

## Environmental and Social Data Sheet

### Overview

Project Name:	<i>GREEN MOBILITY HYDROGEN TRAIN GRONINGEN</i>
Project Number:	<i>2020-0833</i>
Country:	<i>The Netherlands</i>
Project Description:	Acquisition of hydrogen powered trains to provide rail regional services in North Netherlands and installation of one refuelling station
EIA required:	no
Project included in Carbon Footprint Exercise <sup>1</sup> :	no

### Environmental and Social Assessment

#### Environmental Assessment

The project consists of the purchase of four new hydrogen powered trains for use on the regional railway network in Groningen and Friesland in the north of the Netherlands. The aim is to test the performance of these four hydrogen trains, prior to renewing the complete fleet of diesel trains in due time. While initially they are planned to be mainly used between Delfzijl and Veendam/Stadskanaal and possibly also between Groningen and Leeuwarden, they can be used everywhere on the regional rail network in the north of the Netherlands.

The project does not fall under either Annex I or II of the Environmental Impact Assessment (EIA) Directive 2011/92/EU as amended by 2014/52/EU. Manufacturing and use of rail rolling stock is not included in either list. Also the installation of a small scale refuelling station on an existing marshalling yard is expected to fall outside the scope of the EIA directive as the storage capacity is well below the threshold set in Dutch law ('Besluit Milieueffectrapportage').

The project is in line with the long-term transport strategies for the Northern region of the Netherlands and in particular with the Northern Netherlands Hydrogen Investment Plan 2020, and the Railway Plan North Netherlands. The region's aim is to improve rail transport and transition to zero emission railway services, as at the moment a large part of the regional railway network is not electrified and thus serviced by diesel trains.

The benefits of the project are twofold:

- the project will improve the attractiveness and competitiveness of the railway service, and thus potentially contributing to a modal shift from road to public transport,

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<sup>1</sup> Only projects that meet the scope of the Carbon Footprint Exercise, as defined in the EIB Carbon Footprint Methodologies, are included, provided estimated emissions exceed the methodology thresholds: 20,000 tonnes CO<sub>2</sub>e/year absolute (gross) or 20,000 tonnes CO<sub>2</sub>e/year relative (net) – both increases and savings.

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reducing energy consumption and associated emissions while improving transport safety.

- the project will improve the environmental performance of the train services, as the introduction of hydrogen powered trains will reduce the use of fossil fuel. The intention of the promoter is to purchase solely 100% green hydrogen, i.e. produced from renewable sources only, and therefore significant CO<sub>2</sub> emission reductions are expected. Additionally, hydrogen powered trains emit less noise than diesel trains.

Hydrogen powered trains are new to the Dutch railway network and the homologation in terms of environmental and safety compliance of the trains may therefore take longer. The promoter will work closely with the responsible competent authorities, in particular the safety region Groningen and the Human Environment and Transport Inspectorate of the Ministry of Transport.

The hydrogen refuelling station (HRS) is expected to be small (well below the 5 ton threshold mentioned in the SEVESO directive) and located on an existing marshalling yard, and the required environmental and safety permit (in the context of the Dutch Environmental Act, ie the 'Wabo') will be obtained by the promoter in due time. The HRS will be compliant with the Alternative Fuel Infrastructure Directive (2014/94/EU), the SEVESO Directive (2012/18/EU) and ISO standard 19880.

It is not expected that the new trains require significant amendments of stabling and maintenance arrangements.

The Project is not expected to result in scrapping of life expired vehicles.

## **Conclusions and Recommendations**

Hydrogen powered trains are new to the Dutch railways. Compliance with environmental and in particular safety legislation will be a requirement for all suppliers, who need to obtain homologation for the new rail vehicles from authorities. Also the HRS will comply with relevant local legislation and related EU Directives, in particular the All-in-one Permit for Physical Aspects ('omgevingsvergunning'). The promoter will submit to the Bank the related decision or permit of the competent authority as soon as available.

Under the conditions above, the project complies with relevant EU and national environmental legislation and is acceptable to the Bank from an environmental perspective.