

## **Regulatory requirements and financial support schemes related to mini-grid applications and village energization schemes**

**United Nations Development Programme (UNDP)**

**Global Environment Facility (GEF)**

**Government of Lesotho**

**Consultancy**

**Terms of Reference for Off-Grid Expert**

<b>Country</b>	<b>Lesotho</b>
<b>Project Title:</b>	Development of Cornerstone Public Policies and Institutional Capacities to accelerate Sustainable Energy for All (SE4All) Progress.
<b>Type of Contract</b>	Individual Contract – International
<b>Start Date: (date when the selected candidate is expected to start)</b>	September 2018
<b>Duration of project</b>	2016 - 2021
<b>Duration of Contract</b>	3 months contract, ( 8 weeks employment period)
<b>Reporting to:</b>	Project Manager
<b>Duty Station:</b>	Maseru, Lesotho + Home Office

### **1.0 Introduction**

The Government of Lesotho is cognisant of the fact that 76.3% of the country's population lives in the rural areas and only 8.7% (DoE, 2014) of them have access to electricity services. To provide the un-electrified 91.35% of the rural population with electricity services through grid extension will simply be an insurmountable task in view of the very high costs associated with construction of electricity lines across a mountainous terrain to supply the small amounts of electricity that the rural population requires. Consequently, there is a keen awareness among decision makers, of the need to shift towards more decentralised, sustainable and modern forms of energy for the much-dispersed rural areas in terms of cooking, lighting and heating during the winter months. Thus, renewable energy sources present an excellent alternative to grid extension.

Lesotho has good renewable energy resources. The hydro power potential is estimated at slightly over 14,000 MW. It also has good solar energy resources with over 300 sunny days a year and average insolation levels of 5.25 – 5.53 kWh/m<sup>2</sup>/year. In addition, the country has good wind energy resources, with measured annual average wind speeds of 3.7 to 4.7 m/s at 10 m height at some locations. Thus, renewable energy sources have the potential to play an increased role in the country's energy mix, potentially being used to displace imported

fuels for isolated grid-electricity generation.

## 2.0 Project Background

The UNDP Country Office and the Government of Lesotho is implementing a five year (2016 – 2021) GEF-financed project “**Development of Cornerstone Public Policies and Institutional Capacities to accelerate Sustainable Energy for All (SE4All) Progress**”. The objective of the project is to catalyse investments in renewable energy-based mini-grids and Energy Centres to reduce greenhouse gas (GHG) emissions and contribute to the achievement of Lesotho’s Vision 2020 and SE4All goals. The project is expected to implement 10 mini-grids and 10 Energy Centres providing modern energy services to 1,000 rural households in the 5 districts of Molepolole, Maseru, Thaba-Tseka, Quthing and Quthing. This objective will be achieved through the participation of the private sector working hand in hand with communities in the five selected districts. Project outcomes are as follows:

- Development of cornerstone SE4All Policies and Strategies to facilitate investment in renewable energy-based mini-grids.
- Improved capacity of energy stakeholders and government officials for decentralized clean energy planning and decision-making on the basis of quality energy data.
- Installation of 10 mini-grids and 10 energy stores which are sustainable and functional in terms of improving access to modern energy services in rural communities.
- Outreach programme and dissemination of project experience/best practices/lessons learned for replication nationally and throughout the region.

At the joint Africa Hub, Global Facilitation Team (GFT) and SE4ALL partners' meeting in Tunis, December 2013, it was agreed that each country develops the SE4ALL Action Agenda and Investment Prospectuses (AA/IPs). The Department of Energy and the SE4ALL stakeholders have designated UNDP to lead the gathering of an SE4ALL comprehensive consultation at national and local levels.

The Ministry of Energy and Meteorology (MEM), through the Department of Energy (DoE) supported by the UNDP Country Office seeks the services of an International Consultant to develop a regulatory framework as well as reviewing financial support options for the proposed 10 mini-grids and 10 energy centres. As a primary task, the consultant will assess the extent to which current regulatory policies and practices in Lesotho address both the private sector developers' and government concerns and interests with regard to effectively managing a mini-grid and energy centre programme. The consultant will propose regulatory interventions where current regulations are deemed insufficient. The secondary task of this consultancy assignment is to develop financial support options for mini-grids and energy centres. The Development of Cornerstone Public Policies and Institutional Capacities to accelerate Sustainable Energy for All (SE4All) Progress programme includes a level of subsidy provided to project developers to assist with ensuring long-term sustainable outcomes. The consultant will develop a suitable financial subsidy approach which includes a combination of up-front support as well as performance based assistance for both mini-grids

and energy centres. The International Consultant will work closely with the Ministry of Energy and Meteorology (MEM), the Department of Energy (DoE) Project Focal Point, the Project Manager, together with support from the UNDP Lesotho Country Office, Regional Service Centre (RSC) and Regional Energy Programme (REP).

### **3.0 Objective and Scope of Work**

The Government of Lesotho and UNDP Country Office through the SE4ALL project require the services of an International Consultant to assist in developing an appropriate set of regulations that will support and manage the mini-grid and Energy Centres component of the programme. While a range of regulations have been developed and published by the Lesotho Electricity and Water Authority (LEWA), the International Consultant will be tasked with ensuring that existing regulations address the full range of project developer and government interests. This will include important regulatory issues and practices around licensing, the viability of concession models, tariff setting, technical standards, resolutions around grid arrival, property/site leasing, etc. The IC will have to consider the full set of regulations required to ensure compliance from site identification, construction, commissioning, operation and maintenance and, if necessary, site rehabilitation. Where regulatory gaps exist, it will be the responsibility of the IC to propose effective and practical solutions. The intension here is to ensure that eventualities and responsibilities are addressed in the most 'light handed' and effective way possible, drawing on increasing best practice emerging in the management and regulation in the off-grid sector in Africa and other regions.

The secondary objective is to design a suitable financial subsidy scheme for the programme. The programme has \$1.2 million available to subsidize, through targeted grants, the overall costs of establishing the 10 mini-grids and 10 energy centres. Project developers will receive grants from the programme covering different stages of the project. Certain grants/funds are available for preparatory work offering support around key early stage issues such as business planning and system design as well as limited contributions towards capital investments. Performance based grants will also feature prominently, ensuring the granting resources facilitates actual outcomes. The IC will consider the conditions and expectations surrounding the use of the grant resources and develop a suitable subsidy scheme that incentivizes project developers while at the same time securing longer-term outcomes.

The IC will work closely with MEM/DoE as well as the private sector (local and potential international) in developing these regulatory and financial support frameworks which will guide relations between the relevant public sector entities, private sector investors and operators as well as the end-user customer communities.

#### 4.0 Specific tasks

- Prepare an Inception Report with a clear methodology for developing the regulatory framework as well as the financial support options. The various steps required to produce these outcomes will be sufficiently detailed including stakeholder engagement, sources of regulatory and subsidy scheme reference, as well as a clear expression of the overall goals and outcomes anticipated.
- Develop a detailed regulatory framework which addresses all the key regulatory issues pertaining to a successful mini-grid and energy centre programme. Relying on a combination of sources including existing regulations in the Lesotho energy sector, ‘best practice’ regulatory frameworks emerging in other African countries as well as engagement with relevant private and public sector entities in Lesotho. The IC will develop a comprehensive and practical framework addressing the key regulatory issues. Engagements with private sector developers, government as well as LEWA will provide insights into the current regulatory challenges and concerns. Local solutions will be sought in terms of existing regulatory provisions. Regulatory gaps will be addressed through a combination of best practice and innovative and practical proposals from the IC.
- Make firm and practical recommendations with regard to the subsidy support scheme. The UNDP/GEF programme will make \$1.2 million available through various granting options to the 10 mini-grids and 10 Energy Centres which will be supported by co-financing from project developers. The IC will develop a grant support strategy that integrates UNDP/GEF’s commitment to providing both early support targeting business plans and system designs as well as limit finance (grant) for initial capital costs. The balance of the grant (50%) will be paid out on a performance basis, with both the mini-grids and Energy Centres having to demonstrate pre-agreed progress before the balance of the grant is made available. The IC will be responsible for developing the performance based payment strategy based on realistic outcomes relevant to the operation of mini-grids and energy centres. The performance based approach will differ from technology to technology – for instance, between the mini-grids and energy centres – but should operate on similar principles of quantifiable outcomes and impacts. The agreed performance milestones should be premised on improved access to and use of modern energy sources over time. The IC will work closely with UNDP/GEF in order to understand the broad modality of performance based payments as well as reviewing similar subsidy-support schemes implemented elsewhere on the continent (for instance, GIZ’s outcomes-based financing of mini-grids in Rwanda) in order to develop a practical and implementable performance based [grant] payment system.
- Prepare a Draft Report of the tasks outlined above. The regulatory framework and subsidy support scheme will be written up in a draft report for circulation and review by DoE, UNDP/GEF and key stakeholders.

- Final Report on regulatory framework and subsidy support scheme.

### 5.0 Expected Outputs and Deliverables

The duration of the assignment shall be for twelve (12) weeks, 60 working days from the date of contract signing.

Key deliverables are as follows:

**Table 1. Deliverables/Outputs**

Deliverable/outputs	Estimated Duration to completion	Estimated completion date	Review and Approval Required
Inception report	24 – 28 Sept. 2018 (1 week)	28 Sept. 2018	Project Manager, CTA & DOE
Presentation of the inception report	03 October 2018	03 October 2018	Stakeholders
Stakeholders' consultation meetings (Stakeholders' consultation report)	04 – 18 October 2018 (2 weeks)	18 October 2018	Project Manager, CTA & DOE
Draft report on the regulatory requirements and financial support schemes	19 October – 09 November 2018 (3 weeks)	09 November 2018	Project Manager, CTA & DOE
Presentation of the draft report on the regulatory requirements and financial support scheme	14 November 2018	14 November 2018	Stakeholders
Power Point summary of the regulatory requirements and financial support scheme (soft copy)	(15 November 2018)	15 November 2018	Project Manager, CTA & DOE
Final report on the regulatory requirements and financial support schemes (soft copy)	15 – 30 November 2018 (2 weeks)	30 November 2018	Project Manager, CTA & DOE
	8 weeks		

### 6.0 Duration of Work and Duty Station

The assignment is expected to be carried out over 8 weeks' period, beginning 24 September to 30 November 2018. The assignment will be carried out in Maseru, Lesotho.

## **7.0 Qualifications and Experience**

### **International Consultant**

The IC will be an Off-grid Expert, with at least Master's Degree in Electrical/Mechanical/Electronics Engineering or Finance with a minimum of 10 years of professional/academic experience in off-grid renewable energy initiatives. The expert shall demonstrate experience in off-grid energy technology with specializations and experience in off-grid regulatory frameworks as well as renewable energy financing and subsidy support schemes. In addition, the IC will have practical experience with supporting the private sector in developing and delivery off-grid energy solutions.

### **8.0 Institutional Arrangements**

- a) The International Consultant will be engaged by the UNDP, and becomes directly responsible to the UNDP – Deputy Resident Representative, but will liaise with the Project Manager and Department of Energy for implementation of the assignment.
- b) The Project Manager will provide day to day supervision on the assignment. The team will work in liaison with the Project Focal Point and Director of the Department of Energy to ensure the delivery of the project objectives as set out in this term of reference.
- c) The International Consultant will prepare reports and facilitate stakeholder sessions for validation of the report.
- d) The International Consultant is expected to engage with the various institutions, government and development partners working in the energy sector and ensure participation of all relevant government departments, civil society, academia, media and development partners.

### **9.0 Scope of Bid Price and Payment Schedule**

- The proposed price must be a lump-sum which is an “all-inclusive package” including duty travels and daily subsistence allowances
- The contract price is fixed regardless of changes in the cost components, any changes will go through a variation negotiation.
- The Off-grid Expert will be required to submit timesheet which shall form the basis for payment including expected deliverables

Schedule of payment will be as Table 2 below:

**Table 2. Payment Schedule**

<b>Deliverables/Outputs</b>	<b>Target Due Dates</b>	<b>% of lump sum to be paid</b>
• Inception Report	28 September 2018	10%
• Stakeholders' consultation meetings report	18 October 2018	20%
• Draft report on the regulatory requirements and financial support schemes	09 November 2018	30%
• Final report on the regulatory requirements and financial support schemes • Power Point summary of the regulatory requirements and financial support scheme	30 November 2018	40%
<b>Total</b>		100%

#### **10.0 Recommended presentation of offer**

- P11 indicating all experience from similar projects, as well as the contact details (e-mail and telephone number) of at least three (3) professional references using the template provided by UNDP (Annex I)
- Letter of Confirmation of Interest and Availability using the template provided by UNDP (Annex II)
- **Methodology** - Brief description of why the individual considers him/herself as the most suitable for the assignment and a detailed methodology on how they will approach and complete the assignment.
- Financial Proposal that indicates the all-inclusive fixed total contract price, supported by a breakdown of costs using template provided by UNDP (Annex III)

#### **11.0 Criteria for selection of the best Offer**

Highest Combined Scoring method will be applied to assess both the technical and financial proposals. The weight of the technical criteria is 70%; the weight of the financial proposal is 30%. Only candidates with a minimum of 70% in the technical evaluation will be considered for the financial evaluation.

#### **Evaluation Criteria for International Consultant**

<b>Criteria</b>	<b>Weight</b>
<i>Technical</i>	70%
<b>Qualifications:</b>	15%
• At least Master's Degree in Electrical/Mechanical/Electronics Engineering or Finance	10%
<b>Methodology:</b>	30%
<b>Experience:</b>	30%

<ul style="list-style-type: none"> <li>• Minimum of 10 years of professional/academic experience in off-grid renewable energy initiatives. Direct involvement in mini-grids and other off-grid technologies will be an advantage</li> </ul>	10%
<ul style="list-style-type: none"> <li>• Experience in off-grid regulatory frameworks as well as renewable energy financing and subsidy support schemes</li> </ul>	10%
<ul style="list-style-type: none"> <li>• Practical experience with supporting the private sector in developing delivery off-grid energy solutions.</li> </ul>	5%
<ul style="list-style-type: none"> <li>• Familiarity with UNDP and GEF rules, regulations and administrative procedures. And familiarity with SE4All programme and its objectives</li> </ul>	5%
<i>Financial</i>	30%
<b>Total = technical + financial (70% + 30%)</b>	<b>100%</b>

**Annexes to the TORs:**

- **Annex I – P11 form**
- **Annex II – Letter of Confirmation of Interest and Availability**
- **Annex III – Financial proposal template**

**Offers with the requirements listed above may be submitted to:**

**United Nations Development Programme  
The Resident Representative,  
REF: IC, Off-grid Expert  
United Nations Road  
3<sup>rd</sup> Floor UN House  
P.O. Box 301  
MASERU, LESOTHO  
Tel: +266 2222 800 Fax: +266 22310042  
Email: [ls.procurement@undp.org](mailto:ls.procurement@undp.org)**



Prepared by Project Manager:

Name: Mabohloloka Tau Signature: [Signature]

Date: 27/08/2018

Approved by Director – Department of Energy

Name: T. H. ALDE Signature: [Signature]

Date: 28/08/2018

Authorised by UNDP Sustainable Development Advisor:

Name: LIMOMANE PESHOMIE Signature: [Signature]

Date: 28/08/2018

