

2 X 660 MW OPGCL/IB TPS, BANHARPALLI UNIT # 3 & 4

BOQ CUM SUGGESTIVE PRICE FORMAT FOR CONTROL VALVE WITH ACCESSORIES (PNEUMATICALLY OPERATED)

SL.No.	ITEM DESCRIPTION				FOR INDIAN BIDDERS (IN INR)							FOR FOREIGN BIDDERS			
	TAG NO	SERVICE	PIPE SIZE INLET	PIPE SIZE OUTLET	QTY/UNIT	TOTAL QTY	UNIT EX-WORKS PRICE (RS)	TOTAL EX-WORKS PRICE (RS)	ED WITH CESS @ ____%(Rs.)	CST against form C/E1&E2 @ .....% / VAT @.....% (As applicable)	FREIGH CHARGES (Including Service tax on freight@.....% (applicable rate)-to be quoted as % of Ex-Works	Service tax@.....% on CV Test	TOTAL F.O.R. SITE PRICE	UNIT FOB PRICE (Currency: )	TOTAL FOB PRICE (Currency: )
A	CONTROL VALVES COMPLETE WITH PNEUMATIC ACTUATOR AND ALL ACCESSORIES MOUNTED, PIPED AND TERMINATED ON JB														
1	ASV-8	D/A Pegging from Aux. Steam Header	323.9X9.53 SAI106GR.B	559X10 SA672B70	1	2									
2	CRHV-6	D/A Pegging from CRH Line	355.6X15.09 SAI106GR.C	965X37 SA335P22	1	2									
3	CDV-22 & CDV-25	Main Condensate Control	457X12.7 SAI106GR.C	457X12.7 SAI106GR.C	2	4									
4	CDV-10, CDV-12 & CDV-14	CEP A/B/C min. recirculation	219.1X8.18 SAI106GR.C	219.1X8.18 SAI106GR.C	3	6									
5	CDV-39	GSC Min flow recirculation	219.1X8.18 SAI106GR.C	219.1X8.18 SAI106GR.C	1	2									
6	CDV-43	Excess dump control	273X9.27 SAI106GR.C	273X9.27 SAI106GR.C	1	2									
7	CDV-67	Condensate for SD F/T	33.4x4.55 SAI106GR.B	33.4x4.55 SAI106GR.B	1	2									
8	CDV-72	Condensate for Valve Gland Sealing	60.3x5.44 SAI106GR.B	60.3x5.44 SAI106GR.B	1	2									
9	DRV-2 & DRV-8	HPH-7A/7B Normal Drain to HPH-6A/6B	273x12.7 SAI106GR.C	323.9x12.7 SAI106GR.C	2	4									
10	DRV-5 & DRV-11	HPH-7A/7B drain to HP Drain F/T	273x12.7 SAI106GR.C	323.9x12.7 SAI106GR.C	2	4									
11	DRV-15 & DRV-22	HPH-6A/6B drain to Deaerator	273x6.35 SAI106GR.B	323.9x9.53 SAI106GR.B	2	4									
12	DRV-18 & DRV-25	HPH-6A/6B drain to HP Drain F/T	273x6.35 SAI106GR.B	323.9x9.53 SAI106GR.B	2	4									
13	DRV-28	LPH-3 Drain to LPH-2	273x6.35 SAI106GR.B	323.9x9.53 SAI106GR.B	1	2									
14	DRV-31	LPH-3 Drain to LP drain F/T	273x6.35 SAI106GR.B	323.9x9.53 SAI106GR.B	1	2									
15	DRV-34	LPH-2 Drain to LPH-1	323.9x9.53 SAI106GR.B	355.6X9.53 SAI106GRB	1	2									
16	DRV-37	LPH-2 Drain to LP Drain F/T	323.9x9.53 SAI106GR.B	355.6X9.53 SAI106GRB	1	2									
17	DRV-48	Deaerator Overflow	219.1X6.35 SAI106GRB	323.9x9.53 SAI106GR.B	1	2									
18	DRV-53 & DRV-56	HPH-8A/8B Drain to HPH-7A/7B	168.3X14.27 SAI106GRC	219.1X12.7 SAI106GRC	2	4									
19	DRV-59 & DRV-62	HPH-8A/8B Drain to HP drain F/T	168.3X14.27 SAI106GRC	219.1X12.7 SAI106GRC	2	4									
20	DRV-65	LPH-4 Drain to LPH-3	168.3X7.11 SAI106GRB	219.1X8.18 SAI106GR.C	1	2									
21	DRV-68	LPH-4 Alt Drain to LP drain F/T	168.3X7.11 SAI106GRB	219.1X8.18 SAI106GR.C	1	2									
22	DM-45	DM Normal makeup to hotwell	168.3X3.4 SA312TP304 (ERW)	168.3X3.4 SA312TP304 (ERW)	1	2									
23	FDV-14	Low load feed control	355.6X64 SAI106GRC	355.6X64 SAI106GRC	1	2									
					32	64									
<b>TOTAL</b>															

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SL.No.	ITEM DESCRIPTION				FOR INDIAN BIDDERS (IN INR)						FOR FOREIGN BIDDERS				
	TAG NO	SERVICE	PIPE SIZE INLET	PIPE SIZE OUTLET	QTY/UNIT	TOTAL QTY	UNIT EX-WORKS PRICE (RS)	TOTAL EX-WORKS PRICE (RS)	ED WITH CESS @ ___%(Rs.)	CST against form C/EI&E2 @ .....% / VAT @.....% (As applicable)	FREIGH CHARGES (Including Service tax on freight@.....% (applicable rate)-to be quoted as % of Ex-Works	Service tax@.....% on CV Test	TOTAL F.O.R. SITE PRICE	UNIT FOB PRICE (Currency: )	TOTAL FOB PRICE (Currency: )
B.	SS TUBING (To be supplied loose)				625 METERS	1250 METERS									
C.	FITTINGS FOR EACH CONTROL VALVE (To be supplied loose)	i. SS FITTING -Double Compression type for connection to AIR FILTER REGULATOR			1 Lot	2 Lot									
		ii. SS FITTING -Double Compression type for connection to AIR LOCK Replay.			1 Lot	2 Lot									
		iii. SS FITTING -Double Compression type for connection to IA HEADER ISOLATION VALVE.			1 Lot	2 Lot									
		iv. SS EQUAL TEE.			1 Lot	2 Lot									
D.	START-UP AND COMMISSIONING SPARES (As per Annexure-1)														
E.	SOFTWARE FOR CONFIGURATION, DIAGNOSTIC, CALIBRATION & TESTING				1 Set	2 Sets									
F.	PC ALONGWITH SYSTEM/APPLICATION SOFTWARE				1 Set	2 Sets									
G.	MANDATORY SPARES (As per Annexure-2)														
H.	CV TEST CHARGES FOR EACH TYPE OF CONTROL VALVE (As per Annexure-3)														
I.	UNIVERSAL HAND HELD CALIBRATOR				1 Set	2 Sets									
<b>TOTAL (A+B+C+D+E+F+G+H+I)</b>															
<b>NOTES :</b>															
1. CV Test needs to be conducted for all types of valves. However, if the bidder has CV Type Test Certificate for a similar model/Size/CV and the certificate is not more than five years old from the date of part-I opening (receipt of technical unpriced offer), the certificate shall be acceptable.															
2. In case the submitted CV Test Certificates are found non-acceptable to BHEL/Customer, Bidder shall conduct the CV Type Test without any Price implication to BHEL.															
3. Please note that CV test charges will be payable for only those valves for which CV test shall be conducted.															
4. Indicate all duties, taxes etc stating whether included/excluded in above price.															
5. Bidder to note that in their un-priced bid, you must indicate as "QUOTED" against unit price & total price column. Price should be indicated in price bid only. Refer BOQ & technical specification for detail technical requirement.															
6. In case of foreign bidder the quoted F.O.B price shall be loaded as per clause no 19.4 of instruction to bidders and clause no 9.6 of general commercial terms and conditions of GCC Rev 06 to arrive at TOTAL F.O.R site price for evaluation.															
7. Bidder to note that for evaluation of bids in foreign currency, exchange rate (IT selling rate of State Bank of India) as on scheduled date of tender opening (Part-I bid in case of two part bid) shall be considered.															
8. Indian bidder to note that the Freight charge that is to be quoted by you shall be in percentage of the total Ex-works. Bidder to mention the percentage of freight( of total ex-works)															

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2 X 660 MW OPGCI/IB TPS, BANHARPALLI UNIT # 3 & 4

CONTROL VALVES - COMMISSIONING SPARES (ANNEXURE-1)

ITEM DESCRIPTION		FOR INDIAN BIDDERS (IN INR)							FOR FOREIGN BIDDERS		
SL.No.	Tag No.	Total Quantity	Unit (Per Set) Ex-Works Price for Gland Packing (Rs)	Unit (Per Set) Ex-Works Price for Body & Bonnet Gasket (Rs)	Total Ex-Works Price of Commissioning Spares for each Control Valve Tag (Rs)	ED WITH CESS @ ____%(Rs.)	CST against form C/E1&E2 @ .....% / VAT @.....% (As applicable)	FREIGH CHARGES (Including Service tax on freight@.....% (applicable rate)-to be quoted as % of Ex-Works)	TOTAL F.O.R. SITE PRICE	UNIT FOB PRICE (Currency: )	TOTAL FOB PRICE (Currency: )
		1	2	3	4=(2+3)*2						
1	ASV-8	One Set with each Control Valve Tag (1Set = 2 Nos.)									
2	CRHV-6	One Set with each Control Valve Tag (1Set = 2 Nos.)									
3	CDV-22 & CDV-25	One Set with each Control Valve Tag (1Set = 2 Nos.)									
	CDV-10, CDV-12 & CDV-14	One Set with each Control Valve Tag (1Set = 2 Nos.)									
4	CDV-14	One Set with each Control Valve Tag (1Set = 2 Nos.)									
5	CDV-39	One Set with each Control Valve Tag (1Set = 2 Nos.)									
6	CDV-43	One Set with each Control Valve Tag (1Set = 2 Nos.)									
7	CDV-67	One Set with each Control Valve Tag (1Set = 2 Nos.)									
8	CDV-72	One Set with each Control Valve Tag (1Set = 2 Nos.)									
9	DRV-2 & DRV-8	One Set with each Control Valve Tag (1Set = 2 Nos.)									
10	DRV-5 & DRV-11	One Set with each Control Valve Tag (1Set = 2 Nos.)									
11	DRV-15 & DRV-22	One Set with each Control Valve Tag (1Set = 2 Nos.)									
12	DRV-18 & DRV-25	One Set with each Control Valve Tag (1Set = 2 Nos.)									
13	DRV-28	One Set with each Control Valve Tag (1Set = 2 Nos.)									
14	DRV-31	One Set with each Control Valve Tag (1Set = 2 Nos.)									
15	DRV-34	One Set with each Control Valve Tag (1Set = 2 Nos.)									
16	DRV-37	One Set with each Control Valve Tag (1Set = 2 Nos.)									
17	DRV-48	One Set with each Control Valve Tag (1Set = 2 Nos.)									
18	DRV-53 & DRV-56	One Set with each Control Valve Tag (1Set = 2 Nos.)									
19	DRV-59 & DRV-62	One Set with each Control Valve Tag (1Set = 2 Nos.)									
20	DRV-65	One Set with each Control Valve Tag (1Set = 2 Nos.)									
21	DRV-68	One Set with each Control Valve Tag (1Set = 2 Nos.)									
22	DM-45	One Set with each Control Valve Tag (1Set = 2 Nos.)									
23	FDV-14	One Set with each Control Valve Tag (1Set = 2 Nos.)									
		<b>TOTAL</b>									

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**2 X 660 MW OPGCL/IB TPS, BANHARPALLI UNIT # 3 & 4  
MANDATORY SPARES (ANNEXURE-2)**

ITEM DESCRIPTION		FOR INDIAN BIDDERS (IN INR)					FOR FOREIGN BIDDERS			
SI. No.	EQUIPMENT/PACKAGE NAME	QUANTITY REQUIRED PER UNIT	UNIT EX- WORKS PRICE	TOTAL EX- WORKS PRICE	ED WITH CESS @ _____%(Rs.)	CST against form C/E1&E2 @ _____% / VAT @ _____%(As applicable)	FREIGH CHARGES (Including Service tax on freight@.....%(applicable rate)-to be quoted as % of Ex-Works	TOTA F.O.R. SITE PRICE	UNIT FOB PRICE (Currency: )	TOTAL FOB PRICE (Currency: )
1	Pneumatic actuator for Diaphragm actuated valve	2(two) nos. for each type of Actuator								
2	Actuator Seal Kit for Pneumatic Cylinder actuated valve	2(two) nos. for each type of Actuator								
3	Gland Packing	1(one) set for each type of Control Valve								
4	Plug, Seat, Cage, Stem etc.	1(one) set for each type of Control Valve								
5	Retainer Ring, Seal Ring etc.	1(one) set for each type of Control Valve								
6	Gasket	2(two) Sets. for each type of Control Valve								
7	Position Transmitter complete set	10% of total quantity used in the system or minimum 2(two) nos. whichever is more for each type and model.								
8	Control Valve E/P Positioner complete Set	10% of total quantity used in the system or minimum 2(two) nos. whichever is more for each type and model.								
9	Complete Set of Solenoid Valve for Pneumatic type On/Off Valve	2Nos. for each type & ratings								
10	Solenoid Coil for Pneumatic type On/Off Valve	5Nos. for each type & ratings								
11	Position Limit Switch for Pneumatic type On/Off Valve	5Nos. for each type & ratings								
12	Air Lock Relay	5Nos. for each type								
13	Signal Air Booster Unit	2Nos. for each type								
14	<b>Bonnet (For FDV -14 Only)</b>	50% of the total quantity used								
	<b>Total</b>									

**Note :**

- Wherever % is indicated, the quantity shall be calculated for % of supply for total quantity of 2 units of 2x660MW, unless otherwise specified. The quantity to be reckoned for % indicated shall be rounded off to the next higher whole number. For example if the % of total quantity arrived is 0.2, the quantity to be supplied shall be 1 and if the % of total quantity is 5.1, the quantity to be supplied shall be 6.
- The quantity of Mandatory Spares shall be as per the unpriced schedule. The absolute quantities calculated by the bidder during proposal stage may vary after the same is calculated after award of contract. Bidder to comply with the calculated quantity (after award of contract) without any price/delivery implication to BHEL/End User.

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CV TEST CHARGES (ANNEXURE-3)

S. No.	ITEM DESCRIPTION		FOR INDIAN BIDDERS (IN INR)					FOR FOREIGN BIDDERS	
	Tag No.	Service	CV Test Charges	ED WITH CESS @ _____%(Rs. )	CST against form C/E1&E2 @ _____% / VAT @ _____% (As applicable)	Service tax @ _____%	TOTA F.O.R. SITE PRICE	UNIT FOB PRICE (Currency: )	TOTAL FOB PRICE (Currency: )
<b>CONTROL VALVES WITH ALL THE ACCESSORIES</b>									
1	ASV-8	D/A Pegging from Aux. Steam Header							
2	CRHV-6	D/A Pegging from CRH Line							
3	CDV-22 & CDV-25	Main Condensate Control							
4	CDV-10, CDV-12 & CDV-14	CEP A/B/C min. recirculation							
5	CDV-39	GSC Min flow recirculation							
6	CDV-43	Excess dump control							
7	CDV-67	Condensate for SD F/T							
8	CDV-72	Condensate for Valve Gland Sealing							
9	DRV-2 & DRV-8	HPH-7A/7B Normal Drain to HPH-6A/6B							
10	DRV-5 & DRV-11	HPH-7A/7B drain to HP Drain F/T							
11	DRV-15 & DRV-22	HPH-6A/6B drain to Deaerator							
12	DRV-18 & DRV-25	HPH-6A/6B drain to HP Drain F/T							
13	DRV-28	LPH-3 Drain to LPH-2							
14	DRV-31	LPH-3 Drain to LP drain F/T							
15	DRV-34	LPH-2 Drain to LPH-1							
16	DRV-37	LPH-2 Drain to LP Drain F/T							
17	DRV-48	Deaerator Overflow							
18	DRV-53 & DRV-56	HPH-8A/8B Drain to HPH-7A/7B							
19	DRV-59 & DRV-62	HPH-8A/8B Drain to HP drain F/T							
20	DRV-65	LPH-4 Drain to LPH-3							
21	DRV-68	LPH-4 Alt Drain to LP drain F/T							
22	DM-45	DM Normal makeup to hotwell							
23	FDV-14	Low load feed control							
<b>TOTAL</b>									

100

**2 X 660 MW OPGCL/IB TPS, BANHARPALLI UNIT # 3 & 4**

**BOQ CUM SUGGESTIVE PRICE FORMAT FOR CONTROL VALVE WITH ACCESSORIES  
(PNEUMATICALLY OPERATED)**

**SCHEDULE OF UNIT PRICES (OPTIONAL)**

S. No.	CONTROL VALVES ACCESSORIES	FOR INDIAN BIDDERS	FOR FOREIGN BIDDERS
		Unit Ex-Works Price (IN INR)	Unit FOB Price (CURRENCY: )
1.\$	POSITIONER EACH MODEL AND TYPE		
2	AIR FILTER REGULATORS		
3	AIR LOCK RELAY		
4.\$	POSITION LIMIT SWITCH OF EACH MODEL AND TYPE		
5	ELECTRONIC POSITION TRANSMITTER OF EACH MODEL AND TYPE		
6	SOLENOID VALVE		
7	VOLUME BOOSTER (PNEUMATIC RELAY)		
8.\$	PRESSURE GAUGES OF EACH TYPE		
9	JUNCTION BOX (36 WAYS)		
10	HANDWHEEL		
11.\$	ACTUATOR OF EACH TYPE		
12	SS FITTING FOR CONNECTION TO AIR FILTER REGULATOR		
13	SS FITTING FOR CONNECTION TO AIR LOCK RELAY		
14	SS FITTINGS FOR CONNECTING TO AIR HEADER		
15	SS EQUAL TEE		
16	SS TUBING PER METRE		
17.\$	VALVE STEM WITH PLUG & SEAT RING EACH SIZE & TYPE		
18.\$	GASKET OF EACH SIZE AND TYPE		
19.\$	BODY SEAL GASKETS OF EACH SIZE AND TYPE		
20.\$	CAGE OF EACH SIZE AND TYPE		
21.\$	GLAND PACKING EACH SIZE AND TYPE		
22.\$	VALVE TRIM OF EACH SIZE AND TYPE		
23.\$	DIAPHRAM OF EACH SIZE AND TYPE		
24.\$	SEAL BOX "O" RING OF EACH TYPE AND SIZE		
25.\$	COLOR "O" RING OF EACH TYPE AND SIZE		
26	POSITION TRANSMITTER		
27	HAND HELD UNIVERSAL HART CALIBRATOR		
28	DIAGNOSTIC SOFTWARE		
	<b>Total</b>		
<b>NOTE:-</b>			
\$ . Separate list to be attached for each size and type of these control valve accessories			

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