

**Annexure-9**

**2X800 MW KODERMA THERMAL POWER PROJECT STAGE-II**

**Scope Matrix for Dry Bottom Ash Handling System (Package-I)**

**BROAD SCOPE:** The scope for complete Dry Bottom Ash handling system (Bottom Ash & Eco Ash) shall include complete design, engineering, manufacture/supply, shop fabrication, assembly, testing & inspection at manufacturer's works, maintenance tools & tackles, mandatory spares, spares for erection, start-up and commissioning as required, fill of lubricants & consumables, packing, despatch, transportation, delivery to site, unloading, intra site 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, Statutory requirement (If any), testing, inspection, commissioning and handing over to Owner and Guarantee testing, including all associated Mechanical, Electrical and C&I, all auxiliary systems, Structural Steel 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 Koderma TPS.

Sl. No./Chapter	Description	DETAIL SCOPE								Remarks
		Responsibility of Mechanical GA & Design	Responsibility for Structural Design Fabrication & Drawings	Responsibility for Civil Drawings	Responsibility & Scope of Supply	Responsibility Civil	Responsibility Structural Works includind Supply	Responsibility of Supervision/ Checking	Responsibility of Erection & Commissioning	
1	Complete Dry Bottom Ash handling System as per descriptions given in NIT specification (document No. DVC/C&M/ Engineering/ KTPS (2X800MW)/EPC/IPHB), BHEL technical enquiry specification and subsequent amendments, clarifications if any till placement of order.									(A)Starting: (i) DBA vendor's scope starts from the boiler furnace bottom (Scallop bar are in BHEL's scope-Refer Boiler Seal Plate Assembly Drawing).  (B) Ending: a)For Bottom & Eco Ash – Outlet of discharge chute to truck feeding below BAIM Silo and receipt of ash on to belt conveyor below BAIM Silo. (Belt Conveyor by others)
1.1	Structural works for Dry Bottom Ash Hopper along with its platform and staircase, Supporting structural steel for water & instrument air pipes & cable tray, Hoist, monorail beams for hoists & maintenance platforms, Handrails, Chequered plates, Gratings, Ladders, inserts, stools, embedded plates. Grouting for structure & equipment foundation.	DBA Vendor (Package-I)	DBA Vendor (Package-I)	NA	DBA Vendor (Package-I)	NA	DBA Vendor (Package-I)	DBA Vendor (Package-I)	DBA Vendor (Package-I)	Complete Scope is in DBA Vendor Scope except Civil Work
1.2	Structural works for Transfer points cum crusher house, dry ash conveyor trestles along with its platform and staircases, Hoist, monorail beams for hoists & maintenance platforms, Handrails, Chequered plates, Gratings, Ladders, inserts, stools, embedded plates. Grouting for structure & equipment foundation.	DBA Vendor (Package-I)	DBA Vendor (Package-I)	NA	DBA Vendor (Package-I)	NA	DBA Vendor (Package-I)	DBA Vendor (Package-I)	DBA Vendor (Package-I)	Complete Scope is in DBA Vendor Scope except Civil Work
1.3	Civil Works for dry bottom ash hopper foundations.	DBA Vendor (Package-I)	NA	BHEL	BHEL	BHEL	-NA-	BHEL	-NA-	Modification works if any shall be as per TCC by DBA Vendor (Package-1)
1.4	Civil Works for dry bottom ash handling system, Transfer point cum crusher house. Like conveyor Foundation, Equipment Foundation, Crusher Deck, RC floors with metal deck sheet, foundation bolts, Grdae Slab, Paving, Floor finish, handrails, gratings, insert & embedded plates, drains etc.	DBA Vendor (Package-I)	NA	Main Ash Handling Package Vendor (Package-II)	Main Ash Handling Package Vendor (Package-II)	Main Ash Handling Package Vendor (Package-II)	-NA-	DBA Vendor (Package-I) & Main Ash Handling Package Vendor (Package-II)	-NA-	Grouting and Minor Civil Works like Chipping/modification etc is in DBA Vendor Scope (Package-I).
2	Complete ECO Ash handling System as per descriptions given in NIT specification (document No. DVC/C&M/Engineering/KTPS (2X800MW)/EPC/IPHB), BHEL technical enquiry specification and subsequent amendments, clarifications if any till placement of order.									(A)Starting: (i) DBA vendor's Scope starts from the outlet flange of Economizer hoppers. Counterflanges at the respective hoppers at the outlet shall be in DBA vendor's Scope.  (B) Ending: a)For Bottom & Eco Ash – Outlet of discharge chute to truck feeding below BAIM Silo and receipt of ash on to belt conveyor below BAIM Silo. (Belt Conveyor by others)
2.1	Structural works for supporting and fixing of dry Eco ash conveyor, equipment on the structural platform/floor/Handrail/gratings. Hoist, monorail beams for hoists & maintenance platforms etc. (Structural platform/floor at +18 M EL will be provided by BHEL). However, required support of belt conveyor (leg support, Cross beam, any other structural member required for placing conveyor etc) and cross over maintenance platform etc. is in bidder scope	DBA Vendor (Package-I)	DBA Vendor (Package-I)	-NA-	DBA Vendor (Package-I)	-NA-	DBA Vendor (Package-I)	DBA Vendor (Package-I)	DBA Vendor (Package-I)	
2.2	Civil Works for ECO ash conveyor like foundation of trestle (if any) of Eco Ash Conveyor	DBA Vendor (Package-I)	NA	Main Ash Handling Package Vendor (Package-II)	Main Ash Handling Package Vendor (Package-II)	Main Ash Handling Package Vendor (Package-II)	-NA-	DBA Vendor (Package-I) & Main Ash Handling Package Vendor (Package-II)	-NA-	Grouting and Minor Civil Works like Chipping/modification etc is in DBA Vendor Scope (Package-I).
3	BA Intermediate (BAIM) - Steel Silo (2 Nos.) as per descriptions given in NIT specification (document No. DVC/C&M/Engineering/KTPS (2X800MW)/EPC/IPHB), BHEL technical enquiry specification and subsequent amendments, clarifications if any till placement of order.									
3.1	Structural works for the BAIM silo, including its access and maintenance platforms at intermediate levels, platform supporting beams to hoppers, access ladders between floors, staircase, walkways, handrails, gratings, chequered plates, Hoist, monorail beams for hoists & maintenance platforms, supporting arrangements for incoming pipes & cable trays, grouting, insert plates, etc. (The separate staircase to be provided upto Silo roof)	DBA Vendor (Package-I)	DBA Vendor (Package-I)	-NA-	DBA Vendor (Package-I)	-NA-	DBA Vendor (Package-I)	DBA Vendor (Package-I)	-NA-	1. Vent Filter and Pressure relief valve for BAIM Silo is in Main Ash Handling Package Vendor (Package-I) scope. Load of the Vent Filter shall be provided during detail engineering. 2. Supply & Fixing of Monorail beam for Belt Conv at BAIM silo unloading floor is in package-I. However, the supply of the hoist for the same is included in Package-II.

