

		Project/ परियोजना : Package/ पैकेज : EPC PACKAGE Supplier/ आपूर्तिकर्ता : Contract No. / अनुबंध सं. :			LIST OF ITEMS REQUIRING QUALITY PLAN AND SUB-SUPPLIER APPROVAL क्वालिटी प्लान तथा सब-सप्लायर के अनुमोदन सहित मदों की सूची SUB-SYSTEM 33-क्याबिली: ELECTRICAL				Doc. No./दस्तावेज सं. : REVISION NO. : DATE/ दिनांक : 31.03.2024	
S. No. क्र.सं	Item / मद	QP/ Insp. Cat. क्वा.पं. / निरी. श्रेणी.	QP No. / क्वा.पं. सं.	QP Sub. Schedule क्वा.पं. उप.अनुसू. वि	Proposed sub-supplier/ प्रस्तावित उप आपूर्तिकर्ता	Place/ स्थान	Sub-suppliers approval status / category उप आपूर्तिकर्ता के अनुमोदन की स्थिति / श्रेणी	Sub-supplier Details sub sch/ उप आपूर्तिकर्ता के विवरण प्रस्तुतीकरण की सूची	Remarks/ टिप्पणी	
1	GENERATOR	CAT I			BHEL	Haridwar	A			
					Siemens	Germany	A			
					GE	Sasand	A			
					GE	POLAND	A			
					MELCO	JAPAN	A			
					LMTC	India	A			
					Hitachi	Japan	A			
					Toshiba	Japan	A			
					TIPS	Chennai	A			
2	Power Transformers	CAT I			ABB	Sweden	A		Up to 765 KV Class	
					ABB	Vadodara	A		Up to 765 KV Class	
					Toshiba	Japan	A		Up to 765 KV Class	
					CG Power & Industrial Solutions Ltd	Mandideep	A		Up to 765 KV Class	
					BHEL	Bhopal	A		Up to 400 KV Class	
					Siemens	Mumbai	A		Up to 400 KV Class	
					GE T&D India Limited	Naini	A		Up to 400 KV Class	
					GE T&D India Limited	Vadodara	A		Up to 765 KV Class	
					TELK	Angamaly	A		Up to 400 KV Class	
3	Shunt Reactor	CAT I			ABB	Sweden	A		Up to 765 KV Class	
					ABB	Vadodara	A		Up to 765 KV Class	
					Toshiba	Japan	A		Up to 765 KV Class	
					CG Power & Industrial Solutions Ltd	Mandideep	A		Up to 765 KV class	
					BHEL	Bhopal	A		Up to 400 KV Class	
					Siemens	Mumbai	A		Up to 400 KV Class	
					GE T&D India Limited	Vadodara	A		Up to 765 KV Class	
					GE T&D India Limited	Naini	A		Up to 400 KV Class	
4	Auxiliary Oil Filled Transformers	CAT I			BHEL	Bhansi	A		Up to 220 KV Class	
					Indotech Transformers	Chennai	A		Up to 18 MVA, 11 KV Class	
					Kanskar	Mumbai	A		Up to 16 MVA, 33 KV Class	
					Kirloskar Electric Company Limited	Mysore	A		Up to 16 MVA, 33 KV Class	
					Schneider	Vadodara	A		Up to 50MVA, 132 KV Class	
					Transformers & Rectifiers Ltd.	Ahmedabad	A		Up to 90 MVA, 132 KV Class	
					CG Power & Industrial Solutions Ltd	Malangpur	A		Up to 50MVA, 132KV Class	
					Voltamp	Saudi	A		Up to 33 MVA, 33 KV Class	
					Shree Abhirami Engineering	Sri Perambudalur	A		Up to 2.5MVA, 11KV Class	
					TESLA TRANSFORMERS INDIA LIMITED	Bhopal	A		Up to 9MVA, 11KV Class	
5	Dry Type Transformer	CAT I			ABB	Swit	A		Up to 8 MVA, 24 KV Class	
					Raychem	Pune	A		Up to 3.5 MVA, 33 KV Class	
					Toshiba	Hyderabad	A		Up to 2.0 MVA, 33 KV Class	
					BHEL	Bhansi	A		Up to 6.3 MVA, 33 KV Class	
					Kirloskar Electric Company Limited	Pune	A		Up to 4.0 MVA, 33 KV Class	
					Voltamp	Saudi	A		Up to 3.5 MVA, 33 KV Class	
					Ames Impex	Mehsana Gujarat	A		Up to 1.6 MVA, 11 KV Class	
					Sudhir Power Ltd	Silvassa	A		Up to 1 MVA, 11 KV Class	
					Hammond Power Solutions	Hyderabad	A		Up to 95 KVA, 33KV Class	
6	OIP/RIP BUSHING				BHEL	Bhopal	A		Up to 400 KV class	
					Crompton Greaves Ltd	Nasik	A		Up to 400 KV class	
					Crompton Greaves Ltd	Aurangabad	A		Up to 400 KV class	
					ABB Ltd.	Vadodara	A		Up to 245 KV Class (excluding GT)	
					ABB Switzerland Ltd. MICAfil, Bushings	Switzerland	A		Up to 400 KV class	
					TELK	Angamaly	A		Up to 400 KV class	
					GE T&D India Limited	Hosur	A		Up to 400 KV class	
					Alkatom-Passoni Villa	Italy	A		Up to 400 KV class	
					ABB Power Tech Products	Sweden	A		Up to 400 KV class	
					Trench	France	A		Up to 400 KV class	
6.1	OIP/CONDENSER BUSHING	CAT II			ABB AB Components	Sweden	A		Up to 420 KV Class	
					ABB Micafil	Switzerland	A		Up to 420 KV Class	
					Isolytor	Russia	A		Up to 420 KV Class	
					HSP	Germany	A		Up to 420 KV Class	
					Yash High Voltage	Vadodara	A		Up to 145 KV Class	
6.2	RIP Bushing	CAT I			Apar Industries	Rabale/Silvassa	A			
					Power Oil Petroleum Products	Silvassa	A			
					WYNAS/ARTHEMIS AB	SWEDEN / USA	A			
					Kanden Enge Corp Ltd	Japan	A			
					Wynas Ltd	Hongkong	A			
					Raj Petro Specialities	Chennai/Silvassa	A			
					Savita Oil Technologies	Mumbai/Silvassa	A			
7	INSULATING OIL	CAT I			GE Kelmen Ltd	UK	A			
					GE GRID SOLUTIONS LTD	LISBURN, UK	A			
					Serveron	USA	A			
					CIC	Vadodara	A		Approval Conditions apply	
					Morgan Schaeffer	Canada	A			
8	ON LINE OGA ANALYZER	CAT III			ABB	VADODARA	A		UPTO 400KV	
					GE T&D	HOSUR	A		UPTO 765 KV	
					BHEL	BHANSI	A		UPTO 400KV	
					MEHRU ELECTRICALS	BHIWADI	A		UPTO 132 KV	
					CGL	NASHIK	A		UPTO 400KV	
9	CAPACITIVE VOLTAGE TRANSFORMER (CVT)	CAT I			WEG	BRAZIL	A		UPTO 340SKV,11KV	
					HYOSUNG	SKOREA	A		UPTO 2800KW,6.6KV	
					BHEL	BHOPAL	A			
10	HT Motor				HYOSUNG	SOUTH KOREA	A		UPTO 11KV 13.5 MW	
					BHEL	BHOPAL	A		RQP	
					HYUNDAI	SOUTH KOREA	A		UPTO 11KV 17 MW	
10.1	HT Motors (CW PUMP MOTOR)	CAT I			HYOSUNG	SOUTH KOREA	A		UPTO 11KV 13.5 MW	
					WEG	HOSUR	A		UPTO 11KV 14 MW	
					BHEL	BHOPAL	A		RQP	
					HYUNDAI	SOUTH KOREA	A		UPTO 11KV 17 MW	
10.2	HT MOTORS (BFP Motor)	CAT I			WEG	HOSUR	A		UPTO 11KV 13.5 MW	
					BHEL	BHOPAL	A		UPTO 11KV 14 MW	
					HYUNDAI	SOUTH KOREA	A		UPTO 11KV 17 MW	
					TMEIC	BENGALURU	A		UPTO 11 KV 5000 KW	
10.3	HT MOTORS (ID Fan Motors)	CAT I			HYOSUNG	SOUTH KOREA	A		UPTO 11KV 13.5 MW	
					WEG	BRAZIL	A		UPTO 11KV 2150 KW	
					WEG	HOSUR	A		UPTO 11KV 14 MW	
					BHEL	BHOPAL	A		RQP	
					HYUNDAI	SOUTH KOREA	A		UPTO 11KV 17 MW	
					TMEIC	BENGALURU	A		UPTO 11 KV 5000 KW	
10.4	HT MOTOR FOR OTHER EQUIPMENTS	CAT - I			HYOSUNG	KOREA	A		UPTO 11KV 13.5 MW	
					WEG	BRAZIL	A		UPTO 11KV 2150 KW	
					WEG	HOSUR	A		UPTO 11KV 14 MW	
					BHEL	BHOPAL	A		RQP	
					HYUNDAI	KOREA	A		UPTO 11KV 17 MW	
					TELCO	TAIWAN	A		UPTO 11KV 12 MW	
					TMEIC	JAPAN	A		UPTO 11KV 14 MW	
					CONVERTEAM	FRANCE	A		UPTO 11KV 18 MW (*DOCUMENTS FOR NAME CHANGE TO GE CONVERTEAM SHALL BE SUBMITTED FOR APPROVAL)	
					ABB	VADODARA	A		UPTO 6.6KV 2500 KW 11KV 2000 KW FOR PUMP/ FAN / COMPRESSOR UPTO 6.6KV 750KW FOR MILL, UPTO 6.6 KV 1300KW FOR CRUSHER WITH SCOP COUPLING	
					JILIN	KOREA	A		UPTO 11KV 2900 KW, 6.6KV 2500 KW	
					IYOTI	VADODARA	A		UPTO 6.6 KV 2250 KW EXCEPT CRUSHER & MILL APPLICATION	
					MARATHON	KOLKATA	A		RQP, UPTO 6.6 KV 1300 KW FOR CRUSHER WITH SCOOP COUPLING & 11 KV 1600 KW FOR OTHER APPLICATION EXCEPT CRUSHER & MILL	
					CGL (DS INDUSTRIAL AREA)	MANDIDEEP	A		UPTO 1650 KW 6.6 KV, 1350 KW 11 KV FOR PUMP, FAN, COMPRESSOR. UPTO 3.3 KV 335 KW WITH FLEXIBLE COUPLING FOR MILL APPLICATION	
					CGL(PLOT 9)	MANDIDEEP	A		UPTO 11 KV 4MW FOR PUMP/FAN/COMPRESSOR	

			CG ELECTRIC SYSTEM	HUNGARY	A		UPTO 3.3 KV 1100 KW
			TMEIC	BENGALURU	A		UPTO 11 KV 5000 KW
11	LT MOTOR	CAT - I	ABB	FARIDABAD	A*	* SUBJECT TO VERIFICATION VISIT	UPTO 55KW
			ABB	BANGALORE	A		UPTO 690V, 475kW
			IYOTI LTD.	VADODARA	A		
			TIPM	JAPAN	A		UPTO 15 KW (NON FLAME PROOF)
			HYOSUNG	SOUTH KOREA	A		
			WEG	BRAZIL	A		
			HYUNDAI	SOUTH KOREA	A		
			LHP	SULAPUR	A		UPTO 400KW FROM B-16 WORKS. UPTO 200KW FROM B-11 WORKS.
			GGL	AHMEDNAGAR	A		RQP, FOR FLAME PROOF MOTOR
			TMEIC	JAPAN (NAGASAKHI)	A		
			NGCF	BANGALORE	A		UPTO 15 KW
			BHARAT BIJLEE	MUMBAI	A		RQP, FOR FLAME PROOF ALSO
			KEC	BANGALORE/ HUBLI*	A		*UPTO 90KW, RQP, FOR FLAME PROOF ALSO
			MARATHON	KOLKATA	A		RQP (UPTO 690V & 600 KW) FOR FLAME PROOF ALSO
			ABB	SWEDEN	A		UPTO 55KW
			HAVELL	NEEMRANA	A		UP TO 90KW
			KAWAMATA	JAPAN	A		UP TO 75 KW
			HSM industries	DAKAN	A		UP TO 30 KW
			TIPS	JAPAN	A		UP TO 45KW
11.1	DC Motor (refer Note-7)	CAT I	GGL	AHMEDNAGAR	A		
12	LT Switchgear - Floor mounted Draw out type indoor switchgear Panel (MCC, ACDB / DCDB etc)	CAT I					
			Schneider (formerly L&T)	Mumbai / Coimbatore/ Ahmednagar	A		
			C&S Electric	Noida / Haridwar	A		
			Schneider	Nasik	A		ACB from Schneider, France
			Siemens	Kalva	A		Conditions apply
			Schneider	Vadodara	A		
12.1	Numerical Relays	CAT I	SEL	Pullman, USA	A		
			GE T&D	Stafford, UK	A		P14X, P34X, P44X, P64X, P74X models
			GE T&D	Chennai	A		P14X, P24X, P34X, P44X, P64X, P74X models
			ABB	Finland	A		
			ABB	Baroda	A		For 6XX Series
			GE	Zamudio, Vizcaya, Spain/ Markham, Ontario, Canada	A		F-650 only
			Schneider	Stone-UK, Vassa- Finland	A		PK30, PK40, VAMP 5X and VAMP 2XX models
			Siemens	Germany	A		
			Siemens	Gisa	A		
			Schneider Electric	Bengaluru	A		7SK Series only
			Schneider Electric	Latvika	A		
12.2	LV Air Circuit Breaker	CAT II	C&S Electric	Noida	A		
			L&T	Mumbai	A		
			GE	Bangalore	A		
			Siemens	Germany	A		
			Schneider	France	A		
12.3	LT CT/PT/CBCT / Control Transformer	CAT III	Kappa	Bangalore	A		
			Southern Electric	Chennai	A		
			Precise	Mumbai	A		
			G&M	Baroda	A		CBCT Only
			SILKams	Mumbai	A		
			Indi Coil	Mumbai	A		
			Pragati	Thane	A		
			Prayog	Pune	A		
			AE	Mumbai	A		
			LogisStat	Delhi	A		For control transformer only
			C&S Electric	Noida	A		For CT only
			Newtek	Aurangabad	A		For CT /PT/ Control transformer
13	LT Switchgear - Floor mounted Fixed type indoor LT Switchgear Panel (MLDB)	CAT I	Switching Circuits	Kolkata	A		
			Hindustan Control & equipment Ltd	Kolkata	A		With fabrication & painting at unit II & MP
			Maktel	Vadodara	A		Electrical Narendrapur
			Jakson	Greater Noida	A		Prior Type Testing
			Vidyut Control	Gazitabad	A		
			Adlec Power	Rohad (Bajar)	A		
			Conquerent Control System	Manesar	A		Condition apply upto 1250A
			Control & Schematics	Hyderabad	A		
			Positronics	Vadodara	A		
			Schneider (formerly L&T)	Mumbai / Coimbatore/Ahmednagar	A		
			GE	Bangalore	A		
			C&S Electric	Noida/Haridwar	A		
			Schneider	Nasik	A		
			Pyrotech	Udaipur	A		
			Siemens	Kalva	A		
			Tricolite	Sahibabad/Manesar	A		
			Schneider	Vadodara	A		
			Nitya Electrocontrols	Noida	A		
13.1	LT Switchgear - Wall mounted fixed type indoor / outdoor LT Switchgear non compartmentalised Panel (Lighting panels / AC / DC Fuse boards etc.) Power Panel, Emergency Lighting Panel	CAT I	Control Devices	Kolkata	A		
			Jasper	Noida	A		
			Harellis	Faridabad	A		
			Novateur Electrical & distribution systems	Murthal	A		
			Avaid Technovator	Manesar	A		
			Switching Circuits	Kolkata	A		
			Hindustan Control & equipment Ltd	Kolkata	A		With fabrication & painting at unit II & MP
			Maktel	Vadodara	A		Electrical Narendrapur
			Jakson	Greater Noida	A		Prior Type Testing
			Vidyut Control	Gazitabad	A		
			Adlec Power	Rohad (Bajar)	A		
			Conquerent Control System	Manesar	A		Condition apply upto 1250A
			Control & Schematics	Hyderabad	A		
			Positronics	Vadodara	A		
			L&T	Mumbai / Coimbatore/ Ahmednagar	A		
			GE	Bangalore	A		
			C&S Electric	Noida / HARIDWAR	A		
			Schneider	Nasik	A		
			Pyrotech	Udaipur	A		
			Siemens	Kalva	A		
			Tricolite	Sahibabad/Manesar	A		
			Nitya Electrocontrols	Noida	A		
			Saravana Switchgear	Bengaluru	A		
13.2	LT Switchgear - Floor mounted Fixed type indoor LT Switchgear Panel (MLDB)	CAT I	Switching Circuits	Kolkata	A		
			Hindustan Control & equipment Ltd	Kolkata	A		With fabrication & painting at unit II & MP
			Maktel	Vadodara	A		Electrical Narendrapur
			Jakson	Greater Noida	A		Prior Type Testing
			Vidyut Control	Gazitabad	A		
			Adlec Power	Rohad (Bajar)	A		
			Conquerent Control System	Manesar	A		Condition apply upto 1250A
			Control & Schematics	Hyderabad	A		
			Positronics	Vadodara	A		
			Schneider (formerly L&T)	Mumbai / Coimbatore/Ahmednagar	A		
			GE	Bangalore	A		
			C&S Electric	Noida/Haridwar	A		
			Schneider	Nasik	A		
			Pyrotech	Udaipur	A		
			Siemens	Kalva	A		
			Tricolite	Sahibabad/Manesar	A		

				Schneider	Vadodara	A			
				Nitya Electrocontrols	Moinda	A			
14	MV Switchgear Panel	CAT I		BHEL	Bhopal	A		Upto 33KV	
				Megawin	Salem	A*		Upto 33KV	*SUBJECT RESOLUTION OF SITE ISSUES
				Schneider Electric India (Formerly L&T)	Ahmednagar	A		Upto 33KV	
				Siemens	Mumbai	A		Upto 33KV	
				ABB	Nasik	A		Upto 33KV	
				Schneider	Vadodara	A		Upto 11KV	
				Schneider (Salt lake works)	Kolkata	A		Upto 11KV	
14.1	Fast Bus Transfer panel along with relay	CAT I		Aartech	Parwanoo	A		conditions apply	
				ABB	Vadodara	A		conditions apply	
				SEL	Delhi	A		conditions apply	
15	LT VFD Control Panel	CAT I							
				Powertech	Sonepat	A		Upto 55 KW with following conditions: i) VFD from Schneider- France, upto 415V, 50KW. ii) Enclosure & bought out items shall be from NTPC, acceptable makes & iii) Engineering support for integration will be provided by Schneider/ Authorized integrator of Schneider	
				DANFOSS	Oragadam	A		(upto 690V, 1200KW), VFD drives with VFD sourced from Danfoss- Denmark/USA and Panel sourced from Rittal	
				YASAKAWA	Japan	A		VFD from Yasakawa- Japan, Upto 415V, 132KW	
				YASKAWA	BANGALORE	A		UPTO 415V, 315KW	
				ROCKWELL AUTOMATION	SAHIBABAD	A		VFD from Rockwell(Allen Bradley)- USA, (Upto 415 V, 600 KW)	
				ABB	BANGALURU	A		VFD from ABB-Finland, Upto 690V, 750 KW	
				SIEMENS	NASIK	A		VFD from SIEMENS- Germany, Upto 690V, 900KW	
				SEPL	Navi Mumbai	A		LT VFD upto 575KW, 690V	
				AMTECH	GANDHINAGAR	A		UPTO 75KW RATING	
				VACON	BANGALORE	A		VFD(NXP model) from VACON Finland, upto 400KW, 415V and upto 900KW, 690V	
15.1	MV VFD Control Panel	CAT I		HITACHI HI REL. POWER ELECTRONICS PVT. LTD.	SANAND	A		upto 11 KV rating	
				TMEIC INDUSTRIAL SYSTEMS INDIA PRIVATE LIMITED	TUMKUR	A		upto 11 KV rating	
16	Fire sealing system - Type A Material supplier	CAT I		3M India	Bangalore	A			
				GE Silicon	USA	A			
				Hilti	Germany	A			
				DOW Corning	USA	A			
16.1	Fire sealing system - Type B Material supplier	CAT I		LLOYDS	Delhi	A			
				Signum	Nagpur	A			
				Vijay System Engineers Pvt Ltd	Valsad	A			
16.2	Executing Agency for Fire sealing system	CAT I		LLOYDS	Delhi	A			
				Signum	Nagpur	A			
				Vijay System Engineers Pvt Ltd	Valsad	A			
				3M India	Bangalore	A			
17	CURRENT TRANSFORMER	CAT I		Mehru Electrical	Bhivadi	A		UP TO 132 KV	
				GE T&D	Bhosur	A		UP TO 765 KV	
				ABB	Vadodara	A		UP TO 400KV	
				CGL	Nasik	A		UP TO 400KV	
				BHEL	Bhopal	A		UP TO 400KV	
				BHEL	Jhansi	A		UP TO 220 KV	
				Vishal Transformer	Meerut	A		UP TO 132 KV	
				Heptacore	Meerut	A		UP TO 33KV	
18	GIS	CAT-I		ABB / HITACHI ENERGY INDIA LIMITED	VADODARA	A		UPTO 400kV	
				GE T&D	CHENNAI	A			
				HYOSUNG	SKOREA	A			
				HYOSUNG T&D INDIA PVT LTD	PUNE	A		UPTO 400KV	
18.1	CIRCUIT BREAKER	CAT I		GE T&D	KANCHIPURAM	A		UP TO 765 KV	
				ABB	VADODARA	A		UP TO 400KV	
				SIEMENS	AURANGABAD	A		UP TO 400 KV	
				BHEL	Hyderabad	A		UP TO 400 KV	
				CGL	NASHIK	A		UP TO 400 KV	
19	ISOLATOR	CAT I		GR POWER	HYDERABAD	A		UP TO 400KV	
				HIVELM	CHENNAI	A		UP TO 400KV	
				S&S POWER	PONDICHERRY	A		UP TO 400KV	
				SIEMENS	HYDERABAD	A		UP TO 765 KV	
				ELEKTROLITES	JAIPIUR	A		UP TO 33 KV	
				SWITCHGEAR & STRUCTURALS	HYDERABAD	A		UP TO 765 KV	
20	SURGE ARRESTOR	CAT I		CGL	NASIK	A		UP TO 400KV	
				ELEKTROLITES	JAIPIUR	A		UP TO 33 KV	
				LAMCO	HYDERABAD	A		UP TO 400KV	
				ORLUM	HYDERABAD	A		UP TO 765 KV	
21	CLAMPS & CONNECTORS & WELDING SLEEVES	CAT I		ELCTROMECH TRANSTECH	KOLKATA	A			
				EXALT	MUMBAI	A			
				KLEMMEN ENGG	CHENNAI	A			
				MEGHA ENGG	CHENNAI	A			
				MILIND	MUMBAI	A			
				EMI	MUMBAI	A			
				NOOFAN ENGG	MUMBAI	A			
				TAG CORPORATION	CHENNAI	A			
				ITPL	MUMBAI	A			
				RASHTRA UDVOG	KOLKATA	A			
				Premier Power Products	Chennai	A			
				PEEVEE ENGG	BANGALORE	A			
21.1	ACSR CONDUCTOR	CAT I		APAR INDUSTRIES	SILVASSA	A			
				CABCON	KOLKATA	A			
				DIAMOND	VADODARA	A			
				GALANT	SANGLI	A			
				GUPTA POWER INFRA	BHUBANESWAR	A			
				HIRA CABLES	HIRAKUD	A			
				ISK	SILVASSA	A			
				LUMINO	KOLKATA	A			
				SARAVATHI	BANGALORE	A			
				HIREN ALUMINIUM	SILVASSA	A			
				SMITA	GHAZIABAD	A			
				SASHI CABLES LTD	LUCKNOW	A			
				Mahavir Transmission Limited	DEHRADUN	A			
21.2	ALUMINIUM TUBE	CAT I		ALOM EXTRUSIONS UNIT-II	BALASORE	A			
				BANCO	VADODARA	A			
				CENTURY EXTRUSION	KOLKATA	A			
				HINDALCO	RENIKOT	A			
				HINDALCO	ALUPURAM	A			
				JINDAL ALUMINIUM	BANGALORE	A			
				SUDAL	NASIK	A			
22	SUB STATION AUTOMATION SYSTEM (SCADA, GRP, ENERGY METER, NUMERICAL RELAYS, SWITCHBOARD PROTECTION)	CAT I		GE T&D	CHENNAI	A			
				ABB	PEENYA	A			
				SCHNEIDER	NOIDA	A			
				SIEMENS	KALWA/GOA	A			
				BHEL	BHOPAL	A			
23	AB Tariff energy meter	CAT I		SEMS	Udaipur/Solan	A			
				Ester	Mumbai	A			
				L&T	Mysore	A			For Model ER300P With CMS software.
24	SPV module	CAT I		BHEL	Bangalore	A			
				Warree	Surat	A			
				Emtoves	Bangalore	A			
				Vikram Solar	Parganas	A			

				Lanco Solar	Chattisgarh	A		
				Tata Power Solar	Bangalore	A		
				Alpex	Solar	A		
				Synergy	Durgapur	A		
				Photonix	Satara	A		
				HHV Solar	Bangalore	A		
25	Power Conditioning Unit (PCU)	CAT I		Schneider	Bangalore	A		Conditions apply
				ABB	Bangalore	A		Conditions apply
				Bongglioli	Germany	A		Conditions apply
				Fecon	Germany	A		
				AEI	Bangalore	A		Conditions apply
				Hirachi-Hirel	Gandhinagar	A		Conditions apply
				Hirachi-Hirel	Sanand	A		Conditions apply
				Vacon	Bangalore	A		Conditions apply
25.1	String Monitoring Box (SMB)	CAT II		Trinity Touch	Palwal	A		Conditions apply
				Hareed	Sripurumbalur	A		Conditions apply
				AEI	Bangalore	A		Conditions apply
				Statcon	Pilkhawa	A		Conditions apply
				Weidmuller	Spain	A		Conditions apply
25.2	BHV Cables	CAT I		Hjin Electric	South Korea	A		For 132KV & 220 KV only
				KEI International	Vadodara	A		Up to 220KV
				KEI Industries	Bhiwadi	A		Up to 132KV, 220KV
				Phelps Dodge	Bangkok	A		For 132 KV only
				LS CABLE & SYSTEM LTD	South Korea	A		Up to 400 KV
				LS CABLE & SYSTEM LTD	BHIWADI	A		Up to 132 KV
				Universal Cable Ltd.	Satna	A		Up to 132KV only
26	H.T. CABLE upto 33KV	CAT I		Apar Industries	Umbergaon	A		
				Gemscoab	Bhiwadi	A		
				Gupta Power	Kashipur	A		
				Havells India Ltd.	Alwar	A		
				KEI International	Vadodara	A		
				KEI Industries	Bhiwadi	A		
				Krishna Electrical Industries Ltd	Gwalior	A		
				Polycab Wires Pvt. Ltd	Daman	A		
				Sri ram Cables	Bhiwadi	A		
				Tirupati Plastomatics	Jalpur	A		
				Torrent Cable Ltd	Nadaid	A		
				CMI	Baddi	A		
				Universal Cable Ltd.	Satna	A		
				Dynamic Cables	Reengus	A		
27	1.1 KV LT Power Cables (Type- XLPE Insulated, PVC sheathed (incl FRLS))	Refer Note-5		Advance Cable	Bengaluru	A		
				Apar Industries Ltd	Umbergaon	A		
				Cords Cables	Bhiwadi	A		
				CMI	Faridabad	A		
				CMI	Baddi	A		
				Delton Cable Ltd	Faridabad	A		
				Dynamic Cables	Jalpur	A		
				Gemscoab Industries	Bhiwadi	A		
				Gupta Power Cables	Khurda	A		
				Havells India Ltd.	Alwar	A		
				KEI International	Silvassa, Mysore	A		
				KEI Industries	Bhiwadi	A		
				Paramount Cable	Khushkhira	A		
				Polycab Wires Pvt. Ltd	Daman	A		
				Ravin Cables	Pune	A		
				Special Cables	Rudrapur	A		
				Suyog Cables	Vadodara	A		
				Thermocables	Hyderabad	A		
				Tirupati Plastomatics	Jalpur	A		
				Torrent Cable Ltd	Nadaid	A		
				Universal Cable Ltd.	Satna	A		
				Ravi Industries	Sonepat	A		
28	LT Control Cable 1.1 KV, Type- PVC (incl FRLS)	Refer Note-5		Advance Cable	Bengaluru	A		
				Apar Industries Ltd	Umbergaon	A		
				Cords Cables	Bhiwadi	A		
				CMI	Faridabad	A		
				CMI	Baddi	A		
				Delton Cable Ltd	Faridabad	A		
				Elkay Teclink	Faridabad	A		
				Gemscoab Industries	Bhiwadi	A		
				Goyzlines Fibres (I) Ltd	Daman	A		
				Gupta Power Cables	Khurda	A		
				Havells India Ltd.	Alwar	A		
				KEI International	Silvassa, Mysore	A		
				KEI Industries	Bhiwadi	A		
				Paramount Cable	Khushkhira	A		
				Polycab Wires Pvt. Ltd	Daman	A		
				Ravin Cables	Pune	A		
				Special Cables	Rudrapur	A		
				Suyog Cables	Vadodara	A		
				Thermocables	Hyderabad	A		
				Tirupati Plastomatics	Jalpur	A		
				Torrent Cable Ltd	Nadaid	A		
				Universal Cable Ltd.	Satna	A		
29	DC Batteries (Ni-Cd type BATTERY)	CAT I		HBL-Power System	Hyderabad	A		Up to 990 Ah with conditions
						A		8Ah to 990Ah- KPH type
						A		10Ah to 1365 Ah- KPM type
						A		11Ah to 1550Ah - KPL type
30	BATTERY CHARGER (48V/110V/220V)	CAT I		Soft India	Bangalore	A		
				Ansaraja	Tirupati	A		
				HBL- Power System	Hyderabad	A		
				Chhab electrical	Jalgaon	A		
				EXIDE	Kolkatta	A		OLD NAME: CHLORIDE POWER
				Statcon	Hapur	A		Up to 220 V, 850 A
				Dabus	Bangalore	A		Up to 220 V, 800 A
30.1	Battery Health Monitoring System	CAT I		EXIDE	Kolkatta	A		OLD NAME: CHLORIDE POWER
				HBL- Power System	Hyderabad	A		
				Exide	Kolkatta	A		
31	GI CABLE TRAYS AND ACCESSORIES (LADDER & PERFORATED TYPE), fitting & accessories including bends	Refer Note-6		Inar Profiles Ltd	Enkapath (Vishakhapatnam)	A		
				Vatco	Mumbai	A		Galvanization at Sigma Mumbai
				Indiana cable trays	Mumbai	A		Galvanization at Karamtara galvanizer- Mumbai
				Industrial Perforation	Kolkatta	A		Galvanized and offered for inspection at Industrial Perforation Pvt Ltd, Ganganagar, Kolkatta, WB.
				Ratan Projects	Howrah	A		Galvanization at DMP Projects- Howrah
				India Electric Syndicate	Kolkatta	A		Galvanization at BMW Industries/B/P Projects-Howrah
				Skellite engg.	Mumbai	A		
				Premier Power Products	Howrah	A		Galvanizing at Neha Galvaniser- Howrah
				Indiana Gratings	Pune	A		
				M.J.Engineering	Okhla/ Bhiwadi	A		
				Maheshwari	Ghaziabad	A		Galvanization at NTPC-approved Galvaniser.
				T.R.G	Chennai	A		Galvanization at TM Radhakrishna Chetty & Co-Chennai
				Antech	Pune	A		Galvanization at B.G. Shirke - Pune
				Kannade Anand Udyog	Mumbai	A		- Fabrication at their units: Plot No. 42, Morivali, MIDC, Thane & Plot No.: D-35 Anand Nagar MIDC, Addl. Ambernath, Thane
				Rukmani	Raipur	A		- Galvanization and offer the galvanization trays for inspection at Plot No. D-34 Anand Nagar MIDC, Addl. Ambernath, Thane
				Passive Infra	Hasangarh (Rohtak)	A		
				Unitech Fabricators & Engineers	Howrah/ Hoogly	A		Ladder type cable trays only
				Patty System	Hyderabad	A		
				Rahi Engg.	Kolkatta	A		Galvanizing from NTPC approved sources
				MKSD Industries	Taloja	A		Galvanization from Encorp Power Trans- Palghar
				Reliable Sponge	Kalunga	A		

				Pinax Steel	Patna	A			
				Rukmani	Hoogly	A			Galvanization at Rukmani Fab & Gal- Howrah
				RMG Steels Pvt Ltd	Noida	A			Galvanization at Shivam Engineers and Fabricators, Ghaziabad
31.1	GI FLEXIBLE CABLE TRAY SUPPORT SYSTEM	Refer Note-6							conditions apply
				Vatco	Mumbai	A			Galvanising at Sigma Mumbai
				Inser profiles	Kolkata	A			
				Industrial perforations	Kolkata	A			
				Premier power products	Howrah	A			Galvanising at Neha Galvaniser- Howrah
				Steelite enng.	Mumbai	A			
				Indians gratings	Pune	A			Galvanising at Poona Galvaniser- Pune
				Antec's	Pune	A			Galvanising at E.G. Shirke- Pune
				Ratan Projects	Howrah	A			Galvanization at NTPC approved sources
				Paluy Systems	Hyderabad	A			
32	Galvanised Steel Structure	CAT II							
				Saagan Structural Ltd	Prayagraj	A			Galvanising at NTPC approved sources
				RS Infraprojects	Ghaziabad	A			
				Anil Steels	Rohtak	A			
				Jamuna Metals	Delhi	A			
				Pioneer Fabricators	Meerut	A			
				Passive Infraprojects	Rohtak	A			
				PAVITRA INDUSTRIES	HYDERABAD	A			GALVANISATION TO BE DONE FROM GURPREET GALVANIZERS HYDERABAD
33	Elevator (Gear Type)	CAT I							
				Otis	Mumbai	A			
				Kone	Chennai	A			Gear Type and MRL Type
				Techno	Ahmedabad	A			Gear Type and MRL Type
				Omega	Ahmedabad	A			
				ECE	Ghaziabad	A			
				Semel Eltec	S Korea	A			
				Johnson	Nagpur	A			
34	IPBD	CAT I							
				BHEL	Rudrapur	A			
				C&S ELECTRIC	Haridwar	A			
35	SPBD	CAT I							
				BHEL	Rudrapur	A			
				C&S	Greater Noida	A			
				C&S	Haridwar	A			
				GODREJ & BOYCE MANUFACTURING COMPANY LTD	Bangalore	A			
				Powergen	Himnagar	A			
				Powergen	Chennai / Bangalore	A			
				KGS Enng.	Chennai	A			
35.1	Air Insulated Non Segregated phase type LT busduct	CAT I							
				C&S Electric	G Noida	A			
				C&S Electric	HARIDWAR	A			
				Unitec	Gurgaon	A			Upto 3200 A
				Star drive	Chennai	A			
				Spaceage Swgr Ltd	Bawal	A			
				REEP	Chennai	A			
				Enpro	Chennai	A			
				Nitya Electrocontrols	Noida	A			
				PYROTCH ELECTRONICS PVT. LTD.	UDAIPUR	A			UPTO 4000A
35.2	Sandwiched type LT Busduct	CAT I							
				Godrej	Bangalore	A			
				Henlwoon	Malaysia	A			
				C&S	HARIDWAR	A			
36	HVR Transformer & EC Panel	CAT I							
				ADOR Powertron	Pune	A			
				BHEL	Bhansi	A			
				HIND RECTIFIER PVT LTD	NASHIK	A			
37	Panel Type Hopper Heater	CAT I							
				HTD	USA	A			
				Horizon EHS	USA	A			
				HTD HEAT TRACE(I) PVT Ltd	Hyderabad	A			
				Thermon	USA	A			
				Thermopads(Uni-11)	Jeedimetla	A			
				Thermon	Pune	A			
38	Neutral Grounding Transformer	CAT II							
				Pragati Electrical Pvt. Ltd.	Mumbai	A			
				Bharat Bijlee Ltd.	Navi Mumbai	A			
				Prayog Electrical Ltd.	Pune	A			
				Andrew Yule	Chennai	A			
39	Rectifier Panel For Hydrogen Generation Plant	CAT I							
				RUTTONSHA INTERNATIONAL RECTIFIERS LTD	HALOL, GUJRAT	A			
				Hind Rectifier	MUMBAI/NASIK	A			
40	132 KV cable termination & straight through jointing kits	CAT I							
				Iijin	South Korea	A			
				ABB Kabeldon	Sweden	A			
				Prattner AG	Switzerland	A			
				Tyco Electronics Raychem GmbH	Germany	A			
41	Cable Termination kits and straight through jointing kits	CAT II							
				3M Electro & communication	Pune	A			Upto 33KV
				Raychem	Mumbai	A			Heat shrinkable type upto 33KV
				Harc consolidated	Delhi	A			Heat shrinkable type upto 33KV
42	Lighting Mast with raise & Lower Type Lantern Carriage / Polygonal Poles	CAT I							
				Bajaj	Pune	A			
				BP Projects	Kolkata	A			
				Skipper	Howrah	A			
				Transrail Lighting	Silvassa	A			
				AVAIDS TECHNOVATORS	Alwar	A			
42.1	Lighting poles- Tubular/ polygonal	CAT I							
42.2	Lighting fixtures with accessories (Filament type)	CAT I							
									Main contractor approved sources having BIS Licensee/ ISI marked
				Crompton	Mumbai	A			
				Bajaj Electricals	Mumbai	A			
				Philips	Noida	A			
				Wipro	Mumbai	A			
				Sarya Roshni	Noida	A			
42.3	Lighting fixtures with accessories (LED type)	CAT I							
				Wipro	Pune	A			
				Sarya Roshni	Noida	A			
				Bajaj	Mumbai	A			
				Philips	Noida	A			
				Pyrotech	Udaipur	A			
				Mika	Thane	A			
42.4	LED Aviation Obstruction Lights	CAT I							
				AVAIDS TECHNOVATORS	GURUGRAM	A			HIGH INTENSITY NON-LED TYPE
				Instapower	Roorkee	A			Medium and High Intensity
43	DG SET(ASSEMBLER & TESTING)	CAT I							
				Kohler	Singapore	A			Up to 1500 KVA, 11KV
				CLS	Singapore	A			Up to 1250 KVA, 415 V.
				Powerica	Silvassa	A			Up to 2000 KVA, 415 V & 1500 KVA, 11 KV
				Sterling Generators Pvt Ltd	Silvassa	A			Up to 415 V 2000 KVA
				Supernova	Rajpur(Mehsana)	A			Up to 415 V 2000 KVA
				JAKSON	PHALTAN	A			Up to 415V 1750KVA
43.1	ALTERNATOR	CAT I							
				Kirloskar Electric	Bangalore	A			415 V alternators
				Cummins Generator Technology (Stanford)	UK	A			415 V & 11 KV alternators
				Leroy Somer	France	A			Up to 11KV alternator 3500 KW
				Marathan	USA	A			Alternators for up to 415V, 1500 KVA DG SET
				Cummins Generator Technology (Stanford)	Ahmednagar	A			415 V Alternators up to 1600 KVA
				Toyo Denki Power System	Bangalore	A			11 KV, 1500 KVA
43.2	DG Set Control panel / Synchronising panel	CAT I							
				LRT	Mumbai / Coimbatore/ Ahmednagar	A			
				GE	Bangalore	A			
				Siemens	Mumbai	A			
				C&S Electric	Noida / HARIDWAR	A			
				Schneider	Nasik	A			
				Unitec	Gurgaon	A			
				Nitya Electrocontrols	Noida	A			

			Switching Circuits	Kolkata	A		
			Tricolite	Sahibabad / Manesar	A		
			Hindustan Control & equipment Ltd	Kolkata	A		With fabrication & painting at unit II & MP Electrical Narendrapur
			Maktel	Vadodara	A		
			Jakson	Greater Noida	A		
			Vidyut Control	Gazibad	A		
			Adlec Power	Rohat (Bajjar)	A		
			Pyrotech	Udaipur	A		
			Anand Power Ltd.	Noida	A		
			Positronics	Vadodara	A		
			Control & Schematics	Hyderabad	A		
			Skering Generators Pvt Ltd	Silvassa	A		
			Supernova	Rajpur	A		
A- MAJOR COMPONENTS OF BHEL MAKE GENERATOR (AS PER OEM SPECIFIC DESIGN):							
44	STATOR FRAME FABRICATION	CAT I		BHEL-HEEP	HARIDWAR	A	
44.1	STATOR FRAME MACHINING	CAT II		BHEL-HEEP	HARIDWAR	A	
45	SPRING BASKET	CAT II		BHEL-HEEP	HARIDWAR	A	
45.1	CORE BAR	CAT II		BHEL-HEEP	HARIDWAR	A	
45.2	FLUX TRAP	CAT II		BHEL-HEEP	HARIDWAR	A	
45.3	FLAT SPRINGS AND BASKET ASSEMBLY	CAT II		BHEL-HEEP	HARIDWAR	A	STAMPINGS FROM BHEL CSU JAGDISHPUR
45.4	RIPPLE SPRING	CAT II		BHEL-HEEP	HARIDWAR	A	
45.5	TENSION BOLT FOR STATOR CORE (INSULATED)	CAT II		KREMPAL GMBH	GERMANY	A	
45.6	CORE PRESS RING	CAT II		BHEL-HEEP	HARIDWAR	A	
46	ETS MATERIAL	CAT II		Ratan Engineering	Rajasthan	A	
		II		THYSSEN KRUPP ELECTRICAL STEEL	NASIK	A	
		II		ARCELOR METAL INTERNATIONAL	LUXAMBOURG	A	
		II		THYSSENKRUPP MATERIAL TRADING	GERMANY	A	
		I		POSCO	RAIGARH	A	
		I		JSW	BELLARY	A	
		II		VOESTALPINE STAHL GMBH	AUSTRIA	A	
		II		ALLOWERZE	GERMANY	A	
47	STATOR LAMINATION	CAT II		BHEL-CSU	JAGDISHPUR	A	
48	BUS BAR CONNECTION TUBES	CAT II		LUVATA PORI	FINLAND	A	
				BUNT METAL	AUSTRIA	A	
				KME GERMANY GMBH & CO. KG	GERMANY	A	
48.1	CONNECTING BUS BAR	CAT I		BHEL	HARIDWAR	A	
49	SOLID COPPER CONDUCTOR (FOR STATOR BAR)	CAT I					
		I		PEARL INSULATIONS	BANGLORE	A	
		I		MAHENDRA INDUSTRIES	BANGLORE	A	
		II		VONROLL	SWITZERLAND	A	
		II		GEBAUER & GRILLER	AUSTRIA	A	
		II		KAPSI ELECTRICAL POWER PRODUCT	BENGALURU	A	
49.1	HOLLOW SS CONDUCTOR (STATOR BAR)	CAT II		FINE TUBES LTD.	ENGLAND	A	
50	OVER HANG SUPPORT RING	CAT II					
				ROEHLING ENGINEERING PLASTICS	GERMANY	A	
				KOMPOZYTY	POLAND	A	
				POWER & COMPOSITE TECHNOLOGIES	USA	A	
51	WATER SUPPLY HOSE (INSULATED)	CAT I					
		II		DR. SCHNABEL GMBH & CO. KG LIMBURG	GERMANY	A	
		II		CRANE RESISTORLEY	USA	A	
		I		MILIA INDUSTRIES LIMITED	CHENNAI	A	
51.1	WATER BOX FOR STATOR BAR	CAT I		MADRAS CUPPRUM	CHENNAI	A	
				INDIAN METAL	KOLKATA	A	
52	BAFFLE RING & BAFFLE RING CARRIER MACHINING	CAT I		BHEL-HEEP	HARIDWAR	A	
53	STATOR WINDING BAR	CAT I		BHEL-HEEP	HARIDWAR	A	
54	GENERATOR SHAFT FORGING	CAT II					
				BUIDERUS EDELSTAHL	GERMANY	A	
				JSW	JAPAN	A	
				SAARSCHMIEDE	GERMANY	A	
				ICFC	JAPAN	A	
				PPSC Emergomashpetstal	Ukraine	A	
				Doosan Enerbility (DOOSAN HEAVY INDUSTRIES & CONSTRUCTION CO. LTD.	SOUTH KOREA	A	
				SDF-TURNI	ITALY	A	
				OFAR	ITALY	A	
54.1	GENERATOR SHAFT MACHINING	CAT I		BHEL-HEEP	HARIDWAR	A	
55	CURRENT CARRYING BOLTS FOR ROTOR	CAT II		BHEL-HEEP	HARIDWAR	A	
56	SILVER BEARING COPPER HOLLOW STRIPS (ROTOR COIL)	CAT II		BUNT METAL	AUSTRIA	A	
				BOASHIDA SWISS METAL	SWITZERLAND	A	
57	ROTOR COIL FORMING	CAT II		BHEL-HEEP	HARIDWAR	A	
58	ROTOR SLOT ANGLE	CAT II					
				SAHNEY KIRKWOOD PVT. LTD.	NASIK	A	
				ABB SWITZERLAND LTD.	SWITZERLAND	A	
				VON ROLL ISOLA	FRANCE	A	
58.1	WEDGES FOR ROTOR (DAMPER + SLOT)	CAT II					
				KM EUROPA	GERMANY	A	
				BOASHIDA SWISS METAL	SWITZERLAND	A	
				LUVATA (OUTO KUMPU PORI)	FINLAND	A	
				BUNT METAL	AUSTRIA	A	
				COPPROD	BENGALURU	A	ONLY FOR DAMPER WEDGE
59	RETAINING RING	CAT II					
				SAARSCHMIEDE	GERMANY	A	
				ENERGIETECHNIK	GERMANY	A	
				JSW	JAPAN	A	
59.1	RETAINING RING MACHINING	CAT I		BHEL-HEEP	HARIDWAR	A	
60	FAN BLADE FOR COMPRESSOR M/C	CAT I		BHEL-HEEP	HARIDWAR	A	
60.1	FAN BLADE FOR COMPRESSOR (RAW MATERIAL) - HW 10786 - X20Cr13	CAT I					
				Refer Steam Turbine List for same grade material for blade bars		A	
60.2	COMPRESSOR HUB M/C & ASSEMBLY	CAT I		BHEL-HEEP	HARIDWAR	A	
61	BEARING SHELL FORGING (GENERATOR)	CAT II		BHEL-CFFP	HARIDWAR	A	
62	BEARING COMPLETE (EXCITER)	CAT I					
				RENK AG	GERMANY	A	
				ZOLLERN	BRAZIL	A	
				MICHELL BEARING	BANGALORE	A	
				EURO BEARINGS	FARIDABAD	A	
				EURO BEARINGS	ITALY	A	
63	END SHIELD FABRICATION & MACHINING	CAT I		BHEL-HEEP	HARIDWAR	A	
64	TERMINAL BOX FABRICATION	CAT I		BHEL-HEEP	HARIDWAR	A	
64.1	TERMINAL BOX MACHING	CAT I		BHEL-HEEP	HARIDWAR	A	
65	HYDROGEN COOLER MAIN ITEMS	CAT I		BHEL-HEEP	HARIDWAR	A	
65.1	TUBES FOR COOLERS (BRASS / COPPER TUBES)	CAT II					
				MULTIMETALS	KOTA	A	
				Mehta Tubes Pvt Ltd	VAPI	A	
				METAL ALLOYS	JAMNAGAR	A	
65.2	FINNING OF COOLER TUBES	CAT I					

				LAXMI ENGINEERING INDUSTRIES	BHOPAL		A		
				LORD VISHWAKARMA HEAT EXCHANGE	HARIDWAR		A		
				FTWELL CORPORATION	BHOPAL		A		
65.3	HYDROGEN COOLER	CAT I		BHEL-HEEP	HARIDWAR		A		
66	PW COOLER & SEAL OIL COOLER	CAT I		BHEL-HEEP	HARIDWAR		A		
				ALFA LAVAL (INDIA) LIMITED	PUNE		A		
				TRANSTER INDIA PVT. LIMITED	PUNE		A		
				VARALKA ENGINEERS PVT.LTD	NOIDA		A		
67	SEAL OIL PUMP & PRIMARY WATER PUMP	CAT I		TUSHACO PUMPS	DAMAN		A		
				KSB INDIA	PUNE		A		
				SILZER INDIA	NAVI MUMBAI		A		
68	PW SYSTEM/SKID	CAT I		BHEL-HEEP	HARIDWAR		A		
69	SEAL OIL SYSTEM/SKID	CAT I		BHEL-HEEP	HARIDWAR		A		
70	TERMINAL BUSHING	CAT II		TRENCH FRANCE SAS	FRANCE		A		
				HSP HOCHSPANNUNGSGERAETE GMBH	GERMANY		A		
71	HYDROGEN DRIER (REFRIGERANT TYPE)	CAT I		JINDAL ELECTRONICS	ROORKEE		A		
				MELCON ENGSPVT	NEW DELHI		A		
				SPAN	ROORKEE		A		
72	RC BLOCK	CAT I		ZENTRONICS SYSTEMS	HYDERABAD		A		
NOTE	1. CHECKS FOR STATOR CORE ASSY, STATOR WINDING ASSEMBLY, ROTOR WINDING ASSY (GEN), GENERATOR ROTOR FINAL BEARING ASSEMBLY, SHAFT SEAL ASSEMBLY, EXCITER ASSLY (MAIN & PILOT), EXCITER TEST RUN, GENERATOR ASSEMBLY AT WORKS INCLUDING TERMINAL BUSHING & GENERATOR WORKS RUN TEST SHALL BE FINALIZED DURING DETAILED ENGINEERING/MQP FINALIZATION FOR THE RESPECTIVE OEMs. 2. For Raw Material/Components/Items of Generator which are not appearing in the above list, their OEM approved sources shall be tied up during Detailed Engineering/ MQP finalization.								
	B. MAJOR COMPONENTS FOR L&T MAKE GENERATOR (AS PER OEM SPECIFIC DESIGN):								
73	STATOR FRAME WITH MAN HOLE COVER FABRICATION & MACHINING (Generator Stator Frame fabrication & Machining)	CAT I							
				MITSUBISHI ELECTRIC	JAPAN		A		
				LMTG	HAZIRA		A		
74	CORE BOLT ASSEMBLY (Core Bolt assembly in stator frame)	CAT I							
		II		MITSUBISHI ELECTRIC	JAPAN		A		
		I		LMTG	HAZIRA		A		
75	BORE RING FOR STATOR FABRICATION (Bore ring Fabrication & M/c)	CAT I							
		II		MITSUBISHI ELECTRIC	JAPAN		A		
		I		LMTG	HAZIRA		A		
		I		MANUNATH	BANGALORE		A		
76	END PRESSURE PLATE (CORE PRESSURE RING AND FINGER (Finger Plate)	CAT I							
		II		MITSUBISHI ELECTRIC	JAPAN		A		
		I		RV ENGG	BALLABGARH		A		
77	STATOR CORE PUNCHING & SHIELD CORE PUNCHING	CAT I							
		II		MITSUBISHI ELECTRIC	JAPAN		A		
		I		PITTI LAMINATION	HYDERABAD		A		
78	TENSION BOLT FOR STATOR CORE(INSULATED)(CORE BOLT)	CAT II							
				MITSUBISHI ELECTRIC	JAPAN		A		
79	LEAD BOX FABRICATION & MACHINING	CAT I							
		II		MITSUBISHI ELECTRIC	JAPAN		A		
		I		LMTG	HAZIRA		A		
		I		ISPL	RAIPUR		A		
80	OVER HANG SUPPORT RING(RESIN CONE)	CAT II							
		II		HITACHI CHEM	JAPAN		A		
		II		PCT	USA		A		
		II		ROCHLING	GERMANY / France		A		
81	CORE TENSION BOLT (UNINSULATED) FOR STATOR (Core bolt)	CAT I							
		II		MITSUBISHI	JAPAN		A		
		I		STAR WIRE	BALLABGARH		A		
82	OVERHANG SLIDING SYSTEM (Part of stator winding Assembly)	CAT I							
		II		MITSUBISHI ELECTRIC	JAPAN		A		
		I		LMTG	HAZIRA		A		
83	BUS RING FABRICATION (Phase Ring)	CAT I							
		II		MITSUBISHI ELECTRIC	JAPAN		A		
		I		LMTG	HAZIRA		A		
84	RIPPLE SPRING	CAT III							
		III		MITSUBISHI ELECTRIC	JAPAN		A		
		III		AUGUST KREMPER	GERMANY		A		
85	SOLID COPPER CONDUCTOR (FOR STATOR BAR)	CAT I							
		II		MITSUBISHI ELECTRIC	JAPAN		A		
		II		UNIMAC	JAPAN		A		
		I		MAHENDRA IND	BANGALORE		A		
		II		GEABUR AND GRILER	AUSTRIA		A		
		II		HITACHI MAGNET WIRE	JAPAN		A		
		I		PEARL INSULATION	BANGALORE		A		
		I		COSMOS	BANGALORE		A		
86	HOLLOW COPPER CONDUCTOR (STATOR BAR)	CAT I							
		II		UNIMAC	JAPAN		A		
		II		MITSUBISHI ELECTRIC	JAPAN		A		
		II		ISOLA	SWITZERLAND		A		
		I		MAHENDRA INDUSTRIES	BANGALORE		A		
		I		PEARL	BANGALORE		A		
		I		COSMOS	BANGALORE		A		
87	TERMINAL BUSHING (CONDENSER TYPE) (Lead Bushing)	CAT II							
		II		EMIL HAFLEY(TRENCH)	SWITZERLAND		A		
		II		MITSUBISHI ELECTRIC	JAPAN		A		
		II		TRENCH	SWITZERLAND		A		
88	SUPPORT BRACKET	CAT I							
		II		MITSUBISHI ELECTRIC	JAPAN		A		
		I		LMB	HAZIRA		A		
89	CONNECTING BUS BAR (PHASE BELTS) FABRICATION	CAT II							
		II		SUMIKI COPPER	JAPAN		A		
		II		MITSUBISHI ELECTRIC	JAPAN		A		
		II		HITACHI CABLE	JAPAN		A		
		II		ORIENTAL COPPER	THAILAND		A		
90	INSULATING HOSES FOR STATOR (WATER SUPPLY HOSES)	CAT I							
		II		SAKURA RUBBER	JAPAN		A		
		II		MITSUBISHI ELECTRIC	JAPAN		A		
		II		CRANE RESISTOFLEX	USA		A		
		I		DR SCHNABEL	GERMANY		A		
91	SHIELD PLATES / SHIELD CLAMPER	CAT I							
		III		MITSUBISHI ELECTRIC	JAPAN		A		
		I		RV ENGG	FARIDABAD		A		
		I		AK Multi metal	PUNJAB		A		
92	STATOR WINDING ASSLY	CAT I							
		I		MITSUBISHI ELECTRIC	JAPAN		A		
		I		LMTG	HAZIRA		A		
93	GENERATOR SHAFT FORGING	CAT II							
				SAARSMIEDER	GERMANY		A		
				Buderus Edelstahl	GERMANY		A		
				JSW	JAPAN		A		
				SDF	ITALY		A		
				CRUIST FORCE	FRANCE		A		
									CS Casting for Generator Bracket Hub of Bearing bracket, Ni-alloy casting for Generator Blower Shroud & Shield clamper, nodular cast iron casting for Shroud support.

				OMZ	RUSSIA		A		
				FORGE MASTER	UK		A		
				ICFC	JAPAN		A		
				PSC energomash	Ukraine		A		
				SC Doosan	Romani		A		
94	GENERATOR ROTOR MACHINING	CAT I							
		II		mitsubishi electric	JAPAN		A		
		II		WILGO ROMANO	ITALY		A		
		I		LMTG	HAZIRA		A		
95	ETS MATERIAL (Core material)	CAT I							
		I		THYSSON KRUPP	NASIK		A		
		II		NIPPON	JAPAN		A		
		II		IFE	JAPAN		A		
		I		POSCO	RAIGARH		A		
		I		JSW	BELLARY		A		
		II		mitsubishi	JAPAN		A		
96	RETAINING RING FORGING(MAT- CrMn 1818)	CAT II							
				SAARSHMEDE	GERMANY		A		
				JSW	JAPAN		A		
				KOBE STEEL	JAPAN		A		
				FORTEH	FRANCE		A		
97	RETAINING RING MACHINING	CAT I							
		II		mitsubishi electric	JAPAN		A		
		I		LMTG	HAZIRA		A		
98	SILVER BEARING COPPER HOLLOW STRIPS (ROTOR COIL)	CAT II							
				ORIENTAL COPPER	THAILAND		A		
				HITACHI CABLE	JAPAN		A		
				FURUKAWA ELECTRIC	JAPAN		A		
				KM EUROPA	GERMANY		A		
				OTOKUMPUTURI (Luvata)	FINLAND		A		
				GINDRE	FRANCE		A		
99	FIELD LEAD CORE BAR FOR ROTOR WITH D LEAD(RAW MATERIAL) (Field lead)	CAT II							
				ORIENTAL COPPER	THAILAND		A		
				BAOSHIDA SWISS METAL	GERMANY		A		
				KME	GERMANY		A		
				Agarwal Industries (Fabrication)	Mandideep		A		
				Rachna Metals (Raw material)	GHAZIABAD		A		
				INDIAN METAL & ALLOY	KOLKATA		A		
				HITACHI CABLE	JAPAN		A		
100	CURRENT CARRYING BOLTS FOR ROTOR (Radial Lead)	CAT II							
				mitsubishi electric	JAPAN		A		
101	ROTOR COIL FORMING	CAT I							
		II		mitsubishi electric	JAPAN		A		
		I		LMTG	HAZIRA		A		
102	STATOR Coil Manufacturing	CAT I							
				mitsubishi electric	JAPAN		A		
				LMTG	HAZIRA		A		
103	ROTOR SLOT WEDGES & DAMPER WEDGES FABRICATION & MACHINING (Rotor wedge & Damper bar)	CAT II							
				mitsubishi electric	JAPAN		A		
				MURAKAMI	ompress		A		
				FLAV	ITALY		A		
				OTOKUMUPORI (LUVATA)	FINLAND		A		
				METALLURGICA MINOTTI	ITALY		A		
				Damper Wedges - Gindre India Components Pvt. Ltd	Gurgaon		A		
104	ROTOR WINDING ASSLY (GEN) INCL ROTOR WEDGES (Rotor winding)	CAT I							
				mitsubishi electric	JAPAN		A		
				LMTG	HAZIRA		A		
105	GENERATOR ROTOR-FINAL assembly & Balancing Process (Rotor final assembly & HSB)	CAT I							
				mitsubishi electric	JAPAN		A		
				LMTG	HAZIRA		A		
106	COMPRESSOR BLADE ASLY ON ROTOR (Part of generator final assembly)	CAT I							
				mitsubishi electric	JAPAN		A		
				LMTG	HAZIRA		A		
107	D LEAD (FL CORE BAR) & CONTACT BOLT FOR SLIP RING (Axial lead)	CAT II							
				mitsubishi electric	JAPAN		A		
108	TUBES FOR CONNECTING BUS BAR (Phase ring tubes)	CAT II							
				ORIENTAL COPPER	THAILAND		A		
				ALCOBEX	JODHPUR		A		
				S H Copper	Japan		A		
				IPCL	BHAVNAGAR		A		
				HITACHI CABLE	JAPAN		A		
109	END SHIELD FABRICATION & MACHINING (Generator Bearing Bracket)	CAT I							
				mitsubishi electric	JAPAN		A		For End Shield Fabrication Only
				SHAPE	HARIDWAR		A		
				MANJUNATH	BANGLORE		A		
110	BEARING SHELL (GEN & SLIP RING)- FORGING (part of generator Bearing)	CAT II							
				mitsubishi electric	JAPAN		A		
				OMEGA THERMIT	BHOPAL		A		
				DUM DUM	KOLKATA		A		
				EURO BEARING	ITALY		A		
111	CENTERING RING FORGING (END PLATE)	CAT I							
		I		GOODLUCK	GHAZIABAD		A		
		II		NISHIMAKI IRON WORKS	JAPAN		A		
		I		RAY FORGE	CHENNAI		A		
112	BEARING SHELL (GEN & SLIP RING) M/C (Generator bearing)	CAT III							
				DSE	KOREA		A		
				DYM	KOREA		A		
				mitsubishi electric	JAPAN		A		
				OMEGA THERMIT	BHOPAL		A		
				DUM DUM	KOLKATA		A		
				EURO BEARING	ITALY		A		
				WAUKESHA BEARING	USA		A		
113	INTERMEDIATE RING FORGING (Space ring forging)	CAT I							
				Good luck (For forging)	FARIDABAD		A		
				LMTG (For m/c)	Hazira		A		
114	PRIMARY WATER PUMP	CAT I							
				MATHER & PLATT	PUNE		A		
				KSB INDIA	Nasik		A		
				SULZER PUMPS	NAVI MUMBAI		A		
				EBARA SEISAKUSHO	JAPAN		A		
115	HYDROGEN DRIER	CAT I							
		I		JINDAL	ROORKEE		A		
		II		mitsubishi electric	JAPAN		A		
116	TUBES FOR COOLERS (BRASS/COPPER TUBES) (GENERATOR) (Gas cooler tubes)	CAT I							
				ALCOBEX	JODHPUR		A		
				MULTIMETAL	KOTA		A		
117	PW PUMP & FILTER UNIT ASSEMBLY (SKID)	CAT I							

		II		MITSUBISHI ELECTRIC	JAPAN		A		
		II		IJMC	KOREA		A		
		I		LMTG	HAZIRA		A		
		I		LINCOLN	PUNE		A		
118	PW COOLER & SEAL OIL COOLER	CAT I		ALFA LAVAL	PUNE		A		
		I		IJMC	KOREA		A		
		I		TRANSTER	PUNE		A		
119	SLIP RING FORGING & MACHINING	CAT II		LMTG (For machining)	Hazira		A		
				Good luck (For forging)	FARIDABAD		A		
120	DC LEAD ASSLY FOR SLIP RING (Slip ring lead)	CAT I		MITSUBISHI ELECTRIC	JAPAN		A		
		II		LMTG	HAZIRA		A		
121	SLIP RING ASSLY (Part of Generator Final assembly)	CAT I		LMTG	HAZIRA		A		
122	SLIP RING SHAFT ASSLY	CAT II		MITSUBISHI ELECTRIC	JAPAN		A		
123	AIR COOLER FOR BRUSH GEAR (Slip ring fan)	CAT I		LMTG	Hazira		A		
124	SEAL OIL PUMP	CAT I		TUSHACO PUMP	DAMAN		A		
		II		KOSAKA LABORATORY	JAPAN		A		
		II		SHIMADZU	JAPAN		A		
125	FAN BLADE FORGING & MACHINING (Blade for slip ring fan)	CAT I		MURAKAMI SEISAKUSHO	JAPAN		A		
		II		STAR WIRE	BALLABHAGARH		A		
		II		MITSUBISHI ELECTRIC	JAPAN		A		
		I		GOODLUCK ENGG	GHAZIABAD		A		
126	SEAL OIL VALVE RACK	CAT II		IJMC	KOREA		A		
127	SEAL OIL STORAGE TANK (LOOP SEAL TANK)	CAT I		IJMC	KOREA		A		
				Gujarat infra	Vadodara		A		
				Shree sarjan	Vadodara		A		
128	HYDROGEN COOLER (Gas cooler)	CAT I		KITASHIBA ELECTRIC	JAPAN		A		
				ENERGEN	KOREA		A		
				GEA	GERMANY		A		
				LAXMI	BHOPLAL		A		
129	CARBON BRUSH	CAT II		MORGAN	KOREA		A		
				MERSEN	BANGLORE		A		
				VITYIT CARBON	HARDWAR		A		
				ASSAM CARBON	KOLKATA		A		
130	EXCITATION SYSTEM	CAT I		ALSTOM	FRANCE		A		
				ABB	SWITZERLAND		A		
				SIEMENS	AUSTRIA		A		
				BHEL	BANGLORE		A		
				MITSUBISHI ELECTRIC	JAPAN		A		
131	EXCITATION TRANSFORMER	CAT I		REFER SEPARATE LIST					
132	EXCITATION AC/DC BUS DUCT	CAT I		REFER SWITCHGEAR AND BUS DUCT LIST					
133	END WINDING VIBRATION SYSTEM	CAT II		IRIS	Canada		A		
				Vibro systems	Canada		A		
134	Rotor slot angle (Slot cell)	CAT II		PCT	USA		A		
				MITSUBISHI ELECTRIC	JAPAN		A		
				VON ROLLA ISOLA	FRANCE		A		
135	CENTRING RING & INTERMEDIATE RING MACHINING (End plate & space ring)	CAT I		MITSUBISHI ELECTRIC	JAPAN		A		
				Good luck (For forging only)	Faridabad		A		
				LMTG (For machining)	HAZIRA		A		
136	ROTOR FLUX MONITORING SYSTEM	CAT II		GE	USA		A		
				MITSUBISHI ELECTRIC	JAPAN		A		
				Vibro systems	Canada		A		
				IRIS	CANADA		A		
137	FIELD LEAD CORE BAR FOR ROTOR WITH D LEAD	CAT II		MITSUBISHI ELECTRIC	JAPAN		A		
138	Generator Blower shroud	CAT I		RV Casting	Faridabad		A	(M/C by LMTG)	
139	Bearing Bracket Hub casting	CAT I		VAISHNOV STEEL	MUZAFFAR NAGAR		A		
				LMTG HCU	Hazira		A		
140	Shroud support	CAT I		R V Casting	Faridabad		A	(M/C by LMTG)	
141	Blower hub Forging	CAT I		Goodluck	Ghaziabad		A	(M/C by LMTG)	
142	Bore ring Forging	CAT I		CHW	Greater noida		A	(M/C by LMTG)	
143	Rotor & stator blade	CAT I		LMTG (for machining)	Hazira		A		
				Star wire (For Rotating blade raw material)	BALLABHAGARH		A		
				As per NTPC approved list (For ST blade raw material also)			A		
144	Center wedge & end wedge machining	CAT I		Moldpro	Vadodara		A		
NOTE 1.CHECKS FOR STATOR CORE ASSLY, STATOR WINDING ASSEMBLY, ROTOR WINDING ASSLY (GEN), GENERATOR ROTOR- FINAL, BEARING ASSEMBLY (SHAFT SEAL ASSEMBLY, EXCITER ASSLY (MAIN & PILOT)/ SLIP RING SHAFT ASSEMBLY WITH BRUSH GEARS, EXCITER TEST RUN, GENERATOR ASSEMBLY AT WORKS INCLUDING TERMINAL BUSHING & GENERATOR WORKS RUN TEST SHALL BE FINALIZED DURING DETAILED ENGINEERING/MQP FINALIZATION FOR THE RESPECTIVE OEMs. 2. For Raw Material/Components/Items of Generator which are not appearing in the above list, their OEM approved sources shall be list up during Detailed Engineering/ MQP finalization.									
C. MAJOR COMPONENTS FOR GE MAKE GENERATOR (AS PER OEM SPECIFIC DESIGN):									
145	Stator Frame with manhole cover (Fabrication & Machining)	CAT I		ALSTOM Power Sp. z o.o.	Poland		A		
				Alstom Bharat Forge Power Limited	Sanand		A		
				ISGEC	YAMUNA NAGAR		A		
146	Key Bar (Fabrication & Machining)	CAT I		Bright Steel	UK		A		
		II		Jordan Matcon	Poland		A		
		II		ALSTOM Power Sp. z o.o.	Poland		A		
		II		Somet	Poland		A		
		II		Empaz	Poland		A		Only M/c
		I		Shiv Engineering	vadodara		A		Only M/c
		I		Alstom Bharat Forge Power Limited	Sanand		A		Only M/c
		I		Shape Engg	Haridwar		A		Only M/c
147	Dovetail for Stator (Aluminium key profile)	CAT II		Sapa Profiles Kft.	Hungary		A		
				ALSTOM Power Sp. z o.o.	Poland		A		
				Somet	Poland		A		
148	End Pressure Plate (Laminated Press plate)	CAT II		ALSTOM Power Sp. z o.o.	Poland		A		
				Generpro	Sweden		A		
149	Stator Core Punching	CAT II		ALSTOM	France		A		
				ALSTOM Power Sp. z o.o.	Poland		A		
				Donako	Poland		A		
				PMT Laminations	Hyderabad		A		
				BHEL	Jagdishpur		A		
150	Core Tension Bolt for Stator	I		Starwire	Ballabgarh		A		
		II		Boehler Ybstaal Profil	Austria		A		
		II		Energietechnik Essen	Germany		A		

		II		Empaz	Poland	A		
		I		Kalyani carpenter	Pune	A		
151	Insulation of Core Tension Bolt for Stator	CAT II		Empaz	Poland	A		
				ALSTOM Power Sp. z o.o.	Poland	A		
152	Solid Copper Conductor for Stator Bar	CAT I		VonRoll	Switzerland	A		
				Pearl	Bangalore	A		
				Cosmos	Bangalore	A		
				Mahindra	Bangalore	A		
				Geaber & Greuler	Austria	A		
153	Hollow Stainless Steel Conductor for Stator Bar	CAT II		Fine Tubes	UK	A		
				Fischer	Austria	A		
154	Stator Bars	CAT I		ALSTOM Power Sp. z o.o.	Poland	A		
155	Tubes for Connection Bus Bar	CAT II		KME	Germany	A		
				Lavata Pori	Finland	A		
				Multimet	Jammagar	A		
156	Connection Bus Bar (Phase Connector)	CAT II		PPH Wotera	Poland	A		
				ALSTOM Power Sp. z o.o.	Poland	A		
157	Insulating Hoses for Stator (Water Supply Hoses)	CAT II		Dr. Schnabel	Germany	A		
				Siemens	Germany	A		
				Crane Resistoflex	USA	A		
158	Winding Head Support Ring	CAT II		Röchling Permail	Germany	A		
				Kempozty	Poland	A		
				PCT	USA	A		
				Siemens	Germany	A		
				Texplas	Haridwar	A		
159	Spring for Winding Head Assembly (Console)	CAT II		Wolfensberger	Switzerland	A		
		CAT I		R V Engg	Ballaigarh	A		
160	Generator Shaft Forging	CAT II		Saarschmiede	Germany	A		
				Buderus	Germany	A		
				ISW	Japan	A		
				ICFC	Japan	A		
				S&F Terni	Italy	A		
				SUMITOMO	JAPAN	A		
				FORGEMASTER	UK	A		
				OMZ	RUSSIA	A		
161	Generator Shaft Machining	CAT I		Alstom (Switzerland) Ltd.	Switzerland	A		
				Alstom Bharat Forge Power Limited	Sanand	A		
162	Centering Ring Forging	CAT II		Bharat Forge	Pune	A		
				Schmiedewerk Stoss	Switzerland	A		
				FORGITAL SPA VELO D ASTICO		A		
				LOCALITA	Italy	A		
				Bay Forge	Chennai	A		
163	Centering Ring Machining	CAT II		Alstom (Switzerland) Ltd.	Switzerland	A		
				Bharat Forge Limited	Satara	A		
164	Retaining Ring FORGING (Mat.18-18Cr-Mn)	CAT II		Energie-technik Essen	Germany	A		
				Saarschmiede	Germany	A		
				ISW	Japan	A		
165	Retaining Ring Machining	CAT II		Alstom (Switzerland) Ltd.	Switzerland	A		
				Alstom Bharat Forge Power Limited	Sanand	A		
166	Rotor Copper Profile	CAT II		Swissmetall	Switzerland	A		
				Wieland	Germany	A		
				Buntmetall	Austria	A		
167	Field Lead Core Bar for Rotor	CAT II		Swissmetall	Switzerland	A		
				Buntmetall	Austria	A		
				Wieland	Germany	A		
168	Radial Bolt for Rotor	CAT II		Alstom	Switzerland	A		
				Starwire	Ballaigarh	A		
				Atals	Hydrabad	A		only for Machining
169	Rotor Coil Forming	CAT I		Alstom (Switzerland) Ltd.	Switzerland	A		
		CAT II		Alstom Bharat Forge Power Limited	Sanand	A		
170	Rotor Slot Wedges & Damper wedges	CAT II		Swissmetall	Switzerland	A		
				Wieland	Germany	A		
				Lavata	Finland	A		
				Buntmetall	Austria	A		
171	Generator Rotor Final	CAT I		ALSTOM Power Sp. z o.o.	Poland	A		
				Alstom (Switzerland) Ltd.	Switzerland	A		
172	Hydrogen Blower	CAT II		FIMA	Germany	A		
172.1	Hydrogen Blower Assembly	CAT II		Alstom (Switzerland) Ltd.	Switzerland	A		
173	Terminal Bushing (Condenser type)	CAT II		Trench (Emly new name)	France	A		
				HSP	Germany	A		
174	Terminal Box Fabrication	CAT II		ALSTOM Power Sp. z o.o.	Poland	A		
				ISGEC	Yamunanagr	A		
				Shape Engg	Haridwar	A		
174.1	Terminal Box Machining	CAT II		ALSTOM Power Sp. z o.o.	Poland	A		
				Energy machines	Ahmedabad	A		
175	End Shield Fabrication	CAT I		ALSTOM Power Sp. z o.o.	Poland	A		
				Shape Engg	Haridwar	A		
				ISGEC	Yamunanagr	A		
175.1	End Shield Machining	CAT I		ALSTOM Power Sp. z o.o.	Poland	A		
				ISGEC	Yamunanagr	A		
				Energy Machines	Ahmedabad	A		
176	Seal Assembly (Ring & Housing)	CAT II		ALSTOM Power Sp. z o.o.	Poland	A		
177	Stator water cooler	CAT I		Alpha Laval	Sweden	A		
				GEA	Germany	A		
				TRANTER	Pune	A		
				IDMC Ltd	Anand	A		
178	Stator water cooling unit	CAT II		Rockfin	Poland	A		
179	Stator water cooling pump	CAT II		ALWELLER	GERMANY	A		
				KSB	Pune	A		
				Ebera	Japan	A		
				SULZER	Navi Mumbai	A		
180	Slip Ring Shaft Forging	CAT II		See Generator Forging Suppliers				
				Bharat forge	Pune	A		
				BAY FORGE	Chennai	A		
180.1	Slip Ring Shaft Machining	CAT II		Alstom (Switzerland) Ltd.	Switzerland	A		
				Euroflex Transmission(india) pvt. Ltd.	Hydrabad	A		
181	DC-Lead Assembly for Slip Ring	CAT II						

				Altom (Switzerland) Ltd.	Switzerland	A		
181.1	Slip Ring Shaft Assembly	CAT I		Altom (Switzerland) Ltd.	Switzerland	A		
				Euroflex Transmission(india) pvt. Ltd.	Hydrabad	A	Only M/c	
182	Seal Oil Pump	CAT I		Alhweiler	Germany	A		
				Alhweiler	DAMAN	A		
				UT PUMP	FARIDABAD	A		
183	Seal Oil Cooler	CAT I		GEA	Germany	A		
				Alpha Level	EUROPE	A		
				Alfa level	Sistara	A		
				ALPHA LAVAL	Sweden	A		
184	Seal Oil Unit	CAT II		TRANTER	Pune	A		
				Rockfin	Poland	A		
185	Hydrogen Cooler	CAT I		GEA	Germany	A		
				Kelvion	Pune	A		
				Laxmi	Bhopal	A		
186	Hydrogen dryer (Refrigrant Type)	CAT I		lindal electrical	Roorkee	A		
				Melcon engg.	G. NOIDA	A		
187	Copper connector between main rotor and slip ring shaft(radial stud)	CAT II		SWISS METAL	Switzerland	A		
				Phisterer Sefag AG	Germany	A		
188	Carbon Brush & Holders	CAT III		Morgan	Germany	A		
				Vidhyut Carbon	Haridwar	A		
				National Carbon	Kolkata	A		
				G. Dietrich (belongs to CL)	Germany	A		
189	ETS Material	CAT I		Thyssen Krupp	NASIK	A		
		CAT II		Mitsubishi	Japan	A		
		CAT II		Arcelor	Luxemburg	A		
		CAT II		Salzgitter	Germany	A		
		CAT II		Alloverze	Germany	A		
		CAT I		ISW	BELLARY	A		
		CAT II		IFE	Japan	A		
190	Radial Leads (Slip Ring Shaft)	CAT II		Schmelzmetall AG	Switzerland	A	ALSO FOR SL NO 71	
191	Connection Rod for main Rotor	CAT II		Weiland werke	Germany	A		
				Swiss Metal	Switzerland	A		
192	Excitation System	CAT I		Altom Power Sp. z o.o	Poland	A		
				GE power	NOIDA	A		
193	GHM(Generator health monitoring system)	CAT I		GE Power	Noida	A		
194	Excitation AC-DC Bus duct	CAT I		Etacon	Belgium	A	for Cast Resin	
				REEP	Chennai	A		
				C&S	NOIDA	A		
NOTE	1. CHECKS FOR STATOR CORE ASSY, STATOR WINDING ASSEMBLY, ROTOR WINDING ASSY (GEN), GENERATOR ROTOR FINAL BEARING ASSEMBLY/SHAFT SEAL ASSEMBLY, EXCITER ASSY (MAIN & PILOT)/ SLIP RING SHAFT ASSEMBLY WITH BRUSH GEARS, EXCITER TEST RUN, GENERATOR ASSEMBLY AT WORKS INCLUDING TERMINAL BUSHING & GENERATOR WORKS RUN TEST SHALL BE FINALIZED DURING DETAILED ENGINEERING/MQP FINALIZATION FOR THE RESPECTIVE OEMs. 2. For Raw Material/Components/Items of Generator which are not appearing in the above list, their OEM approved sources shall be tied up during Detailed Engineering/ MQP finalization.							
	D- MAJOR COMPONENTS FOR TOSHIBA MAKE GENERATOR (AS PER OEM SPECIFIC DESIGN):							
195	STATOR FRAME WITH MAN HOLE COVER FABRICATION & MACHINING	CAT I		TOSHIBA	JAPAN	A		
				TIPS	CHENNAI	A		
196	KEY BAR FABRICATION AND MACHINING	CAT I		TOSHIBA	CHENNAI	A		
				Kalyani (Carpenter (Material)	Pune	A		
				Pani Lloyd (Machining)	Gwalior	A		
197	KEY BAR ASSEMBLY	CAT I		TOSHIBA	JAPAN	A		
				TIPS	CHENNAI	A		
198	DOVETAIL FOR STATOR	CAT I		TOSHIBA	JAPAN	A		
				TIPS	CHENNAI	A		
199	END PRESSURE PLATE - Fabrication	II		TOSHIBA	JAPAN	A		
				TIPS	CHENNAI	A		
199.1	End Pressure Plate -Machining	CAT II		TIPS	CHENNAI	A		
				TIPS	CHENNAI	A		
				Sharp Engineering	Pune	A		
				N.S Engg.	Hyderabad	A		
200	STATOR CORE PUNCHING	I		TIPS	CHENNAI	A		
				TOSHIBA	JAPAN	A		
201	TERMINAL BOX FABRICATION & MACHINING	II		TOSHIBA	JAPAN	A		
				TIPS	CHENNAI	A		
				Leo Prime	Chennai	A		
202	OVER HANG SUPPORT RING	CAT II		HITACHI CHEMICAL	JAPAN	A		
203	SOLID COPPER CONDUCTOR (FOR STATOR BAR)	CAT II		UNIMAC	JAPAN	A		
204	HOLLOW COPPER CONDUCTOR (FOR STATOR BAR)	CAT II		UNIMAC	JAPAN	A	HOLLOW CONDUCTOR (RAW MATERIAL FROM FURUKAWA/JAPAN)	
205	TERMINAL BUSHING (CONDENSER TYPE)	CAT II		PASSONI & VILLA	ITALY	A		
				Trench	Switzerland	A		
				Toshiba	Japan	A		
206	CONNECTING BUS BAR (PHASE BELTS) FABRICATION	CAT II		SUMIKI COPPER	JAPAN	A		
				Oriental Copper	Thailand	A		
				Hitech Cable	JAPAN	A		
207	INSULATING HOSES FOR STATOR (WATER SUPPLY HOSES)	CAT II		SAKURA RUBBER	JAPAN	A		
				CRANE RESISTOFLEX	USA	A		
				MR	Chennai	A		
208	GENERATOR SHAFT FORGING	CAT II		SAARSHMEDE	GERMANY	A		
				SIF ITALY	ITALY	A		
				IEC	JAPAN	A		
				ISW	JAPAN	A		
				BUDERUS EDESTAHL	GERMANY	A		
				Dooosan	Korea	A		
208.1	GENERATOR SHAFT MACHINING	CAT I		TOSHIBA	JAPAN	A		
				TIPS	CHENNAI	A		
209	ETSMATERIAL	CAT II		NIPPON	JAPAN	A		
				IFE	JAPAN	A		
210	RETAINING RING FORGING (MAT-Cr Mn 19-18)	CAT II		SAARSHMEDE	GERMANY	A		
				ISW	JAPAN	A		
210.1	RETAINING RING MACHINING	CAT II		TOSHIBA	JAPAN	A		
				TIPS	Chennai	A		
211	SILVER BEARING COPPER HOLLOW STRIPS (ROTOR COIL)	CAT II		ORIENTAL COPPER	THAILAND	A		
212	FIELD LEAD CORE BAR FOR ROTOR WITH D LEAD	CAT II		KME	GERMANY	A		
				ORIENTAL COPPER	THAILAND	A		
				BAOSHIDA SWISS METAL	GERMANY	A		
213	CURRENT CARRYING BOLTS FOR ROTOR	CAT II		TOYO KOGYO	JAPAN	A		
				TOSHIBA	JAPAN	A		
214	ROTOR COIL FORMING	CAT II		TOSHIBA	JAPAN	A		
				TIPS	Chennai	A		
215	ROTOR SLOT WEDGES & DAMPER WEDGES FABRICATION & MACHINING	CAT II		TIPS	Chennai	A		

				MURAKAMI	JAPAN	A		
				PIAV	ITALY	A		
				TOSHIBA	JAPAN	A		
216	GENERATOR ROTOR -FINAL	CAT I		TOSHIBA	JAPAN	A		
				TOSHIBA	JAPAN	A		
				TIPS	Chennai	A		
217	MOLDED INSULATION RING (FAN NOZZLE RIM)	CAT I		PCT	USA	A		
				PERMALI WALACE	Bhopal	A		
218	FAN BLADE ASLY ON ROTOR	I		TOSHIBA	JAPAN	A		
				TIPS	Chennai	A		
219	D LEAD (FL CORE BAR)& CONTACT BOLT FOR SLIP RING	I		TIPS	Chennai	A		
				TOSHIBA	JAPAN	A		
220	END SHIELD FABRICATION & MACHINING	CAT I		SHAPE	HARIDWAR	A		
				TIPS	Chennai	A		
221	Bearing (CE & TE)	I		DSE	Korea	A		
				Omaga Bunk	Bhopal	A		
				DYM	Korea	A		
222	CENTERING RING FORGING	I		RAY FORGE	CHENNAI	A		
				MINATO KIRO	JAPAN	A		
				NISHIMAKI IRON WORKS	JAPAN	A		
				GOODLUCK	GHAZIABAD	A		
223	SEAL ASSEMBLY (RING & HOUSING)	CAT II		TOSHIBA	JAPAN	A		
224	SLIP RING SHAFT ASSEMBLY	I		TIPS	Chennai	A		
				TOSHIBA	JAPAN	A		
225	FAN BLADE FORGING & MACHINING	I		MURAKAMI SEISAKUSHO	JAPAN	A		
				TIPS	Chennai	A		
				Asad	Hyderabad	A		
				TOSHIBA	JAPAN	A		
226	HYDROGEN COOLER	CAT II		ENERGYEN	KOREA	A		
				KITASHIBA ELECTRIC	JAPAN	A		
				Karnataka Gas Coolers	Bangalore	A		
227	AC/DC BUSDUCT	CAT I		SPACEAGE	GURGAON	A		
				REEP	CHENNAI	A		
				CAS ELECTRIC	NOIDA/HARIDWAR	A		
228	EXCITATION TRANSFORMER (DRY TYPE)	CAT I		RITZ	GERMANY	A	UPTO 8 MVA	
				BHEL	BHANSI	A	UPTO 6 MVA	
229	EXCITATION SYSTEM	CAT I		TOSHIBA	JAPAN	A		
				ABB	Bangalore	A		
230	HYDROGEN DRIER	CAT I		JINDAL ELECTRONICS	ROORKEE	A		
				MELCON ENGG	GREATER NOIDA	A		
				SPAN MANUFACTURING CO PVT LTD	ROORKEE	A		
NOTE	1. CHECKS FOR STATOR CORE ASSEMBLY, STATOR WINDING ASSEMBLY, ROTOR WINDING ASSEMBLY (GEN), GENERATOR ROTOR -FINAL, BEARING ASSEMBLY/SHAFT SEAL ASSEMBLY, EXCITER ASSEMBLY (MAIN & PILOT)/ SLIP RING SHAFT ASSEMBLY WITH BRUSH GEARS, EXCITER TEST RUN, GENERATOR ASSEMBLY AT WORKS INCLUDING TERMINAL BUSHING & GENERATOR WORKS RUN TEST SHALL BE FINALIZED DURING DETAILED ENGINEERING/MQP FINALIZATION FOR THE RESPECTIVE OEM. 2. For Raw Material/Components/Items of Generator which are not appearing in the above list, their OEM approved sources shall be tied up during Detailed Engineering/ MQP finalization.							
Items Identified as Main Contractor approved sources								
MC 1	Tubular Type Heater	CAT III						
MC 2	Interlocks for ESP	CAT III						
MC 3	Porcelain Bushing Insulators	CAT III						
MC 4	Continuous Cast Copper Rod	CAT III						
MC 5	Unimpregnated Densified Wood	CAT III						
MC 6	Marshalling Box Components	CAT III						
MC 8	Air Cell	CAT III						
MC 9	Terminal Connector	CAT III						
MC 10	Oil Flow Indicator	CAT III						
MC 11	Pressure Relief Valve	CAT III						
MC 12	Magnetic Oil Level Gauge	CAT III						
MC 13	OT/WTI (RTD Type)	CAT III						
MC 14	Oil-Circuit Tap Changer	CAT III						
MC 15	Gasling Fan & Motor Assembly	CAT III						
MC 16	Silica Gel Breather	CAT III						
MC 17	Bushing Metal Parts	CAT III						
MC 18	Copper Conductor Bus Bar	CAT III						
MC 19	Copper Foil/Sheet for Dry Type Transformer	CAT III						
MC 20	Gore cheese assembly for Bus Reactor	CAT III						
MC 21	Gore Clamps & OLT Bracket, Core/Tie Bolt, Rods & Nuts	CAT III						
MC 22	Epoxy Casting Material for Dry Type Transformer	CAT III						
MC 23	Fibre Glass Covered Copper Conductor for Dry Type Transformer	CAT III						
MC 24	Fibre Glass Sheet for Dry Type Transformer	CAT III						
MC 25	Gaskets	CAT III						
MC 26	Hardwares	CAT III						
MC 27	Motor for OLT	CAT III						
MC 28	Sheet Metal Enclosure for Dry Type Transformer	CAT III						
MC 29	Sheet Plate & Pipe	CAT III						
MC 30	Tank Fabrication upto 5 MVA	CAT III						
MC 31	Temperature Surveillance Unit for Dry Type Transformer	CAT III						
MC 32	Valves (for Radiator/Gun Metal/CI valves,etc.)	CAT III						
MC 33	Gas Collecting Device	CAT III						
MC 34	Networking of Numerical Relay	*(with Switchgear MQP)						
MC 35	Paint	CAT III						
MC 36	Copper for Copper Flats & Copper strips/leadlines	CAT III						
MC 37	OIL PURIFYING EQUIPMENT	CAT III						
MC 38	VACUUM PUMP WITH MOTOR	CAT III						
MC 39	ONLINE MOISTURE REMOVAL SYSTEM	CAT III						
MC 40	Oil Tanker (wheel mounted),10 kl. capacity	CAT III						
MC 41	POST INSULATOR	CAT II						
MC 42	DISC INSULATOR/PIN INSULATOR	CAT II						
MC 43	FIBRE OPTIC CABLE	CAT I						
MC 44	EVENT LOGGER	CAT III						
MC 45	GPS TIME SYNCHRONISATION EQUIPMENT	CAT III						
MC 46	RELAY TEST KIT	CAT III						
MC 47	DISTURBANCE RECORDER	CAT III						
MC 48	OPERATIONAL ANALYSER WITH DCRM KIT	CAT III						
MC 49	FOTE	CAT II						
MC 50	OPGW	CAT II						
MC 51	LARGE VIDEO SCREEN (LVS)	CAT III						
MC 52	BELT WEIGHER	CAT II						
MC 53	WEIGHT BRIDGE	CAT I						
MC 54	IN LINE MAGNETIC SEPARATOR / SUSPENDED MAGNET	CAT II						
MC 55	METAL DETECTOR	CAT II						
MC 56	CABLE REELING DRUMS	CAT II						
MC 57	FRANS SWITCHES	CAT III						
MC 58	PULL CORD / BELTSWAY / INDICATION SYSTEM	CAT II						
MC 59	ELECTRONIC SPEED SWITCH, ZSS, TILT SWITCH, MAGNETIC SWITCH, PROXIMITY SWITCH	CAT II						
MC 60	HEAVY DUTY LIMIT SWITCHES	CAT II						
MC 61	UNDER BELT SWITCH	CAT II						
MC 62	HFTK SET (Power Plus)	CAT I						
MC 63	Insulators for ESP (Bushing, Support, Shaft)	CAT III						
MC 64	Porcelain Insulator	CAT III						
MC 65	Lighting & Welding Transformer	CAT III						
MC 66	Industrial /Welding receptacle & boxes	CAT III						
MC 67	MS Rod/GI Strip/Flat and Wire for Earthing & Lightning protection	CAT III						
NOTE	SOURCES FOR THESE ITEMS SHALL BE FINALIZED DURING DETAILED ENGINEERING AND MQP FINALIZATION							
1	CRGO STEEL	CAT II						

