

## Environmental and Social Data Sheet

### Overview

Project Name: RAAHE CHP PLANT  
 Project Number: 2013-0436  
 Country: Finland  
 Project Description: The project consists in a new Combined Heat and Power (CHP) unit to be constructed at Rautaruukki's Steel Works site in Raahe, Finland. It includes the replacement of one of the two existing boilers and the installation of a new steam turbine and generator. The major fuel of this CHP unit will be blast furnace gas from the steel mill. The unit will have nominal installed electrical capacity of 115 MWe and a heat capacity of 82 MWth. Annually, the facility will generate 674 GWhe of electricity and 180 GWhth of process heat to satisfy the steel mill's demand and also 90 GWhth of heat for the district heating network of the city of Raahe.

EIA required: no

Project included in Carbon Footprint Exercise<sup>1</sup>: yes

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

### Summary of Environmental and Social Assessment, including key issues and overall conclusion and recommendation

The project falls under Annex II of the EIA Directive (2011/92/EU). After screening the project, the competent authority decided not to request a full EIA. The Natura 2000 authority was consulted for this project before the competent authority decided on the need for an EIA.

The plant will be located at a brown field site within the boundaries of existing facility. The extensive environmental sustainability plan of the steel plant has been object of earlier EIB due diligence. The steel plant has been recently modernised leading to significant environmental benefits in terms of particulate, CO<sub>2</sub> and SO<sub>2</sub> emissions. The site operates in compliance with ISO 14001-certified environmental management system. The IPPC (Integrated Pollution Prevention and Control) permit application for the entire steel plant and new CHP unit was submitted to the competent authority in May 2013 (the current IPPC permit is valid until 2015). The environmental permit to operate the CHP unit is expected in February 2015 (the unit will be commissioned in October 2016).

Based on the environmental process undertaken and also on the monitoring results of previous projects with the promoter, the capacity of the project sponsor and the location of the site, the project is acceptable for Bank financing.

### Environmental and Social Assessment

#### Environmental Assessment

The project's main environmental impacts are noise, dust and increased traffic during the construction of the plant, and noise and airborne pollutants during its operation. It will comply with the atmospheric emission limits for NO<sub>x</sub>, SO<sub>x</sub> and particulates defined by the Directive 2010/75/EU on Industrial Emissions.

<sup>1</sup> 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 CO<sub>2</sub>e/year absolute (gross) or 20,000 tons CO<sub>2</sub>e/year relative (net) – both increases and savings.

The competent authority decided not to require an EIA. In the relevant decision, it listed major features of the new system – it will work minimum 8500-8600 hours per year and it will combust the same fuels as the current installation, i.e., blast furnace gas (90%) and coke gas, except of currently used Heavy Fuel Oil which will be replaced by natural gas or Liquefied Petroleum Gas in the new installation.

The project sponsor is a major industrial company in Finland and has a high environmental and social capacity.

### **EIB Carbon Footprint Exercise**

Estimated absolute CO<sub>2</sub> emissions from the plant in a standard year of operation will amount to 1312 kT of CO<sub>2</sub> e/yr.

The baseline emissions from the plant are calculated assuming that the waste gases from the steel plant are used only for heat generation, the remaining part is flared, and the electricity for the steel plant is provided from the grid. Electricity-related baseline emissions result from the fact that the plant will displace existing and new base-load power generators in Finland. Taking these assumptions into account, baseline emissions are 1629 kT CO<sub>2</sub>e/yr resulting in estimated emission savings of minus 309 kT of CO<sub>2</sub>e/yr.

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.