

Evaluation Summary

Final Evaluation of the reinforcement of the transmission network project in Ethiopia

Country: **Ethiopia**

Sector: **Energy**

Evaluator: **Technopolis**

Date of the evaluation: **June 2023**

Key data on AFD's support

Projet numbers: CET1047

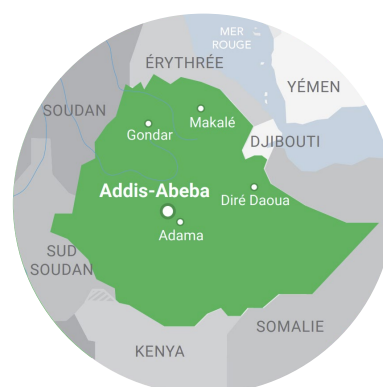
Amount: €50 Million

Disbursement rate: 100%

Signature of financing agreement: 2013

Completion date: April 2021

Total duration: 7 years and 4 months



Source : AFD. (2018). L'AFD et l'Ethiopie

Context

Over the past 15 years, Ethiopia's economy has been among the fastest growing in the world, at an average of 9.5% per year. Undersupply of access to electrical power is a key barrier for economic growth, and the Government of Ethiopia regards accelerated power supply as a national priority. Numerous development initiatives have been executed over the past decade, yet Ethiopia is still faced with widespread power short falls. Adding to this the regional demand for expansion of power supply, the needs for both power supply and stable power transport infrastructure is large. The growth and development prospects in Ethiopia were interrupted late 2020 with a civil conflict which, aside very important human and material casualties, has aggravated the economic situation of the country. It directly affected the Ethiopia Electric Power (EEP), with loss of infrastructure and reduced incomes due to sharp inflation and devaluation.

Actors and operating method

The AFD has lent €50 million to the Ethiopian Ministry of Finance, who has on-lent and/or on-granted them to the Ethiopian Electric Power Corporation (EEPCo). In 2014, after the unbundling of the EEPCo, the loan and project were transferred to the EEP, responsible for the transmission network. The implementation of the project was delegated to Larson & Toubro for the construction of the substations, EnergolInvest for the construction of the transmission lines, and MVV Decon GmbH for the support in project management and capacity building.

Objectives

The Project should contribute towards achievement of three overall objectives:

- Enable an industrial development through the electricity supply to the industrial areas in South Addis Ababa.
- Allow for the electrical connection of new villages to the national network and enhance the service to connected users.
- Capacity building of EEPC in the sector of high voltage infrastructure.

Expected outputs

- Improved energy transmission to rural areas (Ginchi Project)
- Improved energy transmission to industrial areas (Debre Zeit, Dukem and Modjo projects)
- Enhanced technical and project management capacity within EEP

Performance assessment

Relevance

The project objectives were considered highly relevant as supply for power was in desperate need by industries who faced daily power-cuts and now are able to operate 24-7 shifts without interruptions. The project was also highly relevant for the Ethiopian Electric Utility (EEU) as they are able to fulfil their mandate serving the population and industries with power. As per its design, the evaluators indicated that additional contingency measures could have been introduced as part of the project amendment in order to overcome the delays and to mitigate the negative impact resulting from the organizational change (unbundling of EEPCo into two entities).

Effectiveness

The Project has successfully managed to achieve all activities and outputs to the full satisfaction of the EEP. During the implementation, the Parties have displayed a flexible approach to optimise the value of equipment by making small design changes (change from a single circuit line to a double circuit in one place) that has had significant impact as the power supply has been matched to the needs in the specific areas. However, the evaluation observed that two to three years after operation acceptance, there was a very limited load on three substations (using under 20% of the capacity) and pointed out that the capacities at the substations were expected to be fully allocated by 2025. At the outcome level, while the evaluation found that industries have received more and reliable electrical power, it also pointed out that limited evidence was available to assess the connection of additional households.

Efficiency

The initiation of the project was faced with delays, attributed to the organisation change of the EEPCo. This change led to delays in decision making until the new organisations were well established. Severe delays were also recorded throughout the project, mainly due to slow tendering procedures followed by right of way disputes and slow engagement of local communities to secure access to land and agree on compensation here for. In the end through, the EEP settled the matters with improved success as they secured positive engagement of the local communities by including small services that also benefit the communities such as tarring of a piece of road light in essential place. The delays had negative impact for the contractors as prices quoted changed over time in combination with value-differences between the EURO and the Ethiopian Birr. Through engaged management by the EEP and supported by the AFD all matters were resolved satisfactory.

Impact

The project was highly appreciated by the industries and the local EEU management responsible for allocating power in their respective areas. The evaluation found that the project has provided additional safe (reduced fire-hazards at the sub-station level) and reliable (hardly any black-outs) electricity to industries, who have reported increased productivity due to avoided power interruption. However, the evaluation found limited evidence on the impact of the project in terms of improved welfare among the population in the areas of intervention.

Sustainability

The project is sustainable as the procurements included sufficient supplies of spare parts and the EEP team reports full capacity to manage and maintain new equipment. This is also a result of the training provided by the project.

Added value of AFD's contribution

The added value of AFD's contribution is particularly noticeable on two aspects:

- Procurement processes: the AFD has contributed positively to cost effective prices and good quality of the equipment in general. The AFD oversight in the procurement process has further contributed to improved procurement standards within the EEP.
- Environmental and social risks management: the AFD played a key role in accompanying the EEP and this mission appears to have sustainably enhanced EEP's standards and capacity in that matter.

Conclusions and lessons learnt

All in all, the Project and the loan has been highly relevant and has resulted in significant impact among industries, which might lead to improved economic growth in the country. The implementation has faced challenges, that in the end have been resolved mostly with a better outcome than originally envisaged for example by involving the local community. The project has witnessed time delays during implementation and delays connecting industries and households but there is evidence to suggest that within a year or two the capacity of the substations will be fully used.

Main lessons learnt through this project are:

- Partners should be fully engaged in the project's design, before and during operations
- Transmission lines and substations should always consider site specific contexts
- Capacity building is most effective if the contractors are based on-site with time to engage with the staff, who is to take over management of the equipment.
- In terms of environmental and social risks, the project demonstrates the importance of baselines and robust database on compensation claims, and how proactive collaboration with local households, industries and officials can lead to mutually benefiting agreements.