



European Investment Bank (EIB)

Luxembourg, 08.11.2021

Environmental and Social Completion Sheet (ESCS)

Overview

Project Name:	DEVELOPMENT BANK ENERGY AND ENVIRONMENT LOAN
Project Number:	2014-0301
Country:	TURKEY
Project Description:	The loan financed small to medium sized investments in Turkey in the fields of Renewable Energy, Energy Efficiency and projects that substantially increase the environmental performance of industrial processes.

Summary of Environmental and Social Assessment at Completion

EIB notes the following Environmental and Social performance and key outcomes at Project Completion.

The project was a framework loan signed in December 2014 supporting renewable energy, energy efficiency investments and investments that substantially increase the environmental performance in the industrial sector (i.e. increase material/water efficiency, reduce pollution, improve waste management) in Turkey.

The loan amount was fully allocated to 33 renewable energy and 4 energy efficiency underlying projects as follows: 2 hydropower plants of 25 MW and 3.3 MW capacity (the investment concerned only the powerhouse, the electro-mechanical equipment and the transmission line), 28 solar photovoltaic (PV) plants with total aggregated capacity of 65 MW, ranging from 1 MW to 13.1 MW, 1 wind farm with 25 MW installed capacity, 2 waste heat recovery investments in industrial facilities with 5 MW and 7 MW capacities and 4 energy efficiency investments in the industrial sector. There were no eligible allocations in environmental projects.

The Bank analysed the environmental and social risks of each project prior to approving them under the framework loan. Based on the information shared by the FI, environmental and social risks were adequately addressed through implementation of appropriate mitigation measures. No project was located in a nature conservation area including sites protected under national legislation and international agreements to which Turkey is party.

One wind farm and two solar PV plants were screened in by the competent authorities, requiring a full Environmental Impact Assessment (EIA). The EIA reports were prepared and submitted to the EIB and national authorities, which issued the relevant permits. Both 25 MW and 3.3 MW hydropower projects are linked to existing irrigation infrastructure. In both cases, EIB financing was limited to the powerhouse, the electro-mechanical installations and the transmission line (TL). One of the TL was subject to an EIA and therefore, the relevant study was submitted to the EIB for review and to the Turkish authorities for the issuing of the corresponding permit. All EIA studies were published on the EIB's website.

All other underlying projects were screened out from a full Environmental Impact Assessment (EIA) by the competent authorities in Turkey and obtained the necessary permits for the



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construction and the operational phase. Notwithstanding, the EIB assessed E&S matters for these projects.

None of the projects approved for financing under this framework loan involved the physical or economic resettlement of any of the local population. In addition, no health and safety or labour issues were identified or reported.

Based on the EIB's carbon footprint methodology, the CO₂ emission reduction as a result of renewable energy generation and the energy savings achieved through the energy efficiency measures has been calculated to be in the amount of 100.1 ktCO₂ per year. For the renewable energy projects, the combined margin for intermittent and firm electricity generation (hydropower projects) was used to calculate the baseline emissions, which are 360 tCO₂/GWh and 320 tCO₂/GWh respectively for Turkey, as per the EIB carbon footprint methodology (version 11.1, July 2020). The emission factor of the medium voltage (applicable to industrial projects) is 333 tCO₂/GWh and was used to calculate the emission reduction thanks to electricity savings. For thermal savings a combination of the emission factor of industrial steam boilers from natural gas (216tCO₂GWh) and the emission factor for natural gas (1.9Kg CO₂/m³) was used.

Summary opinion of Environmental and Social aspects at completion:

EIB is of the opinion that, based on reports from the promoter, the underlying projects of this framework loan have been implemented in line with the EIB Environmental and Social Standards.