

## SUMMARY OF THE PROJECT IN DESIGN \* (\*)

### Scaling Up Affordable and Reliable Mesh-Grids in rural Haiti

<b>PITCH ELIGIBILITY DATE</b>		<b>COUNTRY(IES)</b>
03/09/2023		Haiti
<b>ALIGNED WITH COUNTRY STRATEGY?</b>		
Yes		
<b>PARTNER(S)</b>		
Alina Eneji		
<b>PRELIMINARY CLASSIFICATION ENVIRONMENTAL AND SOCIAL IMPACT</b>		
B (**)		
<b>TOTAL BUDGET</b>	<b>IDB Lab</b>	<b>LOCAL COUNTERPART AND COFINANCING</b>
US 4,800,000	US 1,000,000	US 3,800,000
<b>DESCRIPTION</b>		

**The problem** The lack of electricity impacts most of the Haitian population with one of the lowest electrification rates in the world at 42%. This is concentrated in poorer rural areas, outside the main cities of Port-au-Prince and Cap-Haïtien and equates to over 1.5 million households without adequate electricity. Without reliable and affordable electricity, the provision of information, education, healthcare, internet, industrial development, and agricultural development are not possible.

**The solution** Rural electrification has so far been addressed through stand-alone solar home systems or by mini grids based on centralized generation and alternating current (AC) distribution. Solar home systems are not powerful enough for productive use and have a limited life. AC mini grids are expensive and require lengthy planning for correct sizing. Alina Eneji is pioneering the use of solar-powered mesh grids, where power is generated and consumed locally providing enough for productive use. Excess power is shared through a 50V direct current (DC) network. This configuration reduces capital cost by 40% compared to AC mini grids, increases resilience to natural disasters, and the modular, expandable design allows fast roll out.

**The beneficiaries** The beneficiaries have a wide spectrum, but Alina Eneji customers are households in rural Haiti, more specifically, those that are in the Artibonite and North departments with an average monthly income of approximately \$41.00 per household.

Alina will also provide electricity to small businesses which are key to rural development but too small to afford the means to self-generate electricity.

**The partner** Alina's main partners are as follow: i) Okra, its key software and hardware supplier; ii) Off Grid Electricity Fund (OGEF), its main investor, launched in 2019 with the aim to electrify 200,000 households in Haiti within 10 years; and iii) Fonkoze, its micro-finance institution partner, providing support and financing for the electric appliance transitions of the communities.

\*The information mentioned in this document is indicative and may be altered throughout the project cycle prior to approval. This document does not guarantee approval of the project.

\*\*The IDB categorizes all projects into one of six E/S impact categories. Category A projects are those with the most significant and mostly permanent E/S impacts, category B those that cause mostly local and short-term impacts, and category C those with minimal or no negative impacts. A fourth category, FI-1 (high risk) Financial Intermediary (FI)'s portfolio includes exposure to business activities with potential significant adverse environmental or social risks or impacts that are diverse, mostly irreversible or unprecedented, FI-2 (medium risk) FI's portfolio consists of business activities that have potential limited adverse environmental or social risks or impacts, FI-3 (low risk) FI's portfolio consists of financial exposure to business activities that predominantly have minimal or no adverse environmental and social impacts.

**The IDB Lab's contribution** IDB Lab will provide \$500,000 in non-reimbursable technical cooperation funds and \$500,000 in contingent recovery financing.

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