REQUEST FOR EXPRESSIONS OF INTEREST
CONSULTING SERVICES (FIRMS)

Africa Development Bank

Sustainable Energy Fund for Africa

Renewable Energy and Energy Efficiency Department

1. Introduction:

The African Development Bank hereby invites consulting firms to indicate their interest for the implementation of specific activities supported by the Sustainable Energy Fund for Africa (SEFA). The SEFA fund was established in 2011 to facilitate sustainable, private sector led economic growth in African countries through efficient utilization of presently untapped renewable energy resources. Guided by the New Deal on Energy for Africa (NDEA), the AfDB has committed to facilitating efforts aimed at achieving universal access to energy by 2025, to supporting Africa’s transition to green growth pathways and to play a lead role in advising Regional Member Countries on adopting a more holistic approach to achieving sustainable energy systems that are cost effective, reliable, affordable, and appropriate from an environmental standpoint. Against this context, SEFA was converted into a Special Fund (SEFA 2.0) on the 31st October 2019 to further scale-up sustainable energy investments in Africa. The objectives of SEFA 2.0 include building capacity of local and regional actors (public and private), reducing risks and addressing commercial viability gaps to accelerate sustainable energy investments by the private sector in Africa. Specifically, SEFA 2.0 shall offer both technical assistance and concessional finance (for blending with commercial capital) to support African countries across the three following priority areas of intervention:

- **Green Mini-Grids (GMG): for accelerating energy access** – programmatic interventions including results-based financing for mini-grid solutions for providing electricity access to underserved populations in rural areas;

- **Green Baseload (GBL): for greening new and existing capacity** – deployment of “greener” power alternatives to fossil-based options to meet baseload requirements;

- **Energy Efficiency (EE): for optimizing energy systems** – integration of energy efficiency opportunities in energy systems planning and demand-side management resulting in more efficient infrastructure and appliances.

As part of the new structure, SEFA is developing a contractual framework to procure consultants with specific areas of expertise to conduct TA for projects. The purpose of this framework is to ensure that consultants in the afore-mentioned areas of expertise are hired in a timely and efficient manner. The framework will, for a period of 3 years, have a panel of consultant firms, which will be selected through a transparent/competitive process.

This Expression of Interest refers to the three components covering four broad domains and an area of expertise: the Hydropower/Geothermal domain, the “Intermittent Generation and Storage” Domain, “Waste to Energy/New Technologies” domain, “Green Mini-grids” domain and “Legal and Transaction Advisory Activities” for one or all the four domains depending upon the requirement of the project. Within the four domains, the EOI is envisaged to conduct feasibility Studies (Technical and Financial Feasibility), Environment and Social Impact Assessment (ESIA) and Legal and/or Transaction Advisory.
As mentioned above, to improve the effectiveness and efficiency of the tasks, a framework contract model (Indefinite Delivery Contract model)\(^1\) will be put in place. Three to four consulting firms (or consortia) will be selected for a maximum duration of three years, on a competitive basis, for each of the five lots described below. The consulting firms could be tasked with some or all of the activities depending upon each specific project and will be requested to submit a specific Terms of Reference as well as a financial proposal. The selection process is described in the last section of the EOI.

2. Domain of Expertise

There are 4 domains of expertise and one area of specialization that covers all four domains. The EOI is being launched for the following:

**Lot 1**: Feasibility Studies (Technical and Financial Feasibility) and ESIA for the Hydropower/Geothermal domain

**Lot 2**: Feasibility Studies (Technical and Financial Feasibility) and ESIA for the intermittent generation with/without Storage domain

**Lot 3**: Feasibility Studies (Technical and Financial Feasibility) and ESIA for the Biomass and Waste to Energy/New Technologies domain

**Lot 4**: Feasibility Studies (technical and financial feasibility) and ESIA for Green mini-grid

**Lot 5**: Legal and/or Transaction Advisory Services for all domains

Once a project is approved by the internal committees of the AfDB, the SEFA team will call for interested consultant firms on the panel to provide a Terms of Reference and a Financial Proposal. The short-list will be cleared by the procurement department of the AfDB and the final consulting firm selected.

Examples/Potential activities that could be supported through the Framework are as follows. **Kindly note that the activities will include but not limited to the following**

**For Lot 1 - Feasibility Studies (Technical and Financial Feasibility) and ESIA for the Hydropower/Geothermal domain.**

a. Technical Feasibility Studies

✓ Undertake feasibility studies for Hydropower or Geothermal projects;

- **Hydropower:**
  - Study of the hydrology;
  - Study of the topography;
  - Study of geology;
  - Elaboration of the conceptual layout of technical alternatives and determination of corresponding civil and electrical works;
  - Study Powerhouse design/site and alternatives;
  - Study of power evaluation – Grid Interconnection Studies and Grid code development;

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\(^1\) A framework contract is an agreement between one or more contracting authorities and one or more economic operators, the purpose of which is to establish first the terms governing specific contracts which may be awarded later on, particularly as regards the duration, subject, price, implementation rules and the quantities envisaged. This approach is widely used as it allows for shorter response time.
o Elaboration of implementation time schedule;
o Elaboration of Bill of Quantities and estimation of costs.

Geothermal:
o Conduct surface level explorations for selected sites;
o Prepare pre-feasibility report based on conceptual level model of field, conceptual engineering design, power/energy output;
o For promising sites, prepare exploratory well drilling program to confirm the existence, exact location, and potential of the reservoir;
o Undertake test drilling;
o Update prefeasibility studies to confirm the technical, environmental and financial feasibility.
o Elaboration of time schedule and estimation of costs

b. Financial/Economic Feasibility Analysis

o Undertake bankability/financial and economic feasibility assessment of projects; Provide project capital structure options;
o Develop a detailed financial model with defined assumptions and outputs like Tariff levels and Internal Rate of Return;
o Economic analysis (including potential additionalities) and rate of return calculations

c. ESIA

o Conduct Environmental Impact Assessments:
o Conduct social impact assessments;
o Develop resettlement action plan; and
o Develop of environmental and social management plan.

For Lot 2 - Feasibility Studies (Technical and Financial Feasibility) and ESIA for the Intermittent and Storage domain

a. Technical Feasibility Studies

o Conduct feasibility studies for solar photovoltaic (PV) energy, concentrating solar power (CSP) and wind energy projects;

Solar PV
o Conduct solar irradiation studies of the specific site and the project design;
o Conduct study to identify solar PV technology to be applied, i.e. Thin Film, Crystalline PV and the reasons for it;
o Conduct study of topography including requirement for single or multiple axis tracker systems;
o Provide a realistic Balance of Systems cost estimate;
o Study of power evaluation – Grid Interconnection Studies and Grid capacity to absorb intermittent power from solar PV;

Concentrated Solar Power

o Identify which solar CSP technology is most suited: Parabolic Trough, Central Receiver, Dish sterling systems;
o Conduct a study of topography including requirement for single or multiple axis tracker systems;
o Provide a realistic Balance of Systems cost estimate;
o Study of power evaluation – Grid Interconnection Studies and Grid capacity to absorb intermittent power from CSP plant;

Wind
o Conduct a detailed technical analysis of the wind resource and turbine design, etc.;
o Conduct a study of the geology and topography of the project site;
o Provide a realistic cost of systems estimate;
o Study of power evaluation – Grid Interconnection Studies and Grid capacity to absorb intermittent power from the wind project.

Storage
o Assess the feasibility of a combined battery storage system, including sizing of the first phase (with appropriate sizing of storage capacity) considering project capacity factor, network capacity and demand/load profile, market conditions.

b. Financial/Economic Feasibility Analysis

o Undertake bankability/financial and economic feasibility assessment of projects; Provide project capital structure options;
o Develop a detailed financial model with defined assumptions and outputs like Tariff levels and Internal Rate of Return;
o Economic analysis (including potential additionalities) and rate of return calculations

c. ESIA

o Conduct Environmental Impact Assessments:
o Conduct social impact assessments;
o Develop resettlement action plan; and
o Develop of environmental and social management plan.

For Lot 3 - Feasibility Studies (Technical and Financial Feasibility) and ESIA for the Biomass and Waste to Energy/New Technologies domain

a. Technical Feasibility Studies

o Undertake Technical feasibility study with specialization in the full range of different biomass power projects (forestry biomass, energy crops, agricultural residues, urban waste)
o Detailed design of the feedstock arrangement for the period of the Power Purchase Agreement.
o Study of power evaluation – Grid Interconnection Studies and Grid capacity to off-take energy

b. Financial/Economic Analysis

o Undertake bankability/financial and economic feasibility assessment of projects; Provide project capital structure options;
o Develop a detailed financial model with defined assumptions and outputs like Tariff levels and Internal Rate of Return;
o Economic analysis (potential additionalities) and rate of return calculations

c. ESIA
o Conduct Environmental Impact Assessments;
o Conduct social impact assessments;
o Develop of environmental and social management plan.

**For Lot 4 - Feasibility Studies (Technical and Financial Feasibility), ESIA, and policy development for Green Mini Grid domain**

**a. Technical Feasibility Studies & Tendering Program Design**

- Undertake GIS analysis for the identification of off-grid communities suitable for electrification with mini grids, and map the availability of local renewable energy resources;
- Undertake detailed demand surveys and complete optimized system designs for green mini-grid projects that may utilize solar, hydro, and/or biomass generation technologies as well as battery storage and/or peaking diesel generation;

**Financial/Economic Feasibility Analysis**

- Undertake bankability, and economic feasibility assessments of projects and recommend required actions to reach financial sustainability;

**b. ESIA**

Undertake initial screening during the project site selection and surveying process and flag potential environmental & social impacts; recommend courses of action including mitigation measures that should be included in the subsequent full ESIA or the selection of alternative sites; identify key stakeholders in project communities (focusing on those that may be directly affected) and gather environmental and social baseline data where required;

**c. Policy Development**

Undertake green mini-grid policy design assignments that could include: development of national electrification plans (including grid / mini-grid/ off-grid demarcations), mini-grid licensing regimes, mini grid tariffing guidelines, public-private partnership modalities, subsidy deployment mechanisms, monitoring & evaluation structures, institutional arrangements, etc.

**For Lot 5 - Legal and/or transaction advisory services for all domains**

- Develop the regulatory framework and national legislation for the sector. Design competitive tendering programs for base-load and mini grid projects, develop all necessary tender documents and provide technical evaluation support to government;
- Draft and review legal documents including but not limited to the Power Purchase Agreement, Concessional Agreement, O&M agreement, etc.);
- Develop Financial Package including Terms Sheets, Shareholder Agreement, Security Documentation; and
- Negotiations of Common terms of Agreements to reach Financial Close.

**Gender and Social Specialist for all four Domains**

For the domains mentioned above, the Gender and Social Specialist will be appointed to conduct detailed project level analysis. The skill set required include:

- Policy advice and facilitation of knowledge building on gender issues
- Assessment of the country's gender policies and their impact on poverty reduction, growth, equity, etc.
3. **Selection Process: Short-Listing of Consulting Firms at Expression of Interest Stage**

At this stage, we encourage interested consulting companies to submit a technical proposal. The technical proposal should not exceed 20 pages and should highlight the following skill set and knowledge base of the firm:

i. Experience of private sector renewable energy projects in Africa; minimum of seven (7) years (7) documented experience from developing and managing renewable energy projects in developing countries;

ii. Experience in fragile/post-conflict countries is particularly relevant.

iii. Experience legal, financial, technical/engineering (renewable and mini-grid and network/electrical), and social and environmental experience from Africa.

iv. Documented experience of at least four (4) competitive bidding processes for Independent power producers and mini-grids arrangements;

v. Experience working with power utilities in Africa; experience of sector reforms to improve cash flow in the power sector value chain.

vi. Experience in the application of Social and Environmental Safeguard policies including in particular the IFC Performance Standards for private sector projects and AfDB Operational Safeguards.

vii. Experience with previous projects with multi-laterals and bi-laterals will be considered a plus.

The Renewable Energy and Energy Efficiency Department invites Consulting Firms to indicate their interest in providing the above-described services (consulting firms can indicate interest for one or more lots). Interested eligible Consulting Firms or associations of Consulting Firms shall provide information on their qualifications and experience demonstrating their ability to provide the services (documentation, references for similar services, experience in comparable assignments, availability of qualified staff, etc.). The expressions of interest should have the following format and will be scored on the above criteria:

1) Details of the consulting firm or consortium of consulting firms (including where company is headquartered and history of operations) (1 page)

2) Expression of Interest (approx. 10 pages) detailing strengths, expertise, approach and any information focusing on the above information

3) CV of Key Staff members (approx. 5 pages)

4) Any additional document/section you believe to be relevant (4 pages).

Interested firms can obtain more information by writing to the email address mentioned below. Expressions of interest must be received by e-mail to the below address no later than **31 January 2020 at noon local (Abidjan) time** and should specifically mention Sustainable Energy Fund for Africa. All submitting firms will receive a confirmation email on the **31 January 2020 by 17.00 local time**. If you do not receive a confirmation email, your EOI has not been received, and it is recommended that you send an e-mail to the below e-mail addresses.

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