

ENERGY

LOW INCOME *

CLIMATE-SMART

ETHIOPIA

Wind Independent Power Producer (IPP)

GIF FUNDING & LEVERAGE

GIF Project Definition Grant:

\$500,000

Anticipated GIF Project
Structuring Support:

\$2 million

Potential Private Investment
Mobilized:

\$300 million

Ethiopia has excellent potential for developing clean, renewable energy. The government intends to massively scale up its solar, wind, and geothermal power generation capacity to mitigate the risk of overreliance on and variability of hydropower, by involving the private sector. The GIF is supporting preliminary studies to assist the Government of Ethiopia and the Ethiopian Electric Power Corporation develop a standard public-private partnership (PPP) for wind projects and exploring feasibility of a site with potential for 150 megawatts.

EXPECTED PROJECT OUTCOMES

- ◆ Support Ethiopia Electric Power Company's programmatic approach to develop the abundant wind resources in the country
- ◆ Help the government standardize bankable project agreements that will be used for future wind projects
- ◆ Prepare the first wind IPP from feasibility to transaction stage

TECHNICAL PARTNERS



THE WORLD BANK
IBRD • IDA | WORLD BANK GROUP

* Based on World Bank Group classification by income

BACKGROUND

Ethiopia has massive clean energy potential and its government is pursuing an energy strategy to develop it with the participation of the private sector. By upscaling its solar, wind and geothermal power generation capacity, the government hopes to reduce its dependency on hydropower and become a power export hub in East Africa.

The government has already made major strides in increasing its generation capacity, which has quadrupled within a decade from about 850 megawatts to 2,360 megawatts, nearly 90 percent from hydropower. The country's sector is also unique in that the ongoing power generation costs (based on low-cost, low-carbon sources) are quite low (no recurrent fuel costs). Furthermore, compared to regional peers, the aggregate technical and commercial losses are relatively low (about 23 percent) and the bill collection rate is quite high (85-90 percent). However, public borrowing by the utilities in recent years (primarily, domestic bonds purchased by citizens) has created an ever-growing future debt service obligation, which is anticipated to hit the sector finances in the coming years as these short-term loans (nearly \$ 6 billion) will create a cash flow problem for the sector.

In 2013, the government unbundled the Ethiopian Electric Power Corporation into two public enterprises: (a) the Ethiopia Electric Power Company (EEP), responsible for the generation and transmission sub-sectors; and (b) the Ethiopian Electric Utility (EEU), responsible for power distribution and sales. The EEP's IPP unit is tasked with all IPP site development and bidding processes.

The country has already passed legislation to enable the PPP model for power generation and the government is also developing an auction-based bidding process to attract private sector investors.

PROJECT FEATURES

The EEP has been working with the World Bank's Energy Sector Management Assistance Program (ESMAP) and the Government of Denmark to investigate wind generation potential at 10 sites. The GIF will build on the existing work to move these projects to a transaction stage. Three sites are most advanced: Debre Birhan (100 megawatts), Iteya (150 megawatts) and Ayisha (300 megawatts).

The project will provide technical assistance and ensure quality by assisting in the analysis and verification of wind measurements. The project will also support preparation of necessary documentation, for example, the geotechnical report and the environmental and social impact assessments. Finally, the project will support commercial structuring and financial feasibility for Iteya and develop a standard Power Purchase Agreement (PPA).

WHY GIF

The GIF support will enable a pipeline of transactions and provide:

- ◆ Technical guidance, analysis and review of existing wind measurement data and documents for site development
- ◆ Preliminary environmental and social safeguards analysis
- ◆ Preliminary commercial structure, financial analysis, and market sounding
- ◆ A PPA and Government Support Agreement (GSA) based on international best practices

The pilot wind IPP will set the standards to attract investors for its program of future wind IPP transactions, which include 10 additional sites. The transaction structure will also include guarantee mechanisms from the World Bank to enhance the creditworthiness of the project and the off-taker.

The Global Infrastructure Facility, or GIF, is a partnership of governments, multilateral development banks and private sector financiers that facilitates private-sector investment in complex infrastructure projects in emerging economies. We serve as a platform through which governments collaborate with international financial institutions and private sector investors to design, structure and implement these complex projects.

The comprehensive project-preparation support provided by the GIF draws on the expertise of its advisory partners which includes commercial banks and institutional investors. The broad partnership ensures that well-structured and bankable infrastructure projects are brought to market in a way that meets the needs of governments and service users in a sustainable way.