


Project: 66kV GIS Hazira Project

Bill of Quantities for 66 kV GIS Spares			
Sl.No.	Description	Unit	Qty
C	Supply Item: Mandatory Spares (C1 TO C11)		
C1	Rubber gasket, O rings and seals for SF6 gas of each type	Set	1
C2	Molecular filter for SF6 gas with filter bags (20% of total)	Set	1
C3	Coupling device for pressure gauge cum switch for connecting gas handling plant	Set	1
C4	Pipe length (copper or steel) for SF6 circuit of each type	Set	1
C5	Covers with all accessories necessary to close a compartment in case of dismantling of any part of the enclosure to ensure the sealing of the compartment	Set	1
C6	SF6 gas pressure relief device	Set	1
C7	SF6 Gas densimeter	Set	1
C8	Trip coil assembly with resistor, as applicable	Set	1
C9	Closing coil assembly with resistor, as applicable	Set	1
C10	Relay, Power contactors, Push button, timer, MCB etc of each type and rating	Set	1
C11	Auxiliary switch assembly of each type	Set	1


AC & Ventillation spares

Sl. No.	Item	Qty
1	Tube axial fan of each type/size	
a.	Bearings	1 set
b.	Filters	1 set
c.	Motor bearing	1 set


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	BID PACKAGE FOR COMBINED CYCLE CAPTIVE POWER PLANT AT HAZIRA PLANT, GUJARAT	5111168-ME-SPC-100-001	R2	IV / 8
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				1017
2.3.3	Rubber bellow (each type)	No	1	
2.4.0	66kV GIS			
2.4.1	Special tools & tackles and spanners required during commissioning, operation & maintenance.	set	1	
2.4.2	66kV Control & relay panel			
2.4.1	Push button of each type	nos.	min. 10% of installed quantity or 2 nos whichever is greater	
2.4.2	Local/Remote selector switch	nos.	min. 10% of installed quantity or 2 nos whichever is greater	
2.4.3	Voltmeter selection switch of each type	nos.	1	
2.4.4	Indicating lamp of each type	nos.	min. 30% of installed quantity or 2 nos whichever is greater	
2.4.5	Fuses of each rating	nos.	10	
2.4.6	Auxiliary relays of each type	nos.	min. 20% of installed quantity or 2 nos whichever is greater	
2.4.7	Test terminal Blocks for meters	nos.	2	
2.4.8	Test terminal Blocks for relays	nos.	2	
2.5.0	Control Panel			
2.5.1	Control switches of each type	%	20%	
2.5.2	Selector switch of each type	no.	1	
2.5.3	Synchronizing lamp	no.	1	
2.5.4	Check Synchronizing relay	no.	1	
2.5.5	Indicating meters of each type and range	no.	1	
2.5.6	Indication lamps and annunciation window lamps/LEDs of each type	nos	30% of installed quantity	
2.5.7	Semaphore indicator	no.	1	
2.6.11	Potential transformer each type	Set	1	
2.7.0	11kV SWITCHGEAR			


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2.7.21	Lock out relay	nos.		or 2 nos whichever is greater min. 10% of installed quantity or 2 nos. whichever is greater
2.7.22	Anti pumping relay	nos.		min. 10% of installed quantity or 2 nos. whichever is greater
2.7.23	Trip coil supervision relay	nos.		min. 10% of installed quantity or 2 nos. whichever is greater
2.7.24	Auxiliary relays of each type	nos.		min. 20% of installed quantity or 2 nos. whichever is greater
2.7.25	Test terminal Blocks for meters	nos.		4
2.7.26	Test terminal Blocks for relays	nos.		4
2.7.27	Fuses for vacuum Breakers (if applicable)	nos.		min. 10% of installed quantity or 3 nos. whichever is greater
2.8.0	LT SWITCHGEAR			
2.8.1	Push buttons of each type	nos.		min. 10% of installed quantity or 2 nos. whichever is greater
2.8.2	Selector switches of each type	nos.		min. 10% of installed quantity or 2 nos. whichever is greater
2.8.3	Indication lamps of each type	nos.		min. 30% of installed quantity or 10 nos. whichever is greater
2.8.4	Ammeters of each range	no.		1
2.8.5	Voltmeters	no.		1
2.8.7	Switch fuse unit of each rating	nos.		min. 10% of installed quantity or 2 nos. whichever is greater
2.8.8	Fuses of each rating and type	nos.		min. 30% of installed quantity or 10 nos. whichever is greater

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				Sheet No.
				1020
2 8 9	Contactors of each rating and type	nos.		min 10% of installed quantity or 4 nos. whichever is greater
2 8 10	Total no of bimetal thermal overload relays of each range	nos.		min. 10% of installed quantity or 2 nos. whichever is greater
2 8 11	Lock out relay	nos.		min. 10% of installed quantity or 2 nos. whichever is greater
2 8 12	Anti-pumping relay	nos.		min. 10% of installed quantity or 2 nos. whichever is greater
2 8 13	Trip coil supervision relay	nos.		min. 10% of installed quantity or 2 nos. whichever is greater
2 8 14	Auxiliary relays of each type	nos.		min. 20% of installed quantity or 2 nos. whichever is greater
2 8 15	Spring charge motors	Nos		2 per switchgear
2 8 16	Control transformers	Nos		10%
2 8 17	Fuse bases of each size	Nos		min. 10% of installed quantity or 1 set of each whichever is greater
2 8 18	Rows of terminal Blocks of each type	Nos		10%
2 8 19	Local push button stations of each type	nos.		10% of total requirement
2 8 20	DC starters	nos.		10% of total requirement
2 8 21	Check Synchronising Relay each type	no.		1
2 8 22	Service/ test position limit switches each type	nos.		min. 10% of installed quantity or 1 no whichever is greater
2 8 23	Spring Charging Limit switches each type	No.		2 or 10% whichever greater
2 9 10	SCADA system			
a)	Ethernet Switches of each type	Nos.		min 10% of installed quantity
2 10.0	BATTERY CHARGER (for each charger)			

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				Sheet No.
				1021
2.10.1	Controller cards of each type used	Set	1	
2.10.2	SCR, diodes, capacitors, resistors of each type	Set	3	
2.10.3	A.C fuse links each type	Nos	2	
2.10.4	D.C fuse links each type	Nos.	2	
2.10.5	Contactors, contactor coil and contact kit of each type	set	1	
2.10.6	Toggle switches, push buttons (each type)	Nos.	2	
2.10.7	Potentiometer	Nos.	3	
2.10.8	Indication lamps of each type	Nos.	5	
2.10.9	Annunciator complete unit	Nos.	1	
2.11.0	Battery(for each Battery)			
2.11.1	Containers with covers	Nos.	min. 10% of installed quantity	
2.11.2	Inter cell and inter row connectors	Nos.	min. 10% of installed quantity	
2.11.3	Cell insulators	Nos.	min. 10% of installed quantity	
2.11.4	Battery rack/stand insulators	Nos.	min. 10% of installed quantity	
2.11.5	Nuts, bolts, washers	Nos.	min. 10% of installed quantity	
2.12.0	UPS			
2.12.1	Control cards of each type	Nos.	2	
2.12.2	Thyristor and diode of each rating	Nos.	3	
2.12.3	Static bypass switch thyristors	Nos.	2	
2.12.4	Fuses each type	set	1	
2.12.5	Transducer of each type	Nos.	min 10% of installed quantity or 1 nos whichever is greater	
2.12.6	Digital display unit of each type	set	1	
2.13.0	Motors (each for 11kV, 415v including MOVs and 110V DC motors)			
2.13.2	Bearings of each motor type and rating	set	min. 10% of installed quantity	

SHEET 6

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				1022
2 13 3	Termination kits for 11 kV motor	No.	1 no. of each size	
2 13 4	Carbon brushes for DC motors	set	2 sets of each size	
2 13 5	Brush assemblies for DC motors	set	2 sets of each size	
2 13 6	Cooling fans	Nos.	min. 10% of installed quantity or 1 no. whichever is greater	
2 13 7	Dust seals	Nos.	min. 10% of installed quantity or 4 no. whichever is greater	
2 14 0	DC SYSTEM			
a)	DC Distribution Board each type	Set	1	
b)	MCB each type/range	Nos.	10% of installed quantity or 2 no. whichever is greater	
c)	Transducer(Voltage & Current) each type	Nos.	10% of installed quantity or 1 no. whichever is greater	
2 15 0	ACTUATORS			
a)	Actuator complete unit each type	Nos.	10% of installed quantity or 1 no. whichever is greater	
b)	Power Supply cards each type	Nos.	10% of installed quantity or 1 no. whichever is greater	
e)	Limit switch assembly	Nos.	10% of installed quantity or 1 no. whichever is greater	
f)	Position transmitter assembly each type	set	10% of installed quantity or 2 no. whichever is greater	
g)	Motors for actuator each type	Nos.	10% of installed quantity or 1 no. whichever is greater	
2 16 0	Emer. DG set			
a)	Control cards each type	Nos.	10% of installed quantity or 1 no. whichever is greater	
b)	Control / Aux relays each type	Nos.	10% of installed quantity or 2	