

MALILE



Location

Cities of Diego Suarez, Mahajanga and Toamasina, Madagascar

PROJECT SUMMARY

Three large-scale heavy fuel oil (HFO) plants in Madagascar are being hybridised with solar PV thanks to a USD 6m bridge loan from REPP to developer LIDERA Green Power.

Currently, 75% of the country's power is generated from expensive and high-emission HFO and diesel plants, but the government is keen to reduce dependence on fossil fuels and shift towards more sustainable sources. Hybridising fossil-fuel plants with renewable energy not only serves to reduce emissions, but also makes single energy sources more climate resilient against availability of supply and increases energy security through diversification.

Under LIDERA's plans, 10MW, 12MW and 20MW of solar PV will be installed close to the existing HFO plants in the cities of Diego, Mahajanga and Toamasina, respectively. By doing so, the solar plants will be able to take advantage of the existing infrastructure, significantly reducing costs and the environmental impact of the development.

The project, which is the first large-scale PV hybridisation of HFO plants in Madagascar, is being carried out in two phases in order to meet deadlines set out by the Malagasy government. REPP is financing the first phase, which will deliver a total installed capacity of 5.7MW across the three sites. The second phase of 36.3MW is planned for Q2 2023.

As of March 2022, LIDERA had installed 2MW and 1.25MW of solar PV panels at the plants in Toamasina and Mahajanga, respectively. Work to install a further 2.4MW at a third plant near Diego is underway and expected to be finished in Q4 2022.

REPP's bridge loan will enable the borrower to fund the EPC costs for the first phase, which if successful will act as a proof of concept to encourage other lenders to support the development and construction of the second and larger phase.

Once the sites are operational, the owner of the HFO plants, will purchase power from the PV projects and then on-sell to the national utility. The project is expected to deliver significant socio-economic benefits to Madagascar's economy and population by reducing the country's reliance on expensive HFO and providing job opportunities during the construction and operation of the plant.



Country policy alignment

REPP's investment in the Malile solar PV project represents a significant international contribution to Madagascar's climate agenda, including the conditional NDC target (2016) for a 14% reduction of GHG emissions by 2030. It also supports the implementation of the government's Madagascar Emergence Initiative (2019) and will add 42MW of new solar generation capacity, in line with New Energy Policy (2015) targets.

AT A GLANCE

Technology:

Grid-connected solar PV



Project type:

Grid-connected

Offtaker:

The HFO IPP will purchase the power and on-sell to the national utility, JIRAMA

KPIs



GHG emissions avoided:
Phase 1: 5,552 tonnes CO₂e per year / **Achieved: 4,907 tCO₂e (cumulative)**



Improves stability of grid supply



Planned capacity: Phase 1: 5.7MW / **Achieved: 3.25MW**

FUNDING STRUCTURE

Signed: 22 December 2020

Type: Bridge loan

REPP funding: USD 6 million

SDGs

7 AFFORDABLE AND CLEAN ENERGY



8 DECENT WORK AND ECONOMIC GROWTH



11 SUSTAINABLE CITIES AND COMMUNITIES



13 CLIMATE ACTION



17 PARTNERSHIPS FOR THE GOALS



"As the first large-scale PV hybridisation of heavy fuel oil plants in Madagascar, the Malile project is truly ground-breaking and once fully operational will significantly support the country's GHG emission targets. REPP's support has been instrumental in getting the first phase off the ground and helping to prove the concept to further lenders."

Tidiani Tall, CEO, LIDERA Green Power