

Environmental and Social Data Sheet

Overview

Project Name: STOCKHOLM RED LINE METRO
Project Number: 2011-0608
Country: Sweden
Project Description: Replacement of the existing signalling system of Stockholm's metro Red line with communications-based train control, associated upgrading of existing rolling stock and acquisition of new vehicles, construction of a new underground depot in Norsborg, and upgrading of the existing Nyboda depot in order to service the new and upgraded rolling stock.

EIA required: EIA requirements vary according to project component

Project included in Carbon Footprint Exercise¹: No
(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 Norsborg depot is included in the latest Regional Development Plan for the Stockholm Region (RUFSS 2010), for which a Strategic Environmental Assessment has been carried out.

The new Norsborg depot falls under Annex II of EIA Directive 2011/92/EU and the decision of the necessity of an EIA is decided on a case-by-case analysis by the Competent Authority. The depot was screened in and an EIA was carried out. The replacement of the signalling system does not fall within the scope of the EIA Directive. Manufacturing of the new rolling stock will take place in the manufacturer's plant and does not fall within the scope of the EIA Directive. The upgrading of the Nyboda depot will take place within the existing building and does not fall within the scope of the EIA Directive.

No impact is foreseen on any Natura 2000 site. Confirmation through a declaration signed by the Competent Authority (Form A or equivalent) shall be received by the Bank before any disbursement.

Despite some adverse environmental impacts during construction, the project is expected to have an overall positive impact on the environment thanks to the increase in public transport service and quality.

Under these conditions, the project is acceptable for Bank financing.

Environmental and Social Assessment

Environmental Assessment

In Sweden, the requirement to investigate whether an EIA is necessary falls under several laws. The Plan and Building Act and the Environmental Code are the relevant laws for this project.

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.

Municipalities in Stockholm County are divided into detail plans (*detaljplaner*). According to the Plan and Building Act, for any project that introduces changes to the detail plans, the municipality has to investigate whether the project will bring about considerable environmental impacts and, if affirmative, an EIA needs to be undertaken. In this case, an EIA was carried out as part of the approval process of changes to the detail plans introduced by the new Norsborg depot in Botkyrka municipality. The detail plan, and therefore its associated EIA, was approved by the municipal council (Kommunfullmäktige) at the end of 2011.

According to the Environmental Code, a permit has to be obtained for water operations, which includes operations affecting groundwater and drainage. In this case, a permit was obtained for the construction of Norsborg depot in June 2012.

The main environmental impacts of the project are associated to the new depot in Norsborg, most significantly during the construction phase. They concern the disposal of waste water, hazardous and non-hazardous waste, the potential pollution of underground water and of soil and subsoil, the potential changes in the groundwater table level, emissions of air pollutants and high levels of noise and vibration due to construction activities. These impacts will be mitigated through the use of best construction practices and appropriate technologies. Implementation of construction activities, specifically drilling and blasting, will be adjusted to those times of the day least disruptive for the neighbouring population. Neighbours will also have the option of being warned by telephone before blasting occurs. A groundwater monitoring programme shall be established before construction begins, indicating the methodology, frequency and evaluation of measurements. This shall contribute to prevent any unforeseen damages due to a potential lowering of the groundwater table. The project requires the removal of some trees, none of them belonging to protected species. There are neither cultural heritage elements nor identified archaeological sites in the project area and its surroundings.

The main negative impact identified during operation of the new Norsborg depot concerns noise, which may occur both in the form of structure-borne noise and in the access/exit of trains from the depot. Adequate track design and materials shall contribute to minimise noise, together with the high level specifications of the new rolling stock. Indoor noise measurements shall be carried out three months after the start of operations. Outdoor noise measurements shall also be carried out in case of complaints or if there are changes in the type or amount of depot activities. Geothermal wells shall also be monitored before and after the construction of the depot, even if the impact of potential changes in the groundwater is deemed marginal. The workshop will have a green roof, in order to minimise visual impact and also compensate for the loss in vegetation. The workload of the upgraded Nyboda depot will be reduced once the Norsborg depot is operational.

The project will not have significant effects on any Natura 2000 sites. This shall be confirmed in a certificate by the Competent Authority to be received before disbursement (Form A or equivalent). The new Norsborg depot is more than 3 km away from the border of the Special Areas of Conservation Ekholmen and Bornsjön, the latter also a Special Protection Area for birds.

The new C30 vehicles will be designed to minimise energy consumption and noise. The degree of recoverability of material used for the vehicles shall be minimum 98% of the vehicle's total weight. SL's list of prohibited and restricted materials, chemicals and chemical products shall be followed.

As for the new signalling system, the Promoter's environmental requirements have been and are being monitored in the design, installation and operation stages. They mainly concern the handling of waste materials, noise levels during implementation and energy usage during operation.

Whilst there are detrimental impacts during the construction phase, mainly linked to the Norsborg depot, the project is expected to generate positive environmental and social impacts during operation thanks to the increase in public transport service. The project will increase

Stockholm's metro efficiency and attractiveness, therefore contributing towards a modal shift from private car to the metro and a reduction of traffic related CO₂ emissions.

EIB Carbon Footprint Exercise

Project is not included as its absolute and relative CO₂ emissions fall below the related thresholds. Estimated CO₂ savings are about 8,000 ktCO₂e/year.