

Corrigendum - 5 dated 21/05/2025 to CPC Tender No. BHEL/CPC/SGL/EPC-AHP/25/082

Corrigendum - 5 dated 21/05/2025 to CPC Tender No. BHEL/CPC/SGL/EPC-AHP/25/082 for the work of “EPC package for Ash Handling Plant at Singrauli STPP Stage-III (2X800 MW)”.

A) Modification in Technical Conditions of Contract (TCC): Some clauses of existing TCC are revised as mentioned below;

EXISTING CLAUSE		REVISED CLAUSE	
Clause No.		Clause No.	
Chapter - VII: Terms of Payment and Other Commercial Terms, Clause 7.12	The basis for the pro-rata payments above shall be the Billing Break-up (BBU) to be finalized subsequently after award of Contract. The Contractor shall prepare and submit to BHEL for approval with 7 days from the date of LOI, a break-up of the Contract Price in the currencies of the Contract in line with Annexure 19. The aggregate sum of the Contractor's price break-up shall be equal to the Total Contract Price. The break-up thus submitted shall be approved by BHEL in line with the approval of billing break-up by Owner/ Customer.....	Chapter - VII: Terms of Payment and Other Commercial Terms, Clause 7.12	The basis for the pro-rata payments above shall be the Billing Break-up (BBU) to be finalized subsequently after award of Contract. The Contractor shall prepare and submit to BHEL for approval with 7 days from the date of LOI, a break-up of the Contract Price in the currencies of the Contract in line with Annexure 19. The aggregate sum of the Contractor's price break-up shall be equal to the Total Contract Price. The break-up thus submitted shall be approved by BHEL in line with the approval of billing break-up by Owner/ Customer
Chapter-XVI: Enclosures, Clause 16.1	Annexure-3 (Rev-01): Electrical & C&I Scope Matrix (attached along with this corrigendum-3 dated 09/05/2025)	Chapter-XVI: Enclosures, Clause 16.1	Annexure-3 (Rev-02): Electrical & C&I Scope Matrix (attached along with this corrigendum)
	Annexure-13 Guaranteed Power Consumption		Annexure-13 (Rev-01): Guaranteed Power Consumption

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B) 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	ANNEXURE-3-AHP Electrical CI Scope Matrix SINGRAULI rev 08.04.2025 Scope Details SI No-1-a	Complete Electrical and C&I System for Ash Handling System. Note: 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 at EL.4.0M from A-row to C-row between grid- 2 to Grid-4. Location-2: Second feeder at MV Switchgear room at EL.4.0M from A-row to C-row between grid- 15 to Grid-17.	Bidder understand that Only 2 No of 11KV uncabled Feeder shall be provided by BHEL to bidder for Common AHP System 11KV Board supplied by Bidder including 4 nos Transformer Feeder in AHP kV board for BHEL PEM use & Outgoing Feeder shall be connect to AHP AUX Transformer 11KV / 3.45 KV, 16 MVA Dyn 1 which will be supplied by BHEL. Please Confirm. Bidder also understand that One no. common 3.3KV Switchboard shall be provided by Bidder for Compressor & others 3.3KV Motor operation for proposed AHP system only which shall be installed at 42A area AHP MCC-1 Room as per plot plan. Please confirm.	Complete Electrical and C&I System for Ash Handling System is in the scope of Bidder, except 11kv uncabled feeders provided from 11kv switchboards located at MV Switchgear room of Power house building as per “ Annexure-3 (Rev-02): Electrical & C&I Scope Matrix (attached along with this corrigendum)”. Quantity and location of 3.3KV Switchboard will be as per bidders design. AHP MCC's location (Except CHP MCC-3 cum AHP MCC-2) shown in the plot plan is tentative. Bidder to locate AHP MCC as per Bidders design without disturbing BHEL facilities.
2	ANNEXURE-3-AHP Electrical CI Scope Matrix SINGRAULI rev 08.04.2025 Scope Details SI No-1 -b	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:	Bidder understand that 6nos. LV Transformer (4 nos. for Unit -8 & 9 and 2 nos. for Silo area) shall be feed from common 11KV Switch Board which shall be installed at CHP MCC -3 CUM AHP MCC-2, 44C area as per plot plan. Please confirm.	Bidder understanding is not correct, these 11kv uncabled feeders are provided from 11kv switchboards located at MV Switchgear room of Power house building. Reg. CHP MCC-3 cum AHP MCC-2: Bidder to refer (Annexure-3H) for Equipment layout Common MCC building and space allotted for AHP bidder facilities inside this building is categorically mentioned.

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Sl. No.	Section/Clause No	Specification	Bidder's Query	BHEL Clarification
3	ANNEXURE-3- AHP Electrical CI Scope Matrix SINGRAULI rev 08.04.2025 Scope Details SI No-2	Interface with upstream breaker at 11KV System	Bidder understand that interface with upstream breaker at 11KV system with cable & cable laying is in under BHEL scope. Please confirm.	Bidder to follow the specifications.
4	ANNEXURE-3- AHP Electrical CI Scope Matrix SINGRAULI rev 08.04.2025 Scope Details SI No-5	DCS VMS, UPS, 24V DC System	Bidder understand that DCS, VMS System shall be provided by Bidder and DCS & VMS system make shall be BHEL EDN only as per NIT. Please confirm.	Bidder Understanding is correct
5	ANNEXURE-3-AHP Electrical CI Scope Matrix SINGRAULI rev 08.04.2025 Scope Details SI No-8	Temperature transmitter along with JB and cabling is in Bidder's scope for all HT motors supplied by BHEL.	Please confirm the qty of Temperature Transmitter which will be used in each HT Motor.	Annexure-3 (Rev-02): Electrical & C&I Scope Matrix is attached along with this corrigendum.
6	General	Level Switch of ESP Hopper	As per Flow Diagram, for this capacity and conveying philosophy, of vessel any level measuring/ initiating instruments is not needed. However, continuous monitoring of flow is possible from the feed back received from the pressure transmitter / Pressure Switch installed in the conveying line. So permissible level switch installed at ESP hopper is not recommendable. Please confirm.	Bidder to follow specification.
7	Annexure-6_NTPC NIT SPECIFICATIONS Part-B_CnI - SECTION – VI, PART-B BID DOC. NO.: CS- 1150-001(R)-2 - Clause No- 23.00.00	3D type Acoustic Frequency Wave Based Level Scanner System for Coal Bunker, Fly Ash Silo and ESP Hopper (First to Third Field)	3D Acoustic Level Scanners on a timely basis cannot be available in market. So Please accept Radar Type Level Transmitter instead of 3D Acoustic Level Scanners for continuous monitoring of Fly Ash Silo. Please confirm.	Bidder to follow specification.

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Sl. No.	Section/Clause No	Specification	Bidder's Query	BHEL Clarification
8	NTPC Technical Specification Section-VI, Part-A, SubSection-IIA-16 AHS, Page 5 of 17 (clause no. D) ii SLFD - BA Handling System (Drg. No. 9587-001(R) - POM-A-025. Technical Amendment No. 1, Page-5 of 17, Sl. No. MH-19. SLFD - FA Pressure System (Drg. No. 9587-001(R) -POM-A-028.	As per Spec. 1 No. Hopper isolation valve is specified below ECO/ECO Duct Hoppers. As per SLFD, 1 No. Manual KGV & 1 No. Motor optd. KGV is shown. As per Technical Amendment 1 No. Manual KGV & 1 No. Motor optd. KGV is specified. As per Drg. No.28, Zone F-2 , 1 No. Manual KGV & 1 No. Cylinder optd. KGV is shown.	Please confirm whether both Manual KGV and Motor optd. KGV below each ECO/ECO Duct Hopper to be provided or both Manual KGV and Cylinder optd. KGV below each ECO/ECO Duct Hopper to be provided	Both manual KGV and Motor operated KGV required below each ECO/ECO Duct Hopper as per tender specification and flow diagram.
9	Technical Amendment No. 4, Page 7 of 13, sl. No. MH-7	Semi-automatic bagging machines is specified with provision of Mechanized bagging of fine Ash.	Please note that manual intervention would be required for Semi-automatic bagging machine. Please confirm.	Bidder to follow specification. Scheme shall be subject to NTPC approval during detail Engineering.
10	NTPC Technical Specification Section-VI, Part-A, Sub Section - IIA -16, Page 9 of 17 (clause no. j) SLFD – for Classification System (Pressure System) (Drg. No. 9587001(R) - POM-A-029 (Rev.-2) Annexure -15 (GPCAHS) sl. No. 8. i & A II. Technical Amendment No 1 sl. No. MH-13, Page 3 of 17	10 Nos. (6W + 4S) Screw type Transport Air Compressors is specified. As per SLFD, 9 Nos. (6W + 3S) TAC is shown. As per GPC, 10 Nos. (6W+4S) CAC & 11 Nos. (7W+4S) TAC is indicated. As per Technical Amendment 10 Nos. (7W+4S) TAC is specified.	Please review and confirm the nos. of compressors to be considered.	Bidder to refer Flow diagram. The number of compressors considered shall be minimum as per flow diagram. Annexure-13 (Rev-01): Guaranteed Power Consumption is attached along with the corrigendum.

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Sl. No.	Section/Clause No	Specification	Bidder's Query	BHEL Clarification
11	NTPC Technical Specification Section- VI, Part-A, SubSection-IIA-16 AHS, Page 12 of 17 clause no. 1.01.08 (i)SLFD - BA Handling System (Drg. No. 9587001(R) -POM-A-025. Technical Amendment No 1 sl. No. MH-12, Page 3 of 17	As per spec., 3 streams of Combined Ash Slurry Disposal pumps is specified. As per SLFD, 4 streams of Combined Ash Slurry Disposal pumps is shown. As per Amendment, 4 streams of Combined Ash Slurry Disposal pumps is shown.	Please confirm the nos. of streams of Combined Ash Slurry pumps would be 4 as per Technical Amendment.	Bidder shall consider 4 streams as per the NTPC Flow diagram in latest amendment.
12	NTPC Technical Specification Section-VI, Part-A, SubSection-IIA-16 AHS, Page 14 of 17 clause no. 1.02.01.02 (f) NTPC Technical Specification Section-VI, Part-A, SubSection-IIA-16 AHS, Page 13 of 17 (clause no. b & c) SLFD - BA Handling System (Drg. No. 9587-001(R) -POM-A-025	Sealing water for Combined ash slurry pumps, Vacuum Pumps, Clinkers Grinders shall be met by plant Service Water system. BA Seal Water Pumps for meeting the Seal Water requirement of Clinker Grinders, BAOF Pumps, BA Slurry Transportation Pumps, Drain Pumps of BA Slurry Pump House. HP & LP Seal Water pumps for meeting seal water requirement of Combined Slurry Disposal Pumps and Drain Pumps of Combined Slurry Pump House. BA Seal Water Pumps to meet Seal Water requirement of Clinker Grinders & BAOF pumps & CA Slurry Pumps. HP Seal Water Pumps to meet seal water requirement of combined slurry disposal pumps (2nd & 3rd stage) & LP seal Water pumps for for 1st stage.	Please confirm the Seal Water requirement form both BA area Seal Water Pumps and HP/ LP Seal Water pumps. As BA Seal Water pumps is common for two units and BA Slurry Transportation Pumps is common for two units, it is recommended to allow BA seal water pumps unit wise.	Bidder to follow the NTPC Technical specification.

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Sl. No.	Section/Clause No	Specification	Bidder's Query	BHEL Clarification
13	Annexure - 2 (Scope Matrix-Mechanical) sl. No. 2	Service Water, Potable Water, RAW/ CTBD Water, DMCW Water is specified in the scope of AHP bidder	Please indicate the terminal points for these water supply by BHEL.	Terminal point already mentioned in Technical specification.
14	Annexure - 2 (Scope Matrix) sl. No. 9	Effluent treatment works is specified in the scope of AHP bidder. Sewerage System shall be connected to the collection / lifting pit of BHEL	Please elaborate the scope of Effluent treatment works under the bidder scope. Please inform the approx. distance of Sewage System to BHEL lifting Pit/ Collection	Effluent connection from AHP facilities as applicable to nearest common system of BHEL to be considered in the scope of bidder The location shall be decided during detailed engg.
15	Annexure - 2 (Scope Matrix) sl. No. 10 & 11	Construction Power & Construction Water	Please confirm Construction Power & Construction Water will be free of cost throughout the execution period.	For More Clarity Bidder to follow relevant clauses of Chapter-II Facilities in the Scope of Bidder/BHEL of TCC.
16	Technical Amendment No 1 sl. No. MH-14, Page 4 of 17	New Clause added. 12 (6W+6S) collector tanks complete with wetting heads, air washers.....	Please confirm that this clause is applicable for Fly Ash Vacuum system only not for Fly Ash pressure system.	This clause is applicable for Vacuum system.
17	Technical Amendment No 1 sl. No. MH-39, Page 12 of 17	De-packaging can be done.	Please confirm that De packaging is not applicable for this tender floated by BHEL.	Bidder to follow the Technical Qualification Requirements indicated in NIT.

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Sl. No.	Section/Clause No	Specification	Bidder's Query	BHEL Clarification
18	Technical Amendment No 1 sl. No. MH-9 & 10, Page 2 of 17	Provision shall be kepteither S1/S2 dyke or Khariya dyke	Please confirm that whether any one of the dyke to be considered with pipe supply or only provision of both the dyke to be considered.	Terminal point for slurry pipe to both the dyke is already mentioned in specification and plot plan.
19	SLFD - FA Pressure System (Drg. No. 9587-001(R) -POMA-028.	6 nos. Feeder Ejectors below each Intermediate silo is shown.	Please inform the working and standby quantity of Feeder Ejectors below each Intermediate silo.	Specification is clear. 2 Nos. IM Silos are working and 1 No. IM Silo is Standby
20	Commercial	Payment Terms	Considering the scope of work & quantum involved, Advance Payment would help the facilitation of project execution. Therefore, we request you to kindly pay 10% as Advance on the basic contract value against submission of equivalent amount of ABG (reducing value type).	Tender Conditions Shall Prevail
21	Technical Specification Section-VI, Part-A, Sub-Section-IV Functional Guarantees, Page 23 of 76, Sl. No. 5. SLFD for Bottom Ash Drg. No. 9587-001(R) POM-A-025	Bottom ash Slurry Transportation Pumps and Bottom ash slurry disposal pumps is indicated. BA Slurry Transportation Pump is shown.	We presume only BA Slurry Transportation pumps is applicable as Bottom ash Slurry disposal pumping is through combined ash slurry disposal pumps which is appearing in Sl. No. 6. Please confirm.	Specification is clear.
22	Technical Specification Section-VI, Part-A, Sub-Section-IV Functional Guarantees, Page 23 of 76, Sl. No. 9 & 13	As per Sl. No. 9 Transport Air Compressor with Air Drying Plant (ADP) is specified. As per Sl. No. 13 Transport Air Compressor with Air Drying Plant (ADP) for Classification System.	Please confirm that for pressure-pressure system Sl. No. 9 is not applicable. Sl. No. 9 is applicable for Vacuum-pressure system. Sl. No. 13 is applicable for Pressure-Pressure System for Fly Ash.	Specification is clear Bidder to consider the equipment as per the system offered.

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Sl. No.	Section/Clause No	Specification	Bidder's Query	BHEL Clarification
23	Technical Specification Section-VI, Part-B, Sub Section - A-21 Page 3 of 41, Cl. No. 1.03.00 (b)	3 nos. pumps shall be evacuate 4 hrs. collection of Bottom Ash in 85 Minute.	Please confirm that 3 nos. pumps shall be evacuate 4 hrs. collection of Bottom Ash and duct ash in 85 Minute.	Bidder to refer flow diagram. Bottom Ash + Eco ash + Eco outlet ash to be considered.
24	Technical Specification Section-VI, Part-B, SubSection - A-21 Page 13 of 41, Cl. No. 1.10.02 (1.0) Technical Specification Section-VI, Part-A, Sub-Section-IIA-16 Functional Guarantees, Page 16 of 17	Against this clause scope is indicated but working & standby quantity. Not indicated.4 Nos. (2W+2S) Feeder Ejector is specified	Please confirm the out of 6 nos. Feeder Ejector, 4 nos. would be working for each working Intermediate Silos.	Bidder to note that out of 6 nos feeder ejectors in each silo, 03 nos shall be considered as working + 3 nos shall be standby.
25	Technical Specification Section-VI, Part-B, SubSection - A-21 Page 33 of 41, Cl. No. 5.01.00 Sl. No. 4 As per SLFD for Bottom Ash Drg. No. 9587001(R) -POM-A-025	BA Seal Water Pumps 1W+1S is specified. 1W+1S Seal Water pump per unit is shown.	Please confirm that Seal Water Pumps (1W+1S)/unit to be provided.	Specification is clear and bidder to refer NTPC Flow diagram.
26	Refer Amendment no. Corrigendum - 3 dated 09/05/2025 to CPC Tender No. BHEL/CPC/SGL/EPCAHP/25/082	CI Liner for Trench Sump and Alloy CI Liner for Sump is specified.	Please confirm that CI liner is acceptable for Sump.	Bidder to Follow specification.
27	ANNEXURE-3-ELECTRICAL, CONTROL AND INSTRUMENTATION SCOPE MATRIX FOR 2x800 MW NTPC	Fire Fighting and FDA System	Bidder understand that 7 Fire Fighting and FDA System including power cable is in under BHEL scope. Please confirm.	Fire fighting and FDA system is in BHEL scope. However, Power supply feeders (as per Annexure-3D) and Power Cable & Cabling for these


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Sl. No.	Section/Clause No	Specification	Bidder's Query	BHEL Clarification
	SINGRAULI AHP-PAGE 29 OF 364 -Sr no-7			power supplies are in the scope of bidder. In Annexure-3D_Fire fighting requirement, column 13 and 14 ISG to be read as Bidder.
28	ANNEXURE-3-ELECTRICAL, CONTROL AND INSTRUMENTATION SCOPE MATRIX FOR 2x800 MW NTPC SINGRAULI AHP-PAGE 29 OF 364 -Sr no-4	Roof Top Solar System	Roof Top Solar System are considering for AHP building only. Please define the overall capacity. Please confirm.	Bidder to refer to the NTPC specifications for the same.
29	Annexure-6_NTPCNIT SPECIFICATIONS PART-A_251_606 - TECHNICAL SPECIFICATIONS SECTION – VI, PART-A -Control & Instrumentation - Clause - 3.00.00	For AWRS Control & Instrumentation System.	Bidder understand that Electrical, instrumentation & DCS of AWRS system is in under BHEL scope. Please confirm.	Noted for electrical. Control and Instrumentation is in the scope of Bidder. Refer SL. No. 11 of Annexure-3 ELECTRICAL, CONTROL AND INSTRUMENTATION SCOPE MATRIX FOR 2X800 MW NTPC SINGRAULI AHP.
30	Annexure-6_NTPCNIT SPECIFICATIONS PART-A_251_606 - TECHNICAL SPECIFICATIONS SECTION – VI, PART-A -Electrical - Clause - 2.00.00	400 KV Switchyard at Singrauli sta III shall be in the bidder's scope. Establishing the LILO of VSTPP to VSTPP line at Singrauli III generation switchyard is also in bidders scope. LILO has to be done from an intermediate point on the transmission line.ge- -V -IV D/C -	Bidder understand that 400 KV Switchyard at Singrauli stage-III shall be in under BHEL scope. Please confirm.	Noted
31	BHEL reply point no. 23 & 24 page 11 of 28 vide Corrigendum – 3 dated 09/05/2025	<u>BHEL Clarification:</u> Refer NTPC Technical Clarification No.1, Page 27 of 31.	We have noted that all the sludge from other packages amounting to 167 Cu.M/Hr on continuous basis will be lead to Combined Ash Slurry Sump. However, BHEL has not replied to our query of	When sludge alone is fed to Combined ash slurry pump house and further to Dyke bidder to consider make up water arrangement.

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Sl. No.	Section/Clause No	Specification	Bidder's Query	BHEL Clarification
		The timing of intermittent sludge pumping will be adjusted to match AHP operation	Where this sludge will be routed when the combined ash slurry pumps are not in operation. Please reply. Does the bidder have to size the makeup water system considering that only 167 cu.M/Hr is the inflow to the slurry sump?	
32	BHEL reply point no. 26 page 11 of 28 vide Corrigendum – 3 dated 09/05/2025	<u>BHEL Clarification:</u> Bidder to follow specification. It shall be reviewed during detail engineering	This cannot be decided during detailed engg. Please let us know what BHEL has considered in their bid to NTPC as this would have implications.	Bidder's proposal to discharge Jet pump/ coarse ash pipe directly to Combined ash slurry pump house is also acceptable.
33	BHEL reply point no. 29 page 12 of 28 vide Corrigendum – 3 dated 09/05/2025	<u>BHEL Clarification:</u> Specification is clear. 2 Nos. IM Silos are working and 1 No. IM Silo is Standby	BHEL to reply to our clarification “Six (6) feeder Ejectors are shown below the Intermediate silos. Please confirm that out of 6, 3 will be working and 3 standby to cater to 1 unit ash generation to dispose 8 hours ash generation in 6 hours.”	Bidder to note that out of 6 nos feeder ejectors in each silo, 03 nos shall be considered as working + 3 nos shall be standby.
34	BHEL reply point no. 30 page 12 of 28 vide Corrigendum – 3 dated 09/05/2025	<u>BHEL Clarification:</u> No.38 assigned to Compressor house shall be ignored. It shall be read as 27A	Please confirm that 27A will be used for locating the compressors required for transporting ash from classifier area to main silos.	27 A is for transport air compressor house. Bidder may decide accordingly which will be reviewed detailed engg.
35	BHEL reply point no. 32 page 12 of 28 vide Corrigendum – 3 dated 09/05/2025	<u>BHEL Clarification:</u> The type of building is already specified in NTPC specification	We request BHEL to kindly furnish the reference of clause to be followed in NTPC specification.	Refer NTPC Technical Specification SECTION-VI, PART-B civil specification and its clarifications/amendments along with overall specification.
36	BHEL reply point no. 36 page 13 of 28 vide Corrigendum – 3 dated 09/05/2025	<u>BHEL Clarification:</u> Pump design conditions are already provided in Amendment No.1, MH-10	We request you to kindly check our requirement. We have noted that the Max. pumping distance upto S1/S2 dykes is to be considered as 17 KM. However, the amendment does not indicate the static rise to be considered for S1/S2 dykes which as per spec was mentioned as 26M.	Combined ash slurry pump shall be designed considering the length and static lift in the NTPC specification (worst case).

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Sl. No.	Section/Clause No	Specification	Bidder's Query	BHEL Clarification
			Hence please furnish the static rise to be considered or the top of Dyke RL at S1/S2 with respect to Plant RL mentioned as 275.5 M in the plot plan. Please also confirm the route length for Khadiya dyke to enable us configure the slurry pump head." MH-10 provides Elevation for Khadiya and not for S1/S2 , please check.	
37	BHEL reply point no. 35 page 13 of 28 vide Corrigendum – 3 dated 09/05/2025	<u>BHEL Clarification:</u> Details shall be provided during detail engineering	Please furnish the width of the channel where the pipelines are crossing as the same is required for designing/ sizing/ estimation of the pipe rack/pipe bridge.	The Size of the cooling water channel (individual) is 4500mm wide and Size of CW pipe is 4000NB. 
38	BHEL reply point no. 48 page 15 of 28 vide Corrigendum – 3 dated 09/05/2025	<u>BHEL Clarification:</u> Only supply of this item is in bidder's scope	BHEL to check their response. Kindly note that the bottom ash pipe will be routed to Combined Ash Slurry Sump or Hydrobin and not to dyke. Hence please let us know where these valves will be used even if supplied. We feel that the same are not required.	Bidder to follow specification

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Sl. No.	Section/Clause No	Specification	Bidder's Query	BHEL Clarification
39	BHEL reply point no. 56 page 17 of 28 vide Corrigendum – 3 dated 09/05/2025	<u>BHEL Clarification:</u> Specification is clear. ISH and Intermediate Silo are different	Please confirm that the capacity of intermediate silos will be 300 T in line with amendment No.1, clause MH-11	Intermediate Silo (Fly ash slurrification) capacity is confirmed as 300T
40	BHEL reply point no. 57 page 17 of 28 vide Corrigendum – 3 dated 09/05/2025	<u>BHEL Clarification:</u> Bidder to refer Cl. 13.1.3 for terminal points	We have noted the reply but please furnish the pressure which is not mentioned in Cl. 13.1.3 of terminal points.	The same shall be provided During detail engineering.
41	BHEL reply point no. 65 to 67 page 19 of 28 vide Corrigendum – 3 dated 09/05/2025	<u>BHEL Clarification:</u> Point No. 65: Bidder to refer Clause no 3.54 and 3.55 of TCC. Point No. 66 & 67: Tender Conditions Prevail	We have reviewed the said clauses and therefore we request you to furnish the details at this stage so that we can make proper estimates. You are well aware that in case of single vendor after award of contract, it will be impossible to get a competitive offer from the sub-vendor. We therefore request you to kindly furnish us the details as requested to you earlier in our clarifications or exclude the same from our scope of work.	Tender Conditions Shall prevail
42	General	2W + 1S BAHF water pumps	The specifications calls for 2W + 1S BAHF water pumps. Please confirm that the BAHF water pumps to be provided will be of 50% capacity as the BA disposal in case of Jet Pump System will be working sequentially.	Specification is clear.

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**

ANNEXURE-3 Rev-02-ELECTRICAL, CONTROL AND INSTRUMENTATION SCOPE MATRIX FOR 2X800 MW NTPC SINGRAULI AHP						Rev: 02 Dated: 19-05-2025
BROAD SCOPE: The scope for complete Ash handling system shall include complete design, engineering, manufacture/supply, shop fabrication, assembly, testing & inspection at manufacturer’s works, maintenance tools & tackles, spares for erection, start-up and commissioning as required, fill of lubricants & consumables, packing, despatch, transportation, delivery to site, unloading, handling & storage at site, construction of Stores at site (Open & Closed), round the clock security at open storage yard , closed storage shed & erected material till completion of work, construction, erection, its supervision, testing ,inspection, commissioning and handing over to Owner and Guarantee testing, including all associated Mechanical, all auxiliary systems, Civil & Structural Steel Works, Architectural Works, Electrical, Control & Instrumentation Works as specified in tender specification, amendments & agreements till placement of order & as necessary for completeness in all respects and for efficient & trouble free operation for 2X800 MW NTPC SINGRAULI						
SL. NO.	SCOPE DETAILS	INPUT DETAILS	ENGINEERING / DESIGN	SUPPLY	RECEIPT, UNLOADING, STORAGE, ERECTION, TESTING, COMMISSIONING	REMARKS
1	Complete Electrical and C&I System for Ash Handling System. Note: 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 at EL.4.0M from A-row to C-row between grid-2 to Grid-4. Location-2: Second feeder at MV Switchgear room at EL.4.0M from A-row to C-row between grid-15 to Grid-17. Maximum MVA Available (including BHEL 4 nos of 11kV Transformer feeder): 24.0 MVA (which includes loading of 5.6 MVA of 4 nos of 11KV Transformer feeder of BHEL PEM use). 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 at EL.4.0M from A-row to C-row between grid-2 to Grid-4. Location-2: Two feeders at MV Switchgear room at EL.4.0M from A-row to C-row between grid-15 to Grid-17. Maximum MVA Available: 1.7MVA for each unitized AHP Board c) Only 2 No's of 11KV 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 at EL.4.0M from A-row to C-row between grid-2 to Grid-4. Location-2: Second feeder at MV Switchgear room at EL.4.0M from A-row to C-row between grid-15 to Grid-17. Maximum MVA Available: 2.15MVA for Silo Area	AHP EPC Bidder	AHP EPC Bidder	AHP EPC Bidder	AHP EPC Bidder	<p>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. These loads also shall be considered by bidder for transformer sizing.</p> <p>Bidder shall provide 3 Nos. uncabled Transformer feeders in AHP 11kV board for 2500kVA Transformer for BHEL PEM use. These loads also shall be considered by bidder for 11kV Board sizing. Actual MVA Load 4300 KVA for these 3no. feeders to be considered.</p> <p>Bidder shall provide 1 Nos. uncabled Transformer feeders in AHP 11kV board for 1600kVA Transformer for BHEL PEM use. These loads also shall be considered by bidder for 11kV Board sizing. Actual MVA Load 1260 KVA for this 1 no feeder.</p> <p>Cable tray and rack upto nearest BHEL cable rack is in the scope of bidder.</p> <p>Bidder shall provide the Illumination, Earthing, Lightning protection for all areas where Civil & structural is in bidder scope.</p> <p>The interconnection between Bidders earthing and Existing/Main earth grid is in Bidder scope.</p> <p>Wherever integration of bidder supplied items with BHEL supplied system is involved, necessary integration shall be done by the bidder.</p> <p>Plot Plan: Quantity & location of AHP MCC buildings marked in plot plan is tentative only . Bidder to decide the Quantity and locations of MCC buildings without disturbing other facilities of BHEL .</p> <p>Cable trestle/rack/pedestals required as below in is bidders scope. 1. For all bidders facilities . 2. For BHEL facilities located in bidder buildings Please refer plot plan Annexure 4 for further details and scope demarcation.</p> <p>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 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.</p> <p>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.</p> <p>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.</p> <p>Connection between oil retention pit(Bidders scope of Transformer) to common oil retention pit located in main plant area is in bidders scope.</p> <p>Security of all equipment's till handing over to end customer is in scope of bidder.</p>
2	Interface with upstream breaker at 11KV System	BHEL-PEM	AHP EPC Bidder	AHP EPC Bidder	AHP EPC Bidder	
3	PA System	BHEL	BHEL	BHEL	BHEL	In Scope of BHEL
4	Roof Top Solar System	BHEL-SBD/RUDRAPUR	AHP EPC Bidder	AHP EPC Bidder	AHP EPC Bidder	For estimation, the Bidder may take 10 % of the total capacity of the Solar Plant Defined for the Singrauli Project as a whole. Further before placement of the order, Bidder to ensure that the
5	DCS VMS, UPS, 24V DC System	BHEL-EDN	AHP EPC Bidder	AHP EPC Bidder	AHP EPC Bidder	
6	CCVM System	BHEL	BHEL	BHEL	BHEL	In Scope of BHEL
7	Fire Fighting and FDA System	BHEL	BHEL	BHEL	BHEL	In Scope of BHEL
Name of BHEL UNIT for coordination with bidder of various system applicable to AHP						
Sl No	System					BHEL-Unit
1	Plot Plan with Switchgear location, cable routing, earthing, illumination etc for AHP					BHEL-ISG
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
4	DCS, VMS, UPS, 24V DC System					BHEL-EDN
5	CCVM System					BHEL-EDN
6	PA System					BHEL-EDN
7	Fire Fighting and FDA system					BHEL-PE&SD
8	Roof Top Solar System					BHEL-SBD/Rudrapur

2X800 MWSINGRAULI SUPER THERMAL POWER PROJECT STAGE-III

ANNEXURE-13: Guaranteed Power Consumption for AHP Package to be filled in by bidder		R-01
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ANNEXURE-13: Guaranteed Power Consumption for AHP Package to be filled in by bidder		R-01
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Sl.No	SYSTEM	Total Nos.	Working in Nos. (W)	Standby in Nos. (SB)	At motor input terminal (KW)	Total KW of Working equipment	Motor KW selected	Duty Factor	Guaranteed Power in KW	Remarks
			I		II	III=I x II		IV	V=III x IV	
A	ASH HANDLING SYSTEM									
A.1	Bottom Ash Crushers							0.3125 for jet pump system & 1.0 for submerged scrapper conveyor system/dry type bottom ash system.		Duty factor as applicable for the offered system as per the NIT specification. Nos. of bottom ash Crushers as per NIT specification for submerged scrapper conveyor system are 4W + 4SB
A.2	Bottom Ash H.P. Water Pumps							0.625 for jet pump system & 1.0 for submerged scrapper chain conveyor system/dry type bottom ash system.		Duty factor as applicable for the offered system as per the NIT specification.
A.3	Bottom ash L.P. Ash Water Pumps							1		
A.4	Fly ash water pumps							1		
A.5	Bottom Ash Slurry transportation pumps/ Bottom ash slurry disposal pumps							1		
A.6	Combined ash slurry disposal pumps							0.5		As per NIT specification Three stage Combined ash slurry pump is mentioned. In case, number of stages of ash slurry pump increases then same shall also be considered for guaranteed power consumption.
A.7	Submerged scrapper chain conveyor/dry type bottom ash conveyors							1		As applicable for the system offered.
A.8.i	Fly ash conveying air compressors with air drying plant (ADP)							1		As applicable for the system offered.
A.8.ii	Fly ash conveying vacuum pumps							1		As applicable for the system offered.
A.9	Transport air compressor with air drying plant (ADP)							1		As applicable for the system offered.
A.10	Coarse ash slurry transportation pumps							0.1875 for intermittent system & 1.0 for continuous system		Duty factor as applicable for the offered system as per the NIT specification.
A.11	Transport air compressor with air drying plant (ADP) for classification system							1		Qty shall be as per the system offered.

Note: Bidder to note that the guaranteed power consumption for Ash handling system shall be as per mentioned in the specification.	
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