

**PROJECT SUMMARY**  
**HYBRICO: HYBRID ENERGY FOR REGIONAL CONNECTIVITY**  
**(RG-L1122)**

The rapid penetration of mobile telephony in Central America has facilitated the uptake by micro, small, and medium-sized enterprises (MSMEs) and households of digital services and communications, on which the knowledge economy is based. Access to mobile telecommunications services has allowed both firms and individuals to connect to, and benefit from, a range of digital services (in finance, business, education, health, etc.); given them access to the information they need; and improved their ability to communicate with suppliers, customers, employees, or relatives. This enables them to take a series of opportunities for their economic and social development.

A reliable energy supply is a fundamental pillar of mobile telephony. Without a constant, secure, and stable supply of electricity at transmission sites, telecommunications are either impossible or their quality is severely affected with the resulting adverse effects on the ability to use these services. Electricity supply problems are particularly severe in the case of towers located off the electricity distribution grid (off-grid or OG) or which, although connected to the grid, have unstable loads and are subject to frequent power outages (bad-grid or BG).

Hybrico, a clean technology startup created by Guatemalan entrepreneurs and professionals, has found an innovative and disruptive response to the energy supply problems faced by mobile telephone transmission towers. This answer rests on a “*hybrid energy*” technology solution (combining solar power with smart batteries, specialized software, and a back-up engine to generate electricity) linked to a business model based on providing “*energy as a service*” (EaaS). This combination offers telecommunications companies—and other sectors in OG and BG locations—an attractive potential way to cut tower investment and operating costs, improve their energy efficiency and reduce their CO<sub>2</sub> footprint. The model allows them to outsource the electricity generating role to a specialized provider, in this case Hybrico, and focus on their core business of providing their customers with connectivity.

The Project will promote this innovative hybrid clean energy business model and seek to validate it commercially, in Guatemala, Nicaragua, and Honduras in Central America, where considerable interest has been aroused in the solution. To do so, the Project will grant Hybrico funding in the form of a loan for developing and equipping subprojects to provide clean energy to a significant number of OG and BG telecommunications towers in the three countries.

The Project is aligned with the MIF’s Inclusive Cities pillar, as it will help reduce the economic and environmental costs of generating electricity for the towers serving their populations, and thus, improve the connectivity of MSMEs, individuals, and households in small and outlying towns—as well as remote rural areas—where the quality of telecommunications services is substandard. Its objectives are: (i) to reduce carbon emissions; and (ii) to improve the quality of life of the urban population.

The Project will contribute to the IDB Group target of increasing financing for climate change-related projects, since 100% of its resources will be invested in climate change mitigation activities.