

SUGGESTED PRICE FORMAT		Doc No:	PE-PF-426-166-A001		
		Rev No:	0		
		Date of issue	26.06.2019		
NAME OF PROJECT:		1X660MW PANKI TPS			
NAME OF PACKAGE:		FUEL OIL HANDLING SYSTEM			
TECHNICAL SPECIFICATION:		PE-TS-426-166-A001			
S. No.	DESCRIPTION	UNIT	QTY	HSN code	
1.0	Total lump sum firm price 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, preparation of layout drawings 3D (as applicable) and carrying out Performance guarantee / Functional / Demonstration tests at site (As applicable), training of customer/client O&M staff 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 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, preparation of layout drawings 3D (as applicable) 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 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 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'. 3.) The BHEL reserves the right to buy any or all the mandatory spares parts.					
Particulars of bidder / authorised representative					
Name	Designation	Signature	Date	Company Seal	

SUGGESTED PRICE FORMAT ANNEXURE-I		Doc No:	PE-PF-426-166-A001	
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NAME OF PROJECT:		1X660 MW PANKI TPS		
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TECHNICAL SPECIFICATION:		PE-TS-426-166-A001		
S. No.	Description	UNIT	QTY	
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, preparation of layout drawings 3D (as applicable) 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 steel plates for LDO tanks .	Lot	1	
2.1.2	Lump sum price for structural steels including flanges, hand rails, gratings etc for FOHS.	Lot	1	
2.1.3	LDO Unloading Pumps with motor	Nos.	5	
2.1.4	Strainers for LDO Unloading Pumps	Nos.	5	
2.1.5	Drain Oil Pump with motors	Nos.	2	
2.1.6	Recovery Oil Pump with motors in Oil Pit of OWS	Nos.	2	
2.1.7	Sump Pumps with Motors in OWS	Nos.	2	
2.1.8	Sump Pumps with Motors in Pump House	Nos.	2	
2.1.9	Sump Pumps with Motors in Unloading Area	Nos.	4	
2.1.10	Drain Oil Tank	Nos.	1	
2.1.11	LDO flexible metallic / neoprene unloading hoses with all accessories	Lot	1	
2.1.12	Lump sum price for Manual Valves in FOHS	Lot	1	
2.1.13	Lump sum price for Motorized Valves in FOHS	Lot	1	
2.1.14	Lump sum price for Instruments	Lot	1	
2.1.15	Flowmeter LDO lines	Nos.	1	
2.1.16	Lump sum price for Painting	Lot	1	
2.1.17	Lump sum price for Equipment and accessories of OWS excluding items covered above.	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

SUGGESTED PRICE FORMAT ANNEXURE-II LIST OF MANDATORY SPARES		Doc No:	PE-PF-426-166-A001
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TECHNICAL SPECIFICATION:		PE-TS-426-166-A001	
S. No.	DESCRIPTION	UNIT	QTY
1.0	FUEL OIL HANDLING SYSTEM <i>[One (1) set means total numbers as required for one complete replacement for one equipment.]</i>	1	
1.1	Strainer elements		
a.	Drain Pumps	No.	1
b.	LDO unloading pumps	No.	1
1.2	Relief valve complete assembly		
a.	LDO unloading pumps	No.	1
1.3	Bearings of		
a.	LDO unloading pumps	set	1
b.	Drain Pumps	set	1
1.4	Rotor Assembly (Complete cartridge assembly)		
a.	LDO unloading pumps	set	1
b.	Drain Pumps	set	1
1.5	Coupling Bolts with nuts, washer and bushed for LDO unloading pumps	set	1 set for each size of coupling
1.6	Wearing Rings	set	1 set for each type of pump
1.7	Gland Packing (if applicable)	set	1 set for each type of pump
1.8	Mechanical seal Assembly (if applicable)	set	2 sets each for LDO.
1.9	Shaft Sleeve	set	1 set for each type of pump
1.10 (a)	Valves (Each type and size)	No.	1 number, where the total quantity of a particular type and size of valve is less than or equal to 10.
(b)	Valves (Each type and size)	No.	2 numbers, where the total quantity of a particular type and size of valve is less than 40 but more than 10.
(C)	Valves (Each type and size)	No.	10% of total quantity (to nearest whole number) of a particular type and size of valve, where the total quantity of a particular type and size of valve is more than 40.
1.11	Neoprene rubber unloading hoses with end connections (complete hose)	Nos.	Ten (10) Nos.
	CONTROL & INSTRUMENTATION (MANDATORY SPARES)		
2.00.01	Measuring & Field Instruments		
2.00.01.01	Indicators, Recorders, Electrical Metering and Skid Mounted Instruments		
(i)	Indicators, recorders and meters offered from each model for the project. These instruments shall be supplied with three sets of blank scales.	Nos.	10 % of Installed of each type/Model or a minimum of one number for each model and type, whichever is more
(ii)	For skid mounted instruments	Nos.	10% of total number of instruments for each Type and model or a minimum of one number for each model and type, whichever is more

(iii)	Panel and Wall mounted Indicators	Nos.	10% of total number of instruments or a minimum of one number for each type, model, range etc. whichever is more	
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2.00.01.02	Temperature Elements and Thermowells			
(i)	Thermocouple/RTD elements	Nos.	15% of flue gas temp, coal air mixture temp, boiler/TG metal temp thermocouples and 5% for other applications of total duplex thermocouple element assemblies and duplex RTD assemblies (with head assembly, terminal block and nipple) of each type and length whichever is more. The element assembly shall be suitable for direct replacement in the corresponding thermowell.	
(ii)	Thermowells	Nos.	10% for each type of temperature sensors or a minimum of one for each type & size, whichever is more	
2.00.01.03	Temperature Transmitters and Electronic Transmitters of all type, range and model no. (For Pressure, DP, Temp, Flow, Level), Process Transmitters, Radar type level transmitter, 3D type level Transmitter with local display, Magnetic/Electromagnetic flow meter with local display, mass flow meter with local display., Process meters, Junction Box, Position Transmitter, Transducer or any other instrument etc.	Nos.	10% of total number of instruments/transducers offered for each model and type, rating or a minimum of one number for each model, rating and type , whichever is more.	
2.00.01.04	Process actuated switch Devices- As applicable for each package as per following:	Nos.	5% of total nos. or 1 no. of each make, model, range and type whichever is more	
	1. Temperature Switches			
	2. Differential pressure Switches			
	3. Pressure switches			
	4. Flow switches			
	5. Level Switches			
	6. Safety Protection Switches			

2.00.01.05	Local Gauges like temperature gauges, pressure gauges, differential Pressure gauges, flow gauges, flow meters with local display etc.	Nos.	10% of total number of instruments/transducers offered for each model and type, rating or a minimum of one number for each model, rating and type, whichever is more.	
2.00.01.06	All type of Rota meters & Sight Flow Indicator.	No.	1 no. of each range and type	
2.00.01.07	PD Type flow transmitters with local display.	No.	1 no. of each type and model	
2.00.01.08	Guided wave RADAR for Hot well application	No.	1 no.	
2.00.01.09	Guided wave RADAR for LP heaters	No.	1 no. for each of the LP heaters	
2.00.01.10	Impact head type flow element	No.	20% or 2 nos. of each make and type, whichever is more	
2.00.01.11	Ultrasonic type flow measurement	No.	20% or 2 nos. of each make and type, whichever is more	
2.00.01.12	Ultrasonic type level transmitter	%	50% of each type and length, including sensors	
2.00.01.13	Any other instruments not indicated in the tender P&ID but required for control, monitoring and operation of the equipment/plant/systems		10% or 2 nos. of each type whichever is more	
2.00.01.14	Level Gauges			
			a) 10% or 2 nos. whichever is more of each type of illuminators with holder and reflector	
			b) 20% or 5 nos. whichever is more of each type of bulb.	
			c) 10% or 2 nos. whichever is more of each type of bi-color rollers.	
			d) 10% or 2 nos. whichever is more of each type of glass along with pair of gaskets (cushion & wet gaskets)	
			e) 10% or 2 nos. whichever is more of each type of gaskets for gauge cocks/valve bonnet/ packing.	
			f) 10% or 2 nos. whichever is more of each type scale.	
2.00.01.15	Complete Electronic card/PCB assembly and Power supply card assembly.		10% of Electronic card/PCB assembly for each type, model & rating or a minimum of one number for each model, rating and type, whichever is more for each type of Transmitter, switch & Flow Meters.	
2.00.16	Mandatory Spares for Control valves, Power Cylinder, Control Dampers, Actuators, Flow Elements and Accessories			
(A)	Following spares shall be furnished for control valves, Power Cylinder, Control Dampers as applicable			
a)	Spare control valve stem packing for each control valve.	Set	1	
b)	Moulded rubber diaphragms for each control valve.	No.	2	
c)	Diaphragms, O-rings and rubber gaskets, seals for each type, make etc. of control valve.	%	100	
d)	Lubricants for gaskets for each control valve on one year consumption basis.	%	100	

e)	Limit switches and valve positioner for each control valve.	set	2 sets of limit switches and 1 set of valve positioner for each control valve.	
f)	Position transmitter (4-20mA) and its accessories for total qty. of control valve.	%	20	
g)	Valve trims (such as plug, stem, seat ring / cage, guide bushing, stem lock pin, packing retaining ring, etc) for each type of control valve.	set	1	
h)	Pneumatic and electro-hydraulic actuator assembly		One complete Pneumatic and electro-hydraulic actuator assembly of each type or min 10% for each type, model, rating and size whichever is more.	
i)	Solenoid valves or each type for total qty. of control valves.		20 percent of Solenoid valves or min 2 no. of each type for total qty. of control valves.	
j)	I to P converters, Pressure regulators.	%	20	
k)	Air lock relays		10% or 2 nos. of each type whichever is more air lock relays	
	ELECTRICAL (MANDATORY SPARES)			
3.00.00	415V Motors			
3.00.01	Terminal plates		10 Nos. each for small motors upto 30 kW & 4 Nos. each for more than 30 kW	
3.00.02	Heaters	set	2 sets	
3.00.03	Greasing arrangements	set	4 sets each type of motor	
3.00.04	Motor of each type and rating		10% of the installed quantity or minimum 1 number whichever be higher	
3.00.05	Bearings (DE and NDE) for each type and rating of motor	Set	4	
3.00.06	Stator winding coils for all type of LT motors	Set	One (1)	
3.00.07	Dust seals and gaskets for each type of motors	Set	Three (3)	
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. If any item is not applicable, bidder to quote equivalent spares within quoted price. 3. Applicability of the item will be decided during detailed Engg. by BHEL/Customer without any commercial implications. 4. One (1) set means total numbers as required for one complete replacement for one equipment.				
Name	Designation	Signature & company seal		

1X660 MW PANKI TPS
Erection, startup and commissioning Spares

Break up price for erection, startup and commissioning spares
(Annexure-III)

Sl.no	Descripti on of Item	Qty.	Unit	Unit price (Ex works) INR	Total Ex- Works Prices duly packed INR

NOTE -

Bidder shall furnish unit price of Commissioningspares in above format