

LIST OF ITEMS
ELECTRICAL ITEMS:

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S.No.	Item group code	Material Description
1	E1	Station batteries & Vehicle batteries of different capacities.
2	E2	Battery chargers of various capacities, rectifiers, UPS, stabilizers & spikers, power inverters, Thyristors and exchange battery cum boost charger.
3	E3	Power Transformers (including GTs, STs & UATs) of different ratings & make with various step up voltage ratings and inter bus Transformers 33/132/220 KV & their spares. Distribution Transformers of ratings up to 10 MVA & its spares welding transformer & their spares and silicagel of indicating & non-indicating type .Online moisture extraction equipment from transformer oil.
4	E4	HT< power cables including welding cable and Eot crane cable . Bus ducts and cable trays
5	E5	All types of control Cables of different sizes, cores & voltages, Thermocouple cables, compensating cables and other instrument cables.Fire retardant coating compound for cables.
6	E6	Electrical Insulating materials like, HV & LV bushigs and porecelain insulators, PVC tapes, cotton tapes, teflon tapes, glass texolite sheet, high gloss sheets, fibre glass materials, flame retardant tapes, varnish and other insulating compounds
7	E7	All types of HT breakers of votage ranges above 3.3 KV and HT switchgear including panels.
8	E8	All types of LT breakers of votage ranges up to 3.3 KV, and LT switchgear including panels.
9	E9	Meters viz., Ammeters, Volt meters, energy meters, PF meters, Frequency meters, Multimeters, Megger, Micro- ohmmeters, Potentiometers, Tong-testers, Panel meters, Dial Type Thermo Meters, Tachometers, Vibration meters (both digital & analog type) D-meters and stroboscope.
10	E10	Lighting fixtures and accessories like starters, bulbs, indicating lamps, tube lights, MV lamps, SV lamps, high masts, Ignitors & chokes, all types of electrical fans, Portable rechar geable torch lights and search lamps & GT lamps with their chargers.

11	E11	Wiring materials:- all types of switches, holders, all types of fuses, fuse holding units, distribution boards, junction boxes, electrical geasers, terminal blocks, CT links, Ferrules, lugs, cable jointing kits, heating elements, Isolators, miniature circuit breakers,power contactors & earthing Electrodes, timers, contactor coils, single phasing preventors, motor starters & its spares, all types of limit switches and push buttons of different colours.HT bolts & nuts.
12	E12	All types of protection relays & their accessories including panels. Instrument transformers (i.e., current transformers , potential transformers & capacitor vaoltage transformers of different voltages, class & burden ratings) , Lightning Arrestors and capacitors
13	E13	All types of electrical Motors including variable frequency drive
14	E14	Carbon brushes & holders for Generator & Exciters, resistance boxes and AVR spares, Generator rotor pole keys and Diesel Generator set & its spares.Hydrogen coolers
15	E15	Transformer oils
16	E16	11 KV/33 KV/220 KV Auminium clamps, ACSR conductor,bus bars and connectors for switch yard.
B. INSTRUMENTATION & CONTROLS		
(I). Spares for thermal stations & Hydel stations.		
17	IC1	Transducers for current, voltage, power factor, MW, MVAR & Frequency .Pressure and differential pressure transmitters. Thermocouples of different ratings. RTD's of different ratings and temperature sensitive detectors & flame scanners of different sizes Regulated power suppliers
18	IC2	Recorders, Recording charts, catridges, inks and other related equipments digital indicators, bargraph indicators and temperature scanners. Measuring gauges for temprature--pressure & level. All types of switches for temperature, pressure, level and flow (both digital & analog), orifices, flow nozzles, pitat tubes and transition pieces. Electronic level indication switches(hydrostep).
19	IC3	H2 purity analysers, Silica analysers, Dissolved Oxygen analysers & meters, peizeometers, graphical instruments and Geophysical instruments, conductivity meters, Turbidity meters, PH meters, Thermo valves, Dust monitors, flue gas analysers(O2,CO,CO2,NOX) & their accessories and vibration monitoring system.Air filter regulators & rotometers.

20	IC4	Cabinets consists of signal conditioning cards, analog (i/p & o/p) and digital (i/p& o/p) cards and interposing relay cabinets including relays, MMI (Man machine interface) cards, Microprocessor based alarm annouciaion system, Control desk push button stations, DDC system, PLC system, Turbo supervisory system (interfacing cards for differential expansion, case expansion, axial-shift, Eccentricity, vibrations & speed etc..).
21	IC5	Control valves/Power cylinders: Positioners, position/level transmitters, air lock relays, volume boosters, diaphragms, seal kits, solenoid valves, impulse pipes & its fittings and I/P convertors.
22	IC6	Calibration equipments for pressure & temperature and current& voltage, milli-amp source, signal generator and CRO (cathode ray tube oscilloscope) and hydrogen leak detector, Fire alarm system and Non contact thermometers
(II) Spares for Gas Stations		
23	IC7	Exhaust temperature measurement system including thermocouples, Wheel space measurement system, Compressor discharge pressure measurement system, Inlet guide vane control & actuator assembly with feedback measurement, Fuel oil spitter & spitter speed, Measurement system with pressure gauge assembly, Fuel oil stop valve with feedback system, Fuel pump clutch mechanism with solenoid valve, Liquid fuel pump by pass valve & servo valve, Flame scanners & Ignitors , Gas turbine speed pick-up & speed measurement, Load measurement system, Central cabinets consists of signal conditioning cards, analog (i/p & o/p) and digital (i/p& o/p)
C. TELECOMMUNICATION ITEMS		
24	TC1	EPABX, EPB Telephone instruments and junction Boxes .
25	TC2	Mobile phones, SIM cards, Mobile chargers and Cell phone Batteries
26	TC3	Public addressing systems, Stand Mikes, Cordless Mikes, VOICE Pros, Rocks and its accessories.
27	TC4	Telephone Cables, Armoured/ Unarmoured jelly filled telephone cables, Co-oxial cables, Single & Multi core cables required for Telephones, cables required for public addressing system, Copper cable and optical fibre cables.
28	TC5	Walkie-Talkies, walkie-talkie battery packs & chargers, VHF/UHF wire communication systems, RF Equipment and its accessories.
29	TC6	Power Line Communication Carrying equipment and its accessories.
D. COMPUTERS & RELATED EQUIPMENT		
30	CR1	Computers: Desktops, laptops and servers

31	CR2	Peripherals : Scanners, plotters, Laser, Inkjet/Deskjet, Dotmatrix, multifunction printers, line matrix printers, network printers
32	CR3	Computer Software : Licensed Software and application software
33	CR4	Network equipment : Switches, routers, Hubs, V-SAT equipment (Indoor & out door), racks, wireless equipment, bridges and modems. Cat 5E/6 cable.
34	CR5	Office automation equipment, copiers, multifunction devices, Videoconferencing equipment, Television, LCD projectors and Fax machines.
35	CR6	Computer related consumables like printer cartridges, printer ribbons, laser drums, toners, floppies, CDs, tapes, print heads and spares like hard disks, CD-drives, Floppy drives, Monitor, Network cards and pen drives
E. MECHANICAL ITEMS		
36	M1	Forged grinding balls in EN.44 and Hichrome grinding balls of various sizes and cylpebs
37	M2	Bulring segments, grinding rolls of different sizes for bowl mills.
38	M3	Gear Boxes of different sizes & types and its spares for conveyors, crushers & Mills and other applications. Ring gears / girth gears for ball mill and worm gears & shafts for bowl mills.
39	M4	All types of pumps (for water, oil, ash slurry & chemicals) for different applications in power stations and their spares.
40	M5	All types of IBR-Non-IBR valves with/without actuators of various sizes with different pressure & temperature ratings and their spares and plumbing materials.
41	M6	Various types of dampers & gates with and without actuators and their spares
42	M7	Fluid, gear and flexible couplings of various sizes & types .
43	M8	Ferrous materials like MS, CS, SS, ASplates, pipes, bends, fittings, flanges, ERW and seamless pipes etc., for different applications(IBR/Non-IBR). Non-ferrous materials like Copper, Bross, Aluminium and bronze etc., utilised for power plants(excluding Structural Steel & Reinforcement Steel)
44	M9	Air pre-heaters (both Tubular and regenerative type) and their spares
45	M10	Electrostatic prespirators (ESPS) , Dust suppression system and their spares
46	M11	Boiler pressure parts viz., tubes, bends and headers of various sizes and materials as per Indian Boiler Regulations.Boiler mountings.

47	M12	Steel castings and fabricated items for use as spares for boilers of thermal stations including spares for coal firing system, Soot blower, oil firing system (i.e., oil gun & ignitor), protect shields (shrouds), fabric expansion joints, metallic expansion bellows and insulation fixing materials.
48	M13	Steel castings and fabricated items for use as spares for coal mills & Coal feeders of thermal stations including various sizes & types of coal mill liners & wedge bars.
49	M14	Steel fabricated items for use as spares for ID fans, FD fans and PA fans, seal air fans, ignitor fans, scanner fans, vapour fans & their spares including impeller, shafts & housings.
50	M15	Steel castings & fabricated items for use as spares for hydel/steam turbines & their auxiliaries.
51	M16	Steel castings and fabricated items for use as Spares for Ash handling plants of thermal stations including clinker grinder & its spares.
52	M17	Steel castings and fabricated items for use as spares for coal handling plants of thermal stations
53	M18	Nylon/ Nylon, FR grade, heavy duty, coal conveyor belts of various sizes with different ratings & plies and Gravimetric feeder belts of various sizes.
54	M19	Coal crusher hammers in Mn.steel of grade-I & IV and other materials.
55	M20	All types of conveyor Idlers & its frames of various sizes, pulleys of different sizes & types, Roller Chain, pully blocks and sprockets, scrappers and side arm charger.
56	M21	Dozers & LOCOs & their spares, hydraulic motors for wagon tippers and wagon tippler spares(viz., polyurethane(pu) pads & screens etc.), Cranes and their spares.
57	M22	In motion weigh bridge of pit & pit less type, static weigh bridges and their load cells. Belt weighers of mechanical / electronic and precision type electronic weigh balances.
58	M23	Bearing fitting tools, Generator brake pads and plummer blocks of different sizes (bearing housing), different types of self lubricating bushes and sleeves.
59	M24	Stain less steel hoses & Rubber hoses with end fittings for oil guns, ignitors, steam & air
60	M25	Steel wire ropes, poly propylene ropes, rope slings and lifting accessories.
61	M26	Filters & strainers for Air/Liquid/Gas including transformer oil filters.
62	M27	Heat exchangers for different applications, tube nest assembly / finned tube assembly, cooler tubes of different sizes and materials including condensor tubes.

63	M28	Condensor on line tube cleaning equipment & their spares including sponge balls.
64	M29	Lifts & hoists of various sizes and their accessories and EOT crane & their spares .
65	M30	Air compressor & their spares.
66	M31	Mulsifier system and their spares.
67	M32	Fire fighting system and their spares.
68	M33	Air conditioning equipments & their spares, Industrial ventilation and evaporative cooling system and blowers.
69	M34	Hydraulic hoist cylinders, penstock gate hoists & servo-motors and its spares using in Hydrel power stations.
70	M35	Hard plates / wear resistance plates
F. CHEMICALS AND GASES		
71	CG1	Chemicals like caustic soda, hydrazine hydrate, tri-sodium phosphate, filter alum(Non ferric), thermolite powder (calcium silicate powder),hydrogen cells, sulphuric acid, sulfamic acid,hydrochloric acid, liquid chlorine, liquid ammonia , antiscalent biocides, and their accessories & equipments.
72	CG2	Anoin and cation resins for water treatment plant. Activated carbon,Chemical reagents, Laboratory glass ware, polythene ware , consumables for water purification system and watertreatment laboratory instruments .
73	CG3	Oxygen, DA gas, Freon-22, Argon, CO ₂ , SF ₆ gas, Hydrogen gas, Dry Nitrogen gas (99.99% purity), Ammonia gas, calibration test gas, mafron gas, commercial LP gas and empty cylinders & their accessories for the above gases.
G. CIVIL ITEMS		
74	C2	Cement
75	C3	Railway Track materials and PSC Sleepers.Ribbed sheet and currogated sheet
76	C4	PVC fill materials in cooling towers and cooling tower applications, PVC pipes and HDPE pipes.
77	C5	CI pipes & connecting materials, GI pipes, GI specials, GI chain link mesh and MS grill & coils using in civil works and GRP pipes.
78	C6	Construction chemicals and repair materials in civil works.
79	C7	Surveying instruments and total station and construction machinery.
80	C8	Street light poles and spun pipes.
81	C9	Water coolers, water purifiers, Electro Chlorinators and pressure filters for portable water.
82	C10	Ceramic fibre blankets, ceramic tiles and ceramic spares.
H. GENERAL ITEMS		
83	G1	Canvas cloth, cotton waste, vexer netting cloth, dungry cloth, uniform cloth, gunny cloth, tarapauline, Door mats.

84	G2	Stationary items including printed stationary
85	G3	Carpentry items, Wooden planks, Wooden/Aluminium ladder and Furniture.
86	G4	Floor cleaning items (viz., phenol, acid, surf, soaps), broomsticks, Rustolene, Contact cleaners and Di-penatrate test (DPT) material
87	G5	Abrasive products viz., wire brushes, grinding wheels and cutting wheels
88	G6	Adhesives like anabond, araldite, M-seals, dendrite, Epoxy putties, belzona compound, silicon sealant. Valve lapping compound and malicoat grease.
89	G7	Plants and Varnishes (ISI MARK ONLY)
90	G8	Hand gloves (viz., Asbestos, Leather, Rubber & Cloth) for safety, safety helmets, gum boots, safety shoes, chappals & asbestos shoes, disposable industrial face masks, nose filter, Ear plugs and other safety appliances (viz., Multizone Door Frame Metal Detector, Non-Linear Junction detector, portable explosive vapor detector, handheld metal detector , dangerous liquid detector, fountain explosive blast inhibiting devices, bomb disposal & detection and automatic fire extinguishers). Fire alarm spares
91	G9	Oil seals, O rings. Chloroprene/Nylon rubber chords, chloroprene rubber sheets, rubber gaskets, Neoprene rubber sheet, V-belts and rubber bellows, Teflon tubes, teflon rods, rubber expansion joints, mechanical seals , Cork sheet & felt packing. various types of hoses.
92	G10	Tyres & Tubes (for Cars, Jeeps, Tractor, Trailers, Lorries, Buses , Fire vehicles and Cranes) . All types of vehicals (Cars, Jeeps, Tractor, Trailers, Lorries, Buses , Fire vehicles and Cranes) and their spares.
93	G11	All types Welding electrodes and Filler wires using in power stations. Welding equipments & their accessories.
94	G12	Hardware materials of different types and sizes in MS/SS materials (viz., Bolts, Nuts, studs, rivets, self tapping screws, washers), binding wire, hacksaw blades and soldering lead.
95	G13	Various Tools & Plants (viz., Gas regulators & cutting torch, tapsets, spanners, Drilling machine, hand held power saw, various types of grinding machines, chain wrenches, crimping tool, cutting pliers, hammers, torche wrenches, grease gun buckets, hydraulic jacks & their spares.
96	G14	Liquid detergent for gas turbine water washing (ZO k 27), Lubricating and cleaning penetrants like WD-40 spray, AC-90 spray and anticeize spray using in Gas power stations.

97	G15	Gland packing rings, gland packing ropes of various sizes in Asbestos / Teflon and other materials with and without reinforcement .Various types of jointing sheets in metallic/Non-metallic and asbestos cloth and gaskets .
98	G16	LRB mattresses & mineral wool and Refractory materials (Fire crete, thermolite powder/ calcium silicate powder) and other thermal insulation materials.
99	G17	Lubricants & greases for different applications. Gear oil, Hydraulic oil, industrial white kerosene, Petrole, HSD and Furnace oil
Chief Engineer/Coal & Commercial		