

HA MAKEBE



Location
Lesotho

PROJECT SUMMARY

Nearly 170 households in Lesotho have been connected to electricity for the first time following the construction of the country's first ever private mini-grid. Dozens more properties in and around the project site in Ha Makebe, north-east of capital city Maseru, are set to be onboarded on a rolling basis over the coming months.

Lesotho has an extremely low rural electrification rate of just 8% – and solar mini-grids are an excellent way of serving difficult-to-access locations.

Construction of the 50kW (AC) solar mini-grid was made possible thanks to an LSL7m (Lesotho loti) loan from REPP in October 2018. This followed a pioneering effort to secure Lesotho's inaugural mini-grid concession by Sotho Minigrad Portfolio, which is a special purpose vehicle owned by OnePower Lesotho (Pty) Ltd.

The funds were made available in local currency, which was a notable first for REPP and provided the developer with greater resilience against fluctuating exchange rates. The expected completion of the mini-grid in late Q2 2021 will pave the way for the development of a larger portfolio of up to 10 additional mini-grids which will ultimately connect around 25,000 people to clean electricity for the first time. The developer has also won a mandate to provide the installation of renewable energy for a number of health clinics. REPP, along with Electrifi, is in the process of documenting the facility agreements which will support the construction of this larger portfolio.

The pilot mini-grid and those of the planned larger portfolio are solar PV hybrids with battery storage and limited LPG backup generation. The hybrid nature of the design is to ensure 24-hour, year-round electricity supply, even during Lesotho's harsh winters.

When fully operational, the mini-grids will provide low-cost, consistent, and very often first-time electricity access for up to an estimated 4,900 households, as well as small enterprises, schools, and health clinics. To date, 18 construction jobs have been created through the project, with approximately 185 part-time jobs expected to be created during the full project's construction phase and a further 15 full-time jobs during operation.

Completion of the mini-grids will demonstrate the technical and commercial viability of the project at scale, and will help to develop a viable business model that can be replicated in other rural, off-grid villages. In the process, the project will assist in building local capacity, develop local skills and contribute to socio-economic development.



Country policy alignment

Supports Lesotho's conditional NDC (2017) target to reduce GHG emissions by 35% by 2030 and install 1MW of solar PV mini-grids in rural areas. Ha Makebe is well aligned with Lesotho's National Energy Policy (2015), which aims to increase private sector engagement in energy sector development, especially renewable energy mini-grids.

AT A GLANCE

Technology:

Solar PV mini-grids with battery storage and LPG back-up generation



Project type:

Off-grid

Offtaker:

Off-grid communities

KPIs - Pilot phase



GHG emissions avoided:
166 tCO₂e per year



People with first-time access to clean energy: 1,075



Installed capacity:
76kW plus battery storage

KPIs - Full project

REPP is considering funding the full project, but is not legally committed.



GHG emissions avoided:
4,095 tCO₂e per year



People with first-time access to clean energy: 24,957



Installed capacity:
1.87MW

FUNDING STRUCTURE

Signed: 2 October 2018

Type: Convertible loan

REPP funding: LSL 7m

SDGs



"OnePower is proud to partner with REPP to build the first mini-grid in Lesotho. REPP has provided invaluable support to this project and we look forward to our continued cooperation to bring clean and affordable electricity services to communities in Lesotho."

Matt Orosz, CEO, OnePower Lesotho Ltd