

HA MAKEBE



Location
Lesotho

PROJECT SUMMARY

The second and much larger phase of a pioneering solar mini-grids project in Lesotho is underway following the completion of a pilot project funded by REPP in Ha Makebe village, north-east of Maseru.

Lesotho is one of the least electrified countries in the world, with a rural electrification rate estimated at below 20% – and solar mini-grids are an excellent way of serving difficult-to-access locations. To date, 187 households and businesses in and around Ha Makebe have been connected to electricity for the first time following the construction of the country's first ever private mini-grid.

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 SPV (Pty) Ltd, a special purpose vehicle (SPV) 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 pilot mini-grid in Ha Makebe was completed in 2021 and has since paved the way for the development of a larger portfolio of 10 additional mini-grids in rural service territories after REPP and the EU-funded Electrification Financing Initiative (EDFI Electrifi) invested LSL 150m (~ EUR 10m) in equity and senior debt into the SPV in early 2022.

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, including Lesotho's harsh winters.

When fully operational, the mini-grids will provide low-cost, consistent, and usually first-time electricity access for up to an estimated 8,000 households, as well as small enterprises, schools, and seven 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 (2018) 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.

"REPP has been a critical partner to 1PWR for several years and the REPP team's ongoing support and dedication to our mission enabled us to close on our landmark mini-grid transaction in Lesotho, which will bring electricity access to more than 30,000 people. We are proud of our partnership with REPP and look forward to our continued cooperation to bring clean and affordable electricity services to communities in Lesotho"

Matt Orosz, CEO, OnePower Lesotho Ltd

AT A GLANCE

Technology:

Solar PV mini-grids

Project type:

Off-grid



Offtaker:

Off-grid communities

KPIs



GHG emissions avoided: **Pilot: 37 tCO₂e (achieved, cumulative)**; whole project: 819 tCO₂e per year (target)



People with first-time access to clean energy: **Pilot: 887 (achieved)**; whole project: c.30,000 (target)



Planned capacity: **Pilot: 50kW plus 152kWh battery storage (achieved)**; whole project: 1.87MW plus 5MWh battery storage (target)

FUNDING STRUCTURE

Pilot mini-grid phase:

Signed: 2 October 2018

Type: Convertible loan

REPP funding: LSL 7m

Phase two:

Signed: 24 December 2021

Type: Equity and senior debt

REPP funding: LSL 75m

SDGs

