



## **Power Africa’s Empowering East and Central Africa (EECA)**

### **TERMS OF REFERENCE**

#### **WENRECo Productive Use of Electricity**

##### **Background information**

RTI International, a nonprofit research institute and leading international development organization, is the implementer for Power Africa Empower East and Central Africa (EECA) project. Power Africa is a U.S. Government-led partnership, coordinated by USAID.

Power Africa’s Empowering East and Central Africa (EECA) activity aims to increase affordable, reliable, sustainable, and clean energy access in East and Central Africa. EECA’s goal is to drive measurable development outcomes such as economic growth, resilience, improved livelihoods, and inclusive access to electricity-enabled services in sectors such as agriculture, water, education, transportation, and telecommunications.

##### **I. Introduction**

In 2003, the West Nile Rural Electrification Company Limited (“WENRECo”) was established as a pioneering public-private partnership, licensed by the Electricity Regulatory Authority (“ERA”) to generate, transmit/distribute, and sell electricity within the region. WENRECo is a member of the Industrial Promotion Services (“IPS”) group of companies, an affiliate of the Aga Khan Development Network. In 2004, WENRECo installed a 1.5 MW HFO plant replacing the old generators, and within one year the supply of electricity increased from an average of 4 to 18 hours per day. Three years later, in 2007, the company embarked on the construction of the 3.5MW Nyagak I hydropower project which was completed and commissioned in September 2012. WENRECo was the first isolated (vertically integrated) grid under a public private partnership in sub-Saharan Africa, the first energy company in Africa to certify carbon emission reductions under the Clean Development Mechanism (CDM) and its concession expires in 2028. WENRECo now serves more than 23,000 consumers (up from 1,500 in 2004) and employs more than 110 people.

In 2022, WENRECo was connected to the national grid, albeit temporarily, through a 33kV Pakwach line from the Olwiyo substation. Permanent interconnection will be concluded with the completion of construction of a 132kV line from Kole, Gulu, Nebbi and finally to Arua (stringing is underway). The use of the Electromaxx HFO plants creates overcapacity, albeit at a high generation price while the upcoming 132kV interconnection will imply better service and reliability. These scenarios present WENRECo with an opportunity to connect more productive use of energy (PUE) loads especially in the centers of Koboko, Arua Central, Maracha, Yumbe, Pakwach, Uleppi and Paidha.



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WENRECo has requested support from EECA to address the above issues.

## 2. Scope of Work

- i. Promotion of PUE in at least 4 towns of Koboko, Yumbe, Uleppi and Paidha. Following the established PUE promotion process as laid out by the Energy Sector Management Assistance Program (ESMAP) of the World Bank, in each of the 4 towns, the following will be done:
  - Rapid assessment of major PUE opportunities including existing businesses PUE use and opportunities. This will include the following:
    - Where possible, analyse the power consumption potential presented by millers, poultry and other SMEs running on diesel but also undertake conversion analysis to support migration to the WENRECo grid.
    - Identify untapped opportunities within those load centers: such as areas where PUE businesses can be set up for example carpenters requiring machinery, welders and metal fabricators, printers, juicers and blenders, EPCs for restaurant use and identify agriculture processing opportunities such as milling, slicing machines for cassava chips, oil pressing, cooling (inclusive of cold storage, e.g. refrigeration), based on agriculture produce grown in the area.
  - Identify the potential finance partners working in the PUE and electricity connections financing space. This may include banks, SACCOs, VSLAs, Micro Finance Institutions (MFIs), NGO finance initiatives, Government programs, etc.
  - Identify at least 30 entrepreneurs in each load center to be trained on PUE adoption. This should target at least 50% ongrid and 50% offgrid with the goal of supporting the offgrid entrepreneurs to get connected to the grid e.g. diesel-powered microenterprises or agro-processing plants.
  - Train the 30 PUE entrepreneurs in each town on Business Skills (financial literacy, booking keeping, marketing etc) and basic energy management and energy efficiency practices. The latter should, wherever possible, be practical (for example, use both manual and electric grinders to show the difference in product quality, time and effort when grinding peanuts).
  - To allow for PUE interventions from off-grid solutions in the WENRECo footprint, support the penetration of solar systems in at least two trading centers by working with farmer cooperatives to organize one-day off-grid PUE exhibitions in each of these centers. The contractor will report on off-grid systems sold as well as sales leads resulting from these exhibitions. The consulting firm will also support



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relationships between EECA and the solar companies to allow EECA to continue tracking system sales post the assignment.

- Following the training of entrepreneurs, the consultant will host a match-making session between the best ranked entrepreneurs and financing institutions. The match making session will aim at supporting entrepreneurs to gain investment and increase their footprint. EECA will work with the consultant to develop a list of PUE asset financing companies to invite and participate in the match making facility. In response to support by EECA to participate in this event, both entrepreneurs/businesses will need to report on any uptake of PUE devices post the match making session.
- Prepare a final report that highlights progress on the objectives and performance numbers attained.

### **3. Period of Performance**

Four (4) months from the award of the contract.

### **4. Place of Performance**

West Nile Region of Uganda. For the promotion of PUE - in Koboko, Yumbe, Uleppi and Paidha. Contractor will coordinate with the WENRECo office team in Arua.

### **5. Work Requirements**

Kick-off:

- Consultant will hold an Inception meeting with EECA and WENRECo to align expectations and agree on timelines for deliverables.
- Consultant will prepare an inception report that will include a full schedule and a plan for implementation.

Preparation for surveys:

- The company's team lead will develop the set of survey questions and share them for review and sign off by EECA and WENRECO. The surveys should limit open ended questions and have a drop-down selection as the primary selection to respond. This will avoid open ended responses.
- The consultant will aim to use survey tools such as Kobo collect, google forms to make the survey collection process streamlined and easy for data processing.
- The enumerators must be trained on the survey questions to ensure that the context of questions are not lost when asking the questions in the local language.
- The consultant will prepare and submit survey tools to be used in the rapid assessment in the 4 load centres.
- The company will be required to secure approvals from the LCI's to conduct the surveys in each load centre.



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Surveys to be executed in 4 load centres:

- The company will execute the survey in each load centre aiming to collect a minimum of 300 surveys per load centre.
- Daily check-ins with the enumerators from the field supervisor is required to ensure survey responses are good quality and make the necessary adjustments where needed to ensure quality responses are collected.
- Once the surveys are finalized the company is expected to analyse the data and share the survey report with analysis to EECA and WENRECO for review.

Preparation for PUE training:

- The consultant will prepare and submit business skills training materials that have a focus on the start-up/ building of PUE businesses. Business skills materials should cover basics such as financial literacy, bookkeeping, marketing, ect. Illustrate how the PUE asset will increase revenue and sales to the business.

PUE Training:

- The consultant will conduct PUE training in the 4 load centres as chosen by WENRECO which are Oboko, Yumbe, Uleppi and Paidha.
- PUE training must aim to train 30 businesses/entrepreneurs in each load centre.

Offgrid PUE market Penetration

- Hold two exhibitions and provide a report on the same.

PUE Match Making Session:

- The consultants will host a match making session between entrepreneurs/businesses and PUE asset financing companies with the aim of supporting entrepreneurs/businesses in acquiring PUE devices.

Project Closure:

- The consultant will prepare and submit a final report

The consultant must be willing to work with the EECA and WENRECO team on the above activities.

## **6. Gender Component**

In delivering support, EECA will consider how gender equality and female empowerment can be advanced or achieved, and how participation by both female and male stakeholders will be facilitated in project activity. In collaboration with EECA's gender advisor, the consultant must address this requirement and indicate how they will align their project approach with this requirement in all final reports.

## **7. Deliverables**



- Inception report - A detailed work plan (inception report) describing specific methodologies (including survey design and sample size), workflow, structure of deliverables, output delivery timeline, consultation plans, and inputs required.
- Survey report based on the minimum 300 survey responses collected per load center that highlights PUE opportunities, financial institutions available, and opportunities for conversion.
- PUE training report
- Offgrid Exhibition report
- Matchmaking report
- Final report

**Note:** All reports must contain pictures, attendance registers and other relevant notes in the annexure of reports. All raw data from surveys must be shared with EECA.

**Level of Effort (LOE)**

No	Task	Components	Level of Effort / Days
1	Inception Report	<ul style="list-style-type: none"> <li>• A detailed work plan (inception report) describing specific methodologies, workflow, structure of deliverables, output delivery timeline, consultation plans, and inputs required</li> </ul>	5 Days
2	Survey	<ul style="list-style-type: none"> <li>• Develop Survey and use a survey tool for data collection.</li> <li>• A minimum of 300 surveys per load center to be collected.</li> <li>• Develop a Survey report presenting PUE opportunities.</li> <li>• Report on capacity building of entrepreneurs in each load center in PUE Business Skills.</li> <li>• PUE opportunities to be identified from survey and presented in the Survey report</li> </ul>	30 days
3	Training in the 4 Load Centers	<ul style="list-style-type: none"> <li>• Develop training materials.</li> <li>• Training report for four trainings (30 people per district)</li> <li>• Post assessment impact report to present impact and PUE device adoption by entrepreneurs</li> </ul>	30 days
4	Offgrid Exhibition	<ul style="list-style-type: none"> <li>• Develop exhibition concept.</li> <li>• Organize and hold two exhibitions.</li> <li>• Generate report</li> </ul>	10 days
5	Hold matchmaking event	Report on one day matchmaking event	6 days



6	Final Report	Final report capturing key learnings and recommendations on the full SOW	5 days
		<b>TOTAL LOE (Spread over 4 months period)</b>	<b>86 Days</b>

**Schedule/Milestones/Deliverables**

<b>DELIVERABLE</b>	<b>TIMELINE</b>
RFP/SOW Release	March 28, 2024
Consultant selection review	April 9-15,2024
Consultant selection and award of the contract	April 18-19, 2024
Period of Performance Begins – Kick off meeting	April 22-23, 2024
Inception report and survey materials	April 30 ,2024
Survey / assessment reports and trip reports.	May 20, 2024
PUE Training materials, Pre- and Post training assessment	June 10, 2024
PUE Training Complete	July 20, 2024
PUE Match making session hosted	August 5-10, 2024
Post PUE training and match making impact report	August 25, 2024
Final Report	September 15, 2024
Project Completion Review	September 25, 2024
Project Closure/Complete	September 30, 2024

**Acceptance Criteria**

The consultant shall report to the EECA team led by On-Grid Cross-Cutting Unit Lead for full completion of the activity. EECA and WENRECo personnel will review and approve all the deliverables within one week of initial submission. Some activities will be implemented simultaneously. Once a deliverable is completed and accepted, the EECA project lead will allow the consultants to proceed with invoice processing accordingly.

Once all project tasks have been completed, the project will enter the handoff/closure stage. During this stage of the project, the consultant will provide the project closure report and project



task checklist. Any discrepancies involving completion of project tasks or disagreement will be referred to both organizations' contracting offices for review and discussion.

**REQUIRED EXPERTISE AND QUALIFICATIONS**

The consultancy firm will provide the names of the consultants and all key personal clearly indicating their qualification and their roles in the entire consultancy period. The details of the lead consultant should be shared.

The consulting firm must demonstrate the expertise required to undertake this assignment as per the requirements outlined below:

	<b>Recommended Team Member/ Firm (Role)</b>	<b>Requirements</b>
1	<p>The firm/ company</p> <p>(Will be the legal contracting entity. Name will be used for issuing contract and all payments will be processed using the company's bank account)</p>	<ol style="list-style-type: none"> <li>1) The firm must have at least 3years experience undertaking similar work in Uganda.</li> <li>2) Physical presence in Uganda with an established office in Uganda.</li> <li>3) Provide at least 3 references from clients for similar SOW as detailed in the past performance template of the RFP document.</li> <li>4) Provide a previously executed PUE survey report (sensitive information can be removed or redacted).</li> <li>5) Demonstrate proper gender balance within the proposed team of experts proposed for the assignment.</li> </ol>
2	<p>Team Leader</p> <p>(Main Point of Contact to facilitate delivery, will be the lead trainer)</p>	<ol style="list-style-type: none"> <li>1) Minimum of a master's degree in engineering, business administration, economics, environment, gender development, rural development, social sciences, or equivalent areas relevant for energy sector development and/or development of productive use of energy.</li> <li>2) 10 or more years' experience managing similar consulting assignments and demonstrate experience related to the terms of reference, specifically with PUE and undertaking of field surveys.</li> <li>3) 10 or more years' experience conducting similar</li> </ol>



		trainings, and show experience related to trainings and coaching relevant to this SOW, importantly within energy sector in Uganda
3	<p>PUE Advisor</p> <p>(Will conduct identification survey and develop content and deliver training; also support the coaching)</p>	<ol style="list-style-type: none"> <li>1) Bachelor’s degree in relevant field (e.g., engineering, economics, etc.) with at least 8 years of experience, or Master's degree with at least 5 years of experience.</li> <li>2) 5 or more years’ experience implementing PUE strategies for power utilities or PUE companies in Uganda.</li> <li>3) Prior training and coaching experience working with off-grid companies, SME’s that are informal in nature and development partners in Uganda.</li> </ol>
4	<p>Renewable Energy Advisor/ Off grid Advisor</p> <p>(Will conduct identification survey and develop content and deliver training; also support the coaching)</p>	<ol style="list-style-type: none"> <li>1) Advanced degree (master’s degree or above) in utility-scale renewable energy.</li> <li>2) 5 or more years’ experience implementing renewable energy/ off –grid strategies for power utilities, private sector companies or PUE companies in Uganda.</li> <li>3) Prior training and coaching experience working with off-grid companies, small businesses that are informal in nature and development partners in Uganda.</li> </ol>
5	<p>Business/Financial Advisor</p> <p>(Responsible in developing the business training content and supporting on the PUE business training to be executed)</p>	<ol style="list-style-type: none"> <li>1) Bachelor’s degree in relevant field</li> <li>2) Professional qualification in business/ financial advisory services</li> <li>3) 5 or more years’ experience providing financial advisory services within the energy sector in Uganda.</li> </ol>
6	<p>M&amp;E/ Data Specialist</p> <p>(Responsible for identification survey and analysis, Oversee the development of survey instruments, data collection process, analysis, and reporting.</p>	<ol style="list-style-type: none"> <li>1) Bachelor’s degree in data science, economics, surveying, statistics, or applicable field illustrating M&amp;E and data analysis capabilities.</li> <li>2) At least 3 years' experience in survey design, data analysis, application of various data collection tools and approaches.</li> <li>3) Demonstrated experience conducting similar works.</li> </ol>
7	<p>Field Supervisor for Data Enumerators</p>	<ol style="list-style-type: none"> <li>1) Diploma or Undergraduate degree. Provide a minimum of 1 references and example of surveys executed (survey)</li> </ol>



	(A field supervisor is required to manage and provide guidance to the enumerator team to ensure quality of survey responses collected.)	<ul style="list-style-type: none"> <li>2) Demonstrated experience in data collection and conducting field surveys.</li> <li>3) The Field supervisor must have a minimum of 5 years' experience.</li> </ul>
8	<p>Eight (8) Data Enumerators / Assistants with one</p> <p>(Assist in data collection and field work)</p>	<ul style="list-style-type: none"> <li>1) At least Diploma in Data related field such as IT, Mathematics, Statistics, or related studies.</li> <li>2) Formal training in Data collection.</li> <li>3) Demonstrated experience in data collection and conducting field surveys.</li> <li>4) Preferably the data enumerators should be physically from within the West Nile Area</li> </ul>

Personnel will not be replaced without pre-authorization from WENRECo and RTI/EECA consultancy management team.

### **Payment**

The payment for services will be in fixed-price installments and upon receipt and acceptance of the deliverables or completed sub-tasks.

### **Additional Information**

RTI will directly engage and pay for venues and participants meals to the service providers. Such arrangements shall be in accordance with RTI's field operations policies.

Applicants are reminded to review all the contracting terms and conditions as detailed in RTI's subcontract terms and conditions can be found here: [https://www.rti.org/sites/default/files/msa\\_template\\_v1\\_13\\_2016.pdf](https://www.rti.org/sites/default/files/msa_template_v1_13_2016.pdf)