European Investment Bank (EIB) Luxembourg, 27/12/2022

Environmental and Social Completion Sheet (ESCS)[1]

Overview

Project Name:	Budapest District Heating Strategic Investments
Project Number:	20180061
Country:	Hungary
Project Description:	Investments in the district heating system of Budapest for the period 2018-2019 to improve network performance, to optimize the heat generation mix and to reduce emissions of greenhouse gases and other air pollutants.

Summary of Environmental and Social Assessment at Completion

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

The Project consisted of the following major types of components:

- Reconstruction and modernization of the existing district heating system (heat generation assets, pipelines and substations);
- Construction of strategic transmission pipelines to connect individual “islands” of the existing district heating network allowing optimization of use of heat sources, more efficient network operation and making available the district heating service in new areas of the city, like in the central districts;
- Connecting new customers;
- Substation upgrades to allow remote control operation;
- IT reconstruction, modernization and developments, including cyber security improvements;
- Other investments related to the buildings, equipment, tools and instruments of the Promoter including building energy efficiency improvements (insulation, replacement of windows, modernization of lighting, etc.).

A major project component - construction of two new biomass heat only generation plants (20 MWth each) – was postponed by the promoter and taken out from the technical scope of the EIB operation.

The promoter carried out the rehabilitation of the existing district heating assets and the construction of new network components in the urban area of Budapest. The works did not affect any environmentally sensitive or protected areas. The works took place in different locations in Budapest, a city with significant archaeological and urban heritage. In case of archaeological discoveries, the relevant authorities were involved and due care has been taken when areas of potential interest were discovered. The promoter carried out the reinstatement of excavated areas rigorously to minimise the surface disturbance.

Based on the promoter reporting due to their type of activity, their location in urban areas outside cultural heritage sites and protected nature sites, the typically expected low impacts

[1] The template is for ILs and FLs

and available suitable mitigation measures none of the project components required an EIA process. The works were subject to building permits provided by the local authorities.

The development and optimization of the district heating system allowed the Promoter to increase the off take of heat generated by already existing waste to energy (WTE) and high efficiency cogeneration plants (CHP). This contributed to optimization of the heat supply mix and reduction of fossil fuels consumption.

The project components were part of the investment programme to develop the district heating system in Budapest. By their technical nature the interventions have only indirect impact on system emissions. The promoter did not track specific emission data related to the individual project components and consequently could not report them. Therefore, to conclude on overall project impact on greenhouse gas emissions the calculation using the EIB methodology was updated. At appraisal the annual absolute emissions of the Programme in a standard year of operation were estimated as 40 kt CO2eq and the estimated emissions savings were 38 kt CO2eq/year. The absolute emissions included the emissions related to fuel burnt to meet the incremental demand served by the new district heating connections as well as the emissions related to the losses in the newly constructed pipelines. The baseline comprised of emissions related to fuel burnt in individual boilers displaced by the district heating extension and in the gas-fuelled heat generation plants replaced by the new biomass generation. The updated calculation considered 25% less incremental demand served by the new district heating connections and excluded the impact of the biomass boilers, which have not been implemented. As a result after the implementation the annual absolute emissions of the Programme in a standard year of operation are estimated as 30 kt CO2eq and the estimated emissions savings are 10 kt CO2eq/year.

It can be concluded that the Project contributed to reduction of air pollutants by replacing individual heat sources in residential and public buildings with centralised heat generation, by modernising existing heat generation assets and by increasing the overall efficiency of the district heating system. The substitution of individual coal, oil or gas fuelled boilers and ovens with subsequent reduction of air pollutants has been very important for Budapest in view of its long-lasting and significant problems with the air quality, especially in the densely populated central areas of the city.

Based relevant information provided by the promoter on the implementation it can be concluded that the project related E&S conditions and undertakings have been met and the overall environment and social performance of the project is considered satisfactory

Summary opinion of Environmental and Social aspects at completion:

Based on reports from the promoter the EIB is of the opinion that the Project has been implemented in line with EIB Environmental and Social Standards, applicable at the time of appraisal.