

S.No.	PACKAGE DESCRIPTION	Original Supplier	UO M	Category A (to Destination site)	Category B (remain at project site)	Installation status
1	Gas Turbines and Generators	M/s General Electric, USA	Set	4	0	Erected
2	Steam Turbine & Generators	M/s General Electric, USA	Set	2	0	Un-Erected
3	Mandatory Spare Parts (GT&ST)	M/s General Electric, USA	Set	1	0	Un-Erected
4	Heat Recovery Steam Generators	M/s CMI, USA	Set	0	3	Partly Erected
5	Condenser	M/s Hangzhou Boiler Group	Set	0	3	Un-Erected
6	Gas insulated Switchgear	M/s Xian, China	Bay s	15	8	Erected
7	Generator Transformers	M/s Hyundai, Korea	nos	6	3	Partly Erected
8	Dry Type transformers	M/s QRE,China	nos	14	8	Erected
9	400kV EHV cables	M/s SFC,Japan	km	4	2	Partly Erected
10	Generator Circuit Breakers	M/s ABB Schweiz AG	nos	4	2	Partly Erected
11	Power House Building structures	M/s HXSS,China/ CHANGHOU	Ton	9592	4000	Partly Erected
12	Induced Draft Cooling Tower	Hamon	Set	0	2	Partly Erected
13	EOT Crane	Anupam	no	4	2	Erected
14	Fire Protection & Detection System	Minimax	Set	2	1	Partly Erected
15	Fuel Gas Conditioning system	Multitex	Set	2	1	Partly Erected
16	Large Diameter Pipe (CW Piping)	PSL	LOT	0	3	Partly Erected
17	Horizontal Pumps	WPIL	Set	1	0	Un-Erected
18	Vertical Pumps	Flowmore	Sets	1	0	Un-Erected
19	Compressed Air System	Atlas Copco	Sets	2	0	Partly Erected
20	Cooling Water Pumps (Circulating water)	WPIL	nos	0	3	Un-Erected
21	Chlorination Plant	Airox Nigen	Set	1	0	Un-Erected
22	Plate Heat Exchanger	GEA	Set	2	1	Partly Erected
23	Cooling Water Treatment Plant	Thermax	Set	2	1	Un-Erected
24	Pre-treatment Plant	Thermax	Set	1	0	Un-Erected

25	Rubber Expansion Joint	SRM Exoflex	Set	2	1	Un-Erected
26	Large Dia Butterfly Valves	Fouress	Set	2	1	Un-Erected
27	Stop Log Gates	Mechsol	Set	2	1	Un-Erected
28	LP Piping (Low pressure)	Raunaq	Set	2	1	Partly Erected
29	Cranes & Hoists (Misc)	Reva	Set	2	1	Un-Erected
30	Air conditioning system	Blue Star	Set	0	3	Un-Erected
31	Ventilation System	Blue Star	Set	0	3	Partly Erected
32	Effluent & Sewage Treatment Plant	Thermax	Set	1	0	Un-Erected
33	Switchyard Reactors	Alstom T&D India Ltd.	Set	2	0	Erected
34	400KV Switchyard equipment	BLUE STAR LIMITED	Set	1	0	Erected
35	400KV Instrument Transformer	Alstom T&D India Ltd.	nos	0	6	Erected
36	400KV Wave Traps	Alstom T&D India Ltd.	nos.	0	8	Erected
37	400KV Bus POST INSULATORS	Sharvan	Set	0	1	Erected
38	Unit Auxiliary Transformers	Alstom T&D India Ltd.	nos	8	0	Erected
39	HT SWGR	L&T	lot	2	0	Erected
40	Start Up Transformer	Alstom T&D India Ltd.	Set	1	0	Partly Erected
41	Generator Bus duct	C & S ELECTRIC LIMITED	Set	2	0	Partly Erected
42	Oil TypeAux Transformer	VICTORY ELECTRICALS LTD	lot	1	0	Partly Erected
43	LT Power and control Cables	TERACOM	lot	2	1	Partly Erected
44	Electrical Lab Instruments	Basil Powertek pvt. Ltd/Jost	Set	0	0	Un-Erected
45	Balance of Plan electrical equipments	L&T	Set	1	0	Partly Erected
46	Control & Relay Panel	SIEMENS LIMITED	lot	1	0	Erected

47	400 Kv Interconnecting transformer	Areva India	set	0	1	Erected
48	Distribution Control System	Honeywell	lot	2	1	Un-Erected
49	Balance of Plant C&I equipments	Honeywell	lot	1	0	Un-Erected
50	Transmission line	Kadevi Industries	Set	0	1	Un-Erected
51	Water Pipe line (River water intake)	Amiatit	Km	0	5.9	Un-Erected
52	Service Elevator	Hyundai	no.	1	0	Un-Erected
53	Inter-Connecting Piping (GTG & STG)	PowerMech	Set	2	1	Partly Erected
54	HRSB Piping	Dee Development	Set	2	1	Un-Erected
55	Gas cylinders	Everest Kanto	set	1	0	Un-Erected

Annexure – 2: Specification of Equipment

S/N	Name of the Equipment Offered	Details / Broad Specification
A	Power Block	
1	Gas Turbine & Auxiliaries	<p>Manufacturer: M/s General Electric, USA Specifications:</p> <ul style="list-style-type: none"> ▪ Gas Turbine - 9F.03, Dry Low NOx DLN 2.0+, Static Start ▪ Model MS9001-FA ▪ GT Generator: 324 LU, Hydrogen Cooled, 310.725 MVA, 15.75 kV, 50Hz, Static Excitation, LCI2100 Startup system, lube/seal, gas, H2, CO2, PEECC -Mark VIe, water wash, vent & AC packages. ▪ Standard heavy-duty, base-mounted, single shaft, three stages, installed with modulating inlet guide vanes. ▪ Designed for firing with natural gas fuel ▪ Load Commuting Inverter (LCI) adjustable frequency drive One (1) included for two (2) numbers of GTGs. ▪ Evaporative cooling system (on-off type) ▪ Air Intake & Exhaust system Bypass stack (with blanking plate arrangement), and one water wash system. ▪ The package also includes auxiliaries like lubricating / Hydraulic, seal oil, gas control valves, control system Modules (MK VIe), excitation system. spares (Fuel Nozzle, combustion liner, caps, Stage 1,2,3 buckets)
2	Steam Turbine	<p>Manufacturer: M/s General Electric, USA Specifications:</p> <ul style="list-style-type: none"> ▪ Model D11 TC-Down flow ▪ 324 H model Generator, Hydrogen cooled, 324.760 MVA, 15.75 kV, 50HZ, Static Excitation ▪ Two-cylinders (combined HP/IP)

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			<p>and double flow LP)</p> <ul style="list-style-type: none"> ▪ Reheat, condensing type having provision for injecting IP steam and LP steam at intermediate stages. ▪ Directly coupled to a 3000 rpm synchronous Generator. ▪ The Supply includes auxiliaries like lubricating / Hydraulic, seal oil, excitation system.
3	Condenser & Auxiliaries	2 Sets	<p>Manufacturer: M/s Hangzhou Boiler Group, China.</p> <p>Specifications:</p> <ul style="list-style-type: none"> • Non De-aerating Surface condenser with two pass, 42849 m³/h; 25.4mm OD; 732 TPH, 2x100% Vacuum pump
4	HRS&G & Auxiliaries	4sets	<p>Manufacturer: M/s CMI, USA</p> <p>Specifications:</p> <ul style="list-style-type: none"> • Triple pressure, reheat, natural circulation type, unfired, horizontal, outdoor type HRS&Gs to produce steam for the condensing type Steam Turbine Units (Two HRS&Gs to feed one Steam Turbine). • 2x100% vertical, multistage, canister type, electrical motor driven Condensate Extraction Pumps (CEP) • Cascading Steam Turbine Bypass system, High pressure chemical feed system and complete ducting system from gas turbine outlet to HRS&G inlet. <p>All accessories and auxiliaries including drums, super heaters, evaporators, economizer, condensate pre-heater, circulation pumps for LP economizers etc. Associated auxiliaries like Boiler Feed Pumps, Blow down tanks, Steel stack, Feed regulating station, Super heater / Reheater steam temperature control</p>

Annexure – 2: Specification of Equipment

S/N	Name of the Equipment Offered	Nos. Offered	Details / Broad Specification
			system, integral HRSG piping and piping between HRSG and Steam turbine package including 100% HP/IP/LP.
5	Pre fabricated Power house building Structure with connectors	9592 MT	Manufacturer : M/S HXSS, China
B	Mechanical		
1	Induced Draft Cooling Tower & Auxiliaries	2 Sets	Manufacturer: M/s Hamon, China/ India Specifications: <ul style="list-style-type: none"> • FRP Structure, Splash type • 18 cells, 18 fan, G.box, shaft & motor Assembly (415V/3Ph/50Hz/75 KW)
2	Circulating Water (CW) Pumps & Motor	5 No's Pumps & 6 No's Motors	Manufacturer: M/s WPIL <ul style="list-style-type: none"> • Vertical Pump, 23500 m3/h, 24 MWC, 2.1MW, 6.6KV, 50Hz, 3 Ph
3	Vertical Pumps along with drives	3 No's	Manufacturer: M/s Flow more <ul style="list-style-type: none"> • 2 No's Auxiliary Cooling water Pumps (ACW) 1650 m3/hr, 28MWC. • 1 No. of Cooling tower make-up Pump (CT) 1320m3/hr, 16MWC.
4	Plate Heat Exchanger	2 Sets	Manufacturer: M/s GEA Ecoflex <ul style="list-style-type: none"> • 2W + 1S , model : NT 350 S
5	Horizontal Pumps	8 Sets of pumps & motor +3 motors	Manufacturer: M/s WPIL <ul style="list-style-type: none"> • 4 no's of DM Closed circuit Cooling water pump 2660 m3/hr, 50MWC (DMCW), • 4 no's HRSG Make Up PP 18m3/hr, 50M WC , • 3 no's of 500 mm & 600mm (ACW booster pump) motor & no pumps
6	Butterfly valves	1 Lot	Manufacturer: M/s Fouress <ul style="list-style-type: none"> • 8 no's of 2000 mm (for condenser), • 5 no's of 2000 mm (CW pump discharge), • 2 no's of 450 mm (CT Make up) • 1 no. of 500 mm (ACW PP discharge)

Annexure – 2: Specification of Equipment

S/N	Name of the Equipment Offered	Nos. Offered	Details / Broad Specification
			<ul style="list-style-type: none"> • 27 No's of 500 mm (ACW + DMCCW + PHE system valves) • 2 No's of 500 mm (RW) • 8 No's of 500 mm & 600mm - (ACW booster pump) • Misc Valves
7	Rubber Expansion Joints	1 Set	Manufacturer: M/s SRM Exoflex <ul style="list-style-type: none"> • Condenser, CW pumps & Misc. pumps
8	Electric Overhead Travelling (EOT) Cranes	4 No's	Manufacturer: M/s Anupam Industries, India Specifications: <ul style="list-style-type: none"> • 2 no of Double girder Electric Overhead Travelling (EOT) Cranes: 95/15 T. for GTG hall, • 2 no of Double girder Electric Overhead Travelling Cranes : 90/15 T, 1 no. of Double girder for STG hall
9	Misc Cranes & Hoists	1 Set	Manufacturer: M/s Reva
10	Cooling Water (CW) Piping	563m	Manufacturer: PSL <ul style="list-style-type: none"> • 56m pipe of 3020mm OD & 10mm thickness • 507m pipe of 2032mm OD & 12mm thickness
11	Stop Log Gates	1 Set	Manufacturer: M/s Mechsol <ul style="list-style-type: none"> • Circulating water system, • Raw water system.
12	Cooling Water Treatment Plant	1 Set	Manufacturer: M/s Thermax <ul style="list-style-type: none"> • Circulating water dosing system
13	Low Pressure (LP) piping	1 Set	Manufacturer: M/s Rouna <ul style="list-style-type: none"> • Miscellaneous
14	Fuel Gas Conditioning	1 Set	Manufacturer: M/s Multitex <ul style="list-style-type: none"> • Knock out drums, • Gas scrubber, • Condensate tank, • Filter separator, • Piping & system
15	GRP Piping for River Intake Water	5973 m	Manufacturer: M/s Amiantit Fiberglass Industries

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S/N	Name of the Equipment Offered	Nos. Offered	Details / Broad Specification
			<ul style="list-style-type: none"> GRP Pipes 1000mm
C	Electrical		
1	Gas insulated Switchyard (GIS) - 400 KV	1 Set	Manufacturer: M/s Xian, China <ul style="list-style-type: none"> 400kV GIS
2	Generator Circuit Breaker (GCB) & Fittings	4 No's	Manufacturer: M/s ABB Schweiz AG, Switzerland Specifications: <ul style="list-style-type: none"> HECS-100L Plus, SF6, 253.KV, 13kA, 50 Hz
3	Generator Transformer	6 No's	Manufacturer: M/s Hyundai, Korea Specifications: <ul style="list-style-type: none"> Oil Filled, OFAF/ONAF/ONAN, 3Ph, 50Hz, 335/268/201MVA, 420/15.75kV
4	Dry Type transformers	14 No's	Manufacturer: M/s QRE,China <ul style="list-style-type: none"> 14 No's of 2 MVA, 6.6KV / 0.433 KV
5	Instrument Transformer	6 Sets	Manufacturer: M/s Alstom T&D India Ltd. <ul style="list-style-type: none"> 400KV Capacity Voltage Transformer (CVT); outdoor type; 4400 pF, 1phase
6	Unit Auxiliary Transformer (UAT)	4 Sets	Manufacturer: M/s Alstom T&D India Ltd <ul style="list-style-type: none"> 31.5 MVA; 15.75 / 6.9 KV; 3 Ph; 50 Hz;
7	Inter Connecting Transformer (ICT)	1 No's	Manufacturer: M/s Areva (Alstom), India <ul style="list-style-type: none"> 315 MVA transformer (400/220/33 KV configuration)
8	Aux Transformer (Oil Type)	3 No's	Manufacturer: M/s Victory Electricals Ltd <ul style="list-style-type: none"> 3 No's of 2.5 MVA, 6.6KV/0.433KV (for CW treatment)
9	Reactors	1 No's	Manufacturer: M/s Areva (Alstom), India <ul style="list-style-type: none"> One reactor 125 MVAR, 420KV, 3 phases, 50 Hz.
10	Wave Trap	8 no's	Manufacturer: M/s Alstom T&D India Ltd <ul style="list-style-type: none"> 400 KV, 3150 A, 1.0mH, 1 Phase, Outdoor, pedestal mounting.
11	Switchyard Equipment	1 Lot	EPMCC , Battery Chargers
12	Generator Bus duct (IPBD)	6 No's	Manufacturer: M/s C&S, India <ul style="list-style-type: none"> 17.5 KV ; Aluminium alloy
13	Electrical BOP	1 Set	Manufacturer: M/s L&T

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	Supply		<ul style="list-style-type: none"> • 1 no. of 4000A CT PMCC • 6 no's of 3000A MCC (each GT & ST) • 2 no's of 2000A Emergency PMCC • 2 no's of 800 A ventilation MCC • 2 no's of 1250 A MCC for STG • 4 no's of 630A MCC (for STG) • 2 no's of 400A ACDB • 2 no's of 800A / 125 V DCDB • 2 no's of 630A/220V DCDV • 4 no's of 170A / 220V battery Charger • 2 no's of 450A / 125V battery Charger • 2 no's of Emergency DG set 1250 KVA
14	HT SWGR (6.6 KV)	2 No's	Manufacturer: M/s L&T; <ul style="list-style-type: none"> • 2 No's vacuum circuit breakers.
15	Control & Relay Panel	1 Lot	Manufacturer: M/s Siemens Limited, <ul style="list-style-type: none"> • For 400 KV GIS Control and Protection
16	400kV EHV Cables	3.2 KMs	Manufacturer: M/s SFC, Japan <ul style="list-style-type: none"> • 800 Sq.mm. Cable
17	LT Cables	1 Lot	Manufacturer: M/s Teracom
18	Transmission Line	1 Lot	Manufacturer: M/s Kadevi Industries
D	Control & Instrumentation		
1	Distributed Control System (DCS)	1 Lot	Manufacturer: M/s Honeywell, India