

Operators strive to improve their energy performance

Interview with Dyre Martin Gulbrandsen, Director of ERESS

Energy efficiency and, implicitly, "a smaller energy bill" is not news on the transport operators' agenda. Railway transport, the most energy efficient transport mode, makes no exception. Several companies in Northern Europe have developed such a solution based on calculating how much energy they need.

[by Elena Ilie]

Railway Pro: Please describe us how does the ERESS solution help operators cutting the energy bill?

Dyre Martin Gulbrandsen: The European Railway Energy Settlement System (ERESS) partnership develops and supplies a secure, flexible and accurate energy calculation and settlement system for infrastructure managers and train operators. The present ERESS partners are Banedanmark (Denmark), Infrabel (Belgium), Jernbaneverket (Norway) and Trafikverket (Sweden). Compared with the traditional solution where the train operators are invoiced based on estimated energy consumption, they have henceforth the opportunity to pay for the real energy usage. ERESS gives them a clearer view of how and when their trains consume energy. Measured energy data is crucial information for the operators as it gives them strong incentives to proactively manage and optimise their energy usage and consequently perform relevant energy saving programs.

As a documented example, the Norwegian national railway (NSB) started a five-year energy-saving project in 2005 based on measured energy data. Through this project they have achieved 18% energy efficiency improvement between 2004 and 2009. Thanks to the availability of such data, NSB

discovered energy saving opportunities and has optimized their driving technique, climate control and parking mode. In addition, ERESS solution handles energy measurement, settlement and billing for cross-border traffic where most of trains will be progressively fitted with energy meters. Effective solutions for interoperability will improve operators' competitiveness.

Railway Pro: How does it work?

Dyre Martin Gulbrandsen: The ERESS system comprises five main components. The core of the system is composed of the European Railway Exchange Module (EREM) and the Railway Energy Settlement System (RESS). EREM provides accurate and reliable validation, splitting and distribution of measured energy data from both domestic and international traction units. It functions in compliance with the business processes and protocols for data transfer and data distribution between infrastructure managers as defined in UIC leaflet 930 and the upcoming TSIs and CENELEC norms. EREM distributes data using various tools such as e-mail or ftp in order to meet the needs of all European infrastructure managers. Secondly, RESS, the settlement system accommodates energy calculation, cost distribution and invoicing

to train companies and other customers in the various user-countries. Customers have direct access to their measured energy and cost data through the system. Data exchange with other systems is also accommodated via the energy settlement system.

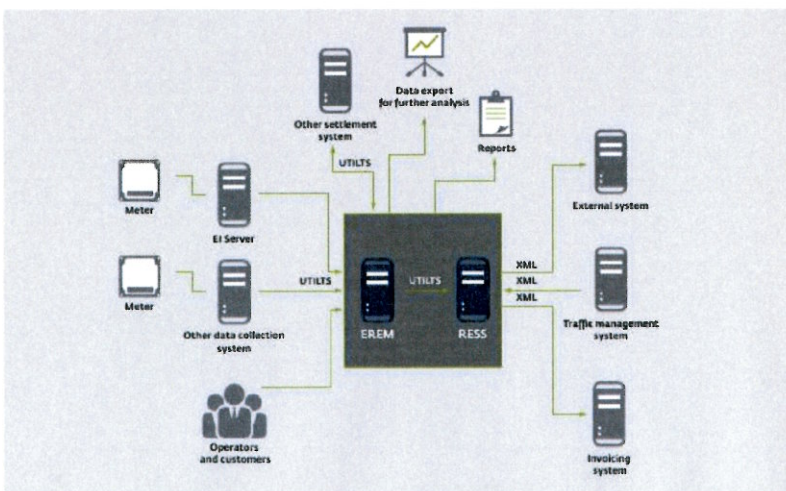
Railway Pro: What are the main problems, regarding the railway transport and cross-border traffic, that ERESS system can solve?

Dyre Martin Gulbrandsen: As mentioned above, both infrastructure managers and train operators benefits directly from the use of ERESS solution. Firstly, ERESS solution is foremost a tool for infrastructure managers to ensure a transparent and non-discriminatory treatment to all railway undertakings. Secondly, it reduces barriers for cross-border traffic to let train operators fully enjoy the benefits of competition.

Railway Pro: How can this solution help improve energy efficiency and the fight against climate change?

Dyre Martin Gulbrandsen: Although, rail transport is the most environmentally friendly mode of transport, it needs to maintain this competitive environmental advantage by continuously improving its performance. In this context, the use of energy measured data provides strong incentives for the train operators to seek and undertake energy saving programs. In parallel, without energy measurement, infrastructure managers will not be able to invoice operators based on their actual energy consumption. Benefits of energy savings will not be allocated to the correct railway undertaking, and thereby reduce the incentives for performing energy saving projects. ■

You can read the full interview at www.railwayinsider.eu



Проведение правильных расчетов расходуемых энергоресурсов

Экономия энергоресурсов, и, вместе с тем, «счета на меньшие суммы» на оплату потребляемых энергоресурсов – это новый вопрос повестки дня транспортных операторов. Железнодорожный транспорт является наиболее эффективным с точки зрения потребляемых энергоресурсов, хотя это не исключение от этой проблемы. Несколько северо-европейских компаний предложили решение по экономии и расчёту расходуемых энергоресурсов. Проект был представлен в рамках Саммита «Дни железных дорог», который состоялся в Бухаресте. Операторы могут самостоятельно проводить расчёт затрат на энергопотребление за каждый поезд, который они используют. ■