

SUGGESTED PRICE FORMAT		Doc No:	PE-PF-415-166-A001		
		Rev No:	1		
		Date of issue	18.03.2020		
NAME OF PROJECT:		1x660 MW BHUSAWAL TPS UNIT 6			
NAME OF PACKAGE:		FUEL OIL HANDLING SYSTEM			
TECHNICAL SPECIFICATION:		PE-TS-415-166-A001			
S. No.	DESCRIPTION	UNIT	QTY	HSN code	AMOUNT (Ex-Works)
1.0	Total lump sum firm price inclusive of all prevailing taxes, duties and other levies for Supply part, Services part and Mandatory spares 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 (as applicable), 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, final painting at site, obtaining CCOE approval, minor civil work, trial run at site and carrying out Performance guarantee / Functional / Demonstration tests at site (As applicable), training of customer/client O&M staff (if applicable) and handover in flawless condition of the package to the end customer complete with all accessories for the total scope defined as per BHEL NIT & tender technical specification as specified above, amendment & agreements till placement of order.	Lot	1		
2	MAJOR BREAK-UP OF PRICES GIVEN IN 1.0 ABOVE.				
2.1	Total lump sum firm price inclusive of all prevailing taxes, duties and other levies for Supply part 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, obtaining CCOE approval, maintenance tools & tackles (as applicable), fill of lubricants & consumables alongwith spares for erection as required, startup and commissioning spares as required, forwarding, proper packing, shipment and delivery at site for the total scope defined as per BHEL NIT & tender technical specification as specified above, amendment & agreements till placement of order. (Break-up as per Annexure-I)	Lot	1	8413 60 20	
2.2	Total lumpsum firm prices inclusive of all prevailing taxes, duties and other levies for Services part comprising of unloading, handling, transportation & storage at site, in-site transportation, assembly, erection & commissioning, final painting at site, minor civil work, trial run at site and carrying out Performance guarantee / Functional / Demonstration tests at site (As applicable), training of customer/client O&M staff (if applicable) and handover in flawless condition of the package to the end customer complete with all accessories for the total scope defined as per BHEL NIT & tender technical specification as specified above, amendment & agreements till placement of order.	Lot	1	998871	
2.3	Total lumpsum firm price inclusive of all prevailing taxes, duties and other levies for Mandatory spares comprising of manufacture, fabrication, assembly, inspection / testing (as applicable) 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- II)	Lot	1	8413 91 90	
Notes: 1.) PG to consider and suitably incorporate taxes, duties and other commercial aspects. 2.) Bidder to quote the Prices in 'figures' along with corresponding 'words'.					
Particulars of bidder / authorised representative					
Name	Designation	Signature	Date	Company Seal	

SUGGESTED PRICE FORMAT ANNEXURE-I		Doc No:	PE-PF-415-166-A001	
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S. No.	Description	UNIT	QTY	AMOUNT (Ex-Works)
	BREAK-UP OF SUPPLY PRICES GIVEN IN 2.1 OF MAIN SHEET.			
2.1	Total lump sum firm price inclusive of all prevailing taxes, duties and other levies for Supply part 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 (as applicable), fill of lubricants & consumables alongwith spares for erection as required, startup and commissioning spares as required, forwarding, proper packing, shipment and delivery at site for the total scope defined as per BHEL NIT & tender technical specification as specified above, amendment & agreements till placement of order.	Lot	1	
2.1.1	Lump sum price for structural steels including flanges, hand rails, gratings etc for FOHS Including floor coil heater.	Lot	1	
2.1.2	HFO Unloading Pumps (125 cum/hr) cum with motor	Nos.	2	
2.1.3	Strainers for HFO Unloading Pumps(125 cum/hr)	Nos.	2	
2.1.4	LDO Unloading Pumps (125 cum/hr) with motor	Nos.	2	
2.1.5	Strainers for LDO Unloading Pumps (125 cum/hr)	Nos.	2	
2.1.6	Drain Oil Pump with motors (10 cum/hr)	Nos.	3	
2.1.7	Recovery Oil Pump with motors in Oil Pit of OWS (5 cum/hr)	Nos.	2	
2.1.8	Sump Pumps with Motors in Pump House (5 cum/hr)	Nos.	2	
2.1.9	Suction Heater in HFO tanks	Nos.	1	
2.1.10	Drain Oil Tank in Pump House with floor coil heater (6 cum)	No.	1	
2.1.11	Drain Oil Tank (Burried/underground) in Tank farm area with floor coil heater (10 cum)	No.	1	
2.1.12	Flash Tank	Lot	1	
2.1.13	Pressure Reducing and Desuperheating station complete in all respect	No.	1	
2.1.14	Lump sum price for Control valves for Suction heater, floor coil heater and Drain oil tanks	Lot	1	
2.1.15	Lump sum price for Inverted Bucket / Float Type Steam Trap	Lot	1	
2.1.16	Lump sum price for TD Type Steam Trap	Lot	1	
2.1.17	Lump sum price for Manual Valves in FOHS	Lot	1	
2.1.18	Lump sum price for Motorized Valves in FOHS	Lot	1	
2.1.19	Lump sum price for Instruments	Lot	1	
2.1.20	Lump sum price for Insulation & Cladding	Lot	1	
2.1.21	Lump sum price for Painting	Lot	1	
2.1.22	Lump sum price for Pipe and fittings, including steam tracers	Lot	1	
2.1.23	Lump sum price for Equipment and accessories of OWS excluding items covered above.	Lot	1	
2.1.24	Lumpsum firm price of maintenance tools & tackles, fill of lubricants & consumables alongwith spares for erection as required, startup and commissioning spares as required or any other item not covered above but required for successful completion of Fuel oil unloading & storage package as per system requirement.	Lot	1	
Notes: 1.) PG to consider and suitably incorporate taxes, duties and other commercial aspects.				
Particulars of bidder / authorised representative				
Name	Designation	Signature	Date	Company Seal

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S. No.	DESCRIPTION	QTY	AMOUNT (Ex-Works)
1	Valves (gate, globe, check plug and ball valves)	1 Lot (For each type and size) (a) One (1) where total quantity of particular type and size of valve is less than or equal to 10. (b) Two (2) where total quantity of a particular type and size of valve is less than 40 but more than 10	
2	Steam trap	1 Lot (Five (5) % of total number of each type and size of trap (in case of fractional quantity lower whole quantity shall be taken min qty.))	
3	Pressure reducing valve	1 No	
4	Drain oil pump		
(a)	Complete cartridge assembly	1 Set	
(b)	Mechanical seals	2 Sets	
(c)	Bearing (pump)	1 Set	
(d)	Set of all type of bushes and sleeve	2 Sets	
(e)	Set of 'O' rings and seals	2 Sets	
(f)	Set of gaskets	2 Sets	
(g)	Relief valve complete with accessories	1 Set	
5	SUCTION HEATER GASKETS		
(a)	For HFO day tank	1 Lot (Four (4) sets)	
6	SUCTION HEATER NUTS AND BOLTS		
(a)	For HFO day tank	1 Lot, 10 % of population used.	
7	Pump suction Strainer Basket	1 Lot(Three (3) for each type whichever applicable)	
8	Pump suction Strainer Gasket	1 Lot (Six (6) for each type whichever applicable)	
9	Pump O-Ring and Gasket	1 Lot (Twelve (12) for each type whichever applicable)	
10	Various types of Gland packing for valves	1 Lot (Ten (10) each type whichever applicable)	
11	Pump Screw	1 Lot (Ten (10) each type whichever applicable)	
12	PUMP AND MOTOR BEARING		
(a)	For HFO & LDO transferring pump	Two (2) sets for each type	
(b)	For Drain Oil Pump	Two (2) sets	
13	Plug valves for various sizes used	1 Lot (Two (2) each)	
14	Temperature Switch	Two (2)	
15	Pressure Gauge	Three (3)	
16	Temperature Gauge	Three (3)	

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S. No.	DESCRIPTION	QTY	AMOUNT (Ex-Works)
17	Relief Valve Spring	Two (2) sets	
18	Flame Arrestor	Two (2)	
19	Hoses with end fittings	1 lot (Five (5) for each type)	
20	Adaptor	1 lot (Five (5) for each type)	
21	Suction Heater Heating Element	1 No	
22	Mat Coil Heater – Heating Element	2 Sections	
23	Thermodynamic traps	5 Nos	
24	Inverted Bucket type traps	2 Nos	
25	Mechanical seals for all HFO and LDO pumps	2 Two (2) sets for each type.	
26	415V MOTORS		
(a)	Terminal plates for motors upto 30kw for each rating	1 Lot (1 no. For each type & rating of Motor)	
(b)	Terminal plates for motors above 30kw for each rating	1 Lot (1 no. For each type & rating of Motor)	
(c)	Heaters	1 Lot (1 set For each type & rating of Motor)	
(d)	Greasing arrangements	1 Lot (1 set For each type & rating of Motor)	
(e)	Motor of each type and rating	1 Lot (10% of the installed quantity or minimum 1 number whichever is higher)	
(f)	Bearings (DE and NDE)	1 Lot (1 set For each type & rating of Motor)	
(g)	End shield cover driving and non driving end	1 Lot (1 set For each type & rating of Motor)	
(h)	Cooling fan	1 Lot (1 set For each type & rating of Motor)	
(i)	Motor terminal block	1 Lot (1 set For each type & rating of Motor)	
(j)	Complete set of coupling	1 Lot (1 set For each type & rating of Motor)	
27	C&I SPARES		
(a)	Terminal block	1 Lot (10% of total quantity used for each type and rating)	
(b)	MCBs	One number of each type & rating.	
(c)	Relays - Interposing relay	1 Lot (10% or 2 nos of each type and model whichever is more)	
(d)	Fuses	1 Lot (100 % of each type and rating)	
(e)	Cooling fans for power supply	1 Lot (10% or 2 nos. of each type and model whichever is more)	
28	CONDUCTIVITY TYPE LEVEL MONITORING SYSTEM		
(a)	Electrodes	1 Lot (50% of population)	
(b)	Electronic cards	1 Lot (20% or 2 nos. of each type and model whichever is more)	

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S. No.	DESCRIPTION	QTY	AMOUNT (Ex-Works)
(c)	Lamps / LEDs of display units	1 Lot (100 %)	
29	MEASURING INSTRUMENTS		
29.1	ELECTRONIC TRANSMITTERS		
(a)	Transmitters of all types, ranges and model no. (for the measurement of	10% or 2 no. of each type and model, whichever is more	
(b)	Electronic cards / PCB's for each type and model and model of transmitters	10% or 5 nos. of each type, whichever is more	
29.2	TEMPERATURE ELEMENTS		
(a)	RIDs of each type & length	10% or 2 nos. whichever is more	
(b)	Thermocouples of each type like K-type, R-type, metal etc and length	10% or 2 nos. whichever is more	
(c)	Thermowell for T / C & RIDs	10% or 1 no. of each type, rating, length used in the system whichever is more	
(d)	Process actuated switch devices Including all types of pressure, differential	10% or 1 no. of each type and model whichever is more	
29.3	INDICATORS / RECORDERS		
(a)	Digital Indicators of each model, type & range (including relevant digital indicators	10% or 2 nos. min. whichever is more	
(b)	Vertical Indicators of each type & model.	5% or 1 no. of each model whichever is more	
(c)	Recorders for each type and model	5% or 1 no. whichever is more.	
(d)	Consumables for continuous recorders Charts Ink capsules	25 rolls per recorder/ 25 nos per recorder / 20 nos. per recorder / Ink Pads /Pens.	
(e)	Consumables for multi point recorders:	(i) 5 nos per recorder. (ii) 5 nos per recorder.	
29.4	Level transmitters (displacer type)		
(a)	Electronic cards / PCB's of level transmitters	10% of total quantity used or 1 for each type/rating whichever is more	
(b)	Level transmitters	10% of total quantity used or 1 for each type/rating whichever is more	
(c)	Electronic water level indicator	10% or 2 nos. min. whichever is more	
(d)	PD type flow transmitters	10% of total quantity used or 1 for each type/rating whichever is more	
29.5	SWITCHES		
(a)	Switches (Pressure, DP, Level, Flow, temperature etc)	10% of each type of total nos. used in the system or minimum 1 no. of each type, model & range whichever is more	
29.6	Rotameter	10% of each type of total nos. used in the system or minimum 2 no. of each type, model & range whichever is more	
29.7	Solenoid Valve	10% of each type of total nos. used in the system or minimum 2 no. of each type, model & range whichever is more	
(a)	Assembly	10% of total quantity used or minimum 2 no. of each type whichever is more	
(b)	Coil	10% of toatal quantity used or 5 no. whichever is more	
29.8	E/P Converter	10% of each type of total nos. used in the system or minimum 2 no. of each type, model & range whichever is more	
29.9	Special Instruments		

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S. No.	DESCRIPTION	QTY	AMOUNT (Ex-Works)
(a)	Nucleonic I non-nucleonic density meter, solid flow meter etc.	1 no. and spare parts as per manufacturer	
29.10	Electrical Transducers	10% of total quantity used or minium 1 no. of each type and range whichever is more	
30	PROCESS CONNECTION PIPING (for impulse plpmg /tubing, sampling		
30.1	Valves of all types and models	10% or 2 no. of each type, class, size and model whichever is more.	
30.2	2 way, 3way, Sway valve manifolds	10% or 2 no. of each type, class size and model whichever is more.	
30.3	Fittings	10 nos. of each type	
30.4	Purge meters	10 % of each model or 2 Nos. whichever is more	
30.5	Filter regulators	10% of each model or 2 Nos. whichever is more	
30.6	Impulse pipe & tubing of all type	20 mtrs each type & size	
30.7	Impulse line root valve	10% of total quantity used or 4 no. whichever is more for each type and	
30.8	SS tube	40 mtrs of each type/ size	
30.9	Fitting for SS tube	40 nos of each type/ size	
31	INSTRUMENTATION CABLE, INTERNAL WIRING AND ELECTRICAL FIELD		
31.1	Pre fabricated cable of each type	10% of installed quantity	
31.2	Pre fabricated cable connector	10% or 1no. of each type and modet whichever is more.	
31.3	Other cables	10% of each type, pair and size of actual installed quantity	
32	ELECTRICAL ACTUATORS		
32.1	Actuators	10% or 1 no. of each type, model and rating, whichever is more.	
32.2	Power unit for modulating actuator	10% or 2 nos. of each type, whichever is more.	
32.3	DC-DC unit/power pack units	10% or 2 nos. of each type, whichever is more.	
32.4	Electronic cards	10% or 5 nos. of each type, whichever is more	
32.5	Brake assembly	10% or 2 nos. of each type, whichever is more ..	
32.6	Brake coils	10% or 2 nos. of each type whichever is more.	
32.7	Position feed back transmitters	10% or 2 nos. of each type whichever is more.	
32.8	Control Unit	10% or 2 nos. of each type whichever is more.	
32.9	Torque and limit switch assembly of each unit	10% or 2 nos. of each type whichever is more.	
32.10	O-ring	1 set of each size	
32.11	Motor	1 no. of each type & rating	
32.12	Auxiliary contact	10% of total quantity used or 2 nos. whichever is more for each type and	

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32.13	Seal Kit	1 set of each type & size	
33.00	Interposing Relay	10% of total nos. used in the system or minimwn 4(four) nos. whichever is more.	
34.00	RADAR TYPE LEVEL TRANSMITTER		
34.1	Transmitter / Receiver	10% or 1 no. of each type transmitter/ receiver	
34.2	Electronic card	10% or 1 no. of each type electronic card	
35	NON-CRITICAL CONTROL VALVE		
(a)	Control valve stem packing.	Set for each control valve.	
(b)	Moulded rubber diaphragms	Set for each control valve.	
(c)	Gasket	Nos for each type / size.	
(d)	Lubricants for gaskets	100% quantity for gaskets for each control valve on one year consumption basis.	
(e)	Limit switches	Set for each control valve.	
(f)	Valve trims (such as plug, stem, seat ring/cage, guide bushing, stem lock pin,	Set for each control valve.	
(g)	Complete actuator.	One number of each type or minimum 10% for each type and size wichever is more.	
36	CRITICAL CONTROL VALVE (PRDS STEAM PRESSURE REDUCING VALVE)		
(a)	Soft goods kit valve	1 Set	
(b)	Mrtal Seat	1	
(c)	Seat Ring	1	
(d)	Spindle	1	
(e)	Actuator soft goods kit	1 Set	
37	COMMON SPARES AND ACCESSORIES FOR ABOVE VALVE		
(a)	Feed back transmitter unit	10% of total quantiy used or 2 nos. whichever is more for each type/ rating	
(b)	Electronic positioner	10% of total quantiy used or 2 nos. whichever is more for each type/ rating	
(c)	Solenoid valve	10% of total quantiy used or 2 nos. whichever IS more for each type/ rating	
(d)	Air filter regulator	2 nos	
(e)	Air lock relay	4 nos of each type	
(f)	Complete actuator for each type and model	1 set	
(g)	Volume Booster	2 no each type/size	
38	CONTROL PANEL AND LOCAL REMOTE CONTROL DESK (AS APPLICABLE)		
(a)	Recorder	1 (one) No. each type and model	

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(b)	Bar graph indicator	10% of total quantity used in the system or minimum 1 (one) no. whichever is more for each type and model.	
(c)	Digital Indicator	10% of total quantity used in the system or minimwn 1 (one) no. whichever is more for each type and model.	
(d)	Mosaic/Conventional Type Push button Station	10% of total quantity used in the system or minimum 2(two) nos. whichever is more for each type and model.	
(e)	Mosaic Type Push button Station with LED Indication	10% of total quantity used in the system or minimum 2(two) nos. whichever is more for each type and model.	
(f)	Mosaic Type LED Indication Station	10% of total quantity used in the system or minimum 2(two) nos. whichever is more for each type and model.	
(g)	Simaphore Indicator	2(two)Nos. each type	
(h)	ANNUNCIATION SYSTEM (For offsite / Auxiliary Plants)		
(h) -1	Each type of PCB (for non-PLC driven system)	1 (one) No. each	
(h) -2	Lamp Box with Facia & Lamps (LED type)	10% with minirwn 2 nos.	
(h) -3	Hooter	1 (one) No.	
39	Gauges of all types	10% of total quantity used or 1 nos. whichever is max. for each type/rating.	
40	POWER CYLINDER		
(a)	Actuator Seal Kit	2(two) nos. for each type of Power Cylinder	
(b)	Gasket	2(two) nos. for each type of Power Cylinder	
(c)	Complete Set of Power Cylinder	1 (one) no. each type for all application	
(d)	Position Transmitter complete set	10% of total quantity used ill the system or minimum 2(two) nos. whichever is more for each type and model.	
(e)	Power Cylinder Positioner complete set	10% of total quantity used in the system or minimum 2(two) nos. whichever is more for each type and model.	
(f)	Complete Set of Solenoid Valve for power cylinder	2Nos. for each type & ratings	
(g)	Solenoid Coil for Pneumatic type power cylinder	5Nos. for each type & ratings	
(h)	Position Limit Switch for Pneumatic type Power Cylinder	10 Nos. for each type & ratings	
(i)	Air lock relay	10 Nos for each type	
(j)	Signal Air Booster Unit	2 Nos for each type.	
Note: 1) Mandatory spares listed above is bare minimum requirement. In case any additional mandatory spares requirement is covered elsewhere in the tender specification apart from specified above, same shall be deemed to have been covered in bidders scope of supply. 2) Wherever the quantity is mentioned as percentage, it shall mean percentage of total population of that item in package/system unless specified otherwise, and the fraction will be rounded off to the next higher whole number. 3) A "Set" would mean the requirement for the single equipment and would include all components required to replace the item.			
Particulars of bidder / authorised representative			
Name	Designation	Signature & company seal	

[illegible]

Bidder shall furnish unit price of Commissioning spares in above format alongwith the Bid.