

**Request for Proposal
for**

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

Answer to Pre-Bid Queries and Corrigendum – IV



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

Pre-Bid Meeting Date: 17th July 2023

Table of Contents

- Responses to pre-bid queries 3
- Annexure 1: I/O Summary91
 - 1. Unit 1 91
 - 2. Unit 2 91
 - 3. Common..... 92
- Annexure 2: UPS and UPS Battery Specifications93
- Annexure 3: SWAS specifications95
- Annexure 4: Fire alarm and detection system specifications.....96
- Annexure 5: List of new parameters to be added in DCS / PLC systems97
- Annexure 6: Payment milestones100

Responses to pre-bid queries

Sr. No.	Clause No	Description of clause	Pre-bid query/clarification	Response / Addendum / Corrigendum (If any)
1	2.2.1 / 2.2.2	Overview	Please define the correlation of IO List mentioned in 2.2.2, wrt areas defined in 2.2.1. PI read this in conjunction with Pt 34 below.	Updated IO tables have been provided in Annexure 1 of this document
2	2.2.1 / 2.2.2	Overview	From the IO List under the section 2.2.2, please confirm which IO's to be considered Unit Wise and Common.	Updated IO tables have been provided in Annexure 1 of this document
3	3.2	Battery Limits	Please provide clarification wrt the Battery Limit's.	As per RFP
4	3.2	Battery Limits	Please provide details of load calculation at SCADA System for Compressor and Switchyard or if any	As per RFP
5	3.1.1.6 (i)	Safety Arrangements	Bidder Shall follow HSE requirements same defined by Bidder company policies for project site or as per GMDC HSE policy whichever is stricter	As per RFP
6	3.1.1.6 (iii)		As no Overhauling work is envisaged, this clause may please be excluded from scope of work.	As per RFP
7	3.1.1.7	Permits	Please clarify the permits which are required for erection and commissioning activities. Or if any other please clarify.	As per RFP
8	3.1.2.1	Dismantling	Please Quantify the nos of panels for dismantling. Please provide dismantling scope wrt cabinets, panels, unit control boards, cables, field instruments and associated devices, process piping and fittings, instruments racks, junction boxes etc	As per RFP

Sr. No.	Clause No	Description of clause	Pre-bid query/clarification	Response / Addendum / Corrigendum (If any)
			if any. Please also define the scope of reinstallation if any.	
9	3.1.2.1	Dismantling - The Successful Bidder shall also need to re-install any dismantled equipment as and when needed during the Overhaul	Please quantify the dismantling scope wrt instruments. Please exclude re-installation of instruments from BIDDER scope.	As per RFP
10	3.1.2.2 (Clause 8)	All the materials / items / equipment / services required to fulfill the intent of executing complete Upgradation / Overhauling of the Control and Instrumentation systems in the Plant to ensure operability, maintainability, and reliability of the Plant, but not specifically mentioned in this document shall also be deemed to be included. The Successful Bidder shall ensure that the work is consistent with modern power plant practices, and comply with all applicable codes, standards, guides, statutory regulations, safety requirements in force	Bidders responsibility shall be as per the scope defined in the tender document and proposal submitted by the Bidder for completion of the project will be considered.	As per RFP
11	3.1.2.3.(vi)	Front End Sub System	We propose to meet the Alarm management functionality through the Alarm Management module module inbuilt in our System. Please provide Hardware details specifications required for Standalone Annunciation System.	The Successful Bidder shall provide inbuilt alarm management functionality in the HMI system as per the requirements in RFP. Additionally, the Successful Bidder shall dismantle the alarm annunciation panel present in the CCR, while retaining the only the parts of the panel needed as per statutory requirements (For e.g. - Hydra step)
12	3.1.2.3(v)	Front End Sub System	Bidder suggests to upgrade the OWS to 22" / 24" as an Industry practise and proper	Replace and upgrade all the existing operator / engineering workstations with 24-inch

Sr. No.	Clause No	Description of clause	Pre-bid query/clarification	Response / Addendum / Corrigendum (If any)
			utilisation of space	interchangeable workstations
13	3.1.2.3.(vi ii)	Front End Sub System	Please confirm the utility details of 16 tablets. Please advise the scope / specifications of the Logbook design / application software required for this hardware.	The Successful Bidder shall supply 15 tablets of 11/13 inch size, with pre-installed logbook application for logging and reporting purposes. The Successful Bidder shall also supply necessary protection covers for the tablets The digital logbook shall be used for logging of key operational parameters on a regular basis by the ATPS O&M team. The Bidders are encouraged to visit the site and study the physical logbooks for designing the digital logbook application
14	3.1.2.3.(xi)	Front End Sub System	Please Quantify the Complete BOQ for better understanding to this clause.	The Successful Bidder shall assess supply and install the necessary hardware (cable, cards etc.) and software (control graphics etc.) from field junction box to the DCS, to enable monitoring of flue gas parameters - Opacity (SPM), O ₂ , CO, SO _x , NO _x , temperature, and pressure
15	3.1.2.3.(xi i)	Front End Sub System	Please elaborate the specifications of Cyber security requirement for better understanding. Also please provide clarification on Clause 3.3.10 point no.08	All the systems supplied by the Successful Bidder shall comply to IEC 62443 standard for Cyber Security for Industrial Control Systems. Clause 8 of Section 3.3.10 of Part 2 of the document hereby stands cancelled from the responsibilities of the Successful Bidder
16	3.1.2.3.(xi ii)	Front End Sub System	Bidder Shall provide Historian Machines with RAID-05 configuration with the Disk size of 1TB.	As per RFP

Sr. No.	Clause No	Description of clause	Pre-bid query/clarification	Response / Addendum / Corrigendum (If any)
			GMDC to confirm	
17	3.1.2.3.(x VIII)	Front End Sub System	Please provide the specification / details for Furnace camera required for this scope.	Clause 15 of Section 3.3.4, and Clause xviii of 3.1.2.3 (I) of Part 2 of the document hereby stands cancelled from the responsibilities of the Successful Bidder
18	3.1.2.3.(x VIII)	Front End Sub System	Please provide the technical details wrt PADO tools and its integration with furnace camera.	Clause 15 of Section 3.3.4, and Clause xviii of 3.1.2.3 (I) of Part 2 of the document hereby stands cancelled from the responsibilities of the Successful Bidder
19	3.1.2.3.(xi x)	Front End Sub System	Please provide the specs of Large Screen Display / LVS for this requirement.	The Successful Bidder shall provide a 55-inch LED display
20	3.1.2.3.(x x)	Front End Sub System	Please provide the Spec / Scope for the Fire alarm detection system .	Specification for the existing fire alarm and detection system provided in Annexure 4 of this document. The Successful Bidder needs to replace and upgrade the system with latest version while retaining all the existing layout and functions of the fire alarm and detection system
21	3.1.2.3.(x xi)	Front End Sub System	Please exclude Fire Hydrant System from DCS vendor scope of supply	As per RFP
22	3.1.2.3.(x xiii)	Front End Sub System	Please exclude EPABX from DCS vendor scope of supply	Clause xxiii of 3.1.2.3 (I) of Part 2 of the document hereby stands cancelled from the responsibilities of the Successful Bidder
23	(xi)	Remote DCS / PLC	Please provide Brief Scope and details for implementing of SCADA system at Compressor and Switchyard area.	As per RFP
24	3.1.2.4 (xvii)	Back End Sub Systems	Cables shall be provided as per BOQ provided in Document RDP3_1 . Any other cable required shall be provided against	Bidders shall calculate the quantity of cables required to be installed from JB to DCS / PLC systems for all the new parameters

Sr. No.	Clause No	Description of clause	Pre-bid query/clarification	Response / Addendum / Corrigendum (If any)
			commercial compensation.	(Annexure 5 of this document and flue gas parameters) to be added in the DCS / PLC systems. Bidder shall also calculate the quantity of optical fiber cable required as per the scope defined in the RFP
25	3.1.2.4 (xxi)	Back End Sub Systems	Please provide details of UPS - Size / Specifications / Qty / Battery Details/Drawings.	Existing UPS and UPS battery specifications have been provided in Annexure 2 of this document. The Successful Bidder shall supply and install UPS systems as per the RFP. Details of existing healthy batteries for each UPS have been provided in Annexure 2. The Successful Bidder may use the existing healthy batteries along with additional batteries necessary to provide UPS back up requirements defined in the RFP
26	3.1.2.4 (xiii)	Back End Sub Systems	This point can be point of discussion. > Incase of any absense of field voltage will damage my DCS card.	Successful Bidder shall supply and install necessary limiting devices to prevent any damages to the DCS due to voltage fluctuations up to 500V, and current fluctuations up to 20 A
27	3.1.2.4 (xxii)	Back End Sub Systems	Please provide specification of Earthing pits / cables details etc	Bidders shall visit the site to understand the existing layout of earthing plates / pits
28	(xx)	Remote DCS / PLC	Please provide specification of GPS clock	As per RFP. Total number of slave clocks to be provided - 15
29	(xxiii)	Remote DCS / PLC	BIDDER DCS Hardware has suitable environment protection built in and the same shall be supplied in this project. Please confirm.	Successful Bidder's equipment shall have provision for protection against humidity, as per the following levels of humidity observed at the Plant - 1. Annual average humidity - 60% 2. Max humidity - 95%

Sr. No.	Clause No	Description of clause	Pre-bid query/clarification	Response / Addendum / Corrigendum (If any)
				3. Min humidity - 20%
30	(xxvi)	Remote DCS / PLC	We request you to please get the Upgrade of the Chiller Compressor Control Syetm from the OEM.	The Successful Bidder shall supply all the control hardware (cards, cables etc.) and software (control graphics etc.) to enable monitoring of parameters mentioned in Annexure 5 of this document, from the CCR
31	3.1.2.5	Training	We have considered 5 days of Operator Training at Site in Two Batches for 8 operators. And 5 Days of Engineering Training in one Batch for 4 Engineers	The Successful Bidder shall provide training to the Owner's personnel as per the following requirements - 1. Instrument engineers - 10 engineers (1 week for each engineer) 2. Operation engineers - 24 engineers (3 days for each engineer) 3. Shift in charge - 6 personnel (3 days for each personnel)
32	3.1.2.8	Post Upgradation Scope	Please elaborate the Scope of work post upgradation for implementation.	As per RFP
33	3.2.3	Storage	Storage shall be in GMDC scope.Kindly confirm	As per RFP
34	3.2.6	FAT procedure	Standard FAT procedure shall be provided during detailed engineering/Post award. Kindly confirm.	Successful Bidder shall conduct all the tests detailed in the RFP
35		FAT procedure	All necessary Travel, Lodging, Boarding of GMDC / Third Party inspection Agencies shall be in scope of GMDC only. We confirm to provide Lunch at Bidder's premises	GMDC and PMC shall arrange for necessary travel, accommodation, and food and beverage requirements of their respective personnel on their own during the FATs
36	3.3.4-15	PADO	> Please provide the detailed information for the sub point 3.3.4-15 vi,v.	Clause 15 of Section 3.3.4, and Clause xviii of 3.1.2.3 (l) of Part 2 of the document hereby stands cancelled from the responsibilities of

Sr. No.	Clause No	Description of clause	Pre-bid query/clarification	Response / Addendum / Corrigendum (If any)
				the Successful Bidder
37	3.3.5	Alarm Management Sys	Alarm management system is inbuilt feature of DCS. The System alarms, I/O alarm process can be integrated in DCS Alarm Managemnt Module. If any further please provide details. Please refer point 3.1.2.3.(vi)	The Successful Bidder shall provide inbuilt alarm management functionality in the HMI system as per the requirements in RFP. Additionally, the Successful Bidder shall dismantle the alarm annunciation panel present in the CCR, while retaining the only the parts of the panel needed as per statutory requirements (For e.g. - Hydra step)
38	3.3.8	Redundnacy	Bidder shall be offering Redundancy Controller/Processor, Servers, Network bus level. Request GMDC to please confirm the same.	Redundancy shall be provided for controller/processor, servers, power cards, communication cards, communication / network bus, and historian servers
39	40240	Cyber Security	Please refer point 3.1.2.3.(xii)	All the systems supplied by the Successful Bidder shall comply to IEC 62443 standard for Cyber Security for Industrial Control Systems
40	5.1	PGT procedure	We shall submit our SAT procedure post award. Kindly confirm.	Successful Bidder shall conduct all the tests detailed in the RFP
41	6	Defect Liability	Request to explain the downtime calcution with Case study for better understanding.	As per RFP
42	7.1	Liquidated Damages	LD shall not be applicable on procurement. Request to pls accept	As per RFP
43	7.1	Liquidated Damages	LS shall not be applicable on overall execution. Request to pls accept.	As per RFP
44	7.2	Overall ceiling on LD	The Overall LD shall be limited to 5% of Project Value. Request you to pls accept.	As per RFP
45	8.1	Payment Terms	BIDDER proposes the following payment Terms and requests the same to be accepted	Revised payment milestones and delivery timelines are defined in Annexure 6 of this

Sr. No.	Clause No	Description of clause	Pre-bid query/clarification	Response / Addendum / Corrigendum (If any)
			<p>by GMDC > 10% Advance after order booking/awarding. > 10% Document Submission like Sys Arch , Typical GA Drg, BOM, Heat and Power Load Cal. > 10% on Submission on Proof of DCS Hardware / Software Order Placement on Feeder Factory >60% within 30 days of Receipt of material at site 10% on Commissioning or within 90 days of Material receipt at site, whichever is earlier</p>	document
46	5.2	Technical Score	While we request you to explain this query further, we request you to follow the established evaluation approach followed by major PSU's/ State Electricity Boards in the country for a fair and transparent evaluation	As per RFP
47	5.2.2	Technical presentation	While we request you to explain this query further, we request you to follow the established evaluation approach followed by major PSU's/ State Electricity Boards in the country for a fair and transparent evaluation	As per RFP
48	1/2	DT9 controller	We purpose Merrick solution for same application. Kindly confirm.	As per RFP
49	3	Burner Ignitor	Please Suggest Alternate Vendor for this scope of Work	As per RFP
50	7/8/9/10	Main turbine	Please clarify the detailed scope for this requirement	The Successful Bidder shall supply all the hardware (cards etc.) and software (control

Sr. No.	Clause No	Description of clause	Pre-bid query/clarification	Response / Addendum / Corrigendum (If any)
				graphics etc.) to enable monitoring of parameters mentioned in items 7,8,9, and 10 of Annexure 3 of the RFP
51	12/13	Lime Weigh feeder	Please clarify the detailed scope for this requirement	As per RFP
52	83-117		Please clarify the detailed scope for this requirement	Successful Bidder shall supply and install all the necessary hardware (cards, cable etc.) and software (control graphics etc.) from junction boxes to the DCS for all the new parameters detailed in line items 83 - 117 Annexure 3 of the RFP. The Successful Bidder shall be responsible to calculate the length of the cable needed for the same
53			Please confirm the Scope and I/O detailing for Unit-01,02 , Common,BOP, Electrical and if any other for better understanding.	Updated IO tables have been provided in Annexure 1 of this document
54		Drawings	The Document provide has some missing drawings . Please provide the confirmation that the same are in order.	Bidder may visit the plant and refer to any drawings necessary
55		Clause 7.2 (1) Overall ceiling on Liquidated damages and incentives of TOR + Clause 5.2 Overall ceiling on Liquidated damages and incentives of LOA	Liquidated Damages: Any delay attributed to the BIDDER beyond agreed date of delivery will attract Liquidated Damage (LD), as a genuine pre-estimated losses and not as penalty, at 0.5% per week or part thereof on the value of the undelivered portion only, subject to maximum 5% on the total value of the undelivered portion of supply. However, in case of any delay for the reason not attributable to the BIDDER or due to force	As per RFP

Sr. No.	Clause No	Description of clause	Pre-bid query/clarification	Response / Addendum / Corrigendum (If any)
			<p>majeure conditions, the provision of liquidated damages shall not apply. Liquidated Damages shall be the exclusive and the sole remedy available to the Purchaser under this Contract (or Order), tort or any other law applicable for the time being in force.</p>	
56		Clause 11.12 Force majeure of TOR	<p>Either Party shall not be liable to the other Party (except for responsibility to pay seller/supplier) for any force majeure event under this Contract. Strike at contractor"s work / factory cannot be considered as force majeure situation will be considered as force majeure event.</p>	As per RFP
57		Contract performance	<p>In case BIDDER's performance is delayed due to any act of omission on the part of Purchaser or any third party engaged by Purchaser or the end customer then the BIDDER shall be given due extension of time for the completion of the scope, for a period not less than the duration of the resultant delay in the BIDDER's performance of the Contract. Purchaser shall grant appropriate cost compensation along with time extension to the BIDDER.</p>	As per RFP
58		Clause 10. Non fulfilment of terms and conditions and Termination of Contract of TOR	<p>BIDDER shall be entitled to claim payments from Purchaser for all supplies and/or services completed including work in progress and also entitled to recover any costs, expenses, loss or damage reasonably incurred as a result of such action, including but not limited to expenses for repossession, fee collection or costs of storage at pro-rate</p>	As per RFP

Sr. No.	Clause No	Description of clause	Pre-bid query/clarification	Response / Addendum / Corrigendum (If any)
			to the contract price till the date of any termination /expiry /cancel /suspension of this Contract. BIDDER shall be entitled to claim applicable interest rate from Purchaser for any delayed payments to BIDDER under this Contract. BIDDER shall be entitled to terminate the contract either wholly or partially in case of any breach by Purchaser and claim payments from Purchaser as stated under this Clause.	
59		Clause 6. Defect Liability of TOR + Clause 4. Defect Liability of LOA	the DLP/Warranty period shall be twelve (12) months from the date of supply under this Contract latent defect liability shall not be applicable to BIDDER under this Contract.	As per RFP
60		Scope + Clause 1.1 Good Industry Practice of TOR + Clause 3.1 Scope of services of TOR	Scope of Work shall be as per mutually agreed BOQ between the Parties and any additional scope will entitle BIDDER additional costs from Purchaser	As per RFP
61		Clause 1.7 Confidential details of TOR	Either Party shall protect the confidential information disclosed by the other party provided under this Contract	As per RFP
62		Intellectual Property Rights	It is clarified that all intellectual property rights under this Contract is limited and restricted to the right to use by the Purchaser for the limited purpose of this Contract only. all and any pre-existing intellectual property rights of BIDDER are not transferred under this Contract and BIDDER shall be exclusive owner and title holder for BIDDER pre-existing intellectual property rights and	As per RFP

Sr. No.	Clause No	Description of clause	Pre-bid query/clarification	Response / Addendum / Corrigendum (If any)
			<p>similarly for any third party owned pre-existing intellectual property rights will be exclusively owned by such third party/ies. It is further clarified as follows:</p> <p>A. In case Purchaser becomes aware or should have become aware of any claim of infringement or allegation of infringement of third party IPR, Purchaser shall immediately notify BIDDER in writing thereof, failing which BIDDER shall have no obligations to indemnify or defend Purchaser against the claim concerned nor any other obligation with regard to such third party IPR infringement.</p> <p>B. Upon receipt of such timely notification by Purchaser, BIDDER may at its sole discretion decide:</p> <p>(a) at its own cost to conduct negotiations for the settlement of any claim of infringement or allegation of infringement and any litigation that may arise therefrom, to defend Purchaser or to indemnify Purchaser. Purchaser shall not make any admission which might be prejudicial to BIDDER. Purchaser shall, at the request of BIDDER, provide all reasonable assistance and information to BIDDER for the purpose of contesting the claim and conducting negotiations and litigation for the settlement thereof, and shall be compensated by BIDDER for all reasonable costs incurred in so doing; (b) to procure the right to continue use of the Products; (c) to modify the infringing Products to make them</p>	

Sr. No.	Clause No	Description of clause	Pre-bid query/clarification	Response / Addendum / Corrigendum (If any)
			<p>non-infringing; (d) to replace the infringing Products with non-infringing functional equivalents; or (e) to remove the infringing Products and refund the purchase price.</p> <p>C. BIDDER's obligations established in this clause shall only apply provided that all of the following conditions (a)–(c) are satisfied. (a) The claim arises out of the design, if any, manufacture of the Product or Purchaser's use of the Product. (b) The infringement or allegation of infringement was not caused by any use of the Product (i) which is unlawful or in breach of the Contract, (ii) which is other than for the purpose indicated in the Contract or reasonably to be inferred from the Contract, (iii) which is in association or combination with any other product not supplied by BIDDER, unless such association or combination was disclosed to and approved in writing by BIDDER prior to the date of the Contract, (iv) which comprises any modifications of or alterations to the Products not approved in writing by BIDDER prior to the date of the Contract. (c) The infringement or allegation of the infringement was not caused by a Product implementing any instructions contrary to or used against BIDDER's recommendations.</p> <p>D. This Clause states BIDDER's entire liability for indemnification for third party IPR infringement by the Products.</p>	
63		Clause 3.1.1.3 Statutory approvals of TOR + Clause 11.5 Indemnification of TOR	Purchaser shall indemnify BIDDER from any third party claims if the reasons for the	As per RFP

Sr. No.	Clause No	Description of clause	Pre-bid query/clarification	Response / Addendum / Corrigendum (If any)
			claim(s) are not solely attributable to BIDDER under this Contract	
64		Raw Material, Commodities, Transportation and Other Critical Components	<p>Raw Material, Commodities, Transportation and Other Critical Components The Parties hereby recognize the existence of a global severe shortage of electronic components (including, but not limited to, semiconductors), as well of market volatility in the availability and cost of other raw materials, commodities, transportation, and other critical components and/or elements, for an unpredictable period of time, which may impact normal business and the execution of the scope of delivery in a way and with a timing beyond BIDDER's control (hereinafter "Excusable Event").</p> <p>Notwithstanding anything in the contract/terms and conditions/purchase order to the contrary, if after the date of BIDDER's proposal or order confirmation or during the term of the performance of the contract/purchase order/confirmed purchase order an Excusable Event occurs, so that the costs of the BIDDER's performance increase or BIDDER's performance obligations are materially adversely affected, temporarily or permanently prevented or delayed, BIDDER shall be relieved of any affected obligations and the Parties shall negotiate in good faith equitable adjustments of the BIDDER's obligations in terms of:</p> <p>a. reasonable extensions of the original date of delivery or completion;</p>	As per RFP

Sr. No.	Clause No	Description of clause	Pre-bid query/clarification	Response / Addendum / Corrigendum (If any)
			<p>b. equitable adjustments in the price, to compensate BIDDER for any documented increase in components, raw materials, commodity and/or transportation costs;</p> <p>c. possible reductions of the contractually owed quantity of the goods to be delivered to the Customer, with a view to employing reasonable efforts to ensure that the contract/purchase order/confirmed purchase order can at least be filled in part.</p> <p>Agreed liquidated damages, any actual damages, penalties or other fines, otherwise payable by BIDDER shall not apply for delays directly or indirectly caused by the Excusable Event. Customer cannot invoke such a delay as a cause for termination/cancellation of the Contract/Order, unless otherwise agreed between the Parties. In the event of a prolonged Excusable Event, BIDDER retains the ability to terminate any affected agreement for convenience, by servicing notice to Customer to this effect.</p> <p>In case of termination/cancellation of the contract/purchase order/confirmed purchase order directly or indirectly caused by the Excusable Event, each Party waives any claim against the other Party either for direct damages and/or loss of profits and/or indirect and/or intermediate damages, penalties and/or liquidated damages If any dispute or difference arises between the Parties, the Parties hereto shall endeavor to settle such dispute amicably. Any contract, order</p>	

Sr. No.	Clause No	Description of clause	Pre-bid query/clarification	Response / Addendum / Corrigendum (If any)
			acceptance or order confirmation by BIDDER is entered into and made subject and conditioned to the above terms, which the Parties recognize as fundamental conditions of any such agreement within the Parties	
65		Statutory variation	Statutory variation: Any increase in duties, taxes/levy of new duties/taxes under existing or future laws of State/Central Government including GST & any cost implication on account of change in law shall be paid / reimbursed extra by the Purchaser to BIDDER which includes for the supply, services of both BIDDER & its vendor/sub-vendor directly to the end customer.	As per RFP
66		Clause 9. Insurance of TOR + Clause 7. Insurance of LOA	it is clarified that, transit insurance will be in Purchaser scope. There are no insurances in BIDDER scope. Incoterms: Ex works-BIDDER premises	As per RFP
67		price escalation	The price as set forth in this Contract has been calculated based on the current prices for the component(s), part(s) and raw material(s) (the "Parts") required to manufacture the products. However, due to the volatility of the prices of the Parts, Seller may encounter significant and potentially unanticipated increases in Parts pricing. Seller agrees to employ its reasonable commercial efforts to maintain the Parts pricing used to determine the price of Products as set forth in this Contract]. However, in the event of an increase in Parts pricing, Seller shall notify Purchaser thereof,	As per RFP

Sr. No.	Clause No	Description of clause	Pre-bid query/clarification	Response / Addendum / Corrigendum (If any)
			and Purchaser shall pay the relevant increased pricing.	
68		compliance with anti-corruption law	The Parties shall comply with all applicable international laws and regulations, including, without limitation, laws and regulations relating to trade compliance, corruption and bribery, including but not limited to the U.S. Foreign Corrupt Practices Act, UK Anti-Bribery Act, where applicable, legislation enacted by member states and signatories implementing the OECD Convention Combating Bribery of Foreign Officials	As per RFP
69		Entire Agreement	Entire Agreement: This Contract constitutes the entire agreement between the Parties with respect to the subject matter of this Contract and supersedes all communications, negotiations and agreements (whether written or oral) of Parties with respect thereto made prior to the date of this Contract.	As per RFP
70		Clause 1.2 Interpretation of TOR	All deviations mentioend in this document shall be integral part and parcel of the Contract and shall supersede and prevail over any other T&Cs of the Contract	As per RFP
71	Similar Works Definition	Similar works include – Installation / Upgradation of DCS for energy industries (power, oil & gas), carried out under a single LOI / work order / agreement	We request to append the Similar Works definition as : Similar works include – Installation / Upgradation of DCS and associated works for Energy / Process Industries (Power, Oil & Gas, Chemicals, Specialty Chemicals, Paints, Metals or Cement) carried out under a single LOI / work order / agreement	Pre-Qualification Criteria - Similar works include - Installation / Upgradation of DCS for Energy / Process Industries (Power, Oil & Gas, Chemicals, Paints, Metals, Cement) carried out under a single LOI / work order / agreement

Sr. No.	Clause No	Description of clause	Pre-bid query/clarification	Response / Addendum / Corrigendum (If any)
72	General	Time & Cost Compensation to BIDDER in case of Delay in Execution of Project due to GMDC	We request GMDC to provide us Time and Cost Compensation in case the Plant execution is delayed beyond Stipulated Time periods in case the delay is for reasons not attributable to BIDDER.	As per RFP
73	2.2.2	IO List	Please provide detailed philosophy of communication of Offsite PLC packages to Unit 1 DCS.	As per RFP
74	3.3.8	Redundancy in IO	As discussed we understand that the redundancy in IO Count is not envisaged and that all IO will be single as per existing philosophy. Please confirm.	Redundancy shall be provided for controller/processor, servers, power cards, communication cards, communication / network bus, and historian servers. Spares for all the cards shall be provided as per the RFP
75	xv	GPS	Please confirm count of Slave Clocks for GPS	Total number of slave clocks to be provided - 15
76		Installation of HW and SW towards Vibration monitoring system for various equipments like Motors, Pumps and Turbines.	We understand that all the VMS related signals to DCS shall be made available at the DCS Panel end by respective Equipment Vendor and that the same is excluded from DCS Bidder scope. Please confirm.	For all the existing vibration parameters being monitored in the plant, the Successful Bidder shall take inputs from the existing VMS present at the site. Further, Successful Bidder shall supply and install all the hardware (cables, cards etc.) and software (control graphics etc.) from field junction boxes to the DCS / PLC systems to enable monitoring of vibration switches in the DCS as defined in Annexure 5 of this document
77	xxv - SWAS	Steam Water and Analysis System	We request you to please exclude the SWAS from DCS Bidder scope.	Successful Bidder shall completely replace the existing SWAS system with a new SWAS

Sr. No.	Clause No	Description of clause	Pre-bid query/clarification	Response / Addendum / Corrigendum (If any)
				system. The technical specifications of the existing SWAS system are provided in Annexure 3 of this document
78	3.1.2.3 - I - xx	Fire Alarm and Detection System	We request you to please exclude the Fire Alarm and Detection System from DCS Bidder scope.	As per RFP
79	3.1.2.3 - I - xxi	Fire Hydrant System	We request you to please exclude the Fire Hydrant System from DCS Bidder scope.	As per RFP
80	II - ix / Annexure 5	Switchyard	We understand that Potential free contacts at Switchyard end are available for enabling monitoring from the DCS. Please confirm.	As per RFP
81	xxvi	Chiller Compressor & Air Compressor	Please provide the IO List to be considered for Chiller and Air Compressor	List of parameters for Chiller and Air Compressor have been defined in Annexure 5 of this document
82	15	Furnace Visualisation Camera	Please provide the technical specification mounting details of Furnace Visualisation cameras and the quantity to be considered per Boiler.	Clause 15 of Section 3.3.4, and Clause xviii of 3.1.2.3 (I) of Part 2 of the document hereby stands cancelled from the responsibilities of the Successful Bidder
83	xxi	UPS	We understand that the UPS load to be calculated for DCS only. Please confirm the same along with the battery type to be considered by the Bidder.	Existing UPS and UPS battery specifications have been provided in Annexure 2 of this document. The Successful Bidder shall supply and install UPS systems as per the RFP. Details of existing healthy batteries for each UPS have been provided in Annexure 2. The Successful Bidder may use the existing healthy batteries along with additional batteries necessary to provide UPS back up requirements defined in the RFP

Sr. No.	Clause No	Description of clause	Pre-bid query/clarification	Response / Addendum / Corrigendum (If any)
84	3.3.5	Annunciation For Mimics	We understand that PROCON based Annunciation System is used. We donot Envisage in the current System. Please exclude this from the scope of Supply	The Successful Bidder shall provide inbuilt alarm management functionality in the HMI system as per the requirements in RFP. Additionally, the Successful Bidder dismantle the alarm annunciation panel present in the CCR, while retaining the only the parts of the panel needed as per statutory requirements (For e.g. - Hydra step)
85	vii	Digital Tablet	Please confirm the Specification (Screen Size) / Make of the Tablets	The Successful Bidder shall supply 15 tablets of 11/13 inch size, with pre-installed logbook application for logging and reporting purposes. The Successful Bidder shall also supply necessary protection covers for the tablets The digital logbook shall be used for logging of key operational parameters on a regular basis by the ATPS O&M team. The Bidders are encouraged to visit the site and study the physical logbooks for designing the digital logbook application
86	General	Boiler Protection System	Please provide details envisaged for Boiler Protection System	System architecture has been provided in Annexure 1 of the RFP. IO list for Boiler FSC have been updated in the IO list provided as Annexure 1 of this document
87	General	Plant Efficiency Calculations	Please provide the Tech requirement on Plant Efficiency Calculations required for this project.	As per RFP
88	3.3.4.(15)	Block Wise DC Display Software	Please provide detail specification for this requirement	Clause 15 of Section 3.3.4, and Clause xviii of 3.1.2.3 (l) of Part 2 of the document hereby stands cancelled from the responsibilities of the Successful Bidder

Sr. No.	Clause No	Description of clause	Pre-bid query/clarification	Response / Addendum / Corrigendum (If any)
89	General	Power Cable to UPS	We understand that the UPS input supply shall be provided by GMDC. Please confirm.	As per RFP
90	General	Scope	In the Technical offer Bidder shall be required to submit the BOQ for the scope considered. Please confirm.	As per RFP
91	General	Civil Work	DCS Bidder does not envisage any Civil work in their scope under this RFQ. Please confirm.	As per RFP
92	General	Mechanical Work	DCS Bidder does not envisage any Kind of Mechanical Work except Dismantling of DCS Panels / Erection of New Panels / Erection of New Junction Boxes. Please confirm.	As per RFP
93	General	Termination	DCS Bidder does not envisage any termination Other than that for DCS and Junction Boxes supplied by BIDDER. Please confirm.	Successful Bidder shall be responsible for termination of all the cables in DCS / PLC systems and Junctions boxes
94	General	Site Office / Stores / Electricity for site operations	GMDC shall provide site Office and stores to the DCS Bidder along with all the necessary utilities. Please confirm.	As per RFP
95		General	Clarifications are asked for DCS scope only rest all packages asked in the RFQ are excluded are not considered for Bidder's scope	As per RFP
96		General	In specifications, there are three type of control system: 1. front end system 2. Back-End Sub-Systems and 3. Remote/PLC system for which the R&M is proposed. Please furnish the IO counts as per the this type of systems mentioned	Updated IO tables have been provided in Annexure 1 of this document

Sr. No.	Clause No	Description of clause	Pre-bid query/clarification	Response / Addendum / Corrigendum (If any)
			above. So that Bidder will have better clarity.	
97		Annexure 6	Please clarify the purpose and intenet of the snapshot of slist provided.	List of parameters to be checked for Sequence of Events (SOE) report
98		Please provide the below inputs for Turbine scope DCS Retrofit.	<p>1. Is Turbine stress calculations are required as per given scope then kindly furnish the trubine stress inputs as per list enclosed.</p> <p>2. Please confirm if the controls for IGV valve, Main stem valve, HP/LP bypass valves are in scope of Retrofit. If yes then please furnish the input related to Valve actuators as per Checklist enclosed.</p>	As per RFP
99		2.2.2 I / O Summary - The tentative count of I/O modules in each of the individual DCS / PLC systems across various systems in the Plant is as follows	the count mentioned in this clause is understood as signal count. Please check clarify whether this is Signal count or card count.	Updated IO tables with signal counts have been provided in Annexure 1 of this document
100		2.2.2 I / O Summary	Line items mentioned as boiler : Please confirm the application of these control systems. It is understood that, siganls for Boiler protection is also considered in these signals. Please furnih the clear IO count and number of trip contacts required for Boiler protection system.	Updated IO tables have been provided in Annexure 1 of this document
101		2.2.2 I / O Summary	Line items mentioned as Alstom, Ansaldo : Please confirm if retrofit of these control systems are envisaged in Bidders scope. If yes, than please confirm the application of these control systems.	Updated IO tables have been provided in Annexure 1 of this document

Sr. No.	Clause No	Description of clause	Pre-bid query/clarification	Response / Addendum / Corrigendum (If any)
102		2.2.2 I / O Summary : The tentative count of I/O for Modbus communication system between various DCS / PLC systems and the CCR is as follows	As per Hardwired IO count, if these system has to be implemented in the DCS then please clarify the purpose of softsignal communication between Ansaldo and alstom system.	As per RFP
103		2.2.4 Hardwire Signal	As per Hardwired IO count, if these system has to be implemented in the DCS then please clarify the purpose of hardwired interface between Ansaldo and alstom system.	As per RFP
104		3.1.2.2 Requirements from the DCS and Instrumentation Systems of the Plant Turbine. The Successful Bidder may choose to upgrade / replace the existing system as per the requirements mentioned in Section 3.1.2 of this document, without compromising the existing control philosophy at the Plant. The Successful Bidder shall guarantee, for the upgraded Central DCS for Boiler and Turbine, active support for a minimum of 15 years after the completion of the Overhaul. In case the Successful Bidder / OEM upgrades any of the supplied hardware / software in the future, making the installed system obsolete, the Successful Bidder shall update the same at the Plant without any costs up to 15 years after the completion of the Overhaul.	Only patches/bug fixes in the supplied system will be provided free of cost. any version upgrade in given software will have time and cost implications	The Successful Bidder shall guarantee, for the upgraded DCS / PLC system at the plant, active support for a minimum of 15 years after the completion of the Overhaul. In case the Successful Bidder / OEM upgrades any of the supplied hardware / software in the future, making the installed system obsolete, the Successful Bidder shall update the same at the Plant without any costs up to 15 years after the completion of the Overhaul. However, any upgrades in Non-OEM hardware or software not proprietary to the Successful Bidder / OEM (Windows OS etc.) maybe done at an additional cost payable by the owner
105		viii. Supply 2 (two) portable nos. of portable CD drives. Supply 16 nos. of tablets with pre-installed logbook design /	Please furnish the detailed requirement of logbook application for which the 16 tablets are needed. Further, please advise the specs	The Successful Bidder shall supply 15 tablets of 11/13 inch size, with pre-installed logbook application for logging and reporting

Sr. No.	Clause No	Description of clause	Pre-bid query/clarification	Response / Addendum / Corrigendum (If any)
		application for logging and reporting purposes	& make/model of tablets required.	purposes. The Successful Bidder shall also supply necessary protection covers for the tablets The digital logbook shall be used for logging of key operational parameters on a regular basis by the ATPS O&M team. The Bidders are encouraged to visit the site and study the physical logbooks for designing the digital logbook application
106		3.1.2.4 Back-End Sub-Systems iv. Replace and upgrade following cards as a minimum for which the vendor support is limited. The Successful Bidder shall also replace and upgrade all the other necessary hardware and software needed to be upgraded along with the following cards:	This clause is asking to supply the specific make of IO modules which is not part of Bidder's manufacturing range. Owner is requested to revisit the requirement.	As per RFP
107		3.1.2.4 Back-End Sub-Systems Provide humidity protection layers on all the equipment	Please provide the detailed requirement for this clause.	Successful Bidder's equipment shall have provision for protection against humidity, as per the following levels of humidity observed at the Plant - 1. Annual average humidity - 60% 2. Max humidity - 95% 3. Min humidity - 20%
108		3.3.10 Cyber security 2. Access and authorization to different control functions shall be initialized based to different levels such as user group, tag importance level, operation mark and other defined security levels. 8. Centralized server-based system shall be provided for surveillance and security, system and application program updates. The	2. This will be take care by end user as this is regarding access control of plant which we cannot provide. 8. Bidder understand that, DMZ swich is not applicable as per given scope of supply. Also, please share the network archietcture of plant LAN for connection between the proposed DCS as per R&M scope.	Clause 8 of Section 3.3.10 of Part 2 of the document hereby stands cancelled from the responsibilities of the Successful Bidder

Sr. No.	Clause No	Description of clause	Pre-bid query/clarification	Response / Addendum / Corrigendum (If any)
		switching changeover time between the Di-Militarized Zone and Plant's LAN switches should be less than 1 sec		
109		Draft agreement: 3.3.2 Data Acquisition Sub-System The Data Acquisition Sub-System for each DCS / PLC system is defined as all the hardware and software used to interface and multiplex analog and digital inputs from control loops. The hardware and software used in the Data Acquisition Sub-System of all the DCS / PLC systems must meet the following minimum requirements:	Please confirm, what are the packages for which PLC can be proposed.	As per RFP
110		Draft agreement: 3.3.3 Controller Sub-System 8. Loop execution time shall be freely configurable and should not be a fixed value.	Complete loop execution includes scanning + computing and firing of DO command . Please confirm the Bidder understanding.	The complete loop execution includes scanning, computing, and firing of the command
111		Draft agreement: 3.3.3 Controller Sub-System 17. Controller shall provide a 100 Mbps C-net operations network, and shall not be battery dependent.	C-net network is not applicable for Bidders OEM design aspect. Network for control system will be proposed which will be validated for OEM design. please note that validation process is followed for proven performance of Network switches with OEM DCS components/Hardware and software.	Controller shall provide at least 100 Mbps speed for the control network
112		Draft agreement: 3.3.3 Controller Sub-System 18. Controller shall have radio clock interface the central time synchronization of all the modules, which shall be connected to the GPS based master clock in the CCR	GPS/ time sync will be done as per OEM proven configuration. OEM standards/dEsign.	As per RFP

Sr. No.	Clause No	Description of clause	Pre-bid query/clarification	Response / Addendum / Corrigendum (If any)
113		<p>15. The system shall have Performance Analysis, Diagnostic, and Optimization tools, and performance monitoring systems as per latest applicable standards such as PTC-6 and PTC-4. The PADO tools should have following minimum functionalities</p> <ul style="list-style-type: none"> i. Provision of logbook ii. Efficiency calculator iii. Summarization of equipment running hours iv. Block wise DC display software v. Furnace visualization via camera 	<p>Please provide the detailed requirement of PADO system.</p>	<p>Clause 15 of Section 3.3.4, and Clause xviii of 3.1.2.3 (I) of Part 2 of the document hereby stands cancelled from the responsibilities of the Successful Bidder</p>
114		<p>General</p>	<p>Bidder request's M/s. GMDC to note the below points which are creating an advantage/upper hand for particular a control system OEM who may be participating in bid.</p> <p>1. As discussed during Technical Pre-Bid meeting held on 17 July 2023, few of the existing control system are having life of 15 years also which may not need complete replacement. Bidder request to M/s. GMDC that, please review the requirement so as to either these systems are excluded from scope of tender or kindly revise the scope of for such items as complete replacement instead of upgrade.</p> <p>2. In RFQ Cl.no. 3.1.2.1, 3.1.2.2, 3.1.2.4 phrases like:</p> <ul style="list-style-type: none"> - Dismantling of central DCS, if needed - Bidder may choose to upgrade / replace existing system 	<p>The Successful Bidder shall supply and replace all the components of the Back-End Sub-System for the Central DCS for Boiler, Turbine, and Auxiliaries, including, but not limited to the following -</p> <ul style="list-style-type: none"> - All the cabinets such as Marshalling cabinets, System cabinets, Relay cabinets etc. - Field termination assembly termination boards, terminal blocks, MCBs, and other termination components - All the IO cards, IO racks, and SoE cards - Prefab cables, ESB and communication bus cables, and all other interconnecting cables in the DCS (power, grounding, control, signal, and communication) - 24 VDC power supply unit - Relays and barriers <p>The Successful Bidder shall supply and replace any other components in the Central DCS for Boiler, Turbine, and Auxiliaries</p>

Sr. No.	Clause No	Description of clause	Pre-bid query/clarification	Response / Addendum / Corrigendum (If any)
			<p>- Replace / upgrade the following cards as a minimum are creating room for a particular Bidder to retain components of the existing control system like IO modules, cabinet, power supplies interconnecting cable and many more items.(which will be obligatory for other Bidders who will replace the complete system)</p> <p>3. In the above mention scenario, Bidder with large portion of existing install base will only have option of upgrade of existing control system and this situation will be a disadvantage for other Bidders in an open tender.</p> <p>Bidder requests M/s. GMDC to review/revise the specifications, to ensure Complete Replacement for all DCS and PLC's as to ensure the same scope for all Bidders.</p>	<p>necessary to fulfil the intent of the RFP and retain the existing control philosophy of the system</p>
115	2.2.2 - I/O Summary , Pg 14/135	I/O Counts	1. Bidder understands that tentative counts are IO counts including installed spares.	Updated IO tables for signals (inclusive of spare channels) have been provided in Annexure 1 of this document
116	2.2.2 - I/O Summary , Pg 14/135	The tentative count of I/O Modues	<p>2. Kindly clarify the below queries pertaining to the clause.</p> <p>1. The Number mentioned in Each area are pertaining to Modules or IO points.</p> <p>2. As we understand from 2.2.1 there are multiple control system, pls specify the individual system IO points to be considered.</p>	Updated IO tables have been provided in Annexure 1 of this document. The updated IO count is for total number of IO points / signals in the existing system

Sr. No.	Clause No	Description of clause	Pre-bid query/clarification	Response / Addendum / Corrigendum (If any)
117	2.2.2 - I/O Summary , Pg 14/135	Tentative count of IO for modbus communication system	We understand these are soft communication signals	As per RFP
118	2.2.2 - I/O Summary , Pg 14/135	Signal type : SED/SER	What does SED/SER meaning in IO summary	Input for Sequence of Events module
119	2.2.4 - Hardwire Signal, Pg 15/135	Hardwire communication amongst DCS for Boiler and Turbine	Bidder understands that these signals are addition to the IO signals mentioned in 2.2.2 of RFP	Updated IO tables for signals have been provided in Annexure 1 of this document
120	3.1 - Intent of specification, Pg 19/135	The Bidder shall guarantee the performance parameters stipulated in Section 5.2 of Part 2 of this document...	Need to review performance parameters	As per RFP
121	2.2.1 - Overview Table, pg 13/135	FSC Controller for Boiler.	Kindly provide number and type of IO for Fail Safe Controller	Updated IO tables have been provided in Annexure 1 of this document
122	2.2.1 - Overview Table, pg 13/135	FSC Controller for Boiler.	As FSC controller is SIL-3 as per IEC -61508, Bidder understands that requirement to replace/upgrade PLC as TMR/QMR SIL-3 rated, kindly confirm	The Boiler FSC controller shall be SIL-3 certified as per the SILs defined by the IEC 61508 standard
123	3.1 - Intent of	Para 3, Service shall include dismantling of previous equipment, refurbishment,	Bidder understands that scope is towards fully upgradation including Rip and Replace	Refer to Sr. 114

Sr. No.	Clause No	Description of clause	Pre-bid query/clarification	Response / Addendum / Corrigendum (If any)
	specificati on, Pg 19/135	retrofitting, inspection of equipment, replacing, repairing, upgradation...	of Front end and back end system of DCS, PLC controllers, it's IO and associated cabinets and Instrumentation. Retain,Refurbishment, repair, partial upgradation is not allowed, kindly confirm	
124	3.1 - Intent of specificati on, Pg 19/135	Para 3, Supply shall include procurement, inspection of material at suppliers' works, packing, transportation and installation of requisite spares	Kindly elaborate on "Installation of requisite spares"	As per RFP
125	3.2 - Battery Limits, Pg 19/135	The succesful Bidder shall be responsible for upgradation of all DCS/PLC systems and associated electrical / civil/ IT equipment within the plant	Bidder understands that electrical / civil is not the scope of the work, kindly confirm	As per RFP
126	3.2 - Battery Limits, Pg 19/135	Para 2, Additionally, the successful Bidder shall be required to supply and install SCADA system for compressor House and switchyard.	Kindly provide specification of SCADA system	As per RFP clause 3.1.2.3
127	3.4 - Integratio n of equipmen t / system, pg 20/135	Para 1, "...while some of the other components are to be refurbished/ upgraded or repaired / overhauled by the successful Bidder under the scope of work.."	Bidder understands that scope is towards fully upgradation including Rip and Replace of Front end and back end system of DCS, PLC controllers, it's IO and associated cabinets and Instrumentation. Retain,Refurbishment, repair, partial upgradation is not allowed, kindly confirm	Refer to Sr. 114
128	3.4 - Integratio n of equipmen t /	Para 2, "It shall be the responsibility of successful Bidder to ensure the components/ equipment / systems being supplied, refurbished/ upgraded or repaired ...	Bidder understands that scope is towards fully upgradation including Rip and Replace of Front end and back end system of DCS, PLC controllers, it's IO and associated cabinets and Instrumentation.	Refer to Sr. 114

Sr. No.	Clause No	Description of clause	Pre-bid query/clarification	Response / Addendum / Corrigendum (If any)
	system, pg 20/135		Retain, Refurbishment, repair, partial upgradation is not allowed, kindly confirm	
129	Part 2 - 2.2, Duration of the contract, pg 26/135	Para 1, "The contract shall be deemed to have come into force and shall be effective from 7(seven) days from the date of acceptance of the Letter of Award (LOA)"	Issuance of PO shall be within 7 days from the issuance of LOA	As per RFP
130	Part 2 - 2.2, Duration of the contract, pg 26/135	Table, Completion of supplies - T+24 weeks	Bidder understands that part supplies are allowed and completion of supplies shall be linked with manufacturing clearance as review and approval from GMDC/PMC is also involved.	Revised payment milestones and delivery timelines are defined in Annexure 6 of this document
131	Part 2 - 3.1.1.2, Owner readiness assessment and support, pg 28/135	1. ..."to identify the equipment and associated spares and material readily available to be utilized during overhaul"	Bidder understands that none of existing material/spares to be used for the scope, kindly confirm	Refer to Sr. 114
132	Part 2 - 3.1.1.2, Owner readiness assessment	2. "Successful Bidder will assess the availability of required spares at the plant. They will conduct a gap analysis and..."	Bidder understands that none of existing material/spares to be used for the scope, kindly confirm	Refer to Sr. 114

Sr. No.	Clause No	Description of clause	Pre-bid query/clarification	Response / Addendum / Corrigendum (If any)
	ent and support, pg 28/135			
133	Part 2 - 3.1.1.3, Statutory approvals , pg 28/135	"The successful Bidder shall obtain, on behalf of the owner, all necessary statutory approvals from inspection authorities or other government authorities, as may be required...."	We don't envisage any statutory approval for automation system. Kindly elaborate/confirm any specific approval required by Bidder	As per RFP
134	Part 2 - 3.1.1.5, Infrastructure Arrangement, pg 30/135	1. "...in case infrastructure is not available, the successful Bidder shall be responsible for arrange the same for the entire course the overhaul"	Considering the location of plant, accomodation outside plant seems to be difficult, hence request accomodation to be in the scope of "GMDC"	As per RFP
135	Part 2 - 3.1.1.5, Infrastructure Arrangement, pg 30/135	2. "...but not limited to soldering, fabrication, repair, storage of material, system/equipment testing.."	Fabrication and storage of material to be in the scope "GMDC"	As per RFP
136	Part 2 - 3.1.1.6, Safety arrangement, pg 30/135	2. " ...electrical grounding of all systems as per industrial standards..."	Bidder understands that earth pit for automation and instrumentation is in the scope of "GMDC", kindly confirm	Successful Bidder shall visit the site to estimate the requirement for earth pits. The Successful Bidder shall supply and install complete earthing system (electrical and electronic) as necessary

Sr. No.	Clause No	Description of clause	Pre-bid query/clarification	Response / Addendum / Corrigendum (If any)
137	Part 2 - 3.1.1.7, Permits, pg 30/135	2. " Successful Bidder shall obtain all necessary construction permits"	Construction is not the part of the scope of Bidder, kindly confirm	As per RFP
138	Part 2 - 3.1.2.1, Dismantling of existing equipment, pg 31/135	1. "..The successful Bidder shall also need to re-install any dismantled equipment as.."	Bidder understands that scope is towards fully upgradation including Rip and Replace of Front end and back end system of DCS, PLC controllers, it's IO and associated cabinets and Instrumentation. Retain, Refurbishment, repair, partial upgradation is not allowed, kindly confirm	Refer to Sr. 114
139	Part 2 - 3.1.2.1, Dismantling of existing equipment, pg 31/135	3. "The successful Bidder shall take the complete DCS backup of the existing system configuration, control logics, P&ID graphics and ..."	Arranging the backup of existing system, control logics and graphics shall be done by "GMDC"	The Successful Bidder shall take the back up from Owner's servers. In case the backup is not available for any particular requirement, successful Bidder shall configure the DCS as per the existing control philosophy
140	Part 2 - 3.1.2.2, Requirements from the DCS ..., pg 31/135	1. "...Successful Bidder shall update the same at the plant without any costs upto 15 years after the completion of the overhaul"	We provide logistic supports for spares and services upto 10 years. Updates or patches to the existing system shall be provided for the warranty period	As per RFP
141	Part 2 - 3.1.2.2, Requirements	3. "... Supply, erection and commissioning of all the Remote DCS/PLC system.."	Bidder understands that erection and installation is the part of scope of "GMDC", supervision of the same is in Bidder's scope,	As per RFP

Sr. No.	Clause No	Description of clause	Pre-bid query/clarification	Response / Addendum / Corrigendum (If any)
	ents from the DCS ... pg 32/135		kindly confirm	
142	Part 2 - 3.1.2.2, Requirements from the DCS ... pg 32/135	6. "The service required for.....transportation (including unloading to and loading from the plant, insurance, storage ..."	Request to consider unloading at Plant and Loading from Plant, Storage and storage insurance to be part of "GMDC"	As per RFP
143	Part 2 - 3.1.2.2, Requirements from the DCS ... pg 32/135	8. ".....Instrumentation systems in the Plant to ensure operability, maintainability, and reliability of the Plant, but not specifically mentioned in this document shall also be deemed to be included. The Successful Bidder shall ensure that the work is consistent with modern power plant practices, and comply with all applicable codes, standards, guides, statutory regulations, safety requirements in force"	The mentioned clause is open ended clause.	As per RFP
144	Part 2 - 3.1.2.2, Requirements from the DCS ... pg 32/135	9. "Successful Bidder shall not modify the existing control philosophy.."	Request "GMDC" to arrange backup of existing system	The Successful Bidder shall take the back up from Owner's servers. In case the backup is not available for any particular requirement, successful Bidder shall configure the DCS as per the existing control philosophy
145	Part 2 - 3.1.2.3.I, Requirements	v. "Replace and upgrade all the existing operator/engineering workstations with a minimum of 32-inch interchangeable	Kindly elaborate the requirement of 32" interchangeable workstations	Replace and upgrade all the existing operator / engineering workstations with 24-inch interchangeable workstations

Sr. No.	Clause No	Description of clause	Pre-bid query/clarification	Response / Addendum / Corrigendum (If any)
	ents from the DCS ..., pg 33/135	workstations		
146	Part 2 - 3.1.2.3.I, Requirements from the DCS ..., pg 33/135	vii. "...Supply front end desk and new furniture for the HMI system (if needed) with a minimum warranty of 3 years"	Bidder understands that quantities of HMI & furniture will be provided by GMDC and warranty will be as per agreed DLP	As per RFP
147	Part 2 - 3.1.2.3.I, Requirements from the DCS ..., pg 33/135	viii. "...Supply of 16 nos of tablets with pre-installed log book design/ application for logging and reporting purpose"	What does Pre-installed meaning and provide specification of tablets, display size etc	The Successful Bidder shall supply 15 tablets of 11/13 inch size, with pre-installed logbook application for logging and reporting purposes. The Successful Bidder shall also supply necessary protection covers for the tablets The digital logbook shall be used for logging of key operational parameters on a regular basis by the ATPS O&M team. The Bidders are encouraged to visit the site and study the physical logbooks for designing the digital logbook application
148	Part 2 - 3.1.2.4.I, Requirements from the DCS ..., pg 34/135	xii. " Supply and install all the hardware and software needed from JB's to DCS to enable monitoring of the following flue gas parameters .."	Bidder understands that HW/instruments required to monitor gas parameters are part of Annexure-3, kindly confirm	As per RFP

Sr. No.	Clause No	Description of clause	Pre-bid query/clarification	Response / Addendum / Corrigendum (If any)
149	Part 2 - 3.1.2.4.1, Requirements from the DCS ... pg 34/135	xv. " Replace the Sequence of Events (SOE) module, for sequence of events report generation during Plant breakdown."	Kindly elaborate on numbers of SOE	As per RFP
150	Part 2 - 3.1.2.4.1, Requirements from the DCS ... pg 34/135	xvii. "Provide redundant logic with I/O modules for fail safe operations of all critical control loops / systems"	Bidder understands that all I/O modules of DCS and PLC are redundant	Redundancy is not required for I/O modules. Redundancy shall be provided for controller/processor, servers, power cards, communication cards, communication / network bus, and historian servers
151	Part 2 - 3.1.2.4.1, Requirements from the DCS ... pg 34/135	xviii. "Supply and install two cameras for furnace visualization via PADO tools detailed in Section 3.3.4 of Part 2 of this document"	Kindly provide more information on requirement of Camera - type, specifications etc	Clause 15 of Section 3.3.4, and Clause xviii of 3.1.2.3 (l) of Part 2 of the document hereby stands cancelled from the responsibilities of the Successful Bidder
152	Part 2 - 3.1.2.4.1, Requirements from the DCS ... pg 34/135	xx. "Supply and install fire alarm and detection system for the entire plant and provide a separate client server for the same in the CCR"	Kindly elaborate on the requirement of FDAS	Specification for the existing fire alarm and detection system provided in Annexure 4 of this document. The Successful Bidder needs to replace and upgrade the system with latest version while retaining all the existing layout and functions of the fire alarm and detection system
153	Part 2 - 3.1.2.4.1, Requirements from the DCS ... pg 34/135	xxi. "Supply and install hardware and software necessary to provide operations and monitoring facilities for the fire hydrant"	Kindly elaborate on the requirement of Fire Hydrant System	Fire hydrant system is currently being operated from a local control panel with no provision for remote monitoring. The

Sr. No.	Clause No	Description of clause	Pre-bid query/clarification	Response / Addendum / Corrigendum (If any)
	ents from the DCS ... pg 34/135	system in the Plant"		Successful Bidder shall supply all the hardware (cards, cables etc.) and software (control graphics) to enable monitoring of existing parameters of the fire hydrant system from the CCR. The Bidders are encouraged to visit the site to understand the requirements further
154	Part 2 - 3.1.2.4.I, Requirements from the DCS ... pg 34/135	xxii "Supply and install Network Healthiness Monitoring system in the CCR for monitoring of C&I network of the Plant"	Kindly elaborate on the requirement of Network Healthiness Monitoring System	Successful Bidder shall provide facility to monitor the healthiness of the plant DCS network for troubleshooting purposes, on a dedicated graphic window created for the plant DCS network
155	Part 2 - 3.1.2.4.I, Requirements from the DCS ... pg 34/135	xxiii "Supply and installation of a 200 line EPABX system in the plant area and a 300 line EPABX system in the colony with intercom and cable connections"	Kindly elaborate on the requirement of EPABX	Clause xxiii of 3.1.2.3 (I) of Part 2 of the document hereby stands cancelled from the responsibilities of the Successful Bidder
156	Part 2 - 3.1.2.3.II, Remote DCS/PLC , pg 35/135	vi. "Engineer best in class graphic displays for local operator and engineering workstations for the PLCs mentioned above"	Kindly provide number of OWS required outside CCR for Remote PLC	As per RFP
157	Part 2 - 3.1.2.3.II, Remote DCS/PLC	viii. "...Supply and install a server based security system for safe and secured updating process of the security patches and the system/application software, developed	Kindly elaborate requirement of patch deployment system	All the systems supplied by the Successful Bidder shall comply to IEC 62443 standard for Cyber Security for Industrial Control Systems

Sr. No.	Clause No	Description of clause	Pre-bid query/clarification	Response / Addendum / Corrigendum (If any)
	, pg 35/135	by OEMs from time to time"		
158	Part 2 - 3.1.2.3.II, Remote DCS/PLC , pg 35/135	x. " Supply and install local historian server .."	Kindly provide specification of Historian server including capacity of storage interval and archiving data	As per RFP
159	Part 2 - 3.1.2.3.II, Remote DCS/PLC , pg 35/135	xv. "...monitoring of weighbridge from MHP control room..."	How weighbridge data are being communicated to MHP control room, kindly provide scheme and protocol details	Clause xv of 3.1.2.3 (II), and Clause xxv of 3.1.2.4 (II) of Part 2 of the document hereby stands cancelled from the responsibilities of the Successful Bidder
160	Part 2 - 3.1.2.3.II, Remote DCS/PLC , pg 35/135	xvii. "...The successful Bidder shall ensure that a minimum of 10% of installed quantity of spare cards are provided "	Bidder understands that it is for all cards including controller, IO, communication cards of DCS and PLC controllers, kindly confirm	Successful Bidder shall provide a minimum of 10% of installed quantity of spares for all the cards including controller, I/O cards, communication cards, power cards etc. for all DCS and PLC systems
161	Part 2 - 3.1.2.4.I, Requirements from the DCS ..., pg 36/135	i. " Replace/upgrade all the back-end..."	Bidder understands that scope is towards fully upgradation including Rip and Replace of Front end and back end system of DCS, PLC controllers, it's IO and associated cabinets and Instrumentation. Retain, Refurbishment, repair, partial upgradation is not allowed, kindly confirm	Refer to Sr. 114
162	Part 2 - 3.1.2.4.I, Requirements from	vi. "...The successful Bidder shall replace all the cards that don't meet this criteria"	Bidder understands that scope is towards fully upgradation including Rip and Replace of back end sub system. Retain of existing IO cards are not allowed. Each IO cards shall	Refer to Sr. 114. The Successful Bidder shall ensure availability of minimum of 20% spare channels in all the cards in the DCS

Sr. No.	Clause No	Description of clause	Pre-bid query/clarification	Response / Addendum / Corrigendum (If any)
	the DCS ..., pg 37/135		have 20% spare channels in DCS, kindly confirm	
163	Part 2 - 3.1.2.4.I, Requirements from the DCS ..., pg 37/135	vii. " Reduce cable congestion in the terminal blocks of marshalling cabinets of BIDDER Symphony Melody DCS System.."	Bidder understands that new marshalling cabinets are to be provided, kindly confirm	Refer to Sr. 114
164	Part 2 - 3.1.2.4.I, Requirements from the DCS ..., pg 37/135	x. " Supply and upgrade the multi-loop controller/ processor cards.."	Bidder understands that Multi-loop controllers are part of main DCS and IO for multi-loop controllers are being considered in IO list, kindly confirm	IOs for Multi-loop controllers/ processor cards of all DCS and PLC systems are being considered in the updated IO list provided as Annexure 1 of this document
165	Part 2 - 3.1.2.4.I, Requirements from the DCS ..., pg 37/135	xi. " ...enable monitoring and control of all the additional parameters detailed in Annexure 5 of the document"	Bidder understands that HW/instruments required to monitor and control the parameters mentioned in annexure 5 is part of Annexure-3, kindly confirm	As per RFP
166	Part 2 - 3.1.2.4.I, Requirements from the DCS ..., pg 37/135	xii. " Supply and install all the hardware and software needed from JB's to DCS to enable monitoring of the following flue gas parameters .."	Bidder understands that HW/instruments required to monitor gas parameters are part of Annexure-3, kindly confirm.	As per RFP

Sr. No.	Clause No	Description of clause	Pre-bid query/clarification	Response / Addendum / Corrigendum (If any)
167	Part 2 - 3.1.2.4.I, Requirements from the DCS ... pg 38/135	xiii. "Provide an accidental voltage tolerance of 1000 VAC / DC with no damage being passed to any components of the DCS"	We understand this is related to isolation of provided DCS card. The same are capable of providing isolation of 1000VAC for Digital IO.	Successful Bidder shall supply and install necessary limiting devices to prevent any damages to the DCS due to voltage fluctuations up to 500V, and current fluctuations up to 20 A
168	Part 2 - 3.1.2.4.I, Requirements from the DCS ... pg 38/135	xxi. "Supply and installation of UPS systems (primary and redundant) for the upgraded DCS.."	We understand same is not part of Scope as same is not part of bill of material. Request you to pls exclude from scope.	As per RFP
169	Part 2 - 3.1.2.4.I, Requirements from the DCS ... pg 38/135	xxv. "Replace and upgrade the existing SWAS system"	Kindly provide the details of existing SWAS and specification of required SWAS	Successful Bidder shall completely replace the existing SWAS system with a new SWAS system. The technical specifications of the existing SWAS system are provided in Annexure 3 of this document
170	Part 2 - 3.1.2.4.II, Remote DCS/PLC ... pg 40/135	xxvi. "Upgrade the chiller compressor units (4 Nos., Make - Blue Star) control system	Kindly elaborate the requirement.	The Successful Bidder shall supply all the hardware (cards, cables etc.) and software (control graphics etc.) to enable monitoring of parameters mentioned in Annexure 5 of this RFP, from the CCR
171	Part 2 - 3.1.2.5, Training of	Training at Plant	Kindly elaborate the requirement number of batches and duration of training at site	The Successful Bidder shall provide training to the Owner's personnel as per the following requirements - 1. Instrument engineers - 10 engineers (1

Sr. No.	Clause No	Description of clause	Pre-bid query/clarification	Response / Addendum / Corrigendum (If any)
	Owner's Personnel, pg 40/135			week for each engineer) 2. Operation engineers - 24 engineers (3 days for each engineer) 3. Shift in charge - 6 personnel (3 days for each personnel)
172	Part 2 - 3.2.2, Material Management, pg 43/135	"The successful Bidder shall deploy appropriate material management system ..."	Bidder understands that ERP system to be deployed at Bidder's end	As per RFP
173	Part 2 - 3.2.3, Storage of material at Plant, pg 43/135	Storage and insurance during storage	Kindly request to consider material unloading, storage and storage insurance in the "GMDC" scope	As per RFP
174	Part 2 - 3.3.2, Controller Sub-System, pg 48/135	5 & 6. Scan time for close loop and open loop	50ms SCAN time for open loop ?, Kindly re-confirm scan time	Controller scan time for open loop should be less than 100 mSec for critical and 200 mSec noncritical loops unless otherwise specified in job specifications
175	Part 2 - 3.3.2, Controller Sub-System,	9 . "In case failure is detected in the active controller, all the control shall be transferred to back up controller automatically within 1 msec"	Bidder understands that requirement is to have "bump-less transfer" when active controller fails	In case a failure is detected in the active controller, all the control shall have hardware based hot redundancy, and shall be transferred to back up controller in a bump-less manner

Sr. No.	Clause No	Description of clause	Pre-bid query/clarification	Response / Addendum / Corrigendum (If any)
	pg 48/135			
176	Part 2 - 3.3.2, Controller Sub-System, pg 48/135	10. "Closed loop control system shall provide automatic control of the plant for full applicable operating range of the unit, with operating turndown ratio of not less than six to one"	Elaborate exact requirement	Clause 10 of Section 3.3.3 of Part 2 of the document hereby stands cancelled from the responsibilities of the Successful Bidder
177	Part 2 - 3.3.2, Controller Sub-System, pg 49/135	17. "Controller shall provide a 100 Mbps C-net operations network, and shall not be battery dependent"	What does C-net operation network mean ?	Control network of the DCS / PLC systems
178	Part 2 - 3.3.4, Human Machine Interface Sub-system, pg 50/135	12 & 13. Historian data sampling time and duration	Kindly provide confirmation on sampling rate and number of samples	As per RFP
179	Part 2 - 3.3.4, Human Machine Interface Sub-	15 . The system shall have Performance Analysis, Diagnostic, and Optimization tools, and performance monitoring systems as per latest applicable standards such as PTC-6 and PTC-4. The PADO tools should have following minimum functionalities	Kindly elaborate on the requirement on PADO and Camera requirement	Clause 15 of Section 3.3.4, and Clause xviii of 3.1.2.3 (l) of Part 2 of the document hereby stands cancelled from the responsibilities of the Successful Bidder

Sr. No.	Clause No	Description of clause	Pre-bid query/clarification	Response / Addendum / Corrigendum (If any)
	system, pg 50/135			
180	Part 2 - 3.3.4, Human Machine Interface Sub-system, pg 50/135	16. Reports	Kindly elaborate more on MIS Reports, SOE Reports	As per RFP
181	Part 2 - 3.3.8, Redundancy, pg 53/135	1. "Each system must be 100% redundant ...Operator/ engineering workstation"	OWS/EWS can not have redundant functionality, kindly review and request to remove from the requirement	Redundancy is not required for OWS and EWS. Redundancy shall be provided for controller/processor, servers, power cards, communication cards, communication / network bus, and historian servers
182	Part 2 - 3.3.10, Cyber Security, pg 54/135	8. "Centralized server-based system shall be provided for surveillance and security, system and application program updates. The switching changeover time between the Di-Militarized Zone and Plant's LAN switches should be less than 1 sec"	Kindly elaborate requirement of Surveillance, security and requirement of this clause and Bidder understands that same shall be OEM make only	Clause 8 of Section 3.3.10 of Part 2 of the document hereby stands cancelled from the responsibilities of the Successful Bidder
183	6, Defect Liability, pg 61/135	2. "The Defect Liability Period shall be 18 (eighteen) months from the date of Completion of the Overhaul (or any part thereof) or 12 (twelve) months from the date of Operational Acceptance of the equipment (or any part thereof), whichever first occurrence"	Request to accept DLP as 18 months from the date of completion of overhaul or 12 months from the date of receipt of material whichever is earlier	As per RFP

Sr. No.	Clause No	Description of clause	Pre-bid query/clarification	Response / Addendum / Corrigendum (If any)
184	6, Defect Liability, pg 61/135	5. "The Successful Bidder shall guarantee 99.7 percent system availability for a continuous period of 180 days"	Subject tender is for upgradation of automation system and guarantee of availability for continuous 180 days is not required, kindly re-look and exclude this	As per RFP
185	6, Defect Liability, pg 61/135	6. "The Successful Bidder shall provide on-site support to the Owner, for a minimum of 3 months after the date of Completion of Overhaul (or any part thereof) or Operational Acceptance of the equipment, whichever first occurs"	As onsite training shall be provided to Owner on the system, 3 months on-site support is not required, kindly exclude on-site support	As per RFP
186	7.2 Overall Ceiling on Liquidated damages and incentives	1. "....shall be restricted to a maximum of 10% of the lump sum price for supply of material	Request accept as " LD shall be applicable from 0.5% per week thereafter to max. of 5% of supply price on un-delivered portion"	As per RFP
187	8.2 Payment Milestone	Payment Milestone	Request to accept payment terms as Supply Payment 30% advance payment against PO/LOI 20% payment against manufacturing clearance 45% payment along with 100% taxes and duties against material dispatch on pro-rata basis (part delivery allowed) 5 % payment against commissioning or 60 days from the receipt of material whichever is earlier Service Payment	Revised payment milestones and delivery timelines are defined in Annexure 6 of this document

Sr. No.	Clause No	Description of clause	Pre-bid query/clarification	Response / Addendum / Corrigendum (If any)
			<p>45% against progressive installation of installation 45% against completion of SAT 10% against completion of overhaul</p> <p>All payment shall be released within 21 days from the date of submission of invoice</p>	
188	Annexure 3 : Bill of material	22. Installation of hardware and software from JB to respective DCS / PLC for the new pressure transmitter	We understand our scope shall be limited to Services as mentioned in clause. This shall be applicable for all lineitems from 22 to 56.	Successful Bidder shall supply and install all the necessary hardware (cards, cable etc.) and software (control graphics etc.) from field junction boxes to the DCS for all the new parameters detailed item #83 to item #117 in Annexure 3 of the RFP
189	Annexure 3 : Bill of material	Control panel supply, installation, wiring and commissioning work.	We understand by Control panel this is referred to the Control system (PLC) panel related to compressor as per the IO shared in the tender.	<p>Successful Bidder needs to supply and replace the complete compressor panel for lime compressor 1B and 2A. The technical specifications of the same are as follows -</p> <p>1) Lime compressor: Make - KG; Model - 1HA42 2) IO list for the control panel: AI - 16; DI - 32; DO - 16</p>
190	Annexure 3 : Bill of material	7. Installation of hardware and software for HP casing expansion from JB to DCS	Kindly clarify the hardware software related to clause so as to estimate work related to job as we also understand there is separate line item for JB. This shall be applicable for line item from 7-10	The Successful Bidder shall supply all the hardware (cards etc.) and software (control graphics etc.) to enable monitoring of parameters mentioned in items 7,8,9, and 10 of Annexure 3 of the RFP
191	DEFINITIONS (1.1)		PROPOSE TO ADD THE FOLLOWING:	

Sr. No.	Clause No	Description of clause	Pre-bid query/clarification	Response / Addendum / Corrigendum (If any)
192			"INTELLECTUAL PROPERTY" means all copyrights, trademarks, trade secrets, patents, utility models and other intellectual property rights recognized in any jurisdiction worldwide, including all applications and registrations.	As per RFP
193			"Software" means software (in any form, including as a service) and firmware provided by Contractor, and all related documentation, data files, modules, libraries, and elements. Software includes any updates, upgrades, error corrections, changes or revisions delivered by Contractor to IOCL under the Contract or a separate contract."	As per RFP
194			"Affiliate" means any entity that controls, is controlled by, or is under common control with, another entity. An entity is deemed to "control" another if it owns directly or indirectly a sufficient voting interest to elect a majority of the directors or managing authority or to otherwise direct the affairs or management of the other entity. The term Affiliate includes, among other entities, subsidiaries.	As per RFP
195			"Buyer Personal Data" means Personal Data received by Bidder from or on behalf of Buyer in connection with Bidder's performance of its obligations under the Order as more particularly described in this Agreement.	As per RFP
196			"Deliverables" means equipment and parts (collectively "Products"), services ("Services")	As per RFP

Sr. No.	Clause No	Description of clause	Pre-bid query/clarification	Response / Addendum / Corrigendum (If any)
			and Software, each supplied or licensed by Bidder to Buyer under an Order.	
197			"Bidder" means Bidder Automation India Limited. or, its Affiliate that accepts the Order.	As per RFP
198			"Purchase Order" means a Buyer purchase order accepted by Bidder.	As per RFP
199			"Party" means Bidder or Buyer and "Parties" mean both.	As per RFP
200	DEFINITIONS (1.1)	"Commencement Date" shall be the date 7 (seven) days from the date of signing of the LoA for services to be provided by the Bidder	"Commencement Date" shall be 7 (seven) days from the date of signing of the PURCHASE ORDER for services to be provided by the Bidder	As per RFP
201	INTERPRETATION (1.2)	1.2 Interpretation Words importing Persons or Parties shall include related firms and corporations and any organization having legal capacity. Words importing the singular also include the plural and vice versa where the context requires. Words importing one gender also include other genders. Unless inconsistent with the provisions of the Contract, the meaning of any shipping terms and the rights and obligations of the Parties there under shall be as set forth in the latest International Chambers of Commerce (ICC) official rules for interpretation of trade terms as per "INCOTERMS 2010"	1.2 Interpretation Words importing Persons or Parties shall include related firms and corporations and any organization having legal capacity. Words importing the singular also include the plural and vice versa where the context requires. Words importing one gender also include other genders. Unless inconsistent with the provisions of the Contract, the meaning of any shipping terms and the rights and obligations of the Parties there under shall be as set forth in the latest International Chambers of Commerce (ICC) official rules for interpretation of trade terms as per "INCOTERMS 2020"	As per RFP
202	Annexure -12	No Blacklisting Certificate -On 300 Rs Stamp Paper	Request to allow to submit No Blacklisting Certificate on Bidder's letterhead by PoA, kindly remove clause of "stamp paper"	As per RFP

Sr. No.	Clause No	Description of clause	Pre-bid query/clarification	Response / Addendum / Corrigendum (If any)
203	Annexure -14	Format of Power Of Attorney	Kindly allow to submit PoA in the format of Bidder, specific PoA format is not possible to provide, kindly accept	As per RFP
204	Annexure -17	Undertaking for post upgradation support - on 300 Rs Stamp Paper	Request to allow to submit No Blacklisting Certificate on Bidder's leaterhead by PoA, kindly remove caluse of "stamp paper"	As per RFP
205	COMME NCEMEN T OF CONTRA CT (1.5)		Kindly delete reference to LOA – It shall be with Purchase Order/Contract	As per RFP
206	1.6 Successful Bidder's use of Owner's documents	Copyright in the Owner's requirements and other Documents issued by the Owner to the Successful Bidder shall (as between the Parties) remain the property of the Owner. Ownership in all documents provided by the Successful Bidder to the Owner pursuant to the Contract including design, engineering, Drawings and Works layout (but excluding proprietary information and Manuals provided by Successful Bidders of equipment for use of the Owner) shall vest in the Owner. The Successful Bidder may, at its Cost, copy, use and communicate any such documents for the purposes of the Contract. They shall not, without the Owner's consent, be used, copied, or communicated to a third-party by the Successful Bidder, except as necessary for the purposes of the Contract including performance of Work or supply of Goods. The Successful Bidder shall indemnify the Owner in case of breach of this Section by the	Copyright in the Owner's requirements and other Documents issued by the Owner to the Successful Bidder shall (as between the Parties) remain the property of the Owner. No right, title or interest in Intellectual Property provided by Bidder is transferred to Buyer under the Agreement, including Intellectual Property existing prior to, or created independently of, the performance of the Agreement. All Intellectual Property and results of Services, including software, models, designs, drawings, documents, inventions, and know-how ("Inventions"), conceived or developed by Bidder in connection with the Agreement, are the sole property of Bidder and Buyer assigns any rights it may have in such Inventions to Bidder. Buyer has no right or license to Intellectual Property or Inventions provided by Bidder, except as granted in the Agreement. Ownership in all documents provided by the	As per RFP

Sr. No.	Clause No	Description of clause	Pre-bid query/clarification	Response / Addendum / Corrigendum (If any)
		<p>Successful Bidder. If these Documents are received by a third-party from the Successful Bidder and the third-party makes use of these Documents to cause harm or monetary loss to the Owner or use these Documents for their personal gain / monetary gain, the Successful Bidder shall compensate the Owner for the loss suffered as well as for the value of gain derived by third-party.</p>	<p>Successful Bidder to the Owner pursuant to the Contract including design, engineering, Drawings and Works layout (but excluding proprietary information, and Manuals provided by Successful Bidders of equipment for use of the Owner) shall vest in the Owner. The Successful Bidder may, at its Cost, copy, use and communicate any such documents for the purposes of the Contract. They shall not, without the Owner's consent, be used, copied, or communicated to a third-party by the Successful Bidder, except as necessary for the purposes of the Contract including performance of Work or supply of Goods. The Successful Bidder shall indemnify the Owner in case of breach of this Section by the Successful Bidder. If these Documents are received by a third-party from the Successful Bidder and the third-party makes use of these Documents to cause harm or monetary loss to the Owner or use these Documents for their personal gain / monetary gain, the Successful Bidder shall compensate the Owner for the loss suffered as well as for the value of gain derived by third-party.</p>	
207	1.7 Confidential details	<p>The Successful Bidder shall indemnify the Owner in case of breach of this Section. If the confidential details relating to this Contract or its contents are received by a third-party from the Successful Bidder and the third-party makes use of these details to cause harm or monetary loss to the Owner or use these Documents for their personal gain/ monetary</p>	To be deleted	As per RFP

Sr. No.	Clause No	Description of clause	Pre-bid query/clarification	Response / Addendum / Corrigendum (If any)
		<p>gain, the Successful Bidder shall compensate the Owner for the loss suffered as well as for the value of gain derived by the third-party. The Successful Bidder shall not use the confidential details of the Contract for any other purpose except for the strict purpose of this Contract.</p>		
208	2. Appointment of Successful Bidder 2.1 Appointment terms	<p>The Owner reserves the right to increase or decrease the contractual work during the Contract period by giving prior notice in writing. Successful Bidder shall not be entitled to any compensation or indemnity on account of increase or decrease in the contractual work. In case of requirement of execution of additional work as part of the scope of work detailed in Section 3 of Part 2 of this document during the Contract period, contractor shall be responsible to execute such additional work during the Contract period at the same rate finalized for the respective works. No escalation in the rate of the works for such additional work during the contract period shall be considered. In case of a requirement of other works which are not covered in the scope of work detailed in Section 3 of Part 2 of this document, but the same is necessary for successful completion of the upgradation of DCS and Instrumentation System in the plant, the Successful Bidder may be assigned that work at the lowest rate derived and mutually agreed between the Successful Bidder and the Owner. The MD is authorized to take</p>	<p>The Owner reserves the right to increase or decrease the contractual work during the Contract period by giving prior notice in writing. Successful Bidder shall not be entitled to any compensation or indemnity on account of increase or decrease in the contractual work as may be mutually agreed between parties by executing amendment to the original Purchase Order or issuing separate purchase order on such terms, conditions and consideration as may be mutually agreed between the parties. In case of requirement of execution of additional work as part of the scope of work detailed in Section 3 of Part 2 of this document during the Contract period, contractor shall be responsible to execute such additional work during the Contract period as set out in the amendment or in the separate Purchase Order at the same rate finalized for the respective works. No escalation in the rate of the works for such additional work during the agreed contract period shall be considered unless there is delay from the Owner of nature whatsoever, impacting the performance of obligations by Successful</p>	As per RFP

Sr. No.	Clause No	Description of clause	Pre-bid query/clarification	Response / Addendum / Corrigendum (If any)
		suitable decision and action in case of requirement to amend/alter the contract conditions/quantities of the works/ extension of the contract period/allotment of additional works/revision of the rates of the work etc., if necessary, in the interest of the Owner.	Bidder. In case of a requirement of other works which are not covered in the scope of work detailed in Section 3 of Part 2 of this document, but the same is necessary for successful completion of the upgradation of DCS and Instrumentation System in the plant, the Successful Bidder may be assigned that work as at the lowest rate derived and mutually agreed between the Successful Bidder and the Owner. The MD is authorized to take suitable decision and action in case of requirement to amend/alter the contract conditions/quantities of the works/ extension of the contract period/allotment of additional works/revision of the rates of the work etc., if necessary, in the interest of the Owner.	
209				
210	2.2 Duration of the Contract	The Contract shall be deemed to have come into force and shall be effective from 7 (seven) days from the date of acceptance of the Letter of Award (LOA) by the Owner to the Successful Bidder, and the Successful Bidder shall execute the scope of work for provision of services and supply of material as covered in Section 3 within a period of 40 weeks from the date of acceptance of LoA	The Contract shall be deemed to have come into force and shall be effective from 7 (seven) days from the date of acceptance of the Letter of Award (LOA) Purchase Order by the Owner to the Successful Bidder and duly acknowledged by the Successful Bidder, and the Successful Bidder shall execute the scope of work for provision of services and supply of material as covered in Section 3 within a period of 40 weeks from the date of acceptance of LoA Purchase Order	As per RFP
211	2.2 Duration of the	The Successful Bidder shall strive to complete the execution within the stipulated period of 40 weeks, however, in case of a	The Successful Bidder shall strive to complete the execution within the stipulated period of 40 weeks, however, in case of a	Revised payment milestones and delivery timelines are defined in Annexure 6 of this document

Sr. No.	Clause No	Description of clause	Pre-bid query/clarification	Response / Addendum / Corrigendum (If any)
	Contract	delay, the Successful Bidder shall ensure completion of its contractual obligations as early as possible, while the Owner reserves the right to levy liquidated damages as described in Section 7.1 of Part 2 of this document.	delay by Owner, the Successful Bidder shall ensure completion of its contractual obligations as early as possible during the extended period, while the Owner reserves the right to levy liquidated damages as described in Section 7.1 of Part 2 of this document.	
212	3.1.1.3 Statutory approvals	The Successful Bidder shall obtain, on behalf of the owner, all necessary statutory approvals from Inspection Authorities, or other government authorities, as may be required, as per Applicable Laws along with the associated cost. All necessary documentation prepared and / or obtained for such statutory approvals shall be submitted to the Owner for review prior to submitting for approvals to relevant authorities. Coordination and liaising with competent authority is in the scope of Successful Bidder	PLEASE LIST OUT THE EXACT STATUTORY APPROVALS REQUIRED TO BE OBTAINED BY SUCCESSFUL BIDDER	As per RFP
213	3.1.2.8 Post Upgradation Support	The Successful Bidder shall provide an active spares and services support to the Owner, for all the hardware / software supplied and installed during the Overhaul, for a minimum of 15 years after the completion of the Overhaul. The Owner shall formally register a request for support as and when needed, to which, the Successful Bidder shall respond within 5 working days. The Owner also reserves a right, but not an obligation, to invite the Successful Bidder to execute an inspection of the DCS / PLC systems, once in every 3 years for 15 years after the	Kindly remove inspection clause post completion of overhaul	As per RFP

Sr. No.	Clause No	Description of clause	Pre-bid query/clarification	Response / Addendum / Corrigendum (If any)
		completion of the Overhaul, including running a system diagnosis to identify any potential existing / future potential issues with the system. The Successful Bidder shall provide all the necessary support to fulfil Owner's request in a timely manner. The Successful Bidder shall provide an Undertaking for Post Overhaul Support, in the form of Annexure 17 of this document.		
214	4.2.2 Audits	The Owner may, from time to time, designate any responsible person on its behalf to conduct audits, pertaining to the Owner's capacity defined in the Contract, of financial (billing and invoicing), technical, safety, and to visit and inspect the Plant to discuss such affairs, which relate to the services provided by the Successful Bidder, with its authorized representatives	Request to delete the highlighted portion	As per RFP
215	7.2 Overall ceiling on Liquidated damages and incentives	<p>1. All liabilities due from the Successful Bidder arising out of the shortfall of performance levels mentioned under Section 7.1, as per the liquidated damages defined in Section 7.1, during the course of the Overhaul, shall be restricted to a maximum of 10% of the lump sum price for supply of material and Overhaul execution defined in Section 8.1 of Part 2 of this document</p> <p>2. All incentives due to the Successful Bidder arising out of the enhanced performance levels mentioned under Section 7.1, as per the incentives defined in Section 7.1, during</p>	Highlighted portion suggests these are LD's for shortfall in Performance and NOT for delay in delivery. Pls delete "Performance LD's" and restrict it to "5% max for delay in delivery"	As per RFP

Sr. No.	Clause No	Description of clause	Pre-bid query/clarification	Response / Addendum / Corrigendum (If any)
		the course of the Overhaul, shall be restricted to a maximum of 5% of the lump sum price for supply of material and Overhaul execution defined in Section 8.1 of Part 2 of this document		
216	9. Insurance		Kindly request to remove storage and insurance from the scope of Bidder. Bidder can insure the material during transit (transit insurance)	As per RFP
217	9.7 Remedy on Failure to Insure	If the Successful Bidder fail to effect and keep in force the insurance for which it is responsible under the Contract, Owner may effect and keep in force any such insurance, and pay such premiums as may be necessary for that purpose, and from time to time, after receipt of a reimbursement request therefore accompanied by relevant supporting documentation, deduct the amount so paid by Owner from any amounts due or which may become due to the Successful Bidder under the Contract or otherwise from the Owner.	Request to delete this clause as it seems not to be applicable	As per RFP
218	9.8 Limitation of Liability	Notwithstanding any other provisions, except in cases of criminal negligence or willful misconduct, 1. Whether expressed or implied, in no event, whether as a result of breach of contract, warranty, indemnity, tort (including negligence) strict liability or otherwise, shall either Party be liable to the other for loss of contract, loss of profit or revenue, loss of use,	Notwithstanding any other provisions contained in this contract, except in cases of criminal negligence or willful misconduct: 1. Whether expressed or implied, in no event, whether as a result of breach of contract, warranty, indemnity, tort (including negligence) strict liability or otherwise, shall either Party be liable to the other for loss of contract, loss of profit or revenue, loss of use,	As per RFP

Sr. No.	Clause No	Description of clause	Pre-bid query/clarification	Response / Addendum / Corrigendum (If any)
		<p>loss of data or information, loss of power, cost of replacement power, increased cost of operation and cost of capital or for any indirect, special, collateral or consequential damages</p> <p>2. The aggregate liability of the Successful Bidder to the GMDC, whether under the Contract, in tort or otherwise, shall not exceed the total Contract Value, provided that this limitation shall not apply to any obligation of the Successful Bidder to indemnify the GMDC with respect to patent infringement.</p>	<p>loss of data or information, or the loss or corruption of data, loss of productivity or loss of goodwill, loss of power, cost of replacement power, increased cost of operation and cost of capital or for any indirect, special, collateral or consequential damages.</p> <p>2. The aggregate liability of the Successful Bidder to the GMDC, whether under the Contract, in tort or otherwise, shall not exceed the total Contract Value, provided that this limitation shall not apply to any obligation of the Successful Bidder to indemnify the GMDC with respect to patent infringement.</p>	
219		Additional Clause	<p>PROPOSE TO ADD THE FOLLOWING</p> <p>Indemnity Against Patent and Copyright Infringement.</p> <p>Bidder will defend Buyer against any suit arising out of any actual or alleged patent or copyright infringement of a valid United States patent or copyright, to the extent solely due to the Deliverable as delivered by Bidder, and indemnify for any final judgment assessed against Buyer resulting from such suit provided that Buyer notifies Bidder in writing promptly after Buyer is apprised of the third-party claim, and Buyer agrees to give sole and complete authority, information and assistance (at Bidder's reasonable expense) for the defense and disposition of the claim.</p>	As per RFP

Sr. No.	Clause No	Description of clause	Pre-bid query/clarification	Response / Addendum / Corrigendum (If any)
			<p>Bidder will not be responsible for any compromise or settlement made without Bidder's prior written consent. Because Bidder has sole control of resolving infringement claims hereunder, in no event will Bidder be liable for Buyer's attorney fees or costs. Bidder will have no liability or obligation to defend and indemnify Buyer with respect to claims of infringement arising out of or based on: (a) Deliverables supplied pursuant to Buyer's designs, drawings or manufacturing specifications; (b) Deliverables used other than for their ordinary intended purpose as documented in the Product documentation; (c) any combination of the Deliverable with any article or service not furnished by Bidder; (d) use of other than the latest version of software Deliverable released by Bidder; (e) any modification of the Deliverable other than a modification by Bidder; or (f) damages based on a theory of liability other than infringement by the Deliverable. Further, Buyer agrees to indemnify and defend Bidder to the same extent and subject to the same restrictions set forth in Bidder's obligations to Company as set forth in this "Indemnity Against Patent and Copyright Infringement" article for any claim against Bidder based upon a claim of infringement resulting from (a), (b), (c), (d), (e), or (f) of the preceding paragraph. If a claim of infringement is made, or if Bidder believes that such a claim is likely, Bidder</p>	

Sr. No.	Clause No	Description of clause	Pre-bid query/clarification	Response / Addendum / Corrigendum (If any)
			<p>may, at its option, and at its expense: (1) procure for Buyer the right to continue using the Deliverable; or (2) replace or modify the Deliverable so that it becomes non-infringing; or (3) accept return of the Deliverable or terminate Buyer's license to use the infringing Deliverable in the case of a software Product and grant Buyer a credit for the purchase price or license fee paid for such Product, less a reasonable depreciation for use, damage, and obsolescence. Further, Bidder may cease shipping infringing Products without being in breach of this Agreement. If the final judgment assessed against Buyer is based on the revenue generated from the use of the Product, as opposed to from the sale of the Product by Bidder to Buyer (whether alone or in combination with any article or service not furnished by Bidder), then Bidder's liability under this indemnity, exclusive of defense costs, shall be limited to a reasonable royalty based on the contract price paid by Buyer to Bidder for the Product that gave rise to the claim. Any liability of Bidder under this "Indemnity Against Patent and Copyright Infringement" is subject to the provisions of the "Limitation of Liability" article of this Agreement. This "Indemnity Against Patent and Copyright Infringement" article states the Parties' entire liability, sole recourse and their exclusive remedies with respect to patent and copyright infringement claims. All other warranties against infringement or</p>	

Sr. No.	Clause No	Description of clause	Pre-bid query/clarification	Response / Addendum / Corrigendum (If any)
			misappropriation of any intellectual property rights, statutory, express or implied are hereby disclaimed.	
220	9.9 Claims for Losses / damages	Successful Bidder/Sub-Contractor shall make all claims with the underwriter/s and undertake all formalities/step required for settlement of claims 2. Successful Bidder/Sub-Contractor shall hold harmless the Owner for nonsettlement/short settlement/part settlement or repudiation of claims by the underwriter/s 3. Successful Bidder shall be obliged to replace / repair the Equipment/ components/parts/spares etc., without waiting for loss settlement by the underwriter/	DELETED AS NOT APPLICABLE	As per RFP
221	10. Non fulfilment of terms and conditions and Terminations of Contract	1. If at any time during the currency of this contract, if any breach occurs due to the reasons attributed to the Successful Bidder, the Owner shall be at liberty to terminate this contract without assigning any reasons, whatsoever, for such termination and any losses and/or damages occurring due to such termination shall be borne by the Successful Bidder.	REPLACE WITH: Either Party may terminate or suspend an Order for material breach of the Agreement if the breaching Party fails to begin a cure within 10 days after receipt of written notice from non-breaching Party specifying the grounds, and to continue diligently to cure the breach. If Buyer requests cancellation of an Order, Bidder may enforce any available remedies against Buyer, including seeking recovery of expenses incurred by Bidder due to producing Deliverables including expenses and costs associated with demobilization, remobilization, contract breakage, restocking, product obsolescence and stranded costs. Bidder may cancel any applicable pricing	As per RFP

Sr. No.	Clause No	Description of clause	Pre-bid query/clarification	Response / Addendum / Corrigendum (If any)
			<p>discounts if Buyer fails to pay timely an undisputed invoice. Bidder will notify Buyer and parties will engage in a mandatory executive escalation meeting with authorized decision makers within 10 days from Bidder's non-payment notice. Notwithstanding anything to the contrary in this Agreement, if Buyer cancels an Order, including an Order for services or software, or a project, or a portion thereof after Bidder's acceptance of it, Bidder may invoice and Buyer shall pay a cancellation fee equal to the Order amount for the services; software subscription; special, discontinued, made-to-order, engineered-to-order, or custom-order parts; or projects. All other Order cancellations by Buyer are subject to a cancellation fee of thirty percent (30%) of the Order amount. If applicable cancellation fees are not timely paid by Buyer, Bidder may deliver any Products which were part of the Order and invoice Buyer for the relevant amount, which invoice Buyer shall pay in accordance with the payment terms of this Agreement.</p>	
222		<p>2. If the Successful Bidder fails to carry out the work as per terms and conditions of the contract to the satisfaction of the Owner, the Owner shall be entitled to forfeit the Performance Security paid by the Successful Bidder as per Section 7.3 of Part 3 of this document. This, however, shall not absolve the Successful Bidder from its obligation to fulfill the contract. In such event, the Owner</p>	To be deleted	As per RFP

Sr. No.	Clause No	Description of clause	Pre-bid query/clarification	Response / Addendum / Corrigendum (If any)
		shall have a right to complete and / or to get the work completed at the cost & risk of the Successful Bidder and the Successful Bidder shall be responsible to pay such cost incurred by the Owner to complete the work and / or to get the work completed		
223		3. Likewise, if the Successful Bidder does not fulfill the terms and conditions of the Contract and does not carry out the work up to the entire satisfaction of the Owner, the Owner has the right to forthwith terminate the Contract at its sole discretion, without assigning any reason, Under such events, the Owner shall be entitled to forfeit the Performance Security paid by the Successful Bidder as per Section 7.3 of Part 3 of this document, and the Owner shall have a right to complete the work and / or to get the work completed at the risk and cost of the Successful Bidder	To be deleted	As per RFP
224		4. For any reasons, if it is required, the Owner reserves rights to cancel, terminate, amend and / or alter the Contract and / or bifurcate and / or increase and/or reduce the Contract work at any time without giving any notice or reason to the Successful Bidder and without incurring any responsibility.	To be deleted	As per RFP
225	11.2 Bankruptcy	1. If the Successful Bidder commits an act of Bankruptcy or goes into liquidation except for construction purposes, or if its business is carried on by a receiver, such receiver, liquidator or any person in whom the contract	1. If the Successful Bidder commits an act of Bankruptcy or goes into liquidation except for construction purposes, or if its business is carried on by a receiver, such receiver, liquidator or any person in whom the contract	As per RFP

Sr. No.	Clause No	Description of clause	Pre-bid query/clarification	Response / Addendum / Corrigendum (If any)
		<p>may become vested shall forthwith give notice thereof in writing to the Owner and in reasonable time during which he shall take all reasonable steps to prevent stoppage of performance of the contract, have the option of carrying out the contract subject to his or their providing such guarantees as may be required by the Owner but not exceeding the value of the work for the time being remaining unexecuted</p>	<p>may become vested shall forthwith give notice thereof in writing to the Owner and in reasonable time during which he shall take all reasonable steps to prevent stoppage of performance of the contract, have the option of carrying out the contract subject to his or their providing such guarantees as may be required by the Owner but not exceeding the value of the work for the time being remaining unexecuted</p>	
226	11.2 Bankruptcy	<p>2. In the event of stoppage of performance under the contract, the period of option under this clause shall be decided by the Owner considering the situation, provided that the above option is not exercised, the Owner may terminate the contract by serving notice in writing to the Successful Bidder. The power and provision so reserved to the Owner on taking of the work out of the Successful Bidder's hands shall apply as far as they may be when the contract is so terminated.</p>	<p>2. In the event of stoppage of performance under the contract, the period of option under this clause shall be decided by the Owner considering the situation, provided that the above option is not exercised, the Owner may terminate the contract by serving notice in writing to the Successful Bidder and shall pay the amounts that are due for the work completed, deliverables supplied or services rendered. The power and provision so reserved to the Owner on taking of the work out of the Successful Bidder's hands shall apply as far as they may be when the contract is so terminated.</p>	As per RFP
227	11.5 Indemnification	<p>The Successful Bidder shall fully indemnify, save harmless and defend Owner, Owner's shareholders, the Owner, and the directors, agents and employees of the Owner (the "Owner Indemnified Parties") from and against any and all claims, including reasonable legal costs, (collectively the "Damages") by third Parties in respect of</p>	<p>Parties The Successful Bidder shall fully indemnify each other, save harmless and defend the other party Owner, Owner's shareholders, the Owner, and their directors, agents and employees of the Owner (the "Owner Indemnified Parties") from and against any and all claims, including reasonable legal costs, (collectively the</p>	As per RFP

Sr. No.	Clause No	Description of clause	Pre-bid query/clarification	Response / Addendum / Corrigendum (If any)
		<p>death or bodily injury or in respect to loss or damage to any property (other than the Plant or part there of not yet taken over) which arises out of or in consequence of the Services whilst the Successful Bidder has responsibility for the care of the works to the extent resulting from Successful Bidder's or their agents or employees intentional act, negligence, or strict liability or omission in the performance of the Services hereunder; provided that the foregoing obligation shall not apply to the extent the Owner Indemnified Parties are contributory negligent or strictly liable or to the extent such damages are caused by the intentional acts or omissions of the Owner Indemnified Parties. The Successful Bidder shall provide Undertaking of Indemnity, in the form of Annexure 16 of this document.</p>	<p>"Damages") by third Parties in respect of death or bodily injury or in respect to loss or damage to any property (other than the Plant or part there of not yet taken over) which arises out of or in consequence of the Services whilst the Successful Bidder has responsibility for the care of the works to the extent action or inaction resulting from Successful Bidder's either party's or their agents or employees intentional act, negligence, or strict liability or omission in the performance of the Services / obligations hereunder; provided that the foregoing obligation shall not apply to the extent the Owner Indemnified Parties are contributory negligent or strictly liable or to the extent such damages are caused by the intentional acts or omissions of the Owner Indemnified Parties. The Successful Bidder shall provide Undertaking of Indemnity, in the form of Annexure 16 of this document.</p>	
228	11.6 Arbitration	<p>All questions, disputes, differences whatsoever which may at any time arises between the parties to this RFP and subsequent contract in connection with the RFP and subsequent contract or any matter arising out of or in relation thereto, shall be referred to Sole Arbitrator as per the provisions of Arbitration and Conciliation Act, 1996 and subsequent amendment thereto and the venue of arbitration proceedings shall be at Ahmedabad only. The Language of the Arbitration shall be in English only.</p>	<p>All questions, disputes, differences whatsoever which may at any time arises between the parties to this RFP and subsequent contract in connection with the RFP and subsequent contract or any matter arising out of or in relation thereto, shall be referred to Sole Arbitrator as per the provisions of Arbitration and Conciliation Act, 1996 and subsequent amendment thereto and the venue of arbitration proceedings shall be at Ahmedabad Mumbai / New Delhi only. The Language of the Arbitration shall be in</p>	As per RFP

Sr. No.	Clause No	Description of clause	Pre-bid query/clarification	Response / Addendum / Corrigendum (If any)
			English only.	
229	11.8 Jurisdiction	The matter related to any dispute or difference arising out of this RFP and subsequent contract shall be subject to the exclusive jurisdiction of Court at Ahmedabad only.	The matter related to any dispute or difference arising out of this RFP and subsequent contract shall be subject to the exclusive jurisdiction of Court at Ahmedabad Mumbai / New Delhi only.	As per RFP
230	11.9 Completion of Work	1. Upon the Successful Bidder fulfilling the entirety of its obligations under the Contract to the satisfaction of the Owner and subject to terms and conditions of the Contract, it shall become eligible to apply for a Completion Certificate. The General Manger of the Owner shall formally issue the Completion Certificate, after verifying from the completion documents and satisfying himself that the Works under the Contract have been completed in accordance with all the provisions of this Contract. The Successful Bidder, after obtaining the Completion Certificate shall become eligible to present the final bill for the Works executed by it under the Contract	1. Upon the Successful Bidder fulfilling the entirety of its obligations under the Contract to the satisfaction of the Owner and subject to terms and conditions of the Contract, it shall become eligible to apply for a Completion Certificate. The General Manger of the Owner shall formally issue the Completion Certificate, after verifying from the completion documents and satisfying himself that the Works under the Contract have been completed in accordance with all the provisions of this Contract. The Successful Bidder, after obtaining the Completion Certificate shall become eligible to present the final bill for the Works executed by it under the Contract.	As per RFP
231	11.9 Completion of Work	2. Upon completion of Works under the Contract and before the application for the Completion Certificate, the Successful Bidder shall clear the project of the Owner of all rubbish, dirt, structures, scrap, oily rags etc. Failure to clear the project may constrain the Owner to clear the said site at the risk and cost of the Successful Bidder	2. Upon completion of Works under the Contract and before the application for the Completion Certificate, the Successful Bidder shall clear the project of the Owner of all rubbish, dirt, structures, scrap, oily rags etc. Failure to clear the project may constrain the Owner to clear the said site at the risk and cost of the Successful Bidder	As per RFP

Sr. No.	Clause No	Description of clause	Pre-bid query/clarification	Response / Addendum / Corrigendum (If any)
232	11.9 Completi on of Work	3. The Successful Bidder shall provide the Owner with any and all documents/records/proofs that may be demanded before issuance of Completion Certificate	To be deleted	As per RFP
233	11.10 Accident and Responsi bilities of Successf ul Bidder	1. The entire responsibility on account of any accidents, damage or personal injury which may occurred to any of the Successful Bidder's vehicles/ equipment or his/its employees, or any outside party shall be exclusively that of the Successful Bidder and no claim whatsoever shall be entertain by the Owner on this account. The Successful Bidder shall keep the Owner indemnified from all the consequence	1. The entire responsibility on account of any accidents, damage or personal injury which may occurred to any of the Successful Bidder's vehicles/ equipment or his/its employees, or any outside party which is solely attributable to the successful Bidder shall be exclusively that of the Successful Bidder and no claim whatsoever shall be entertain by the Owner on this account. The Successful Bidder shall keep the Owner indemnified from all the consequence	As per RFP
234	11.10 Accident and Responsi bilities of Successf ul Bidder	2. In the event of any breakdown or accident during the course of any operation, the Successful Bidder shall notify the facts to the Project Authority, or any other officer immediately present there of such incidence and shall simultaneously make adequate remedial arrangements on his/its own cost and risk and as per the instruction of the Project Authority	2. In the event of any breakdown due to action or inaction of the successful Bidder or accident solely attributable to the successful Bidder during the course of any operation, the Successful Bidder shall notify the facts to the Project Authority, or any other officer immediately present there of such incidence and shall simultaneously make adequate remedial arrangements on his/its own cost and risk and as per the instruction of the Project Authority	As per RFP
235	11.10 Accident and Responsi bilities of	3. The Successful Bidder shall pay all claims, damages and compensation with cost arising out of or resulting there from to the third party(s) and in case the Owner would be required to face any proceedings all to pay	To be deleted	As per RFP

Sr. No.	Clause No	Description of clause	Pre-bid query/clarification	Response / Addendum / Corrigendum (If any)
	Successful Bidder	any amount on the aforesaid account, it shall be deemed to have been discharge on behalf of the Successful Bidder, the same amount shall be recovered half-an hour rest interval in between. The Successful Bidder shall ensure that the attendance of all the supplied manpower shall be taken through biometric attendance machine		
236	11.11 Foreclosure	1. In case of any necessity arising due to local working conditions or any unforeseen reason not in the control of the Owner or of the Successful Bidder, Committee comprising of representative of the Owner, Successful Bidder and Outside Expert from Technical and Financial background shall be constituted and Committee will look into the reasons/causes and analyze the conditions as to whether the work awarded is feasible to continue with the existing terms and conditions of the contract or any other available option or to Fore Close the contract in the interest of both the Owner and the Successful Bidder 2. If after study of the prevailing conditions of the contract under execution, committee recommends to Foreclose the contract keeping in view the financial implication to both the Owner and Successful Bidder, guideline/Modality of the Fore Closure of the contract shall be decided by the committee considering the work executed and unexecuted, period of the contract completed and balance period of the contract, value of the work executed and	Request to delete this	As per RFP

Sr. No.	Clause No	Description of clause	Pre-bid query/clarification	Response / Addendum / Corrigendum (If any)
		value of the work unexecuted etc.		
237	Request to Add below clauses In mutual interest of Parties			
238		Additional Clause	BUYER-CAUSED DELAY: "Notwithstanding anything else to the contrary, Where GMDC suspends/delays an order for reasons other than contractual breach by Contractor, Contractor reserves the right to be compensated for the work performed/goods delivered/obligations undertaken, including storage charges, insurance payments, title transfer impact etc."	As per RFP
239		Additional Clause	PERSONAL DATA PROTECTION: "Personal Data" means the definition in the EU General Data Protection Legislation (GDPR) (Regulation (EU) 2016/679) regardless of the applicable privacy laws. Each Party acknowledges and agrees that it may process certain business contact details relating to individuals engaged by the other Party in the performance of that other Party's obligations under this Contract ("Staff"). Each Party will take appropriate technical and organizational measures to protect such personal data against any security breaches and shall securely delete it once no longer required for	As per RFP

Sr. No.	Clause No	Description of clause	Pre-bid query/clarification	Response / Addendum / Corrigendum (If any)
			the purposes for which it is processed. Where appropriate and in accordance with the applicable data protection legislation, each Party shall inform its own Staff that they may exercise their rights in respect of their personal data against the other Party by sending a written request with proof of identity to the other Party to the address set forth in this Contract.	
240		Additional Clause	EULA: For Software supply, kindly provide signed copy of HPS – EULA (attached with this document) along with LOA	As per RFP
241		Additional Clause	Economic Surcharge: “Contractor may, from time to time and in its sole discretion, issue surcharges on new and existing Contract in order to mitigate and/or recover increased operating costs arising from or related to, without limitation: (a) foreign currency exchange variation; (b) increased cost of third-party content, labor and materials; (c) impact of duties, tariffs, and other government actions; and (d) any other circumstances that increase Contractor’s costs, including, without limitation, increases in freight, labor, material or component costs, and increased costs due to inflation (collectively, “Economic Surcharges”). Contractor will invoice Company, through a revised or separate invoice, and Company agrees to pay for the Economic Surcharges pursuant to the standard payment terms in	As per RFP

Sr. No.	Clause No	Description of clause	Pre-bid query/clarification	Response / Addendum / Corrigendum (If any)
			<p>this Contract. If a dispute arises with respect to Economic Surcharges, and that dispute remains open for more than fifteen (15) days, Contractor may, in its sole discretion, withhold performance and future shipments or combine any other rights and remedies as may be provided under this Agreement or permitted by law until the dispute is resolved. The terms of this section shall prevail in the event of inconsistency with any other terms in this Contract. Any Economic Surcharges, as well as the timing, effectiveness, and method of determination thereof, will be separate from and in addition to any changes to pricing that are affected by any other provisions in this Contract.”</p>	
242		Additional Clause	<p>COVID-19: “Without limiting the generality of the foregoing (including, without limitation, to section pertaining to force majeure, Deliveries may be affected by (a) measures implemented by municipal, provincial and federal authorities across the world restricting travel, instituting localized quarantines or requiring companies to interrupt operations in order to contain the spread of COVID-19 or (b) measures implemented by governments, recognized health authorities or private entities to adhere to recommendations from authorities to contain the spread of COVID-19. Contractor will use reasonable endeavors, in accordance with laws and recommendations from recognized health or</p>	As per RFP

Sr. No.	Clause No	Description of clause	Pre-bid query/clarification	Response / Addendum / Corrigendum (If any)
			<p>other authorities, to minimize any such disruptions due to these types of events. The quoted delivery dates may be adjusted by Contractor accordingly, and Contractor will not be liable for damages, including Liquidated Damages, for any delays caused by these types of events. For the avoidance of doubt, the provisions of the Force Majeure clause will be effective even through the circumstance or contingency giving rise to inability of performance will have been operative on the date hereof. If IOCL cancels an Order without cause, Contractor may enforce any available remedies against IOCL, including seeking recovery of expenses incurred by Contractor due to producing deliverables including expenses and costs associated with demobilization, remobilization, contract breakage, restocking, product obsolescence and stranded costs.”</p>	
243		Additional Clause	<p>SANCTIONS:</p> <p>Each Party is responsible for compliance with all import, export, and re-export control laws and regulations and will mutually cooperate as needed. Buyer represents, warrants, and agrees that: Buyer is not a “Sanctioned Person,” meaning any individual or entity: (1) named on a governmental denied party or restricted list, including but not limited to: the Office of Foreign Assets Control (“OFAC”) list of Specially Designated Nationals and Blocked Persons (“SDN List”), the OFAC</p>	As per RFP

Sr. No.	Clause No	Description of clause	Pre-bid query/clarification	Response / Addendum / Corrigendum (If any)
			<p>Sectoral Sanctions Identifications List (“SSI List”), and the sanctions lists under any other Sanctions Laws; (2) organized under the laws of, ordinarily resident in, or physically located in a jurisdiction subject to comprehensive sanctions administered by OFAC (currently Cuba, Iran, North Korea, Syria, and the Crimea, Donetsk People’s Republic, and Luhansk People’s Republic regions) (“Sanctioned Jurisdictions”); and/or (3) owned or controlled, directly or indirectly, 50% or more in the aggregate by one or more of any of the foregoing. Relating to this transaction and/or Agreement, Buyer is in compliance with and will continue to comply with all economic Sanctions Laws administered by OFAC, other U.S. regulatory agencies, the European Union and its Member States, the United Kingdom, and the United Nations (“Sanctions Laws”). Buyer will not involve any Sanctioned Persons in any capacity, directly or indirectly, in any part of this transaction and performance under this transaction. Buyer will not take any action that would cause Bidder to be in violation of Sanctions Laws. Buyer will not sell, export, re-export, divert, use, or otherwise transfer any Bidder products, technology, software, or proprietary information: (i) to or for any Sanctioned Persons or to or involving Sanctioned Jurisdictions; or (ii) for purposes prohibited by any Sanctions Laws. Buyer will not source any components, technology, software, or</p>	

Sr. No.	Clause No	Description of clause	Pre-bid query/clarification	Response / Addendum / Corrigendum (If any)
			<p>data for utilization in Bidder products or services: (i) from any Sanctioned Persons or Sanctioned Jurisdictions or (ii) in contravention of any Sanctions Laws. Buyer's failure to comply with this provision will be deemed a material breach of the Agreement, and Buyer will notify Bidder immediately if it violates, or reasonably believes that it will violate, any terms of this provision. Buyer agrees that Bidder may take any and all actions required to ensure full compliance with all Sanctions Laws without Bidder incurring any liability. Bidder may suspend Services at Buyer's expense if Bidder determines that performance of Services may compromise safety.</p>	
244		Additional Clause	<p>ANTI-CORRUPTION:</p> <p>Bidder International Inc. ("Bidder") is subject to national and international laws prohibiting bribery and corruption. Because Bidder is a US company, Employees, Companies, Bidder-controlled Joint Ventures and Joint Bidding Arrangements, as well as any third party acting on Bidder's behalf must comply with the US Foreign Corrupt Practices Act ("FCPA") and similar anticorruption laws applicable in the countries where Bidder operates. "Customer" certifies that has read, understands, and agrees to abide by the provisions of, the Bidder Code of Business Conduct which is available at: https://www.Bidder.com/who-we-are/integrity-</p>	As per RFP

Sr. No.	Clause No	Description of clause	Pre-bid query/clarification	Response / Addendum / Corrigendum (If any)
			<p>and-compliance and Bidder Anticorruption Policy https://www.Bidder.com/content/dam/Bidderbt/en/documents/downloads/Anticorruption%20Policy%202066%20pdf.pdf The “Customer” agrees that in connection with its activities under this Agreement, neither the “Customer” nor any agent, affiliate, employee, or other person act in on its behalf will offer, promise, give or authorize the giving of anything of value, or offer, promise, make or authorize the making of any bribe, rebate, payoff, influence payment, kickback or other unlawful payment, to any government official or political party in order to obtain or retain business, gain any unfair advantage or influence any government official decision. If Bidder has reason to believe that the provisions of this agreement may have been violated, Bidder and its authorized representatives will have the right to audit, examine and make copies of all records that relate to this Agreement including, but not limited to, financial, legal, tax, accounting, operational, labor, and regulatory information. The “Customer” will retain and preserve all records and materials including invoice records, pertaining to the Goods provided under with this Purchase Order for a period of 3 (three) years after the termination of this Agreement or for the period prescribed by applicable law, whichever period is longer. In the event that Bidder determines, in its sole discretion, that</p>	

Sr. No.	Clause No	Description of clause	Pre-bid query/clarification	Response / Addendum / Corrigendum (If any)
			<p>the "Customer" has engaged in conduct that violates the Bidder Anticorruption Policy or its applicable anti-corruption laws and regulations, Bidder immediately shall have the right to terminate the agreement. "Customer" learns of any violations of the above anticorruption provisions in connection with the performance of this agreement, it will immediately advise Bidder's (a) Chief Compliance Officer (b) any member of the Integrity and Compliance Department (c) Bidder Access Integrity Helpline (AccessIntegrityHelpline@Bidder.com) and/or the (d) Business Sponsor or Strategic Business Group President. "Company" agrees to cooperate fully with any Bidder investigation, audit or request for information.</p>	
245		Additional Clause	<p>ORDER CANCELLATION: Notwithstanding anything to the contrary in this Agreement, if Company cancels an Order, including an Order for services or software, or a project, or a portion thereof after Bidder's acceptance of it, Bidder may invoice and Company shall pay a cancellation fee equal to the Order amount for the services; software subscription; special, discontinued, made-to-order, engineered-to-order, or custom-order parts; or projects. All other Order cancellations by Company are subject to a cancellation fee of thirty percent (30%) of the Order amount. If applicable cancellation fees are not timely paid by Company, Bidder may deliver any Products</p>	As per RFP

Sr. No.	Clause No	Description of clause	Pre-bid query/clarification	Response / Addendum / Corrigendum (If any)
			<p>which were part of the Order and invoice Company for the relevant amount, which invoice Company shall pay in accordance with the payment terms of this Agreement.</p>	
246		Additional Clause	<p>CYBERSECURITY DISCLAIMER: While cybersecurity services will be provided in professional and workmanlike manner, and include reasonable efforts to validate that recommended third-party cybersecurity solutions will not detrimentally impact performance of Bidder standard products, Bidder makes no guaranty that the cybersecurity products (inclusive of equipment, software and services) provided by Bidder ("Cybersecurity Products") will prevent a cyber attack or mitigate the impact of any cyber attack, and Customer acknowledges that Bidder's sole liability, and Customer's sole remedy, for any failure of the Cybersecurity Products to perform as specified is replacement of defective product and/or re-performance of defective service, provided Bidder is notified by Customer of the defects in the Cybersecurity Products during the agreed upon warranty period.</p> <p>Notwithstanding any other terms agreed to between Bidder and Customer, Customer acknowledges that all Cybersecurity Products that do not carry the Bidder brand ("Third Party Product") are provided to Customer subject to the Third Party Product supplier's standard terms and conditions (including software license terms) in effect at the time</p>	As per RFP

Sr. No.	Clause No	Description of clause	Pre-bid query/clarification	Response / Addendum / Corrigendum (If any)
			such Third Party Products are delivered to Customer and Bidder has no liability whatsoever with respect to the performance or non-performance of such Third Party Products. Bidder reserves the right to substitute the Third-Party Product included herein or as part of this proposal for other substantially similar products at its sole discretion. Since ultimate system performance, security, and availability is subject to multiple factors outside of Bidder's control, Bidder makes no representation or warranty concerning the results of these services. Bidder does not warrant the security, availability, design, or performance of Customer's systems. Bidder's sole obligations with respect to warranty of the services and the associated limits of liability are defined in the agreed upon terms and conditions applicable to the delivery of the services. Bidder accepts no liability for Customer's loss of data, system downtime, system degradation, loss or production, or other losses	
247		Additional Clause	TDS/TCS implication in line with provision of income tax act 1961 shall prevail- Kindly confirm	As per RFP
248		Additional Clause	E invoicing in line with provision of GST act shall prevail and customer should accept soft copies of Invoices with all supportive documents for payment process- Kindly confirm	As per RFP

Sr. No.	Clause No	Description of clause	Pre-bid query/clarification	Response / Addendum / Corrigendum (If any)
249	Annexure -3	Cables	Kindly provide the quantity of cables required from JB to control room Kindly provide the specification of cables required from JB to control room	Bidders shall calculate the quantity of cables required to be installed from JB to DCS / PLC systems for all the new parameters (Annexure 5 of this document and flue gas parameters) to be added in the DCS / PLC systems Cable specifications - Signal cable - 16 PAIR X 0.5 SQ.MM, CONTROL CABLE, VOLTAGE GRADE & TYPE : 650/110 V GRDE , MULTICORE OVERALL SHIELDED Power cable - FLEXIBLE TRAILING CABLE, 19C X 2.5 SQ.MM & 3 PAIR X 1.5 SQ.MM SCREEN COPPER SCREEN CABLE, 1.1 KV GRADE AS PER IS 9968/I/1988,(490101A 19X2.5SQ.MM & 3P X 1.5 SQ.MM (SCREEN) EPR/CSP/CSP
250		Vendor list for other items	Kindly provide Approved Vendor list for sub-system like Panels, Cables, JB's, IT hardware etc	As per RFP
251			Bidder should have experienced resources with IEC62443 certification and working experience of at least 5yrs minimum in OT Cybersecurity for the Control systems.	All the systems supplied by the Successful Bidder shall comply to IEC 62443 standard for Cyber Security for Industrial Control Systems
252			The Bidders execution facility shall also be certified to IEC62443-2-4 standards and necessary documentary evidence shall be	All the systems supplied by the Successful Bidder shall comply to IEC 62443 standard for Cyber Security for Industrial Control

Sr. No.	Clause No	Description of clause	Pre-bid query/clarification	Response / Addendum / Corrigendum (If any)
			supported	Systems
253			The offered system shall in total comply to NCIIPC guidelines for Cyber security implementation and control.	All the systems supplied by the Successful Bidder shall comply to IEC 62443 standard for Cyber Security for Industrial Control Systems
254			The offered system shall comply to ISASecure Certification	As per RFP
255			The offered system applicable components, shall comply to ISASecure CSA Certified Components Certificate	As per RFP
256			Bidder should have experience and capability to have Revamp Turbine Control System including experience in revamping its Governor Control system etc.	As per RFP
257			Platform should have capability to host various Process optimization solutions	As per RFP
258			Bidder should have experience and capability to Implement Process optimization solution as service basis	As per RFP
259		System Architecture of different plant area control systems	Please provide the breakup of existing DCS architecture of all area for more clarity 1) No. Of CPU's 2) No. of OWS 3) No. of Engg. Station 4) No. of Historian / Other Servers	Existing system architectures for all the DCS / PLC systems have been provided in Annexure 1 of the RFP
260	2.2	Completion of supplies	The minimum delivery period required shall be 10-12 months from date of PO.	Revised payment milestones and delivery timelines are detailed in Annexure 6
261	2.2	Completion of pre-overhauling activities	Please clarify, how pre-overhauling activities are applicable for Non-OEM DCS vendors.	As per RFP

Sr. No.	Clause No	Description of clause	Pre-bid query/clarification	Response / Addendum / Corrigendum (If any)
			For Non-OEM DCS vendors, only the possibility of complete replacement of DCS hardware & pre-shutdown activities.	
262	2.2	5. Repairing, Overhauling, Upgradation, installation, commissioning, and testing of systems for the DCS an -----	Please clarify how. Repairing, Overhauling, and Upgradation of existing DCS is not applicable for Non-OEM DCS vendors.	Successful Bidder does not need to repair the existing DCS in case the Successful Bidder is replacing the existing DCS with a new DCS, and meeting all the requirements of the RFP with the new DCS
263	3.1.1	Pre-Overhauling Activities	Please clarify the scope of supply/services and list of activities for Non-OEM DCS/PLC vendors.	As per RFP
264	3.1.2.1	Dismantling of existing equipment		
265	3.1.2.1	The Successful Bidder shall be responsible for dismantling of existing Central DCS for Boiler, Turbine, and Auxiliaries (if needed),	Please clarify the word "if needed)	As per RFP
266	3.1.2.1	The Successful Bidder shall take the complete DCS backup of the existing system configuration, control logics, P&ID graphics, and any other relevant information necessary for system engineering and connectivity, before dismantling the existing system.	Please clarify how Non-OEM DCS/PLC vendors will be responsible for existing other OEM DCS. We understand this activity shall be handled by GMDC	The Successful Bidder shall take the back up from Owner's servers. In case the backup is not available for any particular requirement, successful Bidder shall configure the DCS as per the existing control philosophy
267	3.1.2.2	The Successful Bidder shall guarantee, for the upgraded Central DCS for Boiler and Turbine, active support for a minimum of 15 years after the completion of the Overhaul. In case the Successful Bidder / OEM upgrades any of the supplied hardware / software in the future, making the installed	The automation hardware (Controllers/IO') shall be supported for a minimum of 15 years. However, the HMI system shall be supported for a minimum period of 5-8 years. Any hardware and software patch update/upgrade after the warranty period shall be on a chargeable basis.	The Successful Bidder shall guarantee, for the upgraded DCS / PLC system at the plant, active support for a minimum of 15 years after the completion of the Overhaul. In case the Successful Bidder / OEM upgrades any of the supplied hardware / software in the future, making the installed

Sr. No.	Clause No	Description of clause	Pre-bid query/clarification	Response / Addendum / Corrigendum (If any)
		system obsolete, the Successful Bidder shall update the same at the Plant without any costs up to 15 years after the completion of the Overhaul.		system obsolete, the Successful Bidder shall update the same at the Plant without any costs up to 15 years after the completion of the Overhaul. However, any upgrades in Non-OEM hardware or software not proprietary to the Successful Bidder / OEM (Windows OS etc.) maybe done at an additional cost payable by the owner
268	3.1.2.3	Front-End Sub-Systems		
269	I.	Central DCS for Boiler, Turbine, and Auxiliaries		
270	I.	VII-Supply front-end desk and new furniture for the HMI system (if needed) with a minimum warranty of 3 (three) years.	Kindly provide specifications of the required furniture	The Successful Bidder shall supply ergonomic metal-based control desks and associated ergonomic chairs. The furniture shall be modern, aesthetically designed, modular, flexible, and space saving
271	I.	VIII: Supply 2 (two) portable nos. of portable CD drives. Supply 16 nos. of tablets with pre-installed logbook design/application for logging and reporting purposes.	Please provide specifications of tablets & required preinstalled software details	The Successful Bidder shall supply 15 tablets of 11/13 inch size, with pre-installed logbook application for logging and reporting purposes. The Successful Bidder shall also supply necessary protection covers for the tablets The digital logbook shall be used for logging of key operational parameters on a regular basis by the ATPS O&M team. The Bidders are encouraged to visit the site and study the physical logbooks for designing the digital logbook application

Sr. No.	Clause No	Description of clause	Pre-bid query/clarification	Response / Addendum / Corrigendum (If any)
272	I.	XI: Supply and install all the front-end hardware and software needed to enable monitoring of the following flue gas parameters – Opacity (SPM), O2, CO, SOx, NOx, temperature, and pressure	Kindly clarify the front-end hardware & software which are required to monitor Flue gas parameters.	Successful Bidder shall supply and install all the necessary hardware (cards, cable etc.) and software (control graphics etc.) from field junction boxes to the DCS
273		xii : Provide cyber-security measures as per the CEA guidelines for thermal power plants.	The requirement specified is very generic, please provide the exact requirement.	All the systems supplied by the Successful Bidder shall comply to IEC 62443 standard for Cyber Security for Industrial Control Systems
274	I.	xviii: Supply and install two cameras for furnace visualization via PADO tools detailed in Section 3.3.4 of Part 2 of this document	Kindly provide the Specifications of Cameras & LVS	Clause 15 of Section 3.3.4, and Clause xviii of 3.1.2.3 (I) of Part 2 of the document hereby stands cancelled from the responsibilities of the Successful Bidder
275	I.	XX: Supply and install a fire alarm and detection system for the entire plant and provide a separate client-server for the same in the CCR.	Kindly provide Specifications & BOQ of the Fire alarm system.	Specification for the existing fire alarm and detection system provided in Annexure 4 of this document. The Successful Bidder needs to replace and upgrade the system with latest version while retaining all the existing layout and functions of the fire alarm and detection system
276	I.	xxi.:Supply and install hardware and software necessary to provide operations and monitoring facilities for the fire hydrant system in the Plant.	Kindly provide Specifications & BOQ of requirements for which the fire hydrant system needs to be operated & monitored	Fire hydrant system is currently being operated from a local control panel with no provision for soft monitoring. The Successful Bidder shall supply all the hardware (cards, cables etc.) and software (control graphics) to enable monitoring of existing parameters of the fire hydrant system from the CCR. The Bidders are encouraged to visit the site to understand the requirements further
277	I.	xxiii:Supply and installation of a 200 line EPABX system in the plant area and a 300	Kindly provide Specifications & BOQ complete EPABX system and plant layout for	Clause xxiii of 3.1.2.3 (I) of Part 2 of the document hereby stands cancelled from the

Sr. No.	Clause No	Description of clause	Pre-bid query/clarification	Response / Addendum / Corrigendum (If any)
		line EPABX system in the colony with intercom and cable connections.	estimation of respective cables/other required hardware.	responsibilities of the Successful Bidder
278	II.	Remote DCS / PLC Systems		
279	II.	v. Supply front end desk and new furniture for the HMI system (if needed) with a minimum warranty of 3 (three) years	Kindly provide specifications of the required furniture	The Successful Bidder shall supply ergonomic metal-based control desks and associated ergonomic chairs. The furniture shall be modern, aesthetically designed, modular, flexible, and space saving
280	II.	xii : Provide cyber-security measures as per the CEA guidelines for thermal power plants.	The requirement specified is very generic, please provide the exact requirement.	All the systems supplied by the Successful Bidder shall comply to IEC 62443 standard for Cyber Security for Industrial Control Systems
281	3.1.2.4	Back-End Sub-Systems		
282	I.	Central DCS for Boiler, Turbine, and Auxiliaries		
283	I.	iv : Replace and upgrade the following cards as a minimum for which the vendor support is limited. The Successful Bidder shall also replace and upgrade all the other necessary hardware and software needed to be upgraded along with the following cards	Please clarify how the Non-OEM DCS vendor will supply the other OEM DCS cards. Please mention same shall be completely replaced by each DCS vendors	As per RFP
284	I.	vii : Supply and install terminal strips for the cables entering from the field to the marshaling/system cabinets. Terminal strips shall be segregated as follows	Please, provide the existing cabinet GA drawing & termination details.	As per RFP
285	I.	xii : Supply and install all the hardware and software needed from JB's to the DCS to enable monitoring of the following flue gas	Please clarify the scope - partial; replacement of the existing system or complete replacement.	Successful Bidder shall supply and install all the necessary hardware (cards, cable etc.) and software (control graphics etc.) from field

Sr. No.	Clause No	Description of clause	Pre-bid query/clarification	Response / Addendum / Corrigendum (If any)
		parameters – Opacity (SPM), O2, CO, SOx, NOx, temperature, and pressure	Please provide the technical details of existing Opacity (SPM), O2, CO, SOx, NOx, temperature, and pressure.	junction boxes to the DCS
286	I.	xiii : Provide an accidental voltage tolerance of 1000 VAC / DC with no the damage being passed to any components of the DCS	Please elaborate the requirement.	Successful Bidder shall supply and install necessary limiting devices to prevent any damages to the DCS due to voltage fluctuations up to 500V, and current fluctuations up to 20 A
287	I.	xvi : Provide humidity protection layers on all the equipment	Please specify the humidity protection limits or applicable standards to follow.	Successful Bidder's equipment shall have provision for protection against humidity, as per the following levels of humidity observed at the Plant - 1. Annual average humidity - 60% 2. Max humidity - 95% 3. Min humidity - 20%
288	I.	xxi : Supply and installation of UPS systems (primary and redundant) for the upgraded DCS system (up to system cabinet level).	Please provide the existing configuration & technical specification of UPS	Existing UPS and UPS battery specifications have been provided in Annexure 2 of this document. The Successful Bidder shall supply and install UPS systems as per the RFP. Details of existing healthy batteries for each UPS have been provided in Annexure 2. The Successful Bidder may use the existing healthy batteries along with additional batteries necessary to provide UPS back up requirements defined in the RFP
289	I.	xxv. Replace and upgrade the existing SWAS system	Please clarify the scope - partial replacement of the existing system or complete replacement. If partial , please provide the BoQ to be upgraded	Successful Bidder shall completely replace the existing SWAS system with a new SWAS system. The technical specifications of the existing SWAS system are provided in

Sr. No.	Clause No	Description of clause	Pre-bid query/clarification	Response / Addendum / Corrigendum (If any)
			Please provide the technical details of existing SWAS system	Annexure 3 of this document
290	II.	Back-End Sub-Systems		
291	II.	Remote DCS / PLC Systems		
292	II.	xvii. Supply and installation of UPS systems (primary and redundant) for all the Remote DCS / PLC Systems. The Successful Bidder shall calculate the UPS load required for the upgraded system as per the best engineering practices	Please provide the existing configuration & technical specification of UPS	Existing UPS and UPS battery specifications have been provided in Annexure 2 of this document. The Successful Bidder shall supply and install UPS systems as per the RFP. Details of existing healthy batteries for each UPS have been provided in Annexure 2. The Successful Bidder may use the existing healthy batteries along with additional batteries necessary to provide UPS back up requirements defined in the RFP
293	II.	xviii. Provide an accidental voltage tolerance of 1000 VAC / DC with no damage being passed to any components of the DCS	Please elaborate the requirement.	Successful Bidder shall supply and install necessary limiting devices to prevent any damages to the DCS due to voltage fluctuations up to 500V, and current fluctuations up to 20 A
294	II.	xxiii. Provide humidity protection layers on all the equipment	Please specify the humidity protection limits or applicable standards to follow.	Successful Bidder's equipment shall have provision for protection against humidity, as per the following levels of humidity observed at the Plant - 1. Annual average humidity - 60% 2. Max humidity - 95% 3. Min humidity - 20%

Sr. No.	Clause No	Description of clause	Pre-bid query/clarification	Response / Addendum / Corrigendum (If any)
295	II.	xxv. Supply and install all the hardware and software from JB's to the MHP Remote DCS / PLC System, needed to enable monitoring of weighbridge from MHP control room as well as the central control ro	Please clarify the scope of supply / BoQ etc.	Clause xv of 3.1.2.3 (II), and Clause xxv of 3.1.2.4 (II) of Part 2 of the document hereby stands cancelled from the responsibilities of the Successful Bidder
296	II.	xxvi. Upgrade the chiller compressor units (4 Nos., Make – Blue Star) control system	Please provide the existing technical details of the chiller compressor units. Also, clarify the BoQ requirements.	The Successful Bidder shall supply all the control hardware (cards, cables etc.) and software (control graphics etc.) to enable monitoring of parameters mentioned in Annexure 5 of the RFP, from the CCR
297	3.1.2.8	Post Upgradation Support	<p>The automation hardware (Controllers/IO') shall be supported for a minimum of 15 years. However, the HMI system shall be supported for a minimum period of 5-8 years.</p> <p>Any hardware and software patch update/upgrade after the warranty period shall be on a chargeable basis.</p>	<p>The Successful Bidder shall guarantee, for the upgraded DCS / PLC system at the plant, active support for a minimum of 15 years after the completion of the Overhaul.</p> <p>In case the Successful Bidder / OEM upgrades any of the supplied hardware / software in the future, making the installed system obsolete, the Successful Bidder shall update the same at the Plant without any costs up to 15 years after the completion of the Overhaul.</p> <p>However, any upgrades in Non-OEM hardware or software not proprietary to the Successful Bidder / OEM (Windows OS etc.) maybe done at an additional cost payable by the owner</p>
298	3.2.2	Material Management	Bidder internal tool shall be used for material management systems.	As per RFP

Sr. No.	Clause No	Description of clause	Pre-bid query/clarification	Response / Addendum / Corrigendum (If any)
299	3.2.3	Storage of material in Plant	The storage material shall be in the customer store. No separate store shall be provided by the Bidder.	As per RFP
300	3.2.4	Factory acceptance tests (FATs)		
301	I	3. The Successful Bidder shall arrange necessary accommodation and food and beverage requirements, for the Owner, the PMC, and other representatives deployed by the Owner for supervision of the Factory Acceptance Tests	The customer representative boarding/lodging shall be in GMDC scope.	GMDC and PMC shall arrange for necessary travel, accommodation, and food and beverage requirements of their respective personnel on their own during the FATs
302	IV-IX	Hardware Test / Software Test / Input Output Test / System Configuration / Internal Program Test / Auxiliary devices	The hardware test procedure shall be mutually decided during detail engineering.	Successful Bidder shall conduct all the tests detailed in the RFP
303	3.3.2	Data Acquisition Sub-System		
304	3.3.2	b. DI inputs: 8 V DC and 24 V DC for open/close feedback	DI inputs cards shall be suitable for 24VDC operation.	As per RFP
305	3.3.4	Human Machine Interface Sub-System		
306		15.) The system shall have Performance Analysis, Diagnostic, and Optimization tools, and performance monitoring systems as per the latest applicable standards such as PTC-6 and PTC-4. The PADO tools should have the following minimum functionalities	Please clarify the following : i. Provision of logbook ii. Efficiency calculator iii. Summarization of equipment running iv. Block wise DC display software v. Furnace visualization via camera	Clause 15 of Section 3.3.4, and Clause xviii of 3.1.2.3 (I) of Part 2 of the document hereby stands cancelled from the responsibilities of the Successful Bidder
307	3.3.5	Alarm Management System	The software-based alarm annunciation system shall be provided. No hardware annunciation panel shall be provided. If still	The Successful Bidder shall provide inbuilt alarm management functionality in the HMI system as per the requirements in RFP.

Sr. No.	Clause No	Description of clause	Pre-bid query/clarification	Response / Addendum / Corrigendum (If any)
			require, please provide the annunciation points & detail specification.	Additionally, the Successful Bidder dismantle the alarm annunciation panel present in the CCR, while retaining the only the parts of the panel needed as per statutory requirements (For e.g. - Hydra step)
308	3.3.8	Redundancy		
309	1	Each system must be 100% redundant, including I/O cards ---	Please provide the redundant IO count.	Redundancy shall be provided for controller/processor, servers, power cards, communication cards, communication / network bus, and historian servers
310		General Inputs are required for offer preparations.	Please provide the control room & cabinet layout of existing DCS for cabinet counts as filed cable shall be retained.	As per RFP
311			Please provide basic requirements of control philosophy of the BMS system & Turbine Protection system like 1oo2 / 2oo3 / SIL requirement etc. for preparing techno-commercial offer	The Boiler FSC controller shall be SIL-3 certified as per the SILs defined by the IEC 61508 standard. The Successful Bidder shall retain the existing control philosophy for the Turbine Protection System. Bidders are encouraged to visit the site for more details
312			Please, provide the signal interface (4-20mA / ± 20 mA / ± 50 mA or any special type)of TG Governing Valves & HP/LP Bypass Valves.	Available signal interface shall be provided to the Successful Bidder
313	2.2.2	I / O Summary - CLCS, OLCS	Please clarify if CLCS and OLCS IO's in I/O Summary table are considered under AI, AO and DI, DO .	Updated IO tables have been provided in Annexure 1 of this document
314	2.2.2	The tentative count of I/O for Modbus communication system between various DCS / PLC systems and the CCR is as follows	Please elaborate on type of Modbus connectivity (RS 485 or MODBUS over TCP/IP) for various DCS / PLC systems listed	Type of Modbus connectivity is RS 485 MODBUS for various DCS / PLC systems listed in table.

Sr. No.	Clause No	Description of clause	Pre-bid query/clarification	Response / Addendum / Corrigendum (If any)
			in table.	
315	3.1.2.1	The Successful Bidder shall also need to re-install any dismantled equipment as and when needed during the Overhaul	Please elaborate on requirement of re-installing dismantled systems / equipments.	As per RFP
316	3.1.2.2	Successful Bidder shall update the same at the Plant without any costs up to 15 years after the completion of the Overhaul	Upgrades required in softwares / HMIs /other Hardwares due to non-support of Ill party softwares such as Windows OS shall be on chargeable basis.	<p>The Successful Bidder shall guarantee, for the upgraded DCS / PLC system at the plant, active support for a minimum of 15 years after the completion of the Overhaul.</p> <p>In case the Successful Bidder / OEM upgrades any of the supplied hardware / software in the future, making the installed system obsolete, the Successful Bidder shall update the same at the Plant without any costs up to 15 years after the completion of the Overhaul.</p> <p>However, any upgrades in Non-OEM hardware or software not proprietary to the Successful Bidder / OEM (Windows OS etc.) maybe done at an additional cost payable by the owner</p>
317	3.1.2.3	xi. Supply and install all the front-end hardware and software needed to enable monitoring of the following flue gas parameters – Opacity (SPM), O2, CO, SOx, NOx, temperature and pressure	Request to elaborate on this requirement.	The Successful Bidder shall assess supply and install the necessary hardware (cable, cards etc.) and software (control graphics etc.) from field junction box to the DCS, to enable monitoring of flue gas parameters - Opacity (SPM), O2, CO, SOx, NOx, temperature, and pressure

Sr. No.	Clause No	Description of clause	Pre-bid query/clarification	Response / Addendum / Corrigendum (If any)
318	3.1.2.4	Replace and upgrade the existing SWAS system	Request to elaborate on this requirement.	Successful Bidder shall completely replace the existing SWAS system with a new SWAS system. The technical specifications of the existing SWAS system are provided in Annexure 3 of this document
319	3.1.2.4	II Remote DCS / PLC Systems	Please confirm that all Remote DCS Panles will be placed in AC environment.	Remote IO panels should be able to work in non-AC environment
320	3.3.3	5. Controller shall be able to scan close loop in less than 100 mSec for critical loops and 200 mSec for non-critical Loops unless otherwise specified in job specifications	Kindly clarify the requirement, as we have executed projects of 800 MW / 660MW / 500 MW with CLCS scan time with 250 ms for critical loops.	Controller scan time for open loop should be less than 100 mSec for critical and 200 mSec noncritical loops unless otherwise specified in job specifications
321	3.3.3	6. Controller shall be able to scan open loop in less than 50 mSec for critical loops and 100 mSec for non-critical loops unless otherwise specified in job specifications	Kindly clarify the requirement, as we have executed projects of 800 MW / 660MW / 500 MW with OLCS scan time with 100 ms for critical loops.	Controller scan time for open loop should be less than 100 mSec for critical and 200 mSec noncritical loops unless otherwise specified in job specifications
322	3.3.7	UPS back up time must be more than 24 hours	Request to elaborate on UPS backup time.	As per RFP
323	3.3.8	Each system must be 100% redundant, including I/O cards	Request to confirm on I/O card redundancy requirement.	Redundancy shall be provided for controller/processor, servers, power cards, communication cards, communication / network bus, and historian servers
324	4.1.2	Access to documents and data	Request to provide the list of available documents for Logics, working philosophy writeups etc.	Bidder may visit the plant and refer to any documents necessary
325	6	Defect Liability	In addition to completion of Defect Liability periof timelines mentioned, Defect liabilty end date shall be	As per RFP

Sr. No.	Clause No	Description of clause	Pre-bid query/clarification	Response / Addendum / Corrigendum (If any)
			linked to supply date also.	
326	3.1.1.6	Safety Arrangements		<p>1. Safe power supply and illumination for confined places shall be arranged by the Successful Bidder. Any illumination works necessary to fulfill the scope of services defined in this RFP shall be carried out by the Successful Bidder prior to the start of other work</p> <p>2. A single point electrical supply of 415V, 32/63 Amp 3 phase and single point electrical supply of 230V, 16 Amp single phase power supply point from nearest available healthy source shall be supplied to the Successful Bidder by the Owner, free of cost. The Successful Bidder shall be responsible for the provision of cables for extending power to its apparatus</p>

Annexure 1: I/O Summary

The tentative count of I/O signals in each of the individual DCS / PLC systems across various systems in the plant is as follows –

1. Unit 1

Name	DI	DO	AI	AO	RTD & T/C	SED ¹	SET ²	CIS ³	SEM ⁴
Boiler (ABB Symphony Harmony)	1392	1360	320	256	320	16	48	816	
Turbine (ABB Symphony Harmony)	944	960	128	64	176	208	64	320	32
Alstom (ABB Symphony Melody)	368	848	64	32	64			112	
Ansaldo (ABB Symphony Harmony)	456	548	224	192				112	
Boiler FSC (Honeywell FSC)	256	112	160						

2. Unit 2

Name	DI	DO	AI	AO	RTD & T/C	SED	SET	CIS	SEM
Boiler (ABB Symphony Harmony)	1424	1344	320	256	336	16	48	704	
Turbine (ABB Symphony Harmony)	944	944	128	64	176	240	48	320	16
Alstom (ABB Symphony Melody)	368	848	64	32	64			112	

¹ Sequence of events digital input module

² Sequence of events time sync

³ Control I/O module

⁴ Sequence of events monitor

Name	DI	DO	AI	AO	RTD & T/C	SED	SET	CIS	SEM
Ansaldo (ABB Symphony Harmony)	456	548	224	192				112	
Boiler FSC (Honeywell FSC)	256	112	160						

3. Common

Name	DI	DO	AI	AO
HP/LP Bypass	48	48	16	16
Desal PLC (Allen Bradley SLC 5/04)	32	48	32	16
ACW/CCW	160	176	64	0
SWTP	960	480	344	160
CW Pump House	304	208	24	0
MHP	1064	376	144	8
AHP	528	336	56	0
Stacker Reclaimer	164	60	12	8

Annexure 2: UPS and UPS Battery Specifications

Area	Total Battery Set Voltage	UPS Specifications	Battery Specifications	Battery Capacity	Total number of healthy batteries/cells
SWTP UPS#1	360 V DC	MODEL: HR-XP-15, KVA-15, MAKE: HI-REL ELECTRONICS LTD.	HBL MAKE 12V ,42 AH (OPTI420) SMF BATTERY	42 AH	30/30
SWTP UPS#2	360 V DC	MODEL: HR-XP-15, KVA-15 MAKE: HI-REL ELECTRONICS LTD.	HBL MAKE 12V ,42 AH (OPTI420) SMF BATTERY	42 AH	0/30
Unit 1 UPS#1	360 V DC	DB POWER MAKE 70KVA, 415/360V DC	HBL MAKE VRLA BATTERY MODEL HP400P BANK (SET) OF 180 CELLS	400 AH	0/180
Unit 1 UPS#2	360 V DC	DB POWER MAKE 70KVA, 415/360V DC	HBL MAKE VRLA BATTERY MODEL HP400P BANK (SET) OF 180 CELLS	400 AH	180/180
Unit 2 UPS#1	360 V DC	DB POWER MAKE 70KVA, 415/360V DC	HBL MAKE VRLA BATTERY MODEL HP400P BANK (SET) OF 180 CELLS	400 AH	0/180
Unit 2 UPS#2	360 V DC	DB POWER MAKE 70KVA, 415/360V DC	HBL MAKE VRLA BATTERY MODEL HP400P BANK (SET) OF 180 CELLS	400 AH	180/180
MHP UPS#1	220 V DC	Type: LNux51, Make: DB POWER ELECTRONICS (P) LTD	HBL MAKE 192V, 100AH (T100HP) VRLA BATTERY (96 CELLS)	100 AH	0/96
MHP UPS#2	220 V DC	Type: Nux110 Make: DB POWER ELECTRONICS (P) LTD	HBL MAKE 192V, 100AH (T100HP) VRLA BATTERY (96 CELLS)	100 AH	96/96
AHP UPS#1	220 V DC	MODEL: S410 10KVA, Make:	EXIDE SEALED LEAD-ACID	42 AH	0/25

Area	Total Battery Set Voltage	UPS Specifications	Battery Specifications	Battery Capacity	Total number of healthy batteries/cells
		Emerson	BATTERY 12V (25 CELLS) MODEL EP 42-12		
AHP UPS#2	220 V DC	MODEL: S410 10KVA, Make: Emerson	EXIDE SEALED LEAD-ACID BATTERY 12V (25 CELLS) MODEL EP 42-12	42 AH	0/25

Annexure 3: SWAS specifications

(Attached separately)

Annexure 4: Fire alarm and detection system specifications

(Attached separately)

Annexure 5: List of new parameters to be added in DCS / PLC systems

Sr. No.	Area	Operating parameter	Applicable number of field instruments	Functional requirement
1	ACW/CCW	ACW pump discharge pressure	03 Nos. of pumps	Monitoring
2	ACW/CCW	ACW pump vibration switch status	03 Nos. of pumps	Monitoring
3	ACW/CCW	ACW pump DE/NDE bearing temperature	03 Nos. of pumps	Monitoring
4	ACW/CCW	ACW motor vibration switch status	03 Nos. of pumps	Monitoring
5	ACW/CCW	CCW pump discharge pressure	03 Nos. of pumps	Monitoring
6	ACW/CCW	CCW pump vibration switch status	03 Nos. of pumps	Monitoring
7	ACW/CCW	CCW pump DE/NDE bearing temperature	03 Nos. of pumps	Monitoring
8	ACW/CCW	CCW motor vibration switch status	03 Nos. of pumps	Monitoring
9	ACW/CCW	Ash Cooler Pump discharge pressure	03 Nos. of pumps	Monitoring
10	ACW/CCW	Ash Cooler Pump vibration switch status	03 Nos. of pumps	Monitoring
11	ACW/CCW	Ash Cooler Pump DE/NDE bearing temperature	03 Nos. of pumps	Monitoring
12	ACW/CCW	Ash Cooler motor vibration switch status	03 Nos. of pumps	Monitoring
13	ACW/CCW	PHE CCW inlet pressure	03 Nos. PHE	Monitoring
14	ACW/CCW	PHE CCW outlet pressure	03 Nos. PHE	Monitoring
15	ACW/CCW	PHE sea water inlet pressure	03 Nos. PHE	Monitoring
16	ACW/CCW	PHE sea water outlet pressure	03 Nos. PHE	Monitoring
17	ACW/CCW	PHE CCW water I/L and O/L conductivity	03 Nos. PHE	Monitoring
18	MHP	Lignite impactor vibration switch status	2 Nos.	Monitoring
19	MHP	Lime impactor vibration switch status	2 Nos.	Monitoring
20	SWTP	Intake pump and motor vibration switch status	12 Nos.	Monitoring
21	SWTP	MED HP steam flow TPH	3 Nos.	Monitoring
22	SWTP	MED condensate conductivity	2 Nos.	Monitoring
23	SWTP	Reject water PH	1 No.	Monitoring
24	SWTP	Reject water temperature	1 No.	Monitoring
25	SWTP	Reject water TSS	1 No.	Monitoring
26	SWTP	Reject pump vibration switch status	3 Nos.	Monitoring
27	Compressor	Oil pressure	For 9 Nos. of	Monitoring

Sr. No.	Area	Operating parameter	Applicable number of field instruments	Functional requirement
	house		compressor	
28	Compressor house	Diff. pressure	For 9 Nos. of compressor	Monitoring
29	Compressor house	CCW suction line pressure	1 No.	Monitoring
30	Compressor house	CCW suction line flow	1 No.	Monitoring
31	Compressor house	Interstate pressure	For 9 Nos. of compressor	Monitoring
32	Compressor house	Oil Temp	For 9 Nos. of compressor	Monitoring
33	Compressor house	First stage temp	For 9 Nos. of compressor	Monitoring
34	Compressor house	Second stage inlet temp	For 9 Nos. of compressor	Monitoring
35	Compressor house	HP outlet temp	For 9 Nos. of compressor	Monitoring
36	Compressor house	Air outlet temp	For 9 Nos. of compressor	Monitoring
37	Compressor house	Water temp	For 9 Nos. of compressor	Monitoring
38	Compressor house	Motor winding temp	For 9 Nos. of compressor	Monitoring
39	Compressor house	Motor bearing temp	For 9 Nos. of compressor	Monitoring
40	Compressor house	Motor current	For 9 Nos. of compressor	Monitoring
41	Compressor house	Compressor on/off status	For 9 Nos. of compressor	Monitoring and control
42	Compressor house	Compressor standby status	For 9 Nos. of compressor	Monitoring
43	Compressor house	Compressor vibration switch status	For 9 Nos. of compressor	Monitoring
44	Switchyard	All breaker on/off feedback	8 Nos.	Monitoring
45	Switchyard	All isolator on/off feedback	34 Nos.	Monitoring
46	Switchyard	GT-1, GT-2, bus coupler on/off feedback	3 Nos.	Monitoring
47	Switchyard	switchyard line diagram status	for 7 Nos. of bays	Monitoring
48	Switchyard	Electrical board incomer	1 Nos.	Monitoring
49	Switchyard	Energy meter reading totalizer	2 Nos.	Monitoring
50	CCR: Boiler	All fans vibration switch status	22 Nos.	Monitoring
51	CCR: Boiler	All BFP pumps vibration switch status	12 Nos.	Monitoring
52	CCR: Condenser	All CEP pumps vibration switch status	12 Nos.	Monitoring
53	CCR: Boiler	All Hot water pumps vibration switch status	12 Nos.	Monitoring
54	CCR: Boiler	HFO and LDO tank level	2 Nos for HFO and 1	Monitoring

Sr. No.	Area	Operating parameter	Applicable number of field instruments	Functional requirement
			for LDO	
55	CCR: Turbine	De aerator dissolved oxygen measurement	2 Nos.	Monitoring
56	CCR: Turbine	All turbines extraction flow transmitter	12 Nos.	Monitoring
57	CCR: Turbine	CRH steam flow transmitters	12 Nos.	Monitoring
58	CCR: Turbine	HRH steam flow transmitters	12 Nos.	Monitoring
59	CCR: Boiler	Lime feeding in boiler TPH	2 Nos.	Monitoring
60	AC Control Room	AC System: Chiller compressor/pump current	8 Nos.	Monitoring
61	AC Control Room	AC System: Chiller compressor/pump on/off status	8 Nos.	Monitoring
62	AC Control Room	AC System: Chiller compressor/pump temperature (I/L & O/L)	8 Nos.	Monitoring
63	AC Control Room	AC System: AHU on/off status	3 Nos.	Monitoring
64	AC Control Room	AC System: AHU current	3 Nos.	Monitoring

Annexure 6: Payment milestones

Revised Clause 8.2 and 2.2 of Part 2 of the RfP:

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
Overhaul execution	Mobilization fee after submission of Performance Security	10%	T + 2 weeks
	Monthly payments against progressive installation of equipment on site	15% (Per month)	Monthly payments in equal installments for 3 months during Overhaul execution
	Completion of the Overhaul activities and SATs for DCS and Instrumentation for both the units, and issue of Completion Certificate by the PMC	15%	T + 46 weeks; 4 weeks of contingency considered; LD applicable beyond T + 50 weeks
	Completion of Guarantee Tests for both units and issue of Operation Acceptance Certificate by the PMC	15%	T + 50 weeks; 4 weeks of contingency considered; LD applicable beyond T + 54 weeks
	Submission of final 'Overhaul Completion Report' approved by Authority	5%	T + 52 weeks; 4 weeks of contingency considered; LD applicable beyond T + 56 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

1. The Successful Bidder shall submit invoices upon achieving milestones stated in sub clause hereinabove. Authority shall make payment within 30 days of submission of invoices upon verifying the milestone for which invoice is submitted subject to deduction of any damages pursuant to Contract conditions
2. Applicable GST, over and above approved Lumpsum Charges for DCS and Instrumentation Upgrade, at the time of invoicing shall be reimbursed by the Owner upon submission of proof thereof. The risk of applicability of any taxes, duties, and levies except GST, shall rest with the Successful Bidder

3. The Owner shall be entitled to deduct tax at source as may be applicable. The TDS certificate(s) shall be submitted as per the due date specified in the Income Tax Act