

CHECK LIST TO BE SUBMITTED BY BIDDER ALONG WITH THE BID

SI No.	Item Description	Yes/No
1	Schedules to be submitted dully filled up with bidder's signature and stamp. 1) Technical Deviation Schedule (Volume III-Section-4) 2) List of Mandatory Spares (Volume II-Annexure-II) 3) List of Maintenance Tool & Tackles (Volume II-Annexure-IV) 4) List of commissioning spares (Volume II-Annexure-XII) 5) Guaranteed Power Consumption For Air Compressor System (Volume III-Section-6) 6) Compliance and Confirmation certificate (Volume III-Section-2)	
2	Resolution to pre-bid clarifications, if any, duly stamped and signed by the bidder enclosed with the bid	
3	Un-priced bid- clearly indicating 'QUOTED' and 'NOT-QUOTED' against each item.	
4	'Compressor House Layout (Document no.PE-DG-409-555-SK002)-(Volume III-Section-8) of technical specification' duly stamped and signed by bidder to be enclosed with the bid.	
5	Electrical load List (Volume III-section-5) of technical specification duly filled, stamped and signed by bidder to be enclosed with the bid	
6	Supporting Documents meeting PQR requirements	
7	Offered model of compressor matching FAD calculation along with the catalogue of the offered model to justify selection.	

Please note that all the schedules shall be submitted even though they may not be applicable. Under such circumstances it shall be clearly mentioned across such schedules that these are not applicable.(e.g. in case of there are no technical deviation, it shall be mentioned in the deviation schedule that ' THERE ARE NO DEVIATIONES TO THE TECHNICAL SPECIFICATION').

Name: _____

Signature: _____

Designation: _____

Company: _____

Date: _____

Bidder Stamp

VOLUME-III
SECTION 2
COMPLIANCE CUM CONFIRMATION CERTIFICATE

COMPLIANCE CUM CONFIRMATION CERTIFICATE

The bidder shall confirm compliance with following by signing/ stamping this compliance certificate (every sheet) and furnish same with the offer.

- a) The scope of supply, technical details, construction features, design parameters etc. shall be as per technical specification & there are no exclusions other than those mentioned under “exclusion” and those resolved as per ‘Schedule of Deviations’, if applicable, with regard to same.
- b) There are no other deviations w.r.t. specifications other than those furnished in the ‘Schedule of Deviations’. Any other deviation, stated or implied, taken elsewhere in the offer stands withdrawn unless specifically brought out in the ‘Schedule of Deviations’.
- c) Bidder shall submit QP in the event of order based on the guidelines given in the specification & QP enclosed therein. QP will be subject to BHEL/ CUSTOMER approval & customer hold points for inspection/ testing shall be marked in the QP at the contract stage. Inspection/ testing shall be witnessed as per same apart from review of various test certificates/ Inspection records etc. This shall be within the contracted price with no extra implications to BHEL after award of the contract.
- d) All drawings/ data-sheets/ calculations etc. submitted along with the offer shall be considered for reference only, same shall be subject to BHEL/ CUSTOMER approval in the event of order.
- e) The offered materials shall be either equivalent or superior to those specified in the specification & shall meet the specified/ intended duty requirements. In case the material specified in the specifications is not compatible for intended duty requirements then same shall be resolved by the bidder with BHEL during the pre - bid discussions, otherwise BHEL/ Customer’s decision shall be binding on the bidder whenever the deficiency is pointed out.

For components where materials are not specified, same shall be suitable for intended duty, all materials shall be subject to approval in the event of order.

- f) The commissioning spares shall be supplied on ‘As Required Basis’ & prices for same included in the base price itself.
- g) All sub vendors shall be subject to BHEL/ CUSTOMER approval in the event of order.
- h) Guarantee for plant/equipment as applicable, shall be as per relevant clause of GCC /SCC /Other Commercial Terms & Conditions.
- i) In the event of order, all the material required for completing the job at site shall be supplied by the bidder within the ordered price even if the same are additional to approved billing break up, approved drawing or approved Bill of quantities. This clause will apply in case during site commissioning additional requirements emerges due to customer and/ or consultant’s comments. No extra claims shall be put on this account.
- j) Schedule of drawings submissions, comment incorporations & approval shall be as stipulated in the specifications. The successful bidder shall depute his design personnel to BHEL’s/ Customer’s/ Consultant’s office for across the table resolution of issues and to get documents approved in the stipulated time.

- k) As built drawings shall be submitted as and when required during the project execution.
- l) The bidder has not tampered with this compliance cum confirmation certificate and if at any stage any tampering in the signed copy of this document is noticed then same shall be treated as breach of contract and suitable actions shall be taken against the bidder.

SIGNATURE: _____

NAME : _____

DESIGNATION: _____

COMPANY: _____

DATE: _____

COMPANY SEAL

VOLUME: III
SECTION: 3
PRE-BID CLARIFICATION SCHEDULE

VOLUME-III
SECTION 4
SCHEDULE OF TECHNICAL DEVIATION

DEVIATION SHEET (COST OF WITHDRAWAL)



PROJECT:- 370 MW (109 FB) CAPP YELAHANKA

PACKAGE:- COMPRESSED AIR SYSTEM

TENDER ENQUIRY REFERENCE:-

NAME OF VENDOR:-

SL NO	VOULME/ SECTION	PAGE NO.	CLAUSE NO.	TECHNICAL SPECIFICATION/ TENDER DOCUMENT	COMPLETE DESCRIPTION OF DEVIATION	COST OF WITHDRAWAL OF DEVIATION	REFERENCE OF PRICE SCHEDULE ON WHICH COST OF WITHDRAWAL OF DEVIATION IS APPLICABLE	NATURE OF COST OF WITHDRAWAL OF DEVIATION (POSITIVE/ NEGATIVE)	REASON FOR QUOTING DEVIATION
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TECHNICAL DEVIATIONS

COMMERCIAL DEVIATIONS

PARTICULARS OF BIDDERS/ AUTHORISED REPRESENTATIVE

NAME	DESIGNATIONS	SIGN & DATE

NOTES:

- For self manufactured items of bidder, cost of withdrawal of deviation will be applicable on the basic price (i.e. excluding taxes, duties & freight) only.
- For directly dispatchable items, cost of withdrawal of deviation will be applicable on the basic price including taxes, duties & freight.
- All the bidders have to list out all their Technical & Commercial Deviations (if any) in detail in the above format.
- Any deviation not mentioned above and shown separately or found hidden in offer, will not be taken cognizance of.
- Bidder shall submit duly filled unpriced copy of above format indicating "quoted" in "cost of withdrawal of deviation" column of the schedule above along with their Techno-commercial offer, wherever applicable.
- Bidder shall furnish price copy of above format along with price bid.
- The final decision of acceptance/ rejection of the deviations quoted by the bidder shall be at discretion of the Purchaser.
- Bidders to note that any deviation (technical/commercial) not listed in above and asked after Part-I opening shall not be considered.
- For deviations w.r.t. Payment terms, Liquidated damages, Firm prices and submission of E1/ E2 forms before claiming 10% payment, if a bidder chooses not to give any cost of withdrawal of deviation loading as per Annexure-VIII of GCC, Rev-06 will apply. For any other deviation mentioned in un-priced copy of this format submitted with Part-I bid but not mentioned in priced copy of this format submitted with Priced bid, the cost of withdrawal of deviation shall be taken as NIL.
- Any deviation mentioned in priced copy of this format, but not mentioned in the un-priced copy, shall not be accepted.
- All techno-commercial terms and conditions of NIT shall be deemed to have been accepted by the bidder, other than those listed in unpriced copy of this format.
- Cost of withdrawal is to be given separately for each deviation. In no event bidder should club cost of withdrawal of more than one deviation else cost of withdrawal of such deviations which have been clubbed together shall be considered as NIL.
- In case nature of cost of withdrawal (positive/negative) is not specified it shall be assumed as positive.
- In case of discrepancy in the nature of impact (positive/ negative), positive will be considered for evaluation and negative for ordering.

**VOLUME-III
SECTION 5
ELECTRICAL LOAD DATA**

LOAD TITLE	RATING (KW / A)		UNIT (U)/STN (S)	Nos.		VOLTAGE CODE*	FEEDER CODE**	EMER. LOAD (Y)	CONT.(C)/INTT.(I)	STARTING TIME (5 SEC (Y))	LOCATION	BOARD NO.	CABLE		BLOCK CABLE DRG. No.	CONTROL CODE	REMARKS	LOAD No.
	NAME PLATE	MAX. CONT. DEMAND (MCR)		RUNNING	STANDBY								SIZE CODE	NOs				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
AIR COMPRESSORS	90 KW		S	1	1		U	N	C		Compressor House							
PANEL FOR AIR COMPRESSOR	3 KW		S	1	1		S	N	C		Compressor House							
PANEL FOR AIR DRIER	2 KW		S	1	1		S	N	C		Compressor House							
AUTO DRAIN TRAP	0.3 KW		S	2	-		S	N	I		Compressor House							
SPACE HEATER	0.3KW		S	1	1		S	N	C		Compressor House							
SEQUENTIAL PANEL	1 KW		S	1	-		-	-	C		Compressor House							

Note:

- Bidder to confirm that the system provided by them would be catered by the above loads considered by BHEL. In case there is any variation, the same should be clearly stated in the technical offer. No changes would be admissible during detailed engineering stage.
- Bidder to note that for the system being supplied by them, only the above loads will be provided. In case any other load is required the same would be derived / multiplied by bidder on their own from these feeders only.
- Any change in the electrical load list shall be entertained only subject to its feasibility, and BHEL reserves the right to debit the vendor cost of any changes necessitated in the switch gear /MCC on account of changed loads.

NOTES: 1. COLUMN 1 TO 12 & 18 SHALL BE FILLED BY THE REQUISITIONER (ORIGINATING AGENCY); REMAINING COLUMNS ARE TO BE FILLED UP BY PEM (ELECTRICAL)/ CUSTOMER
2. ABBREVIATIONS : * VOLTAGE CODE (7):- (ac) A=11 KV, B=6.6 KV, C=3.3 KV, D=415 V, E=240 V (1 PH), F=110 V (cc): G=220 V, H=110 V, J=48 V, K=+24V, L=-24 V
:** FEEDER CODE (8):- U=UNIDIRECTIONAL STARTER, B=BI-DIRECTIONAL STARTER, S=SUPPLY FEEDER, D=SUPPLY FEEDER (CONTACTOR CONTROLLED)

LOAD DATA (ELECTRICAL)	JOB NO.	409	ORIGINATING AGENCY	PEM (ELECTRICAL)
	PROJECT TITLE	370 MW (109 FB) CAPP YEL-AHANKA	NAME	DATA FILLED UP ON
	SYSTEM	COMPRESSED AIR SYSTEM	SIGN.	DATA ENTERED ON
	DEPTT. / SECTION	MAX	SHEET 1 OF 1	REV. 00

VOLUME-III
SECTION 6
GUARANTEED POWER CONSUMPTION

370 MW (109 FB) CAPP YELAHANKA						
Guaranteed Power Consumption For Air Compressor System Shall be as per Following :						
S.No. (1)	Description of Equipments (2)	Nos. of Equipments (3)		Total Guaranteed Power Consumption for Each Equipment at	Duty Factor (5)	Total (KW) (6) = (3A)*(4)*(5)
		Working	Standby			
1	Air Compressors common for service air and instrument air (Oil free Screw type) 10 NM3/min at 8 Kg/cm2 pressure	1	1		0.66	
2	Air Drying Plant Unit (Conventional Twin Tower type/ Rotary drum type as applicable)	1	1		0.66	
					TOTAL	

Note :

1	Estimated Power Consumption Figure for the compressed air system (For Working Drives Only) considered is 65 KW
2	Bidders Guaranteed power consumption at motor input terminals (Not Shaft Power) including power for control panel as furnished in guaranteed schedule shall be demonstrated by the successful bidder during performance testing at works/site.
3	The price quoted by the bidder shall be loaded @ (INR) 136000/- for every additional kW increase in consumption from the base figure indicated at Note no. 1.0 above.
4	In case the successful bidder fails to establish / prove the guaranteed values of power consumption (base figure of auxiliary power consumption) on actual performance testing at the manufacturing works / site, penalty @ (INR) 136000/- per kW increase in power consumption figure shall be levied.

SECTION: 7

SUGGESTIVE PRICE FORMAT

370 MW (109 FB) CCPP YELAHANKA Rev 00 19.01.2016									
SUGGESTIVE PRICE SCHEDULE - COMPRESSED AIR SYSTEM PACKAGE									
Sl.No	DESCRIPTION OF EQUIPMENT / ITEM	Ex-works price	ED	CST / VAT	FREIGHT	E&C Charges	Service tax on E & C	Total	
1	2	3	4	5	6	7	8	9 (3 to 8)	
1.0.0	Total lumpsum firm prices for the supply of equipment & services as specified, Comprising Design, Engineering, Manufacture, Inspection & Testing at Manufacturer's Works, Painting at Manufacturer's Works, Duly packed for Transportation, Delivery to Site, loading, unloading & storage at site, supply of erection materials, consumables, start-up & commissioning spares, and mandatory spares as required to complete the compressed air system including service part for unloading, storage & handling at site, erection, commissioning, trial run, carrying out performance tests at site, handing over to customer in line with drawings/ documents/ test procedures approved by BHEL/ customer, for the total scope defined in technical specification (spec.No. PE-TS-409-555-A001) and terms & conditions of tender, taking into account all clarifications, confirmations and agreements till date of package order for Compressed Air System for 370 MW (109 FB) CCPP YELAHANKA.								
2.0.0	Break up prices for items covered in clause 1.0.0 above.								
2.1.0	Total lumpsum firm prices for the supply of equipment as specified, Comprising Design, Engineering, Manufacture, Inspection & Testing at Manufacturer's Works, Painting at Manufacturer's Works, Duly packed for Transportation, Delivery to Site including freight, including supply of consumables, start-up & commissioning spares, as required to complete the compressed air system for the total scope defined in technical specification (spec.No. PE-TS-409-555-A001) and terms & conditions of tender, taking into account all clarifications, confirmations and agreements till date for Compressed Air System for 370 MW (109 FB) CCPP YELAHANKA.								
2.2.0	Total lumpsum firm prices for the supply of equipment as specified, Comprising Design, Engineering, Manufacture, Inspection & Testing at Manufacturer's Works, Painting at Manufacturer's Works, Duly packed for Transportation, Delivery to Site, loading, unloading & storage at site for mandatory spares (as per Attached annexure-I) required to complete the compressed air system including handing over to customer in line with drawings/ documents/ test procedures approved by BHEL/ customer, for the total scope defined in technical specification (spec.No. PE-TS-409-555-A001) and terms & conditions of tender, taking into account all clarifications, confirmations and agreements till date of package order for Compressed Air System for 370 MW (109 FB) CCPP YELAHANKA.								

370 MW (109 FB) CAPP YELAHANKA Rev 00 19.01.2016								
SUGGESTIVE PRICE SCHEDULE - COMPRESSED AIR SYSTEM PACKAGE								
Sl.No	DESCRIPTION OF EQUIPMENT / ITEM	Ex-works price	ED	CST / VAT	FREIGHT	E&C Charges	Service tax on E & C	Total
1	2	3	4	5	6	7	8	9 (3 to 8)
2.3.0	Total lumpsum firm prices for the services as specified, comprising of service part for unloading, storage & handling at site, erection, commissioning, trial run, carrying out performance tests at site, handing over to customer in line with drawings/ documents/ test procedures approved by BHEL/ customer, for the total scope defined in technical specification (spec.No. PE-TS-409-555-A001) and terms & conditions of tender, taking into account all clarifications, confirmations and agreements till date for Compressed Air System for 370 MW (109 FB) CAPP YELAHANKA.							
NOTES	Bidder to note that total price indicated above at 1.0.0 shall be considered for evaluation and hence should be complete in all respect for the full scope defined and considering all terms and conditions agreed.							
a	Any item not included in the price quoted above and shown separately will not be taken cognizance of and the offer shall be liable for rejection.							
b	Total Lumpsum price in column-9 of Sl. No. 1.0.0 should match with summation of total prices as in Column -9 of Sl. No. 2.1.0 + Column 9 of Sl. No. 2.2.0 + Column 9 of Sl. No. 2.3.0.							
c	Total Lumpsum price in column-9 of Sl. No. 2.2.0 should match with summation of total prices as in Column -9 of A of Annexure-I.							
d	Total erection & commissioning charges including service tax should be minimum 10% of the total quoted package price (excluding mandatory spares but including all taxes and freight), failing which the break-up of prices shall be adjusted accordingly for ordering.							
e	All deviations should be marked in Cost of withdrawal sheet (Annexure-IV) only. Deviations marked elsewhere other than schedule of deviation shall not be taken into cognizance.							
f	Bidder to fill import content in Annexure-II. However, any benefits w.r.t taxes and duties will be governed by the commercial terms and conditions in this tender.							
g	Bidder must submit prices in the Pro Forma duly filled in signed and stamped on every page without any ambiguity. The price shall be written against each item. Term such as "refer covering letter" etc. are not acceptable. Price format shall not be changed by the bidder as the bidder may get disqualified by doing so.							
	Bidder's / bidder's representative signature						Company seal	

SUGGESTIVE PRICE SCHEDULE									
370 MW (109 FB) CAPP YELAHANKA									
ANNEXURE I									
Sl.no	Description	Qty.	Qty. Offered	Unit Ex-works price	Total ex-works price	ED	CST	FREIGHT	FOR SITE
	2		3	4	5	6	7	8	9
1	0 Ring for each size	1 Set							
2	Packing Ring	12							
3	Oil Wiper Ring	12							
4	Sealing Ring	2							
5	Gasket for each size	1 Set							
6	Clamps for valve assembly	7							
7	Circlips for valve assembly	7							
8	Valve Spring (LP suction)	7							
9	Valve spring (HP Suction)	7							
10	Valve Spring Discharge	7							
11	Valve Plate	12							
12	Damper plate	20							
13	Piston Ring - LP	2							
14	Rider Ring - LP	2							
15	Piston Ring - HP	3							
16	Rider Ring - HP	2							
17	Oil Filter Element	2							
18	Suction Filter element	2							
19	Bearing for driving and non driving ends of compressors	2 set							
20	Compressor spare crank shaft	1							
21	Suction Valve Assembly for LP	1 Set							
22	Suction Valve Assembly for HP	1 Set							
23	Discharge Valve Assembly for LP	1 Set							
24	Discharge Valve Assembly for HP	1 Set							
25	Suction Valve Un loader	1 Set							
26	Piston rod with locknut	1 Set							
27	LP and HP Piston	1 Set							
28	Motor	1 No. of each type, rating & frame size							
29	For all field instruments, air filter regulators, transmitter racks and interposing relays,	a minimum of one(1) no. or 10% of the quantity of each type and range, whichever is higher							
A	Total Lumpsum price of Mandatory Spares								
Notes									
a)	Unless stated otherwise, a 'set' means item or sub-items required for each type/ size, range of assembly/ sub- assembly required for complete replacement in one equipment system; it is further intended that the assembly/ sub-assembly which have different orientation (like left hand or right hand, top or bottom), different direction of rotation or mirror image positioning or any other reasons which result in marinating two different sets of spares to be used for subject assembly/ sub assembly, these shall be considered as different type of assembly/ sub assembly.								
b)	Wherever quantity has been specified as percentage(%), the quantity of mandatory spares to be provided by the vendor shall be the specified percentage (%) of total population required to meet the specification requirements. In case the quantity of mandatory spares so calculated happens to be in fraction, the same shall be rounded off to next higher whole number.								
c)	Wherever the quantities have been indicated for each type, size, thickness, material, radius , range etc, these shall cover all the items supplied and installed and the breakup of these shall be furnished by the vendor during detail engineering.								
d)	In case spares indicated in the list are not applicable to the particular design offered by the bidder, the bidder should offer spares applicable to the offered design with quantities generally in line with the approach followed in the above list.								
e)	Wherever bidder has indicated an item as not applicable, the same will have to be supplied free of cost, incase it is found applicable during detail engineering.								
Bidder's / bidder's representative signature							Company seal		

SUGGESTIVE PRICE SCHEDULE		Rev 00	19.01.2016
370 MW (109 FB) CCPP YELAHANKA			
ANNEXURE-II			
IMPORT CONTENT - PRICE SCHEDULE FOR COMPRESSED AIR SYSTEM PACKAGE			
SL NO	DESCRIPTION OF EQUIPMENT/ ITEM	ALL INCLUSIVE PRICE (As per tender)	
1.0	Total price (in terms of `Euro/US `\$ and correspondingly in INR as on date) for supply of import content, as required, for total scope defined as per technical specification and terms & conditions of tender taking into account all clarifications, confirmations and agreements till date. (Bidder shall furnish item-wise break-up in a separate sheet)		
1.1.1	In Euro.		
1.1.2	In INR (Corresponding to 1.1.1).		
1.2.1	In US \$.		
1.2.2	In INR (Corresponding to 1.2.1).		
1.3	Total in INR (1.1.2 + 1.2.2).		
NOTE			
1.0	Bidder's quoted price in various schedules shall be inclusive of above total price for import component at sl no 1.3 above.		
2.0	Bidder shall furnish item-wise break-up of imported items.		

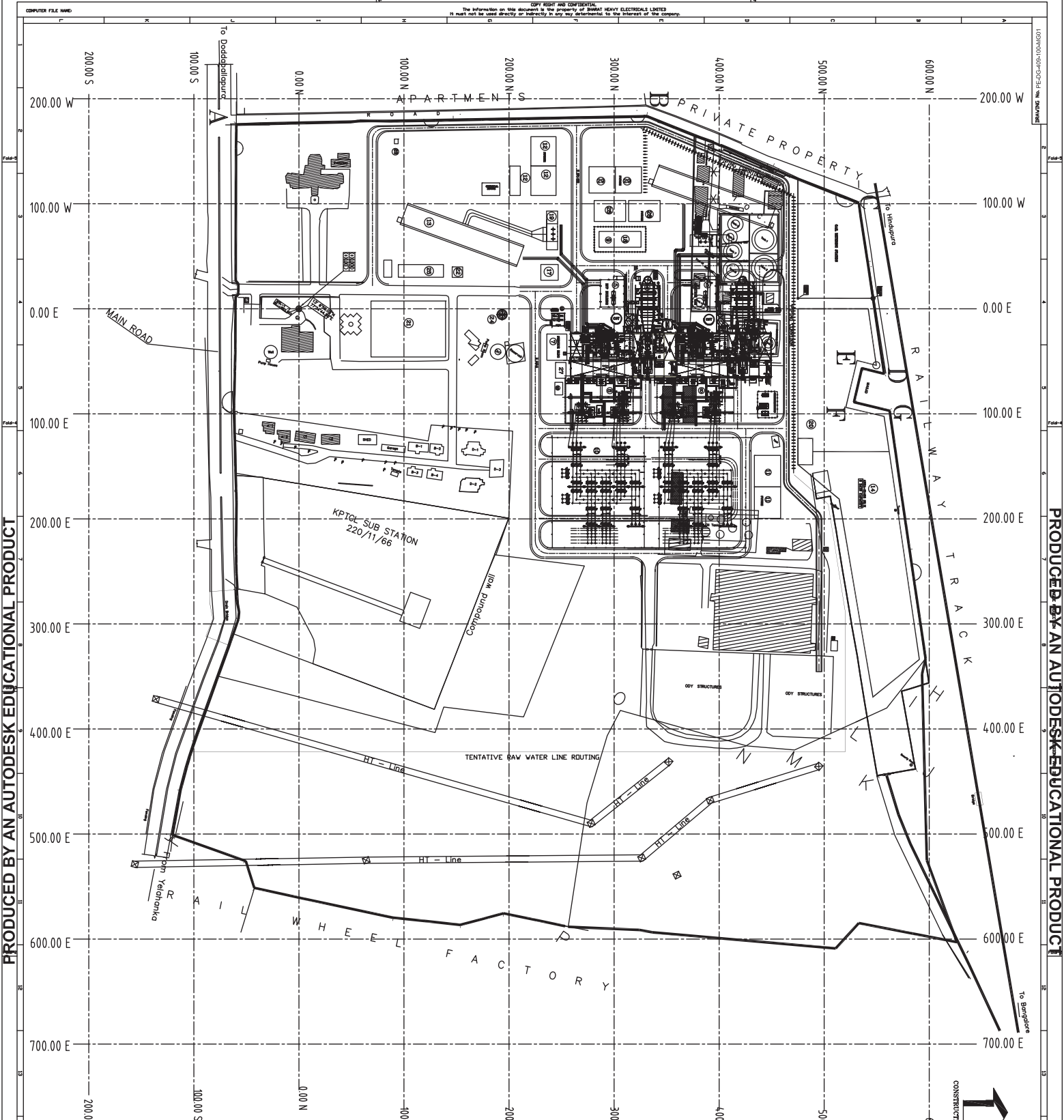
370 MW (109 FB) CAPP YELAHANKA			ANNEXURE-III			
Guaranteed Power Consumption For Air Compressor System Shall be as per Following :						
S.No. (1)	Description of Equipments (2)	Nos. of Equipments (3)		Total Guaranteed Power Consumption for Each Equipment at	Duty Factor (5)	Total (KW) (6) = (3A)*(4)*(5)
		Working	Standby			
1	Air Compressors common for service air and instrument air (Oil free Screw type) 10 NM3/min at 8 Kg/cm2 pressure	1	1		0.66	
2	Air Drying Plant Unit (Conventional Twin Tower type/ Rotary drum type as applicable)	1	1		0.66	
					TOTAL	

Note :

1	Estimated Power Consumption Figure for the compressed air system (For Working Drives Only) considered is 65KW
2	Bidders Guaranteed power consumption at motor input terminals (Not Shaft Power) including power for control panel as furnished in guaranteed schedule shall be demonstrated by the successful bidder during performance testing at works/site.
3	The price quoted by the bidder shall be loaded @ (INR) 136000/- for every additional kW increase in consumption from the base figure indicated at Note no. 1.0 above.
4	In case the successful bidder fails to establish / prove the guaranteed values of power consumption (base figure of auxiliary power consumption) on actual performance testing at the manufacturing works / site, penalty @ (INR) 136000/- per kW increase in power consumption figure shall be levied.

**SECTION 8
DRAWINGS ATTACHED**

ALL RIGHTS RESERVED. THE INFORMATION ON THIS DOCUMENT IS THE PROPERTY OF BEHART HEAVY ELECTRICALS LIMITED. IT MUST NOT BE USED DIRECTLY OR INDIRECTLY IN ANY WAY UNPERMITTED BY THE INTEREST OF THE COMPANY.



PRODUCED BY AN AUTODESK EDUCATIONAL PRODUCT

PRODUCED BY AN AUTODESK EDUCATIONAL PRODUCT

LEGENDS:

- AREA BOUNDARY
- ROAD
- PIPE/CABLE RACK

LEGEND (PROPOSED)

1. GAS TURBINE HALL
2. STEAM TURBINE TURBOGENERATOR EQUIPMENT BUILDING
3. HEAT RECOVERY STEAM GENERATOR
4. BFP BUILDING
5. CHLORINATION BUILDING
6. SERVICE BUILDING
7. TRANSFORMER BUILDING
8. FUEL FILTER SKID
9. SWITCH YARD
10. SURVIVAL POND/TIP
11. RAW WATER PUMP HOUSE
12. COOLING TOWER
13. RAW/FIRE WATER RESERVOIR
14. DG SET
15. COMPRESSOR BUILDING
16. CW TREATMENT PLANT
17. GAS HEATER SKID
18. CW PUMP HOUSE
19. RAW WATER PUMP HOUSE
20. STORAGE/FABRICATION YARD DURING CONSTRUCTION(PROPOSED)
21. CW OZONATION PLANT
22. AMBIENT AIR QUALITY MONITORING STATION (OT NO)
23. OVERHEAD STORAGE TANK
24. FIRE STATION BUILDING & DRILL TOWER
25. GAS CYLINDER SHED
26. AC PLANT
27. GAS BOOSTER COMPRESSOR UNIT
28. COOLING TOWER FOR GAS BOOSTER COMPRESSOR UNIT
29. EXISTING BUILDING OF IOCL SHALL BE USED FOR WAREHOUSE AND CHEMICAL LAB

* SPACE SHOWN FOR EXTENSION UNIT SHALL BE USED FOR RAW MATERIAL STORAGE/FABRICATION PURPOSE.

NOTES:-

1. ALL DIMENSIONS AND CO-ORDINATES ARE IN METER UNLESS NOTED OTHERWISE.
2. a) THE FINISHED GRADED LEVEL (FGL) OF MAIN PLANT AREA (STACK TO TRANSFORMER YARD) SHALL BE RL.900.0M
b) FGL FOR COOLING TOWER AND GAS SKID AREA SHALL BE RL. 902.0M
c) FGL FOR SWITCHYARD AREA SHALL BE RL. 899.0M
d) FGL(FINISHED FLOOR LEVEL) OF GT/STG BUILDING SHALL BE RL. 900.5M WHICH CORRESPONDS TO EL. 0.0M FOR ALL REFERENCE.
3. TERMINAL POINT FOR STORM WATER DRAIN SHALL BE ALONG GRID NO: 400.00 EASTI.

COMPASS ROSE

CONSTRUCTION NORTH

WIND ROSE

PROJECT INFORMATION:

CLIENT	KARNATAKA POWER CORPORATION LIMITED
PROJECT NAME	KARNATAKA POWER CORPORATION LIMITED - KARNATAKA POWER PLANT
PROJECT LOCATION	KARNATAKA POWER CORPORATION LIMITED - KARNATAKA POWER PLANT
PROJECT MANAGER	BEHART HEAVY ELECTRICALS LTD
PROJECT ENGINEERING MANAGEMENT	BEHART HEAVY ELECTRICALS LTD

TITLE: PLOT PLAN

DATE	SCALE	REVISION



COMPRESSED AIR SYSTEM
370 MW (109 FB) CCPP YELAHANKA

SPECIFICATION NO. PE-TS-409-167-A001

VOLUME : III

SECTION : 9

REV: 00

DATE: 20.01.2016

SHEET 1 OF 1

VOLUME-III

SECTION 9

LIST OF RECOMMENDED SPARES

SUGGESTIVE BREAK UP PRICE FOR INTERNAL COMPONENT OF COMPRESSED AIR SYSTEM

(The price break up furnished shall be followed by successful bidder during submission of the Billing Break-Up during detail engineering stage)

INDICATIVE BILLING BREAK UP FOR THE COMPRESSED AIR SYSTEM

370 MW (109 FB) CCPP YELAHANKA

SI.No	DESCRIPTION OF EQUIPMENT/ ITEM	QUANTITY	Allocations percent of Total price(For site)
1	2	3	4
1.0.0	Total lumpsum firm prices for the supply of equipment & services as specified, Comprising Design, Engineering, Manufacture, Inspection & Testing at Manufacturer's Works, Painting at Manufacturer's Works, Duly packed for Transportation, Delivery to Site, loading, unloading & storage at site, supply of erection materials, consumables, start-up & commissioning spares, as required to complete the compressed air system for the total scope defined in technical specification (spec.No. PE-TS-409-555-A001) and terms & conditions of tender, taking into account all clarifications, confirmations and agreements till date for Compressed Air System for 370 MW (109 FB) CCPP YELAHANKA.		
2.0.0	Break up prices for items covered in clause 1.0 above. Prices for design, manufacture, inspection & testing at manufacturers works & supply of following items.		
2.1.0	Two (2) nos. identical air compressors (common for service air and instrument air) Each of 10 NM ³ /Minute capacity at 8 kg/cm ² (g) consisting Electric motor(IE3 as per IS:12615) to drive the compressor with accessories, Suction filter and silencer, Inter Cooler, After Cooler with moisture separators, automatic drain traps, instruments, Control panel etc.	2 Nos	
2.2.0	Air Dryer (HOC TYPE) Air Drying Plant of 15 NM ³ /min and to match air compressors with all instruments and controls including Electronic Dew point meter as specified.	2 Nos	
2.3.0	Air receivers		
2.3.1	Air receiver at Compressor house of 10 M ³ capacity with each having Pressure gauges, Temperature gauges, Relief valve, Drain connection with zero purge type automatic trap stations and other accessories as specified.	2 Nos	
2.3.2	DM plant air receiver of 2 M ³ capacity with each having Pressure gauges, Temperature gauges, Relief valve, Drain connection with zero purge type automatic trap stations and other accessories as specified.	1 No	
			Price of items from sl. no 2.1.0 to 2.3.2 shall be within 66-80 % of Total price (price of sr. no. 1.0.0)

INDICATIVE BILLING BREAK UP FOR THE COMPRESSED AIR SYSTEM

370 MW (109 FB) CCPP YELAHANKA

SI.No	DESCRIPTION OF EQUIPMENT / ITEM	QUANTITY	Allocations percent of Total price(For site)
1	2	3	4
2.4.0	Pipes & fittings Inter connecting cooling water, compressed air piping & Drain piping up to the nearest common drain point outside compressor house as specified including fittings and valves, etc. for complete compressed air system.	1 Lot	Price of item of sl. no 2.4.0 shall be within 6-10 % of Total price (price of sr. no. 1.0.0)
2.5.0	Field instruments including temperature scanners , for the overall control of the compressed air system through DDCMIS as specified.	1 Lot	
2.6.0	Sequential panel for equal running hours for each compressor as specified in technical specification.	1 No	
2.7.0	Cable, Cable lugs, glands, junction box etc for Compressed Air System equipment as required.	1 Lot	Price of items from sl. no 2.5.0 to 2.9.0 shall be within 8-20 % of Total price (price of sr. no. 1.0.0)
2.8.0	Total lump sum prices for Maintenance Tool & Tackles (as specified in the Annexure-IV, Volume-II of the technical specification PE-TS-409-555-A001)	1 Lot	
2.9.0	Total lump sum prices for Start-Up & commissioning spares (as specified in the Annexure-XI, Volume-II of the technical specification PE-TS-409-555-A001)	1 Lot	
3.0.0	Total of 2.0.0(Total of 2.1.0 to 2.9.0) Should match with 1.0.0.		Shall be 100 % of Total price (price of sr. no. 1.0.0)
Note: The percentage of individual items shall be maintained by the successful bidder during submission of the BBU for the compressed air system package during the detail engineering stage.			
	Bidder's / bidder's representative signature		Company seal