



## **REQUEST FOR PROPOSAL (RfP)**

# **Air Quality Sensor Procurement and Deployment to Strengthen Air Quality Monitoring Capacity in Freetown**

C40 Cities Climate Leadership Group, Inc.  
120 Park Avenue, 23<sup>rd</sup> Floor  
New York, NY 10017  
United States of America

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## **1. C40 Cities Climate Leadership Group Inc. (“C40”)**

C40 is a network of nearly 100 mayors of the world’s leading cities, who are working to deliver the urgent action needed right now to confront the climate crisis, and create a future where everyone, everywhere can thrive. Mayors of C40 cities are committed to using a science-based and people-focused approach to help the world limit global heating to 1.5°C and build healthy, equitable and resilient communities. Through a Global Green New Deal, mayors are working alongside a broad coalition of representatives from labour, business, the youth climate movement and civil society to go further and faster than ever before.

The strategic direction of the organisation is determined by an elected Steering Committee of C40 mayors which is co-chaired by Mayor Sadiq Khan of London, United Kingdom, and Mayor Yvonne Aki-Sawyerr of Freetown, Sierra Leone. Three term Mayor of New York City Michael R. Bloomberg serves as President of the C40 Board of Directors, which is responsible for operational oversight. A nine-person management team, led by Executive Director, Mark Watts, leads the day-to-day management of C40. C40’s three core strategic funders are Bloomberg Philanthropies, the Children’s Investment Fund Foundation (CIFF) and Realdania.

To learn more about the work of C40 and our cities, please visit our [Website](#), or follow us on [Twitter](#), [Instagram](#), [Facebook](#) and [LinkedIn](#).

## **2. Summary, Purpose and Background of the Project**

The objective of this project is to procure and deploy a network of low-cost air quality sensors throughout the City of Freetown to improve the city’s air quality monitoring capacity. The selected sensors will help Freetown City Council (FCC) monitor important air pollutants as well as meteorological conditions. The data collected from these sensors will inform the city’s equitable decision-making, public awareness, and targeted air pollution control measures.

C40’s Air Quality Programme works with cities to accelerate reductions in air pollutants and greenhouse gases (GHGs) through the implementation of robust air quality management efforts. The programme supports cities by facilitating peer-to-peer knowledge sharing, providing direct technical assistance, organising training, building city staff capacity, and conducting research and pilot studies in collaboration with city staff.

The C40 African Cities for Clean Air (AC4CA) initiative supports C40 cities in Africa to attain the data, evidence and technical capacity needed to design and implement priority air quality legislations, policies, programs and technologies, as well as to support and empower African Mayors to effectively implement solutions that improve air quality.

This project is made possible with funding from Clean Air Fund, a philanthropic initiative with the mission to tackle air pollution around the world. It leads a coalition of funders interested in climate change, children and health to fund and support a multinational portfolio of clean air programmes to deliver impactful and scalable improvements to air quality, human health and decarbonisation.

### 3. Project Scope

C40 is accepting proposals from sensor manufacturers or suppliers with presence in West Africa or familiar with the African context to provide low-cost air quality sensors for monitoring air quality in Freetown, with the goal of enhancing the air quality monitoring network across the metropolitan area.

#### **Work Package 1: Low-Cost Air Quality Sensor Procurement and Deployment**

##### **Activity 1.1: Air Quality Sensor Specifications**

The Supplier will provide a list of air quality low-cost sensors fit for deployment in Freetown, in response to specific attributes and recommendations supplied by C40, below.

C40 and Freetown seek cost-effective sensor options that do not compromise data quality. The Supplier is expected to provide competitive pricing for the air quality sensors, the solar panels to ensure a continuous power supply and data transmission, any necessary accessories (such as cables) or required software, and any shipment costs.

Air quality sensors should at a minimum meet the following criteria:

- Capable of measuring at a minimum particulate matter (PM<sub>2.5</sub>, PM<sub>10</sub>) but it would be preferable if the sensors are able to monitor additional pollutants especially those with major health impact such as NO<sub>2</sub>, O<sub>3</sub>, CO, and so on.
- Provide real-time data and be compatible with data communication best practices. If the Freetown's IT manager is available to create an "Air Quality" page in the menu of city's Website, then the Supplier can support by providing a link to the sensors map to make real-time air quality monitoring results accessible to city stakeholders.
- Calibrated and tested to ensure accurate and consistent measurements in environmental conditions similar to that of Freetown. There are no reference grade monitors available in the city. The Supplier should propose other methods of calibration. Calibration certificates and documentation should be provided with the sensors.
- Durable and able to withstand varying environmental conditions. The Supplier shall guarantee the product to be provided for at least 2-year period or longer.

The Supplier must provide detailed specifications of the proposed air quality sensors, including their monitoring capabilities (types of pollutants, meteorological conditions, if applicable, etc.), data output (hourly, daily, historical data, type of editable reports in Excel, pdf, and type of online data platform or other mechanism for data sharing), lifespan, maintenance requirements, and any additional features.

##### **Activity 1.2: Deployment Planning and Site Selection**

The Supplier will develop a comprehensive deployment plan in collaboration with FCC and C40 that outlines: the strategy for deploying approximately 15 sensors, deployment timeline, and recommendations on strategic site locations for installation.

C40 and FCC will be responsible for identifying and confirming a list of potential sites and additional information to ensure adequate and appropriate coverage.

### **Activity 1.3: Securing the Sensors and Project Sustainability**

The Supplier shall provide adapted steel protection structures to secure the sensors and all accompanying parts. The Supplier shall consult Freetown's air quality team for guidance during the installation of the equipment. To ensure the smooth installation of the sensors, the Supplier will be responsible for all related logistical and transportation costs to the site locations. All costs and plans should be clearly outlined in the proposal with the requirement to meet project delivery timelines.

### **Activity 1.4: Sensor Shipment and Delivery**

The Supplier shall organise shipment of the air quality sensors, including a durable solar panel and a battery for each individual sensor, and accessories (connection cables, etc.) to an agreed upon person and physical address confirmed by FCC.

The Supplier is expected to arrange delivery (as per project timeline provided in section 5) by air freight or an equally expedient method and cover all transportation and customs clearance fees.

### **Activity 1.5: Sensor Installation and Capacity Building**

The Supplier shall develop and deliver training to build capacity of city staff for deploying and maintaining air quality monitoring sensors. The Supplier should plan for an in-person visit incorporating both the capacity building workshop for at least 15 city technical staff and the sensor installations. All travel costs associated with this in-person visit should be accounted for and included in the detailed budget breakdown (referred to in section 7). The training topics should cover, but not limited to sensor installation, use of the online data platform, maintenance, and data interpretation, ensuring long-term project impact and sustainability. Proposals should clearly describe the format, duration and content of the in-person training sessions to be provided on the ground, to the Freetown air quality representatives.

The Supplier shall support city staff in the deployment of the air quality sensors and troubleshooting / maintenance for the duration of the project.

## **Work Package 2: Data Management**

### **Activity 2.1: Real-Time Data Access/Display**

The Supplier shall have an online data platform available to ensure:

- Reliable and timely access to the data by city air quality stakeholders.
- Publication of near real-time air quality sensor data to the FCC Website.

### **Activity 2.2: Maintenance and Support**

The Supplier will develop a comprehensive maintenance guide in collaboration with city staff, to ensure that the city staff can maintain the equipment independently and as necessary. The maintenance guide should clearly detail routine calibration (considering the absence of reference grade monitors and alternative techniques of calibration), sensor replacement requirements and the level of technical support available after project close.

## **Work Package 3: Project Close-out & Evaluation**

### **Activity 3.1: Project Implementation Report**

The Supplier shall produce a final project report for C40 and the City that should include but is not limited to:

- Summary of the completed work.
- Assessment of success of project and opportunities.
- Identified risks, challenges, barriers, or unforeseen issues during the implementation of the project.
- Recommendations and next steps for FCC in furthering its air quality monitoring goals.

## **4. Proposal Guidelines**

This Request for Proposals represents the requirements for an open and competitive process. Proposals will be accepted until **11:59 pm GMT, May 16, 2025**. Any proposals received after this date and time will not be accepted. All proposals should include clear timelines, how the work will be undertaken with C40 and FCC, clear costs and details on experience in this area.

The proposal should give C40 and Freetown evaluators all the information they need to assess your bid. Please clearly indicate where applicable:

- How your proposal is responsive to the evaluation criteria (set out in section 6);
- The assumptions you are making about the project;
- Risks you have identified and appropriate mitigation measures;
- Information about your budget breakdown;
- Proposed timeline of implementation;
- Any additional support that you need to make the project a success, including any inputs you will need from third parties or C40 staff;
- Proposed working partnership with C40 and FCC, including (as applicable) project governance and management, the key personnel, key roles and responsibilities, and escalation procedure for issues.

You must include adequate information about how your costs were calculated to enable evaluation of cost reasonableness.

### **Supplier Diversity**

C40 is committed to supplier diversity and inclusive procurement through promoting equity, diversity and inclusivity in our supplier base. We believe that by procuring a diverse range of suppliers, we get a wider range of experiences and thoughts from suppliers and thus are best able to deliver to the whole range of our diverse cities and the contexts that they operate within.

We strongly encourage suppliers (individuals and corporations) that are diverse in size, age, nationality, gender identity, sexual orientation, majority owned and controlled by a minority

group, physical or mental ability, ethnicity and perspective to put forward a proposal to work with us.

Feel welcome to refer to [C40's Equity, Diversity and Inclusion Statement](#) as supplier diversity and inclusive procurement is one element of applying equity, diversity and inclusion to help the world limit global heating to 1.5°C and build healthy, equitable and resilient communities.

## **Contract**

Please note this is a contract for professional services and not a grant opportunity. Organisations unable to accept contracts for professional services should not submit bids. The work will be completed in line with the [C40 Goods Contract](#).

These terms and conditions are accepted as drafted by the majority of our suppliers and we reserve the right to penalise your bid on the basis of non-acceptance of terms. If you do wish to include any requested amendments with your proposal, please do not mark up the document in tracked changes but provide [a separate negotiation document](#) for review setting out clearly your rationale for the change.

If C40 is unable to execute a contract with the winner of this competitive process, we reserve the right to award the contract to the second highest Potential Supplier.

## **Subcontracting**

If the organisation submitting a proposal needs to subcontract any work to meet the requirements of the proposal, this must be clearly stated. All costs included in proposals must be all-inclusive of any outsourced or contracted work. Any proposals which call for outsourcing or contracting work must include a name and description of the organisations being contracted.

## 5. RfP and Project Timeline

### RfP Timeline

Steps	Due Date
Request for Proposals sent out	<i>April 16, 2025</i>
Questions submitted to C40	<i>April 16 - May 8, 2025</i>
C40 responds to questions	<i>May 9, 2025</i>
Deadline for receiving Offers	<i>May 16, 2025</i>
Evaluation of Proposals	<i>May 19-23, 2025</i>
Presentation on Shortlisted proposals	<i>May 28, 2025</i>
Selection decision made	<i>May 30, 2025</i>
All Potential Suppliers notified of outcome	<i>June 2, 2025</i>

### Project Timeline

Deliverable/ Activity	Description	Due Date
1	Kick off meeting	<i>Week 1</i>
2	<b>Kick off meeting report</b>	<i>Week 2</i>
3	Provision of product card for sensors and their accessories	<i>Week 3</i>
4	<b>Comprehensive deployment plan</b> (including recommendations on strategic site locations for installation)	<i>Week 6</i>
5	Shipment and delivery of air quality sensors, solar panels and security structures	<i>Week 9</i>
6	<b>Comprehensive installation and maintenance guide</b>	<i>Week 10</i>
7	Sensor deployment and installation	<i>Week 14</i>

8	Comprehensive technical training on the installation of sensors and solar panels, the use of Air Quality Data Platform and Dashboard and Data analysis.	<i>Week 15</i>
9	<b>Sensor installation report</b>	<i>Week 18</i>
10	<b>Training Materials &amp; Capacity Building Training Outcomes Report</b>	<i>Week 19</i>
11	<b>Final Implementation Project Report</b>	<i>Week 24</i>

\* **Note:** Bolded items are deliverables that need to be submitted for review and approved before finalised.



## 6. Proposal Evaluation Criteria

Proposals will be evaluated against the following criteria.

Evaluation Criteria	Weighting
Low cost sensor specifications, cost-effectiveness and durability	30 %
Supplier's track record and references <ul style="list-style-type: none"><li>• Capability, experience, and availability of the proposed team</li><li>• References from other clients including not-for-profit clients</li></ul>	25 %
Installation and post-project maintenance support	20 %
Budget (value for money) <ul style="list-style-type: none"><li>• Economy: minimising the cost of resources used</li></ul>	20 %
Equity and ethical alignment considerations: C40 is looking to appoint an organisation or individual service provider that shares our values and is grounded in the context of the local community.  Consideration will focus on: <ul style="list-style-type: none"><li>• Organisation which has prior experience or presence in Africa or the West African region.</li></ul>	5 %

## 7. Project Budget

Total project costs (including VAT and other 'hidden' costs) should not exceed **100,000.00 US Dollars**.

All proposals must include proposed costs to complete the tasks described in the project scope, including all VAT and taxes. Costs should be stated as one-time or non-recurring costs or monthly recurring costs. The proposal must indicate a cost breakdown structure, outlining the costs for each component of the project. All costs incurred in connection with the submission of this RfP are non-refundable by C40. All budgets are to be prepared in US Dollars.

Payment will be made according to meeting project milestones as approved by the C40 point of contact.

## 8. C40 Policies

C40 expects third parties to be able to abide by these C40 policies

- Non-Staff Code of Conduct Policy [here](#)
- Equity, Diversity and Inclusion Policy [here](#)

## 9. Submissions

Each Potential Supplier must submit 1 copy of their proposal to the email addresses below by **May 16, 2025 at 11: 59 pm GMT**.

- **Simon Sambou**  
Regional Technical Advisor for Air Quality, West Africa  
[ssambou@c40.org](mailto:ssambou@c40.org)

Cc:

- **Seneca Naidoo**  
Technical Head for Breathe Cities, Africa  
[snaidoo@c40.org](mailto:snaidoo@c40.org)

Potential suppliers can ask their questions [here](#). Anonymised answers to questions will be provided on the same link at the end of the question and answer period (see timetable).

On the basis of the applications received, C40 reserves the right to promote the establishment of consortium relationships or to ask potential suppliers to refine their applications after receipt.

### Disclaimer

C40 will not accept any liability or be responsible for any costs incurred by Potential Suppliers in preparing a response for this RFP. Responses submitted will be accessible by all C40 staff and external evaluators.

Neither the issue of the RFP, nor any of the information presented in it, should be regarded as a commitment or representation on the part of C40 (or any of its partners) to enter into a contractual arrangement. Nothing in this RFP should be interpreted as a commitment by C40 to award a contract to a Potential Supplier as a result of this procurement, nor to accept the lowest price or any tender.