

**PROJECT SUMMARY
ENERGY DYNAMICS LIMITED
(TT-L1059)**

This project is a sub-project of the financing facility “Emergency Financing Line for Startups and Scaleups (LIFESS)” – RG-O1683, which was approved in May 2020 to provide rapid financing to companies in the IDB Lab portfolio that were affected by COVID-19. This company was selected for funding from a highly competitive group of over 50 applicants from the LIFESS call for proposals conducted by IDB Lab in April 2020. The proposed loan forms part of Component I of the Facility.

In Trinidad and Tobago (T&T) the contribution of renewable energy (RE) generation within the energy generation mix is negligible with only a few residential and commercial micro-scale systems connected to the grid or operating as stand-alone systems. The exclusive use of fossil fuels, highly energy-intensive industries and low energetic efficiency in almost all sectors are the main factors that explain the very high Carbon Dioxide (CO₂) emissions from energy use in the country; with 40 metric tons CO₂ per capita those emissions are among the highest in the world. A higher percentage of RE into the power generation equation along with parallel energy efficiency (EE) implementation at both the generation and end-use level¹ could significantly lower the consumption for electricity and related gas use for its generation, which in turn would lead to reduced CO₂ emissions.

Lowering CO₂ emissions is not the only challenge of electricity supply in the country. Improving its reliability is another imperative. There are high voltage fluctuations (potentially resulting from obsolete infrastructure and poor power factor of customer electrical loads) and the system is highly vulnerable to wide area blackouts (due to a mainly centralized electricity generation system) in cases where generation infrastructure were to fail due to natural disasters or vandalism and theft of assets. In the context of T&T and the wider Caribbean there is an urgent need for the development of the RE segment to build more resilient grids, as distributed assets are less likely to all be impacted by the same extreme weather event.

Recognizing the need to increase energy security and renewable sources in the energy matrix, the Caribbean aims to become the world's first “[climate-smart zone](#)”. Most Caribbean Islands have committed to reduce their carbon emissions and many have indicated that they will attain at least 30% RE by 2030. Several territories have enacted feed-in tariffs that allow the interconnection of distributed generation systems such as Solar Photovoltaic (PV) and Wind Turbines. This area represents a strong growth area in the region, and it is expected that significant investment will be done in this sector within the next 10 years.

In this context, Energy Dynamics Limited (EDL) is uniquely positioned to contribute with the energy transformation of the Caribbean. EDL is an Energy Service Company (ESCO) based in Trinidad and Tobago, founded in 2000. The company's customers are based throughout the Caribbean, and include manufacturers, hotels, commercial offices, universities, and hospitals. EDL's B2B model helps their customers de-risk initial EE and RE investments by providing solutions on a performance contract model, generating revenue either from shared or guaranteed energy savings, and providing financing over a period of up to ten (10) years. During this period, EDL provides annual maintenance of the systems they install, guaranteeing EDL continuous revenue over the years. The company has developed the Corporate Utility Management Program (CUMP) that, besides energy management, also includes water management, indoor environment quality management (IEQ) & training and culture/behavioral change of staff.

EDL is a company that forms part of the investment portfolio of the Caribbean Basin Sustainable Energy Fund (CABEF), in which IDB Lab invested US\$5M in 2016, through the project EQU/FM-

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[A Unique Approach for Sustainable Energy in Trinidad and Tobago, IDB 2015](#)

15759-RG. In 2019 CABEF signed an agreement with EDL to finance the expansion of its business model, with emphasis on the new CUMP product (see paragraph 2.6 (a)). This financial support includes an investment in preferred equity shares of up to US\$300,000, already completed, as well as a line of financing of up to US\$1.7 million designated specifically for CUMP projects, of which EDL received the first tranche of US\$140,000, to support CUMP installations in Trinidad and the Caribbean region.

The onset of the COVID-19 pandemic has reduced EDL revenue stream and capacity to meet CABEF line of financing by slowing the process of projects and preventing EDL's technical team from travelling to carry out energy projects. In addition, a potential equity investment has also been delayed which, together with thinner revenues streams, has contributed to decrease EDL's cash flow. The company has been forced to reduce staff salaries by 40%, lay off some staff and drastically reduce operating costs, hindering its ability to scale up within the Caribbean. However, EDL sees a market opportunity as the COVID-19 pandemic has generated a demand for services and technologies throughout the region that could make existing buildings less prone to COVID-19 propagation by improving ventilation and indoor environment quality management.

The proposed IDB Lab loan will be up to US\$100,000 and will be used primarily for the acquisition of urgently needed equipment and personnel required to continue to operate efficiently under a new business model designed to address the COVID context in the region. IDB Lab's funds will be matched by CABEF (US\$100,000 loan under the same conditions).