ICLEI - LOCAL GOVERNMENTS FOR SUSTAINABILITY
AFRICA SECRETARIAT (ICLEI Africa)

Seeks to appoint a supplier to supply and retrofit solar and LED public lighting along the Lake Kivu beachfront in Gisenyi, Rubavu District

Timelines for submission below:

- **5 October 2020:** Terms of Reference published
- **8 October 2020:** Indicate interest for submitting a bid
- **Week of 12 - 16 October 2020:** Compulsory site visit will be organised in collaboration with district officials. The meeting points, date and times for the site visit will be sent to all bidders who have indicated interest. All queries to be answered at site visit.
- **23 October 2020:** Proposal submission closing date.
- **Mid to end November 2020:** Appointment of a supplier and work commences
- **28 February 2021:** Supplier contract completed

Send all completed bids and technical queries to Ben Hetherington, ben.hetherington@iclei.org.

Table of Contents
This Terms of Reference is for a portion of work that forms part of the broader project: *Urban Low Emissions Development Strategies II (Urban-LEDS II)*. A project description is provided below for context.
Description of the Urban-LEDS II 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. Within Rwanda, the three model cities are City of Kigali, Muhanga District and Rubavu District respectively, and the Urban-LEDS II team has been engaging regularly with the local government administrations in each to contribute to climate resilient development since 2017. Urban-LEDS II seeks to deliver interventions which continue to have impact following the end of the project and allow the practices introduced to be carried out by local government officials.

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

Scope of Works

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.

The work must demonstrate the benefits of climate resilient development to support efficient municipal service delivery through the supply and installation of solar and LED public lighting at Gisenyi beachfront in Rubavu District, Rwanda.

For this reason, the project seeks to appoint a supplier who has the skills required to supply and install solar and LED public lighting.
The appointed supplier is expected to deliver the following Scope of Works, as per the phases outlined below:

**Phase 1:**
- Complete an audit in a table format with the following details:
  - An overview of existing public lighting and its current condition.
  - Evaluate the status of the current public lighting and indicate which can be retrofitted with LED light fixture and a Solar System and which existing light poles will need to be replaced in their entirety.
  - An assessment of the district’s monthly/daily electricity consumption as related to street lighting.
  - Based on this assessment, develops a design and updates the Bill of Quantities for the installation of the solar and LED public lighting accordingly. The final Bill of Quantities will be agreed to in writing by ICLEI Africa before installation begins on site.

**Phase 2:**
- The supply and installation of public lighting that makes use of LED light fixtures (to increase energy efficiency) with an integrated solar energy system, with related storage, for each light. All lights installed should be provided to comply with national performance standards. The specifications are provided below.

All quantities provided in the table below will be verified in the final and updated Bill of Quantities in Phase 1. A quotation is requested for:

<table>
<thead>
<tr>
<th>Estimated quantities required</th>
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<tbody>
<tr>
<td>Supply, install, test and commissioning of LED Solar street light with the following specifications:</td>
</tr>
<tr>
<td>a) Power: 60W</td>
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<tr>
<td>b) Luminous flux: 6000LM</td>
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<tr>
<td>c) Poly crystalline Solar panel: 6V 22W</td>
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<tr>
<td>d) Lithium battery: 3.2V; 20000mA</td>
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<td>e) Charge time: 6-9H</td>
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<td>f) Lighting time: 2 days</td>
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<td>g) Solar Panel size (MM): 350*340</td>
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<tr>
<td>h) Installation height: 6M-9MLight</td>
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<tr>
<td>i) efficiency: 100LM/W</td>
</tr>
<tr>
<td>j) IP code: IP 65 Waterproofed &amp; dustproof</td>
</tr>
</tbody>
</table>
k) Rated life: ≥50000 hours
l) Input Voltage: DC 12/24V
m) Provision of darkness sensor

| Supply and fix the galvanized electrical pole of 9m of height with all accessories | 66 |
| Supply and install energy meter for existing public lighting with all accessories in a safe and easily accessible location | 1 |

- Install an energy meter for this area of public lighting that allows for regular manual collection of energy consumption data for the public lighting (daily).
- Engage with district officials to arrange for any necessary permits and or switching off of electrical connection for installation of lighting
- All systems installed must have a minimum 1-year warranty provided on the product and the installation.
- Provide a site manager to ensure high-quality installation of LED and Solar Lighting and to maintain regular communication with the Project Implementing Agent, Innovative Builders and Suppliers, and the district officials
- Engage with IBS to arrange a review of the installation (information below) to develop a snag list where any outstanding or insufficiently installed items will be identified.
- Participate in a final hand-over meeting with IBS, relevant officials from the district, and (if possible) UN-Habitat and ICLEI Africa.

**Phase 3:**

- Provide an operations and maintenance training manual (up to 10 pages) that includes associated costs of ownership and deliver a one day training for district officials and officials in English and Kinyarwanda (manual and training):
  - Provide one plan for Rubavu District in English and Kinyarwanda that clearly stipulates the daily, monthly and annual requirements for maintenance and replacement, with related estimated costs, to ensure that optimal performance of all interventions for a minimum period of the next 10 years. Each plan should be provided as one digital Word Document with two printed versions.
  - Provide one-day training at Gisenyi to ensure all relevant district staff know and understand the maintenance and operational requirements for the installed public lighting. The 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.

- Training to local technicians must include guidance on continuously taking readings on the electricity meters installed to measure the electricity savings resulting from the solar street lighting.
- Produce as-built schematics for the installations.

The installation will be supervised and project-managed by Innovative Builders and Suppliers Ltd. (IBS), who have been appointed by ICLEI Africa to manage risk and the contractual obligations of this scope of works. IBS must be kept up to date on the installation of the progress on site in the following ways:

- Short daily updates on progress on site, one photo and a short description, via WhatsApp
- Weekly progress reports (photographs and written descriptions of progress on site, listing any problems experienced and anticipated project risks)
- Onsite meeting for the final inspection and sign-off of the installation

**Important notes for the installation of interventions**

- All existing streetlight supports (i.e. the posts) on site must be evaluated to determine whether appropriate for retrofitting.
- 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 supplier ensures that the lamp supports are securely fixed to the ground using anti-theft measures, and the finishing is done to be aesthetically pleasing and prevent harm to the public as they walk around the area with the installed lights.
- Excavation and reinstatement of excavated area for installing new lamp supports or securing the stability of existing supports.
- The solar panels must be angled to maximise the photovoltaic effect for each installation.
- The process of installation cannot be disruptive to the normal activities on the Gisenyi beachfront.
Liability and Warranty
The appointed supplier will be held responsible for the installation of the solar and LED public lighting and their proper functioning for a period of at least 3 years after installation.

The installations provided should have a warranty of at least 1 year covering any malfunction of the product.

Furthermore, the bidder must demonstrate that the company has sufficient public liability insurance to cover any onsite incidents.

The appointed supplier will be required to indemnify ICLEI Africa against all potential incidences and claims arising from the delivery of this work.

Please motivate in the bid if submitting any deviation from the above.

Budget
The budget provided is to demonstrate clearly the individual and total costs for the supply and installation of all products in the scope of works, travel to and from site, and project management onsite including the high-level audit. A total budget, including all amounts and VAT, is then to be provided.

ICLEI Africa will not pay for any unbudgeted items.

Key Requirements for bidding
Prerequisite for bidding
A compulsory pre-bidding site visit will be organized. Bidders must complete a site visit at Lake Kivu beachfront in Gisenyi and compile a two-envelope bid, including:

- A technical package, which includes an electrical schematic design for the installation and specification sheets for proposed installation
- A financial package, including a Bill of Quantities for all project goods, works, and services

The successful supplier must have:

- Service history in Rwanda and current active office in Rwanda
- Evidence of previous experience to execute similar contracts (at least 2 “good completion certificates with their signed contracts”)
● Detailed technical specifications of the items to be supplied including the manufacturer and country of origin.
● Demonstrated ability to deliver and install goods on time and of a high quality
● The list of staff (personnel) should be made up of:
  o Site foreman: Electrical engineer with a degree with at least 2 years of experience in similar works in electrical maintenance or A1 degree with 5 years of experience
  o Electrical Technicians who will undertake the installation
  o At least one staff member with a certificate in Occupational Health and Safety
● Note, a consortium of suppliers can submit a bid, but ICLEI Africa will only enter in to a contract with one bidder
● The supplier must be able to supply accurate and comprehensive financial records of project-related expenses (including, but not limited to disbursements, travel and subsistence costs). These expenses must be included in the Financial Report that is submitted with all the final deliverables to ICLEI Africa.
● The supplier will only be reimbursed for services and materials. No upfront payments will be permitted.
● The supplier may not subcontract other parties to assist them once the contract commences unless agreed to in writing by ICLEI Africa.

Submission requirements
Proposals for the bid can be submitted by individuals or a consortium of individuals. ICLEI Africa will consider the following aspects when appointing the supplier:
1. Technical Package:
   1.1. Signed letter stating attendance at the site visit
   1.2. Design schematics for installation
   1.3. Specification Sheet and warranties for the proposed solar and LED public light to be installed
   1.4. Written motivation for why this specification was chosen
   1.5. Work plan indicating timeframes and milestones
   1.6. A description of how all interventions will be installed
   1.7. List of personnel who will work on the project, provided their years of experience and skills, and any relevant certificates of qualification and registration
1.8. 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 (USD) and a reference with contact details

1.9. Letter of company incorporation to confirm that company has an active office in Rwanda

2. Financial Package:
   2.1. An itemised Bill of Quantities identifying the costs and quantities of goods, works and services
   2.2. Payment schedule in three phases, where payment is made on approval of phase completion

Submission process and timeline
Bidders that have not attended the compulsory site visit will not be considered.

Kindly submit your bid and supporting documents via email to Ben Hetherington, ben.hetherington@iclei.org by **16:00 (SAST) on 23 October 2020**. At all times, please use the subject line: **Supplier: Urban-LEDS II Rwanda – Solar public lighting Demonstration Projects**.

Appointment of a supplier is subject to the ICLEI Africa's contractual terms and conditions as captured in the Service Level Agreement.

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/](http://africa.iclei.org/) and [http://cbc.iclei.org/](http://cbc.iclei.org/).

**ICLEI AFRICA RESERVES THE RIGHT NOT TO APPOINT A SUPPLIER AS PER THIS TERMS OF REFERENCE**