

## Terms of Reference (ToR)

Planning, Designing and Supervisory Services for COVID-19 safe HVAC systems with inbuilt safety measures and air purification systems (HEPA) at the GIZ offices in Safdarjung Enclave at A-2/18 (SF3) and B-5/5 (SF4), and the German Development Cooperation Office (GDCO) at Vasant Vihar, New Delhi	Project number/ cost centre: <b>99.9245.4-001.00</b>
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## **1. Context**

### **1.1 Background**

The Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH is a German Government enterprise that provides services in the field of international development cooperation worldwide. In Delhi, it has two offices in Safdarjung Enclave in the two buildings at B-5/5 (SF4) & A-2/18 (SF3), in addition to another building of the German Development Cooperation Office (GDCO) at 46 Paschimi Marg, Vasant Vihar, New Delhi.

The air pollution level in Delhi is generally very high throughout the year. GIZ aims to keep the Indoor Air Quality of its office premises within acceptable levels in compliance with the national and German/international standards and requirements. In addition, GIZ needs to know how to operate the air conditioning and ventilation systems safely to control spread of coronavirus disease (COVID-19) in the workspaces.

Currently GIZ has split AC units and ducting systems in its office premises. There is no centralised HVAC system nor air purification system such as HEPA filters attached with the AC units. Inside the office premises, standalone air purifier machines are being operated to control the level of air pollutants (PM 2.5). A brief overview report on the existing systems is attached.

GIZ is proposing to engage a competent firm or company (herein after referred to as Contractor) for planning, designing and supervisory services for COVID-19 safe air-conditioning and ventilation systems with safety measures and air purification systems at the GIZ offices in Safdarjung Enclave at A-2/18 (SF3) and B-5/5 (SF4), and the German Development Cooperation Office (GDCO) at Vasant Vihar, New Delhi as per terms of reference given below.

### **1.2 Objective of the services**

Objective of the services to be provided by the competent firm or company is planning, designing and supervisory services for supervisory services for COVID-19 safe air-conditioning and ventilation systems with safety measures and air purification systems at the GIZ offices in Safdarjung Enclave at A-2/18 (SF3) and B-5/5 (SF4), and German Development Cooperation Office (GDCO) at Vasant Vihar, New Delhi so as to ensure the Indoor Air Quality of its office premises in compliance with the national and German/international standards and requirements, and ensure COVID 19 safety for controlling with the spread of viruses such as COVID 19 inside the office space.

### **1.3 Scope of services**

The scope of services to be provided by the Contractor include the following:

1. Services are required for the following buildings:
  - a. A-2/18 Safdarjung Enclave (known as SF3) (basement and four floors),

- b. B-5/5 Safdarjung Enclave at B-5/5 (known as SF4), (two floors)
- c. 46 Paschimi Marg, Vasant Vihar (known as GDCO). (basement and two upper floors)

2. The Consultancy services include:

- a. **Setting Indoor Air Quality Standards/Targets:** Target setting for indoor air quality levels in line with India and international/German indoor air quality standards and requirements, ISHRAE COVID-19 guidelines ([https://docs.google.com/forms/d/e/1FAIpQLSfkZNfvz8KyPMv6b2oQCmDmBHqeRUchjvzxGRffSLDaK2l2Ug/viewform?usp=sf\\_link](https://docs.google.com/forms/d/e/1FAIpQLSfkZNfvz8KyPMv6b2oQCmDmBHqeRUchjvzxGRffSLDaK2l2Ug/viewform?usp=sf_link)) and – if applicable and available - other national/international guidelines for prevention of airborne virus transmission during operation of air-conditioning and ventilation systems.
- b. **Assessment of the existing systems in the three buildings:** Review the existing ACVHS systems in the said three buildings for assessing their adequacies and assessing requirements for additions/upgradation to meet the required indoor air quality standards, air conditioning and ventilation requirements and COVID 19 safety. Required field visits and meetings with relevant GIZ staff to be undertaken. The systems recently installed/upgraded in GIZ's existing premises at B5/1 and B5/2 Safdarjung Enclave and the standards being followed to be taken into consideration.
- c. **Development of solutions:** Development of technically sound and financially viable solutions including plans, designs, specifications for the requirements such as ducting, air handling units, HEPA filters etc., and provide cost estimates. The plans should be divided into three separate reports covering each building.
- d. **Support in bid process management:** Prepare tender documents as per GIZ tendering requirements for procurement, installation, and operation of the proposed ACVHS, air purification and COVID 19 safety systems. (Support in evaluation of the bids received if required by GIZ Management)
- e. **Quality management of the work implementation by the appointed contractor:** Support in quality checking of the implementation of work of the appointed contractor for ensuring that the work is executed/completed as per requirements and prescribed specifications and for ensuring that the required indoor air quality standards, air conditioning and ventilation requirements and COVID 19 safety is achieved.

2. Tasks to be Performed by the Contractor

The tasks to be performed by the selected Company are given below.

## 2.1 Consultancy services

<p><b>Main Task 1: Setting standards/targets for indoor air quality</b></p>	<p><b>Sub-task 1:</b> Review the indoor air quality norms and requirements as prescribed in India and internationally – in Germany, as per WHO and other countries, (including ISHRAE COVID-19 guidelines and other national/international guidelines for prevention of airborne virus transmission during operation of air- conditioning and ventilation systems). Review the standards applied at GIZ Offices at B5/1 and B5/2.</p> <p><b>Sub-task 2:</b> Review the existing ACVHS systems in the said three buildings for evaluating their adequacies and assessing requirements for additions/upgradation to meet the required indoor air quality standards, air conditioning and ventilation requirements and COVID 19 safety. Required field visits and meetings with relevant GIZ staff to be undertaken. The systems recently installed/upgraded in GIZ's existing premises at B5/1 and B5/2 Safdarjung Enclave and the standards being followed to be taken into consideration.</p> <p><b>Sub-task 3:</b> Propose the indoor air quality standards and COVID safety requirements to be achieved for GIZ offices at SF3, SF4 and GDCO and obtain approval on the same from GIZ.</p>
<p><b>Main Task 2: Development of technical solutions, designs, and cost estimates</b></p>	<p><b>Sub-task 1:</b> Develop technically sound and financially viable solutions for achieving the defined indoor air quality standards, ACVHS requirements and COVID 19 safety and finalise with GIZ. Includes all drawings, plans, BOQs, specifications, cost estimates etc.</p> <p>Includes technical solutions and designing of solutions, detailing the requirements of installation such as ducting, air handling units, HEPA filters etc. The building safety aspects of SF3, SF4 and GDCO should be strictly followed and taken into consideration. All aspects of civil, electrical works and any other such works required should be included.</p> <p>Take into consideration the ventilation rates, pressurization requirements of rooms, fresh air inflows, air exchanges needed, indoor air quality standards, COVID 19 safety. Take into consideration all available ACs, ducts and ventilation systems.</p> <p>The Contractor is required to take into consideration the space availability, issues of noise and vibration from the ducts and equipment, the existing AC system and ducting, energy efficiency aspects, O&amp;M aspects – ease of operation, costs and availability of spare parts, filters, warranty on equipment and guarantee on achieving the required indoor</p>

	<p>air quality standards and other requirements (ref. Main Task 1).</p> <p>The Contractor shall propose and describe in detail a suitable methodology to monitor and control the indoor air quality and effectiveness of the proposed COVID-19 air-conditioning and ventilation safety measures.</p> <p><b>Sub-task 2:</b> Seek approvals from GIZ for the proposed solutions.</p>
<b>Main Task 3: Support in bid process management</b>	<p><b>Sub-task 1:</b> Prepare tender documents as per GIZ tendering requirements for procurement, installation and operation of the proposed ACVHS, air purification and COVID 19 safety systems with detailed BOQs, specifications, qualification criteria of bidders, cost estimates, testing requirements, operational requirements during the testing and operational phase, fines and penalties for deviations/delays, bank guarantees etc.</p> <p><b>Sub-task 2:</b> Support in evaluation of the bids received.</p> <p><u>Note:</u> Qualifying contractor is expected to be appointed by December 2021/January 2022.</p>
<b>Main Task 4: Quality management of the work implementation by the appointed contractor</b>	<p><b>Sub-task 1:</b> Quality checking the implementation work onsite by the appointed contractor (selected bidder) for ensuring that the works are as per specifications. Undertake field visits regularly and prepare visit reports and ensure that the necessary rectification is done by the contractor.</p> <p><b>Sub-task2:</b> Verify the installation during the construction and upon completion for achieving the required indoor air quality standards, air conditioning and ventilation requirements and COVID 19 safety. Undertake field visits regularly and prepare visit reports and ensure that the necessary rectification is done by the contractor.</p> <p><b>Sub-task 3:</b> Verify the completion and handing over report submitted by the appointed contractor and ensure that the contract has been successfully completed. Make suitable recommendations to GIZ on completion of the contract. Certification of all invoices submitted by the HVAC contractor is also part of requirement</p> <p><u>Note:</u> All installations/construction work is expected to be completed by July 2022, including testing period of 1 month. Operational phase of 3 months to be completed by October 2022.</p>

### 3. Period of assignment and location

Assignment pertains to buildings SF3, SF4 and GDCO of GIZ Offices in New Delhi located in Safdarjung Enclave and Vasant Vihar.

**Duration of the assignment: November 2021 To July 2022.**

### 4. Reporting and Deliverables

The Contractor shall submit the followings deliverables to GIZ. All the reports will be accepted after incorporating the views/comments of GIZ's Clean Air Initiative Group. All the reports must be submitted in English. The reports shall be provided in electronic version.

S. No.	Deliverable	Timeline
<b>A. Consultancy Services</b>		
1.	As per Main Task 1: (a) Indoor air quality norms, COVID-19 air-conditioning and ventilation safety measures and requirements applicable for SF3, SF4 and GDCO	15 days from the date of contract
2.	As per Main Task 2 (a) Detailed report with technical solutions, designs, specifications, BOQs and cost estimates for the proposed ACVHS, air quality systems and COVID safety	1 month from the date of contract
3.	As per Main task 3: (a) Tender documents as per GIZ templates (b) Bid evaluations report	45 days from the date of contract
4.	<b>As per Main Task 4:</b> (a) Visit reports on quality checking and rectification carried out by the contractor – every 15 days.	Every 15 days during construction/ implementation phase (December 2021 onwards)
	(b) Report on compliance with the required indoor air quality standards, air conditioning and ventilation requirements and COVID 19 safety during testing phase.	July 2022
	(c) Report on compliance with the required indoor air quality standards, air conditioning and ventilation requirements and COVID 19 safety during operational phase.	Minimum 03 reports required, dates TBD during contract finalisation
	(d) Verification report on the competition and handing over report submitted by the appointed contractor	TBD

### 5. Concept

In the bid, the bidder is required to show how the objectives defined in Section 1 are to be achieved. In addition, the bidder must describe the project management system for service provision.

**5.1 The Contractor shall submit a technical-methodical concept proposal specifying the following:**

**a. Strategy:**

- Interpretation of the objectives in the ToR, critical examination of tasks
- Description and justification of the contractor strategy for delivering the services put out to tender.

**b. Cooperation:**

- Presentation and interaction with GIZ and other relevant actors in the contractor area of responsibility
- Strategy for establishing cooperation and then cooperating with the relevant actors

**c. Steering:**

- Approach and procedure for steering the tasks/measures

**d. Project management of the Contractor:**

- Project management approach to be followed including coordination, quality management etc.
- Personnel assignment plan (who, when what work steps) incl. explanation and specification of expert months.

**5.2. Personnel Assignment Plan**

The bidder is required to draw up a personnel assignment plan with explanatory notes that lists all the experts proposed in the bid; the plan includes information on assignment dates (duration and expert days) and locations of the individual members of the team, complete with the allocation of work steps as set out in the schedule.

The bidder is required to provide personnel who are suited to filling the positions described, based on their CVs, the range of tasks involved and the required qualifications.

The below-specified qualifications represent the requirements to reach the maximum number of points. The numbers given in brackets refer to the respective lines in the document “Grid for the technical assessment of bids”.

The estimated man-days for both the consultancy services and procurement services are given below:

- Team Leader (1 No.) – 15 person-days
- Pool of Experts (up to 3 Nos.) – 25 person-days

Details of responsibilities and roles, qualification requirements of various experts are given below. And the number of man-days.

**Team Leader – 15 person-days**

**a. Tasks of the Team Leader**

- Overall responsibility for the execution of the contract (quality and deadlines).
- Coordinating and ensuring communication with GIZ
- Ensuring quality of work and deliverables.
- Personnel management.
- Regular reporting in accordance with deadlines.
- Overseeing the operational and performance aspects of the installation, their operation and quality management.

**b. Qualifications of the Team Leader**

- Qualifications (2.1.1) – Engineering/Architectural degree
- Language (2.1.2) - Proficiency in English language
- General professional experience (2.1.3) - Minimum 15 years' experience in dealing with ACVHS systems and air filtration systems for indoor air quality. Knowledge of COVID 19 ACVHS is essential.
- Specific professional experience (2.1.4) – Experience in dealing with indoor air quality and air filtration systems for offices (Minimum of two clients)
- Regional experience (2.1.6) – Experience in Delhi is preferable

**Pool of Experts (up to 3 Nos.) – 25 person days**

**a) Tasks of the Pool of Experts**

- Provide technical expertise for performing various tasks.
- Deal with technical aspects of the project including on compiling air quality standards, preparing various technical documents etc.
- Undertaking site visits, data collection, development of standards, developing plans, designs, specifications, cost estimates etc.
- Quality check of contents of all deliverables.
- Contribute to development of solutions integrating national and international standards and indoor air quality requirements.
- Coordinating the indoor air quality measurements as required.
- Performance checks during the testing phase and operational phase of the installed systems.
- Ensuring proper operation and maintenance of the air filtration systems.

**b) Qualifications of the Pool of Experts**

- Qualifications (2.1.1) - Engineering/Architectural degree
- Language (2.1.2) - Proficiency in English language
- General professional experience (2.1.3) – 5 to 15 years' experience in dealing with ACVHS systems and air filtration systems for indoor air quality. Knowledge of COVID 19 ACVHS is preferred.
- Specific professional experience (2.1.4) - Experience in dealing with indoor air quality and air filtration systems for offices (Minimum of two clients)
- Regional experience (2.1.6) – Experience in Delhi is preferable



## 6. Eligibility of Firm

- **Commercial Eligibility Assessment**

- Duly established legal entity as per India law.
- Average annual turnover of the agency for the last three financial years: at least Euro 100,000 or equivalent amount in INR.
- The number of employees of the agency as at 31.12. of the previous year: at least 10 persons.

- **Technical Eligibility Assessment**

- The bidder shall have reference projects with a minimum commission value of 20,000 EUR:
- 3 reference projects in HVAC and Air purification System designing.

- **Technical Experience**

- Minimum 05 years of relevant experience in the field of HVAC and Air purification system.
- Performed HVAC designing and monitoring work in minimum of 03 big companies/corporate having sq. ft area of 50,000 in last 2 years.
- Having registered/corporate office in Delhi NCR Region.
- Having prior experience of working with International organisations/embassies or German Companies (minimum 10 client required)

## 7. Costing Requirements

The days of engagement during the contract period, travel days, eligible travel allowances etc. are given below, which can be referred to by the consultant for calculating costs for the financial proposal to be submitted.

**Consultant has to provide lumpsum cost of entire assignment.**

### 6.1 Consultancy services

Fee days	Number of days up to	Comments
• Preparation/debriefing	As per TOR	Preparation/debriefing on the tasks
• Implementation	As per TOR	Person-days for taking up the tasks as defined in the TORs
• Travel days	Nil	Work assignment is within Delhi. No outside travel is foreseen.

### 6.2 Procurement services

Cost estimates to be quoted for:

- Item-wise for the proposed air filtration system – ducting AC units, HEPA filters etc. including all civil works, equipment procurements, installation costs, fabrication costs etc.

## **8. Requirements on the Format of the Bid**

The structure of the bid must correspond to the structure of the ToR. In particular, the detailed structure of the concept (Chapter 3) is to be organised in accordance with the positively weighted criteria in the technical assessment grid. It must be legible (font size 11 or larger) and clearly formulated. The bid is to be drawn up in English.

The complete bid shall not exceed 10 pages (excluding CVs and other company documents).

The CVs of the personnel proposed in accordance with Chapter 4 of the ToR. The CVs shall not exceed 6 pages. The CVs must clearly show the position and job the proposed person held in the reference project and for how long. The CVs shall be submitted in English.

If one of the maximum page lengths is exceeded, the content appearing after the cut-off point will not be included in the assessment.

Please calculate your price bid based exactly on the aforementioned costing requirements. In the contract the Contractor has no claim to fully exhaust the days/travel/workshops/ budgets. The number of days/travel/workshops and the budget amount shall be agreed in the contract as 'up to' amounts. The specifications for pricing are defined in the price schedule.

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