

PROJECT SUMMARY

Jamaica faces persistently high electricity costs and recurring climate-related disruptions that disproportionately affect rural and vulnerable communities. Following Hurricane Melissa, prolonged power outages highlighted the limited availability of affordable and resilient energy solutions for households, micro and small businesses, schools, fisheries, and community facilities. While demand for solar energy has increased, adoption among low-income users remains constrained by high upfront costs, limited financing options, and the absence of complementary services such as maintenance and insurance.

STL Solar Limited is a Jamaican startup that developed the Rapid Energy Development (RED) system, a modular solar solution originally designed to provide rapid emergency power following Hurricane Melissa. Building on the successful pilot of 50 RED units implemented in disaster-affected communities, STL Solar has validated the demand for broader resilience and rural development for households, productive activities, public services, telecommunications infrastructure, and community facilities. The RED model combines rapid deployment, portability, digital monitoring, and scalability, making it particularly suitable for rural and climate-vulnerable areas.

The objective of the project is to expand access to reliable, affordable, and climate-resilient electricity in rural and underserved areas of Jamaica through the scale-up of STL Solar's RED model. The project will support the deployment of 500 additional RED units while strengthening STL Solar's operational, commercial, and partnership capabilities to enable sustainable growth. Activities will focus on inventory and installation capacity expansion, bulk procurement of equipment, development of a nationwide installation and maintenance network, implementation of targeted marketing and outreach campaigns, development of customer training and awareness programs, facilitation of access to financing mechanisms and creation of innovative insurance coverage.

The expected results over the 24-month project period include: i) deployment of 500 additional RED units, increasing cumulative installations from 70 to 570 systems; ii) at least 60% of installations located in rural or isolated communities and 50% benefiting vulnerable households and communities; iii) facilitation of financing for approximately 250 RED units; iv) establishment of five strategic partnerships to support deployment and scale-up; v) training of approximately 50 installation technicians and development of a nationwide installation partner network; and vi) cumulative avoidance of approximately 907 tons of CO₂ emissions.

The project has a total cost of USD 1,473,800, of which USD 773,800 (53%) will be provided by STL Solar and USD 700,000 (47%) by IDB Lab through a Contingent Recovery Investment Grant (CRIG) financed with resources from the Clean Technology Fund (CTF) under the IDB Lab's GreenHub facility. Any resources recovered will be returned to the CTF in accordance with the provisions of the facility.