

ARC POWER RWANDA



Location
Rwanda

PROJECT SUMMARY

The first phase of an ambitious scheme to erect a large portfolio of mini-grids in Rwanda is under way after its British-based developer secured a £600,000 convertible loan from REPP.

REPP's early-stage support for the project is critical to enabling ARC Power Ltd to progress with its first eight installations in Bugesera District, which will have a combined generating capacity of 0.12MW.

If the initial roll-out is a success, REPP intends to follow on with a larger construction loan to complete the second and wider rollout of the project, which will boost the project's total generating capacity to 3.5MW.

Energy from the mini-grids will be offered on a pre-pay, pay-as-you-go basis to off-grid communities currently with no access to clean energy, and who mostly rely on more expensive and polluting sources of energy such as kerosene for lighting.

The portable and modular mini-grids were developed by ARC Power and can each connect between 100 and 600 households or businesses in a village, providing productive-use, A/C power for lighting and mobile charging, as well as the ability to use appliances and machinery, enabling the development of small businesses. The modular nature of the units also allows for increased capacity to be added following the initial installation, ensuring that supply can be ramped up in line with demand.

The full project is forecast to create 200 jobs during the construction phases and a further 40 during operation. Once completed, the mini-grids will provide enough clean electricity to meet the needs of nearly 150,000 people living off-grid in Rwanda, which currently has an estimated national electrification rate of 30%, and just 12% in rural areas.

The Rwandan government, which has set a target to provide universal energy access by 2024, is seen as a keen supporter of the project and of private sector involvement in the country more generally. If successful, the project will prove the case for large-scale off-grid solar PV solutions in Rwanda, and catalyse interest from the commercial sector.

AT A GLANCE

Technology

Mini-grids



Project type

Off-grid solar PV mini-grids

Offtaker

Off-grid communities

KPIs



Greenhouse gas emissions avoided: 7,665 tCO₂e per year



People with first-time energy access: 148,000



Jobs created: 200 during construction, 40 during operation



Installed capacity: 3.5MW

FUNDING STRUCTURE

Contracted date

18 February 2019

Lending type

Convertible loan

REPP funding

UK £600,000

"We have huge ambitions for ARC Power in Rwanda. The funding from REPP will allow us to press forwards with our national rollout, providing affordable, reliable and clean power to around 150,000 people in these next two phases."

Karl Boyce, CEO, ARC Power