Luxembourg, 19.09.2017

Environmental and Social Data Sheet

Overview

Project Name:	2017-0184
Project Number:	HKM STEEL MANUFACTURING MODERNISATION
Country:	Germany
Project Description:	Modernisation of an existing integrated steel plant to improve the environmental performance as well as to reduce energy consumption and CO_2 emissions through the installation of two new key equipment. The project started in January 2017 and should be operational by the end of 2020.

EIA required:	no
Project included in Carbon Footprint Exercise[1]:	yes

(details for projects included are provided in section: "EIB Carbon Footprint Exercise")

Environmental and Social Assessment

Compliance with applicable environmental legislation: The investment programme concerns the installation of two new key equipment in the promoter's existing integrated steel plant. The two components are:

i) The implementation of a new ladle furnace station in the steel shop leading to a substantial increase of steel recycling as well as a reduction of coal and iron ore consumption.
ii) The installation of a new hot stove in the blast furnace plant leading to an increased energy efficiency of the ironmaking process.

Both components will lead to significant CO_2 emission savings.

The project is an upgrade of a facility included in Annex I of the EIA directive and therefore any modification is subject to a screening according to Annex II. Based on the information provided by the promoter the local competent authorities have signalled that none of the components will require a full EIA.

Environmental impacts:

The project site operates in compliance with ISO 14001 Environmental Management System. In addition the promoter applies an energy efficiency management system and is certified ISO 50001:2011 for energy management. Both project components adhere to best available techniques (BAT) as identified by the European Commission for the iron and steel production.

The new ladle furnace station is expected to have the following main environmental impacts:

[1] Only projects that meet the scope of the Pilot Exercise, as defined in the EIB draft Carbon Footprint Methodologies, are included, provided estimated emissions exceed the methodology thresholds: above 100,000 tons CO2e/year absolute (gross) or 20,000 tons CO2e/year relative (net) – both increases and savings.

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- A considerable reduction of CO_2 emissions and to a lesser extend a reduction of NOx, SOx, H2S.
- A considerable increase of usage of secondary steel (scrap based steel recycling) what contributes to circular economy. As a consequence the consumption of imported primary raw materials as coal, iron ore and alloying materials is considerably reduced.
- The additional equipment will not increase dust or other emissions of the existing steel shop. Hence the impact on environment is considered low.

The new hot stove is expected to have the following main environmental impact:

- A considerable reduction of the energy consumption through increased energy efficiency of the ironmaking process. This leads among others to the reduction of CO_2 emissions.

Many of the high-tech steels produced by HKM do contribute directly and indirectly to reduce CO_2 emissions. As an example high-tech steels play a key role in the efforts of the automotive industry to reduce the weight of vehicles. Such weight reduction will lead to CO_2 emission reductions throughout the vehicle life. In addition, as less steel is required to manufacture the vehicles additional CO_2 emissions reductions are achieved while using such high-tech steels.

Biodiversity issues: Biodiversity or nature conservation issues are not touched upon as the project and ensuing activities will be carried out within the borders of existing industrial facilities.

EIB Carbon Footprint Exercise

The project covers two different components, one located in the steel shop and one forms a part of the promoter's blast furnace. As a consequence the CO_2 emissions of the complete steel shop and the corresponding blast furnace have been considered in the present carbon footprint exercise. After project implementation the estimated annual emissions of the project will amount to 3'033 kt of CO_2 per year (a standard year of operation), based on a yearly raw steel production in the steel shop of 4'200 kt and a pig-iron production of the blast furnace of 1'600 kt.

For the overall project, EIB's baseline scenario represents a realistic scenario that delivers the same output as the proposed project considering comparable quantities, quality and geographical area. For the ladle furnace station this scenario is based on the assumption that the steel shop continues to operate as today leading to CO_2 savings of 447 kt/y.

In respect to the blast furnace component the baseline assumption is that the existing hot stove could be operated for a limited number of years before it needs to be substituted based on economic reasons. Due to the accelerated modernisation with a state-of-the-art hot stove the project contributes to CO_2 savings of 22 kt/y.

Based on the banks carbon footprint exercise methodology it is estimated that the overall project will thus result in a yearly emission saving of 469 kt of CO_2.

For the annual accounting purposes of the EIB Carbon Footprint, the project emissions will be prorated according to the EIB lending amount signed in that year, as a proportion of project cost.

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Conclusions and Recommendations

Conclusions:
The project site operates in compliance with ISO 14001 environmental management systems as well as OHSAS 18001:2007. In addition the promoter applies an energy efficiency management system and is certified ISO 50001:2011 for energy management. Both project components adhere to best available techniques (BAT) as identified by the European Commission for the iron and steel production. The project will result in a considerable reduction of GHG emissions, an increased energy efficiency of the plant's ironmaking process, contribute to circular economy through increased steel recycling and a reduction of the consumption of primary raw materials. In addition, the project will not lead to additional negative environmental, nature conservation and social impacts compared to the situation without project. It is therefore considered acceptable for Bank's financing.

Contractual undertaking:
In case the borrower is notified by the competent environmental authorities that one of the components constituting the project should require an EIA or equivalent, a copy of such EIA needs to be sent to the EIB once established. In addition, any mitigation measures listed in such EIA have to be implemented by the promoter as part of the project execution.

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