Almost 600 million people in Sub-Saharan Africa lack access to electricity. Off-grid renewable energy has the potential to significantly increase access to energy, however, lack of upfront capital to pay for these systems is a key barrier preventing this technology from reaching full-scale. The Debt Fund for Prepaid Energy Access (Debt Fund) would address this barrier by providing the necessary working capital to energy service providers in Sub-Saharan Africa to expand service to new regions and areas.

Reaching full market potential out to 2030, prepaid energy access could reduce emissions by more than 10 million tCO₂ a year and provide electricity to 645 million people.

The Debt Fund is structured as a stand-alone fund that would lend to energy service providers of prepaid solar home system products and services. Service providers would use funds to install solar home systems for consumers who periodically make advance payments for using the services.

By providing working capital to prepaid energy service providers in Sub-Saharan Africa, the Debt Fund would accelerate the deployment of clean energy and deliver basic power on a commercial basis to people who currently lack access to electricity.

Should the initial pilot be successful, it would allow energy service providers to meet the current estimated project pipeline across Sub-Saharan Africa.

The Debt Fund could also be expanded to other emerging markets where households lack access to electricity.

**INSTRUMENT DESIGN**

Based on the initial analysis conducted by The Lab, the Debt Fund would be financed through private equity and debt from institutional investors and international financial institutions with an initial capitalization of USD 50 million for pilot that would allow loans to energy service providers of USD 2-5 million with a tenor up to four years.

Since The Lab’s initial analysis, there have been significant developments in the sector. The instrument proponent, Azuri Technologies, along with a number of other individual companies, has successfully secured debt and equity finance to fund the deployment of prepaid energy solutions currently totaling approximately USD 200 million per year.

There are still barriers to further scale-up and investment. In particular, assessing the credit risk of the future cash flows continues to prove a challenge. To address this, a working group within the Global Off-Grid Lighting Association has been established with the aim to define standardized metrics for prepaid energy service providers, with a view to aggregate performance data to bring scale to the historical performance information, and to establish aligned engagement potential financial partners.

As further details and metrics are established, the sector still sees promise from a stand-alone fund, or set of funds, which could help to unlock debt finance, and thereby increase energy access for millions of people.
The Global Innovation Lab for Climate Finance is a public-private initiative that supports the identification and piloting of cutting edge climate finance instruments. It aims to drive billions of dollars of private investment into climate change mitigation and adaptation in developing countries.

Analytical and secretariat work of The Lab has been funded by the UK Department of Business, Energy & Industrial Strategy (BEIS), the German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB), the U.S. Department of State, the Netherlands Ministry for Foreign Affairs, Bloomberg Philanthropies, and The Rockefeller Foundation. Climate Policy Initiative serves as The Lab Secretariat.