

## PROJECT INFORMATION DOCUMENT (PID)

## APPRAISAL STAGE

Report No.: 136321

<b>Project Name</b>	Renewable Energy Guarantees Program
<b>Region</b>	Africa
<b>Country</b>	Ethiopia
<b>Financing Instrument</b>	Investment Project Financing
<b>Project ID</b>	P162607
<b>Borrower(s)</b>	Ministry of Finance and Economic Planning
<b>Implementing Agency</b>	Ethiopia Electric Power
<b>Environmental Category</b>	B
<b>Date PID Prepared/Updated</b>	March 28, 2019
<b>Date PID Approved/Disclosed</b>	
<b>Appraisal Review Decision (from Decision Note)</b>	The meeting authorized the team to continue with the preparation of the REGREP program using the MPA format.
<b>Other Decision</b>	

## I. Project Context

## Country Context

1. **Ethiopia is a large, land-locked, and diverse country. Located in the Horn of Africa, Ethiopia extends over an area of 1.1 million square kilometers—about the size of France and Spain combined.** With an estimated population of about 100 million in 2015, out of which 81 percent are rural dwellers, Ethiopia is the second most populous country in Sub-Saharan Africa after Nigeria. A historic legacy of underinvestment still bears its mark, as more than half of the adult population is illiterate. Ethiopia is undergoing a faster demographic transition than the rest of Africa, with a rapidly rising working age population that presents both opportunities and challenges. The country's infrastructure deficit remains one of the largest in the world.

2. **Ethiopia remarkable growth history in the past decade has resulted in substantial progress in economic, social, and human development.** Growth averaged nearly 11 percent per year since 2004, making Ethiopia one of the world's fastest-growing economies and the fastest growing in the region. The Government of Ethiopia (GoE) has set a long-term goal for Ethiopia to become a middle-income country by 2025. The last 15 years of robust growth was driven by large-scale public investment in infrastructure and energy, which was made possible by favorable commodity prices and international debt-relief efforts in the mid-2000s. In addition, public investments in basic service provision, such as education and health, have contributed to poverty

reduction, as did the introduction of rural safety nets. Extreme poverty<sup>1</sup> fell from 55.5 percent in 2000 to 26.7 percent in 2016, which is one of the most impressive poverty reduction results recorded internationally (within Sub-Saharan Africa, only Uganda reduced poverty faster). Low levels of inequality have largely been maintained. With a few exceptions, Ethiopia attained the Millennium Development Goals in 2015: the primary enrollment rate quadrupled, the child mortality rate halved, and the number of people with access to clean water more than doubled. Average life expectancy has increased by about one year annually since 2000 and is now higher than the averages for both Sub-Saharan Africa and low-income countries worldwide. Even then, Ethiopia remains the 15th poorest country in the world.

## **Sectoral and institutional Context**

**3. In 2013, the vertically integrated utility, Ethiopian Electric Power Corporation (EEPCo), was unbundled into two public enterprises:** (a) the Ethiopian Electric Power (EEP) company, responsible for the generation and transmission sub-sectors, and (b) the Ethiopian Electric Utility (EEU), responsible for power distribution and sales. The Ministry of Water, Irrigation, and Electricity (MoWIE) continues to be responsible for coordination and oversight of the electricity sector. The GoE also established a regulatory agency (the Ethiopian Energy Authority, EEA), responsible for developing transparent and effective rules, directives, and standards to promote performance and investment in the sector. With the structural reforms, the GoE has put the power sector on a path toward more accountability and efficiency by initiating structural reforms in 2013.

**4. Ethiopia has a fully renewable power system and has more than quadrupled its available generation capacity since 2009, when it was last hit by a significant supply shortage that led to severe power outages.** Ethiopia is one of the few countries in the world which generates almost all its electricity from renewable resources. The available generation capacity, mostly based on hydropower, has reached about 5,200 MW in 2018— the second highest available generation capacity in Sub-Saharan Africa—up from around 1,100 MW in 2009. Memories are still fresh of the last supply shortage in 2009—triggered by drought conditions and demand outpacing supply—when the utility was forced to resort to country-wide load shedding, lasting 16-18 hours every day, expensive rental power, and instructions to industry to shut down their operations for one month or to use their own diesel generation.

**5. The proposed Renewable Energy Guarantees MPA Program (REGREP MPA) will support the Government’s nascent renewable energy IPP program—which has the potential to become the largest such program in the region—through IDA guarantees to reduce the perceived risk by private investors.** In parallel to setting up this framework for PPPs, a strong pipeline of renewable energy IPP transactions is being prepared with the help of a range of development partners (DPs). For the most advanced transaction, the Metehara Solar IPP, a preferred bidder, has been identified. The Request for Proposal (RFP) for two further transactions—Dicheto and Gad—has been launched in April 2019 with support from the World Bank Group’s Scaling Solar program. They are expected to reach commercial close in 2019. However, even as the GoE is preparing to open the energy sector market to private participation, there is a strong need to mitigate uncertainty and risks that frontrunner transactions could face. The guarantees will provide credit enhancement to make Ethiopia’s electricity utilities credible off-takers for IPP power purchase

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<sup>1</sup> Extreme poverty is measured as consuming less than US\$1.90 (2011 Purchasing Power Parity) a day.

agreements (PPAs). This reflects the need to establish a successful track record of financial, operational, and contractual performance to attract private investment.

6. **The proposed REGREP MPA will maximize financing for the development of Ethiopia's power sector by leveraging private capital at an estimated rate of up to 1:4 and total investment at a rate of up to 1:7.5.** The REGREP MPA program as a whole will provide guarantees with a face value of up to US\$200m, equivalent to an IDA country allocation of US\$50m. These guarantees are expected to leverage in the order of US\$750m in private financing (equity and commercial debt) and a total of US\$1,500m in investment (see Section II for details). In line with the Maximizing Financing for Development (MFD) approach, the support of the World Bank to Ethiopia's IPP program follows a sequenced approach under which financing and technical assistance for policy reforms unlocked opportunities for private sector participation in the power sector.

7. **The REGREP MPA Program and the supported IPP pipeline is expected to contribute substantially to Ethiopia's macroeconomic reform program across a range of areas:**

- (a) Attract foreign direct investment into the power sector to help reduce Ethiopia's current account deficit and promote stronger regional and global economic integration
- (b) Reduce the fiscal deficit and provide more fiscal space for spending on human capital development, as competitively procured renewable power will reduce the need for Government subsidies and private capital crowded in for infrastructure investment will free up resources for public investment
- (c) Demonstrate attractiveness of Ethiopia for private sector investment by establishing a track record of SOEs as credible off-takers for PPPs
- (d) Serve as a model for infrastructure sector reform in Ethiopia, by establishing a track record of PPP structuring and implementation, piloting innovative solutions to currency convertibility risks and counterparty risks and leveraging competition and private sector participation to improve service delivery to customers.

## II. Project Development Objective(s)

8. The Project Development Objective is to increase renewable energy generation capacity through private sector participation in Ethiopia.

## III. Project Description

### Component Name

IDA guarantee support to the Metehara Solar IPP project

### Comments

9. **The Metehara plant is expected to enter into operation by 2022. Under the project, an ENEL<sup>2</sup>-led consortium will be investing approximately US\$120 million in the construction of the**

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<sup>2</sup> Enel Green Power S.p.A. is an Italian multinational renewable-energy corporation, headquartered in Rome. The company was formed as a subsidiary of the power generation firm Enel in December 2008, grouping its global renewable energy operations. As

**solar PV plant.** The facility will generate approximately 280 GWh per year. This output will be sold under a 20-year Power Purchase Agreement to Ethiopia Electric Power that covers all the energy generated by the plant. The project location is in the Oromia region, almost 200 km east of the capital Addis Ababa, an area that enjoys high levels of solar radiation. The power plant will cover an area of 350 ha.

#### IV. Financing (in USD Million)

Total Project Cost:	120	Total Bank Financing:	120
Financing Gap:	0		
<b>Financing Source</b>		<b>Amount</b>	
International Development Association Guarantee		10	
Estimated Private Equity representing 25 percent of Project Cost		30	
Estimated Debt from Development Finance Institutions representing 75 percent of Project Cost		90	
Estimated Commercial Debt representing 0 percent of Project Cost		0	
Total			

#### V. Implementation

10. **The Government of Ethiopia has centralized the oversight of Public-Private Partnerships (PPPs) in the Ministry of Finance (MoF) PPP Directorate, which will oversee the transactions supported of the proposed REGREP.** The PPP Proclamation (adopted in March 2018) and PPP Directive (September 2018) together provide a new PPP approval process that applies to all sectors and constitute the transparent governance framework that the Government needs to develop the PPP market. A PPP Directorate has been established in MoF to serve as the secretariat of the PPP Board<sup>3</sup> that oversees the performance of the scheme, including PPP prioritization, preparation, procurement, and award selection. PPP implementation guidelines that establish the procedures and authorizations required for the commitment of government support obligations to PPP transactions—including sovereign guarantees—are expected to be passed by mid-2019. While the PPP legal framework addresses the need for sound ESIA, the establishment of a process and assignment of an independent authority for review, approval, and enforcement of ESIA, which is crucial for the Government to account for environmental externalities and implement risk mitigation measures during the life of the project, is expected by mid-2019. Both the PPP implementation guidelines and the ESIA authority are important institutional steps for the REGREP MPA program but do not provide obstacles for the first three frontrunner transactions, for which both guarantees and ESIA are being approved on an exceptional basis. Their establishment will

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of March 2019, Enel Green Power has over 1,200 active power plants on 6 continents (Europe, North America, South America, Africa, Asia, Australia) and manages a total production capacity of over 42,000 MW from hydro, wind, solar, biomass, and geothermal (17,000 MW of which are owned by Enel Green Power).

<sup>3</sup> The PPP Board is composed of representatives from MoF, also chair of the board, the national bank of Ethiopia, the MoWIE, The Ministry of Transport, The Ministry of Public Enterprises, The National Planning Commission, and the Ministry of Federal and Pastoralist Affairs and two others from the private sector.

ultimately help build confidence in the fairness and transparency of the process, leading to greater predictability of the pipeline project quality, instilling confidence in the public and investors, and thereby minimizing risks and increasing investments in infrastructure PPPs and ensuring long-term fiscal and environmental and social sustainability.

11. **EEP will be the implementing agency and contracting authority for the renewable energy IPPs supported through guarantees under REGREP.** However, it is important to point out that project companies (IPPs) under their respective corporate mechanisms, will be the primary implementing agencies for the power plants themselves. The construction of these IPPs would be implemented through standard engineering, procurement, and construction (EPC) contracts. The operation and maintenance (O&M) of the invested facility may be contracted to capable third-party contractors. EEP’s role as the commercial offtaker of the IPPs is limited to running transparent tender processes (auctions) to procure the IPPs and negotiate the PPAs. EEP would also be responsible for providing any credit-enhancement mechanisms (such as LCs) to the investors, possibly supported by IDA guarantees. Finally, as the buyer of the energy services of the IPPs, EEP would be responsible for ensuring that the IPPs adhere to the World Bank Group’s guidelines regarding fiduciary and safeguards management, results monitoring, sustainability, and so on. EEP has experience with World Bank guidelines, as the executing agency of several IDA-financed projects. EEP has retained skilled technical and procurement staff. EEP has established an IPP unit, with staff assigned from its strategic investment unit, to oversee the development of IPPs. However, the sector overall, and EEP, have no experience with IPPs, specifically on commercial, legal, and financial aspects. EEP is supported by the World Bank Group as well as other DPs, including, Power Africa, IFC Advisory, and Denmark for transaction advice on most IPP transactions in the pipeline. IDA will continue to provide ongoing support through the lifecycle of REGREP.

## VI. Safeguard Policies (including public consultation)

Performance Standards applicable to the Project	Yes	No
PS 1: Assessment and Management of Environmental and Social Risks and Impacts	X	
PS 2: Labor and Working Conditions	X	
PS 3: Resource Efficiency and Pollution Prevention	X	
PS 4: Community Health, Safety, and Security	X	
PS 5: Land Acquisition and Involuntary Resettlement	X	
PS 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources	X	
PS 7: Indigenous Peoples	X	
PS 8: Cultural Heritage	X	

## **VII. Contact point**

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