

PRICE FORMAT Rev.01 Dtd. 01.08.2019							
2X1750 KVA DG SETS with Accessories and Control Panel							
1X660 MW Panki TPS							
Enquiry No. 77/19/6050/ASR							
NOTE: PLEASE DON'T RETYPE THIS FORMAT. INSTEAD USE THE SOFT COPY IN EXCEL AS SENT BY BHEL. FILL THE PRICE AND SUBMIT THE PRICED AND UNPRICED BIDS. COMMERCIAL TERMS AND CONDITIONS SHALL NOT BE ENCLOSED OR WRITTEN IN PRICE FORMAT. IN CASE IT IS DONE THEN THAT PRICE BID SHALL BE DEEMED INVALID AND REJECTED.							
Sl. No.	ITEM DESCRIPTION	QTY	UNIT	UNIT RATE (Ex-works incl packing & forwarding and Freight charges)	Total Ex-works (incl packing & forwarding and Freight charges)	HSN No./ SAC Code	GST %
I	MAIN ITEMS - DG SET						
1.1	1750 KVA (e) 1500 RPM, 415V 0.80pf (lag) DG with Radiator and accessories on common Base Frame.	2	Set				
1.2	Fuel Day tank of 990 Liters capacity with accessories.	4	Set				
1.3	24V DC, 320 AH Lead Acid Type automotive Battery with accessories and stand, to be supplied at the time of commissioning.	4	Set				
1.4	Float cum Boost Battery Charger Panel with stand.	4	Set				
1.5	Heavy duty Changeover switch for selecting one out of two set of batteries	2	Set				
1.6	Necessary Fuel Piping, supports, accessories for one DG.	2	Set				
1.7	Exhaust Piping, inside room supports and accessories like bellows, flanges, bends, hardware for one DG.	2	Set				
1.8	Galvanized Exhaust pipe support structure with foundation bolts, erection hard wares (common for 2 DG).	1	Set				
1.9	Acoustic enclosure for one DG.	2	Set				
1.10	LT Power, Control, Instrument and screened cable including all accessories like lugs, glands, ties etc for one DG.	2	Set				
1.11	Commissioning Spares/B-Check kit for one DG, to be supplied at the time of commissioning.	2	Set				
1.12	First fill of lube oil, coolant and coolant conditioner at site for one DG, to be supplied at the time of commissioning.	2	Set				
1.13	Tools & Tackles specific to offered DG Set.	1	Set				
1.14	Phase side and Neutral side terminal box for one Alternator	2	Set				
1.15	Mandatory spares for DG Set and Panels (Total of Sl.no. 2.1 to 2.23 of mandatory spares break up)	1	Set				
1.16	Container for DG Set for transportation and storage at site for one DG.	2	Set				
1.17	AMF Panel for one DG	2	Set				
1.18	NGR PANEL with isolator	2	Set				
1.19	Commissioning Spares for control panels.	1	Set				
1.20	Supervision of Erection of one DG Set with exhaust piping and structure, fuel piping, control panels and cabling.	2	Set				
1.21	Supervision of testing, pre commissioning checks, and commissioning and load trial of one DG SET with Control Panels as per operating philosophy.	2	Set				
1.22	Supervision of Performance Guarantee Test for one DG.	2	Set				
TOTAL for deciding L1 Vendor							
Total Price is Words:							
Note							
1	GST shall be payable extra at actuals at prevailing rates.						
2	Bidder should indicate individual price against all items mentioned above.						
3	Optional Price shall not be considered for evaluation						
II	MANDATORY SPARES PRICE BREAKUP						
	ALTERNATOR						
2.1	Current transformers of each rating (1no. of each rating)	1	set				
2.2	Space heaters with thermostat and isolating switch	1	set				
	DIESEL ENGINE						
2.3	Fuel injection nozzles	2	set				
2.4	Crank shaft with standard size journals	1	No.				
2.5	Main Bearings	1	Set				
2.6	Big end bearings	1	Set				
2.7	Diesel filter packs (filter elements)	24	No.s				
2.8	Mobile oil filter packs (lube oil filter elements)	24	No.s				
2.9	V-belt for radiator fan	6	No.s				
2.10	Fuel injector	2	No.s				
2.11	Fuel injection piping	1	Set				
2.12	Ring gear for flywheel	1	Set				

2.13	Starter(spare Starter Motor)	1	Set				
2.14	Nozzle testing machine, Barring Bar, slings, eyebolts & other special equipment necessary for servicing the engine.	1	set				
	AMF PANEL						
2.15	Protective relay of each type	1	No.				
2.16	Auxiliary relay of each type	1	No.				
2.17	Timer of each type	1	No.				
2.18	Indicating instruments of each type	1	No.				
2.19	Fuses of each rating	1	No.				
2.20	Indicating lamps of each type	1	No.				
2.21	Cubicle Illuminating light	1	No.				
2.22	Terminal Blocks of each type	1	No.				
2.23	Temperature scanner	1	No.				
	Note : 1 Set means as required for one engine (including all cylinders).						
III	OPTIONAL PRICES FOR DELETION						
3.1	Price for witness of one engine inspection at engine manufacturer's works	2	Set				
3.2	Price for witness of one alternator inspection at alternator manufacturer's works	2	Set				
3.3	Reduction in cost for changing one alternator from Class H insulation and temperature rise limited to Class B to Class H insulation and temperature rise limited to Class F	2	Set				
3.4	Reduction in cost for changing one alternator from Class H insulation and temperature rise limited to Class B to Class H insulation and temperature rise limited to Class H	2	Set				
	UNIT RATES OF ADDITION/DELETION						
	DG AUXILIARY DISTRIBUTION BOARD						
IV	The following shall be full fledged feeders with all required busbar arrangement,wiring, components etc						
4.1	INCOMER-125A	1	no.				
4.2	OUTGOING FEEDER 240V,16A(for battery charger)	1	no.				
4.3	OUTGOING FEEDER 240V,9A with power contactor	1	no.				
4.4	Control Supply feeder with 415/110V, 10kVA transformer	1	no.				
4.5	Control Supply feeder with 415/230V, 2.5kVA transformer	1	no.				
4.6	OUTGOING FEEDER DOL -5.5kW(for fuel transfer pump)	1	no.				
4.7	Empty panel of each type	1	no.				
	DG AMF PANEL/AUXILIARY DISTRIBUTION BOARD	1	no.				
4.8	3200A EDO ACB (3 pole)						
4.9	3200A EDO ACB (4 pole)	1	no.				
4.10	Offload manual isolator for neutral	1	no.				
4.114.1	Neutral contactor	1	no.				
2	DG Set controller	1	no.				
4.12	Empty Breaker Panel	1	no.				
4.13	CT's of each type & rating	1	no.				
4.14	PT's of each type & rating	1	no.				
4.15	Voltage restraint over current Relay CDV62/equivalent	1	no.				
4.16	Reverse Power Relay CCUM21/equivalent	1	no.				
4.17	Negative Phase Sequence Relay CTNM12/equivalent	1	no.				
4.18	Fuse Failure Relay VAPM31 /equivalent	1	no.				
4.19	Earth Fault Relay VDG14 /equivalent	1	no.				
4.20	Master trip relay VAJH13/equivalent	1	no.				
4.21	Auxiliary relay VAA11/equivalent	1	no.				
4.22	Frequency Relay MFVUM12 /equivalent	1	no.				
4.23	Voltage Relay VTIGM13/equivalent	1	no.				
4.24	Differential Relay CAG34/equivalent	1	no.				
4.25	Check Synchronising relay SKE11 /equivalent	1	no.				
4.26	Timer Relay VTT11 /equivalent	1	no.				
4.27	TCS relay VAX 31 /equivalent	1	no.				
4.28	MICOM P343/equivalent	1	no.				
4.29	MICOM P127/equivalent	1	no.				
4.30	Timers of each type & rating	1	no.				
4.31	Current Transducer	1	no.				
4.32	Power Factor Transducer	1	no.				
4.33	Watt Transducer	1	no.				
4.34	Voltage Transducer	1	no.				
4.35	Frequency Transducer	1	no.				
4.36	Temperature Controller -12 channel	1	no.				
4.37							

4.38	Ammeter	1	no.				
4.39	Voltmeter	1	no.				
4.40	Wattmeter	1	no.				
4.41	Watt-hour meter	1	no.				
4.42	Power Factor meter	1	no.				
4.43	Frequency meter	1	no.				
4.44	Auxiliary contactor 24V DC/220V DC/110V AC/230V AC of each type & rating	1	no.				
4.45	Push Button of each type	1	no.				
4.46	Selector Switch of each type & rating	1	no.				
4.47	Indicating Lamp of each type	1	no.				
4.48	Hooter	1	no.				
4.49	Fuses of each type & rating	1	no.				
4.50	MCB's of each type & rating	1	no.				
4.51	SFU's of each type & rating	1	no.				
4.52	MCCB's of each type & rating	1	no.				
4.53	Double Voltmeter	1	no.				
4.54	Double Frequency Meter	1	no.				
	ALTERNATOR						
5.1	DIGITAL AVR	1	no.				
5.2	ANALOG AVR	1	no.				
	Unit rate for anything else not mentioned above but required may be quoted	1	no.				
	Note: Relays of comparable equivalent make may be quoted.						
	Note: Separate unit prices shall be given for each serial no. as above. Combined prices are not acceptable.						