ENERGY SECTOR OVERVIEW

The Government of Ethiopia (GoE) has set ambitious goals to become a middle-income country by 2025, which includes aggressive power generation and connections targets. The GoE has determined that private investment is critical to achieve new generation targets beyond 2015 as concessional loans for government owned/operated generation facilities have decreased significantly. With Power Africa assistance, the GoE has gained experience with Independent Power Producer (IPP) projects through negotiation of the unsolicited Corbetti and Tule Moye Geothermal Projects and the competitively tendered Metahara Solar Project. Power Africa also assisted the GoE with developing the legal and regulatory IPP framework that has lowered financing risks. Major hurdles still exist, namely: the utility must become a creditworthy purchaser of electricity for IPPs; tariff rates must be reformed to allow for full-cost recovery; the dated transmission and distribution system, suffering from high losses and frequent outages, must be rehabilitated; efficient planning and operation/maintenance of the grid must be undertaken as it is expanded and new connections are added to keep up with new generation; and electrification of off-grid populations must be addressed.

**GENERATION CAPACITY**

- **Installed Capacity:** 4,206 MW
  - Hydroelectric: 3,743 MW (89%)
  - Wind: 337 MW (8%)
  - Thermal: 126 MW (3%)

- **Power Africa New MW to date**
  - Reached Financial Close: 0 MW
  - PA 2020 target: 870 MW

- **Power Africa 2030 Pipeline**
  - 3,878 MW

**CONNECTIONS**

- **Current Access Rate:** 40%
  - Rural: 29% Urban: 85%

- **Households without Power:** 12.6 million
  - Target: Universal access by 2030

- **PA New Grid Connections:**
  - 2020 Target: 2 Million

- **PA New Off-Grid Connections**:
  - 2020 Target: 450,000

**INVESTMENT AND ENABLING ENVIRONMENT**

**Biggest Issues**

1. Macroeconomic forces, particularly hard currency shortages needed to pay IPP tariffs
2. Generation planning and procurements synchronized with demand
3. New connections increased to prevent over-generation with take-or-pay IPPs

**Power Africa Interventions**

1. Transaction advisory assistance, development of IPP tender documents, and improvement of the enabling environment to lower risk for private sector investment
2. Development of the grid code, system integration modeling, and updating the demand forecast
3. Establishment of a process to reduce distribution sector commercial losses and increase the rate of meter installation
4. Capacity development for sustainability of the utilities and regulator
POWER AFRICA'S ENGAGEMENT IN ETHIOPIA

MW GENERATION
Power Africa is supporting Ethiopia’s generation/transmission utility by updating the demand forecast and developing a generation procurement plan that will meet demand and balance intermittent wind and solar generation with base-load hydro and geothermal generation. Power Africa provides capacity building to advance the transition from unsolicited proposals to competitive tendering of IPP projects through a transparent procurement process. Power Africa also is performing system integration studies that analyze grid states as new generation is added to the grid as well as developing the grid code.

CONNECTIONS
Power Africa supports the distribution utility to meet its target of installing over 1 million new connections per year through supply chain management, development of distribution design and construction standards, and geospatial mapping of medium voltage distribution lines to feed into a distribution planning framework which will help prioritize expansion and densification projects. Power Africa is also conducting a smart grid study to be followed by a smart grid pilot project, and developing a “meters to cash” process for the utility to reduce commercial losses. Power Africa also supports off-grid electrification solutions for private sector investment.

ENABLING ENVIRONMENT
Power Africa is assisting with key policy and regulatory reforms to strengthen the enabling environment for private investment and lower financial risks. It is also strengthening the regulator’s capacity to perform its functions, including issuance of licenses and permits for IPPs and private sector off-grid electrification, development of accounting standards to meet the needs of private sector investors (International Finance and Reporting Standards) and tariff rate determination (Uniform System of Accounts), and approval of tariff rates.

SUCCESS STORY
Power Africa supports the Government of Ethiopia’s commitment to transition to a middle-income country by 2025. Electrification plays a key role in that plan. Power Africa’s support includes increasing installed generation capacity through private sector investment and increasing connections in cooperation with the World Bank’s National Electrification Program. According to Dan Waddle, senior vice president of NRECA International, “Past electrification efforts would inevitably fall short or stall for lack of financing and political will. Now, we’re seeing the emergence of strong leadership in several African countries including Ethiopia where there is increasing understanding of the widespread economic benefits of universal access.”

ABOUT POWER AFRICA
Power Africa is comprised of 12 U.S. Government Agencies, over 145 private companies, and 18 bilateral and multilateral development partners to support sub-Saharan governments by working together to increase the numbers of people with access to power. Power Africa’s goal is to achieve 30,000 MW of new generated power and 60 million new connections by 2030 to reach 300 million Africans.

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