REQUEST FOR EXPRESSIONS OF INTEREST

Country: Tanzania

Name of the Project: The Second Energy Small and Medium Enterprise Support Project, (referred to as Energy Business for Development Project)

Loan No./Credit No./Grant No.: P154495

Assignment Title: A feasibility study on productive use of electricity for small businesses in Dumila and Wami-Dakawa, along Morogoro – Dodoma highway, Tanzania

Reference No. (as per Procurement Plan): CS-08

The Energy 4 Impact, formerly GVEP International, has received financing from the World Bank toward the cost of the Second Energy Small and Medium Enterprise Support Project, (referred to as Energy Business for Development Project) and intends to apply part of the proceeds for consulting services.

The consulting services (“the Services”) include to identify and support local micro-businesses with a view to improving local economic activity. In order to plan and execute the project successfully, it will be important to undertake a feasibility study of the local opportunities in order set appropriate and achievable objectives.

The targeted businesses would likely be in the areas of agriculture given the development of that industry in the area, however in this feasibility report the consultant should use their independent judgement in recommending appropriate business activities to focus on. Where suitable the project should also investigate potential for larger enterprise. The assignment will be conducted in Tanzania during a period of 6 weeks from mid-May 2017.

Energy 4 Impact now invites eligible consulting firms (“Consultants”) to indicate their interest in providing the Services. Interested Consultants should provide information demonstrating that they have the required qualifications and relevant experience to perform the Services. The shortlisting criteria are: existing knowledge & experience in the market (20%), Interpretation of the TOR (15%), proposed methodology (15%), ability to meet the objectives of the study (30%), budget (10%) and timeline to provide the deliverables (10%).


Consultants may associate with other firms in the form of a joint venture or a sub consultancy to enhance their qualifications.
A Consultant will be selected in accordance with the Consultants Qualification (CQS) method set out in the Consultant Guidelines.

Further information can be obtained at the address below during office hours i.e. 0830 to 1700 hours.

Expressions of interest must be delivered in a written form to the address below or by e-mail to the addresses below by 21st April 2017.

Energy for Impact

Attention: Abishek Bharadwaj

Mbaruk Road, Off Muchai Drive
Off Ngong Road, Opposite Panorama Court
P.O. Box 76580 00508, Nairobi, Kenya

T: +254 (20) 8000 642
M: +254 (0) 792532951

Email: abishek.bharadwaj@energy4impact.org ; info.tanzania@energy4impact.org
Website: www.energy4impact.org
TERMS OF REFERENCE
FOR CONSULTANCY SERVICE FOR

A FEASIBILITY STUDY ON PRODUCTIVE USE OF ELECTRICITY FOR SMALL BUSINESSES IN DUMILA AND WAMI-DAKAWA, ALONG MOROGORO – DODOMA HIGHWAY, TANZANIA

(Kenya/Tanzania Component)

Country:
Tanzania

Project Names:
The Second Energy Small and Medium Enterprise Support project
(Referred to as Energy Business for Development Project)
1. Project Background

In 2007 the Russian Government pledged $30m to support programmes of energy access in sub-Saharan Africa under the programme Energy Small and Medium Enterprise (ESME). The initiative aims to strengthen the capacity of energy SMEs to provide power to poor communities. The funding is provided through a World Bank administered Trust Fund, and the programme design and implementation is supported by Energy 4 Impact, which is acting as a consultant to the Bank.

Energy 4 Impact is implementing Energy Business for Development (EBD) programme in the second phase of the ESME programme whose specific objectives are to provide access to energy to rural communities as well as to support them in productive uses of energy. The Programme is implemented in 4 countries namely Kenya, Tanzania, Uganda and Senegal and started in September 2015 and will end in August 2017.

The programme is divided into three main components namely:

a) **Component 1**: Advisory Services and Capacity Building Support for Energy Sector Micro, Small and Medium Enterprises

b) **Component 2**: Productive use support activities for SMEs in newly electrified villages

c) **Component 3**: Programme Management

The Component 2 comprise the Projects Development Facilities (PDF) in Kenya and Tanzania. The PDF aims at supporting project developers implementing renewable energy (small hydro, wind and solar power) and mini-grid projects. Energy 4 Impact provides, among others, support in the development and implementation phases of these projects.

Energy 4 Impact, formerly GVEP International, is a non-profit organization working to increase access to affordable and sustainable energy services and reduce poverty in developing countries.

2. BACKGROUND

- **Wami-Dakawa, and Dumila** located in the Mvomero and Kilosa Districts are the villages along Morogoro-Dodoma Highway, with a driving distance of 48km and 68km respectively from Morogoro town. Lying in the Wami-Ruvu river basin, its weather is bi-model with short rains between October and December and longer rains between March and May. Its primary economic activity is agriculture, particularly irrigated rice paddy with dry land farmers producing maize, tomatoes and vegetables. It is grid connected with TANESCO, the state utility, and subject to a tariff structure consisting of 4 levels. These 2 villages and others like Kibaoni, Mandera, Magole receive electricity from the same transmission line, connected to one grid substation in Msamvu (Morogoro). The substation has a total installed capacity of 130 MVA.

- **Energy 4 Impact** is a non-profit organization working to increase access to affordable and sustainable energy services and reduce poverty in developing countries. E4I is assisting REA in enhancing the productive use of electricity by businesses in Dakawa and promotion of electricity usage amongst the domestic consumers.
- The Rural Energy Agency (REA) is an autonomous organisation falling within the Ministry of Energy and Minerals of the United Republic of Tanzania. Its principle role is to promote and facilitate access to modern energy services in rural Tanzania, and has been active since October 2007.

3. **OBJECTIVE**

The main project objective is to identify and support local micro-businesses with a view to improving local economic activity. In order to plan and execute the project successfully, it will be important to undertake a feasibility study of the local opportunities in order set appropriate and achievable objectives.

The targeted businesses would likely be in the areas of agriculture given the development of that industry in the area, however in this feasibility report the consultant should use their independent judgement in recommending appropriate business activities to focus on. Where suitable the project should also investigate potential for larger enterprise.

The consultant along with E4I will undertake a study for 4-5 weeks in February/March 2017.

4. **SCOPE OF WORK**

The Consultant will undertake the tasks listed below making up the feasibility study:

i. **Evaluation of the current infrastructure**

An analysis should be carried out on the assets and profiles of the current customers. Tasks to include:

- Review existing infrastructure and condition, including operational considerations and consumption
- Review daily consumption patterns by customer segment as defined by tariff level
- Evaluate the usage history of the current consumers by segment and area

ii. **Evaluation of the project area**

Establish a detailed understanding of the project area, defined as being those areas in or around Dakawa with existing or possible future access to the grid, including:

- Study the geographical and other characteristics of assets in the project area including proximity to main roads, local market centres, land usage
- Mapping of the user base by consumer segment through the project area – both domestic and business customers
- Mapping of the area with a focus on economic activities and those with capacity to grow
- Characterising the size of these market opportunities
iii. Micro-business opportunities

To assess the potential of business expansion amongst the already connected businesses and the potential of new businesses within the project area:

- To interview local micro-businesses already using grid power to operate their business. Key parameters to assess:
  - Business case including cost, revenues and expenditure on electricity
  - Challenges with the supply, if any. Includes dependence on other alternatives
  - Potential and willingness to use other power consuming equipment to enhance their business
  - Capacity/willingness to use 3rd party financing to invest in this kind of equipment

- To interview a sample of households or micro-businesses not using grid power about:
  - Occupation and skills
  - Awareness of using electricity beyond lighting, phone charging and TV/radio
  - Assess the awareness of the socio-economic benefits of setting-up businesses
  - Willingness to start a business with adequate training support
  - Capacity/willingness of investing in start-up capital, using 3rd party financing and/or potential savings

iv. SME opportunities

- To assess the potential of business expansion amongst the existing SMEs and the potential of new SMEs within the project area through interviews and surveys
- To interview SMEs, specifically investigating:
  - Business cases, including cost, revenues and expenditure on electricity
  - Challenges with power supply and their dependence on alternate sources
  - Potential or willingness to be a part of the project within the existing network
  - Potential and willingness to use other power consuming equipment to enhance their business for the ones already connected

v. Other key stakeholder consultation

Consultation with other key stakeholders having a direct or indirect influence over the business ecosystem within the project area is required. This is critical to understand the business challenges and the market opportunities.

- The major industry in the area is agriculture. Consultant should utilise any available information when considering market opportunities and liaise with local farming associations e.g. MVIMATA, Tanganyika Farmers’ Association
- To visit other project stakeholders including government agencies and local offices
- To visit and conduct interviews with at least 1 micro-finance institution
5. **PERIOD OF PERFORMANCE**

The timeframe for the feasibility study is estimated at 6 weeks expected to start in 15 May 2017, with the duration of main activities as follows:

- Surveys, data collection and meetings – 2 weeks
- Mapping & Analysis – 2 weeks
- Report writing and finalization – 2 weeks

It is estimated that this study will take 48 person days.

6. **DELIVERABLES**

The primary outcome sought from this work is a full feasibility study defining opportunities to enhance utilisation of the existing grid infrastructure, specifically by increasing productive usage.

Key dates for the submission of deliverables are as follows:

- 19 June 2017: Submission of the draft study report
- 26 June 2017: Submission of the final version of the study report

Detailed study guidelines are attached as Annex A and summarized below.

- Introduction – purpose, project history
- Methodology – approach, primary & secondary data collection activities and techniques
- Project details – technical details, load profiling, customers by segment including domestic and enterprises
- Micro-business potential (existing customers) - business model, challenges, potential
- Micro-business potential (new customers) – market, willingness, challenges and potential
- SME potential – classification of existing industries, power source, expenditure patterns, willingness to connect
- Stakeholder opinions – business trends, challenges, mapping the ecosystem, favourable conditions, value chains
- Total potential – micro-businesses and SMEs
- Implementation plan
- Conclusions

7. **QUALIFICATIONS AND EXPERIENCE**

The project is seeking a reputable firm to undertake the feasibility study. The preferred firm will have strong background in electricity mini-grids, entrepreneurship and business development services provision and have at least 5 years of relevant experience. In addition it should demonstrate expertise in the following areas:
• Rural electricity sector
• Strong skills in conducting market assessment
• Strong analytical and drafting skills
• Fluency in English and Swahili
• Knowledge of the Kilosa/Mvumero Area and/or Morogoro Region is ideal

The study team should comprise two key experts

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<th>Expert</th>
<th>Qualification</th>
<th>Experience (years)</th>
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<td>Mini-grid expert (team leader)</td>
<td>At least bachelor’s degree in relevant field</td>
<td>10 years</td>
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<td>Conversant with rural electrification projects in the country and the applicable technologies</td>
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<td>Stakeholders engagement and consultation</td>
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<td>Management of market studies</td>
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<tr>
<td>Business Development Expert</td>
<td>At least bachelor’s degree in relevant discipline, Entrepreneurship</td>
<td>5 years</td>
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8. RESPONSIBILITIES

i. Consultant
The Consultant will be responsible for organizing the work and delivering the outputs of the assignment. They will work closely with E4I to collect and analyse data, undertake all necessary data collections, and report on the progress of key activities. The milestones and reporting mechanisms will be determined upon the start of the assignment in coordination with E4I. Prior to the completion of the assignment, the Consultant will hand over the feasibility study and data behind it to REA and E4I.

ii. Energy 4 Impact
E4I will oversee and monitor overall progress, ensure that deliverables are completed to a high standard and provide input and guidance on the final report. E4I may also accompany the consultant in stakeholder meetings.

iii. Rural Energy Agency
REA will assist the Consultant with data collection where needed and feasible.

9. Submission of the EoI

Please submit the proposal by 28 April 2017 at the following emails: abishek.bharadwaj@energy4impact.org; info.tanzania@energy4impact.org. The
subject in your email should include “PRODUCTIVE USE OF ELECTRICITY IN DUMILA AND WAMI-DAKAWA”.
ANNEX A.

STUDY GUIDELINES – MARKET ASSESSMENT

The project is expected to contribute significantly to social and economic development of the communities around the project sites. Expansion and diversification of income generating activities and job creation will feed into the local markets and benefit all. Through the market assessment, sufficient detail of the opportunities to grow existing ventures, opportunities for new ventures, and any barriers to achieving this should be delivered such that the mini-grid owners are in a position to create and deliver valuable market interventions.

The proposed structure for the feasibility study is outlined as below:

i. Introduction
   - Purpose of the study
   - Scope of work
   - Project history

ii. Methodology
   - Approach
   - Primary data collection activities and techniques
   - Secondary data collection activities and techniques

iii. Site by Site project details
   - Generation
   - Distribution layout
   - Capacity utilisation & load profiling
   - List of customers by segments

iv. Site by Site socioeconomic analysis
   - Primary and secondary economic activity
   - Local value chains for economic activity
   - Assessment of those parts serviced, partially serviced, non serviced

v. Site by Site micro-business potential (Existing customers)
   - Business model
   - Expenditure on electricity
   - Feedback on power supply
   - Design and implementation plan for an on bill financing tool (if feasible)
   - Challenges

vi. Site by Site micro-business potential (New customers)
   - Market opportunities
   - Use and expenditure on alternatives
   - Willingness of businesses to pay for power
   - Potential of productive use centres
   - Design and implementation plan for an on bill financing tool (if feasible)

vii. Site by Site SME potential
   - Classification of existing industries
   - Current sources of power
   - Incomes and expenditure patterns
   - Ability and willingness to connect to the power line
   - List of potential connections through SMEs
viii. **Site by Site stakeholder opinions**
- Delivery & performance of the business ecosystem
- Trends in occupation
- Challenges with power supply and alternatives
- Conditions favourable to businesses (Policy, demand, etc.)
- Sustainable value chains
- Challenges/constraints in the area for businesses

ix. **Conclusions**