Corrigendum - 3 dated 11/07/2025 to CPC Tender No. BHEL/CPC/SGL/EPC-AHP/26/012

Corrigendum - 3 dated 11/07/2025 to CPC Tender No. BHEL/CPC/SGL/EPC-AHP/26/012 for the work of "EPC package for Ash Handling Plant at Singrauli STPP Stage-III (2X800 MW)".

A) Modification in PRE-QUALIFYING REQUIREMENTS (PQR): Some clauses of existing PRE-QUALIFYING REQUIREMENTS (PQR) (Annexure – 1) of NIT are **revised** as mentioned below;

Sl. No.	PQR Clause No.	Existing clause in Tender	Revised clause
1	**A.2**	The Bidder who is a supplier of ash handling systems but does not meet the requirements under clause A.1 in part or in full can also participate provided it has executed at least the following systems of ash handling plant involving design, engineering, manufacturing/ got manufactured, supply, erection/ supervised erection and commissioning/ supervised commissioning: -……	The Bidder who is has Executed Ash Handling Systems but does not meet the requirements under clause A.1 in part or in full can also participate provided it has executed at least the following systems of ash handling plant involving design, engineering, manufacturing/ got manufactured, supply, erection/ supervised erection and commissioning/ supervised commissioning: -……..
2	**Notes to Clause no. A.1, Sl. No. ii)**	ii). The activity of design and engineering under A.1 (a), (b), (c) & (d) should have been carried out by the bidder and not through any external design agency/agencies.	ii). The activity of design and engineering under A.1 (a), (b), (c) & (d) should have been carried out by the bidder.
3	**A.4**	**SUB QUALIFICATION REQUIREMENT:** Bidder shall submit a confirmation/ declaration for Sub PQR Clauses 6.1 to 6.3 of Chapter – 6 of TCC towards SUB QUALIFICATION REQUIREMENT of Ash Slurry Disposal Pumps, Design and all other Items/Equipments required for the completion of the package along with bidding documents in Annexure - 20.	**SUB QUALIFICATION REQUIREMENT:** Bidder shall submit a confirmation/ declaration for Sub PQR Clauses 6.1 to 6.3 of Chapter – 6 of TCC towards SUB QUALIFICATION REQUIREMENT of Ash Slurry Disposal Pumps, Design and all other Items/Equipments required for the completion of the package along with bidding documents in Annexure - 20. Note: Further, bidder to provide a declaration regarding Sourcing of the Systems Related to Completion of the Ash Handling System of 1X800 MW SIPAT Project in Annexure- 20-A (ATTACHED ALONG WITH THIS CORRIGENDUM).

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Sl. No.	PQR Clause No.	Existing clause in Tender	Revised clause
4	**A.5**	**For Civil:** **Bidder shall fulfil either A.5.1 or A.5.2 in last Ten Years from the latest date of bid submission;** **A.5.1** Bidder should have executed one Ash Handling Plant/ Coal Handling Plant in a Coal based/ Lignite based power plant **OR** **A.5.2** Bidder should have executed One civil works comprising of at least one RCC Silo of at least 24 mts height OR Shell of one RCC Chimney up to 16 mts height OR Shell of one NDCT up to at least 16 mts height OR "any other RCC structure up to 32 mts height using Slip-Form/Jump-Form Technique" in a running/completed contract.	**For Civil:** **Bidder shall fulfil either "A.5.1" OR "A.5.2.1 (a) & A.5.2.2" OR "A.5.2.1 (b) and A.5.2.2" in last Ten Years from the latest date of bid submission;** **A.5.1** For civil works of Ash Handling Plant, Bidder should have executed Ash Handling Plant of 500 MW or higher capacity Coal based/Lignite based power plant. **A.5.2.1 (a)** Bidder should Have Executed 9,048 Cum of RCC Quantities within a period of Twelve Consecutive months in one running/complete contract. **A.5.2.1 (b)** Bidder should Have Executed 13,572 Cum of RCC Quantities within a period of Twelve Consecutive months in Cumulative of two running/complete contract. **A.5.2.2** Bidder should have executed one "RCC Silo of at least 24 mts height" OR "Shell of one RCC Chimney up to at least 16 mts height" OR "Shell of one NDCT up to at least 16 mts height" OR "any other RCC structure up to at least 32 mts height using Slip-Form/ Jump-Form Technique" in a running/completed contract.
5	**A.6**	**For Structural:** **Bidder shall fulfil either A.6.1 or A.6.2 in last Ten Years from the latest date of bid submission;** **A.6.1** "Bidder should have executed one AHP structure/ CHP Structure/ Mill Bunker/ Boiler/ Power House of one unit of rating >190 MW" "Executed" means the following:	**For Structural:** **Bidder shall fulfil either "A.6.1" OR "A.6.2" OR "A.6.3" in last Ten Years from the latest date of bid submission;** **A.6.1** For Structural works of Ash Handling Plant, Bidder should have executed Ash Handling Plant of 500 MW or higher capacity Coal based/Lignite based power plant.

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Sl. No.	PQR Clause No.	Existing clause in Tender	Revised clause
		- For AHP Structure/ CHP structure / Mill bunker – Coal firing of the unit - For Boiler- Boiler Light -up - For Power House - synchronization of unit **OR** **A.6.2** Bidder Should have executed Structural Erection Works of 5000 MT in Single Work order in any Thermal Power Plant or Industrial Plant.	**A.6.2 a)** Bidder Should have executed Structural Fabrication and Erection Works of 2109 MT within a period of Twelve Consecutive months in one running/complete contract OR **A.6.2 b)** Bidder Should have executed Structural Fabrication and Erection Works of 3163 MT within a period of Twelve Consecutive months in cumulative of two running/complete contract. OR **A.6.2 c)** Mill Bunker of At least one Unit 190 MW and above. **A.6.3** Executed Boiler for At least on unit of 190 MW and above capacity consisting of structures and Pressure parts (of the same unit as standalone Bidder)

B) Modification in TECHNICAL CONDITIONS OF CONTRACT (TCC): Some clauses of existing TCC are revised as mentioned below;

Sl. No.	TCC Clause No.	Existing clause in Tender	Revised clause
1	16.0	ANNEXURE-3: Electrical and C&I scope Matrix	**Annexure-3 (Rev-01):** Electrical & C&I Scope Matrix **(attached along with this corrigendum)**
2	16.0	New Annexure Added	**Annexure-20A:** DECLARATION REGARDING SOURCING OF THE SYSTEMS RELATED TO COMPLETION OF THE ASH HANDLING SYSTEM OF 1X800 MW SIPAT PROJECT **(attached along with this corrigendum)**

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C) Some of the Bidders had asked queries in the published tender specification. The clarifications issued by BHEL are as below;

Sl. No.	Section/Clause No	Specification	Bidder's Query	BHEL Clarification
1	9587-001(R)-POM-A-029 R2	SINGLE LINE DIAGRAM FOR ASH CLASSIFIER SYSTEM (FOR VACUUM CONVEYING SYSTEM)	Kindly inform the capacity selection criteria for the pressure conveying line that will connect the coarse fine ash hopper and fine fly ash hopper to main fly ash silo.	NTPC Specification is clear regarding the Conveying capacity. Please follow the same.
2	Sl. NO. A.5.1 (PQR)	Bidder should have executed one Ash Handling Plant/Coal Handling Plant in a Coal based/Lignite based power plant	Kindly accept civil work of any other industrial project.	Refer modification in PQR issued along with this corrigendum
3	Sl. NO. A.6.1 (PQR)	Bidder should have executed one AHP structure/ CHP Structure/ Mill Bunker/ Boiler/ Power House of one unit of rating >190 MW	Kindly accept structural work of any other industrial project.	Refer modification in PQR issued along with this corrigendum
4	Sl. NO. A.6.2 (PQR)	Bidder Should have executed Structural Erection Works of 5000 MT in Single Work order in any Thermal Power Plant or Industrial Plant.	We request you to kindly accept structural erection work of 4000MT in a single work.	Refer modification in PQR issued along with this corrigendum
5	General		Kindly note that the clarifications and replies to bidders clarifications issued during the earlier published tender no. BHEL/CPC/SGL/EPC-AHP/25/082 are not attached with the revised documents uploaded by BHEL. Please let us know if the same are to be	Bidder to raised the Queries wrt to the current tender.

Sl. No.	Section/Clause No	Specification	Bidder's Query	BHEL Clarification
			considered as a part of this tender or not.	
6	Jet pump and coarse ash slurry pumping upto the slurry sump	Bidder's proposal to discharge Jet Pump/Coarse Ash pipe directly to combined ash slurry pump house.	We request you to kindly confirm your requirement which should be common for all bidders as the changes will have additional price implications.	Bidder Query Is not clear
7	Compressor house 27A	27A is for transport air compressor house.	We request you to confirm to confirm that 27A is for locating the Transport Air compressors for conveying ash from the classifier area to the main silos.	Transport Air compressors for conveying ash from the classifier area to the main silos shall be located in 27A. shown in the plot plan
8	Combined Ash Slurry Pump sizing		**Please furnish the route length to be considered for Khadiya Dyke** to enable us check the slurry pump configuration. This will have an effect on the slurry Pump House Sizing also.	Bidder to consider the worst case of 17 KM for pumping distance and 26 M static height of dyke for pump design.
9	Makeup water to the Combined Ash Slurry Pumphouse during only sludge disposal		Please confirm that the makeup water to the combined ash slurry sump can be taken from any of the water pumps not working when only sludge is to be pumped to the ash dyke instead of LP water pump or we have to provide separate makeup pumps. This is	Separate pump need not to be considered for make up arrangement.

Sl. No.	Section/Clause No	Specification	Bidder's Query	BHEL Clarification
			required to optimize the water balance.	
10	BAHP water pumps	2W + 1S BAHP water pumps	Providing 2W + 1S BAHP water pump will have only 50% standby pump. Please confirm.	Each HP water pump shall cater one unit 100% HP water requirement..
11	Annexure-3, Electrical, control and instrumentation scope matrix point 13 : HT motors free issue to Bidder	29 HT Motors	Please furnish the breakup of 29 Nos. 3.3KV motors considered to enable us check the requirements.	Bidder to refer Sl. No 4 of Annexure-3 Rev-01 (attached along with this corrigendum) for clarity on application for which HT motors are issued as free supply. Breakup has to be provided by successful bidder during detailed engineering.
12	TCC chapter-XII : Exclusions clause no. 12.4	Supply of DCS along with HMI ……	We have noted the exclusion. However, please let us know how BHEL will compare the bids of various bidders during evaluation as the number of I/Os will vary from Bidder to bidder and additional I/Os as per system adopted will be an additional cost to BHEL. We suggest BHEL call for number of I/Os for loading.	Bidder to follow tender specification
13	Annexure-3, Electrical, control and instrumentation scope matrix point 1 : note: 1	All AC/DC/UPS/Aux Power supply required for BHEL free issue equipment's shall be in bidders scope	Please indicate the approx.. ratings for 24V DC/220V DC/230V AC UPS ratings.	Bidder to follow tender specification

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Sl. No.	Section/Clause No	Specification	Bidder's Query	BHEL Clarification
14	Annexure-3, Electrical, control and instrumentation scope matrix point 1 : note: 2	O&M of BHEL Free issue equipment's shall be in bidders scope	Please confirm that any spares as required during O&M will be provided by BHEL and only operation of the Free issued items will be in bidders scope.	Bidder to refer Chapter-IX of the TCC.
15	Annexure-3, Electrical, control and instrumentation scope matrix point 1 : Last clause under remarks	Obtaining Statutory clearance …… free issue equipment's.	Kindly elaborate your requirement.	Bidder to follow tender specification
16	Annexure-3, Electrical, control and instrumentation scope matrix point 3 : note:	For utilized load of Ash extraction system, 4 Nos of 11KV …..	Please note that as our system calculations, 4 nos. feeders are inadequate and **we will require 5 Nos. Feeders.** Hence please confirm provision of minimum 5 No. Feeders.	Bidder to follow tender specification
17	Annexure-3, Electrical, control and instrumentation scope matrix point 3 : para 5	Few additional 11KV/3.3KV feeder will be added …..	In case of any change in the building size due to additional feeders required by BHEL, then extra cost to shall be paid by BHEL to the bidder. Please confirm.	Being an EPC bid, the bidder has to consider the same while quoting for the package.
18	Annexure-3, Electrical, control and instrumentation scope matrix point 4 : Para 4	Before shifting motors …..	Only IR values and free rotation of the rotor will be/can be tested. Please confirm.	The tests related to shifting of the motors shall be governed by the QR requirements of the BHEL unit. The same shall be intimated during the execution of the contract. It is confirmed that IR Value and Free rotation of the motor are required to be checked during shifting of the

Sl. No.	Section/Clause No	Specification	Bidder's Query	BHEL Clarification
				motors, however if any other checks are to be carried out before taking the handing over of the motors, the same shall be in the scope of bidder without any cost implication to BHEL.
19	Annexure-3, Electrical, control and instrumentation scope matrix point 7 : Roof top solar system	For estimation, the bidder may take 10% …..	We request BHEL to kindly consider the same in BHEL scope for uniformity as same make/model of solar equipment will be an advantage for BHEL.	Bidder to follow tender specification
20	Annexure-3, Electrical, control and instrumentation scope matrix point 12 : List of 3.3KV O/G feeders …	a) 3.3KV Motor Feeder: 38 Nos.	Please check as the 38 Nos. 3.3KV Motor Feeders are inadequate considering Slurry Pumps, Ash Water Pumps, TAC and CAC as specified. Please revise the number of Feeders.	Quantity of 3.3kV Motor feeder mentioned at Remarks a) of Sl. No. 12 - **38 Nos** shall be read as **50 Nos**.
21	Annexure-3, Electrical, control and instrumentation scope matrix point 12: List of 3.3KV O/G feeders …	b) 3.3KV Transformer Feeder VFD application: 2 Nos.	We suggest 2 Nos. 11KV feeder for VFD application to be considered, instead of 3.3KV. Please check and confirm.	Bidder to follow tender specification
22	Annexure-3, Electrical, control and instrumentation scope matrix point 6 : VMS	BHEL EDN Scope	As the VMS is excluded from the Bidders scope, please let us know how BHEL will compare the bids of various bidders during evaluation as the number of HT Motors will vary from Bidder to bidder based on the type of system adopted by the	Bidder to follow tender specification

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Sl. No.	Section/Clause No	Specification	Bidder's Query	BHEL Clarification
			bidder and additional HT Motors as per system adopted will be an additional cost to BHEL. We assume that BHEL will do necessary loading of cost towards additional HT Motors. Please confirm	
23	TCC, Ch: VII, Terms of Payment, Clause No.: 7.1, Page 42 of 95		We request 5% advance payment for the Supply part also.	Tender Conditions Shall Prevail
24	TCC, Ch: VII, Terms of Payment, Clause No.: 7.13.1 & 2, Page 56 of 95		As per clause, 5% BG against Retention money is to be provided. Hence, we request to delete clause for requirement of 5% retention.	Tender Conditions Shall Prevail
25	TCC. Ch-III, Cl. No.: 3.29, Page 18 of 95	Approach road, Chipping and Levelling/ Grading near erection location is in Bidder scope.	We understand that the owner will provide the leveled area to bidders. Only micro leveling as required shall be in the bidder's scope.	Bidder to develop necessary approach roads for facilities including culvert for main road drain crossing, and necessary dismantling and finishing of main road drain to merger the approach road drains. Main Roads and approach roads at fly ash silo area complex and its facilities shall be developed by bidder. Levelled area shall be provided to bidders, only micro leveling / grading up to +/- 500 mm shall be in the scope of bidder.

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Sl. No.	Section/Clause No	Specification	Bidder's Query	BHEL Clarification
26	TCC. Ch-III, Cl. No.: 3.27	The Following sludges shall be discharged to ash slurry sump -----	Please clarify sludges shall be discharged to BASPH sump or CASPH sump.	Refer NTPC Technical Clarification No.1, Page 27 of 31. The timing of intermittent sludgepumping will be adjusted to match AHP operation
27	ANNEX-24 Dismantling Scope & GPR Report	Scope of Dismantling: By NTPC/ EPC Vendor	Please clarify the scope of AHP bidder. As per query no 3 above only micro leveling as required shall be in the bidder's scope.	For Dismantling: Dismantling and safe disposal of existing structures in AHP work area as per requirement shall be in the scope of EPC bidder. The scope of dismantling as per NTPC Tender and GPR Survey report for dismantling works is attached herewith for bidder's reference. For Levelling & Grading: BHEL shall provide levelled area to bidder, however micro levelling and grading for roads, pavements, area development etc. up to FGL as per drawing requirements shall be in the scope of bidder.
28	Tech. Specs., Section-VI, Part-B, Sub-Section-D-1-5, Civil Works, Cl. No.: 5.05.01, Page No.: 23 of 127	The civil works for Ash handling----------For the ballast-less rail track under silo area complex a 4.0m wide area (2.0 m either side of centre line of railway track) shall be left unpaved along the rail track in complete silo area complex same shall be constructed by railway siding agency----------	From Plot Plan, it appears that there are three railway lines passing though FA Silo area. One railway line passes beneath FA Silo and others pass adjacent to FA Silo but on the paving area. Please clarify whether the area adjacent to FA Silo to be left unpaved considering the nearby railway lines.	The area adjacent to FA silo to be paved and extent of paving depends on the AHP facilities and truck movement. This shall be finalized during detail Engineering.

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Sl. No.	Section/Clause No	Specification	Bidder's Query	BHEL Clarification
29	General		We understand that paving at BAH area is in BHEL scope. Please clarify.	All foundations for AHP systems in side the boiler area are to be executed by AHP EPC bidder. However only Paving in BAH area is in BHEL scope.
30	Plot Plan	Slurry Pipeline from CASPH to Khadiya showing on pedestal below pipe rack.	Please provide detailed drawings of the pipe rack (by others) so that we can plan pedestals below the pipe rack.	Bidder to follow the Plot plan and decide accordingly. Bidder, may visit site and understand the route requirement.
31	Plot Plan	Slurry Pipeline from CASPH to Khadiya dyke	Slurry Pipeline from CASPH to Khadiya dyke is showing on pedestal after Grid 1400E. Please clarify culverts or pipe rack to be considered for road crossing after Grid 1400E.	Required crossings in the form of culverts, pipe racks to be considered by bidder.
32	Plot Plan	Slurry Pipeline from CASPH to S1/S2 and Khadiya dyke	Please provide the bidder scope terminal point for Slurry Pipeline from CASPH to S1/S2 and Khadiya dyke.	The approximate co-ordinates are 731.750E/732.600N and 2054.320E/1065.00N.
33	Plot Plan	Bottom Ash Slurry Pipeline from BAH to BASPH	We understand that slurry pipe from BAH up to M-N row (front side of ESP) shall be on pedestal. From M-N row (front side of ESP) up to BASPH on duct supporting structure. Duct supporting structure shall be supplied by others. Please clarify whether our understanding is correct. If yes, please provide a clear corridor for AHP Pipe and	Slurry pedestal on boiler area shall be on ground pedestal/pipe rack. The pipe supporting structure/platform for AHP system in the front and rear side ESP is in the scope of the bidder. The bidder can take the support from the BHEL ID structure columns only, for framing the pipe supports. If BHEL columns are not available, bidder has to consider separate columns.

Sl. No.	Section/Clause No	Specification	Bidder's Query	BHEL Clarification
			cable tray on duct supporting structure at M-N row. Also specify the supply scope for secondary steel supports for AHP Pipe and cable tray.x If not, please provide Bottom Ash Slurry Pipeline corridor from BAH to BASPH.	
34	Plot Plan	Fly Ash Pipeline from ESP to Classifier or IM Silo	We understand that Fly Ash pipe from ESP to Classifier or IM Silo at T-U row (rare side of ESP) shall be supported on duct supporting structure. Duct supporting structure shall be supplied by others. Please provide a clear corridor for AHP Pipe and cable tray on duct supporting structure at T-U row (rare side of ESP). Also specify the supply scope for secondary steel support for AHP Pipe and cable tray.	Slurry pedestal on boiler area shall be on ground pedestal. The pipe supporting structure/platform for AHP system in the front and rear side ESP is in the scope of the bidder. The bidder can take the support from the BHEL ID structure columns only, for framing the pipe supports. If BHEL columns are not available, bidder has to consider separate columns.
35	Flow Diagram (9587-001(R)-POM-A-025), R1	Slurry line from Coarse ash Tank is marked as 'to Ash Slurry Sump'	Please clarify whether the slurry line from Coarse Ash Tank is to be discharged to BASPH or CASPH.	The slurry line from Coarse Ash Tank is to be discharged to BASPH.

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Sl. No.	Section/Clause No	Specification	Bidder's Query	BHEL Clarification
36	Flow Diagram (9587-001(R)-POM-A-029), R2	Fine ash as well as Coarse ash Hoppers below classifier	Please clarify whether these silos are in RCC or MS construction.	Bidder to refer NTPC specification which is clear.
37	ANNEX-3-Electrical and CI scope Matrix, S. No.: 5A:Remarks S. No.: 6	6. Complete PLC system, for HCSD System, Classifier, Baggifier, DBA and any other PLC operated equipment's, including its HMI, UPS, PC, printers, battery, battery charger etc.	We have not considered any PLC for equipment like clarifier Baggifier, DBA and any other PLC operated equipment's, including its HMI, UPS, PC, printers, battery, battery charger etc. Necessary IOs list related to above equipment in addition to plant AHP shall be provided for interconnection with DCS. Please confirm.	Noted.

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

ANNEXURE-3-ELECTRICAL, CONTROL AND INSTRUMENTATION SCOPE MATRIX FOR						2X800 MW NTPC SINGRAULI AHP	Rev: 01 Dated: -09-07-2025
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) 3.3KV Switchboard 3) 3.3KV HT Motor 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. Data Concentrator system or Relay Network for BHEL free issue equipment as applicable up to Central Control room (TG building) shall 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 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	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 4 for further details and scope demarcation. One Common MCC building (CHP MCC-3 cum AHP MCC) for CHP and AHP system is considered near TP-21 and location is marked in the plot plan. Equipment layout of this building is in BHELs scope . Tentative Equipment layout enclosed for reference **(Annexure-3B Tentative Equipment layout Common MCC building (CHP MCC-3 cum AHP MCC)** and space allotted for AHP bidder facilities inside this building is categorically mentioned . Bidder to note that no additional space in this common MCC building shall be provided for bidder. Interconnecting Cable rack between BHEL common MCC and Bidders cable rack for AHP shall be in bidders scope. The following which are required for the common Building (CHP MCC-3 cum AHP MCC) are excluded from bidders scope; 1. AC and Ventilation . However heat load of Bidders equipments to be furnished by bidder along with offer. 2. Illumination for this building. 4 No's of 32A O/G feeder considered in BHEL MLDB for bidder use for any Illumination work by bidder near by this building. However Bidder shall provide 2 No's of 32A O/G feeders in Bidder MLDB in SILO area for BHEL use . 3. 220V DC battery, charger with DCDB considered in this building by BHEL. However, cable & cabling between BHEL DCDB & bidder equipments is in the scope of bidder. Bidder load limited to this building only considered in this DC system. 4. Building periphery earthing , Floor grid of this common building. However Earthing of Bidders supplied equipment in this common building to near BHEL grid is in Bidders scope. 5. Cable trays & support in this common building .Bidder to provide BOQ of cable trays & supports for Bidders requirement along with offer. Cable laying is bidders scope for bidder supplied equipments. Base frame , channels, angles, conduits/pipes , transformer related rails , channels/flats required for transformer withdrawal , fencing , soak pits or any other supporting arrangement required for Bidders equipment in the common MCC building is in the scope of bidder.	
BHEL FREE ISSUE EQUIPMENTS							

ANNEXURE-3-ELECTRICAL, CONTROL AND INSTRUMENTATION SCOPE MATRIX FOR						2X800 MW NTPC SINGRAULI AHP	Rev: 01 Dated: -09-07-2025
SL. NO.	**SCOPE DETAILS**	**INPUT DETAILS**	**ENGINEERING / DESIGN**	**SUPPLY**	**RECEIPT, UNLOADING, STORAGE, ERECTION, TESTING, COMMISSIONING**	**REMARKS**	
3	11KV and 3.3KV Switchboard One number each of 11kV and 3.3kV 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. Note: For Unitized load of Ash extraction system, 4 No's of 11KV uncabled feeder shall be made available to bidder at Main Plant area. Bidder to refer **Sl No. 10** Note: for Silo area, 2 No's of 11KV uncabled feeder shall be made available to bidder at Main Plant area. Bidder to refer **Sl No. 10**	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 11/3.3 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/3.3KV 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. Cable tray/Supports/earthing within the bidders switchgear building is in the scope of bidder.** During the engineering of the HT bus duct, interconnection between the bidder-supplied 11/3.3 kV transformer and the BHEL free-issued 3.3 kV switchboard, the bidder shall ensure that relevant inputs are obtained from BHEL for the termination of the HT bus duct at the 3.3 kV switchgear end. The bidder shall also ensure that the forward phase sequence, correct CT parameters are maintained during detalied engineering of 11kV and 3.3KV 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	
5A	Main AHP & AWRS 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 for E&C/ BHEL PS Region (Supervision)	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. Any addition of the I/O provided after the initial approval of the I/O Counts shall be done on the chareable basis by BHEL PS Region/EDN., if required for the operational compliance. 3. Bidder shall visit BHEL/Customer during software development, application testing , FAT and ensure the completeness of software for E&C. 4. Any logic modificationduring commissioning stage shall be executed by EPC bidder. Supervision for the Logic Modification shall be done by PS-Region in consultatation with EDN for DCS on chargeable basis. 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, Classifier, Baggifier, DBA and any other PLC operated equipment's, including its HMI, UPS, PC, printers, battery, battery charger etc. 7. Bidder to refer customer NIT specification for scope clarity. for AWRS system. 8.Bidder to coordinate with BHEL-EDN before finalisation of field bus based instruments/actuator regarding communication protocol. In General, the COntrol Room Layout Drawing and distance between the different control rooms for AHP systems shall be provided by vendor during detailed engineering to BHEL EDN. Cable Scope(all power control instrumentation cables, FO cables along with cable trays, with glands lungs in AHP are in the scope of bidder.	
5B	Wireless Link between AWRS system / DCS , located in AWRS control room and AHP system / DCS	EPC Bidder	EPC Bidder	EPC Bidder	EPC Bidder for E&C/ BHEL PS Region (Supervision)	Bidder to refer customer NIT specification for scope clarity.	
6	Vibration Monitoring/Analysis System (VMS/VMAS)	EPC Bidder	BHEL EDN	BHEL EDN	EPC Bidder for E&C/ BHEL PS Region (Supervision)	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. VMS inputs shall be provided in the attached annexure. In General, the Control Room Layout Drawing and distance between the different control rooms for AHP systems shall be provided by vendor during detailed engineering to BHEL EDN.	

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SL. NO.	**SCOPE DETAILS**	**INPUT DETAILS**	**ENGINEERING / DESIGN**	**SUPPLY**	**RECEIPT, UNLOADING, STORAGE, ERECTION, TESTING, COMMISSIONING**	**REMARKS**	
7	Roof Top Solar System	BHEL-SBD/RUDRAPUR	EPC Bidder	EPC Bidder	EPC Bidder	For estimation, the Bidder may take **50 KWp** of the total 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.	
7A	Fire Fighting and FDA System	BHEL-PE&SD	BHEL-PE&SD	BHEL-PE&SD	BHELPS Region	Power supply feeders (as per Annexure-3A) and Power Cable & Cabling for these power supplies are in the scope of bidder.	
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. All AC/DC/UPS/Aux Power supply required for above equipment's shall be arranged by bidder.	
9	PA System	BHEL PEM / EPC BIDDER	BHEL PEM	BHEL PEM	BHEL PS REGION		
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 to bidder for Common AHP application at two locations as mentioned below: Location-1: One feeder at MV Switchgear room of Power house building at EL.4.0M 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.4.0M 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 to bidder for Unitized AHP 11/0.415kV Transformer application at two locations as mentioned below: Location-1: Two feeders at MV Switchgear room of Power house building at EL.4.0M 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.4.0M from A-row to C-row between grid-15 to Grid-17. c) Only 2 No's of 11KV uncabled Feeder shall be provided by BHEL to bidder for Silo area AHP 11/0.415kV Transformer application at two locations as mentioned below: Location-1: One feeder at MV Switchgear room of Power house building at EL.4.0M 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.4.0M from A-row to C-row between grid-15 to Grid-17.						a) 11KV tie feeder for 11 kV switchboard at Sl No 3- Maximum MVA Available 18.4 b) 11KV transformer feeder (11/0433kV) - Maximum MVA Available 1.7MVA for each unitized AHP Board c) 11KV transformer feeder (11/0433kV) - Maximum MVA Available 2.15MVA for Silo Area	Bidder to consider 24MVA load for sizing the 11kV Tie feeder cable
11	List of 11KV O/G feeders available to bidder. Location of switchboard : To be decided by Bidder						a) 11KV Transformer Feeder (11/3.3kV)- up to 16MVA b) 11KV Transformer Feeder (11/0433kV)- up to 2500KVA	a) 2 Nos b) 4 Nos
12	List of 3.3KV O/G feeders available to bidder. Location of switchboard : To be decided by Bidder						a) 3.3KV Motor feeder b) 3.3KV Transformer Feeder VFD application	a) 38 Nos b) 2 Nos
13	BHEL free issue HT motors available to bidder						**3.3KV** Motor	29 Nos
	Battery limit for hopper level integration of AHP sytem							
14	ESP Hopper Level	BHEL-RANIPET	BHEL-RANIPET	BHEL-RANIPET	BHEL-RANIPET	ESP hopper High & Low level switches and Level Scanner (First to Third Field) and wiring up to Junction Box/ ESP MCC are excluded from bidder scope. However, Cable & Cabling from Junction Box/ ESP MCC to AHP DCS is in the scope of bidder. IO's for the above shall be considered by bidder in IO list and all the associated cabling.	
15	APH/ECO/DUCT/SCR Hopper Level	BHEL-TRICHY	BHEL-TRICHY	BHEL-TRICHY	BHEL-TRICHY	Level switches for Economizer / APH hoppers/Duct Hopper are excluded from bidder scope. However, Cable & Cabling from Level Switches/ Junction Boxis in the scope of bidder. IO's for the above shall be considered by bidder in IO list and all the associated cabling.	

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

Sl No	System	BHEL-Unit
1	Plot Plan with Switchgear location, cable routing, earthing, illumination	BHEL-ISG/BHEL PEM
2	Electrical and C&I system other than below listed	BHEL-ISG
3	Design and integration of 3.3KV and 11KV system along with upstream breaker interface	BHEL-PEM/ BHEL-BHOPAL
4	DCS, VMS, UPS, 24V DC System	BHEL-EDN
5	CCVM System	BHEL-EDN
6	PA System	BHEL-PEM
8	Roof Top Solar System	BHEL-SBD/Rudrapur
9	HT Motors for conveyors & crushers	BHEL-Bhopal
6	PA System	BHEL-EDN
7	Fire Fighting and FDA system	BHEL-PE&SD
8	Roof Top Solar System	BHEL-SBD/Rudrapur
9	HT Motors except for compressors and any VFD/HCSD/Classifier application	BHEL-Bhopal

ANNEXURE-20-A
DECLARATION REGARDING SOURCING OF THE SYSTEMS RELATED TO COMPLETION OF THE ASH HANDLING SYSTEM OF 2X800 MW SINGRAULI PROJECT

CONFIRMATION / DECLARATION
(To be typed and submitted on the Letterhead of the Company/Firm of the Bidder)

To,
(Write Name & Address of Officer of BHEL inviting the Tender)

Dear Sir/Madam,

Sub: *Declaration Regarding Sourcing of the Systems Related to Completion of the Ash Handling System of 2x800 MW SINGRAULI Project*

Ref: NIT / Tender Specification No: _____

As per the Technical Specification of the Customer NIT, Amendments and Clarifications, various systems required for the Ash Handling Plant shall be of the proven design/supplier for similar application.,

For the same, I/We, _____
do hereby confirm that such systems (as applicable) such as **Dewatering Bins, Ash Classifier, and other related Mechanical, Electrical, and C&I systems, etc**. — shall be of proven design/supplier for similar application.

We assure compliance with all technical, quality, and performance standards specified in the tender documents.

Yours faithfully,

Signature of Authorised Signatory
(Name: _____)
(Designation: _____)
(Company Seal)
(Date: _____)