



PROJECT IDENTIFICATION FORM (PIF)

PROJECT TYPE: FULL-SIZED PROJECT

TYPE OF TRUST FUND: GEF TRUST FUND

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PART I: PROJECT INFORMATION

Project Title:	Development of Cornerstone Public Policies and Institutional Capacities to accelerate Sustainable Energy for All (SE4A) Progress		
Country(ies):	Lesotho	GEF Project ID: ¹	5742
GEF Agency(ies):	UNDP	GEF Agency Project ID:	5367
	Ministry of Energy, Meteorology and Water Affairs (MEMWA) – Department of Energy (DoE) - lead, Ministry of Development Planning (MDP), Bureau of Statistics (BoS), Lesotho Electricity and Water Authority (LEWA), Department of Standards and Quality Assurance (DSQA) of the Ministry of Trade and Industry, Cooperatives and Marketing (MTICM), National University of Lesotho	Submission Date: Re-submission date:	March 7, 2014 March 26, 2014
GEF Focal Area (s):	CC Mitigation	Project Duration (Months)	48
Name of parent program (if applicable): • For SFM/REDD+ <input type="checkbox"/> • For SGP <input type="checkbox"/>	N/A	Agency Fee (\$):	332,500

A. INDICATIVE FOCAL AREA STRATEGY FRAMEWORK²:

Focal Area Objectives	Trust Fund	Indicative Grant Amount (\$)	Indicative Co-financing (\$)
CCM 3 - Investment in renewable energy technologies increased	GEF TF	3,500,000	9,435,912
Total Project Cost		3,500,000	9,435,912

B. INDICATIVE PROJECT FRAMEWORK

Project Objective: To support the development of SE4A cornerstone policies and tracking tools and catalyze investments in village-based energization models (e.g mini-grids) that will contribute to the successful achievement of Lesotho's Vision 2020 and SE4A goals in the most efficient and low-carbon way as possible.

Project Component	Grant Type ³	Expected Outcomes	Expected Outputs	Trust Fund	Indicative Grant Amount (\$)	Indicative Cofinancing (\$)
1. Baseline energy data collection and monitoring for SE4A	TA/ INV	- Improved capacity of energy stakeholders and government officials to systematically collect, monitor, analyze and	1.1 National energy survey conducted on energy supply, consumption and demand, disaggregated by sector, district and	GEF TF	200,000 80,000 (INV)	1,039,356

¹ Project ID number will be assigned by GEFSEC.

² Refer to the reference attached on the [Focal Area Results Framework](#) when completing Table A.

³ TA includes capacity building, and research and development.

		<p>disseminate key energy supply and demand information in a harmonized fashion, including progress against SE4A objectives</p> <p>- Improved capacity for decentralized clean energy planning and decision- making informed by availability of quality energy data</p>	<p>application. The survey will disaggregate by gender and include energy access and intensity baseline data (energy efficiency) as well as penetration and performance of RETs⁴ (TA)</p> <p>1.2 Energy database and information system established for data collected and management under Output 1.1 with clear responsibilities agreed to as regards regular monitoring and annual publication of indicators (between DoE and BOS) (INV)</p> <p>1.3 Energy modelling software in place to analyse the data, model scenarios and produce information that will promote RE policies.⁵ (INV)</p> <p>1.4 All energy-related data and plans in the country harmonized with the new National Energy Policy and New Climate Change Strategy⁶ and in adherence with a standardized GHG emissions tracking system (TA)</p>		120,000 (TA)	
2. Development of Cornerstone SE4A Strategies	TA	<p>- Relevant SE4A documents that are part of the SE4A-designated Country Action Process developed and adopted</p> <p>- SE4A cornerstone policies facilitating increased investment in RE deployment, particularly mini-grids</p>	<p>2.1 Development and adoption of a SE4A Country Action Agenda (AA), including extensive stakeholder consultations</p> <p>2.2 Development and adoption of a SE4A Investment Prospectus (IP), including extensive stakeholder consultations</p> <p>2.3 Both documents with explicit sub-strategies and investment plans related to</p>	GEF TF	500,000	854,692

⁴ For energy access, household survey evidence is typically used to determine the percentage of the population with an electricity connection and the percentage of the population who primarily use non-solid fuels for cooking. Aggregate energy intensity has long been used as a proxy for energy efficiency. The actual indicators to be collected will be based on statistical methods adopted under the SE4A global tracking tool methodology and in line with statistical methods currently in use by the Bureau of Statistics.

⁵ This output will only be included in the final project document if not already funded under Baseline project #5 – see Section A.1 – Table 1 on Baseline Information

⁶ See baseline project #1 for a description of these policies under development

			mini-grid applications and village energization schemes ⁷			
3. Village-based energization schemes	TA & INV	<ul style="list-style-type: none"> - Successful establishment of a village-based energy service delivery model for replication nationally - 1.45 % of all households in the country benefitting from village energization schemes⁸ by end of project with associated reduction in GHG emissions - Increased capacity of government, private sector and community stakeholders to evaluate, develop and implement decentralized energy projects across the country in an integrated fashion - Increased stakeholder awareness about best practice business models, regulatory requirements and sustainability of village-based energization platforms 	<p>3.1 Sensitization and training for all national and district-level energy officials on best practices and opportunities for decentralized village energization models in off-grid areas⁹ (TA)</p> <p>3.2 60 village communities in five (5) districts with operational village energization schemes using mini-grids and other clean energy technologies. Activities will include:</p> <ul style="list-style-type: none"> - An initial feasibility analysis and short-listing of 100 villages spanning 5 districts in Lesotho (INV); - Competitive selection of service providers to implement 60 village energy service schemes (TA); - 60 village service providers selected for the village energy schemes given contracts by MEMWA based on the energy incentives/support tariffs accepted during the bidding (TA); - District level coordination groups established in all the 5 districts to facilitate the implementation of all the village energization schemes (TA); - 60 village communities in 5 districts provided with rural energy services from clean energy (INV). 	GEF TF	<p>2,500,000</p> <p>1,500,000 (TA)</p> <p>1,000,000 (INV)</p>	6,498,500

⁷ Rural energization (as defined in the LEAP program – see Section A.1 and B.3) is defined as providing rural electrification using clean sources and providing safe and modern thermal energy services.

⁸ Assuming that each village energy service provider will electrify an average of 100 households, the total households electrified from the schemes will be 6,000 or 1.45% of all households in the country.

⁹ This output is in line with the Section 5.2.3 of the NSDP

			<p>3.3 Sustainable O&M&M models in place for all village energization schemes (TA)</p> <p>3.4 Development and adoption of Electricity Quality of Service and Supply Standards (QSSS) for all village energization schemes and off-grid electricity services¹⁰ (TA)</p> <p>3.5 Platform developed for sharing of information and lessons learned on village energization schemes for national scale-up (TA)</p>			
4. Monitoring and Evaluation (M&E) and knowledge management	TA	- Effectiveness of the outputs assessed, corrective actions taken and experience documented	<p>4.1 M&E and tracking system in place for all project activities by 2Q of year 1 (TA)</p> <p>4.2 Mid-term M & E and End of project M & E reports (TA)</p> <p>4.3 Lessons learned and information dissemination workshops conducted (TA)</p> <p>4.4 Publications and video materials developed and disseminated for all activities (TA)</p>	GEF TF	140,000	288,673
Subtotal					3,340,000	8,681,221
Project Management Cost (PMC) ¹¹				(select	160,000	754,691
Total Project Cost					3,500,000	9,435,912

C. INDICATIVE CO-FINANCING FOR THE PROJECT BY SOURCE AND BY NAME IF AVAILABLE, (\$)

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Amount (\$)
National Government	Ministry of Energy, Meteorology and Water Affairs (MEMWA) & associated energy agencies under their remit	Cash & In-kind	7,546,916
National Government	Bureau of Statistics (BOS)	Cash	267,837
Multilateral donor	International Atomic Energy Agency (IAEA)	Cash	102,750
Multilateral donor	United Nations Economic Commission for Africa (UNECA)	Cash	90,909

¹⁰ Lesotho Electricity Authority already regulates grid and rural electricity through separate QSSSs. A separate QSSS could be developed for all off-grid services – including the village energization schemes – however government believes it would be more effective to revise the rural electricity QSSS to include stand-alone and mini-grid considerations.

¹¹ To be calculated as percent of subtotal.

Bilateral donor	European Union (EU)	Cash	1,027,500
Private Sector	Village Energy Service Providers and mini-grid investors	Cash and in-kind	TBD at PPG phase
GEF Agency	UNDP	Cash	400,000
Total Co-financing			9,435,912

D. INDICATIVE TRUST FUND RESOURCES (\$) REQUESTED BY AGENCY, FOCAL AREA AND COUNTRY¹

GEF Agency	Type of Trust Fund	Focal Area	Country Name/Global	Grant Amount (\$) (a)	Agency Fee (\$) (b) ²	Total (\$) c=a+b
UNDP	GEF TF	Climate Change	Lesotho	3,500,000	332,500	3,832,500
Total Grant Resources						

E. PROJECT PREPARATION GRANT (PPG)¹²

Please check on the appropriate box for PPG as needed for the project according to the GEF Project Grant:

	<u>Amount Requested (\$)</u>	<u>Agency Fee for PPG (\$) ¹³</u>
• No PPG required.	-- 0--	--0--
• (up to)\$100k for projects up to & including \$3 million	<u>100K</u>	<u>9,500</u>

PART II: PROJECT JUSTIFICATION¹⁴

Project Overview

A.1. Project Description.

Situation Analysis and Problem Statement

Lesotho is among the least developed countries in the Southern African Development Community (SADC). The Human Development Index (HDI) value of Lesotho is presently at 0.450, positioning the country at 160 out of 187 countries. A major impediment to human development in Lesotho is poverty, resulting from limited resources, low productivity and other factors. Unemployment for women is 33.1%, for youth is 37.6%, and the overall poverty level is high at 57.3% of the population (2012 MDG Report). The country is highly dependent on remittances from migrant workers from South Africa, regional customs union earnings, the sale of water to South Africa, and development cooperation resources.

Access to sustainable and affordable energy has been identified as a prerequisite for economic growth and poverty alleviation in Lesotho. Inadequate access to clean energy constitutes a significant obstacle to poverty reduction and food security and the development of the country's enterprise sector, as well as climate change management and maintenance of indigenous ecosystems (particularly water which is one of the country's most important natural resources¹⁵). The total primary energy supply for Lesotho is currently 37.2 PJ and the country's energy mix is dominated by traditional biomass with a 66% share of the energy mix. Traditional biomass mainly comes from non-commercial indigenous sources (shrubs, crop residues, and dung) whose harvest and use has been closely associated with environmental degradation and poor soil fertility. It is estimated that more than 1.8 million tonnes of woody biomass, shrubs, dung cakes and about 100,000 tonnes of crop residues are used annually as

¹² On an exceptional basis, PPG amount may differ upon detailed discussion and justification with the GEFSEC.

¹³ PPG fee percentage follows the percentage of the GEF Project Grant amount requested.

¹⁴ Part II should not be longer than 5 pages.

¹⁵ Water is Lesotho's most valuable natural resource. Lesotho's natural water resources are estimated at 5.23 km³/yr, by far exceeding the country's requirement of 2 km³/yr. Groundwater resources are estimated at 0.5 km³/yr. Currently the river systems have resulted in Lesotho Highlands Water Project (LHWP), the largest source of foreign income in the country.

energy sources (2009). Petroleum products, coal, electricity and LPG constitute the remaining 34% of the energy mix. Lesotho is highly dependent on imported fossil fuels (>95%) for its energy requirements for transport and industries. Electricity only contributes 6% of the national energy mix and the local electricity generation was 522.3 GWh from an installed capacity of 76 MW.¹⁶ More than 95% of electricity consumed in the country is from hydropower. The peak demand of 145 MW in winter is met through extremely GHG-intensive energy imports from the South African Power Pool (SAPP), which has a combined grid emissions factor of .9801 (some 77% of South Africa's electricity supply comes from coal).

The National Strategic Development Plan 2012/13 to 2016/17 (NSDP) and the Generation Master Plan 2010-2011 are the most comprehensive plans existing to date which outline potential power generation in Lesotho. The NSDP mentions Lesotho's established potential for wind power, pumped storage hydropower and conventional hydropower. To take advantage of the potential for sustainable power generation, the NSDP identifies three objectives for the energy sector:

- Increase energy generation to attain self-sufficiency, with the possibility of exporting clean energy;
- Expand access to electricity for industry, commercial centers and households; and
- Promote energy conservation and efficiency.

Industry is the biggest electricity consumer at 39% followed by the residential sector at 34%. The annual per capita electricity consumption is 253 kWh, **significantly below the African average of 579 kWh and the world average of 2,777 kWh**. According to Second National Communication and the latest energy statistics:

- About 56% of households in Lesotho use firewood for cooking, 39% use Gas/paraffin, 1.6% use electricity and 3.5% of households use other sources of energy;
- About 56% of households use Gas/oil for lighting, while about 38% use candles, about 10 % use electricity and less than 1% use other forms of energy;

About 90% of households do not have access to grid electricity, the majority (more than 70%) of the Basotho, particularly those who live in rural areas, rely heavily on biomass fuels for major domestic energy end-uses; About 67% of all households in Lesotho use biomass fuels as main sources of energy for space heating while approximately 27% use paraffin, 4% use coal and LPG and electricity constituted about 3%.

The national electricity access rate is currently estimated at 26% and there is a huge disparity between urban households (65% of urban households have electricity access) and rural households (only 6% of rural households have access to electricity).¹⁷

According to forecasts in the Second National Communication, **the demand for electricity in Lesotho expected to reach 294,900 TJ by 2030— almost 10 times higher than the base year 2000 energy figures.** In light of the country's low electrification rate and the large amount of suppressed demand, the country has set ambitious electricity access targets under the National Vision 2020 (2000) and NSDP to expand electricity access **to 35% of the population by 2015 (increase of 14% from existing levels) and 40% by 2020** and to reduce fuelwood usage in the national energy consumption. The country is implementing selected rural electrification programs as described in the baseline section. The state owned utility Lesotho Electricity Company (LEC) is responsible for electricity supply but limits its electrification efforts to geographical areas that are within a viable distance for extension of its grid network. The Rural Electrification Unit (REU) of the Department of Energy has made efforts to deploy alternative models for rural electrification using grid-based and off-grid technologies since 2004; however these efforts have been limited to only a few locations with mixed success and constrained by a combination of factors including capacity and resource constraints and policy limitations.¹⁸

¹⁶ International Renewable Energy Agency (IRENA), 2012, Renewable Energy Country Profile: Lesotho. All the electricity generated locally is hydro based and Muela the main operating plant has an installed capacity of 72MW. There are also four mini-hydro plants with a combined installed capacity of 3.25MW, Semonkong mini hydro plant is in operation while the Mantsonyane is under rehabilitation. The other two are not operating due to poor maintenance, siltation and flooding.

¹⁷ *Rapid Assessment and Gap Analysis for Lesotho*, Sustainable Energy for All (SE4A), 2013

¹⁸ As noted in Table 1 the Government's strong commitment to SE4A targets and its intention to continue to provide basic RE services to rural communities and promote the use of RET is evidenced in the 2014/2015 National Budget where more than 50% of the M84.9 Million available to the electricity sector is to be used to implement rural electrification initiatives.

Despite limited resources the Government of Lesotho is committed to achievement of these targets and this is also expressed in their official commitment to and participation in the Sustainable Energy for All Initiative (SE4A) as part of their Rio + 20 Plan of Action. Lesotho prepared and approved a Rapid Assessment and Gap Analysis for SE4A in 2013 (with support by UNDP) and in line with Vision 2020 and the NSDP, is now committed to undertaking the remaining SE4A Country Action Processes (Country Action Agenda and Investment Prospectus as stipulated by the SE4A Secretariat), a sequence of strategic steps which will ensure the country's coherence with the global initiative, assist in leveraging additional investments, and monitor progress and results towards achievement of the country's SE4A targets.

To achieve these ambitious targets Lesotho is now facing a critical choice regarding its energy future. As regards electricity provision, it can either seek to expand the national grid and increase imports of GHG-intensive and dirty energy from SAPP or it can seek to develop its own indigenous renewable energy sources, become more self-reliant, and pursue a more environmentally-friendly energy trajectory.

Current developments point towards pursuit of the second path. Lesotho has a variety of unexploited renewable energy resources. The hydropower potential in the country is significant while as regards solar energy resources the country has on average over 300 sunny days in a year with annual average insolation levels of 5.25 – 5.53 kWh/m²/year. The country also has good wind energy resources with measured annual average wind speeds of 3.7 to 4.7 m/s at 10 m heights.¹⁹ Because of the complex mountainous terrain of the country and the low load density of many communities dispersed over different areas²⁰, large-scale rural electrification through grid extension has been deemed to be costly and unviable in many areas and **therefore government is increasingly focused on distributed generation schemes and support for village-based energization models and mini-grids as the best alternatives**. Donors such as UNDP and UNECA are responding to this directive by supporting a variety of new decentralized energy models, most notably village-based energization schemes and mini-grids.

However achievement of the country's preferred scenario of a sustainable energy transformation is hampered by several factors, including: the absence of the required policy and legal frameworks (as evidenced by the absence of an approved policy and strategy for energy, renewable energy and energy efficiency promotion); a lack of baseline data for proper analysis and planning of energy access programs and investments (particularly for thermal applications and decentralized energy services)²¹; lack of standards for RETs; and the absence of proven and sustainable models for provision of village-based energy service delivery.

The enabling environment for the energy sector remains a work-in-progress. The Lesotho Energy Policy is still at the draft stage since 2003 and is now in the process of being reformulated for approval; a draft national electrification master plan was developed in 2007. Additionally there is a draft Lesotho Renewable Energy Policy (LesREP) (2011) (which seeks to promote the development of solar, wind, hydro, biomass and biogas in terms of resource potential, technologies and capacity) which is also at draft stage and has yet to be endorsed by Government. An electricity connection fee policy exists since 2008 and a draft Public-Private Partnership policy is under preparation. A PV code of practice exists for Solar Photovoltaic Installations in the country which is also supported by regulation but not harmonized with higher-level policies. Finally a draft MSME policy and a private sector development strategy are also under development that may have relevance to clean energy and rural energy enterprises. The Terminal Evaluation Report of the recently completed UNDP/GEF *Lesotho Renewable Energy-Based Rural Electrification Project* (LREBRE) noted that while there was some commendable progress made by the project on raising awareness of RETs and supporting decentralized service delivery “there was also a lack of

¹⁹ Ibid

²⁰ Even though Lesotho is relatively a small country, two-thirds of the country is sparsely inhabited, comprising of rugged mountains and deep valleys with small, scattered villages on mountain sides.

²¹ As well as no national monitoring frameworks to track achievement toward the stated national goals (renewable energy technologies have been piloted in various locations across the country but with no readily available information collected on how these have fared and contributed to the achievement of the targets).

emphasis (in the project) on creating an effective policy and regulatory context and this ultimately contributed to weaken the project's transformative potential and sustainability."²²

Besides the NSDP electricity access targets there are as yet no national targets or plans for increasing the uptake of energy sources that can be used for thermal applications at household level (LPG and energy efficient cooking devices are expected to play a significant role in providing modern thermal energy services for households but its not elaborated to what extent). Moreover there is no updated national energy database nor baseline study; the last comprehensive assessment of the energy sector situation in Lesotho was carried out in 1985 during the development of what was then named the Lesotho Energy Master Plan (LEMP).

Another key challenge is the absence of market-based and scalable village-based rural energization models and mini-grid platforms with private sector partners. Most rural electrification efforts to date have focused on stand-alone technologies and have supported procurement and delivery of systems (from private sector partners) on arms-length basis rather than comprehensive service delivery arrangements. Solar electrification initiatives such as LREBRE and the AfDB Solar Home System (SHS) project in Mphaki focused on a delivery approach and electrification through which household or institutional systems are procured and delivered to target households and institutions. The recently developed *Lesotho Energy Alternatives Programme* (LEAP) project (UNDP/GoL) notes that: *"The current renewable energy based rural energization programmes are being implemented on an intermittent project/initiative mode by different government agencies and donors in the absence of a continuous national policy or programme framework. The role of private sector was typically limited to supply of equipment and end-user needs not always reflected in the design of systems."*²³

It is increasingly clear to all energy actors in the country that unless the country devotes more attention to catalyzing investments in vertically-integrated, village-based energization models (mini-grids) and developing SE4A cornerstone policies and platforms explicitly focused on decentralized energy scale-up, the country's ambitious sustainable energy vision is unlikely to be realized and it will likely resort to a BAU scenario where the country remains dependent on GHG –intensive imports for electricity (or fossil fuel substitutes) and unsustainable biomass practices.

Problem Statement: Currently almost half of Lesotho's peak electricity demand comes from GHG-intensive energy imports while the majority of the population not connected to the grid relies heavily on unsustainable biomass fuels for domestic energy end-uses. In light of the country's low electrification access rate – among the lowest in the world – Lesotho has set ambitious energy access targets under the National Vision 2020 and National Strategic Development Plan and has formally committed to the Sustainable Energy for All Initiative (SEA4). With support from the EU, the country is in the process of adopting a new National Climate Change Policy and Sustainable Energy Policy that will put in place a new enabling environment.

The country has excellent renewable energy potential and given the country's terrain, decentralized village-based energization platforms and mini-grids have been prioritized as among the most suitable investments to achieve the country's clean energy vision. Having already completed its SE4A Rapid Gap Assessment, the country is now eager to complete the next steps in the SE4A Country Action Process and mobilize further investment for such platforms. However as evidenced in a number of recent studies, past off-grid electrification efforts have been overly focused on procurement and delivery of systems rather than a service delivery arrangement with private sector partners and currently there is no major effort to disseminate more efficient thermal energy devices on any significant scale in rural and peri-urban areas. If the country is to achieve its Vision 2020 objectives and mobilize additional investments under SE4A, it needs to develop a replicable, market-based and vertically-integrated model for village-based clean energy provision.

Barriers and Root Causes

²² Lesotho Renewable Energy-Based Rural Electrification Project (LREBRE), Terminal Evaluation Report

²³ United Nations Development Programme Lesotho, Project Document, Project Title *Lesotho Energy Alternatives Programme* (LEAP), 2013.

The SE4A Rapid Gap Assessment documented the following key gaps, barriers and additional requirements to achieve SE4All goals which are excerpted below²⁴:

General

- As already mentioned, Lesotho has no comprehensive targets in relation to the SE4All goals. The only stipulated targets are those provided by the NSDP in relation to electrification rates.
- Weak policy and legal framework as evidenced by the absence of an approved policy and strategy for energy, renewable energy and energy efficiency promotion.
- Fragmented institutional and legal framework resulting in inadequate multi-sectoral approach in the country.
- Lack of incentives for retentions of skills in key energy organizations.
- No technical standards on Renewable Energy Technologies (RETs) and poor installation practices.
- High dependence on GHG-intensive energy imports

Energy access

- Lack of baseline data for proper analysis of the access to modern energy services particularly for thermal applications and productive use at small scale production levels.
- Inadequate private investment in modern energy supplies and technologies for cooking and other thermal applications.
- Short term initiatives by donors and NGOs that need to be sustained.
- Electricity supply is a limitation to meet the growing demand both in households and industry.
- Rural connections limited by restrictive grid extension/maintenance.

Energy efficiency

- Lack of energy efficiency strategy and programmes in the country.
- Inadequate access to finance by the energy end use consumers combined by low household income by rural populations thus affecting willingness and ability to pay for modern energy services by rural community.
- Low application of demand-side management (DSM) and energy efficiency measures for modern energy in the productive sectors.

Renewable energy

- High upfront capital costs of Renewable Energy and limited access to project finance from local banks
- Low awareness about RETs and access to information on RETs.
- Low involvement of the private sector in new on-grid and off-grid renewable energy power generation capacity (especially for energy efficiency and renewable energy).
- Uncertainty on resource potential of hydro potential in the country and required assessment of wind, solar and biomass potential.

As part of the development of the new *Lesotho Energy Alternatives Programme* (LEAP) project (UNDP/GoL – see Sections A.1 and B.3 for additional information) an assessment of the lessons learned from previous energy access programs (including those supported by GEF such as LREBRE) was compiled to document the challenges still facing the sector. Some of the key lessons that were documented during that process which are of particular relevance to this project as follows:

- While the rate of rural electrification has increased in the recent decade, at the current electrification rate it is likely that by 2030 over 40% of Lesotho's households will not have access to electricity. The access to safe and modern cooking and heating fuels by 2030 is likely to be even more disappointing as the number and the scale of existing efforts to tackle this issue is limited. Therefore in the absence of new and significant efforts it is unlikely that Lesotho will meet the Universal Energy Access goals under the Sustainable Energy for All (SE4All) initiative by 2030;

²⁴ See footnote #14

- Some of the existing electrification initiatives have used a capital subsidy model which has resulted in limited leverage of private capital and market distortions. There are very limited incentives for after-sales service and maintenance in this mode of implementation;
- The existing initiatives have resulted in short-term periodic employment generation and the residual employment remaining has been limited and is concentrated in Maseru and not easily accessible by the rural and remote households;
- The policy and regulatory framework for renewable energy for rural energization is weak or non-existent and needs to be established to promote a greater role for indigenous renewable energy sources;
- Where there are efforts in rural areas from other government departments involving, health, rural water supplies and education which have a rural energy component, the current framework does not ensure effective coordination and synergies to provide an integrated energy and social services delivery strategy to the rural and remote areas;
- The existing initiatives have generally focused on household electrification and efforts to utilize the energy for economic opportunities and productive uses in rural areas have been limited. It is believed that there are unexploited opportunities for utilising energy in agro-processing, textiles and provision shops etc. in rural areas; and
- Currently there are no environmental regulations in the country relating to compact fluorescent lamps, electronic waste or battery disposal which are relevant to the electricity sector, information technology sector and the transport sector. In the absence of existing regulations and obligations, the compact fluorescent lamps, power electronics and lead-acid batteries which are used in electrification programmes are often of sub-optimal quality and are not being recycled.

Other donor-funded and government assessments have documented the following (additional) barriers:

- There needs to be a policy and regulatory framework developed for private sector participating in energy service delivery for both grid- and off-grid services. Currently there is no legal basis for private sector involvement and this is a barrier to further investment. Such a mechanism would open the way for sustainable project development financing for rural electrification and a sustainable operating subsidy mechanism for off-grid services that draws on the current cross-subsidy already established for grid services.
- There is a need to establish in Lesotho a mechanisms for ensuring that technologies comply with internationally recognised technical standards and that these standards are enforced for all government procurement and information is available in the public domain to assist consumers assess the quality of products.
- No major effort to disseminate modern cooking and heating devices are being implemented at any significant scale in rural and peri-urban areas. LPG is available at commercial rates in urban and peri-urban areas and dissemination and uptake in rural and remote areas have been limited due to challenges of financing and transportation. The country currently does not have a regulatory framework for regulating LPG distribution and pricing in the country.
- A major issue in the energy sector is the issue of data availability, both for monitoring and for determining entry points. Up-to-date reliable data is urgently required to know who is doing what and how? What has worked and not worked? Which are the areas of greatest need? What has been the impact and how have the existing interventions enhanced socio economic development and environmental protection?
- A system of sector specific donor co-ordination is yet to be developed for the energy sector. Currently coordination takes place in an ad-hoc nature between actors operating in the sector. The EU's endorsed support programme on energy and climate change (see Table 1) has plans to establish a sector working group with several potential members offering expertise on renewable energy issues.

The baseline scenario and any associated baseline projects

A variety of government- and donor-led initiatives are underway to tackle many of these barriers, particularly the institutional barriers. The major baseline activities of relevance to this project (excluding UNDP's baseline contributions) are as follows:

Table 1. Summary Overview of all Relevant Baseline Activities

Baseline Project #1 – European Union

The EU is a key donor in Lesotho's energy and climate change sectors. At present one of the main vehicles for EU support is through the 10th European Development Fund (EDF) Global Climate Change Alliance (GCCA) programme. The overall objective for EU cooperation in the Energy Sector under the GCCA is: *“to provide Lesotho's people and productive sectors with access to a modern, clean, affordable and reliable energy supply.”* The main objectives, results and indicators for the next 11th EDF NIP are derived from the NSDP and build on the EDF 10 GCCA. The corresponding indicators for the expected results of support to the energy sector from the EDF 11 are drafted as:

- **The preparation and political approval of a long-term energy sector plan that includes a medium term strategy/implementation framework setting out the roles and responsibilities of all actors in energy regulation, generation and distribution;**
- An increase in the proportion of households with access to affordable electricity;
- An increase in the number of commercial and industrial consumers supplied with electricity;
- The amount of electricity generated from all sources;
- The number of households using alternative sources of energy other than biomass (wood, dung, and crop waste) for household consumption.

Most of funding for energy and climate change from the EU under EDF 10 comes via budget support. Under EDF 10 the EU supports general budget support with the Poverty Reduction Budget Support programmes I and II (EU contribution EUR 71.7 million) together with the World Bank (among other activities, the EU is the sole donor to a sector budget support operation for the water and sanitation sector). This proposed budget support programme within the framework of the GCCA is consistent with both operations. While the overall objective of EU's general budget support programme is to contribute to Lesotho's efforts to poverty alleviation and sustainable development, recently the EU has allocated a specialized tranche of EDF funding (entitled “Support to the Climate Change Response Strategy”²⁵) that specifically seeks to contribute to set up the “required policy and institutional framework to reverse environmental degradation through the finalization of:

- **A National Climate Change Policy and Strategy;**
- **A National Sustainable Energy Policy and Strategy (building on the 2003 energy policy);**
- Required policy and institutional frameworks to support implementation of policies and strategies”²⁶

At present the EU has allocated an initial **750K Euro** to the Ministry of Energy, Meteorology and Water Affairs (MEMWA) and Ministry of Finance and Development Planning for the “preparation of policy/strategy documents and improved sector coordination.” **The focus of this initial support is the preparation and formal adoption of the two strategies mentioned above.** The EU has also been pushing for a greater consistency between government policies and climate change policy-making through mainstreaming Climate Change into the NSDP and including actions for the main energy needs (including lighting, cooking, heating and community needs) by improved access to sustainable sources of clean, reliable and affordable energy through (among others): extending rural electrification, equity access to energy, energy affordability, reliability and commercial viability of solar and wind power, biomass energy, cooking stoves, small-scale hydropower dams.²⁷ The EU's GCCA will also establish a sector working group on climate change and renewable energy issues. Once this structure has set up it will provide a firm basis for sector coordination.

The development of these two key plans (the new energy strategy and the CC policy and strategy) has now started and

²⁵ Following identification and formulation phases during the first half of 2012, a financing agreement was signed between the European Union and the Government of Lesotho in January 2013 to define the specific support to the Climate Change Response Strategy in Lesotho.

²⁶ European Union, GCCA Action Fiche LESOTHO, “Support to the Climate Change Response Strategy, Kingdom of Lesotho Africa, Environment and Climate Change”, 2013.

²⁷ Ibid

the plans are expected to be developed and approved by the end of 2014/early 2015. The EU may potentially allocate an additional 3.25 million Euros in budget support for follow-on activities (including complementary support to cover capacity building for Government and Non-State Actors relating to the achievement of agreed indicators) but this **is not yet confirmed and is contingent upon the successful development and formal approval of these two strategies.**

Sub-total: USD \$ 1,027,500²⁸ (750K Euros for preparation of the policies)²⁹

Baseline Project #2 – Ministry of Energy, Meteorology and Water Affairs (MEMWA) & associated energy agencies under their remit

The Government of Lesotho – via MEMWA and associated agencies – established the REU within the Department of Energy (as part of UNDP/GEF Lesotho Renewable Energy-Based Rural Electrification Project) and is currently funding a variety of RE and energy access initiatives in the country, most notably subsidizing solar PV installations in remote off-grid areas through the Renewable Energy Based Rural Electrification Program (REP). As noted in the LREBRE Terminal evaluation, the Department of Energy (DoE) has clearly demonstrated their commitment to renewable energy as a part of their rural electrification program. The financial commitments made to the LREBRE project by GoL were M5 million (in 2008), M5 Million (in 2009), M14 Million (in 2010) and M5 Million (in 2011)³⁰. Moreover the Government's strong commitment to SE4A targets and its intention to continue to provide basic RE services to rural communities and promote the use of RET is evidenced in the 2014/2015 National Budget where more than 50% of the M84.9 Million available to the electricity sector is to be used to implement the REP. Renewable energy-based rural electrification activities have now been integrated into the National Strategic Development Plan (NSDP) 2012/13 – 2016/17 and the 2007 National Electrification Master Plan, with budget allocations for the REP conservatively estimated to total sum of 80 million Maluti over the next four years (2014-2018).

GoL also subsidizes paraffin to make it more affordable for the poor by removing VAT, levy and duty on the price of paraffin. Lesotho Electricity Authority has also established a fund whose main objective is to subsidize costs for electricity service connection for domestic consumers.

The list of GoL budget allocations (for expanding energy access and RE planning and institutional support) for the project period is as follows (this does not include the NREF):

Current Project	Area of Focus	Donor	Budget (2014 - 2018) ³¹	Budget USD
Rural Electrification Program	Energy Access	Government of Lesotho (GoL)	M (Maluti) 80 million ³²	\$7,272,727
Department of Energy – RE Unit (recurrent budget - salaries)	Renewable Energy planning and support	Government of Lesotho (GoL)	M 3,016,072 (annualized over four years)	\$274,188
			Total	\$ 7,546,916

Sub-total: USD \$7,546,916 over the project period (2014-2018)

Baseline Project #3 – Bureau of Statistics (BOS)

Bureau of Statistics (BOS) - under the Ministry of Development Planning – is mandated to collect, compile, analyze, abstract and publish major statistical information on a wide range of topics, including the environment. The BoS has recently established a specialized unit to collect, analyze, and publish energy and environmental statistics. They are

²⁸ USD/Euro FX conversion rate = 1.37 (Feb 2014)

²⁹ If the additional EU funding is allocated it will be presented at CEO ER.

³⁰ Terminal Evaluation Report, UNDP/GEF Lesotho Renewable Energy-Based Rural Electrification Project, 2013

³¹ As supplied to UNDP by the Department of Energy – February 2014. USD/Maluti FX conversion rate: 11 M = 1 USD (Feb 2014). This applies to all Maluti/USD conversions in the PIF.

³² This is a conservative estimate which will be confirmed at CEO Endorsement. As noted, more than M40 million was allocated to rural electrification initiatives in the 2013/2014 National Budget alone and thus the M80 million figure cited is conservative for a 4 year period.

already receiving capacity-building support through Baseline Project #5 - *Enhancing the Energy Databank and Building Human Capacity to Support the Energy Policy Framework*. To date they have conducted the following surveys: 1) Survey of energy use in government offices; and 2) Survey of energy use in government-run health institutions.

The unit is now staffed by a small group of statisticians and is actively looking for support for additional energy data collection activities. The GoL budget allocations for unit activities and operations are estimated as follows:

Current Project	Donor	Budget (2014-2018) ³³	Budget USD
1. Energy Data Collection	GoL	M52,500	4,773
2. Energy Survey	GoL	M1,000,000	90,909
3. Training and Capacity building	GoL	M568,350	51,668
4. Staff Salaries	GoL	M1,325,364	120,488
		Total	\$ 267,838

Sub-total: USD \$267,838 over the project period (2014-2018)

Baseline Project #4 – United Nations Economic Commission for Africa (UNECA)

UNECA is currently implementing a project in Lesotho entitled “*Enhancing and improving access to energy services through development of public-private renewable energy partnerships.*” The objective of the project is “to establish a demonstration project that will advance a pro-poor public private partnership in clean and renewable energy in Lesotho. This demo project focuses on increasing access to clean energy technologies, information about energy choices, as well as training of local community on installing and servicing of technologies. The project will build capacity of governments and other stakeholders on pro-poor PPPs (5Ps) for promoting energy services in rural areas through increased use of locally available renewable energy sources.”

The project has three main components:

- 1) Develop a Business Plan for the establishment and implementation of a Integrated Energy Centre, as a demonstration project for Lesotho;
- 2) Identify a suitable cooperative to manage the demonstration project; and
- 3) Set up the Coordinating (Steering Committee) whose function is to guide the implementation of the demo project as well as providing on-going support in the lifespan of the activities

UNECA staff conducted several missions to Lesotho during 2013 to kick-start activities and is now in the process of selecting the cooperative to manage the demo project and setting up the Steering Committee.

Sub-total: USD \$90,909 committed (1 million Maluti³⁴) over the period (2013-2015)

Baseline Project #5 – International Atomic Energy Agency (IAEA)

In early 2014 IAEA started implementation of a two-year project entitled *Enhancing the Energy Databank and Building Human Capacity to Support the Energy Policy Framework*. The project is linked to the outputs of their regional program: 1.3 Capacity Building and Nuclear Knowledge Maintenance for Sustainable Energy - 1.3.1 Energy Modeling, Data and Capacity Building.

The objective of the project is:

- 1) To develop local capacity to operate and manage energy database and models, conduct energy surveys and policy development; and
- 2) To acquire/adopt a suitable energy model

With this capacity in place the DoE and BOS should be able to: i) undertake a comprehensive assessment of current

³³ As supplied to UNDP by the Bureau of Statistics – February 2014

³⁴ USD/Maluti FX conversion rate: 11 M = 1 USD (Feb 2014).

situation and trends and to forecast the future energy demand and supply situation of the country; ii) identify sources of energy supply, to what extent various energy sources are used and factors behind these trends; iii) the project would have provided human capacity development, information technology and equipment to attain this objective; and iv) data will then be used to inform policy strategic decisions and to forecast future energy development patterns.

Sub-total: USD \$ 102,750 committed (Euro 75K) over 2014-2015

Total: USD \$ 9,035,912 (excludes UNDP co-finance mentioned in Section B.3)

The proposed alternative scenario, with brief description of outcomes and components of the project / Incremental cost reasoning and expected contributions from the baseline, the GEF TF and co-financing

As noted in Table 1, current baseline activities are mainly focused on the areas summarized below with the following gaps (vis-à-vis the identified barriers) still requiring support:

Baseline Donor	Main Area of Support in baseline scenario	Gaps needed to be addressed in alternative scenario
European Union	Institutional – support for national energy and CC policy	Yes - No funding for SE4A Country Action Process documents (AA and IP) that are mandated for SE4A follow-on support – these need to be harmonized with nee policies
Government of Lesotho	Electrification - Currently LEA limits its electrification efforts to areas which are viable for grid extension and focuses on supply side augmentation where the emphasis on increasing the generation capacity. MEMWA's effort to extend the energy services beyond LEA's footprint <u>has been limited by REU's own capacity and resource constraints</u> . No significant support for thermal energy dissemination. Limited involvement of PS partners except as stand-alone service providers.	Yes – currently there is no dedicated support for commercially-based mini-grids and vertically-integrated energization models combining rural electrification using clean sources and safe and modern thermal energy services.
UNECA	Limited support (90K USD) for PPP integrated energy center	Yes – support only limited to TA in one location. No scale.
BoS and IAEA	Energy data collection and modeling	Yes – limited funding for TA and small scale-scale surveys. No funding for national energy survey to identify where to focus energy access efforts. Funding is still needed to systematically collect, monitor, analyze and disseminate key energy supply and demand information in a harmonized fashion, including progress against SE4A objectives.

Moreover in addition to these remaining needs (not covered by the baseline), it is important to note that the terminal evaluation for the UNDP/GEF project LREBRE stated unequivocally that: *“There is a need for a follow-on project that capitalizes on the lessons learned and broad commitment and awareness generated by the LREBRE project. This project should include preparation and early stage activities that address some of the*

remnant issue of the LREBRE project.”³⁵ Many of the lessons learned from LREBRE and identified priority actions for additional support subsequently informed the design and development of the Lesotho Energy Alternatives Programme (LEAP) project document, a joint UNDP/GoL project concept that is (as yet) only partially funded (see Section B.3 for more information). LEAP includes five components (the LEAP prodoc can be provided upon request) and this project will specifically support (and provide co-finance for) one of the five components, namely the:

Rural Energization Component (Component #1 of LEAP): this component focuses on providing clean electricity and modern thermal energy to 60 rural villages using min-grids and other clean energy technologies. This component will pilot different service delivery business models using a PPP approach and a range of energy technologies. It will cover energy for household use, economic activity and public services.

Thus in summary it is important to note that proposed alternative scenario formulated for this project was designed in response to:

- 1) Address the outstanding barriers presented;
- 2) Build off the recommendations of the UNDP/GEF LREBRE Project TE and SE4A Rapid Gap Assessment; and
- 3) Incrementally build on and leverage the other (heretofore mentioned) baseline investments, including LEAP (see Table 2 and Section B.3).

The proposed four (interrelated) components for the project are described below:

Component 1 – Baseline energy data collection and monitoring for SE4A

The Component will seek to achieve the following outputs:

- National energy survey conducted on energy supply, consumption and demand, disaggregated by sector, district and application. The survey will disaggregate by gender and include energy access and intensity baseline data (energy efficiency) as well as penetration and performance of RETs
- Energy database and information system established for data collected and management under Output 1.1 with clear responsibilities agreed to as regards regular monitoring and annual publication of indicators (between DoE and BOS)
- Energy modeling software in place to analyze the data, model scenarios and produce information that will promote RE policies.
- All energy-related data and plans in the country harmonized with the new National Energy Policy and New Climate Change Strategy and in adherence with a standardized GHG emissions tracking system

The importance of a comprehensive, consistently updated and monitored energy sector database cannot be overemphasized, both for planning purposes as well as tracking progress against national and SE4A targets. As already mentioned, the last comprehensive assessment of the energy sector situation in Lesotho was carried out in 1985 during the development of what was named the Lesotho Energy Master Plan (LEMP). The LEMP exercise subsequently developed an energy model called the Lesotho Energy Information System (LEIS) and that was used as the national energy planning model with projections of supply and demand for energy up to the year 2010 but is no longer in use.³⁶ Selected baseline studies have been done by DoE and BOS and as part of a GTZ – EUEI/PDF Lesotho Energy Access Strategy Project (2007) but never on a national basis with a structured framework in place for regular updating. BOS’ new environmental unit is now receiving important capacity-

³⁵ See footnote #23

³⁶ A SADC Regional Energy Planning Network (REPN) model was later adopted by the sector as a more current tool than the LEIS. However the REPN model later developed technical problems – not just in Lesotho but in most SADC countries that had adopted it. It crashed; losing the entire Lesotho energy sector baseline data. Source: Project Brief, *Energy Databank and Building Human Capacity to Support the Energy Policy Framework*, IAEA 2013

building and training under IAEA's new project (baseline project #5) but the country still needs to undertake a national survey (to establish the energy sector database baseline) and obtain energy modeling software to analyze the data, model scenarios and produce information that will inform policy. This component will fund these activities, and ensure that all data and collection frame works are fully integrated with the new National Sustainable Energy Policy as well as the SE4A Global Tracking Tool methodology and standardized MRV system for tracking GHG emission reductions. The project design will ensure that all data collection and monitoring activities and mechanisms are created in such a way as to guarantee that they will continue to be used and maintained post-project (a strategy for this will be presented at CEO ER).

Component 2 – Development of Cornerstone SE4A Strategies

The Component will seek to achieve the following outputs:

- Development and adoption of a SE4A Country Action Agenda (AA), including extensive stakeholder consultations
- Development and adoption of a SE4A Investment Prospectus (IP), including extensive stakeholder consultations
- Both documents with explicit sub-strategies and investment plans related to mini-grid applications and village energization schemes

As already noted, the current energy policy/regulatory landscape is in the process of being completely consolidated and streamlined as part of EU's support for the development and formal adoption of a new National Sustainable Energy Policy and Strategy and a new National Climate Change Policy and Strategy. GEF activities will incrementally build on these investments by providing parallel support for a variety of specific SE4A (prescribed) plans and frameworks.

The Component will support the development of a SE4A Country Action Agenda (AA) and Investment Prospectus (IP), including the extensive stakeholder consultations that are required to underpin such processes³⁷. The SE4A initiative envisions a four-step process for country level implementation: (1) Country Opt-In; (2) SE4ALL Rapid Assessment; (3) Development of National Action Plans and Programmes, and Investment Prospectuses; and (4) Implementation and Monitoring. There remains a large deficit in the number of countries without AA/IP support. In response, several donors (including UNDP) have initiated a partnership, under the umbrella of the SE4ALL Africa Hub, to help mobilize resources to support up to 20 countries. **An estimate has been used of \$1.5 million per country (on average) to develop AA/IPs.³⁸ However given Lesotho's size the budget allocation for this component has been limited to USD 500K to produce and approve both documents.**

Lesotho has already undertaken the first two SE4A steps with the Rapid Assessment having been conducted last year. The development and implementation of a national SE4ALL Action Agenda is now a government priority; it will provide a framework and mechanism to support the enabling role of energy in the realization of national sustainable development goals. SE4A AAs have the potential to bring about transformational change by addressing access to sustainable energy for household consumption, for productive uses, and for social sectors and public services in an integrated and equitable manner. In essence, a Country Action Agenda is an inclusive and comprehensive political statement that is essential to the legitimacy of the entire process of SE4All engagement at the country level. As such, it provides the mandate and framework for all SE4All activities in the respective country. The Guidelines for Developing National SE4A Action Agendas in Africa (which were mandated by the African Union Conference of Energy Ministers and subsequently developed in a series of workshops with African stakeholders) provide a set of key principles for the process of producing a Country

³⁷ The AA and IP process will follow the guidelines outlined in the SE4A Country Action Reference Document (CARD) developed by the SE4A Secretariat.

³⁸ A detailed costing and budget of the AA/IP process for Lesotho will be done at PPG phase.

Action Agenda, which are equally applicable across all regions. Lesotho's AA will comply with these guidelines and follow the comprehensive SE4All Country Action Agenda Template.

In parallel to development of the AA an IP will be drafted that provides an approach to operationalizing the AA by identifying and developing a set of implementable programs and projects, including their investment requirements, which can be presented to potential private and public investors. **Lesotho's AA and IP will be fully integrated with the implementation framework for the new National Energy Strategy and Policy and Climate Change Policy, as well as other sectoral investment plans.** It is expected that the development of the AA and IP will result in Lesotho being able to mobilize additional donor funding for clean energy activities by donors affiliated with the initiative, including national scale-up of the village energy schemes supported under Component #3. Additionally as part of the AA/IP drafting process a decentralized energy services sub-strategy³⁹ will be developed that will feed into the AA and IP and make sure that decentralized solutions are incorporated into Lesotho's AA and IP.

Component 3 – Village-based energization schemes

This Component is the largest within the project and will seek to achieve the following outputs:

- Sensitization and training for all national and district-level energy officials on best practices and opportunities for decentralized rural energization models in off-grid areas
- 60 village communities in five (5) districts with operational village energization schemes using mini-grids and other clean energy technologies.
- Sustainable O&M models in place for all village energization schemes
- Development and adoption of Electricity Quality of Service and Supply Standards (QSSS) for all village energization schemes and off-grid electricity services
- Platform developed for sharing of information and lessons learned on village energization schemes for national scale-up

As noted, mini-grids have been given relatively little attention to date as part of Lesotho's energy access activities. Four mini (micro) hydro plants were operationalized in the 1980s. There are also three isolated mini-hydro power plants, and a further one which is grid-connected. The total installed capacity of these units is about 3.25 MW, but only two of these are currently operational. Twenty-two further sites have been identified for the purposes of harnessing hydropower potential. Support for mini-grids was one of the outputs of LREBRE but had to be removed because co-finance project funds did not materialize as expected; nonetheless installers and other stakeholders interviewed suggested that they viewed mini-grids and village-based energization models as one of the key growth areas for the development of their industry.

Activities under this Component will combine and sequence GEF, UNDP and private sector funding to support the implementation of 60 pilot rural energy service delivery efforts in 60 villages covering 5 districts in Lesotho. All the pilot installations will offer both electrical and thermal energy services to the serviced villages. The implementation will make use of all available renewable energy sources at the location and will explore possibility of hybrid renewable-fossil fuel solutions as well⁴⁰. The enterprises will follow an energy services

³⁹ The African Strategy for Decentralized Energy Services Delivery (DESD) provides a framework for analyzing decentralized energy access solutions, eliminating barriers to their implementation at scale, and incorporating decentralized solutions into national SE4ALL Action Plans. The DESD strategy aims to improve the awareness of decentralized energy access options and the economics of their implementation; describe a framework for defining and measuring access to decentralized energy technologies; increase understanding of decentralized energy market systems and enabling conditions conducive to market development; and lay out the key policy, financing and capacity characteristics and requirements of decentralized energy service options. The strategy thus offers a framework and tools to help identify and prioritize specific solutions for providing energy services, including mechanical power, for productive uses, community services and household needs to rural and other communities that do not have access to grid-based energy services.

⁴⁰ In those cases no GEF funds will be used to support the fossil fuel-based part of the system.

model which will have a mini-grid as the key component and will also leverage the possibilities for using public services and businesses as anchor customers in the 60 pilots. The coverage of the energy services would be to all possible households in the village and possibly tailored to the needs of the households.

The energy services delivery model will use a number of approaches to service the energy customers with the common thread being that the villagers will pay for the energy services periodically instead of buying or being supplied a product. The implementation will put in place arrangements for maintenance and servicing of the systems in or near the serviced village. Among the specific activities of this output will be:

- An initial feasibility analysis and short-listing of 100 villages spanning 5 districts in Lesotho: This activity will consist of a survey for identification of 100 villages covering 5 districts in Lesotho and will build on the results of the national energy survey conducted under Component #1. A selection framework consisting of a set of criteria will be developed based on which the 200 villages should be rated. The suggested set of criteria include number of households, location/proximity of households and availability of clusters, possibilities of economic activities for energy use, public service opportunities in the village, renewable energy resources in the location, terrain and distances from energy infrastructure. The survey will rank the 200 villages on the basis of the evaluation framework and criteria and the top 100 villages will be selected to go through to the next stage of the implementation. The survey results will be available to the public and especially to entities that are interested in bidding for provision of village energy services.

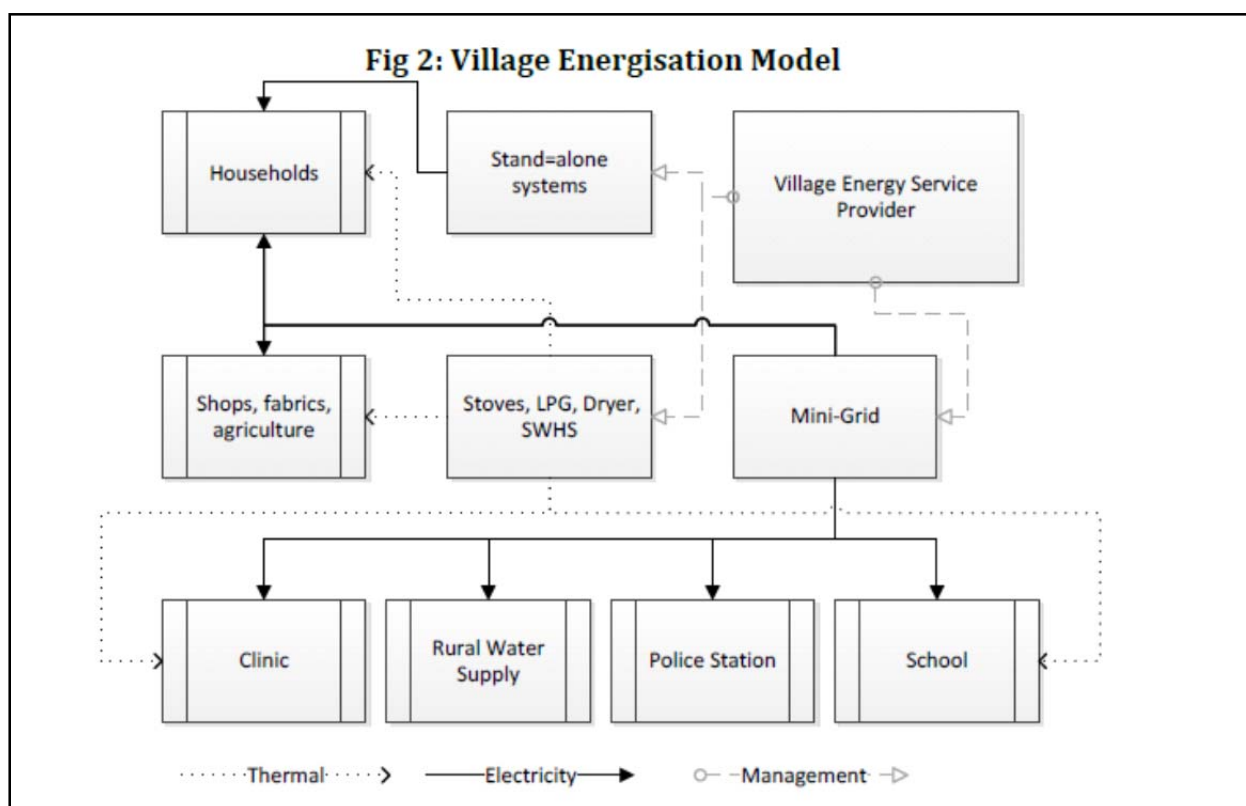
- Competitive selection of service providers to implement 60 village energy service schemes: This activity will involve a process of selection of service providers to implement the 60 village energy service pilots. The process will be based on competitive bidding and will be open to all interested entities – private, public and civil society. The top 60 villages which require the smallest energy incentives/support tariffs will be selected for piloting. It is recommended that the selection process be held in phases and a good mixture of technologies, business models (including Public-Private-Partnerships) and types of villages should be part of the final selection of 60 village energy service operations to allow for a successful-scale up in the second phase. It is suggested that the bidding be held in three stages of 10, 20 and 30 villages to allow for a balanced and orderly implementation of the village energy service pilots. Consolidation and franchising should be encouraged to establish a limited number of larger energy service providers with a scalable business model than a large number of energy enterprises focusing on individual village.

- 60 selected service providers for the village energy schemes given contracts by MEMWA based on the energy incentives/support tariffs accepted during the bidding: The 60 selected service providers for the village energy pilots will be given a contract by the MEMWA based on the energy incentives/support tariffs accepted during the bidding. The selected and contracted entities will have a maximum period of 12 months for achieving financial closure and commissioning of the rural energy service delivery systems in the villages they are authorized to support. The village energy services would be delivered before this deadline and all of them will become operational by the end of the project.

- District level coordination groups established in all the 5 districts to facilitate the implementation of all the village energization schemes: District level coordination groups will be established in all the 5 districts to facilitate the implementation of all the village energy pilots. Such co-ordination at the district level is considered important based on lessons from implementation of the UNDP/GEF LREBRE project.

A schematic of the proposed model is provided below:

Figure 2. Schematic Overview of LEAP Village Energization Model



Full details of the proposed village energization scheme will be provided at CEO ER. Once the 60 village energy service pilots have been successfully operationalized, the emphasis will shift to support for supervision and maintenance of the schemes (output 3.3).

Another key activity under this component – which will be done prior to establishment of the schemes and the competitive bidding processes and which follows on a specific recommendation from the LREBRE TE⁴¹ – will involve the development and adoption of Electricity Quality of Service and Supply Standards (QSSS) for all for all village energization technologies and off-grid electricity services.⁴² The work will be carried out by the project in coordination with LEA and the Department of Standards and Quality Assurance (DSQA) of the Ministry of Trade and Industry, Cooperatives and Marketing (MTICM) which is the official standardization body in the country. While Lesotho is not a member of International Electrotechnical Commission (IEC), IEC has an affiliates program which provides standards and support free-of-cost to Least Developed Countries (LDCs) and Lesotho is a member of the Affiliates programme. Lesotho will collaborate with the IEC affiliates programme to obtain support and reduce the cost of development/standardization and harmonize relevant IEC standards as national standards. During the PPG phase a capacity analysis will be done of LEA to ensure that it is capacitated to provide regulation and enforcement of the QSSS and/or other standards.⁴³ Such standards will make sure that all RETS are in line with minimum compulsory standards that will ensure that they are operating for their full intended lifetimes.

⁴¹ A key shortcoming of LREBRE was the lack of quality of some key components of the SHSs that led to high failure rates for some installers. For other installers who provided high quality components the systems exhibited superior performance. It is evident that many low quality solar PV components are now available in the marketplace yet there is a lack of information available to consumers on the merits of these products.

⁴² This will cover SHS, PV mini-grid systems, portable solar lanterns, LED lighting systems, biomass gasifier based mini-grids, diesel-pv mini-grids, wind-pv mini-grids, wind mini-grids, hydro mini-grids, efficient biomass cook stoves, SWHS, biomass space-heaters, biogas digesters, LPG gas stoves and storage cylinders, LPG space heaters and other technologies (final lost to be developed during the PPG phase).

⁴³ If deemed necessary a separate output will be included in the project budget on capacity-building for LEA.

Finally under this Component a platform will be developed for sharing of information and lessons learned on the village energization schemes supported under this project for national scale-up.

GEF funds under the Component will include a combination of TA and INV. TA funds will be used to support Outputs 3.1 and 3.3-3.5. Under Output 3.2, USD 1.5 million of GEF funds has been provisionally allocated for INV for a financial incentive mechanism to support financial closure of the investments supported by the selected and contracted village energy service providers. The exact type of financial incentive mechanism or non-grant instrument to be supported by GEF funds will be developed during the PPG phase but it could be one of the following:

- Capitalization of a matching capital grant scheme for selected entities under the village energization scheme who show demonstrated financial need and meet certain pre-determined criteria.
- A partial guarantee loan scheme established at the Lesotho Development Bank or a local financial institution that could be dedicated to providing support for designated entities applying to the village energization RFP.
- Mobile money services are being rolled out in the country by both the mobile telephony service providers and some banks getting ready to integrate mobile money into banking platforms. The utility LEC is also in the process of implementing a mobile money/mobile payment based pre-paid electricity sales arrangements which are planned to be rolled out all over the country. GEF INV could provide seed funding for the implementation of an off-grid mobile payment platform for all the village-energization schemes which could include banking accounts of the 60 pilot village energisation businesses and mobile phones of all the beneficiary households. The system could provide low-cost financial transaction management for the pilots and their operators.
- Support for innovative financial instruments such as interest rate subsidies for clean energy end-use or enterprise loans with a financial intermediary.

The detailed proposed structure, governance, fiduciary regulations and administrative elements of the financial scheme to be supported by GEF INV will be provided at CEO ER as well as matching co-finance. Additionally letters of support and proposed co-finance will be solicited from selected entities in Lesotho who can confirm their interest to become Village Energy Service Providers and mini-grid investors (these will be provided at CEO ER).

Component 4 – Monitoring and Evaluation (M&E) and knowledge management

The Component will seek to achieve the following outputs:

- M&E and tracking system in place for all project activities by 2Q of year 1
- Mid-term M & E and End of project M & E reports (TA)
- Lessons learned and information dissemination workshops conducted (TA)
- Publications and video materials developed and disseminated for all activities (TA)

Past experience from UNDP/GEF and other energy projects in the country has demonstrated that unless clear accountability and targets are established from the onset and tracking systems put in place, M&E efforts can often fall by the wayside. As such one of the first activities of the project will be to establish a robust and M&E system by the end of the first half of year 1 of the project. The project will be subjected to mid-term and final evaluations. A mid-term evaluation will be conducted and corrective actions will be taken using adaptive management. The M&E system will be governed by the following principles:

- Accountability: ability of the project be answerable to donors and to the beneficiaries through availability of specific, timely and relevant data;
- Evidence-base: based on readily available information to support in the development of more appropriate and improved programmes in future;
- Learning: use of simplified and frequent reporting to support reflection, learning and sharing of good practices and solutions.

- Transparency: sharing of information with all of the project's stakeholders, including strategies, plans, budgets and reports to promote openness.

Additionally a variety of specific knowledge management and information dissemination activities will be funded under the project; a detailed list of activities will be developed during the PPG phase and presented at CEO Endorsement.

Incremental cost reasoning and expected contributions from the baseline, the GEF TF and co-financing

A summary of the business-as-usual (BAU) scenario, incremental activities funded by GEF, and linkages to baseline investments is provided below in Table 2, disaggregated by Component.

Table 2: Project Activities and Incremental Reasoning

BAU Scenario	Incremental Activities (GEF Project Components)	Incremental Reasoning vis-à-vis baseline
Component 1: Baseline energy data collection and monitoring for SE4A		
<ul style="list-style-type: none"> - No updated national energy database or baseline for tracking national SE4A progress or GHG emissions - Outdated national energy survey - No operational national energy planning model that can be used to optimize energy investments - Energy unit established at BOS but without resources and capacity - Ad-hoc approach to facilitating investment in mini-grid schemes; no uniform clearinghouse for developers and policy planners that build on best practices - No harmonization of existing energy data and sectoral plans/guidelines with new (under development) national energy and climate change policies. 	<ul style="list-style-type: none"> – National energy survey conducted on energy supply, consumption and demand, disaggregated by sector, district and application. The survey will disaggregate by gender and include energy access and intensity baseline data (energy efficiency) as well as penetration and performance of RETs – Energy database and information system established for data collected and management under Output 1.1 with clear responsibilities agreed to as regards regular monitoring and annual publication of indicators (between DoE and BOS) – Energy modeling software in place to analyze the data, model scenarios and produce information that will promote RE policies. – All energy-related data and plans in the country harmonized with the new National Energy Policy and New Climate Change Strategy and in adherence with a standardized GHG emissions tracking system 	<p>GEF-funded activities will incrementally build on current efforts by MEMWA-DoE, BOS, IAEA, UNDP and EU</p> <p>These activities would not happen in the absence of GEF funds and are essential for planning and monitoring purposes and tracking progress against SE4A baseline and national energy goals.</p> <p>The energy database and modeling software will be harmonized with the national energy policy and CC policy</p> <p>The national energy survey (conducted during the first year of the project) will inform the selection of districts under Component #3</p>
Component 2: Development of Cornerstone SE4A Strategies		
<ul style="list-style-type: none"> - Lesotho has completed first two stages of SE4ALL initiative four-step process for country level implementation: (1) Country Opt-In; and (2) SE4ALL Rapid Assessment. Financial support is needed for next stage: Development of a National Action Plan and Programmes, and Investment Prospectuses. 	<ul style="list-style-type: none"> – Development and adoption of a SE4A Country Action Agenda (AA), including extensive stakeholder consultations -- Development and adoption of a SE4A Investment Prospectus (IP), including extensive stakeholder consultations -- Both documents with explicit sub-strategies and investment plans related to mini-grid applications and village energization schemes 	<p>GEF-funded activities will incrementally build on current efforts by MEMWA-DoE and UNDP</p> <p>The SE4A AA and IP are deemed essential for the government to mobilize additional leveraged investment from other donors for additional RET scale-up, particularly around mini-grids (they build on UNDP funding for the SE4A Rapid Gap Analysis)</p>

		The pro-forma cost of developing these plans has been estimated at USD 500K
Component 3: Village-based energization schemes		
<ul style="list-style-type: none"> - Currently there is no dedicated support for mini-grids and vertically-integrated energization models combining rural electrification using clean sources and safe and modern thermal energy services. - Role for local government and private sector in the delivery of rural energy services is not clear and capacity constraints are evident. The Local Government Act does not currently provide a mandate for District or Community Council involvement in electricity service delivery. However, the experience from LREBRE suggests there is potential a role for them in rural electrification and especially for off-grid services provided that they can be trained and empowered. - No financial incentive mechanism in place to support mini-grids and PPPs - Current off-grid electrification efforts have been overly focused on procurement and delivery of systems rather than a service delivery arrangement with private sector partners - Little knowledge of best practices in decentralized energy delivery among local investors and communities - A significant number of SHS in the country are not in working condition with the key issues being the failure of the electronic component – the inverter and the failure of the lead acid battery. No clear and consistent Service Standards in place for both grid and off-grid RETs. Lesotho Electricity Authority (LEA) already regulates grid and rural electricity through separate QSSSs but it needs to be revised to include stand-alone and 	<ul style="list-style-type: none"> – Sensitization and training for all national and district-level energy officials on best practices and opportunities for decentralized rural energization models in off-grid areas – 60 village communities in five (5) districts with operational village energization schemes using mini-grids and other clean energy technologies. – Sustainable O&M&M models in place for all village energization schemes – Development and adoption of Electricity Quality of Service and Supply Standards (QSSS) for all village energization schemes and off-grid electricity services – Platform developed for sharing of information and lessons learned on village energization schemes for national scale-up 	<p>GEF-funded activities will incrementally build on current efforts by MEMWA-DoE, UNECA, EU and UNDP.</p> <p>Letters of support and proposed co-finance will be solicited from selected entities in Lesotho who can confirm their interest to become Village Energy Service Providers and mini-grid investors (these will be provided at CEO ER).</p> <p>Outputs will also be integrated with activities by the Ministry of Finance and Development Planning (MoFDP), Lesotho Electricity & Water Authority (LEWA) and Department of Standards and Quality Assurance (DSQA) of the Ministry of Trade and Industry, Cooperatives and Marketing (MTICM)</p> <p>The development of the QSSS for solar RETs (as part of Output 3.4) should build on the solar code of practice already developed by the Lesotho Solar Energy Society (LeSES).</p> <p>GEF funds will incrementally build on the 400K UNDP Lesotho has already put into LEAP (see Section B.3).</p> <p>GEF funds under the Component will include a combination of TA and INV. TA funds will be used to support Outputs 3.1 and 3.3-3.5. Under Output 3.2, USD 1.5 million of GEF funds has been provisionally allocated for INV to support a financial incentive mechanism to be developed during the PPG phase</p>

mini-grid technologies.		
Component 4: Monitoring and Evaluation (M&E) and knowledge management		
<ul style="list-style-type: none"> - High-quality M&E was identified as one of the weaknesses of past UNDP/GEF and other projects - Few lessons learned from past energy projects have been rigorously documented - Few high-quality written and multimedia materials have been developed to date on energy matters - Little general knowledge of SE4A practices and country processes 	<ul style="list-style-type: none"> – M&E and tracking system in place for all project activities by 2Q of year 1 – Mid-term M & E and End of project M & E reports (TA) – Lessons learned and information dissemination workshops conducted – Publications and video materials developed and disseminated for all activities 	<p>GEF-funded activities will incrementally build on current efforts by MEMWA-DoE, EU and UNDP, and be informed by developments from stakeholders across the sector</p> <p>M&E systems supported under this project will be harmonized with national M&E systems under SE4A and the new national energy and climate changes policies</p>

Global Environmental Benefits

The National Greenhouse Gas Inventory (20013) in the SNC is the second inventory to be prepared by Lesotho, following the first one for the year 1994 which was used for the INC. According to the latest GHG inventory from the SNC (1994 - 2000), Lesotho emitted a total of 3,512.89 Gg of CO₂ equivalent (CO₂eq) emissions in 2000 without Land Use Change and Forestry (LULUCF). The LULUCF sector provides a net sink of 1,377.98 Gg of the CO₂eq emissions which makes the total net emissions to be 2,134.91 Gg CO₂eq. Agriculture accounts for 63% of the total emissions followed by Energy with 31% and Waste with 6%.

Total missions from energy sector are currently estimated at 1,079.43 Gg CO₂eq. Most of the emissions come from residential fuel combustion followed by the similar use of petrol and diesel by road transportation. Residential emissions emanate from the use of kerosene, coal, Liquid Petroleum Gas (LPG) and paraffin. Although biomass fuels are the largest component of energy mix in Lesotho, for the SNC GHG inventory their related emissions are reported for information only and are not included in the national totals because biomass consumption is assumed to equal its regrowth (IPCC, 1996).

Table 3 below provides the reference scenario for GHG emissions from the energy sector up to 2030. As noted the demand in energy is expected to reach 294,900 TJ by 2030 (emissions of 5,209.6 Gg CO₂eq) – almost 10 times higher than the base year 2000 energy figures. The SNC notes that ***“the main parameters behind this increase are the population growth, the electrification targets set in the national electrification master plan and the development targets set in the Lesotho Vision 2020.”***

Table 3. Projected Energy Demand and GHG Emissions for the reference scenario

Year	2015	2017	2019	2021	2023	2025	2026	2028	2030
Energy demand projection(1000Tj)	72.2	84.8	100.5	120.3	145.3	176.6	195.1	239.3	294.9
GHG emissions trend(Gg)	2162	2381.8	2638.4	2942.7	3304.9	3734.1	3978.4	4537.8	5209.6

Source: Data extracted from LEAP

This project will contribute **both direct and indirect emission reductions**. In the case of direct emissions, under the village energization activities some 60 villages in five (5) districts will be using mini-grids and other clean energy technologies for both electricity and thermal uses. In a BAU scenario these villages would either be using gas/oil/paraffin for lighting and firewood for cooking or in the case of an expansion of the grid, would be using

fossil fuel-based electricity imports. Assuming that each village energy service provider will electrify an average of 100 households, the total households electrified from the schemes will be 6,000 or 1.45% of all households in the country. **If we extrapolate this figure based on an average household size of four (4) persons and apply the current annual per capita electricity consumption is 253 kWh, these energization schemes will annually save 6,072 MWh (for electricity only) otherwise coming from GHG-intensive sources – a reduction of 89,268 tons CO₂.**

If such schemes could be replicated ten times over post-project (reaching 15% of the population) the direct post-project emission reductions would be sizeable and support for the replication will ensure indirect benefits post-project. What is clear is that support for the substitution of indigenous renewable energy options to replace fossil fuel-based imports into the grid and increased uptake of cleaner technologies (both for electricity and thermal usage) in off-grid areas will result in significant emission reductions. As regard grid imports, the emission factor for the South African Power Pool (which includes the Kingdom of Lesotho) is among the highest in the continent as demonstrated in the table below from the recently-approved Standardized baseline: Grid emission factor for the Southern African power pool. Therefore the extent to which electricity targets can be met from clean mini-grid development (a key outcome of this project) or increased on-grid clean energy investments will decrease dependence on SAPP imports.

Table 4. Grid emission factor for the Southern African Power Pool (which includes Lesotho)

Table 1. Grid Emission Factors

Parameter	SI Unit	Description	Value
$EF_{grid,CM,y}$	tCO ₂ /MWh	Combined margin CO ₂ emission factor for the project electricity system applicable to the wind and solar power generation	0.9801
$EF_{grid,CM,y}$	tCO ₂ /MWh	Combined margin CO ₂ emission factor for the project electricity system applicable to all project activities other than wind and solar for the first crediting period	0.9644
$EF_{grid,CM,y}$	tCO ₂ /MWh	Combined margin CO ₂ emission factor for the project electricity system applicable to all project activities other than wind and solar for the second or third crediting period	0.9488
$EF_{grid,BM,y}$	tCO ₂ /MWh	Build margin CO ₂ emission factor for the project electricity system	0.9331
$EF_{grid,OM,y}$	tCO ₂ /MWh	Operating margin CO ₂ emission factor for the project electricity system	0.9958

The project will also generate direct emission reductions as regards putting in place the necessary standards and regulations to make sure that all new off-grid RETs introduced in the country have the requisite quality standards to ensure their successful operation over their intended lifetime; the project's contribution in this regard will be significant since a sizeable amount of RETs currently being imported into the project are of sub-standard quality and are not being utilized.

A full break-down of all direct and indirect benefits from project activities will be provided at CEO Endorsement.

Innovativeness, sustainability and potential for scaling up

Sustainability and scale-up are central to the design and rationale for this project. The huge potential for national scale-up of the rural energization schemes has already been mentioned. An enabling environment of coherent policy, accurate data, supportive legislation, investment frameworks and effective governance setting the 'rules of the game' is critical to achieving the objectives of the national energy targets and SE4ALL Action Agendas.

Existing Rapid Assessments show that most national energy strategies have failed to attract investments and to significantly scale up energy access, because of a lack of enabling conditions. Conditions for post-project sustainability will be closely considered as part of the design of all project outputs. For example, support for the national energy survey and energy database will be predicated upon the government committing to put in place the mechanisms and requisite budget support for these activities to be operationally continued post-project. A similar condition will be attached to the development of Electricity Quality of Service and Supply Standards. The conditions for GEF support in this regard will be developed during the PPG phase.

The SE4A Action Plan and Investment Prospectus can be considered as prerequisites for the government receiving large-scale follow-on support for RET scale-up. While the exact funding mechanisms for SE4A are still being established it is clear from the country action process that those countries that expeditiously complete their AA and IP documents will be prioritized as regards access to dedicated SE4A funds.⁴⁴

As regards ensuring clear government commitments and post-project sustainability of GEF-financed investments, this project approach will build on and be closely integrated with a series of specific conditions that have been agreed between the GoL and the EU as regards their financial support for the sector. As regards EU's support (see baseline project #1), the following "Specific Conditions will apply to the disbursement of the second fixed tranche:

- National Climate Change Adaptation and Mitigation Strategy inclusive of implementation cost developed;
- Updated National Renewable Energy Strategy inclusive of implementation cost developed;
- Climate Change and Environment coordination group meets regularly;
- Climate Change and Environment monitoring and evaluation framework in place.”⁴⁵

These conditions will continue as a prerequisite for future continued support by EU for the sector and will ensure that the GEF-financed activities are rooted in a sustainable framework of government-donor cooperation and mutual accountability. Moreover the financing schemes supported under Component #3 will continue to operate post-project ensuring further replication and scale-up.

A.2. Stakeholders. Identify key stakeholders (including civil society organizations, indigenous people, gender groups, and others as relevant) and describe how they will be engaged in project preparation:

The project will be implemented by the Ministry of Energy, Meteorology and Water Affairs – Department of Energy under the overall coordination of a Programme Steering Committee and in-line with UNDP's results-based management approach. The Department of Energy is responsible for the overall administration and coordination of energy in Lesotho. Other institutions and facilities responsible for various aspects of energy in Lesotho through the overall coordination of the Department of Energy include the Petroleum Fund (PF), Lesotho Electricity Company (LEC), Lesotho Electricity & Water Authority (LEWA), Appropriate Technology Services (ATS), Lesotho Electrification Unit (LEU), Lesotho Electricity Generation Authority (LEGA), and various NGOs and associations such as the Lesotho Solar Energy Society (LESES).

The specific roles and responsibilities of the different stakeholders in the project are described below and will be further elaborated during the PPG phase:

⁴⁴ A dedicated multi-donor trust fund for Sustainable Energy For All (SE4ALL) already exists, the UN SE4ALL MDTF, which holds US\$ 5 million (donors: Sweden, Denmark, Germany, and Iceland). UN MDTFs can provide platforms for advising countries on how they can access, combine and sequence funds, mingling both international and domestic sources of funding.

The African Development Bank also has a multi-donor trust fund--Sustainable Energy Fund for Africa (SEFA) which could possibly be modified to serve as a funding window for SE4ALL activities. It has a commitment of US\$57 million (Denmark) and a pledge of US\$50 million from the United States government.

⁴⁵ See footnote #22

Table 5. Summary Overview of Stakeholder Roles and Responsibilities

Stakeholder	Role in Project
Ministry of Energy, Meteorology and Water Affaires (MEMWA) – Department of Energy (DoE)	Overall lead agency and project counterpart; national lead entity for SE4A
Ministry of Finance and Development Planning (MoFDP)	Secondary lead agency for Component #2 as regards ensuring that the SE4A Country Action Agenda (AA) and Investment Prospectus (IP) will bring together stakeholders from all the relevant sectors into one conversation (process) and be endorsed and coordinated at the highest political level in order to optimize its cross-sectoral impact. MoFDP will also play a critical role in the project as regards ensuring that the AA and IP are integrated with all relevant sectoral plans and the new energy and CC policies.
Bureau of Statistics (BOS)	Co-lead (with DoE) for all data collection and dissemination activities funded under Component #1. BOS will also sit on the PSC.
Lesotho Electricity & Water Authority (LEWA)	Key stakeholder for various activities across all three Components; LEWA will be invited to sit on the PSC.
Department of Standards and Quality Assurance (DSQA) of the Ministry of Trade and Industry, Cooperatives and Marketing (MTICM)	Key stakeholders for the development of standards (QSSS) under Component #3.
European Union (EU)	The design and integration of the project with EU-funded activities is absolutely critical. EU will be closely consulted on the project design during the PPG phase. The most appropriate mechanism for ensuring collaboration between EU, GoL and the project will be developed at PPG phase.
National University of Lesotho	National University of Lesotho has proven expertise and in energy modeling and data management and will have a key role in Component 1 – outputs 1.1-1.3 (their exact role will be fully elaborated by CEO Endorsement)
Lesotho Solar Energy Society (LESES).	The development of the QSSS for solar RETs should build on the solar code of practice already developed by the Lesotho Solar Energy Society (LeSES). LESES will be a key stakeholder and beneficiary of almost all activities under Components #1 and #2.
Local government staff, district officials and community organizations	Key beneficiaries of project trainings and expected to be closely involved in data collection and SE4A processes Villages will be key beneficiaries of the rural energization schemes under Component #3. The roles of CSOs will be provided in detail at CEO ER.

Village energy providers and private sector companies	Key implementing partners for the rural energization schemes, both as regards operation and maintenance.
Financial institutions	Host of the financing mechanism related to the village energisation schemes under Component #3
Sector working group on climate change and renewable energy issues	Although this working group has only recently been established, it offers a much-needed platform for inter-donor and intra-governmental cooperation on energy and CC issues and could serve as a key platform for the project (TBD during the PPG phase)
REN21, SADC, SE4A Hub	Key regional-based actors to be consulted for various activities and during the project design phase

A.3 Risk. Indicate risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and, if possible, propose measures that address these risks to be further developed during the project design (table format acceptable):

The following risks are identified but will be addressed and minimized through appropriate mitigation measures:

Risk	Level of Risk	Mitigation Action
Dependence on SAPP imports could increase or become more attractive relative to development of the country's indigenous RETs	Moderate	<p>The dynamics of SAPP is beyond the control of this project but recently IRENA developed a power sector planning tool for Southern African countries called the System Planning Test (SPLAT) model, which enables analysts to design a power system that meets various system requirements, including reliability, and look at RE-based scenarios. IRENA's assessment shows that "the share of renewable technologies in electricity production in the region (representing SAPP) could increase from the current level of 10% to as high as 46% in 2030, provided that the cost of these technologies continues to fall and fossil fuel prices continue to rise. In this scenario, nearly 80% of new capacity additions between 2010 and 2030 would be with renewables technologies. The decentralized renewable technology options would become competitive against grid expansion, particularly in rural areas. More than 20% of total new capacity additions could come from decentralized renewable technology options. The share of renewables in the total capacity would rise from 20% to 62%. Total investment required in the region would amount to nearly USD 314 billion (undiscounted)."</p> <p>This scenario is supportive of the activities supported under this project and underscores the attractiveness of investing in RETs not only to displace SAPP imports but also to supply clean power into SAPP at some point in the future. Moreover in the short term the region is said to be faced with a power deficit of 7,709 MW and the reserve margin in SA (which supplies 40% of SAPP's power) is very small. Every indication is that SAPP imports will be even more expensive in the short- to medium-term making</p>

Risk	Level of Risk	Mitigation Action
		Lesotho's investment in RETs all the more attractive and rationale.
Lack of progress on approval of the new national energy and climate change policies could derail activities under this project that fit under that umbrella	Moderate	As noted in the baseline section every indication is that the GoL is committed to approve the national energy and climate change policies in an expedited fashion. The risk of delay is mitigated by the fact that further donor support (including budget support) is conditional upon approval and operationalization of these plans.
SE4A funding resources may not materialize as expected meaning that the AA and IP are not utilized	Moderate	The project does not have control over the high-level global commitments and funding mechanisms established as part of SE4A. However it is clear from the country action process developed by the SE4A secretariat that those countries that expeditiously complete their AA and IP documents will be prioritized as regards access to dedicated SE4A funds when and if they materialize. The benefits of mobilizing additional resources from successful development of these documents is deemed to outweigh the risks.
There could be potentially large negative environmental and social impacts from increased RE generation and this could drive up costs and undermine progress on activities; Lesotho's terrain and fragile ecosystems could be damaged if developments are not done in an environmentally-friendly manner	Moderate	A Strategic Environmental Assessment (SEA) is now a part of the ToRs for the new energy policy. The SEA would focus on aspects particularly linked to the energy sector such as: adequacy of the environmental regulatory framework for addressing potential environmental impacts associated with the introduction of new technologies; the degree to which energy policy promotes opportunities to reduce pressures on the environment; capacities to implement environmental safeguards; degree to which the energy sector integrates the expected effects of climate change; and the extent to which energy policy promotes the use of low carbon technologies. The SEA process and output will be factored into the project at the PPG phase.
Lesotho is a constitutional monarchy, with the King as the head of state, and is governed by a senate and a national assembly. Lesotho's political landscape has traditionally been dominated by one party rule and some turbulence around elections. However in 2012 the country's first coalition government (lead by the former opposition) was formed through a peaceful and democratic transition. While this is a great achievement, coalition governments are often fragile and this is certainly the case in Lesotho, where the three parties have the slimmest of majorities in parliament – meaning that any defection could see the government lose control of the assembly. The current situation leads to speculation whether there is a clear and	Low/Moderate	UNDP enjoys an excellent relationship with the government and the development a sector working group on climate change and renewable energy issues will ensure that there is regular communication with government on the key commitments made under this project and its associated baseline activities

Risk	Level of Risk	Mitigation Action
unified political commitment to the proposed policy reforms essential to this project.		
<p>The SNC identifies three sets of factors that characterize Lesotho's extreme vulnerability to climate change. The first set of factors relates to natural conditions such as highly variable rainfall in all timescales; the extremely fragile ecosystem; and resultant high level of land degradation coupled with increasing population pressure on the land. These factors put Lesotho firmly in the category of countries that are most vulnerable to climate change and requiring special attention in particular to address the low capacity to adapt to the changing climate. These three sets of risk factors can have major impacts on energy planning and infrastructure investments.</p> <p>More specifically variability in rainfall could negatively impact the viability of the proposed mini-hydro investments and also mean increased costs to climate-proof the targeted RETs</p>	High/moderate	<p>Systematic observations of climatic (meteorological observations) parameters are largely a preserve of the Lesotho Meteorological Services (LMS) while the hydrological parameters are the responsibility of the Department of Water Affairs (DWA). Both of these stakeholders will be consulted during the PPG phase as regards their potential roles in the project to ensure that climate data is factored into all relevant project processes. Energy-related data collection under Component #1 will include appropriate environmental criteria. As noted, the SEA process (which will be mainstreamed into all CC and energy-related planning exercises and regulatory frameworks) will also address these risks.</p> <p>Moreover LMS, as the National Climate Change Focal Point, has been engaged in capacity building exercises with the support from UNFCCC, World Meteorological Organization (WMO) and other international organizations including multilateral and development partners. These capacity building exercises involve the training of government staff on the key aspects to address national challenges associated with weather, climate and climate change. A variety of additional capacity-building measures that will have relevance to the project are expected to be funded under the new National Climate Change Adaptation and Mitigation Strategy. This will mean that climate change –related risks for this and other similar projects are more accurately and systematically appraised.</p> <p>A full detailed assessment of climate change-related risks and mitigation steps will be provided at CEO Endorsement as part of the ESSP process.</p>
Information sharing and collaborative data management has not always been optimal in Lesotho and is spread across several ministries; this could plague successful development of Component #1 unless all relevant stakeholders understand their roles and responsibilities.	Low	<p>Lesotho Meteorological Services is the sole custodian of the weather, climate and climate change data and information. LMS regularly publishes this information on print and electronic media. The Lesotho Meteorological Services website http://www.lesmet.org.ls remains the most relevant national source of information on climate change, containing, <i>inter alia</i>, all reports and data about GHG emissions, scenarios for climate change at the national level, vulnerability assessment reports, mitigation reports, etc.</p> <p>This information is usually shared with main stakeholders including the Lesotho Bureau of Statistics (BOS). BOS also collects, compiles, analyses, manages and publishes major statistical information on a wide range of topics, including the environment. BOS maintains a centralized data bank that is easily accessible on request.</p> <p>Outputs 1.2 was specifically included to address this issue</p>

Risk	Level of Risk	Mitigation Action
		and make sure there is clarity between BOS, LMS and DoE on who will be the responsible party for data collection, analysis, dissemination and management and make sure that there are interlinkages between the data used for energy planning purposes and the incorporation of energy data into the TNC and an updated GHG inventory and mitigation scenarios. This issue will be addressed in greater detail at CEO Endorsement.
<p>Proper M&E was identified as a key weakness of LREBRE and has also been cited as a recurring challenge in many other donor-funded projects. The LREBRE TE noted that “there are substantial shortcomings in the implementation of the M&E system as key activities were not completed or were of low quality...These issues are in part a consequence of limited technical capacity in the project team and also because of unclear roles between stakeholders with regards to M&E activities.”</p>	Moderate	<p>This risk has been specifically addressed via inclusion of a separate component on M&E and will be addressed in detail during the PPG phase and at CEO Endorsement. The project’s M&E framework will also be linked into the LEAP M&E frame and activities supported under the national Climate Change and Environment monitoring and evaluation framework.</p> <p>In addition, the GoL is launching a public sector wide performance management and M&E initiative, which intends to ensure a more results-based approach of initiatives tied back to the M&E framework of the NSDP. This will support linking the project to higher level results, which advocate for consistent outcomes.</p>
<p>Lesotho continues to rank low in important indicators of private sector development. The government acknowledges that an uncompetitive business environment is one of the most binding constraints to private sector development and this has huge implications for mobilizing the required private sector investment in the energy sector. Competitiveness rankings and other investment climate diagnostics indicate that there are persistent major constraints to private sector growth. Lesotho is ranked 136 out of 185 countries in the 2013 World Bank Doing Business Report (from 143 in 2012), and 137 out of 144 countries in the 2012 Global Competitiveness Report.</p>	Moderate	<p>Government authorities remain committed to improving the business climate and to support private sector-led growth and investments in the energy sector. Recent structural reforms undertaken by the authorities include the enactment of the new Companies Act 2011 in June 2012, the implementation of a new business plan for the One-Stop Business Facilitation Center, and the finalization of the Industrial Licensing Bill. These and other reforms are important for investment and job creation across all sectors. UNDP will continue to push for follow-through on these reforms.</p>
<p>Donor coordination and collaboration is essential to the success of this project and proper sequencing of SE4A processes with other ongoing energy policy reforms.</p>	Low	<p>Fifteen development partner agencies are active in Lesotho. Donor coordination, alignment and harmonization have improved since the formation of Development Partners Consultative Forum (DPCF) in 2005. The United Nations Development Programme coordinates the DPCF and it comprises all the donors including UN agencies, the Millennium Challenge Account and the United States Agency for International Development (USAID). The new sector working group on climate change and renewable energy issues will provide much-needed coordination for the energy sector and ensure continuous collaboration</p>

Risk	Level of Risk	Mitigation Action
		between GEF-funded activities and baseline activities.
Overall Risk Level	Moderate	

A comprehensive overview of all environmental and social issues relevant to the project and the suggested mitigation actions was prepared as part of the UNDP ESSP Checklist prepared together with the PIF. A full assessment of all project risks will be provided at CEO Endorsement, in addition to an updated and fully executed ESSP sign-off.

A.4. Coordination. Outline the coordination with other relevant GEF financed and other initiatives:

National

In addition to the baseline projects already mentioned, the deployment of various small-scale renewable energy systems in Lesotho have been promoted by several other government agencies and donors. These include the use of wind pumps and solar pumping systems by the Department of Rural Water Supply (DRWS) and the development and promotion of the solar cookers, improved wood burning stoves and solar dryers by the appropriate technology section of the ministry of Local Government. The Ministry of Health and Social Welfare (MHSW) and the Millennium Challenge Corporation (MCC) have also supported the use of Photovoltaic and Solar Water Heating Systems (SWHS) in health clinics located in remote and rural areas. There are also efforts by the civil society and organizations such as Technologies for Economic Development (TED) to promote animal and human-waste linked biogas digester systems and the energy efficient Aprovecho cook stoves. The Bethel Business and Community Development Centre (BBCDC) has been promoting the development and promotion of solar thermal devices such as cookers, solar water heating and PV systems (including PV pumps and solar crop dryers). BBCDC also runs a two-year residential course which includes solar technology. A cellular telephony company is also retailing a solar lantern through their customer service network. The National University of Lesotho (NUL), which has research and academic expertise on clean energy, continues to operate a training and accreditation effort for solar energy technicians first established under LREBRE. The Lerotoli Polytechnic offers diploma courses in engineering & technology which includes components on solar energy, hydro-power and plumbing for SWHS. The Lesotho Solar Energy Society (LeSES) acts as a platform for the industry and clean energy expert groups to exchange information and implementation of an industry code of practice. **All of these stakeholders will be invited to participate in the design of the project during the PPG phase and their potential roles in the project will be fully elaborated at CEO Endorsement.**

As regards additional EU-related support for project activities (above what is already mentioned in the baseline section), the modalities for future EDF interventions in the energy sector could include a combination of sector reform, projects and a blending of financial instruments in cooperation with other donors, including Member States, the European Investment Bank and other development banks. Possible complementary support, especially for interventions with a regional dimension, may possibly be sought from the European Investment Bank, the ACP-EU Energy Facility and the EU-Africa Infrastructure Trust Fund. An analysis of additional linkages with these actors will be explored during the PPG phase.

Finally the Energy and Environmental Programme (EEP) Africa led by the Government of Finland and funded by the Department for International Development (DfID), United Kingdom is also planning to support renewable energy pre-commercialization projects in Lesotho from 2014 onwards and is currently extending support to two projects led by TED. Potential collaboration with EEP will be explored at the PPG phase.

Regional

On a regional level the project will also seek close collaboration with the following projects:

- EUEI-PDF Project - Regional Electricity Association of Southern Africa (RERA) Policy Options for the Planning, Development and Regulation of Mini-Grids employing renewable and hybrid generation. The Regional Electricity Regulators Association of Southern Africa (RERA) with support from the SADC Secretariat requested technical assistance from the RECP to develop supportive framework conditions for mini-grids employing renewable and hybrid generation in Southern Africa. The purpose of the project is to encourage development of supportive policies to enhance the framework conditions for mini-grids based on renewable or hybrid systems among SADC members. Such policies will facilitate investment by public and private actors in mini-grids in the SADC region. The development of mini-grids, in turn, will contribute to access to energy in the SADC region. This support is being provided through a project which started in January 2013. The project is implemented in collaboration with the Regional Electricity Regulators Association of Southern Africa (RERA) with support from EUEI PDF under the Africa-EU Renewable Energy Cooperation Programme (RECP), which is funded by the European Commission and some EU member states.
- EUEI PDF, executing the RECP, is currently implementing a project to develop and disseminate an Africa "Mini-Grid Policy Toolkit" with REN21 and the Alliance for Rural Electrification (ARE). The Toolkit will target at policy-level decision-makers and senior technical staff in African countries towards supporting them in shaping up the policy and regulatory framework for rural electrification through renewable energy or hybrid mini-grids. UNDP's EITT group sits on the REN21 board and thus close collaboration can be expected to harmonize the best practices promoted in this project with REN21's work in this area.
- Establishment of SADC Renewable Energy and Energy Efficiency Centre (SACREEE) – Supported by Austria and UNIDO (modelled along ECREE), SACREEE is designed to assist the fifteen SADC Member States in the development, adoption and implementation of national renewable energy and energy efficiency policies and targets, regulatory frameworks, standards, as well as incentive schemes and financial mechanisms. Engagement with SACREEE will be established during the PPG phase.
- GEF/AfDB Project - *Pilot African Climate Technology Finance Center and Network* is also developing SE4A Action Agendas and Investment Prospectuses for several African countries; collaboration with that project will be explored at the PPG phase.
- The AUC, NPCA and AfDB are coordinating the implementation of the Africa SE4ALL Hub, hosted by AfDB. The function of the Hub is to promote and support implementation of the SE4ALL initiative; coordinate with the SE4ALL Global Facilitation Team and regional institutions; promote alignment with regional programmes; and mainstream African SE4ALL frameworks, such as the Guidelines and African Decentralized Energy Services Delivery Strategy. The Hub further facilitates mobilization of finance to implement the initiative, as well as outreach and tracking progress. The Hub Secretariat is responsible for carrying out the work programme. An Oversight and Operations Committee (OOC) plans and supervises the annual activities of the Hub Secretariat. The OOC comprises one representative of AUC, NPCA, AfDB, UNDP, and of the Regional Economic Communities (on a rotating basis). UNDP is represented on the SE4ALL Africa Hub to lead the development and implementation of the Decentralized Energy Services Strategy. This project will regularly liaise with both the global SE4A facilitation team in Vienna and members of the SE4A Africa Hub.

B.1 National strategies and plans or reports and assessments under relevant conventions, if applicable, i.e. NAPAS, NAPs, NBSAPs, national communications, TNAs, NCSAs, NIPs, PRSPs, NPFE, Biennial Update Reports, etc.:

In the year 2000, a long term National Vision (Vision 2020), that would guide development efforts in Lesotho was developed to provide a long-term perspective within which short to medium term plans could be made. The views, beliefs, priorities and aspirations of the nation are embodied in the vision statement: *"By the year 2020, Lesotho shall be a stable democracy, a united and prosperous nation at peace with itself and its neighbors. It shall have a healthy and well developed human resource base, its economy shall be strong, its environment well managed and its technology well established."*

Lesotho has developed a Poverty Reduction Strategy (PRS) and (as mentioned) a National Strategic Development Plan (NSDP) 2012/13–2016/17. These documents fully recognize sustainable energy as a key driver to poverty reduction and economic development. The NSDP is premised on the Vision 2020 and covers five broad clusters: "Accelerated, Shared and Sustainable Economic Growth", "Human Development and Social protection", "Good Governance", "Environment and Climate Change" and "Cross cutting issues." The NSDP provides strategic direction to government and is the basis for resource allocation and budgeting decisions. The government attaches great importance to the establishment and implementation of an effective National Monitoring and Evaluation System for achievement of the NSDP objectives in the next five years, 2012/13 to 2016/17.

Strategic Goal V of the NSDP specifically addresses climate change and environmental issues and makes a convincing case for improving environmental management and improving climate change resilience. The government is now drafting The Environment, Natural Resources and Climate Change Draft Chapter to be included in the Public Service Investment Plan attached to the NSDP, addressing and integrating environment and climate issues into all development plans. This part of the NSDP has five strategic objectives:

- Integrated Land and Water Resources Management;
- A Climate Resilient Nation;
- A Green Economy;
- Delivery of Environmental Services and Environmental Health; and
- Strategic Environment and Climate Governance.

In the NSDP the Government recognizes that Lesotho “has a small carbon footprint but must nevertheless play its part in mitigating the threats from climate change. The country has the opportunity to ensure that its economic development will be greener and sustainable. The electricity supply is already amongst the greenest in the world, with almost all demand being satisfied by hydropower. Increasing demand for energy means that Lesotho will need to invest in expanding electricity supply. Lesotho will promote public and private investments to tap this potential. Appropriate technologies will be promoted in order to maintain low carbon emissions, reduce pollution, while preventing the loss of biodiversity and ecosystems. Investment in green technology will help to reverse trends of deforestation and soil erosion and enable Basotho to heat their houses and cook their food more efficiently.”⁴⁶

This project is also consistent with and informed by the National GHG Mitigation Strategy and Action Plan of Lesotho’s Second National Communication to the UNFCCC. Under that strategy and action plan the following actions (of relevance to this project) are recommended in the period 2013-2018⁴⁷:

- Set up and implement an archiving system for GHG inventory for all sectors;
- Continue to focus on better understanding of energy sources and uses to get good energy balances adequate for sectoral planning and GHG inventory using existing planning tools such as LEAP;
- Strengthen coordination and sharing of climate change related data nationally;
- Create procedures for activity data collection in sustainable manner;
- Accelerate the implementation of the National Electrification Master Plan;
- Develop renewable energy policy and strategy;
- Promote the use of energy efficient technologies (e.g. efficient cook stoves, energy-saving light bulbs).

Lesotho undertook its climate change technology transfer needs assessment in 2004 to prioritize technologies that would contribute towards its adaptation and mitigation efforts. Key sectors with critical technology needs are energy, agriculture, land use and waste management. Furthermore the project is broadly consistent with the framework and mechanisms to deliver against climate change-related objectives in the Local Government Act

⁴⁶ National Strategic Development Plan (NSDP) 2012/13–2016/17

⁴⁷ Section 5.4 of the Second National Communication under the United Nations Framework Convention on Climate Change. Lesotho Meteorological Services, Lesotho, 2013, Ministry of Energy, Meteorology and Water Affairs.

(1997), National Environmental Policy (1998) and the Environment Act of 2008, Second State of the Environment Report (2002) and National Adaptation Plan for Action (2007).

B.2. GEF focal area and/or fund(s) strategies, eligibility criteria and priorities:

This project is consistent with the GEF-5 strategy to address climate change, especially the Objective 3 – “*Promote investment in renewable energy technologies*” and the key outcomes attached to that strategic objective as regards investments mobilized for renewable energy technologies and GHG emissions avoided.

B.3 The GEF Agency’s comparative advantage for implementing this project:

The proposed project is clearly within the comparative advantages of UNDP as stated in the GEF Council Paper C.31.5 “*Comparative Advantages of GEF Agencies*”. At a global level, this project fits under the UNDP-GEF EITT (Energy, Infrastructure, Technology and Transport) Signature program number 1 “SP1 – Clean Energy” – *Promoting access to clean and affordable energy systems and services*. It is one of a host of GEF V projects developed by UNDP-GEF EITT in Africa focused on supporting countries achieve their national SE4A targets.

Access to sustainable energy is a central aspect of UNDP’s sustainable human development mandate and a corporate priority. The UNDP Strategic Plan 2014-2017 addresses sustainable energy access as a specific area of work to support ‘sustainable development pathways’ to “... tackle the connected issues of poverty, inequality and exclusion while transforming productive capacities ...” (UNDP Strategic Plan 2014-2017). ‘Energy access for the poor’, is one of six clusters identified for stronger collaboration in LDCs. The UNDP Regional Programme for Africa 2014-2017, in line with the UNDP Strategic Plan, aims to strengthen sustainable energy solutions as an important means to support inclusive and sustainable growth and development in the African continent.

In Africa, with technical and financial support from the UNDP Regional Service Centers and the Regional Energy and Poverty Reduction Programme (PREP), UNDP has been helping support country-level implementation of SE4A. UNDP recognizes the strategic opportunity that SE4ALL Action Plans offer to advance UNDP’s vision to support poverty eradication and inclusive development in relation to energy. Consequently, UNDP has worked closely with African institutions over the past several years to assist African stakeholders articulate a robust policy and institutional framework to facilitate SE4ALL implementation in Africa and link in SE4A with climate finance platforms such as the GEF. UNDP has financed thirty three (33) Rapid Assessments in Sub-Saharan Africa to date, including that of Lesotho. UNDP has been assigned by SE4ALL Africa Hub to lead the development and implementation of the Decentralized Energy Services Strategy and UNDP/GEF has been leading the effort to support decentralized energy provision in various SE4A opt-in countries.

On a national level UNDP Lesotho has an extensive past track record of policy and programmatic support for energy, climate change and sustainable environmental management initiatives. UNDP has the largest portfolio of GEF projects under implementation in the country and was the GEF implementing agency for the *Lesotho Renewable Energy Based Rural Electrification* (LREBRE) Project. UNDP’s Africa Adaptation Programme (AAP) – with funding from Government of Japan (GoJ) – also supported the use of renewable energy for income generating activities in rural areas and funded the development of the draft Lesotho Renewable Energy Policy (LesREP) (2011). UNDP Lesotho’s latest draft Country Programme Document (CPD) for Lesotho (2013-17) has as its second focus area: ***Sound Environmental Management for Sustainable Development***. Outcome #2 of that CPD Focus Area is: “*By 2017 Lesotho adopts environmental management practices that promote a low-carbon climate-resilient economy and society, sustainably manages natural resources and reduces vulnerability to disasters.*”⁴⁸

As already noted, under the new UNDAF/CPAP UNDP Lesotho has developed a new five-year, nationally executed program *Lesotho Energy Alternatives Programme* (LEAP), which is designed to represent an innovative

⁴⁸ Draft Country Programme Document for Lesotho (2013-17), UNDP,

market-led approach to addressing the market failures in Lesotho to provide sustainable rural energy services. The strategy of the program is:

- To graduate to a clean energy service delivery model from the current product delivery model;
- Create a Public-Private-Partnership (PPP) model leveraging government infrastructure with private financing and business models and
- Use a major share of the energy for public services and economic activities in the rural areas

The LEAP program will serve as an umbrella framework and will consist of the following five components:

- Rural Energization Component
- Enterprise and Supply Chain Development Component
- Clean Energy Finance Component
- Clean Energy Policy and Regulatory Component
- Clean Energy Capacity Building and Outreach Component


The total cost of the 5-year LEAP program and its five sub-projects is estimated to be US\$ 7 million and will be executed by MEMWA. As part of its contribution to the funding of LEAP, UNDP will contribute **USD 400K** in co-financing for this project (over the project duration). The development of this project was directly informed by LEAP and a full analysis of how this project can be operationally and programmatically harmonized and integrated with LEAP activities (above that which is already noted) will be done during the PPG phase.

PART III: APPROVAL/ENDORSEMENT BY GEF OPERATIONAL FOCAL POINT(S) AND GEF AGENCY(IES)

- **RECORD OF ENDORSEMENT OF GEF OPERATIONAL FOCAL POINT (S) ON BEHALF OF THE GOVERNMENT(S):** (Please attach the Operational Focal Point endorsement letter(s) with this template. For SGP, use this OFPP endorsement letter).
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NAME	POSITION	MINISTRY	DATE (MM/dd/yyyy)
Mr. Stanley Damane	Director Environment GEF Operational Focal Point	Ministry of Tourism, Environment and Culture	FEBRUARY 18TH

B. GEF AGENCY(IES) CERTIFICATION

This request has been prepared in accordance with GEF/LDCF/SCCF/NPIF policies and procedures and meets the GEF/LDCF/SCCF/NPIF criteria for project identification and preparation.					
Agency Coordinator, Agency name	Signature	DATE (MM/dd/yyyy)	Project Contact Person	Telephone	Email Address
Adriana Dinu UNDP-GEF Executive Coordinator and Director a.i.		March 26, 2014	Lucas Black UNDP/GEF RTA, Energy, Infrastructure, Transport and Technology (EITT)	Tel: +27 71 874 4893	lucas.black@undp.org

