TENDER

FOR

SUPPLY, INSTALLATION COMMISSIONING OPERATION & MAINTENANCE

OF

NEW MEDICAL GAS PIPELINE SYSTEM

for

Sijua, AIIMS, Bhubaneswar – 751 019

IMPORTANT DATES REGARDING TENDER .

1. Submission of Sealed bids : Last date 21st June 2013

2. Opening of Techno-Commercial Bids : 21st June 2013

Contact Address: Administrative Officer, AIIMS, SIJUA, Bhubaneswar- 751 019

INVITATION TO BID

1. Instruction to Bidders

1.1 Bids are invited, for and on behalf of Director of AIIMS, Bhubaneswar, from established, reputed and experienced manufacturers or their authorized representatives for the Supply, Installation, Commissioning, Operation & Maintenance of New Medical Gas Pipeline System as per the enclosed technical Specifications (Annexure-I).

1.2 Bidders are invited to study the tender document and terms & conditions carefully. Submission of tender shall be deemed to have been done after careful study and examination of the tender document with full understanding of its implications.

1.3 Bids may be submitted in a two bid system separately either for medical gas pipeline or medical gases.The bidder shall clearly mention on the outer cover, the details of the items quoted.

1.4 The scope of work shall include Supply, Installation, Commissioning, & Satisfactory Demonstration. This will also include testing, packing, transportation, scheduling of transportation, transit insurance, delivery at sites, unloading, storage, job site storage, insurance, installation any other services associated with the delivery of the equipment and materials providing warranty of services and operation and maintenance of other related equipment / items required for complete installation. The successful bidder will assume full responsibility of the complete system until final acceptance.

1.5 It will be imperative on each bidder to fully acquaint himself with all the local conditions and factors which would have any effect on the performance of the System. No request for the change of price, or time, schedule of delivery of stores shall be entertained after the purchaser on account of any local condition or factor accepts the offer.

1.6 The bidders are required to have a survey including a site visit before furnishing the quotations. They have to apply for permission in this regard to the Director of AIIMS, Bhubaneswar. The Director, AIIMS, will give such permission in writing, but the expenses, in connection with the visit and surveys shall be borne by the bidders themselves.

2. Schedule of Tender

2.1 Tender documents should be downloaded from the Institute website www. aiimsbhubaneswar.edu.in.

2.2 The sealed bids will be accepted up to 21st June 2013 till 3.00 p.m. in the office of the Administrative Officer (AO), AIIMS, Bhubaneswar.

2.3 The Techno-Commercial Bids will be opened 21st June 2013 at 3.30 p.m. in the office of the Administrative Officer (AO), AIIMS Bhubaneswar. Bidders or their authorized representatives may be present if they, so desire.

2.4 The Commercial bids of the short listed bidders will be opened at the Office of the Administrative Officer, AIIMS, Bhubaneswar as the case may be in the presence of their authorized

representatives, if any. (The date of opening of commercial bids will be communicated to the technically successful bidders).

2.5 All the correspondences shall be addressed to the Administrative Officer (AO), AIIMS, Bhubaneswar.

3. On site functional assessment of the similar installation and equipment of the short listed Bidders will be undertaken, if necessary, by the Committee duly constituted by the Director of AIIMS, Bhubaneswar.

4. Purchaser's Right to Vary Quantities at the time of Award

The Purchaser reserves the right to vary the quantities and/or services and/ or split the order among the selected Bidders.

5. Purchaser's Right to accept any Bid and to reject any or all bids

The Purchaser reserves the right to accept any bid, and to annul the tender process and reject all bids at any time, without assigning any reason. Prior to award of Contract, without thereby incurring any liability to the affected Bidder or Bidders or any obligation to inform the affected Bidder or Bidders of the grounds for the Purchaser's action.

6. Bidder Qualification

The "Bidder" as used in the tender documents shall mean one who has signed the Bid Form. The Bidder may be either the manufacturer of the equipment/ material for which prices are quoted on the Price Schedule or his duly authorized representative, in which case he shall submit a certificate of authority as per Annexure- D. All certificates and documents received hereby, shall, as far as possible, be furnished by the manufacturer/ representative of the firm.

7. Bid Security/Earnest Money

7.1 Bid Security amount/ EMD should be enclosed along with the Techno-Commercial Bid for an amount of Rs. 3.00lakhs (Rupees three lakhs) in the form of Demand Draft drawn in favour of Director, AIIMS, Bhubaneswar, failing which the tenders will be out rightly rejected. Bid Security/EMD, if already deposited against other tenders, shall not be adjusted against this tender.

7.2 The Bid Security/Earnest Money Demand Draft, in case of unsuccessful Bidders, shall be retained by the Purchaser, up to a maximum period of One year from the date of opening of the Bids or till the finalization of the tender, whichever is later. The Bid security shall be refunded to the unsuccessful tenderers on written request along with Original Cash Deposit Receipt issued by the Institute. No interest will be payable by the Purchaser on the Bid Security/EMD.

7.3 The Bid Security/Earnest Money shall be forfeited ;

a) If a Bidder withdraws his bid during the period of bid validity specified by the Bidder in the Bid; or

b) In the case of the finally selected Bidder, if the Bidder fails;

i) to sign the Contract in accordance with Clause 17; or
ii) to furnish Performance Guarantee in accordance with Clause 11.3 or
iii) if, at any stage, any of the information/declaration is found false

7.4 Bid Security/Earnest Money in respect of the finally selected Bidder(s) will be discharged upon the Bidder(s) executing the Contract, and furnishing the Performance Guarantee, pursuant to Clause-11.3.

8. Period of Validity of Bids

Bids shall remain valid for One year from the date of bid opening prescribed by the Vendor. The Purchaser as non-response may reject a bid valid for a shorter period.

9. DGS & D Registration Certificate (under Compulsory Enlistment Scheme)

a) The firm (Indian agent/any firm established in India representing a firm abroad) must be registered with D.G.S.& D. under Compulsory Enlistment Scheme as per the directives of Min. of Finance. Copy of DGS&D registration certificate must be enclosed along with the Techno-Commercial Bid, failing which their tenders will be summarily rejected .

b) The current Sales Tax Clearance Certificate shall be submitted, if Sales Tax applicable.

10. Terms and Conditions of Tendering Firms

10.1 Printed terms and conditions of the Bidder will not be considered as forming part of their Bids. In case terms and conditions of the contract applicable to this invitation of tender are not acceptable to any Bidder, he should clearly specify deviation in his Bid.

11. Bid Requirements

11.1 The Bidder must quote for the equipment with all items and quantities as listed under the Schedule for Requirements.

11.2 Arithmetical errors will be rectified on the following basis: If there is a discrepancy between the unit price and the total unit price as declared in the Price Schedule the unit price shall prevail and the total price shall be corrected. If there is a discrepancy between words and figures, the amount in words will prevail. If the supplier does not accept the correction of the errors, its bid will be rejected.

11.3 The finally selected Bidder(s) will be required to furnish Contract Performance Bank Guarantee for 10% of the Contract Price, on award of Contract as per the prescribed Proforma, from any Scheduled Indian Bank, which shall be valid till warranty period. The performance bank guarantee (B/G) should be submitted to the purchaser within two weeks from the date of

acceptance of the tender. Failure to furnish performance B/G, in time, would entail forfeiture of EMD.

11.4 Bids from Bidders who have not purchased the Bid document or Bids not accompanied by Bid Security or Bids from representatives without letter of Authority from the manufacturers will be summarily rejected.

11.5 Telex/Fax bids and incomplete bids will be summarily rejected.

11.6 Bidders should enclose, along with the Techno-Commercial Bid of their offers, the full details including proposed configuration of offers with full documentation, descriptive literature/leaflets supplementing the description and point out any special feature of their system. All documentation is required to be in English.

11.7 The bid shall contain no interlineation, erasures or overwriting except as necessary to correct errors made by the Bidder, in which case such corrections shall be initialed by the person or persons signing the bid.

11.8 All pages of the Bid being submitted must be signed and sequentially numbered by the Bidder.

11.9 All information in the offer must be in English. Information in any other language must be accompanied by its authenticated translation in English. Failure to comply with this may render the offer liable to be rejected. In the event of any discrepancy between the offer in a language other than English and its English translation, the English translation will prevail.

12. Bid Prices

12.1 The bidder shall indicate on the Price Schedule attached to these documents the Unit Prices and the total Unit Prices of the goods it proposes to supply under the Contract in the following manner :

i) Unit CIF price separately for each item.

ii) ANNEXURE F (MEDICAL GAS) AND ANNEXURE G (GAS PIPELINE) BIDS ARE TO BE SUBMITTED IN A TWO BID FORMAT SEPARATELY EITHER FOR GAS PIPELINE OR MEDICAL GASES.

12.2 The prices quoted by the Bidder and accepted by the sub-committee duly constituted by AIIMS, Bhubaneswar shall hold good till the completion of the works and no additional claims will be admissible on account of any price variation or fluctuation in market rates.

12.3 Payments made consequent to any notified change in duties and sales tax (both increase and decrease) shall be to the Vender's account.

12.4 The finally selected Bidder will have to apply to the Prescribed Government Authority under existing acts/rules/regulations at the time of award and execution of contract for grant of requisite Licenses for operation of Manifold services or foreign exchange for such items as required and the purchaser will only tender such assistance, as considered necessary.

12.5 The finally selected bidder has to ensure that all the statutory requirements applicable for supply, installation and commissioning of gas pipeline and manifold system as prescribed by Government of India are adhered to at the time of execution as well as during the entire duration of the contract (10years)

12.6 The firm has to provide the breakup expenditure of different quoted items as well as total expenditure clearly for the system.

13. Contents of Bid

The Bid prepared by the Bidder shall comprise of the following two components:

a) Techno-Commercial Bid comprising of the following and to be filled on the format sheets provided in the tender document. This is mandatory:-
   i) Bidders Particulars (Annexure-A)
   ii) Bid Form (Annexure -B)
   iii) Bidder Profile (Annexure -C)
   iv) Manufacturers' Authorization Form (Annexure -D)
   v) Proforma of Guarantee for supply of spares during the post warranty period (Annexure - E)
   vi) Commercial bid format for gases and gas pipeline systems (Annexure F &G)
b) Financial Bid / Price Bid to be submitted in the company's letter head duly signed & sealed by their authorized signatory / ies.

14. Procedure for Submission of Bids

14.1 It is proposed to have a Two Bid System for this tender
   a) Techno-Commercial Bid in single sealed envelope
   b) Financial Bid in single sealed envelope

14.2 Each copy of Techno-Commercial Bid of the Tender should be covered in a separate sealed envelope super-scribing the wordings "Techno-Commercial Bid". Both the copies should be put in a single sealed cover super-scribing the wordings "Techno-Commercial Bid". In the event of any discrepancy between them, the original shall govern.

PLEASE NOTE THAT PRICES SHOULD NOT BE INDICATED IN THE TECHNO-COMMERCIAL BID. TENDERS SUBMITTED WITHOUT FOLLOWING THE TWO BID SYSTEM PROCEDURE WILL BE SUMMARILY REJECTED.

14.3 Each copy of Commercial Bid of the tender should be covered in a separate sealed cover super-scribing the wordings "Commercial Bid". Both the copies should be put in a single sealed envelope super-scribing the wordings "Commercial Bid". In the event of any discrepancy between them, the original shall govern.

14.4 Both the Techno-Commercial Bid cover and Commercial Bid cover prepared as above are to be kept in a single sealed envelope super scribed with Tender Number.

14.5 The cover thus prepared should also indicate clearly the name and address of the Bidder.

14.6 Each copy of the tender should be a complete document and should be bound as a volume. Different copies must be bound separately.

14.7 The sealed cover as mentioned shall be deposited with the Administrative Officer (AO), AIIMS, Bhubaneswar as the case may be.

15. Opening of Bids by Purchaser

15.1 The bids will be opened in the presence of Bidders/representatives who choose to attend on the date and time as mentioned. The Bidders/ representatives who are present shall sign a register evidencing their attendance. **The Bidder's representatives shall furnish letter of authority from their principal to attend the bid opening.** Financial Bids of Bidders whose bids are found technically suitable (after the presentation, if any,) only will be opened. The decision of the sub-committee on technical suitability shall be final and shall not be opened for discussion.

16. Award of Contract

Prior to the expiry of the period of bid validity, the Purchaser will notify the finally selected Bidder(s) in writing by registered letter or by cable or telex or fax, to be confirmed in writing by registered letter or by Hand in person, that its bid has been accepted. If a need for extension of the bid validity period arises, it should be extended by mutual agreement. The notification of award will constitute the formation of the Contract.

17. Signing of Contract

17.1 At the same time as the Purchaser notifies the finally selected Bidder(s) that its bid has been accepted, the finally selected Bidder(s) shall collect the supply order Contract Form from the office of the Administrative Officer concerned.

17.2 Within 7 (seven) days of the receipt of the Contract Form, the finally selected Bidder(s) shall sign the Contract with the purchaser at the purchaser's location mentioned at AIIMS, Bhubaneswar. The finally selected bidder shall bring, along with him, the power of attorney, the contract performance bank guarantee and common seal etc. for signing the contract.

17.3 Without prejudice to any legal remedy, failure of the finally selected Bidder(s) to comply with the requirement shall constitute sufficient grounds for the annulment of the award and forfeiture of the bid security, in which event the Purchaser may make the award to the next lowest evaluated Bidder or call for new bids.

18. Inspection and Tests

The Purchaser shall have the right to inspect and/or test the equipment for conformity to the Contract Specifications.

18.1 In case any inspected or tested equipments fail to conform to the specifications, the Purchaser may reject them and the supplier shall either replace the rejected equipments or make all alterations necessary to meet specification requirements free of cost to the Purchaser.

18.2 The supplier shall provide installation and standard tests for the individual equipment before the delivery of the system at site.

18.3 The supplier shall test each individual equipment and the complete system after installation at site and prepare a test report. This shall be compared with the factory test report to ensure that there is no deterioration in the equipment parameters during storage, transportation and installation.

18.4 Leaflets, equipment manuals (hard copy, Compact Disk, DVD etc.) and literature should be attached for ready references along with complete documentation of all the measurements conducted during installation period which shall be submitted by the supplier for future reference.

18.5 The technical problems faced during installation, testing and commissioning period and their solutions shall be submitted by the supplier at the time of handing over the completed works.

18.6 For the purpose of taking over the equipment/system supplied pursuant to this contract, an acceptance test shall be carried out at the Purchaser/Consignees destination site. The equipment which meets the acceptance test shall only be accepted by the Purchaser.

18.7 (a) Acceptance Test at site shall be conducted of individual equipment and complete system to ensure that individual equipment and complete system meets the technical specifications and other operational and technical requirements of tender.

(b) The Purchaser shall have the right to reject any individual equipment or complete system, if in its opinion the same does not meet technical specifications, operational or technical requirements. The decision of the purchaser in this regard shall be final.

(c) The delivery, installation or commissioning shall not be deemed to have been completed unless all the equipments and systems are accepted by the purchaser.

18.8 Before the equipment is taken over by the Purchaser/Consignee, the Supplier shall provide manuals of the equipment/systems. This shall include the following:

i) System Interface Drawings, Wiring Diagrams
ii) System Interconnection and Block Diagrams
iii) User Operation Manuals
iv) Equipment Maintenance Manuals

19. Spare Parts

19.1 The Bidder will undertake that supplies of necessary maintenance equipment and spare parts will be made available for all items/equipments and the complete system for at least ten years on a continuing basis. However, this does not relieve the supplier of any warranty obligations under the Contract.

19.2 The Bidder shall include in his tender, the details of essential spares, and their quantity and unit prices as per schedule of requirements. Detailed explanation to confirm that quantity of spares quoted as per requirement of this clause shall be given.

19.3 In addition to the essential spares, Bidder shall indicate additional recommended quantities of spares for efficient maintenance of the equipment and the systems for a period of 5 years, after the completion of warranty period, to ensure that the quality and reliability objective is achieved. The details on which unit price and the total cost or recommended spares is based shall be included in the tender as an option. However, the cost of such recommended spares shall not be considered for tender evaluation

20. Warranty

20.1 The supplier shall provide comprehensive on-site warranty for a period of 1 years from the date of final acceptance of the complete system after successful and complete installation and commissioning with regular updation of newer technology as and when evolved. In addition to the above warranty, another 1 year of comprehensive maintenance contract for all the equipments/entire set up.

20.2 Incremental Cost (if any) for, upgradation, if required, should form part of the contract for the Warranty and Post Warranty period.

20.3 The Supplier (manufacturer) shall set-up a maintenance base to provide maintenance service, of the entire system being offered, at short notice during the warranty and post warranty period. The technical maintenance personnel of the supplier responsible for supervision and maintenance shall be available to reach the site(s) within 1 hours' notice.

20.4 If the performance of any individual equipment or system is not satisfactory, the same shall be replaced by the supplier free of cost.

20.5 If it is found that to meet the performance criteria, any extra equipment is required the same will be provided free of cost by the supplier.

20.6 All faults appearing and their rectification shall be periodically advised to the hospital, the period being not more than a month.

20.7 Any lacuna or lacunae noticed in the functioning of the installation as a result of any design feature shall be rectified by the supplier free of cost.

20.8 The Supplier shall fully associate the Engineers and Technicians of the Institute during installation, testing, commissioning, operation and maintenance period.

21. After Sales Services and Maintenance Contract

AFTER SALES SERVICES MUST BE PROVIDED BY THE SUPPLIER DURING AND AFTER GUARANTEE PERIOD OF THE EQUIPMENT. BIDDERS ARE REQUIRED TO SUBMIT THEIR QUOTE FOR SUBSEQUENT 1 YEAR COMPREHENSIVE AMC (AFTER THE EXPIRY OF WARRANTY PERIOD OF 1 YEARS). FAILURE TO COMPLY THIS CONDITION WILL ENTAIL REJECTION OF THEIR BIDS.

22. Previous Installations

The names and address of the institutions/hospitals where the supplier has already installed/supplied the equipment indicating the dates of installations may be given (in India and abroad).

23. Delivery, Installation and Commissioning

23.1 Delivery of the goods at the Institute premises shall be completed by the Supplier in accordance with the terms specified by the Purchaser.

23.2 The installation, testing and commissioning of the proposed system shall be completed in accordance with the order.

24. Incidental Services

24.1 The supplier is required to provide Hardware and Software up-gradation from time to time, at mutually agreed terms. During warranty all Software updated version / up-gradations are expected to be provided at free of cost to Purchaser.

24.2 Further, any bugs/shortcomings detected by the purchaser/user as well as the supplier himself shall be rectified at free of cost to purchaser beyond warranty period

25. Site Preparation for installation:

25.1 The site for installation of the equipment shall be provided by the purchaser as per the required specification and environmental conditions before the installation of System.

25.2 Site Plan and System layout plan including civil/electrical work or other related works shall be prepared by the supplier.

25.3 Earthling arrangements for all the equipment shall be completed as per standard practice

26. Termination for default

The purchaser may without prejudice to any other remedy for breach of contract, by written notice of default sent to the supplier, terminate the contract in whole or in part.

i) If the supplier fails to deliver or install system within the time period(s) specified in the contract.
OR

ii) If the supplier fails to perform any other obligation(s) under the contract.

27. Responsibility of Completion :

(A) The firm has to undertake responsibility for completion of job within stipulated time period otherwise a penalty of 0.5% of the order value per week shall be charged for delayed completion of job.

28. Use of Contract Document & Information

The supplier shall not, without the Purchaser's prior written consent, disclose the contract, or any provision thereof, or any specification, plan, drawing, pattern, sample of information furnished by or on behalf of the Purchaser in connection therewith, to any person other than a person employed by the supplier in the Performance of the contract

29. Property Rights

The Supplier shall indemnify the Purchaser against all third party claims of infringement of patent, copyright, trademark, license of industrial design rights, software piracy arising from use of the goods or any part thereof in the Purchaser's country.

30. Payment

The Institute shall make all reasonable and due efforts to pay within 07 (seven) days on satisfactory installation/commissioning and handing over of the system in good working condition and meeting other requirements.

31. Packing and Marketing

Best trade packing suitable for safe Rail/Road/Air/Sea transit shall be used subject to packing and marking being acceptable to the Inspecting Authority.

(a) The supplier shall provide such packing of the goods as is required to prevent their damage or deterioration during transit to their final destination as indicated in the contract. The packing shall be sufficient to withstand without limitation, rough handling during transit and exposure to extreme temperature, salt and precipitation during transit and open storage. Packing case, size and weights shall take into consideration, where appropriate, the remoteness of the Goods final destination and absence of heavy handling facilities at all points in transit.

(b) The packing marking shall show the description of quantity of contents, the name of the consignee and address, the gross weight and distinctive number of mark sufficient for purpose of identification. Notwithstanding anything stated in this clause, the supplier shall be entirely responsible for loss, damage, deterioration, depreciation of the goods due to faulty packing.

32. PREPARATION AND DELIVERY OF TENDER

Tender documents must be signed by the tenderers in full along with their stamp.

33. Arbitration

If, at any time, any question, dispute or difference whatever shall arise between the two parties (AIIMS on the one hand and vendor on the other hand) in relation to the purchase either of the parties may give to the other notice in writing of the existence of such a question, dispute or difference and the same shall be referred to two arbitrators, one to be nominated by the Director, AIIMS, Bhubaneswar, and the other to be nominated by the firm. Such a notice of the existence of any question, dispute or difference in connection with this purchase shall be served by either party within 30 days of the beginning of such dispute failing which all rights and claims shall be deemed to have been forfeited and absolutely barred.

Before proceeding with the reference the arbitrators shall appoint/nominate an Umpire. In the event of the arbitrators not agreeing in their award the Umpire appointed by them shall enter upon the reference and his award shall be blinding on the parties. The venue of the arbitrator shall be at AIIMS, Bhubaneswar. The provision of the Indian Arbitration and Reconciliation Act, 1996 and of rules framed if under and any statutory modification thereof shall be deemed to apply and be incorporated for the supply, installation and commissioning etc.

Upon every or any such reference, the cost of any incidents to the reference and award(s) respectively shall be at the discretion of the arbitrators or in the event of their not agreeing, of the Umpire appointed by them who may determine the amount thereof or direct the same to be fixed as between solicitors and client or as between parties and shall direct by whom and in what manners the same shall be borne and paid.

34. Jurisdiction

The Orissa High Court will have the jurisdiction to try any matter, dispute or reference between the parties arising out of the contract. It is specifically agreed that no court outside and other than the above shall have jurisdiction in the matter.

35. Force Majeure

Any failure of omission or commission to carry our the provision of the contract by the supplier shall not give rise to any claim by any party, one against the other, if such failure of omission or commission arises from an act of God, which shall include all acts of natural calamities such as fire, flood, earthquake, hurricane or any pestilence or from civil strikes, compliance with any stature and/or regulation of the Government, lockouts and strikes, riots, embargo or from any political or other reasons beyond the supplier's control including war (Whether declared or not) civil war or state or insurrection, provided that notice or the occurrence of any event by either party to the other shall be given within two weeks from the date of occurrence of such an event which could be attributed to Force Majeure conditions.

The Institute reserves the right to accept or reject in whole or in part any or all the quotations received without assigning any reasons thereof.

36. Termination for Insolvency

The purchaser may at any time terminate the contract by giving written notice to the supplier, without compensation to the suppliers, if the supplier becomes bankrupts or otherwise insolvent (which events shall of themselves be a breach of the contract on the part of the supplier), provided such termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to the purchaser.

37. Termination for Convenience

The purchaser, may by written notice sent to the supplier terminate the contract, in whole or in part, at any time for its convenience. The notice of termination shall specify that termination is for the Purchaser's convenience, the extent to which performance of work under the contract is terminated becomes effective.

The good that are complete and ready for shipment within 30 days after the supplier's receipts of notice of termination shall be purchased by the purchaser at the contract terms and prices. For remaining goods the purchaser may elect.

a) To have any portion completed and delivered at the contract terms and prices; and/or
b) To cancel the remainder

38. Government Language

The contract shall be written in the language of the Bid (English Language) as specified by the Purchaser. All correspondence and other documents pertaining to the contract shall be in English.

39. Operation

The firm has to provide services of a service personnel at AIIMS, Bhubaneswar, to attend to complaints round the clock.

The firm should be responsible for running the system for at least one year or till such time our staff is trained to handle the system. Training of the staff will be responsibility of the firm.

SPECIAL TERMS AND CONDITIONS FOR TENDER SUBMISSION

1. **Offer invited for supply and installation of centralized medical gas pipeline distribution systems preferably from the medical gas manufacturing companies since ultimate aim of the hospital is to supply of medical gases through centralized medical gas pipeline systems.**

2. **The company should have following supporting documents to qualify for the tender: ISO Certification.**

3. **Yearly business turnover of over Rs. 10 crore for last 3 years. Company's annual reports should be provided in support of this.**

4. **Minimum 7 years experience in India in the same field.**

5. **Past experience of installation of similar projects in Govt. Hospitals as a Prime Contractor; out of which at least one should be of 500 bedded hospital (certificate from the same hospital should be provided along with the offer).**

6. **Executing similar medical gas pipeline projects in at least one major Govt. Hospital in last three years' time of single order value of Rs.100 lakhs or above, for which order copies and completion certificates are to be enclosed along with the offer.**

7. **Financial capability to carry out such capital intensive projects smoothly. (Necessary solvency certificate from the banker for Rs.100 lakhs should be submitted along with the offer).**

8. ~~**The bidder should be capable to supply medical gases as per the demand of the hospital and liquid medical oxygen near future when gas consumption will be increased. Regarding this matter, past experience of the bidder will be preferred**~~**.**

9. **The bidders should be capable to inspect the centralized medical gas pipeline system by internationally accredited "Authorized Person" available in their pay role. Regarding this matter, necessary proof has to be provided along with the offer.**

10. **Bidder should have its own already established service facilities in the State t provide necessary service support to this life saving system for the patients of the hospital (necessary proof to be submitted along with the offer).**

11. **Tenderer must submit an affidavit that there is no court case under trial or pending against any government hospital and also never been penalized by any Govt. investigating agency for any wrong doing in entire India. Wrong and false information in this regard will be the reason for forfeit of EMD and blacklisted of the firm.**

12. **Companies/ Firms who have been/are indulged in illegal bid rigging and cartelization during the last 3 years and have been penalized by any Govt. agencies such as Competition Commission of India CCI etc., will not be entertained.**

TENDER REQUIREMENT FOR MEDICAL GASES SUPPLY

13. **A proof of ownership/partnership etc. shall be submitted along with verification of address, telephone & fax numbers.**

14. **The attested copies of latest Income tax clearance certificate and sales tax certificate, if applicable, should be submitted in absence of which tender shall be rejected.**

15. **The tenderer should submit statement of financial standing from their bankers. The name of the bank along with full address is to be furnished.**

16. **The supplier should submit a statement of overall turnover for the previous three years. If applicable a copy of the applicant's annual report and accounts for each of the last three years should also be submitted.**

17. **The tenderer is also required to submit performance report from other similar organizations where the firm is registered for supply and erection of similar projects of hospital equipment's/System. He will also submit list of organizations where the System has been installed by the firm in the last two years.**

18. **The tenderer is also requested to submit authority letter from manufacturers/principals of supplying equipment /drugs without which tender will not be considered.**

19. **The tenderer/supplier has to give an affidavit on a non-judicial stamp paper that there is no vigilance/CBI case pending against the firm/supplier.**

20. **If the tenderer gives a false statement on any of the above information the firm/supplier will not be considered and their quotation/tender shall be rejected and the security deposited shall be forfeited.**

21. **The Institute will have the right to reject any tender without assigning any reason.**

22. **The manufacturer should submit all the quotations directly or through their authorized distributor provided the manufacturer accepts responsibility for any lapse on the part of distributor and authorization certificate must be enclosed.**

23. **Quality assurance certification like ISO 9000 series should be enclosed wherever applicable.**

24. **The bidder should be the manufacturer and supplier of medical grade oxygen and nitrous oxide having their manufacturing units and compressing units in Orissa.**

25. **The bidder must supply Medical Grade Oxygen, Nitrous Oxide in cylinders as per IP 2010 (Indian Pharmacopoeia) standards.**

26. **The bidder should have past experiences in supply gas in cylinders ~~and installation of medical gas pipeline system~~ in at least five Govt. medical colleges and hospital with minimum capacity of 500 beds.**

27. **Bidders should have its own IP (Indian Pharmacopoeia) testing labs at their production facilities.**

28. **Company should have Dedicated Storage tank, pump and the PLC operated filling system exclusively for medical gases which is completely separated from the industrial filling. This will avoid cross contamination of the products.**

29. **Liquid (Cryogenic) medical Oxygen should be used to produce the compressed medical Oxygen gas. Liquid Medicinal Oxygen which should be produced by fractional destination of air and this method of production eliminates harmful impurities like carbon monoxide, etc.**

30. **Dedicated gas cylinders should be used for medicinal gases. These cylinders are specially treated to fill medical grade gases.**

ANNEXURE I
Technical Specifications for Centralized Medical Gas Pipeline Systems at AIIMS, Bhubaneswar

1 Oxygen Manifold :

1.1 Oxygen Manifold: Main with Middle Frames

2 x 6 Cylinder Oxygen Manifold should be suitable to withstand a pressure of 145 Kg/cm2, along with high-pressure copper annealed tail pipes with end Brass adapter suitable for Oxygen Cylinders and manifold.

Top frame comprising of high pressure copper pipes of size 1/2" I.D. x 15swg with high pressure brass fittings made of high tensile brass and connections through non- return valves; high pressure copper tail pipes, made of high pressure copper pipe of size 1/4" I.D. x 15 swg. The design of middle and bottom frames should be provided to fit both round and flat bottom cylinders safely. The manifold shall be tested (hydraulically) at 3500 psig and necessary test certificates accompany along with the supply.

Only Non Halogenated Polymer materials are to be used in the Non Return Valves supplied along with the manifold.

1.2 Semi-Automatic Control Panel – Oxygen:

- **Control panel will have two first stage regulators each capable of delivering 100 - 200 psi g outlet pressure.**

- **Both the first stage regulators in the oxygen control panel will have non-halogenated polymer in the high pressure side to ensure that there will be no ignition due to adiabatic compression. Furthermore, 40 micron filter should be provided at the inlet of each high pressure regulators of the oxygen control panel.**

- **The first stage regulators will be connected to a common second stage regulator which will deliver an outlet pressure of 60 psi g.**

- **The first two regulators meant for first stage will be capable of switchover system incorporated from "RUNNING" to "RESERVE" bank due to differential pressure.**

- **The control panel will provide for two individual content contact pressure gauges to indicate the cylinder pressure in the two wings of the manifold and common pressure gauge to indicate the delivery / line pressure.**

- **The control panel will have built in audio-visual signal lamp indications for bank changeover**

- **The control panel will be covered with aesthetically suitable cover for safe operation indicating the respective services.**

- **Control panel will have built in transformer to ensure safe operation by low voltage.**

1.3 Oxygen Manifold: Emergency with Middle Frames

Single Cylinder Oxygen Manifold should be suitable to withstand a pressure of 145 Kg/cm2, along with high-pressure copper annealed tail pipes with end Brass adapters suitable for Oxygen Cylinders and manifold.

Top frame comprising of high pressure copper pipes of size 1/2" I.D. x 15swg with high pressure brass fittings made of high tensile brass and connections through non- return valves; high pressure copper tail pipes, made of high pressure copper pipe of size 1/4" I.D. x 15 swg. The manifold should be tested (hydraulically) at 3500 psig and necessary test certificates should accompany along with the supply.

A High Pressure Regulator to be mounted on the Manifold System for reducing the cylinder pressure suitable to the line pressure.

Only Non Halogenated Polymer materials are used in the Non Return Valves & Pressure Reducers supplied along with the manifold.

2 <u>Nitrous Oxide Manifold :</u>

2.1 Nitrous Oxide Manifold: Main

With Middle Frames

2 x 1 Cylinder Nitrous- Oxide Manifold should be suitable to withstand a pressure of 145 Kg/cm2, along with high-pressure copper annealed tail pipes with end Brass adapter suitable for Nitrous oxide Cylinders and manifold.

Top frame comprising of high pressure copper pipe of size 5/8" I.D. x 7/8" OD with high pressure brass fittings made of high tensile brass, NRV and high pressure copper tailpipes made of high pressure copper pipe of size 3/16 inch I.D. x 3/8 inch OD. The manifold will be hydraulically tested to 3500 psig.

The manifold will be so designed that it shall suit easy cylinder changing and positioning. The system will have non–return valves for easy changing of cylinders without closing the bank.

The cylinder will be placed with the help of cylinder brackets and fixing chains which will be zinc plated.

2.2 Semi-Automatic Control Panel – Nitrous Oxide:

- **Control panel will have two first stage regulators each capable of delivering 100 - 200 psi g outlet pressure.**

- **Both the first stage regulators in the oxygen control panel will have non-halogenated polymer in the high pressure side to ensure that there will be no ignition due to adiabatic compression. Furthermore, 40 micron filter should be provided at the inlet of each high pressure regulators of the oxygen control panel.**

- **The first stage regulators will be connected to a common second stage regulator which will deliver an outlet pressure of 60 psi g.**

- **The first two regulators meant for first stage will be capable of switchover system incorporated from "RUNNING" to "RESERVE" bank due to differential pressure.**

- **The control panel will provide for two individual content contact pressure gauges to indicate the cylinder pressure in the two wings of the manifold and common pressure gauge to indicate the delivery / line pressure.**

- **The control panel will have built in audio-visual signal lamp indications for bank changeover**

- **The control panel will be covered with aesthetically suitable cover for safe operation indicating the respective services.**

- **Control panel will have built in transformer to ensure safe operation by low voltage.**

- **N_2O Control Panel will have in built heating arrangement to ensure that there will be no freezing in the delivery line during high flow requirement.**

2.3 Nitrous Oxide Manifold: Emergency
Single cylinder with outlet point, regulator and High pressure tube.

3. MEDICAL COMPRESSED AIR COMBINED AIR PLANT AND SURGICAL AIR PLANT (7BAR) – at least 1000 LPM – Triplex system

<u>Air Plant System</u>

The Medical Air system shall conform to EN ISO 7396-1 and NHS Health Technical Memorandum HTM02-01. Medical quality air to the European Pharmacopoeia monograph shall be delivered at pressures of 700kPa (7 bar) gauge for supply of the hospital medical or surgical air systems. The entire system shall be 'Triplex" such that any single functional component failure will not affect the integrity of the medical compressed air supply.

3.1 Sources Of Supply - HTM02-01

Triplex compressor configurations will produce the primary supply with two compressors in standby. Each compressor will be capable of supplying the specified volumetric flow for duplex and triplex plant, and half flow for quadruple.

Control System

The central control system shall provide an intelligent human machine interface incorporating on board flash memory and real-time clock for recording operational parameters in the inbuilt event log. The central control system shall operate at low voltage and include BMS connection for plant fault, plant emergency, reserve fault and pressure fault. Visualisation of plant inputs, outputs and status through a web browser, using a simple Ethernet connection shall be available. The central control unit shall incorporate a user friendly 5.7" high-definition colour display with clear pictograms and LED indicators, providing easy access to system operational information.

A mechanical back-up facility shall ensure continued operation in the event of a control system malfunction. The control system shall normally employ automatic rotation of the lead compressor to maximise life and ensure even wear.

Compressors

Compressors shall be oil injected rotary screw compressors suitable for both continuous and frequent start/stop operation at a nominal outlet pressure of 750 kPa (7.5 bar) gauge. Compressors shall be supplied with a block and fin style after cooler with a dedicated quiet running fan to maximise cooling and efficiency. A multistage oil separator capable of achieving 2ppm oil carry over shall be fitted to minimise contamination and maintenance. EFF1 (CEMEP) rated TEFC, IP55 class F electric motors shall be used and incorporate maintenance-free greased for life bearings. Motors with lower efficiency ratings are not acceptable.

3.2Dryer/Filter/Regulator System

The duplexed filter and dryer module shall incorporate high efficiency water separators, oil filters, heatless regenerative desiccant dryer, dust/activated carbon filters, hopcolite filters and bacterial filters with autoclavable element. Electrical contacts shall be installed on the filters to provide warning alarms on the dryer controller in the event of high pressure drop

(ie blockage) and shall also include connections for BMS. Contaminants in the delivered air downstream of the bacterial filters shall be maintained at levels below those shown in the following table:

Contaminant	Threshold
H_2O	67 ppm v/v
Dry particulates	Free from visible particulates in a 75 litre sample
Oil (droplet or mist)	0.1 mg/m^3
CO	5 ppm v/v
CO_2	500 ppm v/v
SO_2	1 ppm v/v
NO	2 ppm v/v
NO_2	2 ppm v/v

Dryer Purge Control

The dryer control system shall incorporate a Purge Saver Energy Management system that freezes the regeneration of the desiccant once adequate dew point is reached in the inactive tower. Only when the dew point level in the active tower deteriorates to an unacceptable level, will the intelligent controller switch towers. This shall be achieved by including an additional dew point sensor and associated software in the dryer controller to effectively manage the system as well as providing on screen measurements of purge savings.

Dew Point Monitoring

The dryer shall incorporate a ceramic dew point hygrometer with an accuracy of ±10C in the range -20 to -800C atmospheric dew point and 4-20mA analogue output. Aluminium oxide or palladium wire sensors are not acceptable. An alarm condition shall trigger on the dryer control panel if the dew point exceeds a -460C atmospheric set point. The plant control unit shall incorporate a multifunctional LCD displaying, amongst other things, the dew point of the delivered air to enable monitoring of the air quality by the hospitals estates department. Volt free contacts shall be included to enable the dew point alarm signal to be connected to a central medical gas alarm system and/or building management system (BMS). To enable periodic calibration of the dew point sensor element, the hygrometer shall be remotely connected downstream of the dryer via a micro-bore tube. It is not acceptable to install the sensor directly into the medical air supply pipeline.

Receiver Assembly

Air receivers shall comply with BS EN 286-1, supplied with relevant test certificates. Each air receiver shall be hot dip galvanised inside and out and fitted with a zero loss electronic drain valve. Float type drain valves are not acceptable. The receiver assembly shall be fitted with a pressure safety valve capable of passing the maximum flow output of the compressor at 10% receiver overpressure. The receiver shall be further protected by a safety pressure relief valve and include a pressure gauge. The system shall consist of 1 receiver vessel each shall be of 1500 litres.

There shall be the followings available for enhanced operation of the air plant system:-

- Phase sequence relays that prevent unintentional reverse operation of the compressors
- Synthetic oil for increased compressor life
- Tropical thermostatic sensors for countries with high humidity

CE Marking

The standard range of Medical Air plant systems are 'CE' marked under the Medical Devices Directive 93/42/EEC with approval from notified body no. 0088 (Lloyd's Register Quality Assurance). Under this directive, the specified products are classified as Class II a Medical Devices.

ALTERNATIVELY, Compressed medical air plant of equivalent system capacity suitable for medical & surgical air as per NFPA99C standard with UL listed control panel can be offered.

4.0 VACUUM PLANT – System Capacity approximately 1500 litres per minute at 19 INCH Hg –Triplex system fully compliant to HTM standards

4.1 Medical Vacuum

The Medical Vacuum System shall conform to EN ISO 7396-1 and NHS Health Technical Memorandum No. 2022 . The Medical Vacuum System shall ensure the minimum pipeline vacuum level of 450mmHg is maintained at the plant service connection point at the rated volumetric 'free air' flow rate with two pumps in standby. The bacteria filtration system shall be 'duplexed' such that each filter can be isolated for replacement of the filter cartridge.

4.1 Vacuum Pumps

Four Vacuum pumps shall be air-cooled, oil lubricated rotary vane type suitable for both continuous and frequent start/stop operation at nominal inlet vacuum levels of between 578mmHg and 728mmHg. Composite carbon fibre rotor blades shall be fitted to minimise the cost of maintenance. Rotors shall be driven by directly coupled TEFV electric motors. Pump inlets shall include a wire mesh filter and integral non-return valve to prevent oil suck back and pressure increases in the vacuum system. Each vacuum pump shall have an integral separator filter to ensure a virtually oil-free exhaust. Each pump shall be fitted with anti-vibration pads between the pump foot and mounting frame.

Bacteria Filters

The duplex bacteria filter system shall incorporate high efficiency filter elements. A differential vacuum indicator shall be installed across the filter to indicate blockage. Additional pressure sensors shall be installed at the inlet and outlet of the filter to measure the pressure drop across the filters. Each filter shall be designed and sized to carry the full plant design flow capacity with a pressure drop not exceeding 33mbar (25mmHg). Bacteria Filter elements shall have penetration levels not exceeding 0.005% when tested by the sodium flame method in accordance with BS 3928:1969 and utilising particles in the 0.02 to 2 micron size range. Drain flasks shall be connected to each filter. Drain flasks shall be manufactured from transparent Pyrex® with a polymer coating on the inner and outer surfaces in order to maintain a seal in the event of inadvertent breakage of the Pyrex® flask. All drain flasks shall be suitable for sterilisation and be connected via a manual isolating valve.

4.1 Control System

The central control system shall provide an intelligent human machine interface incorporating on board flash memory and real-time clock for recording operational parameters in the in built event log. The central control system shall operate at low voltage and include BMS connection for common fault. Visualisation of plant inputs, outputs and status through a web browser, using a simple Ethernet connection shall be available. The central control unit shall incorporate a user friendly 5.7” high-definition colour display with clear pictograms and LED indicators, providing easy access to system operational information.

Cascading of vacuum pumps shall be achieved by measuring the vacuum level at the plant inlet with a pressure transducer. A mechanical back-up facility shall ensure continued operation in the event of a control system malfunction. The control system shall normally employ automatic rotation of the lead pump to maximise pump life and ensure even wear.

4.1 Vacuum Receiver(s)

Vacuum receiver(s) shall be supplied with relevant test certificates and have a total volume of at least 100% of the plant output in 1 minute in terms of free air aspired at

normal working pressure. Each vacuum receiver shall be hot dip galvanised inside and out. One receiver tanks of total 500 litres capacity.

CE Marking

The standard range of Medical Vacuum plant systems are 'CE' marked under the Medical Devices Directive 93/42/EEC with approval from notified body no. 0088 (Lloyd's Register Quality Assurance). Under this directive, the specified products are classified as Class IIa Medical Devices.

ALTERNATIVELY, Compressed medical air plant of equivalent system capacity suitable for medical & surgical air as per NFPA99C standard with UL listed control panel can be offered.

5 Distribution Piping :

SCOPE

The scope of work shall cover all distribution piping and terminal units for oxygen, nitrous oxide, vacuum and compressed air .

MATERIALS

Solid drawn, seamless, de-oxidized, non-arsenical, half-hard, tempered and de-greased copper pipe conforming to EN 13348: 2008. All copper pipes will be de-greased & delivered capped at both ends. The pipes will be accompanied with manufacturers test certificate for the physical properties & chemical composition. Copper pipe will also have third party inspection certificate from Lloyd's' Register Services.

The Pipe Sizes to be used are from among as under:

SL. NO.	COPPER PIPE'S OUTER DIAMETER	THICKNESS OF COPPER PIPE
5.1	12 mm	1 mm
5.2	15 mm	1 mm
5.3	22 mm	1 mm
5.4	28 mm	1 mm
5.5	42 mm	1.2 mm

Copper fittings shall be made of copper and suitable for a steam working Pressure of 17 bar and especially made for brazed socket type connections. All copper fittings will be conforming to EN 1254-1, should be factory de-greased, certified, and individually packed and identified for medical use. Fittings should be kite marked up to 54 mm size.

6 Isolation valves

The isolation valves will be Non Lubricated, 90^0 turn level, Ball type, suitable for oxygen service. All valves shall be pneumatically tested for twice the working pressure and factory de-greased for medical gas service before supply.

7 Service valve box

2 /3/4 Gas types.

INSTALLATION & TESTING

Installation of piping shall be carried out with utmost cleanliness. Only pipes, fittings and valves which have been de-greased and fittings brought in polythene sealed bags shall be used at site. Pipe fixing clamps shall be of nonferrous or non-deteriorating plastic suitable for the diameter of the pipe.

All copper-to-copper joints shall be made without using. All joints shall be made of copper to copper and brazed by silver brazing filler material without flux. Copper to copper joints shall be brazed using a brazing rod CP 104 (5% silver-copper phosphorous brazing alloy) and copper-to-brass or gunmetal shall only be joints using brazing rod AG 203 (43% Silver-copper-zinc-brazing alloy) manufactured to EN-1044.
Inert gas welding technique should be used by oxygen free Nitrogen gas inside copper pipes while brazing to avoid carbon deposition.

Adequate supports shall be provided while laying pipelines to ensure that the pipes do not sag. Suitable sleeves shall be provided wherever pipes cross through walls / slabs. All pipe clamps shall be non-reactive to copper.

After erection, the pipes will be flushed and then pressure tested with dry air at a pressure equal to 1.5 times of the working pressure or 150 psig, whichever is higher for a period of not less than 24 hours.

All the piping system shall be tested in the presence of the site-engineer or his authorized representative.

PAINTING

All exposed pipes should be painted with two coats of synthetic enamel paint and colour codification should be as per IS : 2379 of 1963.

8 Digital Alarm System :

Four Channel Microprocessor Controlled Alarm for Pneumatic & Vacuum Services has the following features:

- **Digital Display of Line Pressure for all the services with factory calibrated pressure sensors.**
- **Color coded LED Display of Line pressure status (High – Caution – Normal – Caution– Low)**
- **Audible Alarm for High & Low pressure condition.**
- **Test and Alarm Acknowledge (Mute) facility. (Alarm acknowledge (Mute) time span is programmable from 1 to 60 min).**
- **Programming facility of alarm limits from front panel (Password protected, preferably to be done through supplier's engineer).**
- **Facility to connect to remote alarm box by potential free contacts provided in the alarm box.**
- **Small and compact design. Light Weight (3 kg)**
- **Imported highly sensitive gas pressure sensors & CE marked power supply.**
- **Mounted on a powder coated MS box.**
- **Nut & Nipples are provided for connection with**
- **Pneumatic supply line.**
- **Low voltage internal operation with input power supply of 220V AC.**
- **Battery Backup (Optional, with extra price).**
- **Easy wall mounting facility.**

9 Double Lock Outlet (Indigenous)

Outlets shall be manufactured with a 165 mm length, Copper inlet pipe stub which is silver brazed to the outlet body. Body shall be of one piece brass construction. For positive pressure gas services, the outlet shall be equipped with a primary and secondary check valve and the secondary check valve shall have break safe mechanism and also comply to EN 737 pressure test standards and rated at minimum 200 psi in the event the primary check valve is removed for maintenance.

The outlet assembly should have separate colour coding for each services and will accept only corresponding gas specific adaptors.

All outlets shall be cleaned and de-greased for medical gas service, factory assembled and tested.

The medical gas outlets should be of quick connecting and wall mounted modular type.

10 Ceiling pendants :

Rigid Ceiling Pendant (for OT)

The heavy duty pendant will be mounted on ceiling and the column length to be fabricated for the specified ceiling height.

Each pendant will have a Pendant Head which should accommodate the required nos. of gas outlets and electrical sockets with complete separation between gas outlets and electrical sockets.

The pendant head will have following features:
Made of stainless steel with poly eurathene coated finish.
2 sets of duplex 5/15 Amp, 230V electrical sockets
Provision of Gas / Vacuum outlets as follows :

- **2 nos. of Oxygen Outlets**
- **1 no. of Nitrous Oxide Outlet**
- **1 no. of Compressed air Outlet (4 bar)**
- **2 nos. of Vacuum Outlets**

11 <u>BPC Flow meter with Humidifier</u> :

11.1 Back Pressure Compensated flow meter will be of accurate gas flow measurement with following features :

- **Control within a range of 0 – 15 lpm (calibration within +/- 10%).**
- **It will meet strict precision and durability standard.**
- **The flow meter body will be made of brass chrome plated materials.**
- **The flow tube and shroud components will be made of clear, impact resistant polycarbonate.**
- **Flow Tube will have large and expanded 0 – 5 lpm range for improved readability at low flows.**
- **Inlet filter of stainless steel wire mesh to prevent entry of foreign particles.**
- **The humidifier bottle will be made of unbreakable polycarbonate material and autoclavable at 121 degree Centigrade temperature.**

<u>11.2 Ward Vacuum Units :</u>

- **Ward Vacuum Unit will be of light weight and compact. The unit will consist of a regulator,**
- **A 600 ml. reusable collection jar, made of unbreakable poly carbonate material and fully autoclavable at 134 degree centigrade**
- **A wall bracket for mounting the jar assembly on the wall.**

- **The vacuum regulator will be infinitely adjustable and have vacuum gauge which indicates suction supplied by the regulator. Safety trap will be provided inside the jar to safeguard the regulator from overflowing.**

<u>11.3 Theater Vacuum Units :</u>

The unit will be consisting of two reusable 2000 ml shatter resistant bottle, each made up of poly carbonate material and fully autoclavable at 134 degree centigrade.

A vacuum regulator with instant ON / OFF switch and a three way selector switch with an option to operate either

- **Left, Right or Both.**

All the above items will be mounted on a Trolley having free moving castor wheels.

12 Bed Head Panels

12.1 Bed Head Panels horizontal/ vertical

It should have the following features-
Minimum length 1.6 metere.
Efficient , safe & Robust design in extruded aluminium section.
Smooth curved surfaces, with acceptable colour choice
Should have an integrated rail system to mount accessories
Segregation of services i.e. low voltage supplies, high voltage supplies, and medical gases should be maintained throughout.
Entire pipe line should run in continuous horizontal panels with no break for each unit & length as per area where it has to be installed.
Facility as per under
-Oxygen -2, Vacuum-1, Medical air -1, Infusion pump mount pole with adopter for mounting at least two pumps.
- Electrical outlets- 6. Combined 15/5

Technical Specifications for medical gases

1) The bidder must supply Medical Grade Oxygen, Nitrous Oxide in cylinders as per IP 2010(Indian Pharmacopoeia) standards.

2) The bidder should arrange to deliver filled up cylinders & collect empty cylinders from AIIMS premises.

3) The bidder should arrange adequate supply of cylinders for uninterrupted gas supply on daily basis.

4) The bidder should have suitable arrangements for emergency supplies and also have round the clock service.

5) The supply will be based on rental type for Oxygen, Nitrous Oxide & Carbon dioxide for Jumbo and B Type cylinder's.

6) Proper steps should be taken from vendor side on cylinders safety, maintenance & arranging safety and operation training for manifold operator.

7) There should be proper color coding for oxygen, nitrous oxide and CO2 cylinders.

8) The bidder should have past experiences in supply gas in cylinders and installation of medical gas pipeline system in at least five Govt medical colleges and hospital with minimum capacity of 500 beds.

9) The cylinders from the bidder side should have PROPER VALVE GUARD with anti tamper sealing.

10) The cylinders should be checked and tested as per the PESO (PETROLEUM AND SAFETY ORGANIZATION) rules and regulations every five years.

12) Bidders should have its own IP (Indian Pharmacopoeia) testing labs at their production facilities.

13) The bidders should check periodically for any micro- biological contamination and would provide certificate of the same.

14) The vendor should totally avoid the use of fluorinated and halogenated polymers which have a potential risk of catching fire.

To be enclosed with Techno-Commercial Bid

ANNEXURE-A

BIDDER PARTICULARS

Bidder Serial Number Allotted on Tender Document:_____

1. Name of the Bidder :

2. Address of the Bidder :

3. Name of the Manufacturer (s) :

2. Address(es) of the Manufacturer :

2. Name and address of the person :

To whom all references shall be
Made regarding this tender inquiry.

Telephone :

Telex :

Fax :

e-mail address :

Witness :

Signature	**Signature**
Name	**Name**
Address	**Designation**
	Company
Date	**Date**
	Company Seal

To be enclosed with Techno-Commercial Bid

ANNEXURE-B

BID FORM

Dated:

To

Sir,

Having examined the Bidding Documents of Tender No._____ undersigned offer to supply, install, commission, operate maintain_____ and we undertake, if our bid is accepted, to complete delivery of all the items specified in the contract within_____weeks calculated from the date of receipt of your Notification of Award and to complete the installation, testing commissioning.....

Signature and Seal

.....

(In the capacity of)

Only Authorized to sign bid for and on behalf of.....……

To be enclosed with Techno-Commercial Bid

ANNEXURE-C

BIDDER PROFILE

A. General Information:

(i) Location of Corporate Headquarters :
(ii) Date and Country of Incorporation :
(iii) Manufacturing Facility (S)
Location
Size
Capacity
(IV) No. of Service Facility(S) in India
Location
Strength
Area Covered
(V) Average yearly turnover for last three years:
(VI) Geographical Distribution of the Supplier :
No. of Offices
Locations
Staff strength
(VII) Total No. of installations of the system offered.
(VIII) No. of Employees
Total No. Manufacturing R&D (If any)
Hardware Maintenance
Software

B. Reference of Major installation with similar products (attach documents in support, if available)
_____S. No.
Customer Name, Address Product Description
Telephone Fax Number (No. of Machines installation year wise)

_____

_____

Date..... **Signature and seal of bidder**

To be enclosed with Techno-Commercial Bid

ANNEXURE-D

PROFORMA FOR AUTHORITY FROM MANUFACTURERS

No..... **Dated.....**

To

Dear Sir,

Sub: Tender No.....

We.....……. An established and reputed manufacturers of ……..... having factories at…….....and office at M/s.....……..

(Name and Address of the Authorized representative) to represent us, to tender, negotiate and conclude the contract on our behalf with; you against Tender no.....……..

No company/firm or individual other than M/s.....……. are authorized to represent us in regard to this business against this specific tender.

Yours faithfully,

Signature and seal

Name…….....

For & on behalf of M/s

.....…….....
(Name of Manufacturers)

Note: This letter of authority should be on the letter head of the manufacturing concern and should be signed by a person competent and having the power of attorney to bind the manufacturers.

To be enclosed with Techno-Commercial Bid

ANNEXURE-E

PROFORMA OF GUARANTEE FOR SUPPLY OF SPARES DURING POST WARRANTY PERIOD

To

Dear Sir,

In consideration of the (hereinafter referred to as "Purchaser" which expression shall unless repugnant to the context or meaning thereof include its successors, administrators and assignees) having awarded to M/s……..... with its Registered/Head office at ……..... (hereinafter referred to as the "Supplier" which expression shall unless repugnant to the context or meaning thereof, include its successors, administrators, executors and assignees), a contract by issue of the Purchaser's letter of Award no……..... dated entering into a formal contract to that effect with the Purchaser on .....…….. vide agreement dated……..... (hereinafter referred to as the contract).

We the supplier hereby give a guarantee for the supply of all necessary spares demanded for the routine and emergency maintenance of being supplied by us to for a period of not less than 5 years after the warranty period of 5 years and life time spares thereafter in case asked for by the purchaser.

We further clarify that for the first 1 years i.e. warranty period of 1 years, we are covered by the warranty clause as mentioned. For the remaining period of 1 Years and thereafter for the life time, a detailed list of spares will be supplied to the purchaser for the purpose of enabling him to decide spares needed for routine and emergency maintenance.

Dated..... day of.....20.....

Witness :

(Name of manufacturers)

Signature and Seal

(Signature)
Name :
For & on behalf of M/s

OFFICE OF THE DIRECTOR
ALL INDIA INSTITUTE OF MEDICAL SCIENCES
Bhubaneswar: 751019
(SCHEDULE-'A')

S.NO. OF TENDER : _____

The Director,
AIIMS Bhubaneswar

Dear Sir,

1. **I/We hereby submit our tender for the_____ _____**
2. **I/WE now enclosing herewith the D.D. No…… dated……. for Rs…….. drawn in favour of the "DIRECTOR, AIIMS Bhubaneswar" towards EMD/Bid Security. (TENDERS NOT ACCOMPANIED WITH EMD/BID SECURITY ALONGWITH THE TECHNO-COMMERCIAL BID SHALL BE SUMMARILY REJECTED).**
3. **I/We hereby agree to all the terms and conditions, stipulated by the AIIMS, in this connection including delivery, penalty etc. Quotations for each group are being submitted under separate covers, and sheets and shall be considered on their face value.**
4. **I/We have noted that overwritten entries shall be deleted unless duly cut & re-written and initialed.**
5. **Tenders are duly signed (No thumb impression should be affixed).**
6. **I/We undertake to sign the contract/agreement, if required, within 15 (Fifteen days) from the date of issue of the letter of acceptance, failing which our/my security money deposited may be forfeited and our/my name may be removed from the list of suppliers at the AIIMS Bhubaneswar.**
7. **I/We have gone through all terms and conditions of the tender documents before submitting the same.**

NOTE: ALL TERMS & CONDITIONS SUCH AS TAXES ETC, HAS BEEN INDICATED IN THE QUOTATIONS FAILING WHICH IT WILL BE PRESUMED THAT THE RATES ARE INCLUSIVE OF ALL TAXES AND OTHER TERMS AND CONDITIONS ARE ALSO AS PER YOUR REQUIREMENTS.

Yours faithfully,

Signature of Tender(s) full Address

WITNESS_____
WITNESS_____

COMMERCIAL BID FORMAT FOR GASES **ANNEXURE - F**

TO BE SUBMITTED IN A SEPARATE SEALED ENVELOPE

The bidder should quote for Medical Grade Oxygen, N20 and CO2 in the following format.

Supply of Compressed Medical Oxygen in vendor Owned Cylinder on Rental Basis.

Multi Element Description	Medical Oxygen in Bulk Cylinder (7.1 Cum) as per IP - 2010	Medical Oxygen in B - Type Cylinder (1.43 Cum) as per IP - 2010
Basic Price /per M3.		
Collection & Delivery per trip		
Cylinder Holding Charge per cylinder per day		
Excise Duty (ED)		
Cylinder Security Deposit per cylinder		

Supply of Compressed Nitrous Oxide in vendor Owned Cylinder on Rental basis.

Multi Element Description	Medical Nitrous Oxide in Bulk Cylinder (17.1 Cum approx) as per IP - 2010	Medical Nitrous Oxide gen in A - Type Cylinder(1.7 cum approx) as per IP - 2010
Basic Price per M3		
Collection & Delivery per trip		
Cylinder Holding Charge per cylinder per day		
Excise Duty (ED)		
Cylinder Security Deposit per cylinder		

Supply of Compressed Carbon Dioxide in vendor Owned Cylinder on Rental Basis

Multi Element Description	Carbon dioxide in Bulk Cylinder (30kg)
Basic Price per k.g	
Collection & Delivery per trip	
Cylinder Holding Charge per day	
Excise Duty (ED)	
Cylinder Security Deposit per cylinder	

Taxes & Levies: The prices should be quoted excluding taxes & levies like VAT/GST/OCTROI etc bto be shown separately.

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TO BE SUBMITTED IN A SEPARATE SEALED ENVELOPE

BOQ AND COMMERCIAL BID FORMAT AIIMS, BHUBANESWAR

for Gas Pipeline System **ANNEXURE G**

SL. NO. ITEM DESCRIPTION

SL NO	ITEM DESCRPTION	UNIT	QUANTy	RATE	AMOUNT
1	**OXYGEN SYSTEM**				
1.1	Main Oxygen Manifold 2 x 6 cylinders with NRV's, Tail pipes and Middle frame	SET	1		
1.2	Semi - automatic Oxygen Control Panel (indigenous) with automatic changeover from Running Bank to Reserve Bank of cylinders and having non-halogenated polymer in the high pressure side of the primary regulators and 40 micron inlet filter	Nos.	1		
1.3	1-cylinder Emergency Oxygen Manifold complete with tail pipe, NRV and Pressure Reducung System having non-halogenated polymer materials in the high pressure side of the regulator	SET	1		
2	**NITROUS OXIDE SYSTEM**				
2.1	Main Nitrous Oxide Manifold 2 x 1 cylinders with NRV's, Tail pipes and Middle frame	SET	1		
2.2	Semi - automatic N2O Control Panel with Automatic Changeover (indigenous) from Running Bank to Reserve Bank of cylinders	Nos.	1		
2.3	1-cylinder Emergency Nitrous Oxide Manifold complete with tail pipe, NRV and Pressure Regulator(Double Stage)	SET	1		
3	**COMPRESSED AIR SYSTEM**				
3.1	Consisting of 3 nos Air Compressors, Tank Mounted, each Receiver Capacity 500 ltrs, common Air drier, Pressure Reducing Unit etc.	SET	1		
3.2	3-Stage Breathing Air Filter as per HTM standards,	SET	1		

4	**VACCUM SYSTEM**				
4.1	3 nos.rotary vane vacuum pumps with Receiver, Filters, Electricals, etc.as specified in the spec	SET	1		
5	COPPER PIPING AS PER EN 13348 WITH THIRD PARTY INSPECTION FROM LLOYD'S				
5.1	Copper Pipe for Medical use with 12 OD X 1.0 mm	Mtr	240		
5.2	Copper Pipe for Medical use with 15 OD X 1.0 mm	Mtr	900		
5.3	Copper Pipe for Medical use with 22 OD X 1.0 mm	Mtr	790		
5.4	Copper Pipe for Medical use with 28 OD X 1.0 mm	Mtr	600		
5.5	Copper Pipe for Medical use with 42 OD X 1.2 mm	Mtr	300		
6	FACTORY DEGREASED ISOLATION VALVES FOR MEDICAL USAGE WITH BRASS ADOPTERS				
	Isolation Valve for 10 mm Copper Pipe i.e (3/8")	Nos.	23		
	Isolation Valve for 15 mm Copper Pipe i.e (1/2")	Nos.	18		
	Isolation Valve for 22 mm Copper Pipe i.e (3/4")	Nos.	10		
	Isolation Valve for 28 mm Copper Pipe i.e (1")	Nos.	8		
	Isolation Valve for 42 mm Copper Pipe i.e (1.5")	Nos.	3		
7	**VALVE BOX (WITHOUT VALVES) FOR MEDICAL USAGE**				
	Valve Box - 2 Gas Service (size 15mm X 22mm) with NIST Connection & S.S.Valve for O2	Nos.	4		
	Valve Box - 3 Gas Service (size 15mm X 15 mm X 22mm) with NIST Connection & S.S.Valve for O2	Nos.	2		
	Valve Box - 4 Gas Service (size 15mm X 15mm X 15mm X 22mm) with NIST Connection & S.S.Valve for O2 -	Nos.	3		
8	**DIGITAL ALARM SYSTEMS**				
8.1	2 Gas Microprocessor Controlled Alarm With Digital Display	SET	4		
8.2	3 Gas Microprocessor Controlled Alarm With Digital Display	SET	2		
8.3	4 Gas Microprocessor Controlled Alarm With Digital Display	SET	3		

9	**GAS OUTLETS**				
9.1	Double Lock with probe - Oxygen	SET	69		
9.2	Double Lock with probe -Nitrous Oxide Set	SET	3		
9.3	Double Lock with probe-Air 4 Medical Air Set	SET	9		
9.4	Double Lock with probe - Vacuum Set	SET	63		
10	P**ENDANT**				
10.1	Rigid Ceiling Pendant (Stainless Steel) Set	SET	3		
11	**SUCTION AND OXYGEN THERAPY PRODUCT**				
11.1	Oxygen Flowmeter BPC (0- 15 LPM) with Humidifier Set	SET	57		
11.2	Ward Vacuum Unit with Regulator and 600ml polycarbonate jar Set	SET	57		
11.3	Theatre Suction Unit with 2 x 2000 ml Polycarbonate Jars Set	SET	3		
11.4	Kit Conversion – Oxygen Set	SET	3		
11.5	Kit Conversion - Nitrous Oxide Set	SET	3		
11.6	High Pressure Tubing	Mtr	30		
11.7	Low Pressure Tubing	Mtr	120		
12.0	**Bed Head Panel**	No	6		

TOTAL VALUE:

***1) Normally pipelines are laid through plastic saddle on walls (Conventional method). If any hanging or fabricated support is required, charge will be extra.

2) At the end of the job, exact measurements like length of copper pipe, number of gas outlets, isolation valves, hanging support etc. will be taken and the total value will be arrived and billed accordingly.

OUTLET DISPOSITION, TRAUMA BLOCK, AIIMS, BHUBANESWAR.

FLOOR	AREA	OUTLET DISPOSITION				
	Trauma Block	**NO. OF BED**	**OXYGEN**	**NITROUS OXIDE**	**MEDICAL AIR**	**MEDICAL VACUUM**
Ground	Pre OP	3	3			3
	Trauma - 1	16	16			16
	Trauma - 2	16	16			16
	Trauma - 3	16	16			16
	(ICU) Resuscitation	6	12		6	6
	OT	3	6	3	3	6
	Emergency	6	6		6	6
	TOTAL IN THE FLOOR	**66**	**75**	**3**	**15**	**69**

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