

**Request for Proposal
for**

**DCS and Instrumentation Upgradation of GMDC's 2X125 MW
Akrimota Thermal Power Station (ATPS), Gujarat**

Answer to Additional Pre-Bid Queries and Corrigendum – VII



**Gujarat Mineral Development Corporation Limited
Khanij Bhavan, 132-Ring Road, Gujarat University Ground,
Vastrapur, Ahmedabad- 380052**

Table of Contents

Responses to additional pre-bid queries 3

Annexure 1: Fire Hydrant Control Panel Specifications..... 6

Annexure 2: Relay Count 7

Annexure 3: Location wise printer quantity 8

Annexure 4: DCS CIS Card IO Count..... 9

Responses to additional pre-bid queries

Sr. No.	Pre-bid query/clarification	Response / Addendum / Corrigendum (If any)
1	Fire Hydrant System monitoring (requirement to be clarified from GMDC viz. communication with new DCS)	A local control panel supplied by Unitech Machines Limited is being used currently for Fire Hydrant System operations (specifications attached as Annexure 1). I/O count is provided in the RFP
2	Count of relays in the relay cabinets (CCR)	Provided in Annexure 2
3	RTD / TC IO count segregation.	Unit 1 - 1. ABB Symphony Harmony: RTD - 298; T/C - 198 2. ABB Symphony Melody: RTD - 64 Unit 2 - 1. ABB Symphony Harmony: RTD - 312; T/C - 200 2. ABB Symphony Melody: RTD - 64
4	RTD or AI type signals for new/additional temperature signals.	RTD
5	Printer quantity & location	Provided in Annexure 3
6	HP/LP bypass IO count for 2 units/1 units?	HP/LP bypass IO count provided in Corrigendum IV of the RFP is for one unit
7	Switch yard IO count for sr. no. 47,48,49 of annex-5 of corrigendum	I/O count for - 1. Switchyard line diagram -150 DI 2. Electrical board incomer - 200 DI 3. Energy meter reading totalizer - 10 AI
8	CIS IO count for unit1 & unit2	Provided in Annexure 4
9	Clarification on Annex.3 of tender - Sr. no. 5 Cable quantity for the 2 types of cables in sr. no. 5	1. FLEXIBLE TRAILING CABLE,19C X 2.5 SQ.MM-1000 MTRS. 2. 3 PAIR X 1.5 SQ.MM - 4000 MTRS.
10	For new instruments mentioned in Annexure 5, Bidder understands that based on location of instruments, grouping	The JB grouping and corresponding cable length are provided in Annexure 5

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	of signals can be done at JB level and accordingly cable length can also be derived. Kindly confirm the JB grouping and cable length	
11	For new instruments mentioned in Annexure 5, Bidder understands that Junction Box required for these new instruments are either existing or already covered in Annexure-III, hence need not to consider additional JB's. Kindly confirm.	The Successful Bidder shall supply and install additional Junction Boxes for the new instruments mentioned in Annexure 5.
12	For Flue gas parameters as mentioned in Annexure 5, Bidder understands that Bidder has to consider cable and IO for flue gas parameters -Opacity (SPM), O2, CO, SOx, NOx,temperature, and pressure- ie Total 7 signals to be considered for each Unit.	As per RFP. The Successful Bidder can consider 7 signals for each unit
13	For Flue gas parameters as mentioned in Annexure 5, Opacity, CO,SOx and NOx signal will be combined to a JB and from there 16P x 0.5sqm cable will be laid to control room. Rest signals like O2, Temperature and pressure Individual 1 P cable to be laid from Main CCR. Kindly confirm on the grouping and cable size consideration.	The Successful Bidder may lay 1 P cable for the following flue gas parameters – O2, temperature, and pressure signals
14	Kindly request to provide details and technical data sheet of existing Servo coil	Bidder may visit the site and refer to any technical data sheets as necessary
15	As a part of Corrigendum, we have received revised IO count, we kindly request you to provide node wise IO segregation count of Boiler & Turbine - ABB symphony Harmony system (ex Boiler Node 1- How much IO, Boiler Node 2- how much IO?).	Provided in Annexure 6
16	As per Corrigendum IV- Annexure-4 (pg 2 of 14),IR type detector (Infra-red detector) are required at Yard area. Bidder understands that these are IR beam detectors for conveyer belt monitoring, kindly confirm for selection of suitable IR beam detector.	The IR type detectors are for fire detection near conveyor belts

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17	As per Corrigendum IV- Annexure-4 , replacement of Ionization type smoke detectors are required, however ionization technology is old and become obsolete in major all fire alarm standard brand. Bidder proposes better technology as "Optical Smoke Detectors" instead of obsolete ionization type better technology. Kindly confirm	The Successful Bidder may use the latest available technology for smoke detectors																	
18	<p>With reference to Annexure-6 of corrigendum for payment terms, for last supply payment milestone, we kindly request your support for providing capping of supply payment terms</p> <p>10% supply payment shall be released from 18 (eighteen) months from the date of Completion of the Overhaul or 12 (twelve) months from the date of Operational Acceptance of the equipment, whichever first occurs. However, in case of overhaul/commissioning gets delayed more than 90 days from the delivery of material due to reason not attributable to bidder, the balance 10% payment shall be released against submission of BG of equivalent amount.</p>	<p>Revised Clause 8.2 and 2.2 of Part 2 of the RfP for supply of material</p> <table border="1" data-bbox="1122 520 1957 1262"> <thead> <tr> <th data-bbox="1122 520 1245 576">Category</th> <th data-bbox="1245 520 1518 576">Activity</th> <th data-bbox="1518 520 1641 576">% of value</th> <th data-bbox="1641 520 1957 576">Timelines</th> </tr> </thead> <tbody> <tr> <td data-bbox="1122 576 1245 1262" rowspan="4">Supply of material</td> <td data-bbox="1245 576 1518 683">Advance payment for procurement of spares, after submission of Performance Security</td> <td data-bbox="1518 576 1641 683">25%</td> <td data-bbox="1641 576 1957 683">T + 2 weeks</td> </tr> <tr> <td data-bbox="1245 683 1518 790">Completion of Factory Acceptance Tests and issue of certificate by PMC</td> <td data-bbox="1518 683 1641 790">15%</td> <td data-bbox="1641 683 1957 790">T + 20 weeks</td> </tr> <tr> <td data-bbox="1245 790 1518 896">Delivery of material on site with physical verification, certification, and sign-off by the PMC</td> <td data-bbox="1518 790 1641 896">50%</td> <td data-bbox="1641 790 1957 896">T + 34 weeks; 4 weeks of contingency considered; LD applicable beyond T + 38 weeks</td> </tr> <tr> <td data-bbox="1245 896 1518 1262">Completion of defect liability (warranty period)</td> <td data-bbox="1518 896 1641 1262">10%</td> <td data-bbox="1641 896 1957 1262">18 (eighteen) months from the date of Completion of the Overhaul or 12 (twelve) months from the date of Operational Acceptance of the equipment, whichever first occurs. However, in case of overhaul/commissioning gets delayed more than 90 days from the delivery of material due to reason not attributable to bidder, the balance 10% payment shall be released against submission of BG of equivalent amount.</td> </tr> </tbody> </table>	Category	Activity	% of value	Timelines	Supply of material	Advance payment for procurement of spares, after submission of Performance Security	25%	T + 2 weeks	Completion of Factory Acceptance Tests and issue of certificate by PMC	15%	T + 20 weeks	Delivery of material on site with physical verification, certification, and sign-off by the PMC	50%	T + 34 weeks; 4 weeks of contingency considered; LD applicable beyond T + 38 weeks	Completion of defect liability (warranty period)	10%	18 (eighteen) months from the date of Completion of the Overhaul or 12 (twelve) months from the date of Operational Acceptance of the equipment, whichever first occurs. However, in case of overhaul/commissioning gets delayed more than 90 days from the delivery of material due to reason not attributable to bidder, the balance 10% payment shall be released against submission of BG of equivalent amount.
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Annexure 1: Fire Hydrant Control Panel Specifications

(Attached separately)

Annexure 2: Relay Count

Following is the node/panel wise relay count for each unit.

DCS	Node / Panel	Relay Count	Contactors Count
ABB Symphony Harmony	BLR1	111	
	BLR2	130	
	BLR3	108	
	BLR4	138	
	TG 1	157	
	TG 2	18	
	TG 3	28	
ABB Symphony Harmony	Node 1	28	50
	Node 3	96	
	Node 4	80	
ABB Symphony Melody	CCA01		95
	CCA02	55	
	CCA03	78	
	CVA01	48	

Annexure 3: Location wise printer quantity

Sr. No.	Area	B/W LaserJet Printer	Color LaserJet Printer
1	Unit 1	4	3
2	Unit 2	4	3
3	ACW/CCW	1	1
4	SWTP	3	2
5	CW Pump House	1	1
6	MHP	2	1
7	AHP	2	1
8	Total	17	12

Annexure 4: DCS CIS Card IO Count

(Attached separately)

Annexure 5: Junction Box and Cable Schedule for new parameters

(Attached separately)

Annexure 6: Node – wise I/O Summary for Central DCS

1. Unit 1

Name	Node	DI	DO	AI	AO	RTD & T/C	SED ¹	SET ²	CIS ³	SEM ⁴
Boiler (ABB Symphony Harmony)	Node 1	400	336	64	48	96	0	16	256	0
	Node 2	400	320	80	80	96	16	16	224	0
	Node 3	352	352	128	80	96	0	16	192	0
	Node 4	240	352	48	48	32	0	0	144	0
Turbine (ABB Symphony Harmony)	Node 1	432	448	64	64	64	0	32	224	0
	Node 2	176	144	48	0	64	16	16	32	32
	Node 3	336	368	16	0	48	192	16	64	0
Alstom (ABB Symphony Melody)	Node 1	128	304	32	0	16			16	
	Node 2	112	320	16	16	16			16	
	Node 3	128	224	16	16	32			80	
Ansaldo (ABB Symphony Harmony)	Node 1	16	52	32	16				48	
	Node 2	80	64	32	32				64	
	Node 3	128	224	80	112					
	Node 4	232	208	80	32					

2. Unit 2

Name	Node	DI	DO	AI	AO	RTD & T/C	SED ⁵	SET ⁶	CIS ⁷	SEM ⁸
Boiler (ABB Symphony)	Node 1	416	320	64	48	96	0	16	223	0
	Node 2	416	320	80	80	96	16	16	195	0

¹ Sequence of events digital input module

² Sequence of events time sync

³ Control I/O module

⁴ Sequence of events monitor

⁵ Sequence of events digital input module

⁶ Sequence of events time sync

⁷ Control I/O module

⁸ Sequence of events monitor

Harmony)	Node 3	336	352	128	80	96	0	16	156	0
	Node 4	256	352	48	48	48	0	0	130	0
Turbine (ABB Symphony Harmony)	Node 1	432	432	64	64	64	16	16	224	0
	Node 2	176	144	48	0	64	16	16	32	16
	Node 3	336	368	16	0	48	208	16	64	0
Alstom (ABB Symphony Melody)	Node 1	128	304	32	0	16			16	
	Node 2	112	320	16	16	16			16	
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