



Erex  
System

**Erex**  
European traction energy,  
validation, settlement and  
billing system

**Eress**  
European partnership for  
railway energy settlement  
systems

## What Erex is

### Energy Meter + Erex = Accurate Railway Energy

The purpose of Erex is to improve energy efficiency in European Railways through accurate billing based on metering.

Erex takes the metering data to the market in a secure and efficient way, helping train operators to optimise their energy use.

This again lowers the strain on railway grid for the infrastructure manager, saving both maintenance costs and investment costs.

Erex imports data from meters installed in electric trains, and secures the validity of this data for commercial use. It distributes the data to the market according to market requirements stores and exchanges data between the parties in the market. Finally, it also performs the actual calculation of bills for each train company operating in one or more of the partner countries.

## What Erex does

Erex processes, allocates, settles, exports and invoices partners and customers.

## Import

Erex imports:

- Metered data with GPS positioning from different metering systems, (like EnergyICT, Saphymo, Alstom and FarSystems)
- Data from other settlement systems

- Data from metered fixed installations and supply stations
- Reported metered data
- Reported unmetered data (gross ton, train heating, etc.)
- Prices (from energy market)
- Consumption, losses factors and train information

### **Storage**

With Erex you can:

- Handle data of various measurement periods (eg. 1 min, 5 mins., 1 hour)
- Storage time and security according to national and international laws and regulations

### **Allocation**

Erex allocates metered values with GPS positioning into different settlement areas, according to pre-defined price and grid areas, national & border areas.

### **Data exchange**

Erex exports validated and allocated data to:

- All Erex partners
- Other infrastructure managers (e.g. DeutscheBahn, RFF, Network Rail) by requested export method (FTP or SMTP exporting UTILTS) according to UIC
- Train companies for energy analysis and billing control purposes
- It can also distribute data to any party in the energy market, related to railways

### **Settlement**

Erex offers tailored made set up of energy cost calculations and allocation

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