

**ELECTRICAL SCOPE BETWEEN BHEL AND VENDOR (FOR EPC PROJECTS)****PACKAGES: MILL REJECT SYSTEM****SCOPE OF VENDOR: SUPPLY, ERECTION & COMMISSIONING OF VENDOR'S EQUIPMENT****PROJECT:**

S.NO	DETAILS	SCOPE SUPPLY	SCOPE E&C	REMARKS
1	415V MCC	BHEL	BHEL	<p>a) 240 V AC (supply feeder)/415 V AC (3 PHASE 4 WIRE) supply shall be provided by BHEL as per load data provided by vendor at contract stage for all equipment supplied by vendor as part of contract. However, Emergency power supply shall be 415V, 3 phase, 3 wire only. Any single-phase emergency power requirement shall be derived by vendor.</p> <p>b) 230 V AC UPS Power supply shall be provided by BHEL at a single point, All necessary hardware for deriving other power supply from given feeder shall be in Vendor's scope.</p>
2	Local Push Button Station (for motors)	BHEL	BHEL	Located near the motor.
3	Power cables, control cables and screened control cables for a) both end equipment in BHEL's scope b) both end equipment in vendor's scope c) one end equipment in vendor's scope	BHEL Vendor BHEL	BHEL Vendor BHEL	<p>1. For 3.b) &amp; c): Sizes of cables required shall be informed by vendor at contract stage (based on inputs provided by BHEL) in the form of cable listing. Finalisation of cable sizes shall be done by BHEL. Vendor shall provide lugs &amp; glands accordingly.</p> <p>2. Termination at BHEL equipment terminals by BHEL.</p> <p>3. Termination at Vendor equipment terminals by Vendor.</p>
5	Cable trays, accessories & cable trays supporting system for a) both end equipment in BHEL's scope b) both end equipment in vendor's scope c) one end equipment in vendor's scope	BHEL Vendor BHEL	BHEL Vendor BHEL	Local cabling shall be through 100/ 50 mm cable trays/ conduits/ Galvanised steel cable troughs, as per approved layout drawing during contract stage for cabling between equipment supplied by vendor.
6	Cable glands, lugs and bimetallic washers for equipment supplied by Vendor	Vendor	Vendor	Bimetallic washers shall be used for bimetallic connections.
7	Junction box for control & instrumentation cable	Vendor	Vendor	Number of Junction Boxes shall be sufficient and positioned in the field to minimize local cabling.
8	Lighting (for Control room in Vendor's scope, if any)	Vendor	Vendor	
9	Equipment grounding (including electronic earthing) &	Vendor	Vendor	Vendor shall indicate location of Electronic Earth pit in their Civil

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S.NO	DETAILS	SCOPE SUPPLY	SCOPE E&C	REMARKS
	lightning protection			assignment drawing
10	Below grade grounding	BHEL	BHEL	
11	LT Motors with base plate and foundation hardware	Vendor	Vendor	
12	Any other equipment/ material/ service required for completeness of system based on system offered by the vendor (to ensure trouble free and efficient operation of the system).	Vendor	Vendor	In case the requirement of Junction Box arises on account of Power Cable size mis-match due to vendor engineering at later stage, vendor shall supply the Junction Box for suitable termination
13	a) Input cable schedules (Control & Screened Control Cables) b) Cable interconnection details for above c) Cable block diagram	Vendor Vendor Vendor	- - -	Cable listing for Control and Instrumentation Cable and electronic earthing cable in enclosed excel format shall be submitted by vendor during detailed engineering stage.
14	Electrical Equipment & cable tray layout drawings	Vendor	-	For ensuring cabling requirements are met, vendor shall furnish Electrical equipment layout & cable tray layout drawings (both in print form as well as in AUTOCAD) of the complete plant (including electrical area) indicating location and identification of all equipment requiring cabling, and shall incorporate cable trays routing details marked on the drawing as per BHEL interface comments. Cabling arrangement of the same (wherever overhead cable trays, trenches, cable ducts, conduits etc.) shall be decided during contract stage. Electrical equipment layout & cable tray layout drawing shall be subjected to BHEL/ customer approval without any commercial implications to BHEL.