



Opportunities

- Improved measuring of energy consumption may lead to better targeted actions to decrease / optimise the overall energy consumption in the railway system and a more efficient energy billing for the IMs.

Challenges

- IMs investments in data collecting systems and settlement systems for energy may not achieve their objective if railways operators do not install energy meters on board of their trains or do not report the correct train composition.

Objective

The electrification of the European rail network is ongoing with more than half of the network already electrified. However, the supply and modality of the use of energy in railways can have a huge impact on cross border traffic, notably because of the different electrification structures (alternating or direct) and the different typology of rolling stock.

The European [Technical Specification for Interoperability \(TSI\) on interoperability of 'energy' of the rail system \(Regulation \(EU\) 1301/2014\)](#) establishes the parameters for the track side energy supply system including voltage, frequency and mechanical parameters, as well as the overhead contact line bringing traction power to the train.

Involvement of Infrastructure Managers

IMs invest in their network to improve interoperability and energy efficiency, notably through electrification and technologies for measurement of energy consumption, to make rail even more sustainable and to reduce losses of energy in the network and help the railway undertakings to be energy efficient.

EIM in action

- › EIM's Energy Working Group (ENE WG) deals with the implementation of the energy legislation in the rail sector and the associated technical aspects;
- › EIM also collaborates with other stakeholders to share information and define joint positions;
- › EIM advocates an efficient, sustainable and cost-saving energy supply on the railway network.

EC Regulation (EU) 1301/2014 INTEROPERABILITY OF 'ENERGY' SUBSYSTEM

