

**MITIGATION
BLENDED**

PROJECT NAME	Solar in West Bank/Gaza: Massader School Rooftop and PRICO Solar¹
COUNTRY/REGION	West Bank and Gaza
SECTOR	Energy
PROJECT/INVESTMENT AMOUNT	Massader: ~US\$35 million PRICO: US\$12 million
DEVELOPMENT PARTNER(S)/STAKEHOLDERS	Massader (Finland and Netherlands via MENA Private Sector Development Program); PRICO (Canada); Both: International Finance Corporation
BENEFICIARY MINISTRY/ INSTITUTION	Ministry of Education
INVESTOR(S) AND FUNDERS	Massader: The project's sponsor is Massader, a company established in 2015 as a dedicated platform for developing projects in the energy sector in West Bank. Massader is fully owned by Palestine Investment Fund ("PIF"), the sovereign wealth fund in West Bank and Gaza. PRICO: The project's sponsor, PRICO, is a real estate developer in West Bank & Gaza which specializes in real estate development, property management and contracting. The company has been listed on the Palestine Stock Exchange since 1997 and is 74% owned by Palestine Development & Investment Company (PADICO). International Finance Corporation
GUIDEBOOK TAXONOMY FINANCIAL SYSTEM ACTOR	Public Institutional Investors Bilateral, Multilateral & Development Finance Institution Corporate Expenditure
PROJECT OVERALL GOAL	Climate mitigation
PROJECT OUTCOMES	GHG emission reduction; reduced dependency on imported power
ALIGNMENT WITH COUNTRY IDENTIFIED CLIMATE STRATEGIES, NDCs, ETC. (IF APPLICABLE)	N/A
CONTRIBUTION OF THE PROJECT TO THE UN SDGs	Access to affordable, reliable, sustainable, and modern energy for all.
SOCIOECONOMIC IMPACT	Supports the development of renewables and increasing the share of domestic electricity supply; reduce the average cost of energy to residential and commercial customers; and building local capacity in a challenging, conflict-affected environment and fragile economic situation.
ENVIRONMENTAL IMPACT (ON CLIMATE MITIGATION AND/OR ADAPTATION)	Climate mitigation <ul style="list-style-type: none"> ● Improve the quality and affordability of the energy supply in the WB&G; ● increase cleaner energy supply that is expected to result in a reduction of an estimated 30,000 tons of CO2 emissions annually (Massader) ● Provide clean and cost competitive electricity and reduce diesel consumption by the factories in the GIE and GHG emissions in the process (PRICO).

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

	<ul style="list-style-type: none"> Contribute towards power sector resilience in the West Bank and Gaza through increasing use of a local renewable resources and hence reducing dependency on imports.
ENABLING ENVIRONMENT (SUPPORTING POLICIES)	N/A
TECHNICAL ASSISTANCE (IF PROVIDED)	N/A
FINANCING MODEL/APPROACH (EX: BLENDED FINANCE)	Blended concessional finance
RATIONALE FOR FINANCING MODEL/APPROACH	The long-standing, volatile political situation in West Bank and Gaza has made commercial, long-term debt financing unavailable. Concessional finance helped both projects achieve a project finance structure to demonstrate the commercial viability of renewable energy investment in the West Bank and Gaza.
FINANCIAL INSTRUMENT(S) (LOANS (COMMERCIAL/ CONCESSIONAL), EQUITY, GUARANTEE)	Senior loans with concessional terms.
FINANCING STRUCTURE	<p>The Massader project includes a \$15 million investment from Massader², an IFC loan of up to \$9.5 million in addition to an \$9.5 million blended concessional finance loan from the Finland-IFC Blended Finance for Climate Program. The World Bank also provided a grant of US\$2 million from the Investment Co-Financing Facility.</p> <p>The PRICO investment included an \$8 million loan, of which a \$4 million blended concessional finance loan is supported by the IFC-Canada Climate Change Program as well as a \$4 million own-account loan from IFC. The World Bank Group Trust Fund for Gaza and West Bank provided a \$1.8 million grant, and MIGA's (Multi-Lateral Investment Guarantee) critical support to PRICO de-risked the transaction through a \$7 million political risk guarantee.</p>

PRICO Solar and Massader School Rooftop are the first-of-their-kind private sector investments to unlock large-scale distributed generation in the West Bank and Gaza.

Gaza's energy crisis is longstanding – and devastating. Power outages routinely stretch multiple hours a day, hampering factories and businesses in a region where the economy is already under immense strain from political unrest and a decade-long blockade. Gaza is racked by poverty and unemployment is one of the highest rates in the world. Daily power outages range from 12 to 16 hours with annual supply at only one third of the peak demand. During supply interruptions in the Gaza Industrial Estate, the factories are forced to either shut down operations, scale back output and reduce paid working hours or generate their own electricity via private diesel generators at a substantially higher cost than electricity from the grid. In the West Bank, access to clean, affordable, and reliable energy is rare and blackouts are common -- a part of daily life for many students while at school.

Land scarcity is at the core of fragility in the region: Gaza is one of the most densely populated places in the world and the West Bank is shackled by land ownership constraints, with the power to control only land that falls under Area A (approximately 18% of the total territory of the West Bank). The region relies heavily on imports to meet electricity needs.

IFC supported the first private sector investments in domestic power supply in the West Bank and Gaza: PRICO's rooftop solar energy facility is IFC's first large-scale solar energy installation in Gaza. The largest of its kind in Gaza, the project involves the development, financing, construction, operation, and maintenance of a 7.3 MWp rooftop solar photovoltaic power plant developed by PRICO (the local sponsor) located inside the Gaza Industrial Estate (GIE). The PRICO solar plant will generate and distribute up to 80 percent of the electricity needs of the GIE, keeping 32 factories running, thereby providing employment to nearly 800 people (currently, it is producing an excess of electricity that is being released to the grid). The GIE is connected to the larger power grid and will enter under a net metering agreement with local distribution company Gaza Electricity Distribution Company.

The West Bank also has limited generation capacity of its own, being almost entirely reliant on Israel for its supply. While not on the same scale as Gaza, power shortages occur frequently across the West Bank. Building on the PRICO framework and design, Massader Solar is an IFC project in the West Bank that is outfitting hundreds of local schools with solar panel arrays in parts of the West Bank to provide up to 30-megawatt peak (MWp), enough to power more than 16,000 houses across the West Bank. Massader (supported by local sponsor Massader Company for the Development of Natural Resources and Infrastructure projects) also leveraged a hybrid financing structure – including blended concessional finance from two different programs – to enable investment in this high-risk region.

² <https://www.dai.com/news/world-bank-project-funds-climate-friendly-solar-powered-schools-in-palestine>

Distributed Generation (DG) has potential to truly move the needle of decarbonizing power systems, while also addressing the access-to-energy problem that is faced by millions of poor and those living in fragile and conflict-affected regions. IFC investments in the West Bank and Gaza demonstrate that these kinds of large-scale solar DG projects can be done by the private sector in challenging regions with remarkable impact for the local population. Given the expected increase in demand from population growth, efforts to encourage investments in renewables are critical in Fragile and Conflict-Affected regions, in particular as they i) reduce reliance on imported power, ii) ramp up affordable and clean sources of energy like solar, and iii) support local job creation, improving the robustness of otherwise fragile economies.

Now, not only are the Projects beginning to make a significant difference to the area's electricity supply, reducing dependence on imports and power generated from costly back-up generators, they do it at a cost affordable to the consumers – schools, manufacturing facilities, businesses.

Analysis

<p>WHAT MADE THIS PROJECT SUCCESSFUL?</p>	<ul style="list-style-type: none"> ● This case study encompasses two projects, both of address the lack of reliable power supply. ● The projects successfully address a fundamental need for these locations, addressing supply issues, import dependence and regular outages which inhibit economic growth and development, and the provision of essential services. The projects will ensure reliable power supply to schools (Massader) and industry (PRICO), supporting education and jobs respectively. <ul style="list-style-type: none"> ○ Massader: 20% of power generated is used by the schools in lieu of using the rooftop; the remainder will be sold under 25-year PPAs. The long term PPA offtake agreement gives repayment security. ○ PRICO: 80% of expected electricity needs at a price substantially lower than the alternatives. ● The use of distributed generation technologies responds to the local environment where there is limited space and no room for utility scale plants. ● Multi-stakeholder financing, led by local sponsors (including the PIF) facilitated a financing solution to bring these projects to fruition, engaging external financial support where domestic resources are insufficient. ● These projects have been internationally recognized as successful and were jointly awarded a UN Climate Change Award for Financial Innovation in 2021.
<p>TO WHAT EXTENT IS THIS MODEL SCALABLE?</p>	<p>The distributed generation solar project model is highly scalable and exists at greater scale in other larger markets; the use of distributed solar projects is an increasingly popular model especially for industrial and manufacturing facilities to secure their power supply.</p>
<p>WHAT ARE THE NECESSARY CONDITIONS TO MAKE IT REPLICABLE IN OTHER COUNTRIES/REGIONS?</p>	<p>This, distributed solar, project model is highly replicable and indeed projects exist globally.</p>
<p>CONSTRAINTS/DRAWBACKS OF FINANCING MODEL</p>	<p>The financing model responds to the unique political, economic, and financial environment and risks in which the projects are based and deploys a hybrid financing model designed to respond to those unique challenges. Such complex structuring takes time and often lengthy negotiations. The presence in the deal of a SWF or state-owned enterprise anchoring the deal (in part indirectly funded by other sources of international public capital) is also distinctive feature.</p>
<p>LESSONS LEARNT</p>	<p>Investments in renewables are critical in Fragile and Conflict-Affected regions, in particular as they i) reduce reliance on imported power, ii) ramp up affordable and clean sources of energy like solar, and iii) support local job creation, improve economies and climate change resilience.</p> <p>Public sector actors should look into using public buildings as sites for solar installations where appropriate to reduce power costs and generate revenue from the sale of electricity.</p> <p>Multi-stakeholder engagement and financial support, as well as de-risking, is critical to finance critical infrastructure in these regions to boost resilience to climate change and enhance their low-carbon development pathway.</p> <p>International private sector investment is unlikely to invest in these countries so MDB/Bilateral donors should actively engage with domestic private and public sectors to develop and finance projects.</p>

Climate change mitigation efforts should be closely tied to broader development goals and county/region owned and led.

