

ANNEXURE-A (BOQ)

NAME OF	5 X 800MW YADADRI TPS			
NAME OF	DOUBLE GIRDER EOT CRANES (<100T CAPACITY)			
TECHNICAL	PE-TS-417-501-A401			
S. No.	DESCRIPTION	HSN CODE	UNIT	QTY
1	2	3	4	5
1.0	Total Ex. Work price for SUPPLY PART, SERVICE PART & MANDATORY SPARES FOR STAGE-I (Unit-1 & 2) Cranes & STAGE-II (Unit-3, 4 & 5) Cranes comprising of design (i.e. preparation and submission of drawing /documents including "As Built" drawings and O&M manuals), engineering, manufacture, fabrication, assembly, inspection / testing at vendor's & sub-vendor's works, painting, maintenance tools & tackles, fill of lubricants & consumables, mandatory spares alongwith spares for erection, startup and commissioning as required, forwarding, proper packing, shipment and delivery at site, unloading, handling, transportation & storage at site, in-site transportation, assembly, erection & commissioning, trial run at site and carrying out performance guarantee/Functional/Demonstration tests at site (As applicable) & final handing over to end customer in flawless condition of crane(s) for project and package specified above complete with all accessories for the total scope defined as per BHEL NIT & tender technical specification, amendment & agreements till placement of order.		Lot	1
2.0	MAJOR BREAK-UP OF PRICES GIVEN IN 1.0 ABOVE			
	BFP HANDLING CRANE			
2.1.1	Total Ex. Work price for SUPPLY part for Stage-I & Stage-II Cranes for BFP handling (Excluding DSL,RAIL & Lifting beam) (2 nos. cranes for Stage-I & 3 nos. cranes for Stage-II)	8426 11 00	Nos.	5
2.1.2	Total Ex. Work price for SUPPLY part for DSL ALONG WITH ACCESSORIES (FOR BAYLENGTH 128 M for Stage-I & FOR BAYLENGTH 192 M for Stage-II) for BFP handling cranes		MTR	320
2.1.3	Total Ex. Work price for SUPPLY part for RAIL ALONG WITH ACCESSORIES (FOR BAYLENGTH 128 M for Stage-I & FOR BAYLENGTH 192 M for Stage-II) for BFP handling cranes		MTR	320
2.1	Total Ex. Work price for SUPPLY part for Stage-I & Stage-II Cranes for BFP Handling comprising of design (i.e. preparation and submission of drawing /documents including "As Built" drawings and O&M manuals), engineering, manufacture, fabrication, assembly, inspection / testing at vendor's & sub-vendor's works, painting, maintenance tools & tackles, spares for erection, startup and commissioning as required, fill of lubricants & consumables, forwarding, proper packing, shipment and delivery at site for project and package complete with all accessories for the total scope defined as per BHEL NIT & tender technical specification, amendment & agreements till placement of order.		Lot	1
2.2.1	Total Ex. Work price for SERVICE part for Stage-I & Stage-II Cranes for BFP handling (Excluding DSL & RAIL) (2 nos. cranes for Stage-I & 3 nos. cranes for Stage-II)	998732	Nos.	5
2.2.2	Total Ex. Work price for SERVICE part for DSL ALONG WITH ACCESSORIES FOR BAYLENGTH (FOR BAYLENGTH 128 M for Stage-I & FOR BAYLENGTH 192 M for Stage-II) for BFP handling cranes		MTR	320
2.2.3	Total Ex. Work price for SERVICE part for RAIL ALONG WITH ACCESSORIES FOR BAYLENGTH (FOR BAYLENGTH 128 M for Stage-I & FOR BAYLENGTH 192 M for Stage-II) for BFP handling cranes		MTR	320
2.2	Total Ex. Work price for SERVICE part for Stage-I & Stage-II Cranes for BFP Handling comprising of unloading, handling, transportation & storage at site, in-site transportation, assembly, erection & commissioning, trial run at site, and carrying out performance guarantee/Functional/Demonstration tests at site (As applicable) of crane(s) for project and package complete with all accessories for the total scope defined as per BHEL NIT & tender technical specification, amendment & agreements till placement of order.		Lot	1
	CWPH CRANE			
2.3.1	Total Ex. Work price for SUPPLY part for Stage-I & Stage-II Cranes (Excluding DSL,RAIL & Lifting beam) (1 no. crane for Stage-I & 1 no. cranes for Stage-II)	8426 11 00	Nos.	2
2.3.2	Total Ex. Work price for SUPPLY part for DSL ALONG WITH ACCESSORIES (FOR BAYLENGTH 79.35 M for Stage-I & FOR BAYLENGTH 112.95 M for Stage-II)		MTR	192.3
2.3.3	Total Ex. Work price for SUPPLY part for RAIL ALONG WITH ACCESSORIES (FOR BAYLENGTH 79.35 M for Stage-I & FOR BAYLENGTH 112.95 M for Stage-II)		MTR	192.3
2.3	Total Ex. Work price for SUPPLY part for Stage-I & Stage-II Cranes for CWPH comprising of design (i.e. preparation and submission of drawing /documents including "As Built" drawings and O&M manuals), engineering, manufacture, fabrication, assembly, inspection / testing at vendor's & sub-vendor's works, painting, maintenance tools & tackles, spares for erection, startup and commissioning as required, fill of lubricants & consumables, forwarding, proper packing, shipment and delivery at site for project and package complete with all accessories for the total scope defined as per BHEL NIT & tender technical specification, amendment & agreements till placement of order.		Lot	1
2.4.1	Total Ex. Work price for SERVICE part for Stage-I & Stage-II Cranes for CWPH (Excluding DSL & RAIL) (1 no. crane for Stage-I & 1 no. cranes for Stage-II)	998732	Nos.	2
2.4.2	Total Ex. Work price for SERVICE part for DSL ALONG WITH ACCESSORIES FOR BAYLENGTH (FOR BAYLENGTH 79.35 M for Stage-I & FOR BAYLENGTH 112.95 M for Stage-II) for CWPH Cranes		MTR	192.3
2.4.3	Total Ex. Work price for SERVICE part for RAIL ALONG WITH ACCESSORIES FOR BAYLENGTH (FOR BAYLENGTH 79.35 M for Stage-I & FOR BAYLENGTH 112.95 M for Stage-II) for CWPH Cranes		MTR	192.3
2.4	Total Ex. Work price for SERVICE part for Stage-I & Stage-II Cranes for CWPH comprising of unloading, handling, transportation & storage at site, in-site transportation, assembly, erection & commissioning, trial run at site, and carrying out performance guarantee/Functional/Demonstration tests at site (As applicable) of crane(s) for project and package complete with all accessories for the total scope defined as per BHEL NIT & tender technical specification, amendment & agreements till placement of order.		Lot	1
2.5	Total Ex. Work price for Mandatory spares for Stage-I & Stage-II comprising of manufacture, fabrication, assembly, inspection / testing at vendor's & sub-vendor's works, painting, forwarding, proper packing, shipment, delivery at site & guarantee as per tender technical specification above, amendment & agreements till placement of order. (Price break up of mandatory spares is to be furnished as per Annexure-I).	8431 49 20	Lot	1

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NAME OF	5 X 800MW YADADRI TPS			
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TECHNICAL	PE-TS-417-501-A401			
S. No.	DESCRIPTION	HSN CODE	UNIT	QTY

Note:

- 1) Bidder to note that there shall be no implication with reference to change of Lift upto (+/-) 500 mm as indicated in CCD.
- 2) Separate BBU for each stage is required to be submitted by successful bidder after placement of PO which shall be based on break-up available in this schedule.
- 3) Any variation in length of DSL / gantry rail due to change in bay length will be adjusted based on unit rates arrived from 2.1.2 ,2.1.3, 2.2.2 ,2.2.3, 2.3.2,2.3.3, 2.4.2 & 2.4.3 above.

BOQ
ANNEXURE-I
LIST OF MANDATORY SPARES FOR STAGE -1

NAME OF PROJECT:		5 X 800MW YADADRI TPS	
NAME OF PACKAGE:		DOUBLE GIRDER EOT CRANES (<100T CAPACITY)	
TECHNICAL SPECIFICATION:		PE-TS-417-501-A401	
Sl. No.	DESCRIPTION	QUANTITY FOR STAGE-I	QUANTITY FOR STAGE-II
1	Long Travel Unit		
1.1	Set of Bearing of Axle	1 set for each type & capacity of EOT	1 set for each type & capacity of EOT
1.2	Set of Gearbox Bearing with sleeves	1 set for each type & capacity of EOT	1 set for each type & capacity of EOT
1.3	Long Travel end shaft bearing	1 set for each type & capacity of EOT	1 set for each type & capacity of EOT
1.4	Seals for Travel gear box	1 set for each type & capacity of EOT	1 set for each type & capacity of EOT
1.5	Long Travel Brake shoes lining with rivets	2 sets for each type & capacity of EOT	2 sets for each type & capacity of EOT
1.6	Motor	1 no. for each type & capacity of EOT	1 no. for each type & capacity of EOT
2	Cross Travel Unit		
2.1	Axle Bearings	1 set for each type & capacity of EOT	1 set for each type & capacity of EOT
2.2	Set of Gearbox Bearing with sleeves	1 set for each type & capacity of EOT	1 set for each type & capacity of EOT
2.3	Cross Travel end shaft bearing	1 set for each type & capacity of EOT	1 set for each type & capacity of EOT
2.4	Set of Seals for gear box	1 set for each type & capacity of EOT	1 set for each type & capacity of EOT
2.5	Cross Travel Brake shoes lining	2 sets for each type & capacity of EOT	2 sets for each type & capacity of EOT
2.6	Motor	1 no. for each type & capacity of EOT	1 no. for each type & capacity of EOT
3	Main Hoist		
3.1	Main Hoist Pulley Bearing	1 set for each type & capacity of EOT	1 set for each type & capacity of EOT
3.2	Set of Bearing for Gear Box	1 set for each type & capacity of EOT	1 set for each type & capacity of EOT
3.3	Set of seals for Gearbox	1 set for each type & capacity of EOT	1 set for each type & capacity of EOT
3.4	Aux. Hoist Gear box Bearing	1 set for each type & capacity of EOT	1 set for each type & capacity of EOT
3.5	Aux. Hoist Gear box Seal	1 set for each type & capacity of EOT	1 set for each type & capacity of EOT
3.6	Main & Aux. Hoists Brake Shoes	2 sets for each type & capacity of EOT	2 sets for each type & capacity of EOT
3.7	Main & Aux. Hoists Brake Springs	2 sets for each type & capacity of EOT	2 sets for each type & capacity of EOT
3.8	Main & Aux. Hoists Brake Shoe liners	4 sets for each type & capacity of EOT	4 sets for each type & capacity of EOT
3.9	Motor for Main Hoists & Auxiliary Hoist	1 no. for each type & capacity of EOT	1 no. for each type & capacity of EOT
4	Electrical:Control Panels/Motors		
4.1	Fixed + Moving + Spring contactors	2 sets for each type for each control panel	2 sets for each type for each control panel
4.2	Control Module	2 Nos. each type and rating	2 Nos. each type and rating
4.3	Thyristor Stack	2 Nos. each type and rating	2 Nos. each type and rating
4.4	Speed setting Module	2 Nos. each type	2 Nos. each type
5	Control Panel/ Desk Mounted Items		
5.1	Push Button		
5.1.1	Complete assembly	5 nos. of each color	5 nos. of each color
5.1.2	Contact Element (1NO-1NC) Blocks	20 Nos.	20 Nos.
5.2	Selector Switch	10 Nos. of each type and rating	10 Nos. of each type and rating
5.3	Meter (Analog or digital)		
5.3.1	Ammeter	10% for each type & range or minimum 1 no. whichever is more	10% for each type & range or minimum 1 no. whichever is more
5.3.2	Voltmeter	10% for each type & range or minimum 1 no. whichever is more	10% for each type & range or minimum 1 no. whichever is more
5.3.3	Frequency	10% for each type & range or minimum 1 no. whichever is more	10% for each type & range or minimum 1 no. whichever is more

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TECHNICAL SPECIFICATION:		PE-TS-417-501-A401	
5.3.4	MW	10% for each type & range or minimum 1 no. whichever is more	10% for each type & range or minimum 1 no. whichever is more
5.3.5	MVAR	10% for each type & range or minimum 1 no. whichever is more	10% for each type & range or minimum 1 no. whichever is more
5.3.6	Power Factor	10% for each type & range or minimum 1 no. whichever is more	10% for each type & range or minimum 1 no. whichever is more
4.3.7	Synchroscope	10% for each type & range or minimum 1 no. whichever is more	10% for each type & range or minimum 1 no. whichever is more
5.4	Indicating Lamps complete assembly	10 Nos. of each colour & type	10 Nos. of each colour & type
5.5	Mimic Lamps	10 Nos. of each colour & type	10 Nos. of each colour & type
5.6	MCB	2 Nos. for each type and rating	2 Nos. for each type and rating
5.5	Door limit Switch	2 Nos.	2 Nos.
5.8	Annunciation System		
5.8.1	Lamp Box with Facia & Lamps (LED Type)	25 Nos.	25 Nos.
5.8.2	Hooter	1 No.	1 No.
5.8.3	Each Type of PCB (for non-PLC driven system)	1 No.	1 No.
6	415 Volt Motor (above 30KW Rating)		
6.1	End Shield Cover Driving & Non-Driving End	1Set for each type and rating of Motor	1Set for each type and rating of Motor
6.2	Driving End & Non-Driving End Bearing	1Set for each type and rating of Motor	1Set for each type and rating of Motor
6.3	Cooling Fan	1No. for each type and rating of Motor	1No. for each type and rating of Motor
6.4	Motor Space Heater	1No. for each type and rating of Motor	1No. for each type and rating of Motor
6.5	Motor Terminal Block	1No. for each type and rating of Motor	1No. for each type and rating of Motor
6.6	Complete Set of Coupling	1Set for each Application	1Set for each Application
7	415 Volt Motor (Up to 30KW Rating)		
7.1	Driving End & Non-Driving End Bearing	3Set for each type and rating of Motor	3Set for each type and rating of Motor
7.2	Cooling Fan	2No. for each type and rating of Motor	2No. for each type and rating of Motor
7.3	Motor Terminal Block	5Nos. for each type and rating of Motor	5Nos. for each type and rating of Motor
7.4	Complete Set of Coupling	1Set for each Application	1Set for each Application
TOTAL			
NOTES			
1	Mandatory spares listed above is bare minimum requirement. In case any additional mandatory spares requirement is covered elsewhere in the tender specification, same shall be deemed to have been covered in bidders scope of supply.		