Energy Billing and settlement

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Who we are ?

The Association of European Rail Rolling Stock Lessors

INPA

Immatriculated on 25th of May 2021

Brussels, Square de Meeûs 37

Effective members

Companies with main leasing activities in railway sector

With main activities and office in EU

Our governance

Fabien Rochefort, Chair

Torsten Lehnert & Bart Lam, Vice-Chair

Volker Simmering & Carmen Garcia Cristobal, Directors

Carole Coune, Secretary General

Our main purpose

Promote interoperable and safe European rail rolling stock, by addressing operational, legal, economic, technical, and scientific matters and issues relating directly or indirectly, to locomotives, and passenger trains (multiple units and coaches) operated in the EU and Switzerland.

Our members

renfe Alquiler

RAILPOOL

NORTHRAIL the trainsition

NEXRAIL .LEASE

EUROPEAN LOCOMOTIVE LEASING

CARGOUNIT RENT YOUR WAY

BEACON

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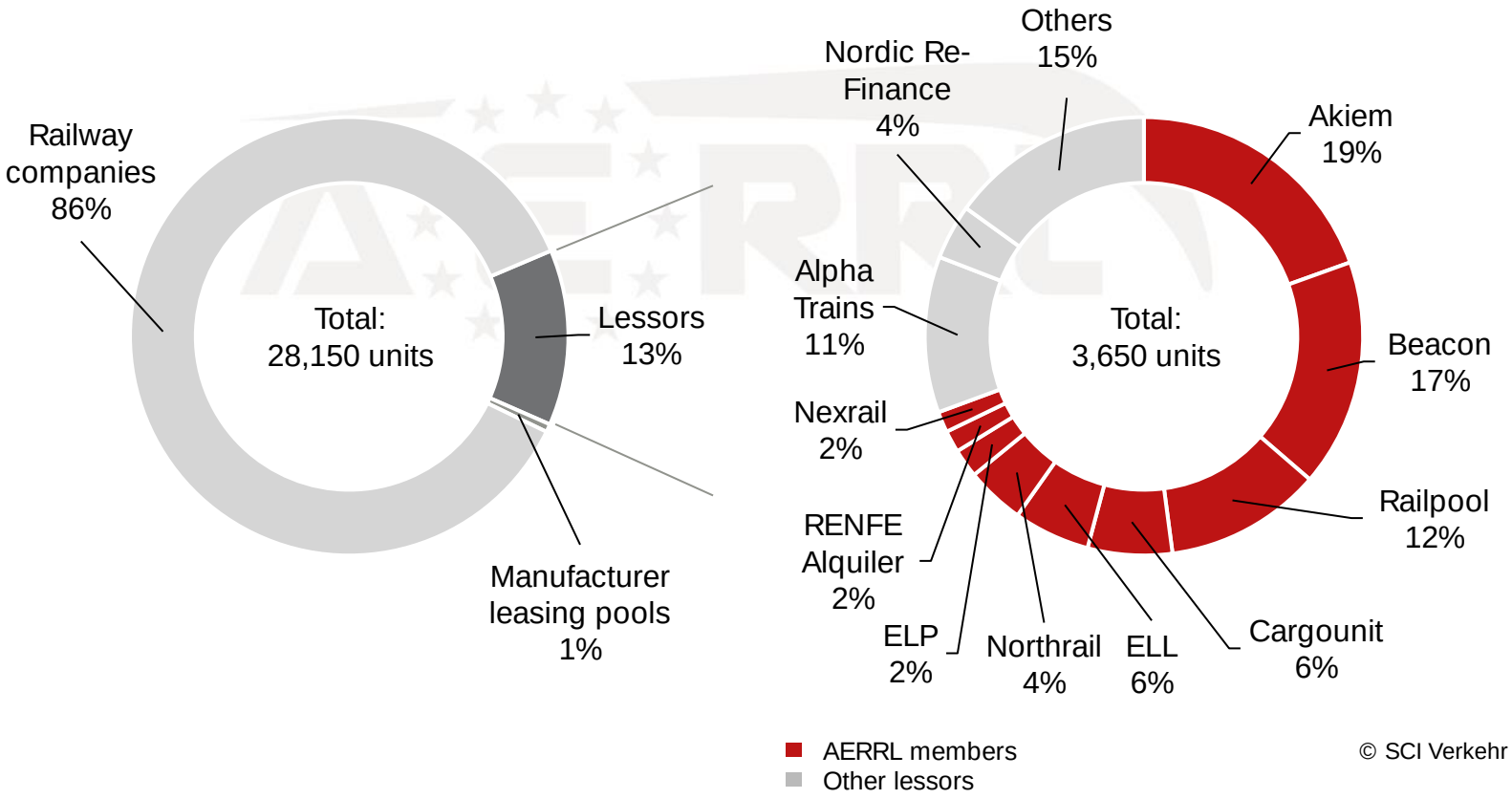
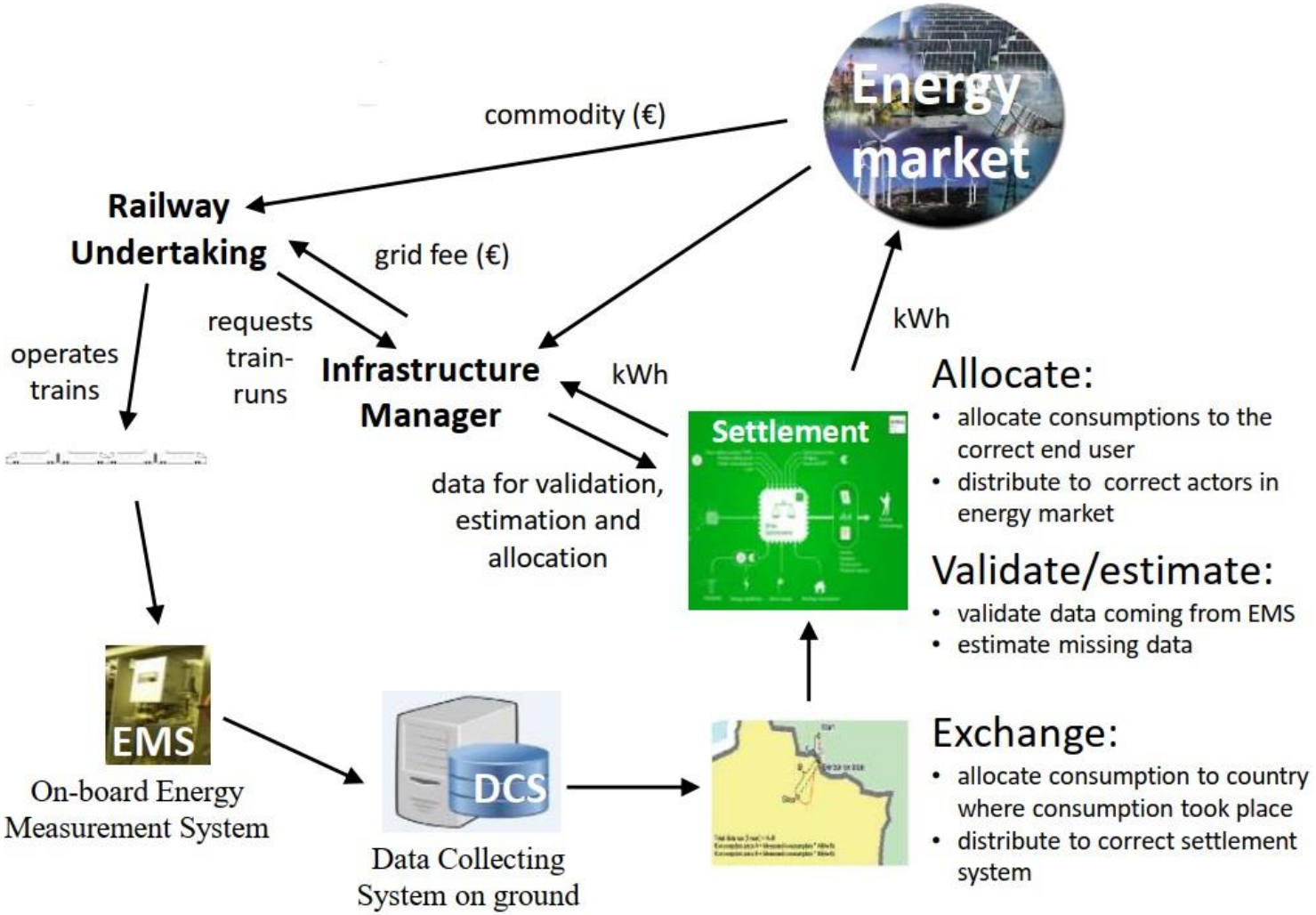
Lessors own 3650 units as of 2023 and AERRL members own 70 % of the lessors fleet as of 2023.
AERRL (as of 2023), 61 % of the lessors' fleet is electric traction.

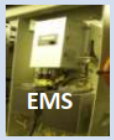
Locomotive fleet by owner type (28,150 units) **and fleet of leasing locomotives by lessor** (3,650 units) **in the EU + CH/NO as of 2023**



Model of Energy Consumption and Settlement



Legal Basis

	Regulation	Standardisation
	**LOC&PAS TSI** (2011): conventional rail; basic parameters under development at CENELEC **CR 1302/2014**: conventional and high speed; mandatory on new, renewed and upgraded vehicles **LOC&PAS TSI** (2014): referring to EN 50463	**EN 50463** (2007): only the energy meter **EN 50463 series** (2012): 5 parts (introduction, Energy Measurement Function, Data handling, Date communication, Conformity assessment) **EN 50463 series** (2017): updated
	**Open point** (2014): unique communication protocol needed (products defined in 2 TSIs) **CIR 2018/868**: amending LOC&PAS TSI, referring to updated EN 50463, closing open point	**EN 50463 series** (2017): updated with unique communication protocol
	**ENE TSI** (2011): conventional rail **CR 1301/2014**: 2 years after closing open point **ENE TSI** (2014): referring to EN 50463 **CIR 2018/868**: mandatory January 2022	**UIC leaflet 930** (2009) **EN 50463 series** (2012) **EN 50463 series** (2017): updated **UIC IRS 90930** (2020): updating leaflet 930
	**CR 1301/2014**: 2 years after closing open point; Able to exchange, validate and allocate. Taking into account legislation energy market. **CIR 2018/868**: mandatory July 2020 **Sector declaration** (2020): commitments	**UIC leaflet 930** (2009) **UIC IRS 90930** (2020): updating leaflet 930, enabling to use protocol of EN 50463-4 also between systems on ground

The on-ground settlement system to receive the data from DCS should be implemented by 04/02/2020

Legal frame

In addition to the implementation of the on-ground energy data collecting system (DCS) defined in point 7.2.4 of the Annex and without prejudice to provisions of point 4.2.8.2.8 of the Annex to Commission Regulation (EU) No 1302/2014, Member States shall ensure that an on-ground settlement system capable to receive data from a DCS and accept it for billing is implemented by 4 July 2020. The on-ground settlement system shall be able to exchange compiled energy billing data (CEBD) with other settlement systems, validate the CEBD and allocate the consumption data to the correct parties. This shall be done by taking into account the relevant legislation concerning the energy market

Consequences for the market

- Higher unjustified energy costs
- Reduced efficiency of rail freight and passenger transport
- Increased cost of delivered products
- Increased CO2 emissions due to the transfer of freight flows to road transport

In some cases, RU or leasing companies are unfavorably billed by an energy supplier in a given EU country and have to bear the financial consequences resulting directly from the failure to implement European legislation.

The voice of AERRL concerning the new TSI ENE Regulation

We propose to add the following points to clarify the issue of electricity settlement:

- Defining the roles of the market participants involved in settling the energy.
  - Keeper/Owner.
    - Supply of an on-board meter (EMS) compliant with the Loc&Pass TSI referencing EN 50463.
    - Register of the meter only in the national DCS.
  - RU - Railway Undertaking –
    - Conclusion of contracts for the supply of energy in the area of use.
    - Register as RU in DCS.
  - DCS - data exchange between EMS and other national DCS.
  - Settlement/Billing - concluding energy supply contracts with RU, billing energy consumption, managing "missing data".
- Specify precisely the format and model of the EMS-DCS and DCS-DCS data exchange file to be used for exchanging data and settling energy accounts.
- Specify the rules for vehicle registration in the national DCS.

How the process should look like based on example for loco registered in Poland

Country	IM	DCS (according to IRS 90930)	Exchange (according to IRS 90930)	Settlement & Invoicing
Denmark	Banedanmark (Rail Net Denmark)	PGE Energetyka	ERESS	Banedanmark (Rail Net Denmark)
Belgium	Infrabel			Infrabel
Norway	BaneNOR			BaneNOR
Sweden	Trafikverket			Trafikverket
Finland	Väylä			Väylä
Switzerland	SBB			SBB
Dutch	Vivens			Vivens
Spain	Adif			Adif
Luxeborugh	CFL			CFL
Germany	DB Energy		DB Energy	DB Energy
Poland	PGE Energetyka		PGE	PGE
Austria	OBB Infra		ERESS	OBB
Czech Republic	SZDC		SZDC	SZDC
Slovakia	ZSR		ZSR	ZSR
Hungary	MÁV Zrt		MÁV Zrt	MÁV Zrt
Romania	CFR		CFR	CFR
Bulgary	NRIC		NRIC	NRIC
Slovenia	SZ		SZ	SZ
Croatia	HZ Infrastructura		HZ Infrastructura	HZ Infrastructura
Serbia	JSC		JSC	JSC
Italy	RFI		RFI	RFI
Potugal	REFER		ERESS	REFER
France	FIM		ERESS	FIM

Thank you