Corrigendum - 11 dated 27/04/2026 to CPC Tender No. BHEL/CPC/KRW/EPC_AHP/26/070

Work Description - EPC package for Ash Handling Plant at 2x660 MW Korba West.

A) Some of the Bidders had asked queries in the published tender specification. The clarifications issued by BHEL are furnished below:

Sl. No	Reference clause of Tender Document	Existing provision	Bidder's query	BHEL's clarification
1	Sheet no. 22 of 26 of Corrigendum 08 Dtd 20/04/2026 Bore Hole Details		Kindly note that the attached plot plan marking the bor hole details does not match with the Plot Plan attached with the specification. Please let us know which Plot Plan is to be followed as there is a lot of variation in Plot Plan attached wide Sheet no. 22 of 26 of Corrigendum 8.	Bidder shall follow the Plot Plan attached as Annexure-4 to the Tender Document, along with any corrigendum issued from time to time, for all matters related to or arising out of queries concerning Annexure-4

B) **Following Annexure of TCC is revised**

Sl. No.	Existing	Revised
1.	Annexure-3 Rev-01 Electrical and C&I scope Matrix issued with Corrigendum 06 dtd 10/04/2026	Annexure-03 Rev-02 Electrical and C&I Scope Matrix. Further Bidder to note that the Annexures 3B, 3C, 3E, 3F and 3G Issued vide tender document and vide corrigendum on time to time basis shall remain part of the Annexure-3.

Note:

1) **All other terms and conditions against this NIT shall remain unchanged.**
2) **This corrigendum is to be submitted duly signed and stamped along with the Techno-commercial bid (Part- I).**

for BHARAT HEAVY ELECTRICALS LTD
Sr Manager/ SCT- CPC

ANNEXURE-3-ELECTRICAL, CONTROL AND INSTRUMENTATION SCOPE MATRIX FOR						2X660 MW SCTPP, HTPS, KORBA WEST AHP	Rev: 02 Dated: 23.04.2026
SL. NO.	**SCOPE DETAILS**	**INPUT DETAILS**	**ENGINEERING / DESIGN**	**SUPPLY**	**RECEIPT, UNLOADING, STORAGE, ERECTION, TESTING, COMMISSIONING**	**REMARKS**	
1	**Complete Electrical and C&I System** except for BHEL free issue equipment's as below 1) 11KV Switchboard 2) 6.6KV Switchboard 3) 6.6KV HT Motor (for Water and Slurry Pump application) 4) DCS 5) VMS Note: 1.All AC/DC/UPS/Aux Power supply required for BHEL free issue equipment's shall be in bidders scope. 2.O&M of BHEL Free issue equipment's shall be in bidders scope.	EPC Bidder	EPC Bidder	EPC Bidder	EPC Bidder	Location of BHEL free issue equipments shall be decided based on final layout engineering by successful bidder and space shall be considered by bidder in switchgear building/control Room with all facilities. All other required civil facilities like anchor/kerb angles/insert plates/support structures/base frames/channels etc. shall be considered by bidder . Supply and E&C of all HT/LT power, control, signal and communication cables, Cable trays, supports, earthing, electronic earthing material for BHEL free issue items shall be in Bidder's scope Unloading and storage of BHEL free issue items shall be in the scope of BHEL. BHEL region shall issue these items to EPC bidder. Local loading/unloading /transportation of these materials from BHEL storage to bidders storage/facilities shall be in bidders scope. Bidder shall provide min. 2 Nos. uncabled feeders each of 250A, 100A, 63A, 32A, 16A rating (1 No in in I/C-1 and 1 No in I/C-2) in all 415V PMCC boards supplied by Bidder for BHEL use. Load of 100KVA for each MCC shall be considered for these loads while transformer sizing. Customer requirement of feeders, cables & cabling in bidders area/facilities is in bidders scope. Data Concentrator system or Relay Network for BHEL free issue equipment as applicable up to Central Control room (TG building) shall be in bidders scope . This battery limit is also applicable for LT switchgear. Bidder shall provide the Illumination, Earthing, Lightning protection for all areas where Civil & structural is in bidder scope. Wherever integration of bidder supplied items with BHEL supplied system is involved, necessary integration shall be done by the bidder. Bidder to co-ordinate with BHEL-PEM for the Civil inputs required in Centralised Offsite Control Room for AHP system equipment's. Security of all equipment's including BHEL free supply till handing over to end customer is in scope of bidder. Obtaining Statutory clearance is in Bidders scope including BHEL free issue equipment's.	
2	1. MCC buildings/control rooms/ any other electrical building required as per scope of this pacakge.Any requirement of space in bidders building for customers use as mentioned in Customer specification 2. Cable trestle/rack required as below in is bidders scope. a. For all bidders facilities . b. For BHEL free supply items located in BHEL buildings & bidder buildings c. Any interconnection required for bidder equipment from BHEL buildings/facilities d. Cable rack required for customer use if applicable	EPC bidder	EPC bidder	EPC bidder	EPC bidder	Quantity & location of MCC building marked in plot plan is tentative only . Bidder to decide the Quantity and locations of MCC buildings without disturbing other facilities of BHEL . Connection between oil retention pit(Bidders scope of Transformer) to common oil retention pit located in main plant area is in bidders scope. The interconnection between Bidders earthing and Existing/Main earth grid is in Bidder scope. Please refer plot plan Annexure 1 for further details	
BHEL FREE ISSUE EQUIPMENTS							
3	11KV and 6.6KV Switchboard One number each of 11kV and 6.6kV HT switchboards, with the maximum available outgoing feeders as mentioned in Sl No 11 and 12, shall be provided to the bidder as a BHEL free issue equipment for the entire scope of work.	EPC Bidder	BHEL BHOPAL	BHEL BHOPAL	EPC Bidder	Bidder to refer Sl No 10 for 11kV power supply source availability. Bidder shall submit Electrical load list and transformer sizing within 3 months from LOI All Upstream/downstream tripping and interface/signal exchange between Sl No 10, 11, 12 shall be in the bidder's scope. The bidder shall ensure that the maximum loading at the 11kV level does not exceed the maximum cut-off MVA specified in Sl. No. 10. Bidder shall determine the appropriate rating of the 11/6.6 kV transformer and ensure that the maximum loading at the 11 kV level does not exceed the maximum cut-off MVA specified in Sl. No. 10. **Few additional 11KV/6.6KV feeder will be addded in these boards for BHEL requirement and exact quantity will be decided during detailed engineering. Increase in panel length due to this shall be accommodated by bidder by considering additional space without any commercial implication to BHEL(PEM / CPC to update).** Cable tray/Supports/earthing within the bidders switchgear building is in the scope of bidder. Adequate nos. of trays with support from 6.6kV/11KV switchboard located in bidders building up to bidder's rack planned nearest to respective BHEL 6.6kV/11KV load facility shall be provided by Bidder for the BHEL scope of Cables. During the engineering of the HT bus duct, interconnection between the bidder-supplied 11/6.6 kV transformer and the BHEL free-issued 6.6 kV switchboard, the bidder shall ensure that relevant inputs are obtained from BHEL for the termination of the HT bus duct at the 6.6 kV switchgear end. The bidder shall also ensure that the forward phase sequence, correct CT parameters are maintained during detalied engineering of 11kV and 6.6KV Switchboard. It is the bidder's responsibility to avoid any mismatch in this interface, and any modifications required at a later stage shall be within the bidder's scope without any commercial implication to BHEL	
4	**HT Motors for Water and Slurry Pump application** Bidder to refer **Sl No 13** for List of BHEL free issue HT motors available to bidder Note : HT motor for any other applications other than Water and Slurry Pump is in bidders scope.	EPC Bidder	BHEL BHOPAL	BHEL BHOPAL	EPC Bidder	Bidder shall provide qty, rating, TS curve, speed, GD2 type of mounting and coupling details as input to BHEL within 4 months from LOI. Temperature measuring system, LPBS for all BHEL free issue HT motors shall be in the bidder's scope . The supply of consumables and lubrication for BHEL free issue HT motors is included in the bidder's scope. Before shifting motors from BHEL storage to bidders storage/facilities, the bidder shall conduct motor testing. In case any fault occurs during operation and BHEL recommends repair at the factory premises, the bidder shall decouple/remove the motor and shift it to the BHEL storage. After repair, the bidder shall again unload, erect and test the motor. If any EPC bidder designed equipment requires job motor during inspection of the equipment, then BHEL shall transport directly to manufacturers works. post inspection despatch of motor directly to project site including loading, unloading storage is in bidders scope. Any damage during transit shall be dealt as per BHEL commercial terms and conditions	
5	Main AHP control system (DCS) , software development and other equipment related to DCS (DCS panels, Network panels, LVS, PCs, Printers, furniture desk, Chairs, PC Consoles, Servers, EMS, OWS/OEWS/EWS)	EPC Bidder	BHEL EDN	BHEL EDN	EPC Bidder	Bidder's scope includes the following: 1. Detailed IO list including BHEL free issue items , KKS tagging, P&ID Diagram, set-points, Control Philosophy & write up, block logic diagram & HMI screens (for software development), Functional grouping. 2.Detailed IO list shall be submitted within 6 months of LOI in the format prescribed by BHEL which shall be shared to sucessful bidder . Any addition of IO's at later stage is not acceptable. 3. Bidder shall visit BHEL/Customer during software development, application testing , FAT and ensure the completeness of software for E&C. 4. Any logic modification during commissioning stage shall be executed by EPC bidder. 5. 24V DC and UPS system (UPS load and 24V DC load applicable to BHEL free supplied equipments shall be shared to successful bidder during detailed engineering by BHEL-EDN. Bidder to size the rating of UPS and DC system considering the above load plus any load required for bidder supplied equipments.) 6.Complete PLC system, for HCSD System, DBA and any other PLC operated equipment's, including its HMI, UPS, PC, printers, battery, battery charger etc. 8. Bidder to coordinate with BHEL-EDN before finalisation of field bus based instruments/actuator regarding communication protocol.	
6	Vibration Monitoring/Analysis System (VMS/VMAS)	EPC Bidder	BHEL EDN	BHEL EDN/EPC Bidder	EPC Bidder	Bidder to provide sensor and key phasor mounting arrangement for bidder supplied equipment's as per contractual requirement. Sensors, Prefab Sensor cables from sensor up to Field mounted local JB near Motor and VMS panel shall be supplied as free issue to Bidder. Balance items required for completeness of the system are in the scope of Bidder.	
7	Roof Top Solar System	BHEL-SBD/RUDRAPUR	EPC Bidder	EPC Bidder	EPC Bidder	For estimation, the Bidder may take **50 Kw** capacity of the Solar Plant Defined for this Project as a whole. Further before placement of the order, Bidder to ensure that the items thus procured shall be of the same make as installed in the main Plant area supplied by BHEL.	

BHEL Supply items which are to be located in Bidder's scope of buildings in addition to BHEL Free supply Items							
8	CCVM System	BHEL EDN / EPC BIDDER	BHEL EDN	BHEL EDN	BHEL PS REGION	Location of these equipment's shall be decided based on final layout engineering by successful bidder and space shall be considered by bidder in switchgear building, control room, TP's, any other buildings. All other required civil facilities like anchor/kerb angles/insert plates/support structures/base frames/channels etc. shall be considered by bidder as required during Detailed ENGG.	
9	PA System	BHEL PEM / EPC BIDDER	BHEL PEM	BHEL PEM	BHEL PS REGION	All AC/DC/UPS/Aux Power supply required for above equipment's shall be arranged by bidder.	
Available feeder and motor list to bidder. Below mentioned number is maximum available offered as free supply to bidder, Any additional requirement shall be supplied by bidder as per bidder design requirement without any commercial implication to BHEL.							
10	List of uncabled 11KV source feeders available to bidder. a)Only 2 No of 11KV uncabled Feeder shall be provided by BHEL for Common AHP application at two locations as mentioned below: Location-1: One feeder at MV Switchgear room of Power house building at EL.3.5M from A-row to C-row between grid-2 to Grid-4. Location-2: Second feeder at MV Switchgear room of Power house building at EL.3.5M from A-row to C-row between grid-15 to Grid-17. b)Only 4 No's of 11KV uncabled Feeder shall be provided by BHEL for Unitized AHP 11/0.433kV Transformer application at two locations as mentioned below: Location-1: Two feeders at MV Switchgear room of Power house building at EL.3.5M from A-row to C-row between grid-2 to Grid-4. Location-2: Two feeders at MV Switchgear room of Power house building at EL.3.5M from A-row to C-row between grid-15 to Grid-17					a) 11KV Uncabled feeder for 11 kV switchboard at Sl No 3- Maximum MVA Available is 20.5MVA. b) 11KV transformer feeder (11/0.433kV) - Maximum MVA Available is 1.6 MVA for each unitized AHP Board REV02	Adequate nos. of trays and support from Main Power House MV Swgr room to C row Grid- 1 or Grid-26 depending upon the location of bidder's 11 kV switchboard shall be provided for 11kV cable of Ash Handling Package Vendor scope. Beyond this point, only space shall be provided for vendor in BHEL cable trestle upto the nearest planned BHEL cable trestle near 11kV AHP switchboard. Supply & installation of Cable Trays and support in BHEL's cable trestle shall be in vendor's scope. During contract stage, Vendor will provide the number of cable trays required along with their loading details as input to BHEL for reserving the space in BHEL Cable trestle/ cable rack for vendor's cables. Further, Cable rack along with cable trays & support shall be provided by Vendor for connecting the 11kV AHP Switchgear room with the nearest BHEL cable trestle. Complete cable supply, laying & termination at both ends (i.e. from 3.5m MV Swgr Room in Power House to 11kV AHP Switchboard) is in vendor's scope.
11	List of 11KV O/G feeders available to bidder. Location of switchboard : To be decided by Bidder					a) 11KV Transformer Feeder (11/6.6kV)- up to 16MVA b) 11KV Transformer Feeder (11/0433kV)- up to 2500KVA	a) 2 Nos b) 7 Nos
12	List of 6.6KV O/G feeders available to bidder. Location of switchboard : To be decided by Bidder					a) 6.6KV Motor feeder b) 6.6KV Transformer Feeder VFD application	a) 38 Nos b) 6 Nos
13	BHEL free issue HT motors available to bidder					6.6KV Motor	18 Nos
	Battery limit for hopper level integration of AHP sytem						
14	**ESP Hopper High And Low Level Switches & Level Scanner(3DLS/NOGS) as applicable**						
14A	ESP Hopper High and Low Level switches Following Information and provision will be made available to Bidder: #1. BHEL Ranipet will provide height of ESP hopper at which High and Low Level switch needs to be erected by bidder. Refer Annexure-3**B** for details. #2. ALI erection drawing for ESP hopper High and Low Level switch shall be provided by BHEL Ranipet, which shall be shared to successful bidder. *3. Provision for mounting (required opening, providing hopper insulation & cladding) of High and Low Level switches and access platform/ladder shall be provided by respective POWER SECTOR region. Power sector shall provide proper approach & clearance for mounting the Instrument / cable trays/ cable conduits	AHP BIDDER/ #BHEL-RANIPET	AHP BIDDER/ #BHEL-RANIPET	AHP BIDDER	AHP BIDDER/ *PS-Region	**The detailed scope of AHP EPC bidder includes.** 1.Design & Supply of High and Low Level switches along with all mounting arrangements. Each instrument shall have the provision to terminate 2 cables and one probe. 2.Design & Supply of 4 No's Local Instrument JB of minimum 120 terminals for each pass. Total No's of JB's shall be 4XNo of passes. These JB's shall be mounted near ESP Hopper platform. 3. 2NO contacts each from ALI High and each ALI Low level switch of each ESP hopper shall be wired upto these JB's. One NO contact of ALI high and ALI low of all fields of one bus-section of one ESP pass shall be wired to JB-1. Similarlty, second NO contact of ALI high and ALI low of all fields of one bus-section of one ESP pass shall be wired to JB-2. The second bus section of each ESP pass shall have similar set of 2 JBs . Hence, 4 Nos of JB will be applicable for every ESP pass. Similar arrangement is applicable for all the ESP passes. 4.Design & Supply of Power, Control / Instrumentation Cable with all accessories, flexible conduits for hooking of Level switch signals from each Level switch to Local Instrument JB. Seperate cable shall be considered for each Level switch. 5.Design & Supply of Control / Instrumentation Cable with all accessories for hooking of Level switch signals from Contact Multiplier at ESP MCC to AHP DCS 6.Design & Supply of supports for installation of instrument /controller / cable trays mounting including layout for cable tray for above cabling activities. 7.Design considering High and Low Level signals in AHP DCS IO list. 8.Installation, Testing & Commissioning at site. 9. Calibration of Level swicthes till handing over of the AHP system 10. The end customer tender specifications shall be referred for compliance wrt system design. **Ranipet/PS Region scope includes.** 1.Design & Supply of Power, Control / Instrumentation Cable with all accessories for hooking of Level switch signals from Local Instrument JB-1 to ESP MCC upto Contact multiplier module 2.Design of Complete Power supply & Distribution From ESP MCC upto Local Instrument JB. 3.Design & Supply of supports for installation of cable trays including layout for cable tray for above cabling activities 1,2 of BHEL scope. 4. Provision of Potential Free contact in contact multiplier module for all the Level switch signal at ESP MCC Module/feeder
14B	ESP Hopper Level Scanner Following Information and provision will be made available to Bidder: #1. BHEL Ranipet will provide hopper drawing / ESP drawing , which shall be shared to successful bidder. #2. The mounting arrangement for 3DLS/ NOGS will be finalised by AHP vendor based on the inputs from 3DLS/NOGS vendor. *3. Provision for mounting (required opening, providing hopper insulation & cladding) of Level Scanner and access platform/ladder shall be provided by respective POWER SECTOR region. Power sector shall provide proper approach & clearance for mounting the Instrument / cable trays.	AHP BIDDER/ #BHEL-RANIPET	AHP BIDDER/ #BHEL-RANIPET	AHP BIDDER	AHP BIDDER/ *PS-Region	**The detailed scope of AHP EPC bidder includes.** 1.Design & Supply of 3DLS / NOGS system along with power supply and all mounting arrangements for mounting in ESP hoppers. 2. Design and supply of local instrument JB at ESP hopper area for termination of the output signals of 3DLS / NOGS. Deriving 24V DC supply from 230 V AC, as per requirement shall be made available in the JB supplied. 3a. 3DLS- In case of 3DLS, two signals from each instrument, one 4-20mA and one serial communication(like RS-485). Both the signals shall be wired to the local JB at ESP hopper area by AHP vendor. One JB for one ESP is generally envisaged . Cabling of 4-20 mA signals from local JB till main plant DCS shall be by BHEL . Required inputs/ details to display the average hopper level at main DCS based on 4-20 mA signal shall be provided by AHP /3DLS vendor. The serial communication signals (such as RS-485) shall be made available at ESP control room. Cabling of serial communication from local JB till ESP Control room shall be by AHP Bidder. AHP/3DLS vendor shall provide the operator PC station with software at ESP MCC to have the 3D visualisation of ESP hopper level. 3b. NOGS- In case of NOGS , the NOGS system provides 4-20 mA signals and relay contacts corresponding to hopper ash level. One local JB for one ESP is generally envisaged for 4-20 mA signals catering to the requirements of one ESP pass. This local JB is to be provided with 4-20 mA isolator which shall multiply each of the 4-20 mA signal into two. Cabling for extending 4-20 mA from local JB till main DCS shall be by BHEL . Required inputs/ details to display the average hopper level at main DCS based on NOGS signal shall be provided by AHP vendor. Further, the second set of 4-20 mA signals would be extended to ESP control room. Cabling from local JB till ESP Control room shall be by BHEL. AHP vendor has to provide the operator PC station with software/ESP Level indicator at ESP control ROOM to display the ESP hopper level. 4.Design of Complete Power supply(230V) & Distribution from AHP MCC upto Local Instrument JB. 5. Power supply cabling from Local instrument JB to each instrument 6.Design & Supply of supports for installation of instrument /controller / cable trays mounting including layout for cable tray for above cabling activities. 7.Installation, Testing & Commissioning of 3DLS/ NOGS at site. 8. Calibration of 3DLS / NOGS , if required, till handing over of the AHP system 9. The end customer tender specifications shall be referred for compliance wrt system design. **Ranipet/PS Region scope includes.** 1.Design & Supply of Power, Control / Instrumentation Cable with all accessories for hooking of Level Scanner signals from Local Instrument JB to ESP MCC/Main Plant DCS (Spare terminals of dual O/P Signal) 2.Design & Supply of supports for installation of cable trays including layout for cable tray for above cabling activities 1 of BHEL scope

15	APH/ECO/DUCT/SCR Hopper High & Low Level switches and Level Transmitters As applicable Following Information and provision will be made available to Bidder: #1. BHEL Trichy will provide quantity, specification and height of hopper at which level switch needs to be erected to bidder. Refer Annexure-3C for details. *2. Provision for mounting (required opening, providing hopper insulation & cladding) of level switches/transmitters and access platform/ladder shall be provided by respective POWER SECTOR region. Power sector shall provide proper approach & clearance for mounting the Instrument / cable trays.	BHEL-TRICHY#/ AHP BIDDER	BHEL-TRICHY#/ AHP BIDDER	AHP BIDDER	AHP BIDDER/ PS-Region*	**The detailed scope of AHP EPC bidder includes.** 1.Design & Supply of level switches & level transmitters(As applicable) along with all mounting arrangements 2.Design & Supply of Local Instrument JB for Wiring all 2 NO/NC contacts / Dual output AI signal (8 wires / 4 Pair F Type) 3.Cabling upto Local Instrument JB from Level Switches/Transmitter and further upto DCS for Hooking the Level switch signals at AHP DCS 4.Design for Complete Power supply & Distribution from AHP UPS. 5.Design & Supply of Power, Control / Instrumentation Cable with all accessories for hooking of Level switch / transmitter signals from Instrument to AHP DCS. 6.Design considering Level High / Level Low & Level Transmitter DI & AI signals in AHP DCS IO list. 7.Design & Supply of supports for installation of instrument /controller / cable trays mounting including layout for cable tray. 8.Installation, Testing & Commissioning at site. 9. Calibration of Level swicthes till handing over of the AHP system **Trichy/PS Region scope includes.** 1.Design & Supply of Control / Instrumentation Cable with all accessories for hooking of Level switch signals from Local Instrument JB to Main Plant DCS 2.Design & Supply of supports for installation of cable trays including layout for cable tray for above cabling activities.

Name of BHEL UNIT for coordination with successful bidder of various system during Engineering

Sl No	System	BHEL-Unit
A	Plot Plan with Switchgear location, cable routing, earthing, illumination	BHEL-ISG/BHEL PEM
B	Electrical and C&I system other than below listed	BHEL-ISG
1	Design and integration of 415V, 3.3KV and 11KV system along with upstream breaker interface **(CPC to confirm)**	BHEL-PEM/ BHEL-BHOPAL
2	DCS, VMS, UPS, 24V DC System	BHEL-EDN
3	HT Motors for Water and Slurry Pump	BHEL-Bhopal
4	CCVM System	BHEL-EDN
5	PA System	BHEL-PEM
6	**HT Busduct (CPC to confirm)**	**BHEL-Rudrapur**
7	Roof Top Solar System	BHEL-SBD/Rudrapur
8	ESP Hopper Level-High, Low Level switches & Level Transmitters As applicable	BHEL-RANIPET
9	APH/ECO/DUCT/SCR Hopper Level-High, Low Level switches & Level Transmitters As applicable	BHEL-TRICHY
10	Fire Fighting and FDA system	BHEL-PE&SD