# Enforcement of European rules on Energy settlement as a key step to achieve the goals of SERA

**13/11/2025**

The Energy Technical Specification for Interoperability (ENE TSI) pursues an essential objective for achieving efficient and seamless rail transport in Europe: an interoperable energy subsystem. More than 10 years after it came into force, the situation is alarming: progress in the interoperability of energy subsystems is barely visible and the situation for users remains difficult in some countries, especially for the increasing number of locomotives operating in several countries. Fragmented systems undermine competitiveness and efficiency in the railway sector. To meet the goals of the Single European Railway Area (SERA), the signatories of this Position Paper representing European rolling stock lessors as well as rail freight and passenger new entrants call on all Energy Use Settlement (EUS) responsible parties to prevent from developing incompatible solutions and commit to a unified and interoperable approach.

## 1. Energy TSI

According to the ENE TSI, Member States shall develop a national plan ensuring a gradual migration within a reasonable timescale onwards an interoperable target energy subsystem fully compliant with the TSI.

According to Commission Implementing Regulation (EU) 2018/868, Member States were required to implement, by 4 July 2020, an on-ground settlement system and an energy exchange system capable of receiving and processing energy metering data for billing purposes. The exchange system of the national settlement system should also be able to validate the Compiled Energy Billing Data (CEBD) received from a Data Collection System (DCS) and accurately allocate consumption data to the respective countries. Consequently, the energy exchange system must support bidirectional communication with the energy exchange systems of other countries to ensure seamless cross-border data exchange.

Unfortunately, we are seeing that some countries have not yet established an exchange system for the transfer of energy measurement data between member states. As a result, existing measurement data cannot be included in the billing process in all countries.

Additionally, each member state shall have implemented by 1 January 2022 an on-ground energy data collecting system (DCS), which is capable to receive and process CEBD in accordance with EN50463 (EMS to DCS communication

Energy Use Settlement responsible parties should be able to work with their customers (RUs) to identify the consumption of each customer. Unfortunately, we have noticed a tendency to extend this obligation onto Keepers under potential risks and threat of imposing penalties for unauthorized energy consumption or wrongly allocated vehicles to the RU.

2. Level of implementation of ENE TSI

European Commission has commissioned the Agency for a report on the state-of-play of implementation of on-ground energy data collecting systems.

In their day-to-day operations, lessors and railway undertakings are experiencing every day the lack of implementation of ENE TSI. Some Energy Metering Systems (EMS) on new traction units, compliant with Loc & Pas TSI cannot communicate with every national energy data collecting systems where it operates. The keeper, owner or in some cases RU therefore does not have a free choice of the DCS responsible party, which was a goal in the regulation.

The more national authorizations (homologations) a vehicle has, the more difficult it becomes to get approval for energy billing based on measured values in all countries, as documentation and Masterdata requirements vary from country to country and documents will not be exchanged between them. We see a huge possibility in standardizing the approval process towards cross-acceptances among all European countries.

Some countries haven not implemented the TSI, and some multiply the burdens to cross-border operations by designing a system that places heavy constraints on keepers, which is contrary to the spirit of the TSI.

Examples:

- The German Federal Network Agency has adopted new regulations (BK6-19-016), which define a new network access model where keepers must carry the responsibility for the TU to withdrawal point of the RU using energy. These regulations will come into effect on 1 July 2026. Even though the system is in preparation for the last three years, it remains very complex and confusing, especially for rolling stock owners outside Germany. This leads to higher operating costs, which ultimately negatively impact the competitiveness of rail transport. The sector should explore simpler ways to identify energy traction users in the future.

- In France, the Railway Undertakings are also not authorized to declare their fleet utilisation in the DECOFER-system for invoicing purposes as the TU to RU allocation responsibility has been imposed to TU owners (which carry mostly also the role of the keeper). The TU owners find themselves with a supplementary workload to update the French DCS with data about the RU, which can be different from the lessees of the rolling stock in case of subleasing or transfers of use. In addition, French DCS measure CEBD according to their own quality standards, having an impact on RUs that are invoiced with theoretical consumptions and not with real energy data. During all the validation period needed to consider data as compliant, any energy consumption information is sent to other countries in case of border crossing.

- Poland and Italy did not implement a functional exchange system, which means that only CEBD from EMS connected to their own data collection system (DCS) are accepted for billing purposes in the Polish and Italian energy settlement systems. Also, data measured in the Polish and Italian DCS cannot be exchanged with energy exchange systems of other countries, where the vehicle operates. This leads to a discriminatory situation in which users with compliant EMS continue to be billed based on calculated values instead of actual measurements in different countries.

All Member States should work towards a harmonised system for energy metering which is based on issuing energy billing based on the path registered to the IM. For this, there needs to be an automatic data flow of path information from TAF/TAP TSI to the energy unit. There should in principle be no need for RUs and keepers to provide other data.

3. Impact on keepers and RUs

The failure of Members States to launch Data Collecting Systems and commonly agreed protocols or formats for such data collection and exchange poses an obstacle towards harmonisation and interoperability and exposes railways undertakings and keepers to higher unjustified energy costs as a direct result of the non-implementation of European regulations. This has a direct impact on reducing the efficiency of rail freight and passenger transport, which in turn has a negative impact on the common market as it increases the cost of delivered products. It is also the opposite of an incentive to save energy.

4. Toward the Single European Railway Area (SERA) including energy settlement

For the European rail system to be fully efficient and competitive, it is essential that it be based on interoperable subsystems, including the energy subsystem.

It is essential that all Member States take the necessary measures to move as quickly as possible towards an interoperable energy subsystem, in which an energy measurement system installed on the locomotive can be effective thanks to efficient and interoperable on-ground energy data collecting systems and agreed protocols to exchange data.

Additionally, there is a need to make sure that member states do not develop their own system to the detriment of cross border services.

The European Union's Agency for Railways (ERA) should also step in by putting in place a joint database for TU to ensure a proper harmonisation of the recognition of the metering system onboard each locomotive and to harmonise rules of keeper responsibilities in all member states.

In the same vein, one company cannot solve all these problems on their own, therefore all IM/energy companies must achieve the goal of the ENE TSI to strengthen and eliminate any issues pertaining to cross border services.

We call on the Commission to urge Member States to comply with European energy regulations for reasons of rail competitiveness and the environment. This is one essential step needed to achieve the goals of the Single European Railway Area.