

Pre bid Queries and Response for the project “Selection of Supply, Installation, Commissioning and Operation & Maintenance Services of Continuous Ambient Air Quality Monitoring Stations (CAAQMS) in Chhattisgarh State”

4) M/s Thermo Fisher Scientific India Pvt. Ltd

Sr. No .	Tender Page No.	Clause	Tender Clause	Question	CECB Response
1	Pg 6, 7 and 8 of 209	Cl. No. 4 and 10 and Cl. No. 20	Format of submission of bid	Cl. No. 4 and 10 call for submission of scanned copies online whereas Cl. No 20 calls only for physical submission of bid. Please clarify, how the bid has to be submitted.	Refer to Section I, Clause 5 “Preparation of Techno-commercial Bid” & Clause 6 “Preparation Of Financial Bid” & factsheet of the tender document. Envelop I (Techno-commercial Bid) will contain three Envelops namely A, B & C which is to be submitted in hardcopy and scanned copy need to be uploaded online. Envelop II (Financial Bid) is to be submitted online only.
2	Pg 9 of 209	Cl. No. 6 and 7 of Annexure – I	NH3 and NOx analyzer	Please confirm if combined NH3 and NOx analyzer shall be acceptable	Technical Specifications (Vol II) Clause no. 4.10: All ambient gas analyzers shall be approved by the USEPA / TUV. However, in case of BTEX and Ammonia Analyzer specifications as given will be considered. Method of measurement used shall also comply with the stipulation on National Ambient Air Quality Standards (NAAQS) 2009 (Details of Methods of Measurement is available at MoEF and CPCB websites). All analyzers shall be micro – processor controlled with automatic calibration using an external dilution calibrator and calibration standards. All analyzers should be fully integrated in the rack cabinet, fully calibrated & tested before supply and ready for start – up at the respective sites. Analyzer must exhibit performance equal to or better than

					values specified in the Calibration & test certificate provided with each analyzer.
3	Pg 9 of 209	Cl. No. 13 and 14 of Annexure – I	PM10 and PM2.5 analyzer	Please confirm if combined PM10 and PM2.5 analyzer shall be acceptable	No combined analyzer is accepted. Hence, the tender condition shall prevail.
4	Pg 9 of 209	Cl. No. 20 of Annexure – I	Housing Container	Please confirm whether housing container is required or not.	Housing of the containers is required.
5	Pg 13 of 209	Cl. No. 2.5.1 of Qualifying Requirements of Bidders	Qualifying Requirements of Bidders	In the Cl. No. 2.5.1 of Qualifying Requirements of Bidders, it states that “The bidder should be a manufacturer or authorized representative as listed in the scope of work who must have manufactured, supplied, tested and commissioned minimum six (6) nos. similar air monitoring stations (CAAQMS) either container based or otherwise in any one year of the last three years which should be in satisfactory operation”, we request you to add “Similar Monitoring Stations” stands for CAAQM stations containing at least five analyzers out of the eight base analyzers”. Please confirm your acceptance.	The tender condition shall prevail.
6	Pg 13 of 209	Cl. No. 2.5.4 of Qualifying Requirements of Bidders	Documentation required for proof for O&M personnel	We request that during offer submission we shall only submit CVs of our O&M personnel. The copy of the service agreement between employer and employee shall be submitted by the bidder executing the job	The tender condition shall prevail.

				as these are confidential documents and hence it is requested that only CVs shall be accepted now instead of service agreements.	
7	Pg 29 of 209	Cl. No. 14 of Section I: Instructions to bidders & Cl. No. 15 of Section VI, Special Conditions of Contract	Performance Security	We request that Performance Security value shall be 10% instead of 30% of contract value. Please confirm your acceptance.	Performance Security value for an amount equivalent to 10% of contract value will be considered.
8	Pg 32-33 of 209	Section II: Scope of Work	Payment of Monthly Recurring Cost	Payment of monthly recurring cost shall be borne by successful bidder till the end of O&M period. Please confirm.	The tender condition shall prevail.
9	Pg 34 of 209	Cl. No. 16 of Schedule of Requirement of Section II: Scope of Work	No. of PCs	Please confirm the total no. of PCs required. We are considering the following: One PC along with Laser Printer and DAS at each monitoring station (4 nos. total) One Computer System will be used for Displaying Air Quality Index of the Stations (the software will be provided by the CPCB) (4 nos. total) One Central Rack Server with Cisco Switch, UTM Device & Access Point for data connectivity from Stations to be setup at each of the SPCB Head Office (1 no. at SPCB)	Bidder to decide on configuration to meet the tender requirements.

				<p>One Central Rack Server with Cisco Switch, UTM Device & Access Point for data connectivity from Stations to be setup at CPCB-Delhi. (1 No. at CPCB)</p> <p>Total 8 nos. PCs and 2 nos. Central Rack Servers. Please confirm.</p>	
10	Pg 90 of 209	Cl. 24.2 of Section-V, General Conditions of Contract	Payment	<p>We request the board that the Payment shall be made maximum in 30 days instead of 60 days after submission of invoice. Please confirm your acceptance.</p>	The tender condition shall prevail.
11	Pg 104 of 209	Cl. No. 13.2 (b) - Payment Terms of Section VI, Special Conditions of Contract	Payment Terms	<p>We request the following Payment Terms: Payment of goods and services (excluding O&M charges) supplied from India.</p> <p>On Delivery: Ninety (90)% of the contract price shall be paid (through LC) on receipt of Goods and upon submission of the documents specified in Clause 5.2 (2) of SCC: and</p> <p>On Final Acceptance: Balance Ten (10%) percent of contract price of the equipment including 100% of the local costs, incidental cost, costs of training after satisfactory completion of installation & commissioning including Training (to be certified by the Board) of all the</p>	<p>13.2 Terms and Conditions of Payment</p> <p>Bids with terms and conditions of payment other than that specified below shall be rejected.</p> <p>a) Payment for goods and services (excluding O&M charges) supplied from abroad:</p> <p>i) On shipment: Sixty (60) percent of the contract price of the Goods shipped shall be paid through irrevocable Letter of Credit opened in favour of the supplier in a bank in his country and upon submission of the documents specified in subclause 5.2 (1) of SCC including : (i) Packing list and (ii) Supplier's certificate that the amounts shown in the invoice are correct in terms of the contract and that all the terms and conditions of the contract have been complied with and</p> <p>ii) On Final Acceptance: Balance Forty (40) percent of contract price of the equipment</p>

				<p>Equipment of the particular package at specified site and submission of acceptance certificate. Please confirm your acceptance</p>	<p>including 100% of the local costs, incidental cost, cost of training after satisfactory completion of installation & commissioning including Training (to be certified by the Board) of all the Equipment of the package at specified site(s) and submission of acceptance certificate as per Attachment 3 of SCC. b) Payment of goods and services (excluding O&M charges) supplied from India i) On Delivery: Sixty (60) % of the contract price shall be paid (through LC) on receipt of Goods and upon submission of the documents specified in Clause 5.2 (2) of SCC: and ii) On Final Acceptance: Balance Forty (40) percent of contract price of the equipment including 100% of the local costs, incidental cost, costs of training after satisfactory completion of installation & commissioning including Training (to be certified by the Board) of all the Equipment of the particular package at specified site and submission of acceptance certificate as per Attachment 3 of SCC.</p>
12	Pg 105 of 209	Cl. No. 13.2 (c) - Payment Terms of Section VI, Special Conditions of Contract	Payment of Operation and Maintenance charges	The payment based on availability of data shall not be applicable as penalty is already being applied during O&M period.	The tender condition shall prevail.
13	Pg 106 of 209	Cl. No. 16.2 of Section VI, Special Conditions of Contract	Maximum LD Clause	We request that the maximum LD applicable shall be 5% of contract supply value instead of 10%. Please confirm.	The tender condition shall prevail.

14	Pg 124 of 209	Cl. No. 4.6 of Volume – II, Technical Specifications	Permeation Tube	<p>1) It is recommended that the calibration of analyzers shall be carried out using calibration cylinders as it provides three point calibration. In view of the above, we request you to please consider calibration of gases using cylinders and not Permeation tubes. Please confirm your acceptance.</p> <p>2) In case Permeation tube is required, please note that NH3 analyzer shall not have Permeation Tube. The calibration of NH3 analyzers shall be done using calibration gas cylinders. Please confirm</p>	Calibration should be performed as per CPCB approved methodology.
15	Pg 127 of 209	Cl. No. 7.0 (A) of Volume – II, Technical Specifications	Response Time for NO-NO2-NOx analyzer	Response Time of NOx analyzer shall be 40 seconds (Manufacturer's standard). Please confirm your acceptance.	The tender condition shall prevail.
16	Pg 128 of 209 & Pg 134 of 209	Cl. No. 7.0(d) and 7.0(J)	Ozone Generator and Calibrator	Please confirm if Ozone generator is required in Ozone analyzer or Calibrator.	The tender condition shall prevail.

Pre bid Queries and Response for the project “Selection of Supply, Installation, Commissioning and Operation & Maintenance Services of Continuous Ambient Air Quality Monitoring Stations (CAAQMS) in Chhattisgarh State”

2) M/s. Ecotech Pvt. Ltd

Sr. No	Tender Clause	Bidders Query	CECB Response
1	Qualifying Requirement of Bidders: Cl. 2.5.8 Bidder or their authorized representative should have a turnover of 10 Cr per year for last three financial years to execute the contract.	Please be noted that the bidder’s or their authorized representative turnover stipulated under QR requirement is considerably low for tendered Qty of CAAQMS as this may enable to qualify inexperienced bidders having no relevant financial capability/strength. Considering this project be on turnkey basis it is request to increase the turnover amount to Rs. 35 Crore per year for last three financial years to execute the contract, instead of Rs. 10 Cr as mentioned in the tender.	The tender condition shall prevail.
2	Bid Security / EMD	Pls consider EMD option in form of Bank Guarantee also. Pls provide the following details for submission of EMD in form of Bank Guarantee. a) CECB Bank details with Complete Address and IFSC code b) CECB GST No. c) CECB PAN No.	EMD in the form of Demand Draft (DD) will be considered only. Hence, the tender condition shall prevail.
3	Customs duty – GCC Cl. 36 - Customs Duty as applicable shall be paid by Contractor. (pg 94)	Please confirm the rate of Custom Duty applicable to CECB and also please confirm if the same is Concessional rate or fully	Out of the following whichever is applicable: Concessional Customs Duty (presently) shall be applicable on the equipment being imported by Chhattisgarh Environment Conservation Board (CECB). Necessary exemption certificate

	<p>13.3 Unloading and Custom Clearance – (Pg 83) Cl. 6 - Preparation of Financial bid Cl 6.3 – Summary of price bid – Note (2) – Pg 22</p>	<p>exempted (refer Cl. 13.3 – pg 83.) Also, Requested to provide us the relevant notification under which this exemption/Concessional rate is availed by CECB.</p> <p>Please note that under Cl. 6 - Preparation of Financial bid – Cl 6.3 – Summary of price bid under Note 2 – pg 22 , it has been specified that all the local taxes and custom duty shall be paid at extra at actuals by board. Please confirm if the Customs duty to be included by bidder in to the Attachment 2 - Summary of bid price under Sl. 2 – Local costs for goods supplied from abroad., or the same to be excluded from summary price bid and to be submitted separately for reimbursement without including the same into Financial bid. Also please confirm if custom duty will be considered during evaluation of price bid.</p>	<p>shall be issued by CECB and applicable Custom Duty shall be paid by the Board.</p> <p style="text-align: center;">or</p> <p>All the local taxes & duties in the State of India i.e. Custom Duty, Excise duty, SalesTax, Entry Tax, etc. which will be payable on the Equipment if the Contract is awarded shall be paid extra as actual by board.</p>
4	<p>Cl. 6 - Preparation of Financial bid - Currencies of Bid - Cl. 6.5 The unit rates and the prices shall be quoted by the bidder separately in INR only for the equipment, which the bidder proposes to supply. The foreign bidders should quote</p>	<p>Please note that as per Govt. of India regulation any foreign supplies/ imports made in India must be in international currency (ie. USD/Euro/AUD/JPY etc.) and for local supplies supplied within India should be in INR. As this projects includes various gas analysers to be imported from overseas and local integration</p>	<p>Bidders have to quote in INR only. Hence, the tender condition shall prevail.</p>

	the price in Indian Rupee.	components to be supplied from India. It is requested to make appropriate changes to the clause 6.5 - Currencies of Bid to allow bid in multiple currencies (i.e for Imports in foreign currency USD/Euro/AUD/JPY/GBP etc and for local supplies in INR.)	
5	<p>SCC- Cl. 6 – Work Schedule - 6.1 Equipment to be supplied from Foreign Country – Pg 100</p> <p>SCC - Cl. 6 – Work Schedule - 6.2 Equipment to be supplier from India:– Pg 101</p>	<p>Please considered delivery period as 120 days from date of opening of Letter of credit since the project is of LSTK nature involving numerous Gas Analyzers and complex System Integration components.</p> <p>Please considered delivery period as 120 days from date of opening of Letter of credit since the project is of LSTK nature involving numerous Gas Analysers and complex System Integration components from multiple vendors.</p>	The tender condition shall prevail.
6	SCC -11.0 COMPLETION (GCC CLAUSE 22) – Pg 102	Please considered completion period of project as 120 days from date of opening of Letter of credit since the project is of LSTK nature involving installation & Commissioning of numerous Gas Analysers and complex System Integration components from multiple vendors.	The tender condition shall prevail.
7	Payment terms SCC Cl.13.2 Pg.104	<p><u>Payments for Goods & Services (O&M Excluding O&M charges) supplied from abroad.</u></p> <p><u>Please consider payment terms as</u></p>	<p>13.2 Terms and Conditions of Payment</p> <p>Bids with terms and conditions of payment other than that specified below shall be rejected.</p> <p>a) Payment for goods and services (excluding O&M charges)</p>

below, which is the standard terms of payment followed by other PCB's & CPCB in India for similar CAAQMS tenders.

On shipment: Eighty (80) percent of the contract price of the Goods shipped shall be paid through irrevocable Letter of Credit opened in favour of the supplier in a bank in his country and upon submission of the documents specified in subclause 5.2

On Final Acceptance: Balance Twenty (20) percent of contract price of the equipment including 100% of the local costs, incidental cost, cost of training after satisfactory completion of installation & commissioning including Training (to be certified by the Board) of all the Equipment of the package at specified site(s)

We recommend for establishment of 100 % LC with a condition that 80% of goods shipped shall be paid through LC and balance 20% on final acceptance also by LC.

Payments for Goods & Services (O&M Excluding O&M charges) supplied from India

Please consider payment terms as below, which is the standard terms of payment followed by other PCB's & CPCB in India for similar

supplied from abroad:

i) On shipment: Sixty (60) percent of the contract price of the Goods shipped shall be paid through irrevocable Letter of Credit opened in favour of the supplier in a bank in his country and upon submission of the documents specified in subclause 5.2 (1) of SCC including : (i) Packing list and (ii) Supplier's certificate that the amounts shown in the invoice are correct in terms of the contract and that all the terms and conditions of the contract have been complied with and

ii) On Final Acceptance: Balance Forty (40) percent of contract price of the equipment including 100% of the local costs, incidental cost, cost of training after satisfactory completion of installation & commissioning including Training (to be certified by the Board) of all the Equipment of the package at specified site(s) and submission of acceptance certificate as per Attachment 3 of SCC.

b) Payment of goods and services (excluding O&M charges) supplied from India

i) On Delivery: Sixty (60) % of the contract price shall be paid (through LC) on receipt of Goods and upon submission of the documents specified in Clause 5.2 (2) of SCC: and

ii) On Final Acceptance: Balance Forty (40) percent of contract price of the equipment including 100% of the local costs, incidental cost, costs of training after satisfactory completion of installation & commissioning including Training (to be certified by the Board) of all the Equipment of the particular package at specified site and submission of acceptance certificate as per Attachment 3 of SCC.

		<p><u>CAAQMS tenders.</u></p> <p>On shipment: Eighty (80) percent of the contract price of the Goods shipped shall be paid through irrevocable Letter of Credit opened in favour of the supplier in a bank in his country and upon submission of the documents specified in the tender</p> <p>On Final Acceptance: Balance Twenty (20) percent of contract price of the equipment including 100% of the local costs, incidental cost, cost of training after satisfactory completion of installation & commissioning including Training (to be certified by the Board) of all the Equipment of the package at specified sites.</p>	
8	<p>Cl. 15 – SCC – Performance Security – Pg. 105</p> <p>The amount of performance security as a percentage of the Contract Price shall be thirty (30 %) percent.</p>	<p>Please consider Performance security as 10% of the contract price instead of 30% as stipulated in the tender.</p> <p>Please note that 10% Performance Security is the standard terms for submission of Performance security followed by other PCB's in India for similar CAAQMS tenders.</p>	<p>Performance Security value for an amount equivalent to 10% of contract value will be considered.</p>
Technical Queries			
9	<p>Cl No 2.0 – Page No 121 of Technical specification Air Conditioners</p>	<p>Please note that the tender has stipulated split type, roof mounted Air Conditioners with 5 Star rating, please note that the wall mounted split type Ac's is technically</p>	<p>AC can be wall mounted split type.</p>

		<p>appropriate for easy maintenance in CAAQMS instead of roof mounted. Roof Mounted Air conditioning is also not recommended and advisable with the present roof thickness of shelter which may not hold the weight of cassette type air conditioners.</p> <p>Please clarify and confirm.</p>	
10	<p>CI No 4.7 - AIR QUALITY ANALYSIS SYSTEM - Technical specification - (pg 124) CI No 2.4- Calibration Unit With Span Gas/In Built Calibration With /Permeation Tubes And Gas Mixing/Dilution Facility - Page No 132 of 209 Technical specification CI No J- Page No 134 - Technical specification - Multi gas calibration System</p>	<p>The specified calibration system along with three permeation oven is vendor specific hence requested to generalize the same without permeation oven since the system will be calibrated as per NIST standard traceable calibration cylinder, also please note that as per latest update, CPCB had removed the requirement of permeation tube on account of technical reasons as there is frequent variation in concentration resulting in high span drift.</p>	<p>Calibration should be performed as per CPCB approved methodology.</p>
11	<p>Zero Air Generator</p>	<p>Please ensure that Zero Air Generator to be supplied under Sample handling system shall be of 19" Rack mounted and shall be of Analyser Manufacturer make with inbuilt CO reactor to have better quality of functional output.</p>	<p>The tender condition shall prevail.</p>
12	<p>Gas Analyser Technical Details – Analog output</p>	<p>The specification requires 3 analogue output ranges for the voltage on each gas analyser please confirm the application of the same</p>	<p>In case the analog outputs are not included two digital outputs must be provided in each analyser.</p>

Pre bid Queries and Response for the project “Selection of Supply, Installation, Commissioning and Operation & Maintenance Services of Continuous Ambient Air Quality Monitoring Stations (CAAOMS) in Chhattisgarh State”

1) M/s Environment S.A India Pvt. Ltd

Sr. No	Clause No	Queries	CECB Response
1.	Clause No 6.5 and clause no 6.3 of Invitation for Bids (IFB)	Kindly note currency mentioned in page no 23 is INR only. However in page no 21, 6.3. 1. A (Goods supplied from Foreign origin), Price is asked in FOB basis. Kindly clarify whether if we can quote in spilt currency Euro and INR as CECB shall have custom duty benefit	Bidders have to quote in INR only. Hence, the tender condition shall prevail.
2.	Clause No 13. 2.a) of SCC Payment terms a) Payment for goods and services (excluding O&M charges) supplied from abroad:	Kindly note Payment terms mentioned in all Pollution Control Board tender are as follows:-a) Payment for goods and services (excluding O&M charges) supplied from abroad: i) On shipment: Eighty (80) percent of the contract price of the Goods shipped shall be paid through irrevocable Letter of Credit opened in favour of the supplier in a bank in his country and upon submission of the documents specified in sub-clause 5.2 (1) of SCC including : (i) Packing list and (ii) Supplier's certificate that the amounts shown in the invoice are correct in terms of the contract and that all the terms and conditions of the contract have been complied with and ii) On Final Acceptance: Balance Twenty (20) percent of contract price of the equipment including 100% of the local costs, incidental cost, cost of training	13.2 Terms and Conditions of Payment Bids with terms and conditions of payment other than that specified below shall berejected. a) Payment for goods and services (excluding O&M charges) supplied fromabroad: i) On shipment: Sixty (60) percent of the contract price of the Goods shipped shallbe paid through irrevocable Letter of Credit opened in favour of the supplier in abank in his country and upon submission of the documents specified in subclause5.2 (1) of SCC including : (i) Packing list and (ii) Supplier’s certificate thatthe amounts shown in the invoice are correct in terms of the contract and that allthe terms and conditions of the contract have been complied with and ii) On Final Acceptance: Balance Forty (40) percent of contract price of theequipment including 100% of the local costs, incidental cost, cost of training aftersatisfactory completion of installation & commissioning including Training (to becertified by the Board) of all the Equipment of the package at specified site(s)and submission of acceptance certificate as per Attachment 3 of SCC.

		<p>after satisfactory completion of installation & commissioning including Training (to be certified by the board) of all the Equipment of the package at specified site(s) and submission of acceptance certificate as per Attachment 3 of SCC.</p> <p>We hereby request you to accept the above payment terms</p>	
3.	<p>Clause No 13. 2.b) of SCC Payment terms Payment of goods and services (excluding O&M charges) supplied from India.</p>	<p>Kindly note Payment terms mentioned in all Pollution Control Board tender are as follows:-</p> <p>b) Payment of goods and services (excluding O&M charges) supplied from India.</p> <p>i. On Delivery: Eighty (80) percent of the contract price shall be paid (through LC) on receipt of Goods and upon submission of the documents specified in Clause 5.2 (2) of SCC: and</p> <p>ii. On Final Acceptance: Balance Twenty (20) percent of contract price of the equipment including 100% of the local costs, incidental cost, costs of training after satisfactory completion of installation & commissioning including Training (to be certified by the Board) of all the Equipment of the particular package at specified site and submission of acceptance certificate as per Attachment 3 of SCC.</p> <p>We hereby request you to accept the above payment terms</p>	<p>b) Payment of goods and services (excluding O&M charges) supplied from India</p> <p>i) On Delivery: Sixty (60)% of the contract price shall be paid (through LC) on receipt of Goods and upon submission of the documents specified in Clause 5.2(2) of SCC: and</p> <p>ii) On Final Acceptance: Balance Forty (40) percent of contract price of the equipment including 100% of the local costs, incidental cost, costs of training after satisfactory completion of installation & commissioning including Training (to be certified by the Board) of all the Equipment of the particular package at specified site and submission of acceptance certificate as per Attachment 3 of SCC.</p>
4.	Attachment I: Clause no 16. d)	Please note we already have one server at CPCB. Kindly clarify do we need to	It is upto the bidder whether they would like to quote for the server. However, for the comparison purpose it will be

		quote for the same	assumed that the bidder's quotation include cost of server and whenever requested, bidder will install the server at CECB (or any designated location identified by CECB) without any additional cost.																																										
5.	Clause no 2 (Air Conditioner) of Technical Specification	Kindly note AC shall be wall mounted Split type Kindly confirm your acceptance	AC can be wall mounted split type.																																										
6.	Analog outputs for all analyzer (Technical Specification)	Kindly note Analog outputs are no more in use. Standard digital outputs are used for uploading data to CPCB and SPCB. Kindly request to delete analog output for the same	In case the analog outputs are not included two digital outputs must be provided.																																										
7.	Digital outputs for all analyzers(Technical Specification)	Kindly incorporate latest digital output of Ethernet/ USB in the specification	Digital output should be compliant with RS 232/ RS 485.																																										
8.	Clause no 7. B Ambient Ammonia Analyzer	Kindly note since Ammonia is a non-criteria pollutant, USEPA does not approve for the same. Kindly confirm your acceptance	Kindly Refer CECB response at Point 11																																										
9.	Clause No 7. C. Ambient Sulphur Dioxide (SO ₂): 1. Principle	Kindly note as per latest CPCB guidelines, pulsed is deleted. Only UV Fluorescence should be mentioned. Kindly confirm your acceptance	<p>C. AMBIENT SULPHUR DIOXIDE (SO₂) ANALYSER (Conforming to USEPA Automated Federal Equivalent Method (FEM) Designation)</p> <table border="1"> <tr><td>01.</td><td>Principle</td><td>: UV Fluorescence</td></tr> <tr><td>02.</td><td>Measurement</td><td>: SO₂in Ambient Air</td></tr> <tr><td>03.</td><td>Display</td><td>: Digital</td></tr> <tr><td>04.</td><td>Ranges</td><td>: Auto ranging 0 - 200 ppb</td></tr> <tr><td>05.</td><td>Lower Detectable Limit</td><td>: 1 ppb</td></tr> <tr><td>06.</td><td>Noise Level</td><td>: 0.5 ppb</td></tr> <tr><td>07.</td><td>Zero Drift</td><td>: < 1 ppb/24 Hrs. with automatic zero compensation</td></tr> <tr><td>08.</td><td>Span Drift</td><td>: <1 ppb in 24 hrs.</td></tr> <tr><td>09.</td><td>Linearity</td><td>: ± 1% of full scale</td></tr> <tr><td>11.</td><td>Response Time</td><td>: 120 sec or less</td></tr> <tr><td>12.</td><td>Calibration</td><td>: Please see Multi-calibration section (Sl. No. 7) and also calibration section in General Specifications(4.1.7 to 4.1.9)</td></tr> <tr><td>13.</td><td>Analog Output</td><td>: 0 - 1 V, 0 - 10 V, 2 - 20 mA / 4 - 20 mA</td></tr> <tr><td>14.</td><td>Digital Output</td><td>: Multiple drop RS 232, USB port /TCP/IP, Ethernet</td></tr> <tr><td></td><td></td><td></td></tr> </table>	01.	Principle	: UV Fluorescence	02.	Measurement	: SO ₂ in Ambient Air	03.	Display	: Digital	04.	Ranges	: Auto ranging 0 - 200 ppb	05.	Lower Detectable Limit	: 1 ppb	06.	Noise Level	: 0.5 ppb	07.	Zero Drift	: < 1 ppb/24 Hrs. with automatic zero compensation	08.	Span Drift	: <1 ppb in 24 hrs.	09.	Linearity	: ± 1% of full scale	11.	Response Time	: 120 sec or less	12.	Calibration	: Please see Multi-calibration section (Sl. No. 7) and also calibration section in General Specifications(4.1.7 to 4.1.9)	13.	Analog Output	: 0 - 1 V, 0 - 10 V, 2 - 20 mA / 4 - 20 mA	14.	Digital Output	: Multiple drop RS 232, USB port /TCP/IP, Ethernet			
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10.		Specification of PC for Local and Central has not been mentioned in the tender document.	<p>Specification of PC:</p> <table border="1"> <thead> <tr> <th>Sr. No</th> <th>Items</th> <th>Specifications</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Sr. No	Items	Specifications																																							
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11.	Clause no. 4.10 (page no. 124)	Also please find attached CPCB technical guidelines where at clause no. 4.1.11(page no. 13), it has been mentioned all gas analyzers shall be approved by the USEPA/TUV. In your tender document, you have mentioned that equivalent method to EN also accepted.	<p>Technical Specifications (Vol II)</p> <p>Clause no. 4.10: All ambient gas analyzers shall be approved by the USEPA / TUV. However, in case of BTEX and Ammonia Analyzer specifications as given will be considered. Method of measurement used shall also comply with the stipulation on National Ambient Air Quality Standards (NAAQS) 2009 (Details of Methods of Measurement is available at MoEF and CPCB websites). All analyzers shall be micro – processor controlled with automatic calibration using an external dilution calibrator and calibration standards. All analyzers should be fully integrated in the rack cabinet, fully calibrated & tested before supply and ready for start – up at the respective sites. Analyzer must exhibit performance equal to or better than values specified in the Calibration & test certificate provided with each analyzer.</p>																																													

Pre bid Queries and Response for the project “Selection of Supply, Installation, Commissioning and Operation & Maintenance Services of Continuous Ambient Air Quality Monitoring Stations (CAAOMS) in Chhattisgarh State”

5) M/s Nevco Engineers Pvt Ltd.

Sr. No	Clause No	Queries	CECB Response
1		As we are registered with MSME and according to the MSME guideline we are exempted from submitting EMD, Tender fees from Government organization and PSU published tenders. So, we are humbly requesting you to please consider the MSME benefits for your published tender.	EMD is not Exempted in any case. The tender condition shall prevail.
2		Please refer your (Point number 7.0 AMBIENT AIR QUALITY MONITORING ANALYSERS, (Conforming to USEPA Automated Federal Reference Method (FRM) Designation) Page number 126 to page number 134) regarding the methodology mentioned in your tender for measuring parameters, The US EPA Approved DOAS technology even though worldwide approved and accepted has not been included in your Technical specifications. International User list enclosed for your reference.	Technical Specifications (Vol II) Clause no. 4.10: All ambient gas analyzers shall be approved by the USEPA / TUV. However, in case of BTEX and Ammonia Analyzer specifications as given will be considered. Method of measurement used shall also comply with the stipulation on National Ambient Air Quality Standards (NAAQS) 2009 (Details of Methods of Measurement is available at MoEF and CPCB websites). All analyzers shall be micro – processor controlled with automatic calibration using an external dilution calibrator and calibration standards. All analyzers should be fully integrated in the rack cabinet, fully calibrated & tested before supply and ready for start – up at the respective sites. Analyzer must exhibit performance equal to or better than values specified in the Calibration & test certificate provided with each analyzer.
3		The asked zero check, span check, linearity check percentage and frequency asked for conventional analyzers where as Open path DOAS technology meets those with more accurately with less drift, low maintenance, and less calibration required compared to conventional system. The	The proposed analyzers should meet technical specification and certification requirements specified in the tender.

		parameters required are easy, and we can use DOAS for NO, NO2, NH3, SO2, O3 and Benzene and OPS30 for CO, SM200 for PM10 and PM2.5	
4		<p>DOAS technology meets the requirement of Central Pollution Control Board. We have installed DOAS technology CAAQMS station at the below Govt. Organizations:</p> <ul style="list-style-type: none"> [i] Central pollution control board, New Delhi [ii] Delhi pollution control board, New Delhi [iii] Chandigarh pollution control board [iv] NEERI, Nagpur [v] Oil India Limited, Kakinada [vi] Heavy Water Plant, Managuru [vii] Tamilnadu news print limited [viii] Forest college, Coimbatore [ix] Thane municipality Corporation, Thane, Mumbai [x] IFFCO-Kandla, Gujarat [xi] CSIR-Lucknow [xii] Hindustan petroleum --Mumbai refinery [xiii] IFFCO-paradeep [xiv] Mangalore refinery <p>Attached CPCB letter No C-47011/01/ICB/2010-11/mat dated 22/06/2011 which states:- Find attached our Cheque No. 019422 dated 20.06.2011 for Rs. 5, 81, 088/- towards Indian Agents commission being paid on satisfactory installation & commissioning acceptance.</p>	The proposed analysers should meet technical specification and certification requirements specified in the tender.
5		<p>Please refer CPCB web site under FAQ.</p> <p>Kindly read question 5 and its answer which is as follows:-</p> <p>Whether CPCB certified any systems or analysers? No. CPCB neither certifies nor assessed any sensors/analysers. Industrial units are free to choose any type/make of analysers including</p>	The proposed analysers should meet technical specification and certification requirements specified in the tender.

		the indigenous equipment, meeting the prerequisites. The unit should give calibration protocol, periodicity/frequency of calibration and \pm variation specified when matched with manually monitored, results.	
6		<p>National Ambient Air Quality Standards issued by CPCB on 18th Nov 2009 mentioning Methods of measurements.</p> <p>From the above and also it is openly known that CPCB does not have any certifying mechanism to evaluate and approve any instrument or technology. When no such mechanism is made, how were methods of measurements specified in standards?</p>	The proposed analysers should meet technical specification and certification requirements specified in the tender.
8		After the standards were notified, in 2011 after through evaluation of DOAS system installed in CPCB , acceptance was given by CPCB as per letter of 22/06/2011.CPCB also proposed to MoEF to include in standards as per MoEF letter of attached.	The proposed analysers should meet technical specification and certification requirements specified in the tender.
9		<p>Letter reference No. A-21018/7/10-Mon./282 by your good self dated April 21, 2011 addressed to Essar Oil Ltd. states:-</p> <p>It is to inform that UV-DOAS System is being used internationally for quite, some time. The system has been established in India only recently and services and performance was noted to be satisfactory</p>	The proposed analysers should meet technical specification and certification requirements specified in the tender.
10		<p>Letter ref No. A-21018/7/13-Mon., dated — 3rd Oct 2013 issued to Star Cement states:-</p> <p>CPCB generally suggests for installation of instruments approved by USEPA and TUV-Germany or any internationally accepted principle.</p> <p>CPCB is using both technologies , i.e. point monitoring and open light path for ambient air monitoring. As per our</p>	<p>Technical Specifications (Vol II)</p> <p>Clause no. 4.10: All ambient gas analyzers shall be approved by the USEPA / TUV. However, in case of BTEX and Ammonia Analyzer specifications as given will be considered. Method of measurement used shall also comply with the stipulation on National Ambient Air Quality Standards (NAAQS) 2009 (Details of Methods of Measurement is available at MoEF and CPCB websites). All analyzers shall be micro – processor controlled with automatic calibration using an external dilution calibrator and calibration</p>

		experience with both the systems, the open light path system has less drift, low O&M cost and high data capturing efficiency.	standards. All analyzers should be fully integrated in the rack cabinet, fully calibrated & tested before supply and ready for start – up at the respective sites. Analyzer must exhibit performance equal to or better than values specified in the Calibration & test certificate provided with each analyzer.
11		Letter Ref No. A-21018/7/14-Mon., dated April 30, 2014 issued to Goa Pollution Control Board states:- CPCB generally uses the systems which are US-EPA/TUV-Germany approved. In comparison to conventional monitoring system, the DAOS System has low maintenance cost and high data capture rate as per our experience of operation of both the systems. The DOAS System is also under consideration for inclusion in National Ambient Air Quality Standards (NAAQS), 2009.	The proposed analysers should meet technical specification and certification requirements specified in the tender.
12		Letter Ref No. 8/7/13/PCB/Vol.X/1825, dated 26/06/2014 written by Goa Pollution Control Board to Adani Mormugao Port terminal Pvt Ltd states:— Open path differential absorption spectroscopy (DAOS technology) has low maintenance cost and high data capture rate. The DOAS system is also under consideration for inclusion in National Ambient Air Quality Standards (NAAQS), 2009. In view of the above, the open path differential absorption spectroscopy (DOAS technology) may be given consideration for installation	The proposed analysers should meet technical specification and certification requirements specified in the tender.
13		From the above it is very evident that CPCB has been satisfied with DOAS technology It is also very evident from above documents that CPCB accepts all technologies which are approved by USEPA or TUV or MCERTS.	-
14		DOAS technology made by M/s Opsis of Sweden is approved under all these. In addition DOAS is also approved by many	-

		other countries and list is very long.	
15		Italy is using this DOAS analyser for environmental city monitoring over 10 years. Letter Enclosed for your reference.	-
16		<p>Since CPCB accepts USEPA approval , please refer Annexure 9 RAP 067 in which USEPA writes the following on DOAS technology:—</p> <p>Because of the ability of open path analyzers to measure pollutant concentrations over a path, these new techniques are expected to provide better spatial coverage, and thereby a better assessment of a general population's exposure to air pollutants for certain applications</p>	-
17		Over 200 stations have been installed all over India. reason being that the professional high aware companies realize that this technology is way better in generating reliable validated data, having over 95% data capture rate and also much less maintenance as compared to technologies written by CPCB.	-
18		<p>Since CPCB has no certifying mechanism yet, why are all technologies approved by USEPA / TUV / MCERTS not accepted giving wider choice to user to procure whichever he thinks is better technology for his application.</p> <p>We request you to kindly consider DOAS technology also in the CAAQMS tender for real time monitoring of gaseous pollutants Based on all the above documents.</p>	The proposed analysers should meet technical specification and certification requirements specified in the tender.
19		Payment Term: 90% against draft LC and 10% with installation charges after successful installation	<p>13.2 Terms and Conditions of Payment</p> <p>Bids with terms and conditions of payment other than that specified below shall be rejected.</p> <p>a) Payment for goods and services (excluding O&M charges) supplied from abroad:</p> <p>i) On shipment: Sixty (60) percent of the contract price of the Goods shipped shall be paid through irrevocable Letter of Credit opened in favour of the supplier in a bank in his country and upon</p>

			<p>submission of the documents specified in subclause 5.2 (1) of SCC including : (i) Packing list and (ii) Supplier's certificate that the amounts shown in the invoice are correct in terms of the contract and that all the terms and conditions of the contract have been complied with and</p> <p>ii) On Final Acceptance: Balance Forty (40) percent of contract price of the equipment including 100% of the local costs, incidental cost, cost of training after satisfactory completion of installation & commissioning including Training (to be certified by the Board) of all the Equipment of the package at specified site(s) and submission of acceptance certificate as per Attachment 3 of SCC.</p> <p>b) Payment of goods and services (excluding O&M charges) supplied from India</p> <p>i) On Delivery: Sixty (60) % of the contract price shall be paid (through LC) on receipt of Goods and upon submission of the documents specified in Clause 5.2 (2) of SCC: and</p> <p>ii) On Final Acceptance: Balance Forty (40) percent of contract price of the equipment including 100% of the local costs, incidental cost, costs of training after satisfactory completion of installation & commissioning including Training (to be certified by the Board) of all the Equipment of the particular package at specified site and submission of acceptance certificate as per Attachment 3 of SCC.</p>
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Pre bid Queries and Response for the project “Selection of Supply, Installation, Commissioning and Operation & Maintenance Services of Continuous Ambient Air Quality Monitoring Stations (CAAQMS) in Chhattisgarh State”

3) M/s Swan Environment Pvt. Ltd.

Sr. No.	Tender clause	Query	CECB Response
1	Vol-I; Page-9; Annexure-I Items for one CAAQM station. Sl.No. 18; Day & Night Visible Data Display Board at the respective SPCB-H.O.	Data Display Board at the respective SPCB-H.O. is mentioned under one CAAQM station. Does it mean 4 display boards to be considered? We understand one display board, as common, is required at SPCB-H.O. Thus, totally, for this tender, only 1 no. of display boards is required. Please clarify.	Total 5 Data Display Board is required. One at each station (04 nos) and one (01 nos) common at CECB HO.
2	Page-22; 6.3; Note-2 All the local taxes & duties in the State of India i.e. Custom Duty, Excise duty, Sales, Tax, Entry Tax, etc. which will be payable on the Equipment if the Contract is Awarded shall be paid extra as actual by board. Page 94; Clause 36; (a) and (b) Customs Duty as applicable shall be paid by Contractor. Tax, including GST, as applicable on supply of goods and incidental services like Installation, Commissioning and training and O&M service etc. shall be payable by CECB separately on submission of appropriate documents	Will CECB pay customs duty and taxes. Please clarify	Out of the following whichever is applicable: Concessional Customs Duty (presently) shall be applicable on the equipment being imported by Chhattisgarh Environment Conservation Board (CECB). Necessary exemption certificate shall be issued by CECB and applicable Custom Duty shall be paid by the Board. or All the local taxes & duties in the State of India i.e. Custom Duty, Excise duty, SalesTax, Entry Tax, etc. which will be payable on the Equipment if the Contract is awarded shall be paid extra as actual by board.
3	Page 24; 7.2 All the documents for the Techno-commercial Bid shall be submitted (in Hard Copy)	Does it mean, even price bid should be submitted in hard besides uploading. Please clarify.	Refer to Section I, Clause 5 “Preparation of Techno-commercial Bid” & Clause 6 “Preparation Of Financial Bid” & factsheet of the tender document. Envelop I (Techno-commercial Bid) will contains

			<p>three Envelops namely A, B & C which is to be submitted in hardcopy and scanned copy need to be uploaded online.</p> <p>Envelop II (Financial Bid) is to be submitted online only.</p>
4	<p>Page:32; 1 A (2) Operation and Maintenance of the CAAQMS for a period of Five (05) years from the date of it's the commissioning Page 77; Attachment 3A Health of the Stations should be sound for the entire period (07 years) so that the contract can be further renewed on mutual agreement.</p>	<p>In one clause it is mentioned as 5 years from the date of commissioning. In another it is mentioned as 7 years. Please clarify</p>	<p>The contractor shall carry out Operation & Maintenance of Air Monitoring Stations for a period of five (5) years from the date of commissioning of the station, which can be extended up to extended (3) years at all mutually agreed rates and terms & conditions.</p>
5	<p>Page 125 4.13 Digital Output: a) Multi drop RS 232 port shared between Analyzers, Dust Monitor (PM2.5 & PM10), Meteorological Sensors and computer for data, status and control. Page 137 (viii) SPECIFICATIONS OF DATA LOGGER Data logger with 8 analog, 24 digital inputs and 18 bit resolution. Ability to log channels at different intervals and should have capability of averaging and displaying real time data and averaged data over a period of 1 min, 10 min, 1/2 hr, 1 hr, 4 hrs, 8 hrs, 24 hrs, 1 month and year. Communication between data logger and computer using standard multi drop RS 232 Connector.</p>	<p>As per these clauses, analyzers with their RS232 ports to be connected to computer (PC). PC is loaded with data logging s/w and the system\ becomes PC based data logger. Should we\ still include Data logger with 8 analog and 24 digital inputs? What is it's purpose when PC based data logger is able to meet all the functional requirements. This data logger, as per tender should be connected to PC. Please clarify if this data logger with 8 analog and 24 digital inputs can be dropped as PC based data logger is there.</p>	<p>In case the analog outputs are not included two digital outputs must be provided in each analyser.</p>

