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FWC Beneficiaries 2013 - Lot 4 - Energy and Nuclear Safety

FORMULATION OF THE LESOTHO ELECTRICATION MASTER PLAN

Off-Grid Master Plan Report

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Lesotho

Formulation of the Electrification Master Plan

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Off-Grid Master Plan Report

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List of Acronyms

AETS	Application Européenne de Technologies et de Services
BoS	Bureau of Statistics
CAPEX	capital expenditure
CFLs	compact fluorescent lamps
DoE	Department of Energy
EA	enumerator area
EE	energy efficiency
EMP	Electrification Master Plan 2017
EU	European Union
EUD	European Union Delegation
GDP	gross domestic product
HH	household
IEA	International Energy Agency
IPP	independent power producer
kW	kilowatt
kWh	kilowatt-hours
kWh/m^2	kilowatt-hours per square meter
LCOE	levelized cost of energy
LEC	Lesotho Electricity Company
LEDs	light-emitting diode lamps
LEWA	Lesotho Energy and Water Regulatory Authority
LHDA	Lesotho Highlands Development Authority
LREBRE	Lesotho Renewable Energy-Based Rural Electrification Project (2007-2013)
M	Lesotho Maloti (currency)
MEM	Ministry of Energy and Meteorology
MW	megawatt
NEMP	National Electrification Master Plan (2007)
NSDP	National Strategic Development Plan
OGS	off-grid system
OPEX	operational expenditure
O&M	operation and maintenance
PS	Principal Secretary
PV	photovoltaic
RE	renewable energy
SDGs	sustainable development goals
SEforAll	Sustainable Energy for All
SHS	solar home system
TAF	Technical Assistance Facility of the EU support programme
ToR	terms of reference
TWG	Technical Working Group for the EMP
UNDP	United Nations Development Programme

1 EXECUTIVE SUMMARY

This report represents the prioritised 2017 – 2036 Off-Grid Master Plan for the electrification of Lesotho. It covers a 20-year time horizon and is meant to enable systematic, predictable and equitable off-grid electricity roll-out, with a view to enhance quality of life, provide income-generating opportunities and alleviate poverty in Lesotho.

The Off-Grid Master Plan caters for all those areas of Lesotho that will not (initially) be reached by the national power grid and comprises of both mini-grid and stand-alone solar PV solutions. The technology analysis concluded that stand-alone solar PV is the most suitable option for small-scale household application, while mini-grids powered by solar PV, wind, biomass or hydro may be more suitable for larger and high-density settlements in areas remote from the grid. Mini-grid systems, however, are often resource dependent and require a detailed feasibility study to reach a final decision regarding the most suitable technology.

A sustained annual electrification budget of M150 million is assumed for the EMP, based on the current level of government budget allocation for this purpose. The Ministry of Energy and Meteorology (MEM) decreed that only 20% of this budget – M30 million per year – shall be allocated to off-grid electrification for the time being, with the balance – M120 million per year – going towards grid electrification.

The planning methodology was discussed and agreed with stakeholders via the Technical Working Group (TWG), to ensure alignment with current thinking and the country's goals and needs. The EMP also takes cognisance of the country's development objectives.

While the EMP would ideally have used village-level planning, this was not possible because essential village data – number of households per village – was not available. Instead, enumerator area (EA) data from the 2016 census is used as the primary building block for the electrification planning.

The prioritisation of off-grid projects followed the methodology described in the separate report titled '*Action & Investment Plan*' that forms part of the EMP and resulted in annual electrification schedules that fit within the available budget. The prioritisation algorithm provided for a 2-stage process, with the first stage separating grid and off-grid EAs and the second stage ranking projects in priority order. EAs were evaluated based on the number of households, public buildings, anchor customers, agreed weighting factors etc. and a scoring was assigned to each EA, with a higher score indicating a higher priority ranking.

With demand for energy and affordability varying from consumer to consumer, an average off-grid energy demand profile was established for each EA, based on the number and combination of consumer types and six typical off-grid electricity systems – OGS 1 to OGS 6 – offering increasing levels of energy service.

System ID	Off-Grid System Type	Service Level	System Cost (Maloti)
OGS 1	Solar Lantern and phone charger	Basic lighting and phone charging	600
OGS 2	Solar DIY Kit (solar panel, charge regulator, battery, multiple lamps, phone charger)	Household lighting, radio and phone charging	1,600

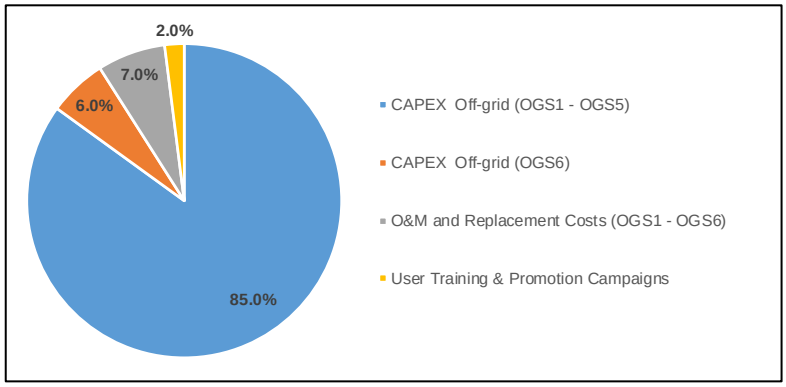
System ID	Off-Grid System Type	Service Level	System Cost (Maloti)
OGS 3	Large Solar DIY Kit (with solar panel, charge regulator, battery, 3 lamps, phone charger)	Household lighting, radio and phone charging	2,400
OGS 4	AC Solar Home System (150Wp solar panel, charge regulator, battery, inverter)	Household lighting, low power appliances (e.g. Radio, TV)	14,000
OGS 5	AC Solar Home System (300Wp solar panel, charge regulator, battery, inverter)	Lighting, multiple low power AC appliances like fridge, TV, DVD, etc.	24,000
OGS 6	Solar PV Mini-Grid (150kWp solar PV array, battery storage, inverter bank, distribution network)	Lighting, multiple low power AC appliances like fridge, TV, DVD, lap top, etc.	1,050,000

The EMP uses the housing types from the 2016 census as a proxy for affordability, which in turn defines the number of systems that are likely to be used in each EA.

SYSTEM TYPE	HOUSING TYPE								SYSTEM DISTRIBUTION
	Temporary Structure	Rontabole	Heisi	Polata	Malaene	Optaka	Apartment	Town House / Bungalow	
OGS 1	100%	90%							**24%**
OGS 2		10%	90%	90%					**37%**
OGS 3			10%	10%	100%	100%	20%	20%	**34%**
OGS 4							70%	70%	**4%**
OGS 5							10%	10%	**1%**
TOTAL	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

The M30 million annual off-grid investment is broken down in the following budget components:

- M25.5 million (85%) for stand-alone systems,
- M1.8 million (6%) for mini-grids,
- M2.1 million (7%) for O&M and component replacement, and
- M600,000 (2%) for training and promotion campaigns.



With an annual investment of M30 million an average of 10,663 HH can be provided with modern off-grid energy solutions every year, i.e. 213 260 HH connections for a total budget of M600 million. An average of 100 EAs would be supplied with off-grid systems on an annual basis totalling 2,006 EAs over 20 years. The annual roll-out schedules are included in the Annex.

The breakdown of annual 'connections' by system type is as follows:

SYSTEM ID	SYSTEM TYPE	# UNITS or CONNECTIONS
OGS 1	Solar lantern	2,461
OGS 2	Small solar kit	3,769
OGS 3	Large solar kit	3,466
OGS 4	Small SHS (150Wp)	447
OGS 5	Large SHS (300Wp)	141
OGS 6	Mini-grid (150kWp)	379
TOTAL:		10,663

Access to electricity stood at 38.5% in 2017, representing about 207,000 households, which leaves approximately 330,000 households to be electrified. With an annual investment of M150 million – of which 80% is going towards grid electrification and only 20% towards off-grid solutions – and an estimated population growth rate of 1.04% per annum, it will take more than 30 years for Lesotho to provide universal access to electricity for all its citizens. This timeframe could be considerably shortened if there was greater focus on lower-cost off-grid solutions.

The key issues that need to be considered for sustainable implementation of the off-grid electrification program in Lesotho include:

a. An appropriate ***market mechanism*** that centres on private sector engagement and participation, with Government facilitating an enabling environment for this to materialise, through
   i. appropriate policies and directives;
   ii. awareness creation;
   iii. promotion of quality standards for off-grid systems, equipment and appliances;
   iv. placing emphasis on after-sales service for off-grid systems, equipment and appliances; and
   v. enabling access to affordable financing for end users.

b. An ***affordable financing*** scheme for end users: Greater technology maturity and lower system prices have reduced the investment risks, resulting in system suppliers and service providers being able to raise financing for electrification schemes. Evidence of this can already be found in Lesotho among fuel-efficient cookstove manufacturers who are enabling their customers to acquire systems on credit with affordable repayment terms.

c. A ***revolving fund for off-grid electrification*** specifically can be a catalyst for enabling faster roll-out of the master plan, as it
   i. de-risks private sector participation: suppliers are not burdened with having to arrange or provide the financing;
   ii. enhances supplier cash-flow (which is a major barrier): suppliers receive immediate payment upon order/delivery/installation of systems; and

iii. provides affordable financing terms for system buyers/users: reasonable interest rates and repayment terms.

d. Promotion of ***group schemes***: provision of credit to groups of users, rather than individuals, greatly contributes towards ensuring low default rates as such groups carry collective responsibility for collection of deposit and repayment funds from members.

e. Mitigation of ***system quality*** issues may be dealt with by way of
   i. product warranties;
   ii. product certification and labelling;
   iii. awareness creation; and
   iv. good after-sales and maintenance service.

f. Effective ***after-sales service and maintenance***: The establishment of a viable distribution and servicing infrastructure – including guaranteed replacement of the certain components (eg batteries) reaching the end of their lifecycle – is one of the most crucial aspects in the deployment chain for stand-alone off-grid systems. Users should not have to travel long distances at great expense to access after-sales and maintenance services.

g. ***Proper awareness and understanding*** of off-grid energy solutions is a critical ingredient for the success of any off-grid programme. It is recommended that the DOE embarks on an effective awareness campaign in this regard, as soon as possible, to better prepare the market that is already emerging. Such an awareness campaign should have an initial term of not less than 12 months and may include the following elements, among others:
   i. Dissemination of information brochures in local language(s).
   ii. Regular radio and TV infomercials about the uses, benefits and limitations of off-grid systems.
   iii. Regular radio programs dealing with off-grid issues, such as quality and cost, service levels, maintenance and after-sales service, financing options, etc.
   iv. Billboard advertising.

h. ***Accelerating access to electricity***: Lesotho's present preference of an 80% / 20% split of the available budget between grid and off-grid appears conservative and not conducive to accelerating access to electricity for its citizens. It is therefore recommended that the MEM considers an alternative approach, as follows:

   1. Set a target date, through a policy directive, for Lesotho to reach universal access to electricity.
      - Universal access in this sense means that all households have access to some form of electricity which may be very simple – as in the case of a solar lantern – yet mean a huge improvement in quality of life for poor households.
      - The lower the service level, the sooner the target can be reached. If Government opts for rolling out solar lanterns as a first step in the electrification programme, a large number of households can benefit in a very short time and the target will be reachable within 2-3 years.
      - Lesotho can then claim universal access to electricity which significantly contributes towards achievement of the SDGs.
   2. Establish capacity and a mandate for dealing with the off-grid electrification program.

- This was already recommended by the TAF SE4All team: "*the formation of an Agency-like Entity that shall take care of energy solutions in off-grid areas*".

3. Increase the off-grid budget allocation such that the target can be achieved.
   - This will require determination of an appropriate mix of off-grid systems that provide various service levels at corresponding cost (i.e. low service level = low cost, high service level = higher cost).
   - Budget allocation for grid electrification will need to be reduced significantly, for a period of time.
4. Establish a revolving fund for off-grid electrification specifically.
   - This was already recommended by the TAF SE4All team: creating a "*Financing mechanism for Rural Energy Access within an Energy Fund*".
5. Once the universal access target has been reached, the electrification programme will continue with the aim of increasing service levels.
   - The grid electrification programme will continue, possibly with an increased budget.
   - Households that have benefited from simple off-grid systems will have the opportunity to upgrade to higher-service-level systems in accordance with what they can afford.

2 INTRODUCTION

In August 2017, the European Union Delegation (EUD) appointed AETS Consortium (the Consultant) to undertake the "*Formulation of the Electrification Master Plan*" for Lesotho. This electrification master plan (EMP) covers a 20-year time horizon and caters for both grid and off-grid electrification. It is meant to enable systematic, predictable and equitable grid expansion and off-grid electricity roll-out, with a view to enhance quality of life, provide income-generating opportunities and alleviate poverty in Lesotho.

This report represents the prioritised 2017–2036 *Off-Grid Master Plan* for the electrification of Lesotho. It forms part of the overall EMP which also includes a prioritised *Grid Development Plan* for the same period.

2.1 SCOPE OF THE OFF-GRID MASTER PLAN

The mountainous terrain and low population density in the Senqu River Valley, Foothills and Highlands render grid extension largely unfeasible, which justifies electrification by off-grid means. The Off-Grid Master Plan caters for all those areas of Lesotho that will not (initially) be reached by the national power grid and comprises of both mini-grid and stand-alone solar PV solutions.

A sustained annual electrification budget of M150 million is assumed for the EMP, based on the current level of government budget allocation for this purpose. The Ministry of Energy and Meteorology (MEM) decreed that only 20% of this budget – M30 million per year – shall be allocated to off-grid electrification for the time being, with the balance – M120 million per year – going towards grid electrification.

While the EMP would ideally have used village-level planning, this was not possible because essential village data – number of households per village – was not available. Instead, enumerator area (EA) data from the 2016 census is used as the primary building block for the electrification planning.

2.2 METHDOLOGY

The prioritisation of off-grid projects followed the methodology described in the separate report titled '*Action & Investment Plan*' that forms part of the EMP and resulted in annual electrification schedules that fit within the available budget. The prioritisation algorithm provided for a 2-stage process, with the first stage separating grid and off-grid EAs and the second stage ranking projects in priority order. EAs were evaluated based on the number of households, public buildings, anchor customers, agreed weighting factors etc. and a scoring was assigned to each EA, with a higher score indicating a higher priority ranking.

With demand for energy and affordability varying from consumer to consumer, an average off-grid energy demand profile was established for each EA, based on the number and combination of consumer types and six typical off-grid electricity systems – OGS 1 to OGS 6 (see Section 4) – offering increasing levels of energy service.

The planning methodology was discussed and agreed with stakeholders via the Technical Working Group (TWG), to ensure alignment with current thinking and the country's goals and needs. The EMP also takes cognisance of the country's development objectives contained in the following documents:

National Strategic Development Plan 2012/13 – 2016/17 – Key Goals

- Promote integrated and sustainable development in rural areas.
- Increase clean energy production capacity to attain self-sufficiency, export and have a greener economy.

- Develop small-scale electricity generation models that are viable for communities, where connection to the national power grid is not cost-effective.
- Develop basic infrastructure to increase access to services and markets and strengthen linkages between rural and urban markets.

Lesotho Energy Policy 2015-2025

- Contributing towards the improvement of livelihoods: The energy sector will contribute towards poverty alleviation in Lesotho. This will be achieved through the creation of income generating opportunities that sustain and improve the lives of people in the country through facilitating the provision of affordable technologies and services.
- Integrating energy into national and sectoral planning as a catalyst for energy effective utilisation to improve the livelihoods of the people of Lesotho as well as driving the economic growth.

Lesotho Vision 2020

- Development of a strong economy and environmental considerations.
- Decentralizing services and power to empower communities at the grassroots.
- Development of a proper economic infrastructure, including roads, telecommunications and electricity networks and reduction of the gap between the rich and the poor.
- Development of the use of technology in all aspects of life. Ninety percent of Basotho households will have access to electricity and thereby to communication and development technology.

3 RENEWABLE ENERGY & TECHNOLOGY SUITABILITY

Lesotho has abundant solar, wind, and hydropower resources. According to the "SREP Investment Plan for Lesotho" (2017) the country has a technical solar potential of 188 MW (large, medium and small-scale plants), a utility wind potential of 2,077 MW and an estimated hydropower potential of 14,000 MW. The different choices of renewable energy technology and actual suitability at country level vary as a consequence of the different economic, technical and environmental conditions. Furthermore, the technical and financial viability of a utility-sized renewable energy plant cannot be compared with a stand-alone system, as the scale factors, type of client, affordability levels, business models, project needs and other parameters are very different.

Below follows an analysis of different commercially mature renewable energy technologies that assesses the qualitative features of each of them. The aim is to evaluate the actual suitability in the rural environment and scrutinise the technology appropriateness for the type of applications intended for the EMP.

3.1 SOLAR PHOTOVOLTAICS

3.1.1 Definition

Solar photovoltaic (PV) systems convert energy from the sun into electricity through semi-conductor cells based on the photovoltaic effect. There are basically two types of PV systems:

- Grid connected: Such PV systems can be roof- or ground-mounted and supply electricity either to a house, building or other load connected to the grid, or feed electricity directly into the grid.
- Off-grid: These PV systems are decentralized and not connected to the grid, and supply the electricity to a load where it is needed. There are different off-grid PV system options depending on the required energy service level such as: solar home systems, solar lanterns, solar kits, etc.

3.1.2 Technology suitability

The PV technology for electricity generation has several considerations that need to be highlighted:

- Lesotho is a country with an abundant solar resource potential with Global Horizontal Irradiation (GHI) levels ranging between 1,700 and 2,100 kWh/m^2 per year depending on the location.
- The low latitude of the country translates into a higher seasonality ranging between 10.5 daylight hours per day in winter and 13.5 daylight hours per day in summer. The solar resource is available over the whole year with more than 300 days of sunshine, except for rainy days where the performance of the PV system will drop.
- PV system costs have been falling and become very competitive in recent years. The affordability for this type of product has increased considerably.
- The PV market is very mature with a wide range of products in terms of costs and service levels. This may include devices from small lighting products such as desk lamps to kits coming with a number of lights and phone charging capability, as well as larger PV systems that require installation by trained technicians that can power an entire household including appliances like TV, radios and other low-power devices.

The PV technology is a good fit for Lesotho because of its cost competitiveness, technological & market maturity, and the fact that the country has a high annual availability of the solar resource (300 days of sunshine per year). This combination is especially relevant for rural environments and households with constrained finances. Moreover, the PV market offers significant flexibility in terms of product range and service levels that allows the customer to have a wide choice.

3.2 BIOENERGY

3.2.1 Definition

Bioenergy is a type of renewable energy derived from biomass to generate electricity or heat, or to produce biofuels. The biofuel utilised in this process may include: wood, agricultural waste, manure, organic residues or other by-products.

There is a large variety of technologies that utilise the energy potential of biomass wastes, ranging from very simple systems to more complex technologies capable of dealing with large amounts of waste. The bioenergy technologies can be mainly divided in 2 types: thermo-chemical and bio-chemical.

3.2.2 Technology suitability

For the EMP only the electricity generation biomass technologies were considered.

Biomass gasification

Gasification of biomass involves the conversion of the biomass or waste to a biogas without a combustion process, but with the additional supply of heat, steam or oxygen. This biogas is then used in a process for electricity generation through an engine that may involve a tailored turbine or reciprocating engine.

Reliable electricity generation from biomass gasification throughout the year would require an abundant biomass resource in close proximity of the power plant. This will be hard to find in Lesotho where the scarce natural biomass resource is already under pressure from rural community exploitation and deforestation, causing environmental hazards like soil erosion. The fuelwood scarcity in Lesotho is also evident through the country's reliance on wood and coal imports to complement its domestic supply.

Moreover, biomass gasification plants for electricity generation are technologically complex and costly compared to other renewable energy technologies, especially for small-scale projects in the kW range. Therefore, it can be concluded that:

- Applying this technology at household level is rather challenging and costly to implement.
- Applying this technology at a larger scale as a mini-grid plant would require a detailed feasibility assessment.

Anaerobic bio-digestion

The anaerobic bio-digestion process involves the storage of the organic waste in a sealed tank (digester or bioreactor) where it is heated and agitated. In the absence of oxygen anaerobic bacteria consume the organic matter to multiply and produce biogas. The biogas is then used in a further process for electricity generation through an engine that may involve a tailored turbine or reciprocating engine.

Bio-digestion technologies utilise organic waste such as animal manure from farms for biogas generation. This technology for electricity generation has several challenges especially for smaller scale applications:

- The animal confinement needs to be concentrated in one facility area so that in practical terms the dung collection is feasible. In Lesotho it is rare that goats and sheep are confined during the day in an enclosed space.
- Water needs for bio-digesters are difficult to meet in many rural areas in Lesotho.
- The low temperatures especially during the winter season have a deleterious effect on the methanogenesis process in the bio-digester and this leads to decreasing biogas yields and potential digester failures.
- The CAPEX and OPEX are relatively high compared to other renewable energy technologies, especially at smaller scales.
- Time requirements for plant operation are significant.
- Specialised training is needed for plant users.
- Technological complexity is greater in comparison with other technologies.

Therefore, it can be concluded that:

- Application of this technology is not suitable for implementation at domestic household level.
- Application of this technology at a larger scale as a mini-grid plant on large agricultural, industrial or animal farms would require a detailed feasibility assessment.

3.3 WIND ENERGY

3.3.1 Definition

A wind turbine is a machine that converts kinetic energy in wind into mechanical energy. When wind blows past a turbine, the blades capture the energy and rotate. This rotation allows the internal shaft to spin, increasing the speed of rotation through a gearbox, which drives a generator that ultimately produces electricity.

3.3.2 Technology suitability

Wind power represents one of the most mature and cost-effective electricity generating solutions for utility-sized projects. When assessing the suitability of wind power generation for Lesotho the following aspects must be considered:

- The wind resource is very site-specific and requires detailed studies to confirm feasibility of a specific wind project. This typically involves the precise wind measurement for at least 1-2 years, which is a costly exercise.
- The wind resource has normally an inter-annual and inter-seasonal variation. If the winds are weak during certain months, this will result in very low or no electricity generation capacity in that period.
- For smaller scale applications at household level wind turbines are normally closer to the ground. This results in more turbulent and lower speed winds that will decrease the power performance and involves greater maintenance requirements.
- Total levelized cost of wind installations do vary considerably depending on the plant size and available wind resource.

Therefore, it can be concluded that:

- Wind power is not suitable for implementation at household level.
- Wind power at a larger scale as a mini-grid plant would require a detailed feasibility assessment to determine suitability.

3.4 HYDROPOWER

3.4.1 Definition

Hydropower plants convert potential energy into kinetic energy from falling water to generate electricity. The turbine converts the kinetic energy into mechanical energy and a generator produces electrical energy. The energy production depends on the available water volume and the head.

3.4.2 Technology suitability

Lesotho has a good hydro resource that offers opportunities for mid- to large-scale hydropower development. For small-scale applications such as for mini-grids a detailed feasibility study would be needed.

For hydropower the assessment is very project specific and the particular site conditions will make each system different. The hydro design needs to consider the exact site details and actual arrangement (water intake, penstock, powerhouse, etc.). Furthermore, an exhaustive investigation analysis is required evaluating a wide range of parameters such as: monthly flowrates, potential head, water intake suitability (sedimentation considerations), flowrate seasonality, social & environmental impacts, etc. The actual estimation of the hydro potential and hence measurement of the monthly and yearly flowrates is critical for the project viability.

Hydropower is seldom applicable at household level but is suited for mini-grid application where there is a good resource nearby. Nevertheless, a detailed feasibility analysis will be required to understand the techno-economics of a potential hydropower project.

3.5 CONCENTRATED SOLAR POWER

3.5.1 Definition

Concentrated solar power (CSP) systems generate electricity by concentrating the direct sunlight onto receivers converting it to heat. The thermal energy is then used to generate steam that is fed into a turbine or heat engine that drives a generator and produces electricity. The great advantage of CSP technologies is its ability to collect solar energy and convert it to thermal energy that can be stored to generate the electricity when needed rather than when the resource is available.

3.5.2 Technology suitability

This technology is suited for utility-sized MW projects but not for small-scale applications such as homes or mini-grids. Moreover, to develop this technology at least 2 years of direct normal irradiation (DNI) measurements are required to evaluate the actual resource potential. This would have to be undertaken individually for each site to obtain accurate information to assess the solar potential. On the other hand, this technology requires regular O&M to run the system efficiently. Hence, qualified technicians would be needed involving the development of exhaustive training programs.

It can be concluded that for the kind of smaller scale applications considered for the EMP this solution is not ideal for the given reasons.

3.6 CONCLUSION

This section undertook an analysis of different potential renewable energy technologies for Lesotho taking into consideration different qualitative aspects including: technology

features, resource availability, resource variability, cost, environmental considerations, etc. The key conclusions are as follows:

- For small-scale application for individual households solar PV is the most suitable option.
- Larger application in mini-grid systems are often resource dependent and require a detailed feasibility study to reach a final decision regarding the most suitable technology. This could involve solar PV, wind, biomass or hydro.

4 OFF-GRID ELECTRIFICATION PLANNING

As explained in Section 3, off-grid electrification by stand-alone solar PV is the most suitable option for small-scale household application in low-density settlements. High-density settlements in remote areas may be suitable for mini-grid electrification.

4.1 OFF-GRID SYSTEM TYPES & COSTS

The off-grid electrification needs of an EA depend on the number and types of customers. In order to accommodate different needs and affordability levels, six typical system types were discussed and agreed with the TWG to be used for master planning purposes. These are summarised in Table 1 below:

Table 1: Off Grid System Types & Cost

System ID	Off-Grid System Type	Service Level	System Cost (Maloti)
OGS 1	Solar Lantern and phone charger	Basic lighting and phone charging	600
OGS 2	Solar DIY Kit (solar panel, charge regulator, battery, multiple lamps, phone charger)	Household lighting, radio and phone charging	1,600
OGS 3	Large Solar DIY Kit (with solar panel, charge regulator, battery, 3 lamps, phone charger)	Household lighting, radio and phone charging	2,400
OGS 4	AC Solar Home System (150Wp solar panel, charge regulator, battery, inverter)	Household lighting, low power appliances (e.g. Radio, TV)	14,000
OGS 5	AC Solar Home System (300Wp solar panel, charge regulator, battery, inverter)	Lighting, multiple low power AC appliances like fridge, TV, DVD, etc.	24,000
OGS 6	Solar PV Mini-Grid (150kWp solar PV array, battery storage, inverter bank, distribution network)	Lighting, multiple low power AC appliances like fridge, TV, DVD, lap top, etc.	1,050,000

As can be observed the service level each of these systems provides increases as the system ID number increases, in the same manner the system cost increases too. The aim was that the different systems proposed cover a range of service levels and costs adjusting to the needs and affordabilities that can be expected to be found within an EA.

The actual costs of the solar kits, solar lanterns and SHSs will vary considerably depending especially on the product quality and service level. The estimated costs in Table 1 are for products with good quality standards and minimum warranties (e.g. 1 year) in order to ensure component endurance compared to cheaper and lower quality off-grid energy solutions.

The detailed product description for each of the system types can be found in sections below.

4.2 SYSTEM DESCRIPTION

4.2.1 Solar Lantern

Solar lanterns are portable lighting systems comprising of a lamp, a PV panel and a battery that charges during the day and provides lighting during the evening/night. Some models with larger batteries include phone charging capability.

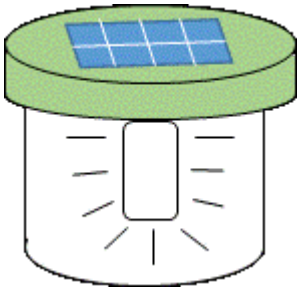


Figure 1: Solar Lantern

4.2.2 Solar Kit

A Solar Kit represents a portable plug and play PV system that may include a small PV panel, cables, lights, on/off switches, battery and charge regulator. The solar kit sizes can range from a few watts up to 1kW typically.

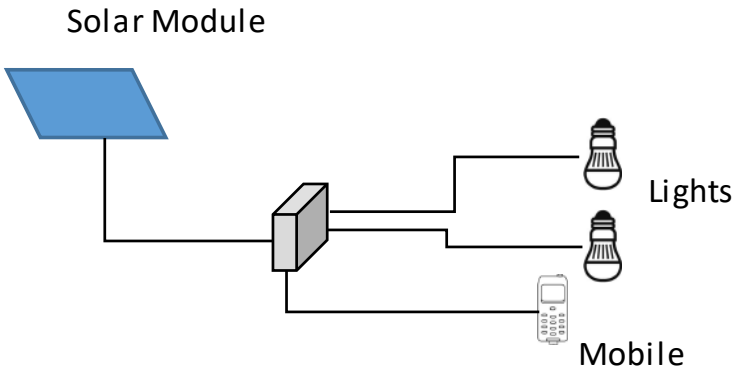


Figure 2: Solar Kit

For the EMP modest sized kits OGS2 and OGS3 have been proposed that provide basic service levels for rural households with lower affordability. The services these kits provide include lighting, radio and phone charging. The OGS3 provides a higher service level and is therefore more expensive than the OGS2.

4.2.3 Solar Home Systems

Solar home systems (SHS) are stand-alone PV systems that supply electricity for lighting and appliances in remote off-grid households. For rural areas that are not connected to the grid, SHS could be used to satisfy the energy demands fulfilling basic power needs.

A SHS typically includes one or more PV modules consisting of solar cells, a charge controller which distributes power and protects the batteries from damage, as well as managing the appliance loads. An SHS normally has at least one battery to store energy for use when the sun is not shining. The typical size for this type of systems ranges from 50Wp up to 1kWp.

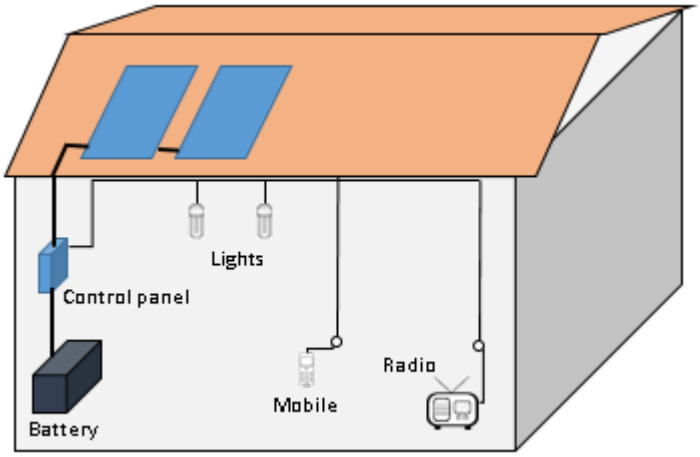


Figure 3: Typical SHS layout

For the EMP typical SHSs OGS4 and OGS5 have been proposed that provide medium service levels for rural households that have higher affordabilities. These SHS provide a higher service level than solar kits that may include low power AC appliances (e.g. small fridge, computer, TV and DVD) in addition to lighting, radio and phone charging. The OGS5 is the costlier option compared to the OGS4 as it provides a higher service level.

4.2.4 Mini-Grid

Mini-grids are isolated distribution networks with a central power generation source (installed capacity typically between 10 kW and 10 MW) that serve consumers connected to it. In addition to the power generator, a mini-grid may include a battery bank to store the electricity, a power conditioning unit (PCU) consisting of junction boxes, charge controllers, inverters, distribution boards and necessary wiring/cabling, etc., all located within a container or purposely constructed building, and a distribution network (built to LEC standards) to carry power to individual houses and other consumers.

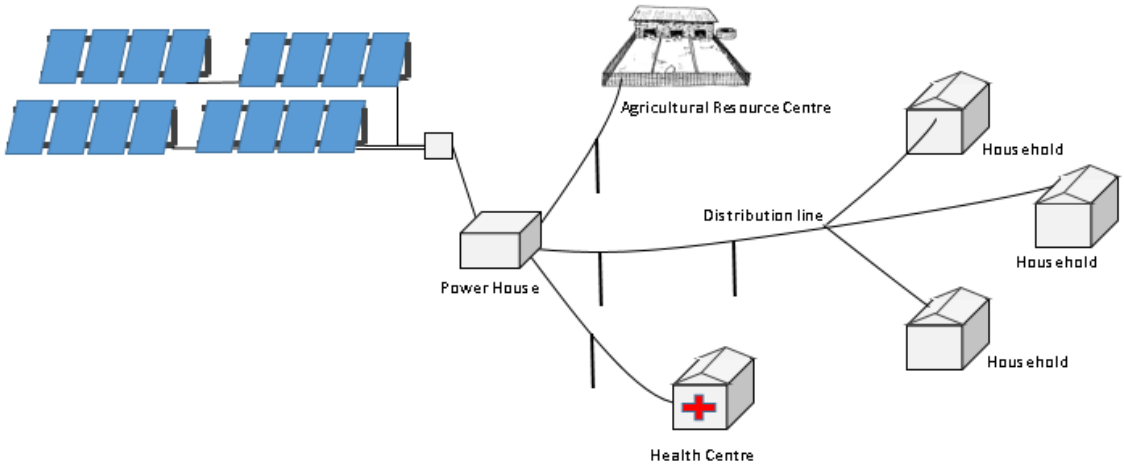


Figure 4: Typical Mini-Grid Layout

For the EMP OGS6 is the system type that provides the highest service level, including lighting and multiple low power AC appliances like fridge, TV, DVD, lap top, etc. The typical system size assumed for the mini-grid is 150kWp based on the information obtained from different reports such as the 2001 Access Study, the 2007 NEMP and the 2016 UNDP SE4All Project Document.

4.3 HOUSING TYPES & SYSTEM DISTRIBUTION

For master planning purposes it is necessary to assume a typical energy demand distribution according to which the five standard stand-alone systems from Table 1 above are to be allocated. The EMP uses the housing types from the 2016 census as a proxy for affordability, which in turn defines the number of systems that are likely to be used in each EA. The census uses eight housing types as follows: Rontabole, Heisi, Polata, Malaene, Optaka, Apartment, Town House/Bungalow and Temporary Structure. These are described in more detail in the Annex Section 7.1.

Table 2 summarises how the five off-grid system types are allocated to the eight housing types. The percentages indicate, on the one hand, the proportion of the particular housing type that a system type is allocated to (e.g. 90% of Rontabole have OGS 1, and 10% OGS 2). On the other hand, they indicate the percentage distribution of off-grid systems for each housing type (eg. 90% of Heisi have OGS 2 and 10% have OGS 3). This allocation results in a system distribution as shown in the right-hand column of *Table 2* where for example 37% of the units distributed are OGS 2 or that 1% are OGS 5 which the represents a costlier option.

Table 2: Off-Grid System Allocation by Housing Type

SYSTEM TYPE	HOUSING TYPE								SYSTEM DISTRIBUTION
	Temporary Structure	Rontabole	Heisi	Polata	Malaene	Optaka	Apartment	Town House / Bungalow	
OGS 1	100%	90%							**24%**
OGS 2		10%	90%	90%					**37%**
OGS 3			10%	10%	100%	100%	20%	20%	**34%**
OGS 4							70%	70%	**4%**
OGS 5							10%	10%	**1%**
TOTAL	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

The system distribution in terms of volume and budget allocation was decided, in consultation with the TWG, in such a manner that following conditions were satisfied:

- A balanced budget distribution between the 5 system types ensuring that the available budget was not mainly absorbed by specific system types. For example, OGS4 and OGS5, while providing a higher service level, are much costlier than the others and therefore need to be limited in number to allow a significant budget to be available for more affordable options such as the solar lanterns (OGS1) or solar kits (OGS2 and OGS3).
- Provide some form of electricity access to the majority of the population over the medium-term. Consequently, to reach a greater part of the Lesotho population a large volume of off-grid devices will need to be delivered over a relatively short period of time. As the government budget allocation is constrained, the approach was to provide higher volume of off-grid systems that are less costly and more affordable such as the solar lanterns and solar kits.

5 Off-GRID ELECTRIFICATION TIME-PLAN AND COST

5.1 OFF-GRID BUDGET ALLOCATION

The assumed government annual budget allocation for off-grid electrification is M30 million (as per directive from the Ministry of Energy and Meteorology), out of a total available annual electrification budget of M150 million (see Figure 5).

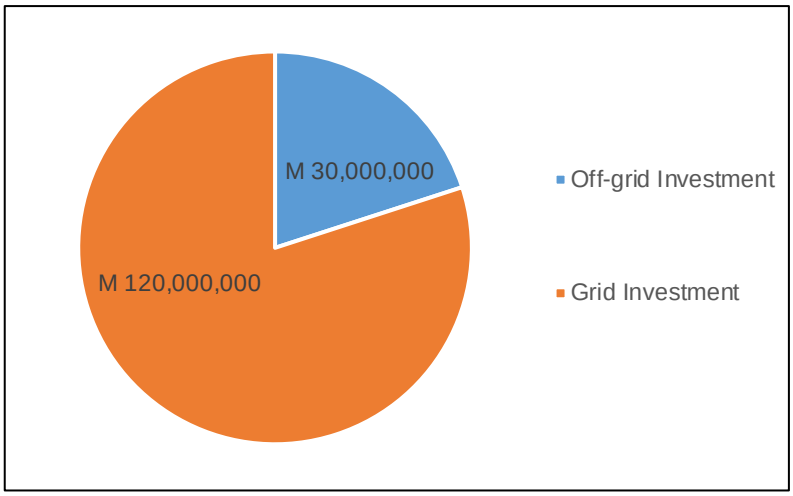


Figure 5: Annual Budget Allocation for Grid and Off-Grid

The off-grid investment cost is broken down into the following budget components:

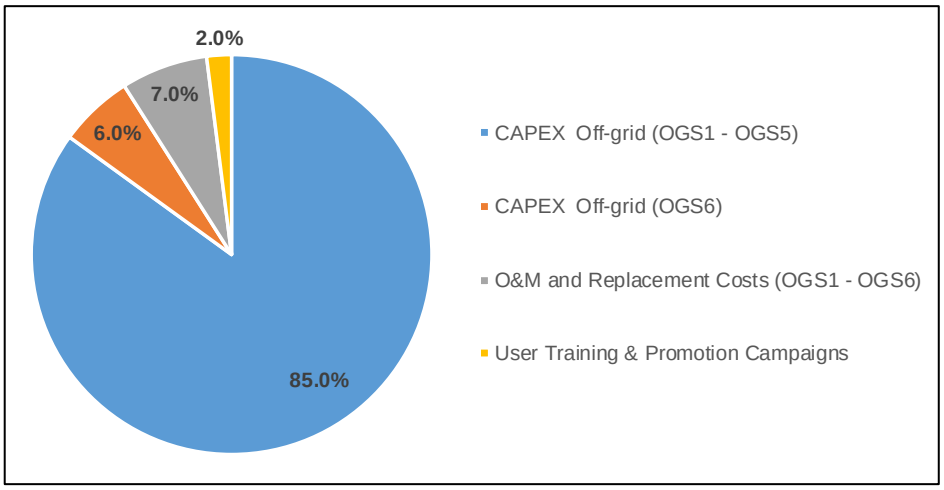


Figure 6: Budget Allocation Components

- CAPEX stand-alone (OGS1 - OGS5): This budget component allows for system equipment purchase for system types OGS 1 to OGS5. Please note that for systems OGS4 and OGS5 it includes the actual system installation as well. This component represents 85% of the total off-grid budget totalling M25.5 million per year.
- CAPEX mini-grid (OGS6): This budget component allows for the mini-grid (OGS 6) equipment purchase and installation. The assumption is that three mini-grids are installed every two years and total of 30 mini-grids would be installed over 20 years. This component represents 6% of the total off-grid budget allocation totalling M1.8 million per year.
- O&M and replacement costs (OGS1 – OGS6): A separate budget allocation has been allowed for the actual operation and maintenance activities for OGS1 to

OGS6. This includes potential replacement of faulty and defective equipment including the transport costs to the potential EAs. This component represents 7% of the total off-grid budget allocation totalling M2.1 million per year.

- User Training & Promotion Campaigns: It is crucial that the future owners of the systems are trained on the usage of the equipment when they receive their SHS, solar kits or solar lanterns. This is not only to understand how the devices should be utilised but also to understand the system capabilities and limits. It is proposed that a part of the budget is invested in all what involves the promotion and dissemination of renewable energy systems in rural areas of Lesotho. This may include radio campaigns, TV infomercials, information brochures or actual face to face workshops. This budget component represents 2% of the total off-grid budget allocation totalling M600,000 per year.

5.2 OFF-GRID TIME PLAN

With an annual investment of M30 million an average of 10,663 HH can be provided with modern off-grid energy solutions each year, i.e. 213 303 HH connections for a total budget of M600 million (see Figure 7).

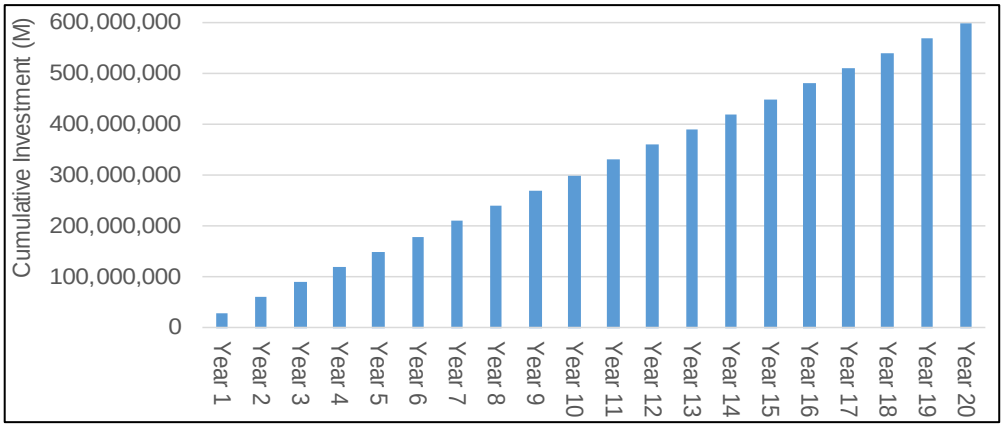


Figure 7: Cumulative Investment over 20 Years

The population growth in Lesotho for future years has been estimated as 1.04% / year as per the *Socio-Economic Analysis Report*. Considering that 38.5% of the population (207,000 HH) already had electricity access in 2017, a yearly investment of M30 million in off-grid solutions over 20 years will push the access level up to 62% (see Figure 8).

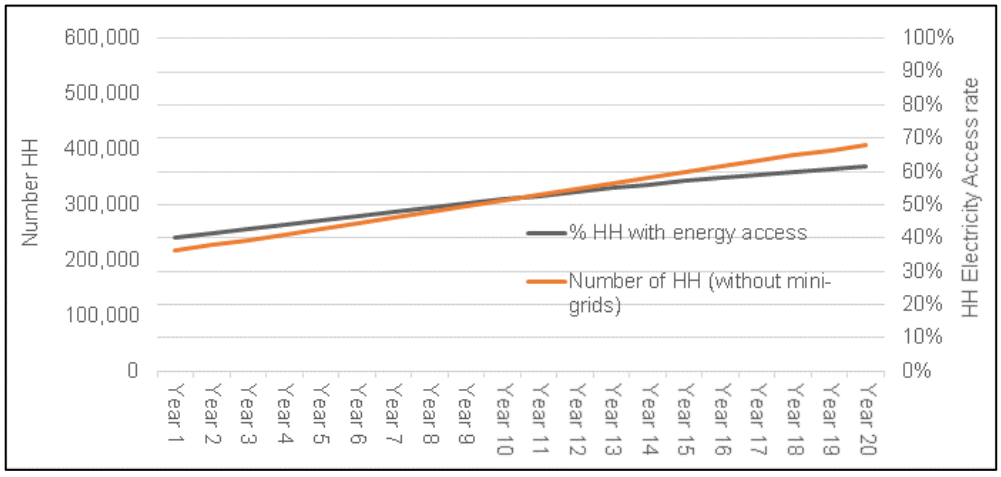


Figure 8: Household Electricity Access over 20 Years

Figure 9 shows the delivery plan for the different standalone system types from year 1 to year 20 where full electricity access would be reached.

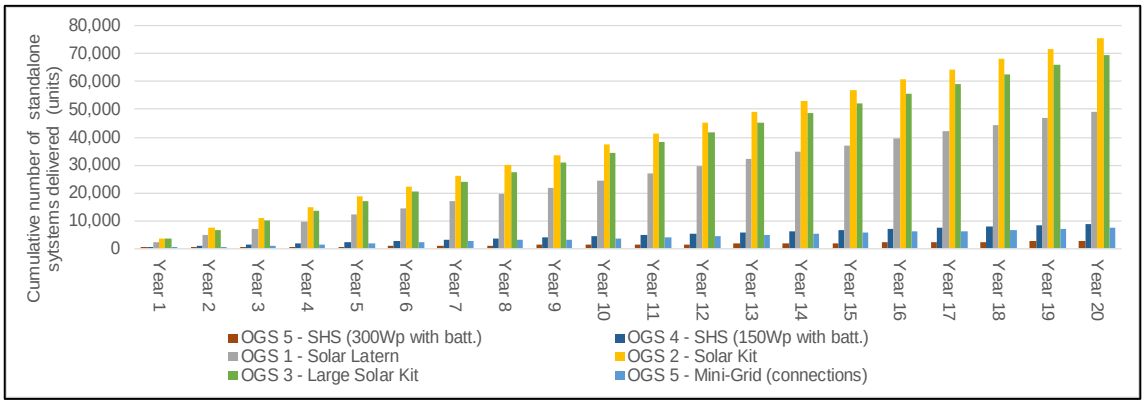


Figure 9: Standalone systems delivery plan over 20 years

This represents an average of 10,663 systems per year, if broken down per system type it shows as follows:

Table 3: Average Yearly Off-Grid Connections by System Type

SYSTEM ID	SYSTEM TYPE	# UNITS or CONNECTIONS
OGS 1	Solar lantern	2,461
OGS 2	Small solar kit	3,769
OGS 3	Large solar kit	3,466
OGS 4	Small SHS (150Wp)	447
OGS 5	Large SHS (300Wp)	141
OGS 6	Mini-grid (150kWp)	379
TOTAL:		10,663

The detailed yearly rollout schedule based on a M30 million budget allocation can be found in the Annex (Section 7.2) from which M25.5 million are invested in SHS equipment supply. The tables show the ranking order and year of implementation for each EA as well as the investment costs for each. These are summarised in Table 4 below:

Table 4: Annual Off-Grid Roll-Out Summary

Implementation Year	Number of EAs Electrified	Investment (Maloti)	Number of Off-Grid Connections Provided					
			OGS 1	OGS 2	OGS 3	OGS 4	OGS 5	OGS 6[1]
Year 1	106	25,379,000	2,465	3,774	3,476	452	146	379
Year 2	100	25,492,400	2,406	3,684	3,394	444	145	379
Year 3	95	25,501,800	2,443	3,745	3,445	448	146	379
Year 4	92	25,362,400	2,448	3,749	3,448	442	143	379
Year 5	92	26,202,400	2,415	3,702	3,407	443	163	379
Year 6	113	24,849,600	2,451	3,744	3,450	444	143	379

[1] The average number of connections provided by a mini-grid is 253, resulting in a total of 7,580 connections for the 30 mini-grids

Implementation Year	Number of EAs Electrified	Investment (Maloti)	Number of Off-Grid Connections Provided					
			OGS 1	OGS 2	OGS 3	OGS 4	OGS 5	OGS 6[1]
Year 7	117	25,213,800	2,513	3,838	3,525	470	123	379
Year 8	87	25,344,800	2,440	3,746	3,438	438	146	379
Year 9	77	25,434,600	2,403	3,679	3,391	448	154	379
Year 10	98	25,635,000	2,533	3,882	3,570	444	130	379
Year 11	104	25,308,800	2,554	3,910	3,576	443	114	379
Year 12	97	25,515,800	2,537	3,901	3,580	440	125	379
Year 13	103	25,734,000	2,546	3,895	3,576	448	130	379
Year 14	107	25,476,000	2,484	3,806	3,510	452	131	379
Year 15	91	25,563,000	2,483	3,789	3,482	441	145	379
Year 16	116	25,322,800	2,444	3,756	3,442	455	134	379
Year 17	96	25,485,200	2,446	3,719	3,428	444	151	379
Year 18	95	25,742,400	2,440	3,743	3,439	446	158	379
Year 19	117	25,309,000	2,387	3,664	3,381	462	143	379
Year 20	103	25,490,200	2,389	3,659	3,371	448	160	379
TOTAL	2,006	509,363,000	49,227	75,385	69,329	8,952	2,830	7,580

This indicates a total of 213,303 connections over 20 years, at an average cost of M2,388/connection.

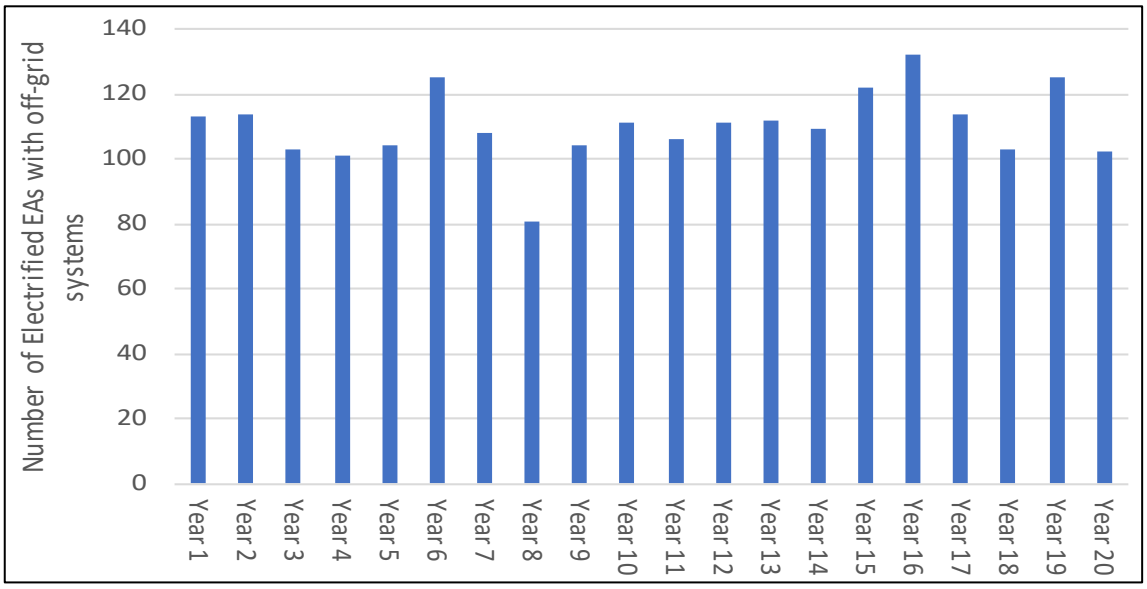


Figure 10: Number of EAs Electrified per Year

5.3 MINI-GRID SYSTEMS

A review of previous studies – the 2001 Access Study, the 2007 NEMP and the 2016 UNDP SE4All PD – revealed 35 mini-grid sites that have already been identified. Five of these are omitted as potential mini-grid sites because they will be absorbed by the new grid extensions or future planned new lines, leaving the following 30 potential mini-grids to be implemented.

Table 5: Potential Mini-Grid Sites

#	Mini-Grid Village	District	Project that Identified this Mini-Grid	Closest Substation on Old Network	Distance from Old Grid [km]	Closest Substation on New Network	Distance from New Grid [km]
1	Bafali	Mokhotlong	2001 Access-to-Electricity Study	Tlokoeng (33kV)	21.5	Thabang	9.3
2	Daliwe	Quting	2016 SEforALL-UNDP Project Doc	Leloaleng (33/11kV)	31.7	Mosi	52.3
3	Ha Seng	Maseru	2001 Access-to-Electricity Study & 2007 NEMP	Mantsonyane (11kV)	29.0	Semokong	13.3
4	Ketane Ha Nohana	Mohale's Hoek	All 3 projects	Leloaleng (33/11kV)	41.3	Semokong	34.6
5	Kubung	Quting	2016 SEforALL-UNDP Project Doc	Leloaleng (33/11kV)	50.5	Semokong	30.0
6	Kuebunyane	Mohale's Hoek	2016 SEforALL-UNDP Project Doc	Ha Mpiti (11/33kV)	34.6	Mosi	20.8
7	Lebakeng	Qacha's Nek	2016 SEforALL-UNDP Project Doc	Ha Mpiti (11/33kV)	20.1	Mpiti	20.0
8	Lesobeng	Thaba-Tseka	2007 NEMP	Mantsonyane (11kV)	28.8	Mosi	36.9
9	Linakaneng	Thaba-Tseka	All 3 projects	Tlokoeng (33kV)	28.2	Makunyapan	22.6
10	Makhoaba	Mohale's Hoek	2001 Access-to-Electricity Study	Tlokoeng (33kV)	17.4	Makunyapan	29.9
11	Malingoaneng	Mokhotlong	All 3 projects	Tlokoeng (33kV)	19.8	Makunyapan	25.9
12	Mashai	Thaba-Tseka	2016 SEforALL-UNDP Project Doc	Thaba Tseka (33/11kV)	25.4	Makunyapan	11.9
13	Mateanong	Mokhotlong	2016 SEforALL-UNDP Project Doc	Tlokoeng (33kV)	35.4	Thabang	20.7
14	Matebeng	Qacha's Nek	2016 SEforALL-UNDP Project Doc	Ha Mpiti (11/33kV)	35.7	Sehonghong	10.5
15	Matsoaing	Mokhotlong	2016 SEforALL-UNDP Project Doc	Tlokoeng (33kV)	25.5	Thabang	11.5
16	Molikaliko	Mokhotlong	2001 Access-to-Electricity Study & 2007 NEMP	Tlokoeng (33kV)	13.9	Thabang	18.5
17	Motete	Butha-Buthe	2001 Access-to-Electricity Study & 2007 NEMP	Hlotse Adit (66/11kV)	18.8	Thabang	60.7

#	Mini-Grid Village	District	Project that Identified this Mini-Grid	Closest Substation on Old Network	Distance from Old Grid [km]	Closest Substation on New Network	Distance from New Grid [km]
18	Mphaki	Quthing	2001 Access-to-Electricity Study & 2007 NEMP	Leloaleng (33/11kV)	55.4	Mosi	23.3
19	Phamong Moreneng	Mohale's Hoek	2016 SEforALL-UNDP Project Doc	Leloaleng (33/11kV)	21.9	Semokong	54.3
20	Qhoali	Quting	2016 SEforALL-UNDP Project Doc	Leloaleng (33/11kV)	56.1	Mosi	22.1
21	Ribaneng	Mohale's Hoek	2016 SEforALL-UNDP Project Doc	Morija (11kV)	33.7	Makhalanen	27.4
22	Sani Pass	Thaba-Tseka	2001 Access-to-Electricity Study & 2007 NEMP	Tlokoeng (33kV)	56.4	Thabang	41.9
23	Sebapala Ha Sempe	Quting	2016 SEforALL-UNDP Project Doc	Leloaleng (33/11kV)	18.5	Mosi	59.4
24	Sehlabathebe	Qacha's Nek	All 3 projects	Qacha's Nek (22/11kV)	47.4	Sehonghong	39.0
25	Sekake	Thaba-Tseka	2001 Access-to-Electricity Study	Ha Mpiti (11/33kV)	27.4	Mosi	9.9
26	Tebellong	Qacha's Neck	2001 Access-to-Electricity Study	Ha Mpiti (11/33kV)	18.7	Mpiti	17.6
27	Thueleng Melikane	Qacha's Nek	2016 SEforALL-UNDP Project Doc	Ha Mpiti (11/33kV)	18.5	Mpiti	19.1
28	Tlhanyaku	Mokhotlong	2016 SEforALL-UNDP Project Doc	Tlokoeng (33kV)	27.5	Thabang	25.6
29	Ha Nkau	Thaba-Tseka	2001 Access-to-Electricity Study & 2007 NEMP	Leloaleng 33/11kV	19.4	Semokong	84.2
30	Ha Letsika	Thaba-Tseka	2001 Access-to-Electricity Study & 2007 NEMP	Matsonyane 33kV	23.4	Makunyapan	39.8

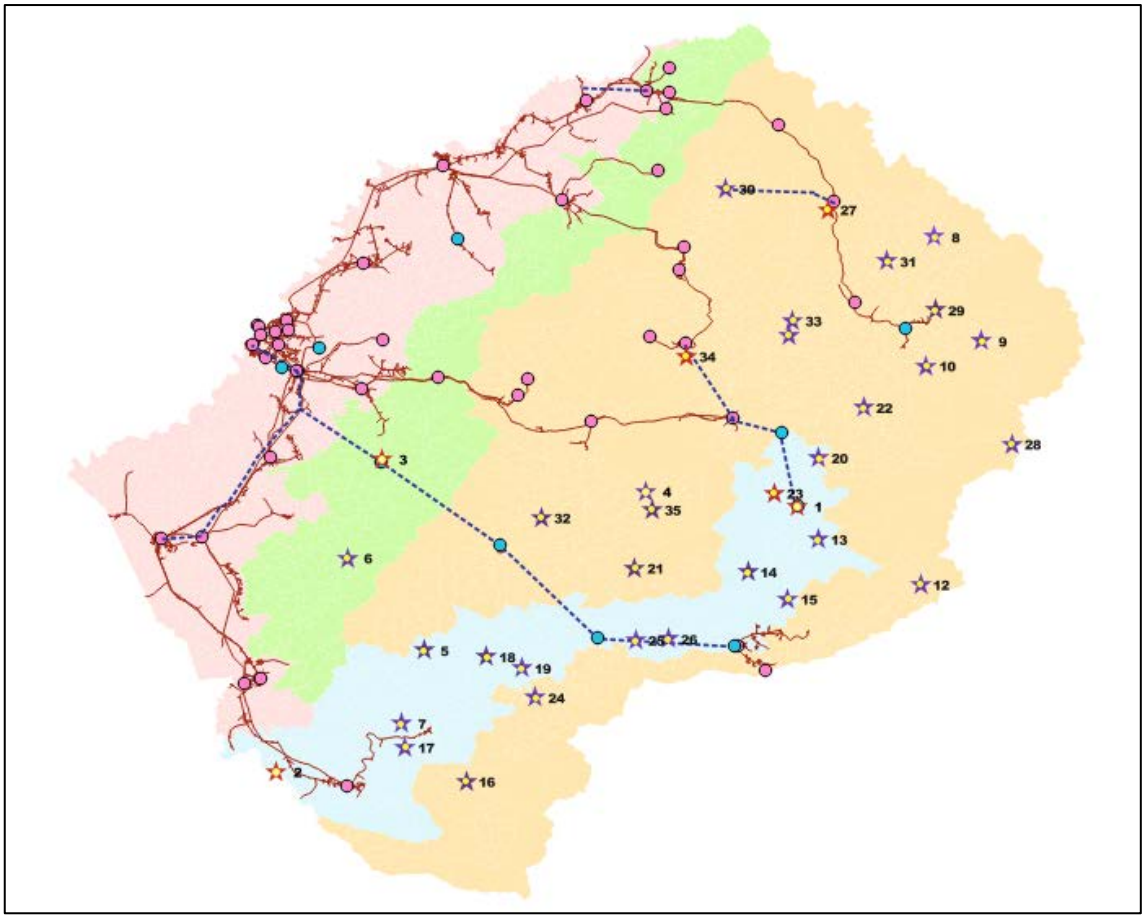


Figure 11: Identified mini-grid sites for Lesotho

The mini-grid standard assumed for the EMP is as follows:

- The primary mini-grid generation technology will be renewable energy that may include solar, wind or hydro depending on the site resource availability and actual tecno-economic project viability. A detailed feasibility study would be needed to reach a final decision regarding the renewable energy technology selection and system size, load analysis including the distribution network to be implemented.
- For optimisation purposes some level of diesel hybridisation could be considered in conjunction with the renewable energy generation.
- The mini-grid will have some battery storage to capture and store surplus electricity generated by the renewable energy system. This will help to manage variable renewable energy sources and mitigate their intermittency (e.g. low wind or cloudy periods, for wind and solar PV systems respectively). The battery bank will also assist with managing changing load demands over the day and enhance the level of dispatchability of the plant.
- The mini-grid service level will be focused on low-power appliances as well as to serve potential anchor customers such as public buildings, businesses, agricultural farms, etc.
- The actual mini-grid power capacity will be defined when a detailed feasibility study is developed. Nevertheless, for budget estimation purposes plant sizes of 150kWp have been assumed.
- The system will be built to LEC technical standard for possible future grid connections.

6 IMPLEMENTATION ISSUES

In this section some of the key issues that need to be considered for sustainable implementation of the off-grid electrification plan are highlighted.

6.1 MARKET MECHANISM

It is strongly recommended that development of the off-grid market centres on private sector engagement and participation, with Government facilitating an enabling environment for this to materialise, through

a. appropriate policies and directives;
b. awareness creation;
c. promotion of quality standards for off-grid systems, equipment and appliances;
d. placing emphasis on after-sales service for off-grid systems, equipment and appliances; and
e. enabling access to affordable financing for end users, which a specific revolving fund for this purpose, as previously proposed, could provide.

For the development of an off-grid market in Lesotho it is important to understand these critical success factors and implement them with due consideration. If an inappropriate approach is taken the risk of failure to develop a sustainable market would be considerable, as evidenced by the LREBRE project (2007-2013) which resulted in generally negative perceptions of solar home systems in Lesotho. Three key lesson can be drawn from this project, namely:

a. Proper awareness creation about the uses, benefits and limitations of various off-grid systems on offer is essential to create an understanding among users of system quality, costs and service levels.
b. The choice of system needs to be that of the end users who know best what level of service – and therefore system – they prefer and can afford. Imposing systems that are not suited for the users' needs is guaranteed to result in disappointment.
c. System sales need to be complemented with an effective after-sales service infrastructure that users have reasonable access to. The after-sales service must cater for, as a minimum,
    i. assistance with system/equipment/appliance installation and functionality issues;
    ii. repair or replacement of faulty components; and
    iii. no-cost replacement of the battery after its agreed service life (the replacement cost of the battery should be built into the initial system cost).

6.2 IMPLEMENTATION MODELS

The implementation model for Lesotho needs to identify the local conditions and define accordingly tailored solutions and approaches.

6.2.1 Traditional Models

The following are typical implementation mechanisms that have mostly been used in the past for off-grid electrification schemes involving stand-alone SHS, including in South Africa:

- **Cash Sales Model:** This is the traditional model where the energy system is sold directly by a dealer/supplier to the end user who becomes the owner. The main advantage of this approach is that no interest rates need to be paid. However, the operation and maintenance of the system is responsibility of the end-user, and

suitable after-sales service provision is often not adequately in place to cater for user needs.

- **Credit Model:** The potential end user of the system obtains a loan from a creditor and purchases the energy system from the dealer/supplier. The credit model has 3 potential subcategories:
  - Dealer credit model: the end user enters into a credit arrangement with the dealer/supplier. The end user agrees on a payment arrangement with the dealer.
  - Credit model: the end user obtains a loan from a third-party credit institution.
  - Lease model: the supplier/dealer, or a financial intermediary, leases the energy system to the end-user. During the lease period the leaser is responsible for the system maintenance and depending on the arrangement the user may become or not the owner of the system.

  The main disadvantage of this approach is that the end user has to pay the interest for the credit. The ownership of the system is transferred either when the down payment is paid or when the credit is repaid. Normally, the end-user is responsible for the maintenance of the system, although in some cases it can be carried out by the dealer.

- **Fee-for-Service Model:** An energy service company (ESCO) is the owner of the system and provides an energy service to the end-user, who pays a periodic fee or tariff to the ESCO. The system maintenance is responsibility of the ESCO and normally the end-user never becomes the owner. The fees for this type of services are typically relatively high as the ESCO is assuming the whole project risk. Experiences with this model have been mixed.

6.2.2 Supplier Financing

In recent years there have been fundamental changes in the financing models for off-grid energy systems that resulted from:

- Technology maturity.
- Reduction in system prices for SHS.
- Improvements in energy efficiency (migration from CFLs to LEDs).
- Changes in user preference: mobile phone and portable device charging as a priority.

Greater technology maturity and lower system prices have reduced the investment risks, resulting in system suppliers and service providers being able to raise financing for electrification schemes. Evidence of this can already be found in Lesotho among fuel-efficient cookstove manufacturers who are enabling their customers to acquire systems on credit with affordable repayment terms.

A key success factor that aims to ensure low default rates is the provision of credit to groups of users, rather than individuals. Such groups carry collective responsibility for collection of deposit and repayment funds from members.

6.2.3 Revolving fund

A revolving fund for off-grid electrification specifically can be a catalyst for enabling faster roll-out of the master plan, as it

a. de-risks private sector participation: suppliers are not burdened with having to arrange or provide the financing;

b. enhances supplier cash-flow (which is a major barrier): suppliers receive immediate payment upon order/delivery/installation of systems; and
c. provides affordable financing terms for system buyers/users: reasonable interest rates and repayment terms.

The concept is as follows:

- Government funds and funds from other sources (e.g. donors) are pooled in the revolving fund.
- The fund provides low interest loans with lenient repayment terms to poor communities.
- The fund only supports pre-qualified system suppliers who offer quality systems **and** after-sales service.
- Groups of users from such communities determine their system needs (based on clear information about the systems on offer) and preferred system suppliers, and collect deposit monies from their members.
- Once the full deposit funds have been collected, the group applies to the revolving fund for financing.
- If approved, the revolving fund will pay a portion of the costs (e.g. 50%) to the preferred system supplier.
- The system supplier orders the systems and delivers/installs them.
- Once the systems have been delivered/installed, the revolving fund will pay the balance to the system supplier.
- The group will collect instalments from its members and repay these to the fund on a regular basis. The system supplier will assist with this process, if required.
- The system supplier will provide after-sales service and maintenance support to the group.
- As the loans are repaid the revolving fund is replenished and can cater for new applicants.

6.3 SYSTEM QUALITY

The off-grid market has been developing rapidly offering a vast range of products of various types, sizes, prices, technologies and applications. However, not all these products are of sufficient quality to satisfy customers' needs and ensure that off-grid solutions are perceived as a sustainable energy source. Low-cost products with poor performance and short life expectancy potentially spoil the market which is severely counter-productive to national endeavours that aim to bring affordable energy solutions to remote poor communities. It also negates the considerable benefit that good-quality systems offer.

There are a variety of approaches to mitigate quality issues which typically include

a. product warranties;
b. product certification and labelling;
c. awareness creation; and
d. good after-sales and maintenance service.

There are also international quality assurance programmes such as "Lighting Global" that list off-grid lighting products that are compliant with minimum quality standards to provide the user with some level of assurance about the product that is being purchased.

Awareness creation and after-sales service and maintenance issues could possibly be dealt with effectively by local 'energy shops' where users can purchase systems, equipment

and appliances, receive advice and guidance on their use and installation, and have failing components repaired or replaced. For such energy shops to be sustainable however, there needs to be a significant market for them to serve which may be a challenge in Lesotho with its low population density in the Highlands and Senqu River Valley.

6.4 MAINTENANCE AND AFTER-SALES SERVICE

Maintenance and after-sales service of off-grid systems are often underestimated in terms of costs and effort required. A recurring issue with off-grid systems is the absence for the user of an after-sales scheme when there is a system failure or query. The establishment of a viable distribution and servicing infrastructure – including guarantee of replacement of the components reaching the end of their lifecycle – is one of the most crucial aspects in the deployment chain for stand-alone systems. Users should not have to travel long distances at great expense to access after-sales and maintenance services.

6.5 AWARENESS CREATION

Creating proper awareness and understanding of off-grid energy solutions is a critical ingredient for the success of any off-grid programme. It is recommended that the DOE embarks on an effective awareness campaign in this regard, as soon as possible, to better prepare the market that is already emerging. Such an awareness campaign should have an initial term of not less than 12 months and may include the following elements, among others:

- Dissemination of information brochures in local language(s).
- Regular radio and TV infomercials about the uses, benefits and limitations of off-grid systems.
- Regular radio programs dealing with off-grid issues, such as quality and cost, service levels, maintenance and after-sales service, financing options, etc.
- Billboard advertising.

6.6 ACCELERATING ACCESS TO ELECTRICITY

Access to electricity stood at 38.5% in 2017, representing about 207,000 households, which leaves approximately 330,000 households to be electrified. With an annual investment of M150 million – of which 80% is going towards grid electrification and only 20% towards off-grid solutions – and an estimated population growth rate of 1.04% per annum, it will take more than 30 years for Lesotho to provide universal access to electricity for all its citizens.

This timeframe could be considerably shortened if there was greater focus on lower-cost off-grid solutions. Such an approach is corroborated by a recent McKinsey publication (June 2018) that highlighted that solar home systems (SHSs) can help to significantly reduce the electrification gap in developing countries, if certain conditions are met. The report asserts that, out of a total 235 million households currently without electricity, and based on projected grid expansion, population growth, and consumers' ability to pay,

- as many as 150 million households (64%) could benefit from SHSs by 2020;
- around 65 million households (28%) would have a grid connection by that time; and
- 25–30 million households (8%) will be unable to pay for any.

To achieve this in the 39 countries researched – many with similar circumstances as Lesotho – the grid/off-grid budget ratio would need to be in the region of 30% / 70% for all new connections.

In view of this, Lesotho's present preference of an 80% / 20% split of the available budget between grid and off-grid appears conservative and not conducive to accelerating access to electricity for its citizens. It is therefore recommended that the MEM considers an alternative approach, as follows:

1. Set a target date, through a policy directive, for Lesotho to reach universal access to electricity.
    a. Universal access in this sense means that all households have access to some form of electricity which may be very simple – as in the case of a solar lantern – yet mean a huge improvement in quality of life for poor households.
    b. The lower the service level, the sooner the target can be reached. If Government opts for rolling out solar lanterns as a first step in the electrification programme, a large number of households can benefit in a very short time and the target will be reachable within 2-3 years.
    c. Lesotho can then claim universal access to electricity which significantly contributes towards achievement of the SDGs.
2. Establish capacity and a mandate for dealing with the off-grid electrification program
    a. This was already recommended by the TAF SE4All team: "*the formation of an Agency-like Entity that shall take care of energy solutions in off-grid areas*".
3. Increase the off-grid budget allocation such that the target can be achieved.
    a. This will require determination of an appropriate mix of off-grid systems that provide various service levels at corresponding cost (i.e. low service level = low cost, high service level = higher cost).
    b. Budget allocation for grid electrification will need to be reduced significantly, for a period of time.
4. Establish a revolving fund for off-grid electrification specifically.
    a. This was already recommended by the TAF SE4All team: creating a "*Financing mechanism for Rural Energy Access within an Energy Fund*".
5. Once the universal access target has been reached, the electrification programme will continue with the aim of increasing service levels.
    a. The grid electrification programme will continue, possibly with an increased budget.
    b. Households that have benefited from simple off-grid systems will have the opportunity to upgrade to higher-service-level systems in accordance with what they can afford.

7 ANNEX

7.1 HOUSEHOLD TYPES

The descriptions and definitions used in this report for the different household types have been obtained from the "Lesotho Housing Profile 2015" report from UN-Habitat and the "2011 Lesotho Demographic Survey" from BOS. These reports classified the different housing types for Lesotho as follows:

7.1.1 Rontabole

This is a round building with a pitched thatched, tiled or corrugated iron roof and walls of local materials such as sandstone, rubble or mud brick and render. Floors are normally earth but can also be cement. There is normally no ceiling and it usually has one room.

Figure 12: Rontabole (photo: David Fernandez)

7.1.2 Heisi

This is a rectangular building with a thatched roof and walls of sandstone, rubble, mud, sand, cement, brick and render. Internally the heisi is normally finished just like the rontabole and the number of rooms is usually three or less.

Figure 13: Heisi (photo: World Bank)

7.1.3 Polata

This is a rectangular building with a flat corrugated iron roof and walls of concrete blocks, sandstone, rubble, burnt or mud bricks. This type of dwelling may be rendered and decorated externally. The level of internal finish is highly variable. It includes flooring of earth or concrete covered by linoleum or vinyl tiles. It usually has three rooms or less.

Figure 14: Polata (photo: David Fernandez)

7.1.4 Malaene

This is a rectangular building normally of concrete blocks or local bricks, with a flat corrugated iron roof which normally comprises single rooms or more for rent to individual households. The standard of internal finish is highly variable. The definition of habitable rooms in Malaene type of structure accepted that the norm is sometimes to combine living, cooking, eating and sleeping arrangements in a single room.

Figure 15: Malaene (photo: UN-Habitat)

7.1.5 Optaka

This is a single storey house of a rectangular, L or T design with a double-pitched roof of corrugated iron sheets or thatch. Walls are normally of sandstone, rubble, brick or concrete blocks. Internal finishes are highly variable. The Optaka normally has five or less habitable rooms.

Figure 16: Optaka (photo: UN-Habitat)

7.1.6 Bungalow

This is a single or multiple storey house of variable design with either flat or double-pitched roof of corrugated iron sheets, tiles or thatch. Walls may be of sandstone, first grade brick or rendered and decorated concrete block. The level of internal finishes normally includes cement flooring and rhino board ceiling.

Figure 17: Bungalow (photo: David Fernandez)

7.1.7 Apartment Building or Town House

This is a single or multi-storey complex of self-contained dwellings built of modern construction materials such as concrete block or first-grade brick with single shallow-sloping or double-pitched roof, of corrugated iron sheets or tiles. These housing units are normally rented out.

Figure 18: Town house (Photo www. myproperty.co.ls)

7.1.8 Temporary Structure

This is an informal housing structure commonly built from old and used corrugated iron sheets or structures of local stone and thatch used by herd boys in the mountains. They do not normally have defined space and are characterized by uninhabitable living conditions.

Figure 19: Temporary Structure (photo: David Fernandez)

7.2 ANNUAL OFF-GRID ROLL-OUT SCHEDULE

YEAR 1			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
1	03260713038	Berea	217 400
2	07650641057	Quthing	181 600
3	03270813062	Berea	153 600
4	02080313009	Leribe	175 400
5	07680532043	Quthing	184 000
6	04440713008	Maseru	184 000
7	04420513079	-	218 000
8	04450813057	Maseru	204 200
9	07640641015	Quthing	204 200
10	08710333024	Qacha's Nek	207 200
11	06560113022	Mohale's Hoek	231 200
12	05510413048	Mafeteng	226 600
13	02090413019	Leribe	277 800
14	06590343042	-	282 400
15	02110613009	Leribe	277 800
16	06560113040	Mohale's Hoek	331 400
17	06590313008	Mohale's Hoek	277 800
18	04400332026	Maseru	282 400
19	07650641010	Quthing	282 400
20	04440712027	Maseru	281 800
21	07680543005	Quthing	162 200
22	01040413033	Botha-Bothe	299 600
23	06590343020	-	299 600

YEAR 1			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
24	02151311083	Leribe	310 400
25	01020213046	Botha-Bothe	333 000
26	08700233046	Qacha's Nek	128 800
27	09770133050	Mokhotlong	359 400
28	02140813042	Leribe	333 000
29	05510413046	Mafeteng	164 600
30	04390213038	Maseru	352 400
31	05480113029	Mafeteng	312 800
32	08700243011	Qacha's Nek	171 400
33	07650641055	Quthing	277 800
34	05490213034	Mafeteng	217 400
35	08710332046	Qacha's Nek	286 400
36	09790531006	Mokhotlong	208 800
37	05480113003	Mafeteng	215 800
38	02100513021	Leribe	402 000
39	06600443043	-	226 600
40	06560113035	Mohale's Hoek	231 200
41	08710333038	Qacha's Nek	156 000
42	01050511026	Botha-Bothe	305 800
43	01050511098	Botha-Bothe	184 000
44	07660343006	Quthing	166 800
45	06590343024	-	337 600
46	06630743044	Mohale's Hoek	171 400

YEAR 1			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
47	09780233026	Mokhotlong	171 400
48	08700243007	Qacha's Nek	291 000
49	07680543003	Quthing	211 200
50	09770133002	Mokhotlong	151 400
51	09770133008	Mokhotlong	175 400
52	05510423015	Mafeteng	213 400
53	04400323075	Maseru	180 000
54	03190123021	-	181 600
55	07680532044	Quthing	180 000
56	08710333029	Qacha's Nek	184 000
57	06630743048	Mohale's Hoek	220 400
58	05500313009	Mafeteng	157 600
59	01010123001	Botha-Bothe	286 400
60	02120713007	Leribe	299 600
61	07640133042	Quthing	392 800
62	09770133003	Mokhotlong	215 800
63	05480113042	Mafeteng	314 400
64	02120713032	Leribe	180 000
65	06630743027	Mohale's Hoek	200 200
66	08700243039	Qacha's Nek	207 200
67	04460923009	Maseru	213 400
68	04400332020	Maseru	215 800
69	05540713004	Mafeteng	215 800

YEAR 1			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
70	07670442054	Quthing	217 400
71	02131211009	Leribe	217 400
72	04471023006	Maseru	170 800
73	07680532045	Quthing	222 000
74	06610523006	Mohale's Hoek	299 600
75	08710332048	Qacha's Nek	342 200
76	06590343016	-	222 000
77	09770133049	Mokhotlong	170 800
78	06620633025	Mohale's Hoek	231 200
79	09770133055	Mokhotlong	128 800
80	06560113024	Mohale's Hoek	277 800
81	03260713040	Berea	235 200
82	06600443032	-	235 200
83	03210313042	Berea	202 600
84	09780233042	Mokhotlong	211 200
85	02171013022	-	213 400
86	05480112019	Mafeteng	213 400
87	02080313028	Leribe	305 800
88	05540713057	Mafeteng	162 200
89	01030323032	Botha-Bothe	388 800
90	02141211002	Leribe	162 200
91	06590313003	Mohale's Hoek	166 800
92	01020213040	Botha-Bothe	166 800

YEAR 1			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
93	04440713025	Maseru	235 200
94	04440712028	Maseru	235 200
95	06620643026	Mohale's Hoek	286 400
96	09800433015	Mokhotlong	235 200
97	06570213059	Mohale's Hoek	235 200
98	06560113033	Mohale's Hoek	175 400
99	08690143048	Quthing	355 400
100	02120713033	Leribe	299 600
101	06620642040	-	564 200
102	03230513040	Berea	304 200
103	09780233076	Mokhotlong	202 600
104	05500322023	-	364 000
105	05480113030	Mafeteng	184 000
106	05510423012	Mafeteng	184 000
TOTAL INVESTMENT - YEAR 1:			**25 379 000**

YEAR 2			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
1	02120713034	Leribe	312 800
2	10740631003	Thaba-tseka	208 800
3	03210313045	Berea	124 200
4	04460923043	Maseru	213 400
5	06560113037	Mohale's Hoek	337 600
6	03210313033	Berea	128 800
7	05480113026	Mafeteng	281 800
8	05540713007	Mafeteng	295 600
9	05480113001	Mafeteng	299 600
10	05520513004	Mafeteng	301 800
11	05510413045	Mafeteng	305 800
12	05540713011	Mafeteng	304 200
13	04380113077	Maseru	415 200
14	07670443003	Quthing	346 200
15	05530613010	Mafeteng	341 600
16	09780233024	Mokhotlong	171 400
17	09770133015	Mokhotlong	348 400
18	04460923035	Maseru	350 800
19	09770133001	Mokhotlong	419 200
20	04380113004	Maseru	202 600
21	07680533034	Quthing	282 400
22	06590343017	-	282 400
23	04390213025	Maseru	286 400

YEAR 2			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
24	06560113039	Mohale's Hoek	281 800
25	05540713063	Mafeteng	202 600
26	02171013052	-	207 200
27	05480113027	Mafeteng	213 400
28	05520523009	Mafeteng	286 400
29	09790531008	Mokhotlong	286 400
30	04440713007	Maseru	215 800
31	03220413025	Berea	213 400
32	03260713039	Berea	217 400
33	06610523047	Mohale's Hoek	217 400
34	02080313021	Leribe	217 400
35	05510413037	Mafeteng	299 600
36	02140813045	Leribe	329 000
37	03220413014	Berea	220 400
38	05540713006	Mafeteng	220 400
39	08710332047	Qacha's Nek	220 400
40	02100513007	Leribe	220 400
41	01020213013	Botha-Bothe	226 600
42	06560113017	Mohale's Hoek	226 600
43	04430612037	Maseru	226 600
44	09770133065	Mokhotlong	107 000
45	01040413024	Botha-Bothe	235 200
46	03250613017	Berea	235 200

YEAR 2			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
47	04431111025	Maseru	230 600
48	06620633015	Mohale's Hoek	111 000
49	04380113005	Maseru	391 200
50	09800433042	Mokhotlong	113 200
51	06560113004	Mohale's Hoek	397 400
52	06620643017	Mohale's Hoek	115 600
53	05500313008	Mafeteng	149 000
54	05480113037	Mafeteng	286 400
55	09780233023	Mokhotlong	124 200
56	05480113004	Mafeteng	281 800
57	05480113041	Mafeteng	281 800
58	03250613003	Berea	157 600
59	02140813025	Leribe	333 000
60	05510413055	Mafeteng	299 600
61	02181113052	Leribe	297 200
62	05480113009	Mafeteng	162 200
63	05510413043	Mafeteng	291 000
64	05530613024	Mafeteng	291 000
65	06590313004	Mohale's Hoek	295 000
66	05540713010	Mafeteng	299 600
67	04430613047	Maseru	299 600
68	02171013045	-	337 600
69	04390213003	Maseru	342 200

YEAR 2			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
70	02090413040	Leribe	342 200
71	04460922030	Maseru	346 200
72	08700243017	Qacha's Nek	337 600
73	02151311002	Leribe	175 400
74	03260713002	Berea	175 400
75	05500323038	-	346 200
76	04450813011	Maseru	175 400
77	09790333068	Mokhotlong	213 400
78	04471022008	Maseru	170 800
79	02160913084	Leribe	170 800
80	09800433044	Mokhotlong	218 000
81	02080313011	Leribe	382 600
82	03270813060	Berea	181 600
83	09770133058	Mokhotlong	213 400
84	09770133052	Mokhotlong	226 600
85	09800433030	Mokhotlong	220 400
86	10740343069	-	222 000
87	06570811047	Mohale's Hoek	180 000
88	09790333058	Mokhotlong	226 600
89	06630743024	Mohale's Hoek	211 200
90	07660343044	Quthing	220 400
91	01040413037	Botha-Bothe	333 000
92	07660343004	-	235 200

YEAR 2			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
93	02181113030	Leribe	346 200
94	06620643028	Mohale's Hoek	305 800
95	05490213041	Mafeteng	359 400
96	02090413030	Leribe	361 600
97	03260713058	Berea	202 600
98	04460913002	Maseru	202 600
99	03250613026	Berea	207 200
100	06570811004	Mohale's Hoek	207 200
TOTAL INVESTMENT - YEAR 2:			25 492 400

Year 3			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
1	02171012017	Leribe	207 200
2	05500313005	Mafeteng	207 200
3	02090413026	Leribe	200 200
4	03260713036	Berea	200 200
5	03250613022	Berea	208 800
6	05540713066	Mafeteng	213 400
7	06580811080	Mohale's Hoek	213 400
8	05510423013	Mafeteng	213 400
9	10760543016	Thaba-tseka	213 400
10	03241011085	Berea	213 400
11	02140813036	Leribe	213 400
12	09780233056	Mokhotlong	151 400
13	03220413007	Berea	211 200
14	04450813059	Maseru	211 200
15	02151311056	Leribe	211 200
16	04390213008	Maseru	235 200
17	04450813053	Maseru	235 200
18	03250613019	Berea	207 200
19	01010123002	Botha-Bothe	147 400
20	01030333049	Botha-Bothe	452 600
21	02171013041	-	333 000
22	06580811085	Mohale's Hoek	215 800
23	01030323030	Botha-Bothe	337 600

Year 3			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
24	03200213046	Berea	217 400
25	05520512027	Mafeteng	217 400
26	05510412033	Mafeteng	220 400
27	05540713020	Mafeteng	222 000
28	03220413029	Berea	226 600
29	06560113015	Mohale's Hoek	226 600
30	03260713025	Berea	235 200
31	04450812021	Maseru	235 200
32	09770133037	Mokhotlong	346 200
33	09800433021	Mokhotlong	346 200
34	05520513042	Mafeteng	231 200
35	02120713006	Leribe	342 200
36	09780233057	Mokhotlong	175 400
37	05530613004	Mafeteng	277 800
38	03210313003	Berea	277 800
39	05510413038	Mafeteng	277 800
40	01020213003	Botha-Bothe	151 400
41	03260713035	Berea	282 400
42	04450813007	Maseru	230 600
43	05490213022	Mafeteng	230 600
44	10740343064	-	164 600
45	02100513018	Leribe	281 800
46	05490213044	Mafeteng	281 800

Year 3			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
47	09800433035	Mokhotlong	359 400
48	03220413018	Berea	226 600
49	03260713003	Berea	226 600
50	06590313007	Mohale's Hoek	226 600
51	06570213061	Mohale's Hoek	157 600
52	02171013036	-	277 800
53	02080313027	Leribe	291 000
54	06610523019	Mohale's Hoek	170 800
55	07680543004	Quthing	292 600
56	06590313014	Mohale's Hoek	292 600
57	04410413081	Maseru	295 600
58	04460913007	-	295 600
59	05490212045	Mafeteng	295 600
60	02140813041	-	305 800
61	05540713061	Mafeteng	297 200
62	09790333052	Mokhotlong	184 000
63	07680543035	Quthing	175 400
64	05530613057	Mafeteng	301 800
65	01010123007	Botha-Bothe	180 000
66	02171013038	-	286 400
67	04420513060	-	286 400
68	05480113044	Mafeteng	286 400
69	02100513001	Leribe	286 400

Year 3			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
70	04380113075	Maseru	286 400
71	05540713054	Mafeteng	299 600
72	02120713038	Leribe	291 000
73	05490213032	Mafeteng	291 000
74	06600443031	-	304 200
75	02181113033	Leribe	305 800
76	02080313017	Leribe	305 800
77	04440713004	Maseru	310 400
78	04440713018	Maseru	310 400
79	06610513041	Mohale's Hoek	310 400
80	06610513048	Mohale's Hoek	184 000
81	09780233058	Mokhotlong	180 000
82	06590343034	-	151 400
83	05480113038	Mafeteng	461 800
84	05480113021	Mafeteng	448 600
85	02120713002	Leribe	545 600
86	09770133053	Mokhotlong	410 600
87	09770133063	Mokhotlong	399 800
88	05490212046	Mafeteng	329 000
89	05490213017	Mafeteng	329 000
90	02100513032	Leribe	365 600
91	05490213019	Mafeteng	346 200
92	04380113078	Maseru	352 400

Year 3			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
93	02181113031	Leribe	331 400
94	03230513034	Berea	337 600
95	02120713041	Leribe	364 000
TOTAL INVESTMENT - YEAR 3:			25 501 800

Year 4			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
1	02100513012	Leribe	341 600
2	01040413040	Botha-Bothe	350 800
3	05540713009	Mafeteng	355 400
4	04440713013	Maseru	337 600
5	02080313008	Leribe	337 600
6	09770133061	Mokhotlong	299 600
7	01010113021	Botha-Bothe	310 400
8	02171013026	-	312 800
9	05480113006	Mafeteng	235 200
10	08690142057	Qacha's Nek	235 200
11	02120713031	Leribe	304 200
12	04430613046	Maseru	231 200
13	03260713054	Berea	226 600
14	06620643058	Mohale's Hoek	226 600
15	09770133034	Mokhotlong	291 000
16	08700243034	Qacha's Nek	291 000
17	07670443043	Quthing	42 600
18	09770133038	Mokhotlong	281 800
19	08690143054	Quthing	207 200
20	09780233003	Mokhotlong	218 000
21	09770133044	Mokhotlong	202 600
22	09800433046	Mokhotlong	202 600
23	09780233055	Mokhotlong	213 400

Year 4			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
24	06620633013	Mohale's Hoek	208 800
25	09770133064	Mokhotlong	208 800
26	05480113035	Mafeteng	235 200
27	09800433009	Mokhotlong	235 200
28	10720133027	Thaba-Tseka	235 200
29	08700243022	Qacha's Nek	200 200
30	09770133018	Mokhotlong	231 200
31	05500323031	-	231 200
32	08710333051	Qacha's Nek	231 200
33	01040413028	Botha-Bothe	220 400
34	06560113006	Mohale's Hoek	226 600
35	04471023004	Maseru	226 600
36	09800433039	Mokhotlong	215 800
37	02181113027	Leribe	222 000
38	06610523043	Mohale's Hoek	222 000
39	09780233049	Mokhotlong	222 000
40	10740343080	-	222 000
41	09770133007	Mokhotlong	211 200
42	02171013019	-	211 200
43	04471033030	-	217 400
44	06630733042	Mohale's Hoek	213 400
45	07670443039	Quthing	202 600
46	06580811089	Mohale's Hoek	230 600

Year 4			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
47	09780233020	Mokhotlong	301 800
48	09800433023	Mokhotlong	226 600
49	01040413010	Botha-Bothe	410 600
50	08690143061	Qacha's Nek	406 600
51	04440713017	Maseru	397 400
52	02171013027	-	386 600
53	01030323033	Botha-Bothe	415 200
54	05490213016	Mafeteng	399 800
55	07670442059	Quthing	235 200
56	04471231063	-	208 800
57	09790531004	Mokhotlong	220 400
58	02141211009	Leribe	222 000
59	04410423093	-	217 400
60	01010123005	Botha-Bothe	337 600
61	09800433052	Mokhotlong	337 600
62	03220413033	Berea	226 600
63	05480113024	Mafeteng	365 600
64	02080313010	Leribe	333 000
65	02181113012	Leribe	446 400
66	02181113003	Leribe	310 400
67	03260713045	Berea	305 800
68	03200213055	Berea	286 400
69	02131211099	Leribe	299 600

Year 4			
PRIORITY RANKING	**EA CODE**	**DISTRICT (2016 EAs ref)**	**CAPEX (Maloti)**
70	05510413039	Mafeteng	299 600
71	02110511024	Leribe	299 600
72	02110613007	Leribe	297 200
73	03230513002	Berea	297 200
74	02080313004	Leribe	297 200
75	02160913078	Leribe	297 200
76	05490213013	Mafeteng	282 400
77	02100513033	Leribe	310 400
78	03270813054	Berea	310 400
79	03210313007	Berea	310 400
80	01040413031	Botha-Bothe	295 600
81	04420513067	-	305 800
82	05530613048	Mafeteng	305 800
83	06560113003	Mohale's Hoek	291 000
84	05530613049	Mafeteng	291 000
85	02100513024	Leribe	291 000
86	06580811014	Mohale's Hoek	291 000
87	02090413042	Leribe	291 000
88	02120713017	Leribe	291 000
89	03200213005	Berea	295 000
90	09770133042	Mokhotlong	397 400
91	03230513055	Berea	291 000
92	02171013029	-	291 000
TOTAL INVESTMENT - YEAR 4:			**25 362 400**

Year 5			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
1	02080313020	Leribe	291 000
2	05500313017	Mafeteng	291 000
3	02100513005	Leribe	291 000
4	03220413003	Berea	277 800
5	04450813058	Maseru	277 800
6	05520512037	Mafeteng	277 800
7	03220413027	Berea	286 400
8	05490213036	Mafeteng	286 400
9	04440713044	Maseru	357 000
10	02110511048	Leribe	365 600
11	04440713046	Maseru	342 200
12	02120713036	Leribe	437 800
13	02120713028	Leribe	337 600
14	05540713058	Mafeteng	346 200
15	04471033047	-	130 400
16	05510423063	Mafeteng	130 400
17	05500313016	Mafeteng	333 000
18	04450813016	Maseru	348 400
19	05540713019	Mafeteng	329 000
20	03260713052	Berea	333 000
21	06560113038	Mohale's Hoek	331 400
22	04471033048	-	126 400
23	04440713006	Maseru	337 600

Year 5			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
24	06630743069	Mohale's Hoek	130 400
25	07660343053	Quthing	128 800
26	07670443004	Quthing	128 800
27	06620643043	Mohale's Hoek	124 200
28	07670443007	Quthing	115 600
29	02080313029	Leribe	415 200
30	02070213020	Leribe	402 000
31	03260713061	Berea	402 000
32	03270813058	Berea	402 000
33	01020213035	Botha-Bothe	397 400
34	02120713019	Leribe	392 800
35	04440713041	Maseru	392 800
36	06620643054	Mohale's Hoek	120 200
37	06630733005	Mohale's Hoek	120 200
38	07670443042	Quthing	120 200
39	03270813049	Berea	397 400
40	06570213056	Mohale's Hoek	388 800
41	03220413034	Berea	391 200
42	01040413019	Botha-Bothe	391 200
43	08710333052	Qacha's Nek	310 400
44	06600443039	-	115 600
45	09770133036	Mokhotlong	305 800
46	09780233067	Mokhotlong	305 800

Year 5			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
47	08700243030	Qacha's Nek	305 800
48	07670443006	Quthing	299 600
49	09800433006	Mokhotlong	299 600
50	10740343072	-	299 600
51	03250613001	Berea	310 400
52	05510423006	Mafeteng	111 000
53	09780233031	Mokhotlong	111 000
54	09780233030	Mokhotlong	308 800
55	03190123030	-	301 800
56	04440713047	Maseru	301 800
57	01010123014	Botha-Bothe	305 800
58	10750433067	Thaba-tseka	305 800
59	10740343065	-	286 400
60	03190123053	-	304 200
61	10760533052	Thaba-tseka	297 200
62	05480113028	Mafeteng	299 600
63	02171013025	-	292 600
64	09800433033	Mokhotlong	292 600
65	04430613048	Maseru	292 600
66	06620643030	Mohale's Hoek	291 000
67	02100513011	Leribe	282 400
68	06630743060	Mohale's Hoek	282 400
69	03190113003	Berea	282 400

Year 5			
PRIORITY RANKING	**EA CODE**	**DISTRICT (2016 EAs ref)**	**CAPEX (Maloti)**
70	07680543013	Quthing	295 000
71	10720133007	Thaba-Tseka	295 000
72	09790333056	Mokhotlong	286 400
73	06610523024	Mohale's Hoek	277 800
74	05490213040	Mafeteng	277 800
75	06630743010	Mohale's Hoek	97 800
76	05510412034	Mafeteng	437 800
77	05500313011	Mafeteng	448 600
78	08700243009	Qacha's Nek	281 800
79	09790531043	Mokhotlong	281 800
80	10740333059	Thaba-tseka	281 800
81	04440713012	Maseru	291 000
82	05480113005	Mafeteng	291 000
83	08700243005	Qacha's Nek	291 000
84	05480113010	Mafeteng	277 800
85	09800433037	Mokhotlong	281 800
86	06610523023	Mohale's Hoek	281 800
87	05480113040	Mafeteng	281 800
88	10760543019	Thaba-tseka	308 800
89	05540713002	Mafeteng	184 000
90	09780233072	Mokhotlong	184 000
91	09790333054	Mokhotlong	184 000
92	09790333064	Mokhotlong	355 400
TOTAL INVESTMENT - YEAR 5:			**26 202 400**

Year 6			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
1	02120713010	Leribe	304 200
2	04380113085	Maseru	521 600
3	09800433049	Mokhotlong	352 400
4	07670443012	Quthing	352 400
5	04460923056	Maseru	175 400
6	05540713065	Mafeteng	175 400
7	06590313002	Mohale's Hoek	175 400
8	04460923049	Maseru	175 400
9	05510423005	Mafeteng	175 400
10	05520523018	Mafeteng	175 400
11	07680543010	Quthing	175 400
12	10730233004	Thaba-Tseka	175 400
13	09800433055	Mokhotlong	342 200
14	04440713016	Maseru	337 600
15	09800433004	Mokhotlong	337 600
16	09770133006	Mokhotlong	181 600
17	02181113004	Leribe	286 400
18	06630733035	Mohale's Hoek	180 000
19	05510423002	Mafeteng	180 000
20	09780233008	Mokhotlong	180 000
21	09780233018	Mokhotlong	180 000
22	07670443038	Quthing	342 200
23	05510423014	Mafeteng	184 000

Year 6			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
24	06630743065	Mohale's Hoek	184 000
25	01020213002	Botha-Bothe	184 000
26	04460923038	Maseru	184 000
27	06620643045	Mohale's Hoek	184 000
28	08710431019	Qacha's Nek	184 000
29	09770133005	Mokhotlong	184 000
30	02070223037	Leribe	346 200
31	02120713009	Leribe	281 800
32	07670443013	Quthing	171 400
33	09800433038	Mokhotlong	171 400
34	10740343067	-	171 400
35	03230512031	Berea	171 400
36	04410423096	-	291 000
37	10720133054	Thaba-Tseka	337 600
38	07660343005	Quthing	337 600
39	05510423011	Mafeteng	175 400
40	09780233028	Mokhotlong	175 400
41	04460923052	Maseru	175 400
42	05500322026	-	175 400
43	10730233038	Thaba-Tseka	175 400
44	02140813047	Leribe	329 000
45	06600443047	-	329 000
46	02120713039	Leribe	333 000

Year 6			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
47	10730233009	Thaba-Tseka	331 400
48	06630733004	Mohale's Hoek	166 800
49	05500323047	-	166 800
50	05510423023	Mafeteng	166 800
51	09780233017	Mokhotlong	166 800
52	07670443001	Quthing	166 800
53	07640143032	Quthing	337 600
54	09780233022	Mokhotlong	337 600
55	06590343025	-	337 600
56	04471033044	-	180 000
57	05500323044	-	180 000
58	06620643027	Mohale's Hoek	180 000
59	06620643048	Mohale's Hoek	180 000
60	06600413005	Mohale's Hoek	170 800
61	02080323035	Leribe	170 800
62	06600443023	-	162 200
63	04471033028	-	162 200
64	04471033041	-	162 200
65	07660343016	Quthing	162 200
66	08700243008	Qacha's Nek	162 200
67	07670443041	Quthing	162 200
68	03230513042	Berea	175 400
69	04471023010	Maseru	175 400

Year 6			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
70	06560113008	Mohale's Hoek	175 400
71	10740343079	-	175 400
72	07660343019	Quthing	175 400
73	07660343051	Quthing	175 400
74	07670443037	Quthing	175 400
75	02140813031	Leribe	350 800
76	04471023016	Maseru	164 600
77	04471023005	Maseru	164 600
78	08710431020	Qacha's Nek	164 600
79	03230513039	Berea	235 200
80	09800433054	Mokhotlong	235 200
81	06620633020	Mohale's Hoek	235 200
82	06620643049	Mohale's Hoek	235 200
83	09780233070	Mokhotlong	235 200
84	04471033033	-	166 800
85	05490213043	Mafeteng	166 800
86	01050511008	Botha-Bothe	157 600
87	07650641031	Quthing	157 600
88	09770133046	Mokhotlong	397 400
89	03190123010	-	170 800
90	09780233048	Mokhotlong	170 800
91	06620643056	Mohale's Hoek	170 800
92	01040413029	Botha-Bothe	395 800

Year 6			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
93	01020223024	Botha-Bothe	388 800
94	05480113046	Mafeteng	391 200
95	05510423061	Mafeteng	231 200
96	02070223043	Leribe	231 200
97	05520523015	Mafeteng	231 200
98	04430612039	Maseru	231 200
99	09780233046	Mokhotlong	162 200
100	09800433043	Mokhotlong	162 200
101	06600443021	-	162 200
102	06630743009	Mohale's Hoek	162 200
103	07640641024	Quthing	162 200
104	05480113002	Mafeteng	235 200
105	08700243042	Qacha's Nek	235 200
106	09800433032	Mokhotlong	160 600
107	04471033036	-	160 600
108	06620643052	Mohale's Hoek	151 400
109	06630743053	Mohale's Hoek	151 400
110	02080313019	Leribe	226 600
111	09780233059	Mokhotlong	226 600
112	07680543009	Quthing	226 600
113	09770133051	Mokhotlong	226 600
TOTAL INVESTMENT - YEAR 6:			**24 849 600**

Year 7			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
1	10760543005	Thaba-tseka	226 600
2	09800433022	Mokhotlong	226 600
3	05500322025	-	226 600
4	09770133043	Mokhotlong	457 200
5	05510423016	Mafeteng	153 600
6	06630743066	Mohale's Hoek	153 600
7	06610523039	Mohale's Hoek	157 600
8	06620633012	Mohale's Hoek	157 600
9	07680543014	Quthing	157 600
10	06600443016	-	157 600
11	02080323045	Leribe	231 200
12	07650233064	Quthing	231 200
13	09780233075	Mokhotlong	231 200
14	01050511010	Botha-Bothe	231 200
15	06610522014	Mohale's Hoek	235 200
16	09800433041	Mokhotlong	235 200
17	10730233012	Thaba-Tseka	235 200
18	06600443040	-	235 200
19	01050511012	Botha-Bothe	235 200
20	10760543006	Thaba-tseka	222 000
21	07650243067	Quthing	444 000
22	07670443040	Quthing	222 000
23	06590343029	-	156 000

Year 7			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
24	06630733041	Mohale's Hoek	156 000
25	09770133060	Mokhotlong	156 000
26	09780233012	Mokhotlong	156 000
27	06560113036	Mohale's Hoek	466 400
28	09790333062	Mokhotlong	226 600
29	10760543018	Thaba-tseka	226 600
30	04471023001	Maseru	226 600
31	10730233014	Thaba-Tseka	226 600
32	06600443044	-	149 000
33	05480113043	Mafeteng	230 600
34	10720132013	Thaba-Tseka	230 600
35	10730233051	Thaba-Tseka	230 600
36	05500323042	-	230 600
37	06610523025	Mohale's Hoek	230 600
38	06620643044	Mohale's Hoek	147 400
39	06610523032	Mohale's Hoek	147 400
40	09780233021	Mokhotlong	147 400
41	05540713055	Mafeteng	147 400
42	06600443024	-	151 400
43	06600413010	Mohale's Hoek	151 400
44	09780233001	Mokhotlong	151 400
45	07670443017	Quthing	151 400
46	03220413005	Berea	218 000

Year 7			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
47	05490213021	Mafeteng	218 000
48	06560113028	Mohale's Hoek	218 000
49	01010113027	Botha-Bothe	218 000
50	06590343037	-	218 000
51	06600413003	Mohale's Hoek	218 000
52	09770133010	Mokhotlong	218 000
53	10720133031	Thaba-Tseka	218 000
54	06600443033	-	218 000
55	07650641002	Quthing	218 000
56	07670443044	Quthing	218 000
57	01010123008	Botha-Bothe	222 000
58	02080323031	Leribe	222 000
59	05480113047	Mafeteng	222 000
60	03260713057	Berea	222 000
61	05490212026	Mafeteng	222 000
62	06620633014	Mohale's Hoek	222 000
63	03210313040	Berea	222 000
64	04471033053	-	222 000
65	04380113074	Maseru	517 600
66	02080323036	Leribe	220 400
67	04440713014	Maseru	220 400
68	09770133048	Mokhotlong	220 400
69	06620643051	Mohale's Hoek	220 400

Year 7			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
70	09800433001	Mokhotlong	220 400
71	07670432024	Quthing	220 400
72	07670443018	Quthing	220 400
73	05480113007	Mafeteng	226 600
74	09770133004	Mokhotlong	226 600
75	09780233045	Mokhotlong	226 600
76	06630743056	Mohale's Hoek	226 600
77	02181113025	-	213 400
78	04460923011	Maseru	213 400
79	10760533029	Thaba-tseka	213 400
80	07660333030	Quthing	213 400
81	10730233029	Thaba-Tseka	213 400
82	10730233045	Thaba-Tseka	213 400
83	06590343023	-	213 400
84	01050511084	Botha-Bothe	217 400
85	09780233053	Mokhotlong	217 400
86	07670443002	Quthing	217 400
87	07670443010	Quthing	217 400
88	08690133050	Quthing	217 400
89	09770133020	Mokhotlong	217 400
90	03190123020	-	215 800
91	10760542012	Thaba-tseka	215 800
92	05500323032	-	215 800

Year 7			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
93	02080323037	Leribe	215 800
94	02120713016	Leribe	448 600
95	02080313049	Leribe	208 800
96	02160913080	Leribe	208 800
97	08690143053	Quthing	208 800
98	05520523020	Mafeteng	208 800
99	06620643062	Mohale's Hoek	207 200
100	03190123022	-	207 200
101	06600443050	-	207 200
102	07640641003	Quthing	207 200
103	02060133057	Leribe	207 200
104	07670443015	Quthing	207 200
105	01020213014	Botha-Bothe	211 200
106	02080323044	Leribe	211 200
107	04440712031	Maseru	211 200
108	06630733015	Mohale's Hoek	211 200
109	07650243061	Quthing	211 200
110	02070223038	Leribe	213 400
111	04460923050	Maseru	213 400
112	06600443035	-	213 400
113	09780233025	Mokhotlong	213 400
114	02100523042	Leribe	213 400
115	06630733020	Mohale's Hoek	213 400

Year 7			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
116	08700243018	Qacha's Nek	213 400
117	01010123042	Botha-Bothe	204 200
TOTAL INVESTMENT - YEAR 7:			**25 213 800**

Year 8			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
1	02151311001	Leribe	204 200
2	06560113016	Mohale's Hoek	204 200
3	07660343041	Quthing	204 200
4	09770133039	Mokhotlong	204 200
5	05510423019	Mafeteng	204 200
6	04430613030	Maseru	204 200
7	01010113028	Botha-Bothe	202 600
8	06630733008	Mohale's Hoek	202 600
9	01020213001	Botha-Bothe	202 600
10	05520523012	Mafeteng	202 600
11	04440712029	Maseru	207 200
12	05510423008	Mafeteng	207 200
13	09790333066	Mokhotlong	207 200
14	03220413020	Berea	207 200
15	06630733018	Mohale's Hoek	207 200
16	07660343014	Quthing	207 200
17	08700243035	Qacha's Nek	207 200
18	03260713032	Berea	200 200
19	05520513001	Mafeteng	200 200
20	06570811009	Mohale's Hoek	200 200
21	07660343054	Quthing	200 200
22	07670443005	Quthing	200 200
23	09770133040	Mokhotlong	200 200

Year 8			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
24	04471023015	Maseru	200 200
25	01010123029	Botha-Bothe	200 200
26	06610523045	Mohale's Hoek	202 600
27	07640143038	Quthing	202 600
28	09780233039	Mokhotlong	202 600
29	02120713042	Leribe	365 600
30	10730233006	Thaba-Tseka	365 600
31	02181113047	Leribe	314 400
32	06570213060	Mohale's Hoek	314 400
33	06620643046	Mohale's Hoek	314 400
34	10760533045	Thaba-tseka	314 400
35	06590343026	-	310 400
36	09770133041	Mokhotlong	310 400
37	09780233036	Mokhotlong	310 400
38	03210313044	Berea	312 800
39	06610523020	Mohale's Hoek	312 800
40	10740343078	-	312 800
41	02120713021	Leribe	312 800
42	02120713008	Leribe	365 600
43	10730233033	Thaba-Tseka	361 600
44	02100523043	Leribe	470 400
45	02181113019	Leribe	305 800
46	07680543002	Quthing	305 800

Year 8			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
47	05520513043	Mafeteng	310 400
48	06610523011	Mohale's Hoek	310 400
49	08700243013	Qacha's Nek	310 400
50	09800433034	Mokhotlong	310 400
51	08690143047	Quthing	415 200
52	09790333049	Mokhotlong	415 200
53	09790333046	Mokhotlong	308 800
54	07660343017	Quthing	359 400
55	10740631004	Thaba-tseka	355 400
56	02171013020	-	410 600
57	06610523027	Mohale's Hoek	410 600
58	03190123045	-	305 800
59	10760542013	Thaba-tseka	305 800
60	10760543038	Thaba-tseka	305 800
61	02171013039	-	305 800
62	04420513065	-	299 600
63	05480113045	Mafeteng	299 600
64	04460923020	Maseru	299 600
65	04471033042	-	299 600
66	09780233011	Mokhotlong	299 600
67	03220413010	Berea	415 200
68	07660343043	Quthing	301 800
69	06590343047	-	301 800

Year 8			
PRIORITY RANKING	**EA CODE**	**DISTRICT (2016 EAs ref)**	**CAPEX (Maloti)**
70	04440713009	Maseru	352 400
71	03190123018	-	304 200
72	05500323040	-	304 200
73	09770133045	Mokhotlong	350 800
74	03250612034	Berea	355 400
75	01040423043	Botha-Bothe	355 400
76	02070223004	Leribe	355 400
77	05500322022	-	406 000
78	06610522016	Mohale's Hoek	297 200
79	05500323055	-	297 200
80	06610523004	Mohale's Hoek	297 200
81	05530613058	Mafeteng	299 600
82	09800433013	Mokhotlong	299 600
83	10760543039	Thaba-tseka	346 200
84	01050511097	Botha-Bothe	346 200
85	08700243019	Qacha's Nek	348 400
86	10730233002	Thaba-Tseka	348 400
87	01010113019	Botha-Bothe	348 400
TOTAL INVESTMENT - YEAR 8:			**25 344 800**

Year 9			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
1	06620642041	-	348 400
2	04460923061	Maseru	295 600
3	02090413020	Leribe	295 600
4	02120713014	Leribe	295 600
5	05520513047	Mafeteng	295 600
6	03260713034	Berea	342 200
7	09770133054	Mokhotlong	342 200
8	10730233036	Thaba-Tseka	342 200
9	02100523014	Leribe	350 800
10	02090423036	Leribe	399 800
11	09800433045	Mokhotlong	451 000
12	03250612033	Berea	292 600
13	06600443048	-	292 600
14	08710333037	Qacha's Nek	292 600
15	02171013047	-	292 600
16	05510413027	Mafeteng	292 600
17	03230513003	Berea	286 400
18	06610523001	Mohale's Hoek	286 400
19	02070223039	Leribe	286 400
20	10760533046	Thaba-tseka	286 400
21	08700243038	Qacha's Nek	286 400
22	01010123006	Botha-Bothe	392 800
23	06630733028	Mohale's Hoek	392 800

Year 9			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
24	02120713035	Leribe	295 000
25	06600413004	Mohale's Hoek	295 000
26	10730233031	Thaba-Tseka	295 000
27	07640641025	Quthing	295 000
28	02171013037	-	337 600
29	09800433031	Mokhotlong	337 600
30	10730233053	Thaba-Tseka	337 600
31	09800433018	Mokhotlong	337 600
32	09800433053	Mokhotlong	346 200
33	03230513050	Berea	346 200
34	06620643063	Mohale's Hoek	291 000
35	06630743049	Mohale's Hoek	291 000
36	07670443008	Quthing	291 000
37	10760533058	Thaba-tseka	291 000
38	02080313024	Leribe	342 200
39	03260713033	Berea	342 200
40	09790333050	Mokhotlong	342 200
41	08700243044	Qacha's Nek	395 800
42	10720133035	Thaba-Tseka	439 400
43	03230513032	Berea	392 800
44	06600443026	-	333 000
45	01010123037	Botha-Bothe	333 000
46	05500313001	Mafeteng	333 000

Year 9			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
47	06620642039	-	341 600
48	03190123016	-	388 800
49	07650243065	Quthing	388 800
50	02090413034	Leribe	337 600
51	03260713005	Berea	337 600
52	05500323037	-	337 600
53	10740333052	Thaba-tseka	337 600
54	06610522013	Mohale's Hoek	391 200
55	08710333053	Qacha's Nek	391 200
56	01020223025	Botha-Bothe	391 200
57	06630743050	Mohale's Hoek	286 400
58	10740343077	-	286 400
59	07670443009	Quthing	286 400
60	01020213044	Botha-Bothe	282 400
61	02090413033	Leribe	282 400
62	05540713059	Mafeteng	282 400
63	10760533042	Thaba-tseka	282 400
64	01010113022	Botha-Bothe	291 000
65	02080313015	Leribe	291 000
66	10760543020	Thaba-tseka	384 200
67	10720133015	Thaba-Tseka	386 600
68	05510413040	Mafeteng	333 000
69	06560113020	Mohale's Hoek	333 000

Year 9			
PRIORITY RANKING	**EA CODE**	**DISTRICT (2016 EAs ref)**	**CAPEX (Maloti)**
70	02171013046	-	382 600
71	09800433026	Mokhotlong	337 600
72	07670443014	Quthing	329 000
73	08690142060	Qacha's Nek	329 000
74	04410413080	Maseru	331 400
75	06610523010	Mohale's Hoek	331 400
76	03250623047	Berea	331 400
77	01020213008	Botha-Bothe	331 400
TOTAL INVESTMENT - YEAR 9:			**25 434 600**

Year 10			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
1	02120713029	Leribe	331 400
2	04380113073	Maseru	331 400
3	03230513037	Berea	281 800
4	03250623052	Berea	281 800
5	09800433008	Mokhotlong	281 800
6	10740343075	-	281 800
7	06620643060	Mohale's Hoek	281 800
8	02080323038	Leribe	281 800
9	02100513034	Leribe	277 800
10	09780233027	Mokhotlong	277 800
11	09790333060	Mokhotlong	277 800
12	10740343073	-	277 800
13	08700243037	Qacha's Nek	277 800
14	01010123017	Botha-Bothe	281 800
15	05520513045	Mafeteng	281 800
16	09780233077	Mokhotlong	281 800
17	06610523012	Mohale's Hoek	277 800
18	06620643029	Mohale's Hoek	277 800
19	07660343015	Quthing	277 800
20	09780233035	Mokhotlong	277 800
21	05500323051	-	277 800
22	09780233019	Mokhotlong	277 800
23	09800433048	Mokhotlong	277 800

Year 10			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
24	10730233017	Thaba-Tseka	277 800
25	06590313013	Mohale's Hoek	517 000
26	08700243010	Qacha's Nek	521 600
27	01010123016	Botha-Bothe	235 200
28	01020213004	Botha-Bothe	235 200
29	02060133016	Leribe	235 200
30	02100513030	Leribe	235 200
31	02110511012	Leribe	235 200
32	03190123049	-	235 200
33	03200213001	Berea	235 200
34	03220413013	Berea	235 200
35	04440713026	Maseru	235 200
36	05500322030	-	235 200
37	06570213066	Mohale's Hoek	235 200
38	06630733029	Mohale's Hoek	235 200
39	09790333045	Mokhotlong	235 200
40	09800433029	Mokhotlong	235 200
41	10730233015	Thaba-Tseka	235 200
42	10740333057	Thaba-tseka	235 200
43	10750432070	Thaba-tseka	235 200
44	01030333042	Botha-Bothe	235 200
45	03230513056	Berea	235 200
46	04471033055	-	235 200

Year 10			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
47	01050511086	Botha-Bothe	235 200
48	05530613020	Mafeteng	235 200
49	07640641022	Quthing	235 200
50	08690431033	Qacha's Nek	235 200
51	07650641056	Quthing	470 400
52	03220413022	Berea	235 200
53	04390213022	Maseru	235 200
54	07680543020	Quthing	235 200
55	10740631030	Thaba-tseka	235 200
56	03250623040	Berea	235 200
57	04410413006	Maseru	235 200
58	10750433051	Thaba-tseka	235 200
59	03230513045	Berea	235 200
60	09800433012	Mokhotlong	235 200
61	03270813057	Berea	466 400
62	02100523038	Leribe	461 800
63	01010123040	Botha-Bothe	231 200
64	02060133014	Leribe	231 200
65	03190123024	-	231 200
66	03190123025	-	231 200
67	03190123031	-	231 200
68	03250613012	Berea	231 200
69	05490212031	Mafeteng	231 200

Year 10			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
70	06610523008	Mohale's Hoek	231 200
71	06630733022	Mohale's Hoek	231 200
72	06630743057	Mohale's Hoek	231 200
73	04400333036	Maseru	231 200
74	01020213042	Botha-Bothe	231 200
75	03210313021	Berea	231 200
76	09790531010	Mokhotlong	231 200
77	03270813034	Berea	461 800
78	01010123009	Botha-Bothe	235 200
79	02060133028	Leribe	235 200
80	02090413024	Leribe	235 200
81	02181113016	Leribe	235 200
82	03260713044	Berea	235 200
83	04460923042	Maseru	235 200
84	06570213058	Mohale's Hoek	235 200
85	07650641059	Quthing	235 200
86	09800433036	Mokhotlong	235 200
87	10730233052	Thaba-Tseka	235 200
88	01030333035	Botha-Bothe	235 200
89	04400323045	Maseru	235 200
90	07650243068	Quthing	235 200
91	07680533032	Quthing	235 200
92	02181113053	Leribe	235 200

Year 10			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
93	07680533040	-	235 200
94	09780233064	Mokhotlong	235 200
95	04440712035	Maseru	235 200
96	01030323016	Botha-Bothe	231 200
97	01030333048	Botha-Bothe	231 200
98	02181113024	Leribe	231 200
TOTAL INVESTMENT - YEAR 10:			25 635 000

Year 11			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
1	03190123042	-	231 200
2	03190123047	-	231 200
3	04390223021	Maseru	231 200
4	08690133067	Quthing	231 200
5	08690133074	Qacha's Nek	231 200
6	10720133053	Thaba-Tseka	231 200
7	10740631006	Thaba-tseka	231 200
8	10750433003	Thaba-tseka	231 200
9	10750433025	Thaba-tseka	231 200
10	06610523046	Mohale's Hoek	231 200
11	10750433057	Thaba-tseka	231 200
12	10750433062	Thaba-tseka	231 200
13	02110613035	Leribe	231 200
14	02151311004	Leribe	231 200
15	02151311017	Leribe	231 200
16	05520513002	Mafeteng	231 200
17	07670433023	Quthing	231 200
18	09780233062	Mokhotlong	231 200
19	01020223017	Botha-Bothe	231 200
20	04380113083	Maseru	419 200
21	10730233005	Thaba-Tseka	416 800
22	02161311065	Leribe	226 600
23	03190123026	-	226 600

Year 11			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
24	03190123051	-	226 600
25	03250613006	Berea	226 600
26	06580811083	Mohale's Hoek	226 600
27	10720133058	Thaba-Tseka	226 600
28	10730233025	Thaba-Tseka	226 600
29	10740631001	Thaba-tseka	226 600
30	10750433019	Thaba-tseka	226 600
31	10750433039	Thaba-tseka	226 600
32	10760533021	Thaba-tseka	226 600
33	04390223058	Maseru	226 600
34	04460923010	Maseru	226 600
35	04471033020	-	226 600
36	10730233016	Thaba-Tseka	226 600
37	01040413013	Botha-Bothe	226 600
38	02060133059	Leribe	226 600
39	02141211016	Leribe	226 600
40	02181112043	Leribe	226 600
41	04431111022	Maseru	226 600
42	06590343038	-	226 600
43	07670433030	Quthing	226 600
44	03220423040	-	410 600
45	03190123008	-	230 600
46	10720133004	Thaba-Tseka	230 600

Year 11			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
47	07640133043	Quthing	230 600
48	07660333024	Quthing	230 600
49	07670433027	Quthing	230 600
50	10760533056	Thaba-tseka	230 600
51	01050511085	Botha-Bothe	230 600
52	02140813030	Leribe	230 600
53	05530613051	Mafeteng	230 600
54	05530811014	Mafeteng	230 600
55	04420513072	-	230 600
56	09770133035	Mokhotlong	230 600
57	10750433027	Thaba-tseka	410 600
58	02070223031	Leribe	410 600
59	03271111027	Berea	226 600
60	04390213035	Maseru	226 600
61	05490213018	Mafeteng	226 600
62	05500323052	-	226 600
63	06620633009	Mohale's Hoek	226 600
64	07660343018	Quthing	226 600
65	07670443052	Quthing	226 600
66	09800433027	Mokhotlong	226 600
67	10730233022	Thaba-Tseka	226 600
68	10730233054	Thaba-Tseka	226 600
69	10760543004	Thaba-tseka	226 600

Year 11			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
70	04460923027	Maseru	226 600
71	07670433031	Quthing	226 600
72	07680543011	Quthing	226 600
73	03210313015	Berea	226 600
74	03210313036	Berea	226 600
75	04450813010	Maseru	226 600
76	07660343001	Quthing	226 600
77	03220413030	Berea	365 600
78	01030323020	Botha-Bothe	365 600
79	06590313009	Mohale's Hoek	365 600
80	02060133022	Leribe	365 600
81	02090413004	Leribe	448 600
82	01010113020	Botha-Bothe	222 000
83	01010123045	Botha-Bothe	222 000
84	03190123005	-	222 000
85	03250612027	Berea	222 000
86	04410412039	Maseru	222 000
87	04420513041	-	222 000
88	04460923037	Maseru	222 000
89	05520513040	Mafeteng	222 000
90	06600443028	-	222 000
91	08700243004	Qacha's Nek	222 000
92	08700243016	Qacha's Nek	222 000

Year 11			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
93	10740631005	Thaba-tseka	222 000
94	10760543036	Thaba-tseka	222 000
95	10760543037	Thaba-tseka	222 000
96	06630733033	Mohale's Hoek	222 000
97	08700233048	Qacha's Nek	222 000
98	10740631032	Thaba-tseka	222 000
99	02090413014	Leribe	222 000
100	02110613037	Leribe	222 000
101	05510412032	Mafeteng	222 000
102	07660641011	Quthing	222 000
103	08710431017	Qacha's Nek	222 000
104	02100513028	Leribe	222 000
TOTAL INVESTMENT - YEAR 11:			25 308 800

Year 12			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
1	07650641033	Quthing	410 600
2	03220413024	Berea	406 000
3	04460923029	Maseru	406 000
4	02171013033	-	406 000
5	02120713003	Leribe	402 000
6	04460923059	Maseru	402 000
7	02090412057	Leribe	402 000
8	02060132052	Leribe	586 000
9	02110613030	Leribe	184 000
10	03190123037	-	184 000
11	03220423044	-	184 000
12	04460923004	Maseru	184 000
13	04471023011	Maseru	184 000
14	05510413056	Mafeteng	184 000
15	05510423017	Mafeteng	184 000
16	07680543008	Quthing	184 000
17	08690133069	Quthing	184 000
18	10750433018	Thaba-tseka	184 000
19	02060133035	Leribe	184 000
20	02060133069	Leribe	184 000
21	05510423067	Mafeteng	184 000
22	09780233013	Mokhotlong	184 000
23	10750433026	Thaba-tseka	184 000

Year 12			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
24	02131211002	Leribe	184 000
25	03230513049	Berea	184 000
26	07650641005	Quthing	184 000
27	07660333058	Quthing	184 000
28	07670433019	Quthing	184 000
29	05520512031	Mafeteng	184 000
30	02090423038	Leribe	365 600
31	07660333039	Quthing	365 600
32	02120713012	Leribe	365 600
33	08700233045	Qacha's Nek	545 600
34	10740333061	Thaba-tseka	364 000
35	03260713007	Berea	364 000
36	05490213011	Mafeteng	364 000
37	07660343009	Quthing	364 000
38	10750433047	Thaba-tseka	361 600
39	02160913073	Leribe	361 600
40	02160913086	Leribe	361 600
41	02100513026	Leribe	406 000
42	02100523044	Leribe	406 000
43	04380113079	Maseru	406 000
44	01030333056	Botha-Bothe	226 600
45	01030333057	Botha-Bothe	226 600
46	01040413032	Botha-Bothe	226 600

Year 12			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
47	03190123011	-	226 600
48	03190123040	-	226 600
49	03220413001	Berea	226 600
50	03250612032	Berea	226 600
51	04390213001	Maseru	226 600
52	04400323060	Maseru	226 600
53	04460923023	Maseru	226 600
54	05530811040	Mafeteng	226 600
55	06600413006	Mohale's Hoek	226 600
56	06620643018	Mohale's Hoek	226 600
57	07660333033	Quthing	226 600
58	08690133046	Quthing	226 600
59	10750433006	Thaba-tseka	226 600
60	04390223018	Maseru	226 600
61	04400332024	Maseru	226 600
62	04420513080	-	226 600
63	06610523031	Mohale's Hoek	226 600
64	07670433036	Quthing	226 600
65	09770133012	Mokhotlong	226 600
66	02060133062	Leribe	226 600
67	02090413012	Leribe	226 600
68	02171013051	-	226 600
69	04380113003	Maseru	226 600

Year 12			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
70	04410423088	-	226 600
71	03220413023	Berea	402 000
72	02100523037	Leribe	402 000
73	10740631016	Thaba-tseka	402 000
74	01010113026	-	222 000
75	03200212042	Berea	222 000
76	03220423039	-	222 000
77	03250613007	Berea	222 000
78	03250613020	Berea	222 000
79	05510413028	Mafeteng	222 000
80	06570811049	Mohale's Hoek	222 000
81	06590343044	-	222 000
82	06630743063	Mohale's Hoek	222 000
83	10730233003	Thaba-Tseka	222 000
84	10750433028	Thaba-tseka	222 000
85	10750433043	Thaba-tseka	222 000
86	10750433058	Thaba-tseka	222 000
87	10760543008	Thaba-tseka	222 000
88	04390223015	Maseru	222 000
89	08700233052	Qacha's Nek	222 000
90	10750433002	Thaba-tseka	222 000
91	01010123046	Botha-Bothe	222 000
92	02120713030	Leribe	222 000

Year 12			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
93	03260713004	Berea	222 000
94	05530613056	Mafeteng	222 000
95	02090423035	Leribe	222 000
96	09780233069	Mokhotlong	222 000
97	01030333039	Botha-Bothe	399 800
TOTAL INVESTMENT - YEAR 12:			25 515 800

Year 13			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
1	08710333036	Qacha's Nek	399 800
2	10760533049	Thaba-tseka	399 800
3	04390213030	Maseru	397 400
4	10760543033	Thaba-tseka	397 400
5	01040413016	Botha-Bothe	437 800
6	01040423041	Botha-Bothe	435 400
7	02060133004	Leribe	220 400
8	03190133057	-	220 400
9	03250613005	Berea	220 400
10	03250613016	Berea	220 400
11	05500323053	-	220 400
12	05520523010	Mafeteng	220 400
13	05530613008	Mafeteng	220 400
14	10730233001	Thaba-Tseka	220 400
15	02060133017	Leribe	220 400
16	04400333032	Maseru	220 400
17	06610523009	Mohale's Hoek	220 400
18	10750433011	Thaba-tseka	220 400
19	02141211001	Leribe	220 400
20	04311111027	Maseru	220 400
21	05520512024	Mafeteng	220 400
22	05530613053	Mafeteng	220 400
23	07670433028	Quthing	220 400

Year 13			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
24	07670442057	Quthing	220 400
25	03220423036	-	361 600
26	03250613009	Berea	361 600
27	02131211015	Leribe	361 600
28	01020223020	Botha-Bothe	361 600
29	02171013034	-	361 600
30	03210323058	-	218 000
31	03220413015	Berea	218 000
32	04390213028	Maseru	218 000
33	04410413001	Maseru	218 000
34	04460923041	Maseru	218 000
35	04471022009	Maseru	218 000
36	05480113036	Mafeteng	218 000
37	05540713008	Mafeteng	218 000
38	08710333031	Qacha's Nek	218 000
39	09780233040	Mokhotlong	218 000
40	10720133020	Thaba-Tseka	218 000
41	10720133057	Thaba-Tseka	218 000
42	10750433065	Thaba-tseka	218 000
43	06620633022	Mohale's Hoek	218 000
44	08690133068	Qacha's Nek	218 000
45	09800433024	Mokhotlong	218 000
46	04410412036	Maseru	218 000

Year 13			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
47	05540713018	Mafeteng	218 000
48	05540713060	Mafeteng	218 000
49	06610523033	Mohale's Hoek	218 000
50	07660333056	Quthing	218 000
51	04380113082	Maseru	218 000
52	07660343013	Quthing	359 400
53	10750433046	Thaba-tseka	359 400
54	02140813043	Leribe	357 000
55	04380113002	Maseru	357 000
56	01040413012	Botha-Bothe	357 000
57	03270813048	Berea	572 800
58	10720133003	Thaba-Tseka	397 400
59	01040413020	Botha-Bothe	397 400
60	04450813019	Maseru	397 400
61	04420513053	-	397 400
62	07660333057	Quthing	397 400
63	04460923034	Maseru	392 800
64	02070223017	Leribe	392 800
65	08710333050	Qacha's Nek	392 800
66	10760533023	Thaba-tseka	392 800
67	01030333053	Botha-Bothe	184 000
68	02100513002	Leribe	184 000
69	04400333011	Maseru	184 000

Year 13			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
70	04450823067	Maseru	184 000
71	04460913001	Maseru	184 000
72	04460923057	Maseru	184 000
73	04471023002	Maseru	184 000
74	05500313012	Mafeteng	184 000
75	09790333044	Mokhotlong	184 000
76	09790333061	Mokhotlong	184 000
77	10720133023	Thaba-Tseka	184 000
78	10750433007	Thaba-tseka	184 000
79	10750433033	Thaba-tseka	184 000
80	10760543001	Thaba-tseka	184 000
81	06560113021	Mohale's Hoek	184 000
82	06620633002	Mohale's Hoek	184 000
83	06630733017	Mohale's Hoek	184 000
84	08710333021	Qacha's Nek	184 000
85	08710333043	Qacha's Nek	184 000
86	09780233054	Mokhotlong	184 000
87	04410412037	Maseru	184 000
88	07670433032	Quthing	184 000
89	09790333067	Mokhotlong	184 000
90	02100513010	Leribe	181 600
91	03190123039	-	181 600
92	03210313057	Berea	181 600

Year 13			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
93	03220423043	-	181 600
94	05510413044	Mafeteng	181 600
95	05510423022	Mafeteng	181 600
96	06600443041	-	181 600
97	06610522017	Mohale's Hoek	181 600
98	07680533021	-	181 600
99	07680533028	-	181 600
100	09790531001	Mokhotlong	181 600
101	10730233042	Thaba-Tseka	181 600
102	03230512016	Berea	181 600
103	04371111013	Maseru	181 600
TOTAL INVESTMENT - YEAR 13:			25 734 000

Year 14			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
1	04410423086	-	181 600
2	02080323039	Leribe	395 800
3	07680533023	Quthing	568 200
4	02080323043	Leribe	217 400
5	03190123006	-	217 400
6	04400332019	Maseru	217 400
7	04471231065	-	217 400
8	05490213035	Mafeteng	217 400
9	05540713062	Mafeteng	217 400
10	06620633016	Mohale's Hoek	217 400
11	06630743058	Mohale's Hoek	217 400
12	09780233050	Mokhotlong	217 400
13	10740343071	-	217 400
14	10760533055	Thaba-tseka	217 400
15	04400323042	Maseru	217 400
16	06610523034	Mohale's Hoek	217 400
17	10760533054	Thaba-tseka	217 400
18	02070223005	Leribe	217 400
19	09770133057	Mokhotlong	217 400
20	03220413032	Berea	352 400
21	04390213034	Maseru	352 400
22	02171013032	-	352 400
23	02171013040	-	352 400

Year 14			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
24	02070223042	Leribe	180 000
25	03190123012	-	180 000
26	03200213054	Berea	180 000
27	03230513054	Berea	180 000
28	03250613018	Berea	180 000
29	04400323054	Maseru	180 000
30	05490213033	Mafeteng	180 000
31	06600443038	-	180 000
32	06630743062	Mohale's Hoek	180 000
33	09800433050	Mokhotlong	180 000
34	10720133024	Thaba-Tseka	180 000
35	01030333051	Botha-Bothe	180 000
36	04471033026	-	180 000
37	07660333048	Quthing	180 000
38	08690143063	Quthing	180 000
39	10720132049	Thaba-Tseka	180 000
40	01050511009	Botha-Bothe	180 000
41	02060133007	Leribe	180 000
42	02131211090	Leribe	180 000
43	07640641020	Quthing	180 000
44	06560113029	Mohale's Hoek	180 000
45	03270813035	Berea	527 800
46	10760533034	Thaba-tseka	392 800

Year 14			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
47	03210313053	Berea	392 800
48	04460923021	Maseru	355 400
49	10760533057	Thaba-tseka	355 400
50	03250623043	Berea	350 800
51	01010123043	Botha-Bothe	175 400
52	02060133031	Leribe	175 400
53	04400323051	Maseru	175 400
54	06610523037	Mohale's Hoek	175 400
55	06610523040	Mohale's Hoek	175 400
56	08690133075	Qacha's Nek	175 400
57	08690133077	Qacha's Nek	175 400
58	10760533025	Thaba-tseka	175 400
59	01020223048	Botha-Bothe	350 800
60	02060133030	Leribe	175 400
61	04400323078	Maseru	175 400
62	02090413011	Leribe	175 400
63	02151311055	Leribe	175 400
64	04471231062	-	175 400
65	05490213001	Mafeteng	175 400
66	05490213014	Mafeteng	175 400
67	07680532042	Quthing	175 400
68	09790531002	Mokhotlong	175 400
69	03220413017	Berea	391 200

Year 14			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
70	04390213005	Maseru	391 200
71	03270813036	Berea	388 800
72	10720132041	Thaba-Tseka	388 800
73	09780233066	Mokhotlong	388 800
74	01030333046	Botha-Bothe	215 800
75	02080313026	Leribe	215 800
76	02100523019	Leribe	215 800
77	02140813044	Leribe	215 800
78	02171013021	-	215 800
79	02171013028	-	215 800
80	03200212039	Berea	215 800
81	03220413008	Berea	215 800
82	03250623044	Berea	215 800
83	04420513061	-	215 800
84	04471033029	-	215 800
85	05510423025	Mafeteng	215 800
86	07640143039	Quthing	215 800
87	08700243043	Qacha's Nek	215 800
88	10730233030	Thaba-Tseka	215 800
89	10750433031	Thaba-tseka	215 800
90	10750433055	Thaba-tseka	215 800
91	07650243066	Quthing	215 800
92	09800433040	Mokhotlong	215 800

Year 14			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
93	02100513009	Leribe	215 800
94	05490213005	Mafeteng	215 800
95	02070213009	Leribe	215 800
96	04410423087	-	215 800
97	09790531007	Mokhotlong	215 800
98	07660333036	Quthing	386 600
99	01030333054	Botha-Bothe	386 600
100	01040413038	Botha-Bothe	386 600
101	02070223003	Leribe	386 600
102	03190123048	-	213 400
103	03230513053	Berea	213 400
104	03250613021	Berea	213 400
105	04390213007	Maseru	213 400
106	04400323077	Maseru	213 400
107	04420513084	-	213 400
TOTAL INVESTMENT - YEAR 14:			25 476 000

Year 15			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
1	05490212030	Mafeteng	213 400
2	05500323039	-	213 400
3	07660333038	Quthing	213 400
4	08690143062	Quthing	213 400
5	09790333063	Mokhotlong	213 400
6	10720133059	Thaba-Tseka	213 400
7	04471033050	-	213 400
8	04471033054	-	213 400
9	05510423007	Mafeteng	213 400
10	02060133045	Leribe	213 400
11	02080313012	Leribe	213 400
12	02100513027	Leribe	213 400
13	03241011083	Berea	213 400
14	04380113064	Maseru	213 400
15	04381111038	Maseru	213 400
16	05530613052	Mafeteng	213 400
17	06570811010	Mohale's Hoek	213 400
18	01020213007	Botha-Bothe	314 400
19	02100523039	Leribe	314 400
20	10760533059	Thaba-tseka	314 400
21	08710333028	Qacha's Nek	314 400
22	10750433059	Thaba-tseka	314 400
23	01020223023	Botha-Bothe	314 400

Year 15			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
24	02171013048	-	314 400
25	02060133037	Leribe	312 800
26	03260713018	Berea	312 800
27	04460923039	Maseru	312 800
28	02070213011	Leribe	312 800
29	02070213012	Leribe	312 800
30	03200212041	Berea	312 800
31	06570213064	Mohale's Hoek	312 800
32	02080313025	Leribe	310 400
33	03270813053	Berea	310 400
34	04390213024	Maseru	310 400
35	04450813065	Maseru	310 400
36	07650641004	Quthing	310 400
37	07680533048	Quthing	310 400
38	07650641001	Quthing	350 800
39	01020223049	Botha-Bothe	350 800
40	10720133019	Thaba-Tseka	350 800
41	10750433036	Thaba-tseka	350 800
42	05500313006	Mafeteng	350 800
43	05500313014	Mafeteng	350 800
44	04460923008	Maseru	348 400
45	02090413022	Leribe	348 400
46	06590343033	-	348 400

Year 15			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
47	08700243021	Qacha's Nek	386 600
48	07680533024	Quthing	346 200
49	02070223032	Leribe	346 200
50	04380113059	Maseru	346 200
51	02070223035	Leribe	384 200
52	02171013024	-	384 200
53	03200213004	Berea	382 600
54	03220413016	Berea	382 600
55	10720133029	Thaba-Tseka	382 600
56	02120713037	Leribe	382 600
57	02100513013	Leribe	342 200
58	03200213009	Berea	342 200
59	03200222051	Berea	342 200
60	03260713037	Berea	342 200
61	04390213004	Maseru	342 200
62	04410413004	Maseru	342 200
63	05520513005	Mafeteng	342 200
64	06620633031	Mohale's Hoek	342 200
65	08690133078	Qacha's Nek	342 200
66	01020223022	Botha-Bothe	342 200
67	01040413023	Botha-Bothe	342 200
68	07670433022	Quthing	342 200
69	07660343002	Quthing	342 200

Year 15			
PRIORITY RANKING	**EA CODE**	**DISTRICT (2016 EAs ref)**	**CAPEX (Maloti)**
70	01010123004	Botha-Bothe	180 000
71	02110613006	Leribe	180 000
72	03190123019	-	180 000
73	03190123050	-	180 000
74	04390213013	Maseru	180 000
75	04471022007	Maseru	180 000
76	05520523021	Mafeteng	180 000
77	06600443036	-	180 000
78	06620633038	Mohale's Hoek	180 000
79	06630733030	Mohale's Hoek	180 000
80	07660333021	Quthing	180 000
81	10740343066	-	180 000
82	10740343076	-	180 000
83	10760542014	Thaba-tseka	180 000
84	07640133040	Quthing	180 000
85	07640143035	Quthing	180 000
86	02160913074	Leribe	180 000
87	04410413073	Maseru	180 000
88	06590343019	-	180 000
89	04440713002	Maseru	513 000
90	01030333036	Botha-Bothe	213 400
91	02100523040	Leribe	213 400
TOTAL INVESTMENT - YEAR 15:			**25 563 000**

Year 16			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
1	03250623053	Berea	213 400
2	05500313020	Mafeteng	213 400
3	06590343039	-	213 400
4	06600413007	Mohale's Hoek	213 400
5	06620633024	Mohale's Hoek	213 400
6	09790333055	Mokhotlong	213 400
7	09790333059	Mokhotlong	213 400
8	10750432073	Thaba-tseka	213 400
9	10750433061	Thaba-tseka	213 400
10	06620633021	Mohale's Hoek	213 400
11	07650641032	Quthing	213 400
12	10730233032	Thaba-Tseka	213 400
13	02141211020	Leribe	213 400
14	03190123034	-	213 400
15	04390213051	Maseru	213 400
16	04410413074	Maseru	213 400
17	04420513075	-	213 400
18	04450813008	Maseru	213 400
19	04450813054	Maseru	213 400
20	05530811013	Mafeteng	213 400
21	07640641002	Quthing	213 400
22	01050511017	Botha-Bothe	213 400
23	01050511088	Botha-Bothe	213 400

Year 16			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
24	04440713042	Maseru	213 400
25	06590343031	-	213 400
26	03190123014	-	175 400
27	03190133055	-	175 400
28	03230512026	Berea	175 400
29	03250612031	Berea	175 400
30	03260713023	Berea	175 400
31	04400333031	Maseru	175 400
32	04420512036	Maseru	175 400
33	04460923025	Maseru	175 400
34	04460923036	Maseru	175 400
35	04471033024	-	175 400
36	04471033039	-	175 400
37	04471231061	-	175 400
38	05510423053	Mafeteng	175 400
39	06610513049	Mohale's Hoek	175 400
40	06620643061	Mohale's Hoek	175 400
41	06630733023	Mohale's Hoek	175 400
42	07660343007	Quthing	175 400
43	09780233033	Mokhotlong	175 400
44	09790333069	Mokhotlong	175 400
45	10720133055	Thaba-Tseka	175 400
46	02060133032	Leribe	175 400

Year 16			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
24	04400323047	Maseru	175 400
25	06630743064	Mohale's Hoek	175 400
26	07640133049	Quthing	175 400
27	02060133063	Leribe	175 400
28	02171013050	-	175 400
29	03200212011	Berea	175 400
30	03210313049	Berea	175 400
31	04420513059	-	175 400
32	05520512030	Mafeteng	175 400
33	06610523028	Mohale's Hoek	175 400
34	07640143029	Quthing	175 400
35	07640641019	Quthing	175 400
36	07670442055	Quthing	175 400
37	04430613058	Maseru	175 400
38	02100513035	Leribe	310 400
39	02181113017	Leribe	310 400
40	03260713055	Berea	310 400
41	04460923054	Maseru	310 400
42	06630733032	Mohale's Hoek	310 400
43	10730233035	Thaba-Tseka	310 400
44	10750433063	Thaba-tseka	310 400
45	07680533049	Quthing	310 400
46	10730233041	Thaba-Tseka	310 400

Year 16			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
70	07660343011	Quthing	310 400
71	02110613001	Leribe	211 200
72	03190123036	-	211 200
73	03200213056	Berea	211 200
74	03200222050	Berea	211 200
75	05510413047	Mafeteng	211 200
76	06590343022	-	211 200
77	06630733011	Mohale's Hoek	211 200
78	09790333047	Mokhotlong	211 200
79	10750433015	Thaba-tseka	211 200
80	04460923040	Maseru	211 200
81	04471033035	-	211 200
82	07660333034	Quthing	211 200
83	01030313003	Botha-Bothe	211 200
84	07670433020	Quthing	211 200
85	07670433033	Quthing	211 200
86	07640641001	Quthing	211 200
87	09780233060	Mokhotlong	211 200
88	02100513016	Leribe	346 200
89	03270813047	Berea	346 200
90	01030333058	Botha-Bothe	346 200
91	08700233050	Qacha's Nek	346 200
92	02140813032	Leribe	346 200

Year 16			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
93	03210313024	Berea	346 200
94	07670432025	Quthing	346 200
95	05490213012	Mafeteng	346 200
96	03260713049	Berea	208 800
97	06560113023	Mohale's Hoek	208 800
98	06590313015	Mohale's Hoek	208 800
99	06590343036	-	208 800
100	06600443042	-	208 800
101	07650233063	Quthing	208 800
102	09780233051	Mokhotlong	208 800
103	10740343068	-	208 800
104	10740343074	-	208 800
105	04390223063	Maseru	208 800
106	06630743026	Mohale's Hoek	208 800
107	06630743045	Mohale's Hoek	208 800
108	09800433011	Mokhotlong	208 800
109	01030323029	Botha-Bothe	208 800
110	02151311006	Leribe	208 800
111	02151311008	Leribe	208 800
112	02171013030	-	208 800
113	03190123007	-	208 800
114	04420513069	-	208 800
115	07640641026	Quthing	208 800

Year 16			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
116	03260713010	Berea	208 800
TOTAL INVESTMENT - YEAR 16:			25 322 800

Year 17			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
1	02080323046	Leribe	305 800
2	02181113013	Leribe	305 800
3	04471033040	-	305 800
4	05520513046	Mafeteng	305 800
5	10750433009	Thaba-tseka	305 800
6	10750433013	Thaba-tseka	305 800
7	10750433056	Thaba-tseka	305 800
8	09780233071	Mokhotlong	305 800
9	10760533035	Thaba-tseka	305 800
10	02131211008	Leribe	305 800
11	02131211025	Leribe	305 800
12	02151311014	Leribe	305 800
13	06590343032	-	305 800
14	09780233061	Mokhotlong	305 800
15	03220413021	Berea	308 800
16	03220423038	-	308 800
17	06600443022	-	308 800
18	09800433051	Mokhotlong	308 800
19	10740333063	Thaba-tseka	308 800
20	02060133042	Leribe	308 800
21	06630733034	Mohale's Hoek	308 800
22	10730233049	Thaba-Tseka	308 800
23	10750433032	Thaba-tseka	308 800

Year 17			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
24	02070213013	Leribe	308 800
25	02100513017	Leribe	308 800
26	03260713060	Berea	342 200
27	04400333041	Maseru	342 200
28	07660333040	Quthing	342 200
29	01030323024	Botha-Bothe	342 200
30	02070213010	Leribe	342 200
31	03250612035	Berea	337 600
32	03250613025	Berea	337 600
33	04471033052	-	337 600
34	03190123033	-	337 600
35	10730233013	Thaba-Tseka	337 600
36	10750433034	Thaba-tseka	337 600
37	02160913087	Leribe	337 600
38	04450813018	Maseru	337 600
39	02060133003	Leribe	207 200
40	02090413027	Leribe	207 200
41	02110613028	Leribe	207 200
42	02171013018	-	207 200
43	03210313046	Berea	207 200
44	03250623048	Berea	207 200
45	03260713063	Berea	207 200
46	04400323085	Maseru	207 200

Year 17			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
24	04420513082	-	207 200
25	04440713003	Maseru	207 200
26	04460923046	Maseru	207 200
27	04460923058	Maseru	207 200
28	05510423068	Mafeteng	207 200
29	05520523007	Mafeteng	207 200
30	06600413001	Mohale's Hoek	207 200
31	09780233034	Mokhotlong	207 200
32	09780233047	Mokhotlong	207 200
33	10730233039	Thaba-Tseka	207 200
34	06620633005	Mohale's Hoek	207 200
35	07650641029	Quthing	207 200
36	08710333041	Qacha's Nek	207 200
37	02151311016	Leribe	207 200
38	03200212045	Berea	207 200
39	03291111075	Berea	207 200
40	02090413013	Leribe	171 400
41	02110613031	Leribe	171 400
42	03190123013	-	171 400
43	03230513041	Berea	171 400
44	06560113019	Mohale's Hoek	171 400
45	06570811001	Mohale's Hoek	171 400
46	06630733038	Mohale's Hoek	171 400

Year 17			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
70	07660333049	Quthing	171 400
71	07680543018	Quthing	171 400
72	10730233021	Thaba-Tseka	171 400
73	04410423085	-	171 400
74	04471023013	Maseru	171 400
75	03210313012	Berea	171 400
76	03241011086	Berea	171 400
77	04450813012	Maseru	171 400
78	06590313005	Mohale's Hoek	171 400
79	07640641007	Quthing	171 400
80	01040413035	Botha-Bothe	341 600
81	02110613010	Leribe	341 600
82	03190123017	-	341 600
83	10750433050	Thaba-tseka	341 600
84	10750433069	Thaba-tseka	341 600
85	01040413002	Botha-Bothe	341 600
86	02060133015	Leribe	305 800
87	03220423041	-	305 800
88	06600443029	-	305 800
89	10730233011	Thaba-Tseka	305 800
90	10740631028	Thaba-tseka	305 800
91	10750433024	Thaba-tseka	305 800
92	06570213063	Mohale's Hoek	305 800

Year 17			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
93	06560113001	Mohale's Hoek	305 800
94	02171013049	-	337 600
95	04410413082	Maseru	337 600
96	05500323045	-	337 600
TOTAL INVESTMENT - YEAR 17:			25 485 200

Year 18			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
1	10700233001	Qacha's Nek	337 600
2	10720133008	Thaba-Tseka	337 600
3	10740333053	Thaba-tseka	337 600
4	01040413011	Botha-Bothe	337 600
5	02060133066	Leribe	337 600
6	04430613052	Maseru	337 600
7	02100513006	Leribe	337 600
8	01040413034	Botha-Bothe	304 200
9	01040413036	Botha-Bothe	304 200
10	02070223018	Leribe	304 200
11	02080313023	Leribe	304 200
12	03220413028	Berea	304 200
13	03250612036	Berea	304 200
14	04420513085	-	304 200
15	04440713021	Maseru	304 200
16	05500323043	-	304 200
17	08690133065	Qacha's Nek	304 200
18	10750433041	Thaba-tseka	304 200
19	10760533061	Thaba-tseka	304 200
20	02060133040	Leribe	304 200
21	04460922031	Maseru	304 200
22	10720133028	Thaba-Tseka	304 200
23	10750432074	Thaba-tseka	304 200

Year 18			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
24	02080313033	Leribe	304 200
25	04420513064	-	304 200
26	06590313011	Mohale's Hoek	304 200
27	01030323006	Botha-Bothe	304 200
28	06560113013	Mohale's Hoek	304 200
29	09780233068	Mokhotlong	304 200
30	01010123003	Botha-Bothe	175 400
31	03200212057	Berea	175 400
32	03230513043	Berea	175 400
33	04400323048	Maseru	175 400
34	04471033021	-	175 400
35	06630733016	Mohale's Hoek	175 400
36	07640133050	Quthing	175 400
37	09800433005	Mokhotlong	175 400
38	01030333055	Botha-Bothe	175 400
39	06630733037	Mohale's Hoek	175 400
40	03241011001	Berea	175 400
41	03281111048	Berea	175 400
42	04410413079	Maseru	175 400
43	05500313019	Mafeteng	175 400
44	01010123013	Botha-Bothe	301 800
45	02060133020	Leribe	301 800
46	02110613029	Leribe	301 800

Year 18			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
47	02140813039	Leribe	301 800
48	03230512027	Berea	301 800
49	03260713053	Berea	301 800
50	04380113076	Maseru	301 800
51	05530613005	Mafeteng	301 800
52	09780233014	Mokhotlong	301 800
53	10720133025	Thaba-Tseka	301 800
54	10740631048	Thaba-tseka	301 800
55	02100523036	Leribe	301 800
56	08700243020	Qacha's Nek	301 800
57	02110511047	Leribe	301 800
58	02141211021	Leribe	301 800
59	04390213023	Maseru	301 800
60	02090413031	Leribe	333 000
61	02090413032	Leribe	333 000
62	03190123015	-	333 000
63	03200213031	Berea	333 000
64	03270813050	Berea	333 000
65	10740333056	Thaba-tseka	333 000
66	03210313010	Berea	333 000
67	04420513068	-	333 000
68	05530613011	Mafeteng	333 000
69	02151311018	Leribe	333 000

Year 18			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
70	02171013023	-	299 600
71	05530613009	Mafeteng	299 600
72	06630733043	Mohale's Hoek	299 600
73	09790333051	Mokhotlong	299 600
74	10720133051	Thaba-Tseka	299 600
75	10750433068	Thaba-tseka	299 600
76	06630743059	Mohale's Hoek	299 600
77	10730233055	Thaba-Tseka	299 600
78	02080323042	Leribe	204 200
79	02151311003	Leribe	204 200
80	03190123054	-	204 200
81	03210313041	Berea	204 200
82	03220413002	Berea	204 200
83	03220413012	Berea	204 200
84	03250613024	Berea	204 200
85	04390213010	Maseru	204 200
86	05510423065	Mafeteng	204 200
87	05540713005	Mafeteng	204 200
88	06560113010	Mohale's Hoek	204 200
89	06620633010	Mohale's Hoek	204 200
90	06630733002	Mohale's Hoek	204 200
91	07640641012	Quthing	204 200
92	07680533027	Quthing	204 200

Year 18			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
93	07680543012	Quthing	204 200
94	09780233043	Mokhotlong	204 200
95	10720133026	Thaba-Tseka	204 200
TOTAL INVESTMENT - YEAR 18:			25 742 400

Year 19			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
1	10740333027	-	204 200
2	10750433004	Thaba-tseka	204 200
3	04400333003	Maseru	204 200
4	08690133079	Qacha's Nek	204 200
5	08710333033	Qacha's Nek	204 200
6	10720133056	Thaba-Tseka	204 200
7	10750433054	Thaba-tseka	204 200
8	02110613032	Leribe	204 200
9	02110613052	Leribe	204 200
10	02120713001	Leribe	204 200
11	07680533031	-	204 200
12	01030323017	Botha-Bothe	204 200
13	01030333041	Botha-Bothe	170 800
14	01050511099	Botha-Bothe	170 800
15	02060133041	Leribe	170 800
16	02181113028	Leribe	170 800
17	04400323063	Maseru	170 800
18	04400333015	Maseru	170 800
19	04471033027	-	170 800
20	05510423064	Mafeteng	170 800
21	06560113018	Mohale's Hoek	170 800
22	06580811090	Mohale's Hoek	170 800
23	06590343030	-	170 800

Year 19			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
24	06600443017	-	170 800
25	06630733001	Mohale's Hoek	170 800
26	06630733031	Mohale's Hoek	170 800
27	07640143036	Quthing	170 800
28	07660333047	Quthing	170 800
29	09780233038	Mokhotlong	170 800
30	09790531042	Mokhotlong	170 800
31	10750433045	Thaba-tseka	170 800
32	04400323044	Maseru	170 800
33	04400323084	Maseru	170 800
34	04400333009	Maseru	170 800
35	04471231064	-	170 800
36	02070223028	Leribe	170 800
37	02171013031	-	170 800
38	06570811050	Mohale's Hoek	170 800
39	07680533033	Quthing	170 800
40	07670433029	Quthing	170 800
41	07680533029	-	170 800
42	03200213006	Berea	207 200
43	03250613008	Berea	207 200
44	03250613013	Berea	207 200
45	03250623041	Berea	207 200
46	04430612036	Maseru	207 200

Year 19			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
47	04460923047	Maseru	207 200
48	05520523016	Mafeteng	207 200
49	06560113026	Mohale's Hoek	207 200
50	06620633036	Mohale's Hoek	207 200
51	06630733012	Mohale's Hoek	207 200
52	06630743068	Mohale's Hoek	207 200
53	07680543001	Quthing	207 200
54	08690133066	Quthing	207 200
55	10740631031	Thaba-tseka	207 200
56	04400323066	Maseru	207 200
57	04410423095	-	207 200
58	04471033025	-	207 200
59	06600443037	-	207 200
60	08690133071	Qacha's Nek	207 200
61	10760533028	Thaba-tseka	207 200
62	03210313037	Berea	207 200
63	04450812005	Maseru	207 200
64	05510423066	Mafeteng	337 600
65	10750433022	Thaba-tseka	337 600
66	02090413039	Leribe	337 600
67	05520513006	Mafeteng	337 600
68	01030333050	Botha-Bothe	202 600
69	03190123038	-	202 600

Year 19			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
70	03241011087	-	202 600
71	03250613002	Berea	202 600
72	04400333037	Maseru	202 600
73	04440712033	Maseru	202 600
74	05500323046	-	202 600
75	05510423009	Mafeteng	202 600
76	08710333042	Qacha's Nek	202 600
77	09790333053	Mokhotlong	202 600
78	04400323055	Maseru	202 600
79	06620633034	Mohale's Hoek	202 600
80	07660333050	Quthing	202 600
81	10730233046	Thaba-Tseka	202 600
82	03220413019	Berea	333 000
83	03230513036	Berea	333 000
84	06560113034	Mohale's Hoek	333 000
85	07660343052	Quthing	333 000
86	10720133022	Thaba-Tseka	333 000
87	10760542009	Thaba-tseka	333 000
88	02160913085	Leribe	333 000
89	02070223044	Leribe	299 600
90	02090423037	Leribe	299 600
91	03230513035	Berea	299 600
92	04410413083	Maseru	299 600

Year 19			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
93	04450813062	Maseru	299 600
94	06620643059	Mohale's Hoek	299 600
95	09800433002	Mokhotlong	299 600
96	07660333032	Quthing	299 600
97	08700233051	Qacha's Nek	299 600
98	10750433044	Thaba-tseka	299 600
99	01040413009	Botha-Bothe	299 600
100	02090413025	Leribe	299 600
101	05500313004	Mafeteng	299 600
102	06570811011	Mohale's Hoek	299 600
103	02070223006	Leribe	299 600
104	04400323070	Maseru	166 800
105	04420513066	-	166 800
106	04450813063	Maseru	166 800
107	06570811003	Mohale's Hoek	166 800
108	06590313006	Mohale's Hoek	166 800
109	06590343028	-	166 800
110	06630733013	Mohale's Hoek	166 800
111	10760543002	Thaba-tseka	166 800
112	03190123029	-	166 800
113	04400323050	Maseru	166 800
114	06630743046	Mohale's Hoek	166 800
115	02110613056	Leribe	166 800

Year 19			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
116	07640143030	Quthing	166 800
117	06590343021	-	166 800
TOTAL INVESTMENT - YEAR 19:			25 309 000

Year 20			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
1	03230513052	Berea	297 200
2	06600443030	-	297 200
3	06610523036	Mohale's Hoek	297 200
4	08700243015	Qacha's Nek	297 200
5	09790333070	Mokhotlong	297 200
6	10720132040	Thaba-Tseka	297 200
7	10720133005	Thaba-Tseka	297 200
8	10720133034	Thaba-Tseka	297 200
9	10760533026	Thaba-tseka	297 200
10	10760533027	Thaba-tseka	297 200
11	10760543032	Thaba-tseka	297 200
12	10760543040	Thaba-tseka	297 200
13	02060133058	Leribe	297 200
14	10730233037	Thaba-Tseka	297 200
15	10750433010	Thaba-tseka	297 200
16	04420513062	-	297 200
17	05500313002	Mafeteng	297 200
18	07660333059	Quthing	297 200
19	07660641013	Quthing	297 200
20	03210313047	Berea	130 400
21	04400323079	Maseru	130 400
22	04471033032	-	130 400
23	09780233029	Mokhotlong	130 400

Year 20			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
24	10750433005	Thaba-tseka	130 400
25	02060133034	Leribe	130 400
26	04400333004	Maseru	130 400
27	04460923003	Maseru	130 400
28	07640143027	Quthing	130 400
29	03190123035	-	331 400
30	03230513001	Berea	331 400
31	04460923048	Maseru	331 400
32	05500323041	-	331 400
33	10750433038	Thaba-tseka	331 400
34	10720133036	Thaba-Tseka	331 400
35	10750433001	Thaba-tseka	331 400
36	01020213038	Botha-Bothe	331 400
37	02070223041	Leribe	329 000
38	01030333038	Botha-Bothe	329 000
39	02060133001	Leribe	329 000
40	03220423037	-	329 000
41	10740343070	-	329 000
42	02140813027	Leribe	329 000
43	03250613015	Berea	295 600
44	04420513077	-	295 600
45	04460923024	Maseru	295 600
46	10730233010	Thaba-Tseka	295 600

Year 20			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
47	10730233019	Thaba-Tseka	295 600
48	10740333060	Thaba-tseka	295 600
49	05510413057	Mafeteng	295 600
50	10700233003	Qacha's Nek	295 600
51	10760533024	Thaba-tseka	295 600
52	01030313005	Botha-Bothe	295 600
53	02070213022	Leribe	295 600
54	02080313003	Leribe	295 600
55	02100513020	Leribe	295 600
56	07640143028	Quthing	295 600
57	07640641023	Quthing	295 600
58	02110613011	Leribe	170 800
59	03250623049	Berea	170 800
60	04400323049	Maseru	170 800
61	04400332016	Maseru	170 800
62	04400333038	Maseru	170 800
63	05500323049	-	170 800
64	06600443025	-	170 800
65	06610523003	Mohale's Hoek	170 800
66	06620643047	Mohale's Hoek	170 800
67	09770133056	Mokhotlong	170 800
68	10750433030	Thaba-tseka	170 800
69	10760543007	Thaba-tseka	170 800

Year 20			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
70	04460923044	Maseru	170 800
71	10730233048	Thaba-Tseka	170 800
72	10730233050	Thaba-Tseka	170 800
73	10750433017	Thaba-tseka	170 800
74	10750433064	Thaba-tseka	170 800
75	01010123018	Botha-Bothe	202 600
76	02070223040	Leribe	202 600
77	03220413026	Berea	202 600
78	04400323059	Maseru	202 600
79	04460923033	Maseru	202 600
80	04471231057	-	202 600
81	07640133041	Quthing	202 600
82	08690133073	Qacha's Nek	202 600
83	08710431015	Qacha's Nek	202 600
84	09790531003	Mokhotlong	202 600
85	02080323030	Leribe	202 600
86	04400323061	Maseru	202 600
87	02070213016	Leribe	202 600
88	02131211072	Leribe	202 600
89	03291111083	Berea	202 600
90	04420513063	-	202 600
91	04450813051	Maseru	202 600
92	05500313013	Mafeteng	202 600

Year 20			
PRIORITY RANKING	EA CODE	DISTRICT (2016 EAs ref)	CAPEX (Maloti)
93	07640641004	Quthing	202 600
94	07680533022	Quthing	202 600
95	01020213041	Botha-Bothe	295 000
96	01040413027	Botha-Bothe	295 000
97	02100523025	Leribe	295 000
98	03190123009	-	295 000
99	03200213010	Berea	295 000
100	04390223016	Maseru	295 000
101	04471023003	Maseru	295 000
102	05510413042	Mafeteng	295 000
103	05530613006	Mafeteng	295 000
TOTAL INVESTMENT - YEAR 20:			25 490 200