

ANDHRA PRADESH POLLUTION CONTROL BOARD
PARYAVARANA BHAVAN, A - 3, INDUSTRIAL ESTATE, SANATHNAGAR,
HYDERABAD - 500 018.

TENDER DOCUMENT

FOR

Supply, Commissioning, Maintenance of the software required for data acquisition and handling system of real time ambient air, stack, effluent and noise monitoring stations located in the state of Andhra Pradesh.



PURCHASER

Attention : **Member Secretary.**
Address : Andhra Pradesh Pollution Control Board
Payavaran Bhawan, A-III, Industrial Estate,
Sanath Nagar, Hyderabad - 500 018,
Andhra Pradesh, India.
Contact : Chief Environmental Engineer.
Telephone No. : 040 23887504
Mobile No. : 9866776703
e-mail : aramchand@appcb.gov.in
Website : www.appcb.ap.nic.in



ANDHRA PRADESH POLLUTION CONTROL BOARD

Paryavaran Bhavan, A-3, Industrial Estate, Sanathnagar,
Hyderabad - 500 018.
Phone No: 040 - 23887500

Tender Notice No. 87/APPCB/MIS/AAQM/2010

Date: 21.10.2016.

INVITATION FOR BIDS

Andhra Pradesh Pollution Control Board is inviting bids in sealed cover for, supply, Commissioning, Maintenance of the software required for Acquisition and Handling system of data at central station (APPCB Head Office) of real time ambient air, stack, effluent and noise monitoring stations located in the state of Andhra Pradesh.

I. General conditions:

1. Each bid shall consist of two parts namely, technical and price bids. **Technical bid in Cover - A and price bid in Cover - B** and shall be submitted to the Member Secretary, A P Pollution Control Board, Paryavaran Bhavan, A - III, Industrial Estate, Sanathnagar, Hyderabad - 500 018 as per the tender schedule.
2. Technical and price bid sealed Covers - A and B shall be super scribed as "Technical Bid" and "Price bid", respectively, for the supply, commission & maintenance of software required for acquisition and handling system of data at central station (APPCB Head Office) of real time ambient air, stack, effluent and noise monitoring stations located in the state of Andhra Pradesh. The two sealed covers containing technical & price bids along with tender fee and EMD put together shall be submitted in a separate sealed cover as per the tender schedule.
3. **Tender fee:** Non-refundable tender fee of Rs. 1,000/- (rupees one thousand only) in the form of demand draft drawn from any nationalized bank in favour of Member Secretary, Andhra Pradesh Pollution Control Board shall be enclosed with the technical bid. Bids without tender fee will be rejected out rightly.
4. **Security deposit (EMD):** Rs. 50,000/- (rupees fifty thousand only) in the form of bank guarantee with a validity period of 180 days drawn from any nationalized bank in favour of Member Secretary, Andhra Pradesh Pollution Control Board shall be enclosed with the technical bid. Bids without EMD bank guarantee will be rejected out rightly.
5. Security deposit (EMD) will be returned to the unsuccessful bidders immediately after the issue of the work order to the successful bidder. For the successful bidder, the Security deposit (EMD) will be returned after submission of Performance Security deposit in the form of Bank Guarantee. No interest will be paid on security deposit.

6. Member Secretary, A P Pollution Control Board reserves the right to accept or reject any bid or cancel the tender notice without assigning any reason.
7. Bids received after the last date & time of submission of bids, will be rejected. A P Pollution Control Board is not responsible for the postal delay in submission of bids.
8. Unsealed or improperly sealed bids will be rejected out rightly.
9. For any queries, enquires and clarifications, bidders may contact the Chief Environmental Engineer, A P Pollution Control Board, Paryavarana Bhavan, A - III, Industrial Estate, Sanathnagar, Hyderabad - 500 018. Mobile Phone No. 9866776703.

10. Tender Schedule:

01	Start date & time of obtaining of bids	:	21.10.2016 from 10.30 AM
02	Pre-bid meeting date	:	27.10.2016 at 03.00 PM
03	Closing date & time of submission of bids	:	04.11.2016 by 05.00 PM
04	Opening date & time of technical bids	:	05.11.2016 at 03.00 PM
05	Opening date & time of price bids	:	11.11.2016 at 03.00 PM

11. The proposal for award is liable for cancellation, if it is found that the bidder recommended for award has, directly or through an agent, engaged in corrupt, fraudulent, collusive, coercive or obstructive practices in competing for the contract in question.
12. Eligible Bidders must submit their bids for complete scope of work. Any bid submitted for incomplete scope shall be rejected out rightly.
13. In the event of date being declared as a closed holiday the date for submissions of bids and opening of bids will be the following working day at the appointed time.
14. APPCB will not be responsible for any cost (s) or expense (s) incurred by bidders in connection with the preparation or delivery of bids.
15. Bidders are requested to get a conformation acknowledgement from the tender inviting authority as a proof of submission of bid to avoid any discrepancy.
16. Neither the successful bidder nor his agent nor the his sister concern firm will be permitted to provide connectivity of the CAAQMS, Stack, Water and Noise online data from the industries to the APPCB central server.

Sd/-

**MEMBER SECRETARY
ANDHRA PRADESH POLLUTION CONTROL BOARD**

II. Specific conditions:

1. Bid validity period shall be 180 days from opening of the technical bids.
2. **Contract Period:** The successful bidder, who was awarded with the work order, shall have to enter three years agreement with APPCB for Operation and Maintenance services. APPCB may extend the contract period on mutual agreement for a maximum period of another three years after completion of the initial contract period of three year.
3. Contract shall be signed within 15 days from the date of receipt of the Purchase Order.
4. The contract period will be for three years from the date of commissioning of the software system. There shall not be any price escalation during the contract period.
5. **Performance Security:** Rs. 3,00,000/- (rupees three lakhs only) shall be paid in the form of Bank Guarantee towards Performance Security within 10 days from the date of signing of the contract. The validity of the Bank Guarantee shall be three years + two months from the date of commissioning of the system.
6. Performance security Bank Guarantee will be returned to the successful bidder after successful completion of the three year contract period. Performance security will be forfeited in case of any non-performance of tender conditions.
7. APPCB will be awarding the complete work to the lowest quote on total value basis for the works mentioned.
8. The firm shall quote for all works listed in the commercial document, otherwise bid will be disqualified / rejected.
9. There will be a team formed at APPCB IT Division to crosscheck the data availability, assessing the performance of the firm. This team will cross verify the data availability, new work assignment progress and any other related issue and shall communicate to the board in writing. The firm shall communicate with the team and should clarify each issue time to time.
10. Neither the successful bidder nor his agent nor the his sister concern firm will be permitted to provide connectivity of the CAAQMS, Stack, Water and Noise online data from the industries to the APPCB central server.

III. Eligibility criteria and selection criteria:

a) **Eligibility Criteria**

The bidder should fulfil the following criteria and submit the related documents:

- a. Must be in operation from last two years with software development skills in acquisition, connecting and handling of the data of online air / water / noise monitoring equipment to / at the central server.
- b. Firm should not have been blacklisted by any Government Agency. Self-declaration should be attached.

- c. Firm must be registered and a copy of the registration document must be attached with the proposal.
- d. Suppliers / manufacturers of the online monitoring equipment of stack, ambient, water and noise are not eligible to participate.
- e. Firm should provide the customer list containing at-least two clients in PCB / Govt. /PSU /Semi Govt. Sector. The name, address, telephone of officials concerned, work award letter showing details (date of award, cost of project, project completion details, work details highlighted as desired only) should be enclosed.
- f. Firm should have a valid ISO certification for software development/IT enabled services/ data management.
- g. Firm should have at least 05 (five) software professionals engaged in various software development activities. Provide names, address, mobile, designation and serving period in the firm.
- h. Firm should have turnover of at-least 1.5 crore cumulative for last two financial years (2013-14 & 2014-15) from software development and related specialized areas as mentioned in document.
- i. Balance sheets attested for each year specifically highlighting the related work revenue details for last two years.
- j. Fields in which firms should have worked are any one of the following
 - Having developed software for data communication without human intervention with web display using maps with mathematical analytics.
 - Have developed operational software implementing communication protocols like http, ftp etc. and thereby making real time data available from different locations and its web display using maps with mathematical analytics.
 - Have developed ERP kind of software through which maintained activities of another institution or firm with web portal display & mathematical analytics.
 - Have integrated GPRS/GSM tracking systems to manage data availability at a specific location and displayed it through web display using maps with mathematical analytics.
 - Have developed software systems using SCADA by integrating measuring parameters desired and data transmitted to a central location for web display using maps with mathematical analytics.

Note: The system should have been developed using standard practices of software engineering: Feasibility study, Software Requirement Study, System analysis, System Design, Prototype product development, Testing, Implementation, Maintenance, Review.

b) Selection Criteria

The software consultant's/firms selection criteria are as follows:

- a. The firm has to qualify above mentioned eligibility criteria.
- b. The firms having similar system, operating in any state PCB where data acquisition and transmission from real time systems is being carried out will be preferred.
- c. On qualifying Eligibility Criteria, firm has to demonstrate the technical skills through presentation and live operational system at APPCB.

Financial quote submitted shall include and satisfy the following:

- a. Cost should include server software, client's software and mobile applications.
- b. All the software, including Source code will be owned by the APPCB. The IPR (Intellectual Property Rights) for the enhancements/ customisation made specifically to APPCB will be owned by APPCB.
- c. The client software will be distributed to any number of industries / monitoring stations as per requirement of APPCB.
- d. The server software should provide open Application Program Interface (API) to receive data from any client software / hardware.
- e. The client software should support any kind of analyser for data acquisition and transmission to Central software without any intermediate converters.
- f. The server software should support connectivity to unlimited number of clients.
- g. The server software shall be installed in the server provided by APPCB.
- h. One software developer and one support engineer shall be deployed on regular basis for a period of one year on-site for technical support, and establish the connectivity and remote support to the monitoring stations.
- i. The suppliers / manufacturer of the monitoring equipment stack, effluent and ambient monitoring are not eligible to participate.
- j. The successful bidder shall not supply data Acquisition systems or hardware to any industry in Andhra Pradesh.
- k. All requirements, scope of the work, eligibility criteria and terms & conditions.
- l. The supplier shall provide mobile application for dissemination of data to APPCB officials and industry concerned.

- m. The supplier should be in a position to deploy server software, client's software and mobile application within 15 days of issue of work order.
- n. Separate mobile app shall also be developed by the supplier in consultation with APPCB for dissemination of the information to public.

IV. Scope of work:

The major component of the project is the continuous collection and transmission/integration of online real-time data to specified application from all Stack and ambient monitoring stations spread all over the state. Meaningful filters have to be developed so that data is filtered logically to draw valid conclusions of the data.

The Central Software should have a web application to view, generate reports, analyse the collected data, generate custom reports and corroborate with industry for various exceedance and failures. The web application should be supported on major browsers. The user interface should be responsive and support rendering on tablets, smart phones and desktops.

Capabilities:

A. General

- a. The most fundamental requirement in establishing continuous online monitoring systems is to have a universal format of connectivity that can accept real time data from any installed analysers (make or model) in the industry approved internationally or by the Central Pollution Control Board for monitoring the ambient and emission parameters.
- a. The system should be a highly scalable client server application where the client software resides in the industry site and the central server software resides at the central location hosted on- premise at APPCB.
- b. Provide a highly scalable system that can connect more than 1000 industries simultaneously in real time with a non-proprietary highly scalable backend database suitable for storing Time-Series Data.
- c. The system should support multiple client software that are found suitable to the requirement and approved by A.P. Pollution Control Board, which can send data to the central server.
- d. The central server software should expose authenticated Representational State Transfer (REST) based Application Programming Interface (API) for client software to transmit the data.
- e. During collection and transmission, the platform should utilise digital encrypted communication to ensure authentic data is received. The data origination location (GPS coordinates) and source signature should also be captured verified and transmitted to the central software.
- f. No data shall be accepted as an output from any PC /server or any other intermediate software at Industry side.

- g. The client software should be able to transmit the data to server using minimal bandwidth using existing site Broadband LAN/GPRS/GSM connectivity or by using an external dongle as an alternative for establishing online connectivity.
- h. The software should provide the ability to annotate the validated data with the industry comments and data quality codes. The annotations should be visible while viewing the data in the charts.
- i. The software should provide reporting capabilities to display trend graphs, configurable alerts, tabular data, charts, wind-rose chart and data validation interface.
- j. The software also should provide ability to develop custom made on-demand reports with capabilities to export the data into PDF, CSV and Excel formats. The reports developed should be printable on any of the standard printers.
- k. Entire Source code of the software should be provided to the Pollution Control Board and the board should have the ability to review any specific module to validate the business logic and the data handling process.
- l. The ability to generate the encryption keys for the Client side software should be provided to the A.P. Pollution Control Board, so that the board can provide authorized keys to the individual sites for secured data transmission. There should not be any financial implication to APPCB for generation of such keys and it should be a software feature.
- m. Publishing of data shall be at the end of the regulator and should have necessary components inbuilt in the system to publish valid data only.
- n. Should have provision to share the database with the CPCB server database as and when required.

B. Central Server Software Requirements

Regulator side software

- a. The Central Server Module should provide a back-end processing services for transmitted data and a highly scalable backend database capable of storing time-series data acquired from the industry site.
- b. The database should be able to support data storage and query for 10 years of data collected from all the industry sites with minimum of 1-minute interval.
- c. The database should be scalable to support 5000+ concurrent connections and should be able to store and process more than 100 Terabyte of data.
- d. The Central Server Module should have pre-configured threshold limits for the various monitored parameters based on the industry type as per the Central Pollution Control Board directives for each of the industry types.
- e. The Central Server Module should support remote configuration of the industry

site parameters from the APPCB Head Quarters.

- f. The Central Server Module should generate automated alarms and alerts based on parameter exceedance, data connectivity failure, analyser failures, etc.
- g. The Central Server Module should be able to identify delayed data published from the industry site due to network connectivity failures and mark those data separately from the live connected data.
- h. The Central Server Module should be able to send pre-configured template based SMS and Emails for alerts and alarms generated based on the configured rules. This feature should be built in capability of the Central Server Module and not external application software.
- i. The Central Server Module should have facility to transfer data to other server at regulator side at periodic interval for data backup, sharing of data and recovery requirements.
- j. The Central Server Module to be able to generate report on alarms/events and exceedance with industry wise consolidation and period wise say weekly, monthly, annually, etc.
- k. The Central Server Module should provide automatic notification to the industry site and regulator inbox for all new notifications and action items like fixing communication issues, analyser problems, etc.
- l. The Central Server Module should be able to support data encryption and security at the server side. The data received from the site should be decrypted and data authenticity ensured.
- m. The Central Server Module should be able to collect data from the industry sites even when one of the central server is down and thus provide redundancy.
- n. The Central Server Module should be able to identify which client software and version send for specific data and capture the IP address from which the data was sent for audit purposes.
- o. The central server should be available 24/7 for 365 days for data collection. The system should provide automated redundancy so that industry site should be able to continuously send the data.
- p. The Central Server Module should support data export in ISO -7168 format.
- q. The Vendor should provide the central server software and workstation software. The central server software should do all the data processing and storage management. The workstation software installed should provide the regulator with functionality (Web Interface Module) without the need to directly login to the central server. Minimum of one Workstation software licensed should be provided by the vendor.

C. Client Side Software Requirements

Data Collection and Transmission Module

- a. The client software should be able to receive data simultaneously from several analysers and transmit the data to central server.
- b. The Client side software should be the Client hardware independent should be compatible to any hardware modem the software should be open to any hardware modem.
- c. The data collection and transmission module should be directly connecting to the installed analyzer which fetch the data directly from the analyser without any intermediary software or conversions. The software should have no editing provision for altering/correcting the data at the industry side.
- d. The data collection and transmission module should encrypt the data with unique client specific encryption key to ensure authentic data transfer from the industry to the central server. Only encrypted and authenticated data shall be received by the Central Server Module.
- e. During internet connectivity failure or a communication issue with the central server, the data collection and transmission module should store the encrypted data locally and retransmit the same when the transmission is restored. Any such delayed transmission should be identifiable at the regulator side using data quality codes.
- f. The data collection and transmission module should wait for acknowledgement from the server and should retransmit the data if no acknowledgement is received within the timeout period.
- g. The data collection and transmission module should support remote analyser configuration. The data collection and transmission module should accept remote analyser configuration commands and update the analyser configurations with the set value.
- h. Each measurement should be associated with the data quality code inferred while data collection and the data quality code should be transmitted along with the data. The data quality code should indicate analyser failures, analyser communication failures, etc.
- i. Software should support reading analyser configuration and report the configuration changes to the central server. Any configuration changes done at the site should have audit trail and reported to the regulator for approval in the form of workflow.
- j. The data collection and transmission module should accept commands for calibration (auto and manual) and able to perform calibration of the analyser locally.
- k. The data collection and transmission module should be able to collect the data directly from the analyser with a minimum scan interval of 10 seconds.
- l. Data collection and transmission shall be done with the specified time frequency given by the user.
- m. The data collection and acquisition software should be able to collect and

encrypt the data locally on the industry site. The data should archive the data locally on the client machine for a minimum period of 1 year or user specified.

- n. The data collection and transmission module should communicate the status periodically to the central server even when no analyser is connected or when analyser is faulty with appropriate data quality code.
- o. The data collection and transmission module should auto-restart on failure or machine reboots.
- p. The data collection and transmission module should be able to transmit the data over Broadband/LAN/WiFi/GPRS/GSM, etc.
- q. The data collection and transmission module should support any analyser, make and model based on the configuration and protocol specific extensions. (analyser suppliers should be open enough to share their analyser output protocol for easy data transmission digitally).
- r. The data collection and transmission module should be customizable to support any specific protocol required.
- s. Data collection and transmission module should be able to support protocol extension hooks and API.
- t. The Central Server should publish an open Application Programming Interface (API) to support different client side software. Any vendor supplying the data collection and transmission module should comply with the API. The client side software requirement shall be demonstrated at APPCB. Data transmitted only from such demonstrated and proven client software will be accepted by the Central Server Module. Establishing connectivity between the client and central software is the responsibility of the service provider.
- u. The successful Bidder shall give clear specification of the data logger for client to establish connectivity.

D. General Requirements:

- a. To view, generate default report, analyse the collected data and corroborate with industry for various exceedance and failures.
- b. The Web Server Interface Module should provide a User Interface presented in the browser should be very user friendly and intuitive following the best practices in web based user interface design.

E. Configuration Management

- a. The Web Server Interface module should provide the user interface to configure the site, monitoring station, analysers, calibrator and measured parameters. The detail screens for site configuration, monitoring station configuration, analyser configuration and parameter configuration should be available.

- b. The Web Server Interface module should have list of supported analysers make and model for the major analysers used in the Industry.
- c. The Web Server Interface module should support grouping of industry sites, industries across geographic dimensions like District, and City etc and other custom attributes (like industry type) selected by the regulator.
- d. The Web Server Interface module should allow configuration of analyser parameters, channels etc for a particular site.

F. Alerts and Alarms

- a. The Web Server Interface module should provide a interface to view and list all alarms and alerts. There should be a filter to view only new alerts and alarms.
- b. The Web Server Interface module should provide an interface to acknowledge the alarms and alerts to industry and regulator. Once acknowledged, the alarms and alerts should disappear from the list.

G. Remote Calibration

- a. The Web Sever Interface module should support configuration of remote calibration of the analyzer.
- b. The Web Sever Interface module should have the ability to provide the various manual/online calibration sequences, schedules for remote calibration and reports.
- c. The Web Server Interface module should support calendar view of all the automated calibration schedule and sequence.

H. Security

- a. The Web Server Interface module should have facility for data viewable in non-editable format for Regional offices of the APPCB for only Industries in their line of control of the regional offices.
- b. Each industry should be able to view and generate default reports for the data generated for their industries based on the access provided.
- c. The Web Server Interface module should support configurable user authentication levels to support different roles for Head office, Region offices and industry site access.
- d. The Web Server Interface module should support creating and managing new users and their access levels.

I. Data Validation

- a. The Web Server Interface module should provide user interface for data validation and approval. The regulator should be able to select a particular time range and approve/reject the data with proper comments.
- b. The Web Server Interface module should support manual and automated data validation and approval workflow to review the various industry site data and approve by providing appropriate comments based on the data quality.
- c. The Web Server Interface module should provide ability to annotate the data with the specific events/comments provided by the industry such as maintenance schedules, breakdown, analyzer fault, etc.

J. Corroboration and Workflow

- a. The software should support corroboration between the industry site and regulator by providing a built in workflow feature and an inbox feature. This feature should be a built-in functionality of the central server module and the web interface module and not additional software running separately to ensure that there is integration with the reporting module.
- b. Whenever there is any exceedance or analyser failure or analyser connectivity failure, an action item should be generated in the industry site inbox. The industry site personnel should be able to update with the corrective actions and comments. These comments/reasons should show upon the graphs when the data for that particular period is viewed.
- c. Industry site should be able to inform the regulator of different maintenance events (site maintenance, site breakdown, analyser breakdown etc.) using workflow feature of the Web Interface Module.
- d. The system should automatically generate events and inbox messages based on the exceedance thresholds and alerts configured.
- e. The system should provide the history of communication between the industry site personnel and the regulator for specific events/workflows.
- f. The various events like communication failures, analyser failures, exceedance etc and corresponding reasons should be available for reporting. There should be standard reports for viewing industry level statistics for communication failures, analyser failures, power failure, exceedances etc

K. Reports

- a. The Web Server Interface module should support standard reports for each industry site based on the exceedance threshold, hourly average, and monthly average, etc.
- b. The Web Server Interface module should have both default reports and also

reports generatable by the end user as per requirements.

- c. The Web Server Interface module should be able to support different data quality code and report data based on representative ness and data quality. Statistical significance of data should be reportable in respect to data density.
- d. The Web Server Interface module should generate report on approved and validated data. There should also be a capability to see the raw data collected from industry site within the reports.
- e. The Web Server Interface module should be able to generate wind rose and pollution rose based on the wind data collected from the various sites.
- f. Grouping area wise Industries and selecting one meteorological station in that group should generate reports of pollution rose and wind rose details.
- g. The Web Server Interface module should have capability to compare, group sector wise industries, analysers and generate report (text, numeric and graphical).
- h. The Web Server Interface module should support ability to export the reports data to csv, pdf and text file as and when required.
- i. The Web Server Interface module should have provisions to accommodate printers of different model and make.
- j. The Web Server Interface module should support ability to develop custom reports by the regulator based on the data analysis requirements. The report generated should be both graphical and tabular form.
- k. The software should be able to select the data quality code, the data representative ness, the time window and the site specific parameters for generating reports.
- l. The Web Server Interface module should provide daily status of each industry site and provide metrics on data quality and representative ness.
- m. The Web Server Interface module should provide ability to generate custom reports.
- n. Report should be able to calculate differential data from two parameter reading and show the trend of differential data. This feature is required for temperature difference measurements and alerting.
- o. Should have feature to make calculations on raw data obtained from analyser and generate alerts and reports.
- p. The web Server interface module should provide custom reporting capabilities to support regulator's present and for future requirements.
- q. The reports should have the capability to show both raw data and approved/validated data.

- r. There should be a provision to create custom charts from the Web Interface Module. There should be a support to add new charts and dashboards as per the requirements.
- s. Should provide optional features such as to connect the data to display board of the Industry for public display.

L. Live Status

- a. The Web Server Interface module should support real time view of the data from all the industry sites for all the parameters configured for monitoring.
- b. The Web Server Interface module should support geo-location of the industry using specific lat long or as per cartographic coordinates overlay on a map and present information of industry, parameters connected and present value either graphically or numerically display.
- c. The software should be able to show the status of each of the sites in a geographic map and should show alerts and alarms based on system failures and parameter exceedance.

V. Facilities to be provided by A.P. Pollution Control Board (APPCB).

- a. Physical space, server, UPS, and Workstations for setting up the Air Quality Data Monitoring software.
- b. Manpower to monitor and manage the Monitoring Centre at APPCB.
- c. Required internet bandwidth.
- d. Furniture, Fixtures, Electrical Wire, Telephone, LAN Network cabling at the space provided.
- e. The required hardware for the proposed solutions should be indicated by the Service provider

VI Mode of Payments

A. Software cost

- a. **Milestone 1:** 50% of Total project cost shall be released after supply and commissioning the system, Go Live with all APPCB CAAQM Stations.
- b. **Milestone 2:** 40% of total project cost shall be released after six (6) months.
- c. **Milestone 3:** 10% of total project cost shall be released after 12 months.

B. Deployment of Resources

Every quarter (once in three months) after successful completion of Operation & Maintenance services.

Any payment to be released under the project will be subject to following conditions:

- a. Submission of source code in soft copies.
- b. Submission of two hard copies of software manual required for all its functionalities like installation of new server, installation of new channels, display at web page, connecting database with locations, etc.
- c. Certification from IT Division verifying that system is functional.

No advance payment of any nature will be paid. Cost of the project work should be clearly mentioned by the firm. The Cost should be inclusive of all taxes etc. However, taxes should be clearly mentioned in the financial proposal submitted by the firm to APPCB.

Sd/-

MEMBER SECRETARY

ANDHRA PRADESH POLLUTION CONTROL BOARD

PRICE BID FORMAT

(for tender Part - I)

Name and address of the Bidder:

S. No.	Content Items	Cost (in Rs.)	Taxes (in Rs)	Total Cost including
1	Cost of the central software, client software and mobile applications duly meeting scope of the work, terms and conditions mentioned above.			
2	Deployment of resources (a) Developer - 1 (b) Support engineer - 1 (for a period of three years for customisation and implementation of the			
	Total:			

Total Price in words _____

Note: The above price quote should include '3' year annual maintenance cost post Go-Live declaration and also includes customization as per the User Department requirement, training, defect fixing and any up-gradations.

Place:

Date:

Signature & seal