

**CENTRAL POLLUTION CONTROL BOARD  
NATIONAL GANGA RIVER BASIN PROJECT**

No.:B-2311/WQM/NGRBA/2013

Date: 29-10-2015

**SUMMARY OF DISCUSSION AND RESPONSE TO QUERIES**  
**OF THE PRE- BID MEETING**

**Subject: Pre-bid meeting for “Continuous Real Time Water Quality Monitoring Data, NGRBA/PP14-15/CPCB/W/01”**

The Pre-bid meeting was held on 30 September 2015 as per the scheduled notified in the bid document and the members of Bid evaluation committee constituted by Central Pollution Control Board were present.

At the outset, Additional Director & In-charge NGRBA Cell welcomed the participants present for the meeting. Thereafter, the queries raised by representatives of bidders were discussed in detail. It was clarified that many issues raised by the bidders have already been covered in bidding document.

Further the queries raised by the bidders, requiring clarifications are as under:

<b>Sr. No.</b>	<b>Section/ Clause/ Page</b>	<b>Query/Issue</b>	<b>Clarification</b>
1	Section II / Clause 5.5(e) / Page 26,	“liquid assets and/or credit facilities US\$2 million or INR 130 million”: We understand that you are requesting a certificate of the line of credit of the company, and that the format requested to certify it may be a declaration issued by each bidder.	As per provisions of bid document 5.5 (e) of Section 1 Instruction to Bidders. The bidder should show that it has access to liquid assets through the financial statements and credit facility.
2	Section II / Clause 14.4 / Page 27	Contract Price would be subjected to adjustment in accordance with GC 6.6 read with corresponding provision in SCC. <i>Is there an available ceiling for the Contract Price?</i>	There is no available ceiling for the contract price.  The GC clause 6.6 of bid document defines the modus operandi of price adjustment.
3	Section III Page 35	Please confirm if the custom duty exemption is available for	Refer Section III, bid document. Its Service Provider responsibility



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		procurement of imported equipment under this project and subsequent spares thereof.	to obtain / generate the duly certified document from Employer to avail the rebate /exemption as applicable  [Ref : Section –I, Clause 14.3,page 13]
4	Section VIII, Clause 2.1 (page -76)	“Payments will be made for data validated by Data Qualification Consultant”. Would you please specify which requirements and methodology will be applied by the Data Qualification Consultant to validate the data and if contrast parameters will be used.	The Data Qualification Consultant (being engaged through separate process) would require to validate the quality of data considering the following;  (1) Operational status of the system installed,  (2) Calibration of sensors and or analyzer as carried out by Service Provider as per the schedule given in advance and availability of data so generated,  (3) Data generation, transmission and delivery,  (4) Data representativeness with parameters specifications and others as mentioned in Section VIII Performance Specifications  [Ref: Section VIII, Clause 2.1 (page -76) ]
5	Section VI Clause 2.4 / Page 56	Arrangement of continuous electricity supply to be ensured, power grid interruption will be considered as a Force Majeure for transmission of data, even if it is common in a given location?	The Service Provider is required to ensure the supply of power required for the system to function uninterrupted by the means to be arranged by the Service Provider itself



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6	Section VI / Clause 2.5 / Page 56	The network of the monitoring stations is expected to function 5-7 years. It is not unlikely that during this time, there would be major river contamination anomalies, not excluding painful accidents in industrial, water treatment, and/or other facilities along the river. Would the "Employer" advice the bidder to take into account such possibility? Or, to comply with requirements of bid?	The Service Provider has to comply with requirements of bid.  The bidder should quote the price taking into consideration any changes that would reasonably be expected to happen during the contract period.
7	Section VI Clause 3 / Page 59	i.) Would the Employer be prepared to accept new technologies for the measurement of various parameters?  ii.)The only technical or equipment selection related specification available in the bid document is the parameter and their range, resolution and accuracy. So it is our understanding that bidders are free to choose the equipment, technology they feel is appropriate for such monitoring. Please confirm.	The choice of Technology lies with the Service provider. The Employer is "Technology Neutral" Ref the provisions of Section VI, clause 3.1 (page 59).
8	Section VI, Clause 6.4 / page 63	We would be grateful if you could expand on point 6.4 "Advance contract payment of 10%)? Does this mean that if the overall contract for the supply of data for the five year period were USD\$x million then the advance payment for the project would be 10% of the total "x million"?	Yes.  10 % of Contract Price shall be paid as interest free advance after signing of contract against submission of a bank guarantee
9	Section VII / Clause 7/ Page 64-65	Does the "Employer" anticipate any monitoring and tracking of the physical status of the equipment and the system?	Physical status of the equipment and the system is an essential ingredient for quality data production therefore as part of its

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			<p>duty the Data Qualification Consultant would be ensuring quality control through field verification.</p> <p>[Refer Section VII, Clause 7.1 (page 64 – 65)]</p>
10	Section VII / Clause 6.4.2 Page 70	Page 70, Section 6.4.2 A. "Price of hourly data supplied from fixed station": Being P the contract Price and Qa, Qb, Qc and Qd the quantity of parameters, we assume that the correct parentheses in the price of hourly data formulas are shown in the bid documents.	No change or explanation required.
11	Section VIII Performance Specification / Page 75	Design-based data quality reliability. The document does not specifically and in details addressee <b>data integrity (vulnerability/security)</b> aspect; however, unreliable, altered and/or hacked data can compromise the entire undertaking and make the system unusable.	[Ref Performance Specifications / Section VIII, Page 75].
12	Section VI/ Page 45 Section VIII/ Clause 3.1/ page 76	Data collection: 'Hourly data', does it correspond to an instantaneous measurement or to an average?	Bid document mentions the meaning of hourly and 24 hourly data.  [Ref Section VIII, Clause 3.1, page 76]
13	Section VIII, Clause 3.1.1, page 76	We understand that the Employer has already obtained No Objection Certificates (NOCs) from the corresponding Owners/Agencies, so that the permissions for installations and civil works have been granted for all the locations.	[Refer Appendix A Page 89 and Section VIII, Clause 3.1.1, page 76] and the URL <a href="http://cpcb.nic.in/ngrba/LocationsNOCsLinked.pdf">http://cpcb.nic.in/ngrba/LocationsNOCsLinked.pdf</a>



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14	Section VIII, Clause 3.1.2.1 Page 77	Fixed stations, "If the flow regime changes over a period of time, the instruments/equipment must be relocated to a point where maximum flow is experienced. On an average, such relocations may not be required more than twice per year": Who will be taking this decision about relocation?	Service provider shall be responsible for relocating the system under intimation to the Employer  [Ref: Section VIII, Clause 3.1.2.1 Page 77].
15	Section VIII / Clause 3.2 / Page 77 Data Collection and Delivery	The data transfer will be implemented using the SFTP service or other open communication standard": Only validated data will be transferred? In case of communication problems impeding transfer within 5 minutes of measurement, will these measurements be considered as incorrect and not qualified for payment?	The Service Provider required to arrange the communication network and ensure the data delivery at Employer data center within $\pm 5$ min from the time of data generated on hourly basis. The clause of the bid reads as "Server time of the data Center will be the basis for determining whether the data was transferred within the specified time limit, so as to be qualified for payment." Thus, data delivery at Employer data center beyond $\pm 5$ min from the time of data generated will make data not qualified for payment. It implies that the Service Provider require to employ the communication software which supports the time stamping of the data. [Ref Section VIII, Clause 3.1.2.2, Page 77]
16	Section VIII, clause 3.2, Page 77.	Does the "Employer" indeed need just text files or does he prefer to have the data in some more modern format (e.g. Excel spreadsheet, some data-base format) to be able to use and analyze	[Ref: Section VIII, clause 3.2, Page 77].
17	Section VIII ,	Document page #78, § 3.3 determines that calibration is	Service Provider shall be responsible for data collection and



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	Clause 3.3 / Page 78	required every 14 days. Is it understood that for the calibration process a substitute sensor has to be deployed, since if calibration takes longer time, the measurement cycle may be not in compliance with bid document.	delivery (page 77) as per the Performance Specification mentioned in Section VIII of bid Document which implies that the data would be qualified only when specific quantity of data are received by the Employer.  [Ref: Section VIII / Clause 3.6.1 a, b / Page 80].
18	Section VIII , Clause 3.2.2 / Page 78	Should the data centre be compliant with ANSI/TIA standards or TIER classification? How do you plan to recover and show the data collected? Do you expect specific software to be developed (web, accessible for different type of users according to permissions granted)? Any back-up system?	[Ref: Section VIII, Clause 3.2.2 / Page 78].
19	Section VIII / Clause 3.3.2 / Page 78	It is stated in the documents that BOD should be measured by sampling and then laboratory analysis. Are the bidders to assume that this is to achieve the BOD5 reading? Would board be prepared to accept instantaneous readings of a surrogate for BOD5 which can be measured continuously and transmitted with the rest of the data?	As per provision of bid document.
20	Section VIII , Clause 3.4 / Page 79	Is the Data Qualification Consultant expected to attend all the 14-day calibration visits along with the Service Provider?	Yes, as mentioned in bid document at clause 3.4 Section VII Page 79.
21	Section VIII Clause 3.4.1 / Page 79	"If the minimum measurement conditions cannot be met, all data from the respective station will not qualified for payment": Under these conditions, for how long will be the	For data to be qualified for payment minimum measurement conditions are mandatory.  Therefore for data to be qualified for payment minimum

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		measurements not qualified for payment (hours, days...)?	measurement conditions are to be met.
22	Section VIII Clause 3.6.1/ Page 79	a) Measurements must be received from at least 90% of the total locations (namely 31 locations); and b) The measurements received from each such location shall not be less than 90% of the measurements specified for it". In case one of the conditions above, "a)" or "b)", is not accomplished for an hour set of measurements, what are the main implications for the Service Provider?	In case one of the conditions above, "a)" or "b)", is not accomplished for an hour set of measurements, the main implications for the Service Provider is that he will not be qualified for payment of such measurements.  [Ref: Section VIII, Clause 3.6.1 / Page 79-80].
23	Section VIII Clause 3.8 / Page 81,	Parameters to be measured and Specifications, table with parameters, ranges, accuracy and the resolution: Why is the accuracy of some parameters highlighted in green? Do they have a special consideration etc?	The highlighted (green colour) is refereed if better /higher accuracy than the mentioned in bid document is available.
24	Page 89 / Appendix A /	"Visits to the identified sites for finalizing exact locations for carrying out civil works and or mounting the equipment/sensors": In case civil works are needed to be carried out in certain locations, who will be paying for these works and who is expected to carry them out?	The Service Provider shall be responsible for all such arrangement including Civil work, erection of equipment structure and making the power supply available to the system.
25	Appendix A / Page 89	Is equipment cost an integral component of the cost of the entire bid? What would be ownership of all the equipment and infrastructure after completion of the entire project	The Service Provider will hold ownership of the equipments.  [Ref Appendix –A, (Description of the Services) page 89, clearly mentioned the point].
26	Appendix A / Page 89	"Finalizing arrangement for requirements of power supply and communication network for each location": We understand that the	No, all such cost will be borne by Service Provider. Please read appendix A.



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		monthly costs related with communications and energy supply for all the locations will be assumed by the Employer.	
27	Section VIII / Clause 3.3.2 / Page 78	It is stated in the documents that BOD should be measured by sampling and then laboratory analysis. Are the bidders to assume that this is to achieve the BOD5 reading? Would board <b>be prepared to accept</b> instantaneous readings of a surrogate for BOD5 which can be measured continuously and transmitted with the rest of the data?	Regarding BOD measurement, please refer Clause 3.3.2 Section VIII which clearly describe the calibration, measurement and validation procedures.
28	Section VIII/ Clause 3.8 / Page 81,	For the parameters such as pH, DO, t, EC etc would the board accept the use of one multi parameter water quality monitoring instrument provided that the instrument conformed with International standard methods to help keep the package price down instead of discrete instruments? For BTX measurements, would the Board accept new and proven Optical technologies for this measurement?	Ref : Sr. No 7 as above
29	Section-VIII, Clause- 3.2/ page 77	Is there any way to collect ALL the measurement and data transmission frequency information and requirements and present it in one table?	[Ref: Section-VIII, Performance Specification, Clause- 3.2, page 77]
30	Section-VIII, Clause- 3.2/ page 77	Networks problems, Data Integrity, Data transmission and other system admin issues.	The Service Provider will make necessary arrangements for continuous monitoring and supply of data to Employer with all the networks and its integrity arrangements.



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31	<p>Section VI Clause 2.4 / Page 56</p> <p>Section VIII Clause 3.2 / Page 77</p>	<p>Is the energy supply without solar panels assured in every location? Are all the locations easily accessible by means of a motor vehicle?</p> <p>Is there a preference related with the mean for communications (mobile, radio, satellite,)?</p>	<p>The Service Provider is encouraged to visit the sites/ locations and do enough desk studies to aquatint with site conditions. Service provider shall quote rates considering that they have to provide data considering existing site situations.</p> <p>The Service Provider may opt communication network(s) based on any technology.</p>

  
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 Central Pollution Control Board