URBAN LEDS
URBAN LOW EMISSION DEVELOPMENT STRATEGIES

ICLEI Local Governments for Sustainability | UN-HABITAT FOR A BETTER URBAN FUTURE

ICLEI - LOCAL GOVERNMENTS FOR SUSTAINABILITY

AFRICA SECRETARIAT (ICLEI Africa)

Seeks to appoint an implementing agent in Rwanda to be responsible for the in-country management and on-site management of three resource-efficient infrastructure projects, in Kicukiro District in the City of Kigali and Muhanga District (rainwater harvesting systems and energy-efficient fixtures), and in Rubavu District (solar public lighting) respectively.

Timelines for submission below:

- **1 July 2020** – Terms of Reference published for implementing agent (IA)
- **8 July 2020**: IA bidders attend a compulsory briefing session hosted by ICLEI Africa via Zoom (please use this link: https://us02web.zoom.us/j/87983243173?pwd=dEFHMjR1emptMlIwR0MxalJxbDl6dz09)
- **21 July 2020** – Proposal submission closing date
- **1 August 2020** – IA appointed
- **1 September 2020**– 2 Terms of References published for sub-contractors
- **1 October 2020 –** Sub-contractor contract start date
- **31 March 2021 -** contracts completed

To submit a bid in response to this Terms of Reference, please email Ben Hetherington, ben.hetherington@iclei.org and Rebecca Cameron, rebecca.cameron@iclei.org

Please Note: Bids will only be accepted if the bidder attends the compulsory briefing session. All technical queries to be raised and addressed at the compulsory briefing session.

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The views expressed on this document can in no way be taken to reflect the official opinion of the European Union.

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This Terms of Reference is for a portion of work that forms part of the broader project: *Urban Low Emissions Development Strategies ll (Urban LEDS II).* A project description is provided below for context.

Description of the Urban-LEDS ll Project

Human activities in cities contribute a significant and growing proportion of global greenhouse gas emissions, driving the demand for energy and other services in urban areas, especially those experiencing rapid population growth. Meeting the ambitious goals of the Paris Climate Agreement will require a fundamental transformation of how urban infrastructure and services, including transportation, energy, water, waste and urban space, are planned, delivered and maintained. It will also require effective monitoring, reporting and tracking of performance. The Urban-LEDS II project aims to contribute to this vital component of international climate action, with a focus on local needs and the role of all levels of government to enable action.

The objective of the project is to contribute to the reduction of greenhouse gas emissions by the promotion of Urban Low Emission Development Strategies (Urban-LEDS) that build resilience to climate change in cities/towns in emerging economies and least developed countries, including a focus on energy (renewables and efficiencies), waste management, eco-mobility, and water to name a few. The project is funded by the European Union and implemented by ICLEI and UN-Habitat. In Africa, the project is being implemented in South Africa and Rwanda.

For further information on the project, please visit: https://urban-leds.org/

Scope of Works

A component of the Urban-LEDS ll project is to implement projects that demonstrate the benefits of climate resilient development to support efficient municipal service delivery. In Rwanda, ICLEI Africa and UN Habitat have worked with cities to identify the following pilot projects: managing the supply and installation of sustainable water management and energy-efficient systems at **Gahanga Health Centre in Kicukiro District (City of Kigali) and Gitarama Health Centre in Muhanga District;** as well as the supply and installation of solar public lighting at **Gisenyi beachfront in Rubavu District.**

To ensure efficient and successful implementation of the project, ICLEI Africa seeks to appoint an implementing agent to manage the onsite construction and relevant sub-contractors, with the relevant expertise and contextual knowledge of resource-efficient infrastructure project implementation in Rwanda.

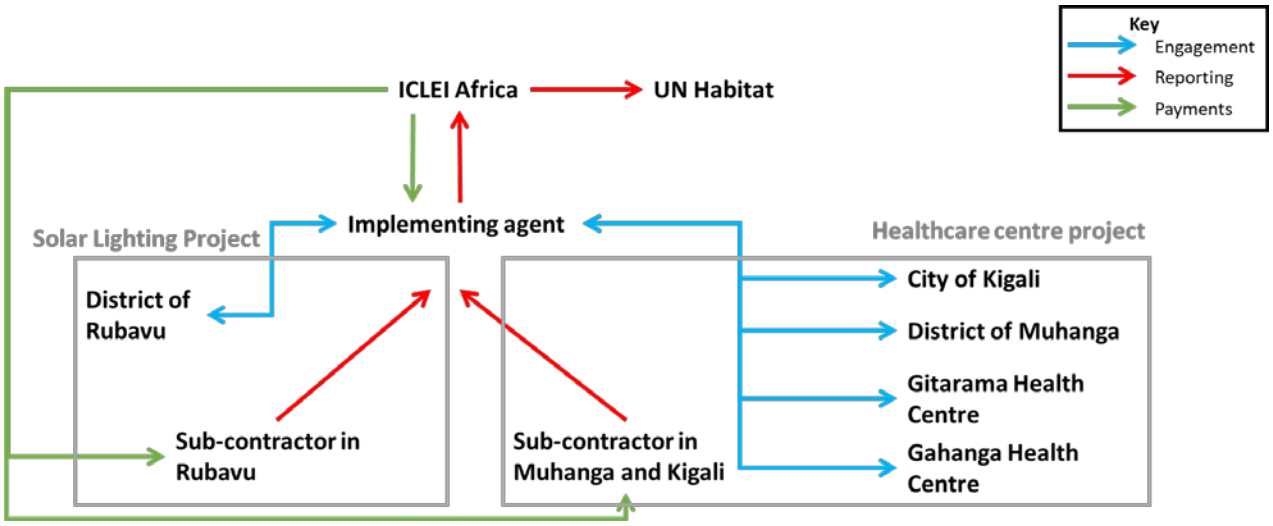
The appointed implementing agent is expected to deliver the following Scope of Works:

- Managing the appointment of and payment to sub-contractors:
  - Review and finalise the two Terms of Reference developed by ICLEI Africa and UN Habitat and support it being published and shared with an appropriate list of potential sub-contractors.
  - Host the necessary site visits for sub-contractors during the procurement process
  - Consulting with the shortlisted and approved sub-contractors for each demonstration project

  Notes on the procurement process for sub-contractors:

  - The procurement process will follow the ICLEI Africa Procurement Policy.
  - The same sub-contractor should be appointed for the Kigali and Muhanga demonstration projects as they are very similar in nature and to ensure value for money. This sub-contractor will therefore be contracted to *one* Terms of Reference for both of those demonstration projects.
  - The Rubavu demonstration project will be administered according to a second Terms of Reference and so a different sub-contractor can be enlisted, if necessary.
  - Please note that subcontractor will enter in to a contract with ICLEI Africa and will be paid directly, so no financial transactions will be required between the implementing agent and the sub-contractor.

An organogram is provided below to outline the role of the implementing agent.



- Project Management to ensure high quality and on time delivery:
    - Ensuring that all requirements in the Terms of References with designated sub-contractors are met
    - Regular engagement with Managers at the Healthcare Centres and officials at the District of Rubavu to ensure access to site and that the construction work continues as per the work plan
    - Regular monitoring and responsive guidance to the sub-contractors based on progress made with weekly progress reports to ICLEI Africa and UN Habitat.
    - On-site management to ensure deliverables are on time and of a high quality
    - Review the work completed and develop a list of any outstanding work to be completed by the sub-contractor before the work can be signed off (snag list)
    - Provide the necessary sign-off on all work completed
    - Risk management around delays/obstacles to delivery of the demonstration projects
    - Review and comment on maintenance manuals developed by sub-contractors
    - Attend one day training at each site on the maintenance requirements of the system to be conducted by the sub-contractors
    - Capture the lessons learnt and the experiences of implementing the projects in a final close out report

An overview of the scope of works of the subcontractors is provided in Annex 1.

Budget

It is anticipated that this scope of works will require a minimum of 10 days per month, so approximately 60 days over 6 months in total to complete.

The budget provided is to demonstrate professional service fees for project management, onsite management, and appointment and management of sub-contractors. A separate line item is to be provide for all anticipated disbursements, such as travel to site, etc. The disbursements will be reimbursed only when receipts and requests are made by the implementing agent to do so. The reimbursement of costs will

not exceed that indicated in the budget, unless due exceptional circumstances as agreed to by ICLEI Africa.

The budget must indicate an anticipated payment schedule.

ICLEI Africa will not pay for any unbudgeted items.

Service provider requirements

The service provider appointed is expected to have a relevant engineering or architecture degree or diploma permitting them to authorise work of this nature. A project management qualification would be an advantage.

The service provider appointed must have a minimum of 10 years of demonstrated experience in completing similar projects in Rwanda. Experience working with the public sector should be highlighted.

Only service providers with an office in Rwanda will be considered.

The service provider appointed must have demonstrated skills in managing projects timeously and producing high quality outputs within short delivery periods.

Submission requirements for implementing agent

Bids are welcomed from individuals or companies.

ICLEI Africa will consider the following aspects when appointing the implementing agent, therefore all bids should include:

- Demonstrated previous experience in similar projects as a table including the name of the project, a description of the project, the start and end date of the contract, the value of the project and a reference with contact details
- Work plan and budget
- CV for each person who will work on the project, providing their years of experience and qualifications
- Company profile, if a company is bidding
- Proof of address to confirm office in Rwanda

Appointment of an implementing agent is subject to the ICLEI Africa's contractual terms and conditions as captured in the Service Level Agreement to be signed on appointment.

ICLEI AFRICA RESERVES THE RIGHT NOT TO APPOINT AN IMPLEMENTING AGENT AS PER THIS TERMS OF REFERENCE

Additional Information

ICLEI - Local Governments for Sustainability is the leading global network of over 1,500 cities, towns, and regions committed to building a sustainable future. Through our collective efforts, we impact more than 25 percent of the global urban population. For more information on ICLEI Africa's work, please see http://africa.iclei.org/ and http://cbc.iclei.org/.

Annex 1: Overview of the interventions by sub-contractors to be managed by implementing agent

The list of interventions to be implemented by the sub-contractors is detailed below with the estimated required specifications:

Rainwater collection interventions (Muhanga and Kigali)

Water collection measures should be installed to **increase the availability of water to the health centre,** as well as **capture rainwater to limit the damage of stormwater on site**. All interventions installed should be provided to comply with national performance standards. All quantities provided in the table below will be verified at a compulsory site visit with potential sub-contractors.

	Estimated quantities required	
	Gitarama Heath Centre, Muhanga	**Gahanga Health Centre, Kigali**
Rainwater harvesting tanks **Type A:** 10 cubic meter plastic water tanks **Type B :** 5 cubic meter	Type A : 4 tanks Type B: 2 tanks	Type A: 3 tanks
PV Solar Water pump and connection from rainwater harvesting tank (potable water) to solar water geyser	One (1) pump and connector pipes	One (1) pump and connector pipes
PV Solar Water pump and connection from rainwater harvesting tank (non-potable water) to existing flush toilet and irrigation system on site	One (1) pump and connector pipes	One (1) pump and connector pipes
Water filtration/treatment system	One (1) filter per rainwater harvesting tank that will be used for potable water with connector pipes	One (1) filter per rainwater harvesting tank that will be used for potable water, with connector pipes

Water meters to measure water usage	Minimum of one measurement meter, per rainwater harvesting tank (potable and non-potable)	Minimum of one measurement meter, per rainwater harvesting tank (potable and non-potable)
Signage on rainwater harvesting tanks to note the type of water available: Drinking Water and non-drinking water	1 per rainwater harvesting tank, 6 in total.	1 per rainwater harvesting tank, 3 in total.

Important notes for the installation of interventions

- Measurements of water collected and used need to be reported by the suppliers for a year, and training should be given by the sub-contractors to healthcare centre workers to continuously take readings thereafter.
- All rainwater harvesting tanks should be installed on concrete or brick plinths with a tap installed to ensure ease of access and use.
- Installation of Type A water tanks will include a base for the water tank, at least 1m high from the ground surface. The base must be constructed with stone masonry, and the finishing for the walls and bed of the base made with cement-sand plaster.
- Type B water tanks must be supported by steel bars elevated at 4 metre height and must be anchored by a concrete block.
- All water tank installations must also include the fitting of a water tap, and an overflow PVC pipe. All PVC pipes must be installed from the overflow holes to the surface level.
- In terms of the supply and installation of pipes and fittings, the pipes need to connect harvested rainwater to an existing flush toilet. The system must include a main pipe of PVC 40mm which transfers water from the elevated tank to lateral pipes (for irrigating crop gardens). Connecting the elevated tank to the main pipe should be a PVC 40mm PN 10 pipe. Furthermore, perforated pipelines of 25 mm should be affixed to the main pipe to employ drip irrigation for existing crop gardens.
- All existing rainwater harvesting tanks on site must be evaluated to determine whether appropriate for ongoing use. If no longer appropriate, then water collection tanks are to be uninstalled and placed in an agreed location, but not removed from site. Where possible the sub-contractors must make use of the

existing infrastructure - either in addition to the infrastructure requested or by enhancing existing infrastructure.

- After the installation, the sub-contractor ensures that the wall is drilled and the finishing is sufficient.
- Excavation and reinstatement of excavated area for laying the pipes during underground installation.

Energy efficiency interventions (Muhanga and Kigali)

Energy efficiency measures should be installed to **decrease the electricity cost burden** on the health centre as well as **increase the utility of existing services**. All interventions installed should be provided to comply with national performance standards. All quantities provided in the table below will be verified at a compulsory site visit with potential sub-contractors.

Estimated quantities required		
	Gitarama Heath Centre, Muhanga	**Gahanga Health Centre, Kigali**
Energy efficient light bulbs (LEDs) to be retrofitted internally throughout the centres **Type A** : light bulbs 9W , cool white **Type B:** lights tubes 2' of 18W Frosted, cool white **Type C:** lights tubes 4' of 18W Frosted, Cool white **Type D:** 7W LED bulbs 110-240V, 85LM/W	40 Type D bulbs 23 Type B tubes	60 Type A bulbs 14 Type B tubes 42 Type C tubes
LED security spotlights attached to walls for outdoors spaces, with motion sensors **Type A:** LED 120W **Type B:** Sodium Light diffuser 250W	2 Type A 1 Type B 5 Type C	38 Type D

Type C: high pressure sodium lamp 250 **Type D**: LED 18W		
Solar street lights of 45W	6 Public solar lights with supporting ballast	6 Public solar lights with supporting ballast
Solar water geyser to provide hot water for existing shower facilities	One 200 litre solar water geyser and connector pipes to shower(s)	One 200 litre solar water geyser and connector pipes to shower(s)
Electricity Meters to measure the majority of electricity usage	Minimum of one meter, with a possible maximum of two meters, if required	Minimum of one meter, with a possible maximum of two meters, if required
Supply and install ABB Junction Box, 100mm x 100mm x 50mm	1	1
Supply and install 63A manual changeover	1	1

Important notes for the installation of interventions

- All PV solar water heating solutions to be installed in such a way as to provide maximum efficiency, i.e. the correct angle and orientation of the solar water heater must allow for maximum solar heating potential.
- Evaluate the structural integrity of the roof or surface before placing solar water heater. The sub-contractor will have to make an assessment of whether to place the solar water geyser on steel brackets to support the geyser especially in the event that the structure is weak or to enhance the orientation of the solar panel.
- A high pressure solar water geyser is preferred.
- There should be a flooded evacuated tube collector integrated into the tank of the Solar Water Heater.

Furthermore, the sub-contractor should provide an report that lists the opportunities or processes to provide energy-efficient or alternative energy sources for refrigeration for medicines and vaccines, based on current knowledge of renewable energy access.

Solar Public Lighting Installations (Rubavu)

Solar public lighting should be installed to **reduce the financial burden related to electricity consumption on the district and provide greater energy security for public lighting purposes**. All lights installed should be provided to comply with national

performance standards. All quantities provided in the table below will be verified at a compulsory site visit with potential sub-contractors.

	Estimated quantities required
Solar street lamp series [Radar induction head, 115x65mm in dimensions, 60 Wattage with twilight sensor switch (darkness sensor)]	A maximum of 66
Headlamp support (where retrofitting is not possible)	A maximum of 66

Important notes for the installation of interventions

- Measurements on kilowatt hours (kWh) generated and used need to be reported by the suppliers for a year, and training should be given to local technicians to continuously take readings thereafter.
- All existing streetlight supports (i.e. the posts) on site must be evaluated to determine whether appropriate for retrofitting. Where possible the sub-contractors must make use of the existing infrastructure - either in addition or replaced by the infrastructure requested.
- Where possible, existing public lightings and their posts should be retrofitted, rather than installation entire head lamp supports and public lighting.
- After the installation, the sub-contractor ensures that the lamp supports are securely fixed to the ground using anti-theft measures, and the finishing is sufficient.
- Excavation and reinstatement of excavated area for installing new lamp supports or securing the stability of existing supports.
- The solar cells need to be angled to maximise the photovoltaic effect for each installation.
- The project should be designed so as to ensure that the funding and intervention model can directly inform a concept note for a broader programme of energy-efficient and solar public lightinging installations. The aim of this replicability is to enable scaled implementation of similar interventions applicable to all districts in Rwanda.

Costed maintenance plan and training

The appointed sub-contractors must supply one costed maintenance plan for each health centre as well as one costed maintenance plan for the street lighting infrastructure in Rubavu, written in English and Kinyarwanda. These plans must clearly stipulate the daily, monthly and annual requirements for maintenance and replacement, with related estimated costs, to ensure optimal performance of all interventions for a minimum period of the next 5 - 10 years. Each plan should be provided as a Word Document and two printed versions.

The appointed sub-contractor must organise and facilitate a one-day training session in Muhanga and Kigali at each health centre to ensure all relevant staff know and understand the maintenance and operational requirements for each system installed.

The appointed sub-contractor must organise and facilitate a one-day training session in Gisenyi to ensure all relevant staff know and understand the maintenance and operational requirements for the installed public lighting.

All training should be provided in English, however it would be advantageous to have someone who speaks Kinyarwanda at all trainings in the event that translation is required.

Project management and reporting

The appointed sub-contractor is required to manage the sites in such a way as to ensure on time and high quality delivery of projects detailed above.

Throughout the contract, the sub-contractor is required to:

- Engage with the implementing agent to provide a weekly progress report, with photographs and a written report demonstrating progress.
- Participate in a final hand-over meeting for each demonstration project at the sites with ICLEI Africa, UN Habitat, and relevant officials from the district (and staff from the health centres in Kigali and Muhanga).