMP		1	LOT	16.00
73	LAUNCHER/RECEIVER		1	LOT	50.00
74	BASKET FILTERS		1	LOT	27.00
75	PIPING		1	LOT	92.00
76	ELECTRICAL		1	LOT	29.00
77	INSTRUMENTATION		1	LOT	24.00
78	SCADA & APPS		1	LOT	117.00
79	PIPELINE (48 " DIA)		10	KM	3750.00
80	PUMPS		2	NOS	200.00
81	FLOW TEE		2	NOS	100.00
82	VALVES		8	NOS	400.00
83	FLOW METER		2	NOS	150.00
84	AUTO SAMPLER		1	NO	100.00
85	INSULATING JACKETS		4	NOS	200.00
86	FILTERS		2	NOS	100.00
87	SARAPER RECEIVER		1	NO	75.00
88	SERVICE WATER PIPELINE		1	LS	15.00
89	Pipings	CS/AS pipes of different sizes	2000	meter	120
90	Fittings	CS/AS Elbow, flange, Tee etc. of diferent size	200	nos.	60
91	Electrochlorinator spares(OEM)	Equipment spares	1	Lumpsum	14
92	GTG spares	Refurbishing	1	Lumpsum	200

93	STG spares	Turbine Components	1	Lumpsum	10
94	Cooling Tower spares	Fan Blades,Hubs	1	Lumpsum	20
95	LP compressor	Critical Spares	1	Lumpsum	20
96	UB & HRSG spares	Misc Components	1	Lumpsum	10
97	N2P Spares	Critical Spares		Lumpsum	20
98	DM Plant Spares	Vessel distribution headers, pressure vessel internals	1	Lumpsum	50
99	Pump spares	Equipment spares of different make	457	nos.	310
100	Mechanical seal spares	Equipment spares of different make	480	nos.	310
101	Bearings	Different type & size	250	nos.	30
102	Gaskets	Spiral & Octagonal type	2000	nos.	20
103	Valves	Different type & size	100	nos.	20

Financial Year 2024-25

Sr. No.	Description of Item	Broad Specification Parameters	Qty.	Accounting Units	Estimated Value for Procurement INR(Lakhs)
1	Field Instruments & Sensor Spares	Spares for exiting field instruments(PT, DPT, FT, LG, Pressure gauges, temperature gauges etc)	25	NOS	150.00
2	Instrument control and shutdown valve spares	Spares for exiting instrument control valves and shut down valves of various refinery units	450	NOS	160.00
3	Captive Power plants GTG, STG Spares	Instrumentation Spares for Captive Power plants GTG, STG units	50	NOS	120.00
4	Machine Monitoring system Spares	Spares for existing machine monitoring systems of refinery	50	NOS	65.00
5	Process Control System(PLC/DCS) Spares	Spares of DCS and various PLC's of refinery units	20	NOS	150.00
6	Surveillance System Spares	Spares for existing CCTV systems of refinery along with accessories	30	NOS	220.00
7	Process & Environment Analyzer Spares	Spares of Stack Emission Monitoring , Ambient Air quality monitoring Analyzers, spares of Process monitoring various hydrocarbon measuring analyzer	40	NOS	73.21
8	Laboratory Equipments Spares	Spares for various QC lab equipments (Distillation appratus, GCs, Sufur analyzers, ICP, Sprectrophotometers, product quality analysis and certification equipments	35	NOS	73.00

9	Fire Alarm Systems Spares	Fire alarm System detectors, MCP, Panel Spares etc	30	NOS	28.00
10	Gas detection System Spares	Spares for existing gas detectors of various refinery units	30	NOS	74.00
11	Control System Upgradation	Phase wise replacement/upgradation of Obsolete PLC based Control Systems of refinery	2	NOS	300.00
12	Field Instrument & Valves (new Replacement)	Phase wise replacement/ Upgradation of old transmitters, Mass flow meters, SOVs, Control Valves & SDVs of corrosive service environments, Self actuated PCV's etc	130	NOS	332.00
13	Electric Motors	LT(415V- 15 KW to 125 KW)=6 nos. & HT(6.6KV- 600-KW and 850 KW) motor= 2 nos.	8	Nos.	50.00
14	Electrical cables	Power cable (11KV- 1CX1000 sqmm.,3CX185 sqmm= 5000 meter, 6.6KV-3CX185 sqmm = 2000 meter& 415V- 185 sqmm, 300 sqmm.,240 sqmm, 6 sqmm., 4 sqmm, 10 sqmm, 25 sqmm.)= 58000 meter	65000	meter	200.00
15	Electrical lighting materials	LED bulb= 300 nos. High mast lights: : 10 nos. 24 Volt Hand lamp: 100 nos. Lighting Transformer 415/415 Volt 200 KVA- 1nos. Lighting Transformer 415/415 Volt 180 KVA- 3nos FLP 24 Volt Hand lamp: 100 nos. FLP light & fittings= 100 nos. FLP Exhaust Fans= 100 nos.	714	Nos.	100.00
16	Battery (Lead-Acid/ Ni-Cd)	Ni-Cd battery banks- 110 Volt DC - 300 Ah-2 nos, Ni-Cd battery banks- 110 Volt DC - 210Ah-1 nos,	3	Sets	50.00
17	Split Type Air conditioners	1.5T Split AC Inverter -5 Star BEE rating= 50 nos.3T Slimline AC = 20 nos.	70	nos.	50.00
18	Electrical Miscellaneous items	Electrical Breaker assembly for 11 KV, 6.6 KV and 0.415 KV, CT, PT, Capcitor bank, Insulation mat, Lugs, MCB, Meters, Electrical Contractor, Indication lamp, switches etc)	1	Lumpsum	100.00

19	Refractory	Bricks,Castables Etc as per EIL standard specifications 6-79-02/03/04/0005/008 etc	20	MT	20.00
20	Insulation LRB material	IS 8183/ASTM C-592 CLASS II	15000	SQM	70.00
21	Aluminium sheet for cladding	ASTM B-209 ALLOY 3003 /IS-737 DESIGNATION 31000 CONDITION H3	15	MT	55.00
22	PPC CEMENT	IS-1489	60	MT	60.00
23	TMT BAR	IS-1786, Gr. Fe-500/500D	50	MT	30.00
24	Structural Steel	IS-2062, Gr. A	50	MT	30.00
25	HILTI MACHINERY SPARES	HILTI MAKE	0	nos	0.00
26	ROAD ROLLER SPARES	Escort MAKE	5	nos	3.00
27	MINI EXCAVATOR SPARES	JCB MAKE	5	nos	3.00
28	SKID LOADER SPARES	CASE MAKE	5	nos	3.00
29	Misc Building Material,Gi piping and accessories	IS 1239 (GI ITEMS),IS 6315 (FLOOR SPRINGS),IS 3564 (DOOR CLOSED) ETC	30	nos	30.00
30	Industrial and building paints	EPOXY/TWO PACK ALIPHATIC ACRYLIC POLYURETHANE FINISH PAINT /ZINK ETHYL SILICATE PRIMER etc as per NRL painting manual; PLASTIC EMULSION PAINT (IS:5411) /CEMENT PAINT (IS:5410)/ SYNTHETIC ENAMEL PAINT (IS:2932)	3500	Lit	17.50
31	Brick	IS:1077	100000	nos	1.00
32	Sand	IS :383	1500	cum	30.00
33	Stone aggregates	IS: 383	500	cum	13.00
34	Boiler	SS/CS/Alloy steel		No.	22.63
35	Column	CS	1	No.	621.64
36	Compressor	CS	1	No.	1282.42
37	DG	CS/ Casting	0.2	No.	19.65
38	Electrical cables	CS	0.3	Lot	314.95
39	Exchanger	SS/CS/Alloy steel	8	No.	1035.17
40	Field Instrument	SS/CS/Alloy steel	1	Lot	932.89
41	Firewater Hydrant System	SS/CS/Alloy steel		Lot	65.61
42	Flare System	SS/CS/Alloy steel		Lot	11.48
43	Instr. Control system	CS/ Alloy	1	No.	269.32
44	Instrument cables	CS/ Alloy	1	Lot	82.92
45	Piping and Valves	CS/ Alloy	1	Lot	3692.41
46	Pump	CS/Alloy steel/Casting	20	No.	719.19
47	Reactor	CS/MS etc.	1	No.	2161.01
48	Sump	CS/MS etc.	1	No.	18.23
49	Tank	CS	3	No.	871.82
50	Transformer	CS/MS etc.	1	No.	31.79
51	Turbine	CS/MS etc.	1	No.	54.78

52	UPS	CS/MS etc.		No.	13.29
53	Vessel	CS/MS etc.	7	No.	458.18
54	Electrical Switch Gear/ MCC	CS	2	No.	213.77
55	Fan/ Blower	SS/CS/Alloy steel	2	No.	10.13
56	Others (Structure/ Fire proffing/ Insulation/ Painting etc.)	CS/ Alloy	2	Lot	234.57
57	Furnace/ heater	CS/ Alloy	1	No.	1206.53
58	Centralized AC	Centralized AC		No.	2.05
59	Pipe racks	CS/ Alloy		Lot	269.34
60	Cooling Tower	CS		No.	30.18
61	Air Dryer	CS		No.	11.72
62	Taxes (Duties) (18%)			Lot	2638.38
63	Pipings	CS/AS pipes of different sizes	2000	meter	100
64	Fittings	CS/AS Elbow, flange, Tee etc. of diferent size	200	nos.	70
65	Electrochlorinator spares	equipment spares	1	Lumpsum	15
66	Drum Skimmer spares	Gear box, bearing, hydraulic motor & pumps	1	Lumpsum	30
67	ETP spares	Spares of equipment	1	Lumpsum	70
68	GTG spares	Misc Components	1	Lumpsum	100
69	STG spares	Turbine components	1	Lumpsum	10
70	LP compressor	Compressor components	1	Lumpsum	10
71	UB & HRSG spares	Pressure parts	1	Lumpsum	10
72	N2P Spares	Critical Spares	1	Lumpsum	10
73	DM Plant Spares	Acid storage tanks, MSRL Pipes, valves, etc.	2	nos.	50
74	Pump spares	Equipment spares	500	nos.	320
75	Mechanical seal spares	Equipment spares	500	nos.	340
76	Bearings	Different types	200	nos.	35
77	Turbine spares	Equipment spares	180	nos.	35
78	Coupling spares	different sizes & types	180	nos.	3
79	Gaskets	Spiral & Octagonal type	1000	nos.	10
80	Valves	Different type & size	100	nos.	20