

## Environmental and Social Data Sheet

### Overview

Project Name:	PKP CARGO FLEET IMPROVEMENT
Project Number:	20110254
Country:	Poland
Project Description:	The Project consists of four components (i) purchase of 10 multi-system electric mainline locomotives; (ii) purchase of about 330 container platform wagons; (iii) purchase of about 250 open freight wagons; and (iv) modernization of about 40 diesel shunting locomotives. The vehicles will replace existing capacity.
EIA required:	No
Project included in Carbon Footprint Exercise <sup>1</sup> :	No

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

The manufacturing/modernization of locomotives and manufacturing of rail freight wagons do not fall within the scope of either Annex 1 or Annex II of Directive 2011/92/EU. Therefore, no EIA is required for the project. The project activities are expected to take place in existing manufacturing plants within the EU. The locomotives and wagons will be manufactured in accordance with applicable Technical Specifications for Interoperability and EU environmental, labour, health and safety regulations.

The 10 new multi-system locomotives will replace 9 existing similar locomotives currently leased by the Promoter and in use in Poland, Germany, Czech Republic and Slovakia. These existing leased vehicles have similar performance and energy consumption to the new vehicles. The new locomotives are also expected to be deployed in a similar work pattern to the existing leased vehicles, though likely extending to other Member States as the promoter obtains further operating licenses. Likewise, the proposed 330 platform container wagons and about 250 open freight wagons will replace part of the promoter's ageing existing fleet and will be operated in a similar manner. Therefore, for these three components, no material environmental change as a direct result of the project is foreseen.

The modernization of about 40 diesel shunters is part of a broader plan to modernise a large part of the promoter's existing fleet of about 400 such vehicles. The existing shunters, designed in the 1960's and constructed in the two decades thereafter, will be comprehensively modernized resulting in them subsequently meeting Stage IIIB European emission standards relating to local pollutants (Directive 97/68/EC), an expected 20% or more reduction in fuel and oil consumption as well as reduced noise and vibration. The modernized shunters will be operated in very similar services. Therefore, for this component, an environmental improvement is foreseen as a direct result of the project.

Some vehicles may be scrapped as a result of the inventory redeployment cascade provoked by the project. The promoter abides by its own vehicle scrapping policy consistent with Polish regulations. The actual scrapping is performed by contractors in a manner compliant to this internal policy.

The project should help the rail sector to gain or at least maintain modal share. On a tonne x km basis, moving freight by rail has the potential to bring about significant energy savings, emission reductions and safety improvements when compared to road transport. Rail freight may also improve noise levels on an aggregate basis.

<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 project is acceptable from an environmental perspective.

## **Environmental and Social Assessment**

The locomotives/freight cars registered in Member States require authorization from the national railway authorities. For those rolling stock to be used on the TEN-T, one of the conditions for granting such authorization is the interoperability of the freight wagons with other components of the trans-European rail system. In this case, TSI freight wagon (2006/861/EC) and TSI noise (2011/229/EU) are applicable in accordance with Article 14 of Directive 2001/16/EC.

Concerning the TSI for noise, the maximum levels of noise for rolling stock for railways have been established by the Commission with the Decisions 2006/66/EC and 2011/229/EU. According to these, the established limits should be applied both to new and renewed rolling stock.

The modernization of the diesel shunting locomotives, which includes replacement with a new engine and main generator, will allow the modernized vehicles to meet Stage IIIB European emission standards (Directive 97/68/EC), implying a reduction in emissions of local pollutants (CO; HC; NOx; particulates) by up to 60% per unit of fuel consumed. Fuel consumption is forecast to be reduced by about 20-30% and oil consumption by about 70%. On the basis that one existing unit consumes about 80,000 litres of diesel per average operating year, the forecast annual CO<sub>2</sub> saving per unit is of the order of 50 tonnes per year.

The project does not entail a significant increase in workload. The forecast annual workload, per unit, for the mainline electric locomotives is 150,000 km, for the diesel shunters about 40,000 km, for the open wagons about 50,000 km and for the platform wagons about 100,000 km.

Since 2004, the promoter has maintained an Integrated Management System, encompassing quality, occupational health and safety as well as environmental management. The promoter has accordingly been seeking to monitor all environmental aspects of its operation, in particular its energy consumption, local/global emissions and waste management. The promoter's investment strategy is driven, in part, by the desire to reduce its energy consumption/emissions per unit of work performed. In 2010, the promoter performed almost 30 billion tonne x km (about 12% of aggregate EU rail freight performance, second only to Deutsche Bahn AG). Therefore, even small efficiency gains or waste management improvements can have a significant positive impact on the environment.

### **EIB Carbon Footprint Exercise**

The project will not be included in the annual statistics as the forecasts do not meet the thresholds for inclusion and disclosure.