

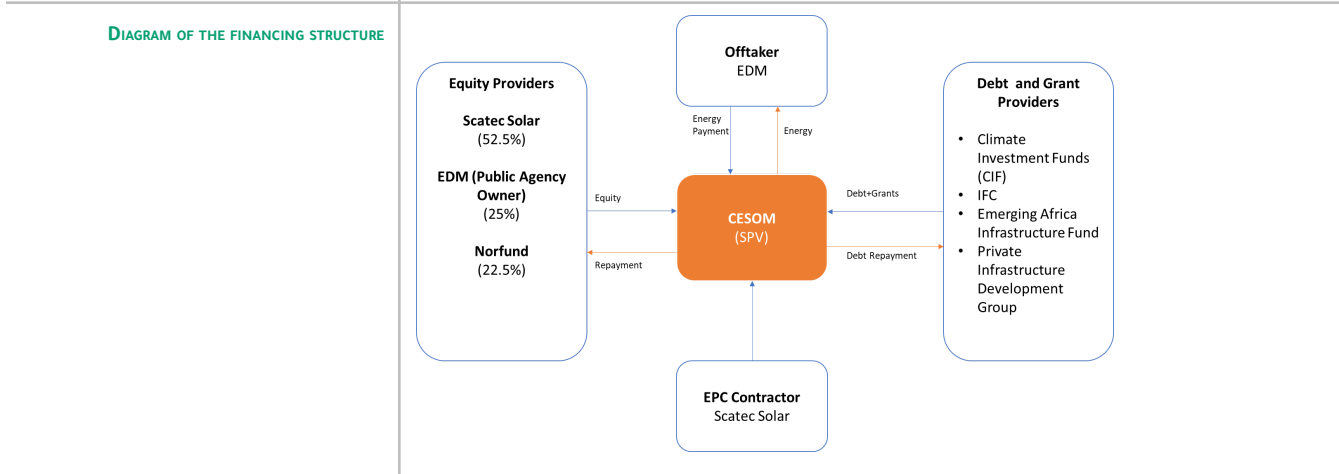
MITIGATION
BLENDED

PROJECT NAME	Mocuba Solar (Central Solar de Mocuba) ¹
COUNTRY/REGION	Mozambique
SECTOR	Energy
PROJECT/INVESTMENT AMOUNT	\$84 million
DEVELOPMENT PARTNER(S)/STAKEHOLDERS	Scatec, Norfund, IFC, CIF
COUNTERPARTY MINISTRY/ INSTITUTION	EDM (Electricidade de Mozambique)
INVESTOR(S) AND FUNDERS	Scatec, Norfund, IFC, CIF, EDM
GUIDEBOOK TAXONOMY FINANCIAL SYSTEM ACTOR	Bilateral, Multilateral & Development Finance Institutions Corporate Expenditure
PROJECT OVERALL GOAL	Build a 40 MW solar plant, the first large-scale solar in country
PROJECT OUTCOMES	GHG reduction, increased access to energy, improving climate resilience in power sector
ALIGNMENT WITH COUNTRY IDENTIFIED CLIMATE STRATEGIES, NDCs, ETC. (IF APPLICABLE)	Increasing electricity production and access to energy are mentioned in the country NDC
CONTRIBUTION OF THE PROJECT TO THE UN SDGs	SDG 7: Affordable and Clean Energy SDG 13: Climate Action
SOCIOECONOMIC IMPACT	<ul style="list-style-type: none"> • 1,064 jobs created during construction and operation • 173,000 households' energy needs served
ENVIRONMENTAL IMPACT (ON CLIMATE MITIGATION AND/OR ADAPTATION)	<ul style="list-style-type: none"> • 14,800 tons of GHG emissions avoided annually • Climate resilience through diversified energy mix and local source of generation in subnational region, reducing dependency on fragmented transmission network to import power
ENABLING ENVIRONMENT (SUPPORTING POLICIES)	The Mocuba Project was part of the Government of Mozambique's Economic and Social Development Plan for 2015/16. Government commitment to renewable energy and increasing energy access as well as government interest in supporting infrastructure development through PPPs, including improvements in PPP legislation, have enabled the project's success.
TECHNICAL ASSISTANCE (IF PROVIDED)	N/A
FINANCING MODEL/APPROACH (EX: BLENDED FINANCE)	Blended concessional finance
RATIONALE FOR FINANCING MODEL/APPROACH	The blended concessional finance package from IFC was structured to minimize the project's tariff to be more compatible with current customer tariffs, and more importantly, to be more competitive in the medium-term as cheaper, thermal energy sources from coal and gas become available. By blending long-term CIF financing with its own commercial funds, IFC helped to (i) increase affordable power generation from solar

¹ This case was provided by the International Finance Corporation (IFC) as a contribution to the Sharm El-Sheikh Guidebook for Just Financing

resources in Mozambique (as a means to diversify from climate-susceptible hydro and climate-damaging thermal power), and (ii) mitigate some of the impact of recent floods by building more climate resilient power generation infrastructure. Finally, without blended concessional finance, project tariffs would not have been possible at competitive levels.

FINANCIAL INSTRUMENT(S) (LOANS (COMMERCIAL/ CONCESSIONAL), EQUITY, GUARANTEE) Senior loans on concessional terms, equity, guarantees



Executive Summary

The Mocuba Solar plant in Mozambique is one of the world’s first climate mitigation projects to be strategically designed as part of a country’s adaptation strategy. The Project consists of the development, financing, construction, operation and maintenance of a 40.5 MW solar PV in Mocuba, Centre-Northern Mozambique. The plant is helping to diversify and decentralize Mozambique’s energy system and improve climate resilience in a country extremely vulnerable to climate change. Mocuba Solar opens a new chapter in Mozambique’s pursuit of low-carbon growth, helping to secure reliable and efficient energy for over 173,000 households in a remote and low-income area in north-central Mozambique.

Most of Mozambique’s current power capacity comes from the Cahora Bassa Hydropower plant located in a drought-affected river basin. Mozambique’s power system depends on a highly fragmented transmission system vulnerable to interruptions like long-term shutdowns of transmission lines when faced with severe flooding. The country’s power system suffers when precipitation levels are high (transmission service disruptions) and when they are low (reduced energy supply) -- investment in resilience measures is desperately needed. The Mocuba plant is in Zambézia, a province that receives power from Cahora Bassa Hydro via a single long-distance transmission line, with few local generation facilities as alternatives. This leaves over 5 million people at risk of energy shortages.

The project is structured as an SPV, Central Solar de Mocuba (CESOM), an independent producer contracted to sell power under a 25-year Power Purchase Agreement (PPA) to EDM, the state-owned utility. Scatec Solar is the majority investor in CESOM (52.5%), with EDM (25%) and Norfund (22.5%) owning minority shares. The IFC, the CIF, Emerging Africa Infrastructure Fund and the Private Infrastructure Development Group provided debt and grants for the project. Due to Mozambique’s deteriorating credit rating and severe restrictions on use of USD due to its debt crisis, DFI support was critical to achieving financial close. The DFIs’ risk assessment process also helped the project manage risks, among them high financial and commercial risk and high ESG risk due to land replacement required as part of implementing the project.

Mocuba Solar commenced operations in August 2019, establishing a track record for solar PV in Mozambique and improving energy security and resilience for a remote population. The project’s strategic location will reduce energy transmission losses and improve the security of energy supply in northern Mozambique and stabilize the grid. It is estimated that the power plant’s connection to the EDM grid will result in a seven percent improvement in the network default level.

Analysis

<p>WHAT MADE THIS PROJECT SUCCESSFUL?</p>	<ul style="list-style-type: none"> • Strong leadership by EDM and the Government of Mozambique in taking this project further • DFI participation, both in structuring and in financing the project, was crucial to achieving financial close due to Mozambique’s difficulty attracting private funders
--	---

	<ul style="list-style-type: none"> • Strong ESG review, including impact assessment by independent consultants, was crucial to ensuring that ESG risks were well-managed, including through developing IFC Performance Standards-based E&S standards for the project • Grant support was crucial for continuous E&S engagement with local populations
TO WHAT EXTENT IS THIS MODEL SCALABLE?	PPP models for solar can be scaled successfully, but facility of these deals depends on a conducive regulatory environment for PPPs and, more remotely, renewable energy, as it ensures that investors are protected and can adequately price and mitigate risk.
WHAT ARE THE NECESSARY CONDITIONS TO MAKE IT REPLICABLE IN OTHER COUNTRIES/REGIONS?	PPP models for solar projects have been successfully applied in other countries and regions.
CONSTRAINTS/DRAWBACKS OF FINANCING MODEL	PPP projects are complex to structure and manage and can be out of reach of some developing country governments and agencies without technical assistance and capacity building from development partners. PPPs are not appropriate for all project types, e.g. project types that are better managed directly by the public sector based on their risk profile, and partners need to ensure that risks are appropriately allocated to the stakeholders best-equipped to manage them.
LESSONS LEARNT	<ul style="list-style-type: none"> • Concessional donor finance can be used effectively to mobilize private capital even in highly challenging macroeconomic contexts • Stakeholders implementing PPPs need to ensure that ESG risks are appropriately assessed and managed, e.g. via applying an international ESG standard such as the IFC Performance Standards, and processes are put in place to engage the local community