



Luxembourg, MC decision 08.04.2022

## Environmental and Social Data Sheet

### Overview

Project Name: MADAGASCAR ELECTRIFICATION PROGRAMME  
 Project Number: 2021-0095  
 Country: MADAGASCAR  
 Project Description: Financing of mini-grids in Madagascar

EIA required: no

Project included in Carbon Footprint Exercise<sup>1</sup>: no

(details for projects included are provided in section: "EIB Carbon Footprint Exercise")

### Environmental and Social Assessment

The project aims at providing access to clean and affordable energy for households and enterprises in Madagascar by financing the development and construction of about 145 small PV-hybrid mini-grids. The mini-grids with a total PV capacity of 3.2 MWp are expected to directly benefit about 38,000 households and SMEs, providing initial electrification or substituting polluting and more expensive diesel-generated electricity supply. The promoter, WeLIGHT, was established by Axian Group and Sagemcom in 2018. In 2019, Norfund joined them with the aim of investing in rural electrification in Africa including Madagascar. The Promoter has already developed 37 mini-grid sites in Madagascar.

#### Environmental Assessment

At a national level, the project is subject to the applicable environmental regulations in Madagascar, Decree No. 99954 of 15 December 1999 on the Implementation Compatibility of Investments with the Environment, as amended by Decree No. 2004-167 of 03 February 2004 (MECIE decree / Mise en compatibilité des Investissements avec l'Environnement).

For each of the mini-grids the promoter will compile relevant E&S information about the project and relay it to the National Office for the Environment (ONE / Office National pour l'Environnement).

ONE is in charge of the categorisation of the project from an E&S point of view. Due to the size and characteristics of the mini-grids, it is envisaged that the impacts will be low or medium and therefore the projects will fall under the category that requires the so-called Environmental Engagement Programme (PREE/Programme d'Engagement Environnemental). That was the case with the 37 developed sites (not part of this project) under operation. The

<sup>1</sup> Only projects that meet the scope of the Carbon Footprint Exercise, as defined in the EIB Carbon Footprint Methodologies, are included, provided estimated emissions exceed the methodology thresholds: 20,000 tonnes CO<sub>2</sub>e/year absolute (gross) or 20,000 tonnes CO<sub>2</sub>e/year relative (net) – both increases and savings.



Luxembourg, MC decision 08.04.2022

promoter carries out the PREE, which includes the description of the project, the local context, identification and assessment of risks and potential impacts on the population and environment, including fauna, flora, water, soil, during construction and operation. PREE proposes mitigation measures and includes an Environmental and Social Management Plan. PREE is reviewed by the Ministry of Energy, which may also conduct site visits and issues an environmental authorisation.

Because the mini-grids – subject to this project – are currently in the development phase, not all authorisations have been issued. The Promoter will therefore submit all PREE and relevant authorisations to the EIB as a contractual disbursement condition.

Based on the information reviewed on the previous similar mini-grids, no major negative environmental impact is foreseen for the construction, operation or dismantling of the planned mini-grid projects with an average of 22 kWp capacity. Expected low to moderate impacts are rather typical of the construction of such projects, in terms of particulate emissions, increase in noise levels, and limited changes in physical environment (soil, landscape). The stress on local water use and supply (to wash solar panels) is not expected to be significant with these projects.

Potential significant negative impacts could be associated with the unsatisfactory disposal of batteries used in the mini-grids, as well as of the used solar panels (in addition to other waste streams). The promoter is aware of such impacts and is developing a waste management plan, which should mitigate this issue. This plan includes an agreement with the main waste disposal company in Madagascar. The promoter will be conditioned by the contract to furnish information about the agreement and the systems which the company operates.

No significant negative impacts on sensitive natural habitats or other biodiversity dimensions (e.g. bird collision – linked to their possible perception of solar panels as water bodies) are expected for the projects.

Some positive local environmental benefits are expected during operation, given the replacement of polluting power generation options (diesel/kerosene) with a cleaner fuel mix, which is expected to avoid local air pollution (in addition to avoiding global GHG emissions).

The share of diesel generation (for backup power production only) will remain limited and the borrower will be required to stay below the Emission Performance Standard threshold set in the EIB Energy Lending Policy (250 gCO<sub>2e</sub> per kWh). Therefore, the project is considered to be aligned with the policies set out in the Climate Bank Roadmap and the Energy Lending Policy of the Bank and thus it is fully Paris Aligned.

### **EIB Carbon Footprint Exercise**

The Project produces CO<sub>2</sub> emissions when power is generated using back-up diesel generation sets instead of solar PV panels. The combined use of solar power production and batteries nevertheless allows for the avoidance of at least 72% of an alternative power base using only diesel. The Project therefore enables carbon savings estimated at 2.5 ktCO<sub>2e</sub>/year.

### **Social Assessment**

The Project is expected to positively affect the beneficiary communities by enabling access to and/or improving the quality of electricity supply. The electricity produced through the



Luxembourg, MC decision 08.04.2022

mini-grids aims to support local economic development, for example by allowing small entrepreneurs that otherwise would not have access to electricity to increase productivity by allowing them to increase the use of machinery, extend working and opening hours etc. This is likely to have subsequent economic and social benefits, for example by creating job opportunities, improving access to educational and health services, or improving street lighting leading to greater security in the medium term.

Due to their size, the mini-grids require small parcels varying from 500 to 1200 square metres. The promoter follows a specific land acquisition process whereby, with help from the local authorities, municipally / publicly owned land is preferred for the purposes of the project. In the event that local authorities cannot provide free public land, consultation takes place to identify a suitable land plot whose owner voluntarily agrees to sell and the acquisition is finalised on a willing buyer-willing owner basis. For compensation and for any potential loss of income – if this is the case – the promoter develops a livelihood restoration plan, which will be submitted to the Bank. The amount of compensation is stated in a tripartite contract and negotiated between the land occupant, the local authorities and the promoter based on fair and objective criteria. As per the promoter's policy, land that requires physical resettlement or/and involuntary resettlement is excluded.

The project contributes to gender equality by reducing indoor air pollution to which girls and women are disproportionately exposed.

The pricing strategy is designed to address all types of customers and the feedback from customers (of already established mini-grids) thus far has been positive demonstrating the strong improvement in their lives, including also cheaper energy than the one provided by gensets and reliability as compared to Solar Home Systems.

### **Public Consultation and Stakeholder Engagement**

Following local practice, a local complaints system is established in the town/village centre whereby all complaints are processed through the town/village head. In addition, the promoter has developed a separate grievance management system aligned with IFC's Performance Standard 2 that formalises the management of environmental and social risks as well as the management of customers' grievances at project level. This system will run in parallel with the existing local one where complaints are registered at the mayor's office.

### **Other Environmental and Social Aspects**

The promoter has robust systems and policies in place and a dedicated E&S expert. As the project rolls out the promoter is committed to hiring additional expert(s) if needed. Furthermore, Norwegian Investment Fund, one of the three main investors, is providing E&S support and has assigned an E&S officer to support, guide and monitor the E&S aspects, including the implementation of an ESAP, which was based on a gap analysis carried out by Norfund.

Both Sagemcom and Axian Group, the other two shareholders, have management programmes guided by their respective policies. Sagemcom is guided by ISO 14001 for environmental management, ISO 9001 for efficiency and OHSAS 18001 for health and safety for its workers. These will be cascaded down to the promoter's operations. In accordance with the ESAP, the promoter is already developing an Occupational Health and Safety Management System in line with OHSAS 18 001 and integrated in the Quality management system.



Luxembourg, MC decision 08.04.2022

The promoter has also developed an ESMS in line with IFC requirements. The ESMS is satisfactory. However, the Promoter is committed to enhancing it and fully integrating the EIB standards and requirements such as the list of excluded activities, classification of critical habitat and rights and interests of vulnerable groups.

Recent reports are pointing out the possibility of use of forced labour in the supply chain of solar PV panels. The promoter's policy rejects the use of any form of forced or compulsory labour. In addition, its main supplier is Sagemco, which has incorporated social considerations (among others on forced labour) in its purchasing processes by applying "ethical" controls including "ethical" audits to its suppliers. The promoter shall ensure that the supply chain of the solar PV panels used in the project is compliant with the applicable provisions of the relevant labour standard of the Bank, and avoids the use of forced labour.

## Conclusions and Recommendations

Based on the information available and subject to appropriate conditions (see below) and monitoring, the project is expected to be acceptable for Bank financing in environmental and social terms.

- The promoter shall submit all PREE and relevant authorisations to the EIB, including a livelihood restoration plan if required.
- The promoter shall ensure that the solar PV panels used in the project are compliant with the relevant labour standards of the Bank, and do not stem from any forced labour. Satisfactory evidence shall be delivered to the Bank before disbursement.
- In order to mitigate Health and Safety risks, the promoter will hold information sessions with the communities regarding the use and risks of electricity and provide evidence of such sessions prior to any disbursement.
- The promoter shall provide an update on the ESAP status, including detailed information on the grievance redress mechanism system.
- The promoter shall submit information on the agreement with the waste company and information about the experience and/or systems which this company has, especially in relation to e-waste.
- The promoter shall enhance its ESMS in order to integrate the EIB standards, notably: list of excluded activities, standard on Vulnerable Groups and on Stakeholder engagement, Critical Habitat restrictions.
- Given that the exact design, footprint and associated impacts of the underlying projects have not been determined, the promoter shall develop a Resettlement Policy Framework commensurate to the size of the projects and relay it to the Bank.
- The promoter will develop a Stakeholder Engagement Plan or an equivalent document, which at the onset may adopt a framework approach, outlining its engagement / information disclosure process and relay it to the Bank.

In addition to the conditions mentioned above, the following undertakings are proposed:

- The promoter shall submit to the Bank annual E&S performance reporting including E&S incidents and corrective actions.
- The average emissions of the mini-grids in the project scope may not exceed the Emission Performance Standard (EPS) of 250g CO<sub>2</sub>-equivalent per kWh on an annual basis, throughout the entire duration of the project. The promoter shall present a detailed calculation to justify adherence to the EPS as part of its annual E&S reporting to the Bank (during the monitoring period of the Project), as well as upon



Luxembourg, MC decision 08.04.2022

request by the Bank, as the case may be (i.e. shares of power produced per year from solar PV and from Diesel and number of operating hours of the diesel backup system, emission performance of the individual diesel engines etc.).

- The promoter shall ensure that there shall be no involuntary resettlement and/or physical displacement.
- In cases where there is any economic displacement, the promoter will develop a livelihood restoration plan (LRP) and submit it to the Bank for approval.
- The promoter shall enhance the E&S team when required in line with the progress of the implementation of the mini-grids.
- The promoter shall publish all PREE and any other formal E&S study if required on the promoter's website and submit the link to the Bank.