

1. Traction current services



1.1 Calculating the energy consumption

The consumption recorded on the on-board meters is used as the basis for invoicing. The measured consumption is determined based on the energy delivered to the pantograph reduced by the energy which was returned during regenerative braking.

The document “Requirements for the fitting of an on-board Energy Management System on traction units running on the Infrabel network”, available on the *Business Corner* (documentation → clients info → Your Power), contains additional information regarding the energy measurement system. This document is based on the European standards as determined in the LOC & PAS TSI and EN 50463: 2017. TSI LOC & PAS makes the addition of such an energy measurement system mandatory for every renewed and upgraded traction unit. If the railway undertaking itself is not a vehicle keeper, it shall ensure that the traction units it uses comply with European regulations. The railway undertaking should be aware that the infrastructure manager has no contractual or other relationship with the vehicle keeper. If a problem arises with an energy measurement system, its readout or data transmission, the railway undertaking remains the single point of contact for the infrastructure manager. The railway undertaking can then turn to the vehicle keeper.

For energy meters which do not comply with the accuracy defined in EN 50463 (see document “Requirements for the fitting of an on-board Energy Management System on traction units running on the Infrabel network”), a surcharge of 1% will be added to measured consumption.

Rolling stock equipped with energy meters can pass through various countries. Following validation (see point 2), the data can be assigned and exchanged with the network on which the consumption took place.

These meter values must be linked to the information on the trains, which means that the railway undertakings shall declare the composition of all trains to Infrabel (European Vehicle Numbers). This applies in particular to the used traction units. This is preferably done before the departure of the train. This information can be modified in *Fill In* or Train Traction up to 3 days after the departure of the train. The data regarding the train path are also validated (see point 2). Measured consumption for parked trains or shunting will also be assigned.

The consumption for a train path without metering data or supposed incorrect metering data will be assessed based on average specific consumption per category (passengers, freight, or high speed).

On average, a cargo train consumes far fewer kWh per tonne-km travelled, as its average speed is lower and a cargo train stops less frequently along its route. A high-speed train consumes more kWh on average per tonne-km travelled.

Infrabel uses the following estimation formulae:

Passengers: $(37 + 0.80 * D1 + 0.8 * D2)$ Wh/ton-km

High speed: $(42 + 0.80 * D1 + 1.0 * D2)$ Wh/ton-km

Freight: $4 \text{ kWh/km} + 12 \text{ Wh/ton-km}$

The number of degree-days D1 and D2 by day is based on the average temperature measured by the weather stations of Infrabel. For the calculation of D1, each degree below 16.5°C is counted as one degree-day. This means that a day with an average temperature of 6.5°C results in D1 equal to 10. For the calculation of D2, each degree above 20°C is counted as one degree-day.

We have sufficient measured values for the following types of traction units. The measured specific consumptions are significantly lower than the general estimation formulae. If measured values are missing, adjusted estimation formulae are applied:

Passengers (T18/T19): $(31 + 0,4 * D1 + 0,7 * D2)$ Wh/ton-km

Passengers (M7): $(28 + 0,6 * D1 + 1,0 * D2)$ Wh/ton-km

Passengers (Desiro): $(31 + 1,0 * D1 + 0,4 * D2)$ Wh/ton-km

Freight (Traxx/Vectron): $3,5 \text{ kWh/km} + 11 \text{ Wh/ton-km}$

The following principles are applied when estimating consumption:

For the 2026 timetable:

An energetic reconciliation will take place at the end of each month. The total of metered and estimated consumption is compared with the measurement of the consumption injected in the overhead contact line. We consider 4% of transport losses (purchased by Infrabel). The difference will be distributed (via adjustment of the estimated consumptions). This method allocates an advantage of at least 3% to the metered consumptions and supports thus the installation of on-board meters.

If Infrabel discovers large differences between estimated and actual consumption, it has the right to change these estimation formulae during the validity period of this appendix in order to eliminate these differences. Infrabel will organise a consultation with the applicants prior to any change in the estimation formulae.

In the energy market, the transmission system operator is responsible for maintaining the balance between injection and extraction. As the rail sector is also part of the energy market, electricity injection and extraction on the rail traction network must also be calculated on a quarterly basis at each access point. Trains braking or descending a gradient inject electricity into the rail traction network. From 2025 onwards, Infrabel will calculate the overall consumption and injection separately for each access point. Infrabel will fully deduct the injection from the off-take. Per quarter of an hour and per access point, it is assessed whether there is a net off-take or a net injection.

As of the 2027 timetable:

An energetic reconciliation will take place at the end of each month. The total of metered and estimated consumption is compared with the measurement of the consumption injected in the overhead contact line. We consider 4% of transport losses (purchased by Infrabel). The difference will be distributed (via adjustment of the estimated consumptions). This method allocates an advantage of at least 3% to the metered consumptions and supports thus the installation of on-board meters.

In December, an assessment is made as to whether the metered percentage after settlement in the first trimester can rise above 50%, 60%, 70%, or 80%. If this is likely, then the percentage of transport losses will be increased by 0.5%. The percentage of energy losses will be increased to 4.5% from 50% metered, to 5% from 60% metered, to 5.5% from 70% metered, and to 6% from 80% metered. At 90% metered, the reconciliation system will be terminated. The rate for other transport and distribution

services for traction current supply (grid fee) takes this adjusted percentage of transport losses into account.

If during the year there is a very strong increase in the metered percentage, a change in both the percentage of transport losses after reconciliation and the grid fee can be submitted to the WG Energy of the coordination mechanism, after which an interim adjustment of this annex will be published.

If Infrabel discovers large differences between estimated and actual consumption, it has the right to change these estimation formulae during the validity period of this appendix in order to eliminate these differences. A candidate may also propose changes to an estimation formula or a new estimation formula. Estimation formulae are approximately 10% higher than the average measured values. The impact on the reconciliation factor is also being investigated. Infrabel will organise a consultation with the applicant. After consultation of the WG Energy of the coordination mechanism, there will be an amendment to the estimation formulae.

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1.2 Validation rules

The metering data from the energy meters on the rolling stock also contain GPS positions. Positions missing for up to 60 minutes are detected and automatically filled in by interpolation. They are treated as 'estimated' values. If the positions are missing for a longer time, the data are not exchanged and therefore no longer used in the allocation process.

The metering data are not used for allocation and the energy consumption is estimated if:

- more than two consecutive metering periods are missing;
- the consumption is greater than that permitted for the particular type of traction unit;
- the consumption when stationary is greater than that permitted for the particular type of traction unit;
- the GPS positions of the meter change without measuring consumption.

The data relating to the train path are also validated. No energy consumption is assigned to the path if:

- the distance between two detection points is greater than 200 km;
- the speed is higher than permitted;
- an unknown traction unit is used.

No energy consumption is assigned to a part of a path with a mass of the train less than 50 tonnes or greater than 5000 tonnes.

For some errors, the metering data cannot be linked to a path, and the energy consumption is always estimated. This is the case if unpermitted combinations of traction units are indicated.

The validated positions of the path are compared with the metered positions from the energy meter. If these positions don't match for a part of the train path, the energy consumption of the train for that part of the path is estimated.

The energy consumption of a metered or partially metered train is always compared with the estimated consumption. The metered consumption should lie between 25% and 250% of the estimated consumption. Otherwise, the charge for the path is calculated based on its estimated consumption.

1.3 Rates for traction current supply

Infrabel considers two charging periods for the *Your Power* service:

Normal hours	Working days (excluding public holidays) from 07.00 to 22.00
Off-peak	Public holidays, Saturdays, Sundays Working days from 22.00 to 07.00

Infrabel will use the actual unit price that it pays to its energy supplier.

Infrabel buys a part of the traction power on the forward market and a part on the spot market. The forward market share is estimated at 70 %. In 2028 this forward market share is increased to 80 % and in 2029 and 2030 to 85 %. Infrabel organises mini-competitions to purchase this on a regular basis. To supply the difference between actual consumption and forward blocks, Infrabel will contract with one energy supplier. Settlement will be based on hourly prices on the day-ahead market. If off-take is greater than the forward volume, it is a purchase of electricity. If off-take is lower than the forward volume, it relates to a sale.

The resale price includes all costs invoiced by suppliers to Infrabel with the exception of grid costs which are included in the rates for other transmission and distribution services for traction current supply. The resale price also includes the costs of the external consultant.

Rebilling to the applicant is based on a price for normal hours (NH) and a price for idle hours (IH) and according to the applicant's consumption. The selling price is in €/MWh. Infrabel calculates the re-invoicing price on a monthly basis for normal hours on the one hand and silent hours on the other. This price is the same for each applicant. Infrabel takes into account all costs and revenues linked to the purchase of the forward blocks, the purchase and sale of the hourly blocks on the spot market, the compensation for energy losses on the Elia grid and the balancing costs charged and the supplier's management fee. The total costs for NH and IH respectively are divided by the respective consumed volumes to obtain a different price for NH and IH. This price is increased to cover the cost of the external consultant, additional local power, the certificate obligation and taxes/levies paid by the supplier. The latter four costs are re-invoiced on the basis of an average cost per MWh on an annual basis. Infrabel takes no margin on the selling price.

In determining this rate, the energy returned is fully deducted from the energy consumed.

1.4 Rates for other transport and distribution services for traction current supply

Electricity also uses the transport and distribution networks of public network operators. The infrastructure manager pays the costs of using these networks. The infrastructure manager must pass on these costs to the end users, i.e. the applicants using the electricity, regardless of whether they purchase traction power from the infrastructure manager or from a supplier of their choice. This rate also includes the cost of purchasing electricity to cover energy losses in the Rail Traction Network, the

cost of metering and allocating energy in the Rail Traction Network, taxes and charges and costs associated with storage facilities.

The unit price for other transport and distribution services

- is €29/MWh for the period from 01/01/2025 to 31/12/2025
- is €31/MWh for the period from 01/01/2026 to 31/12/2026
- will be determined each year in December for the next calendar year.

Infrabel has the right to change these rates during the validity period of this appendix in case of any change to the legal or regulating framework.

In determining this rate, only the energy drawn from the overhead contact line is taken into account.

1.5 Billing arrangements

Advance payments (up to December 2025)

Infrabel creates a table showing the monthly advance payments. These are based on past and/or expected consumption, as well as on the expected unit prices.

The table with the advance payments is incorporated into the track access agreement or the capacity agreement by means of an addendum. This table may be revised by Infrabel, possibly at the request of an applicant, if it turns out that the advance payments have been under- or over-estimated.

The invoice for these advance payments is sent on the 25th of the month preceding the month of use and must be paid within 30 days.

Advance payments (from January 2026)

The advance payment amounts to 75 percent of the total cost of the last invoiced month and is at least half of the average of the previous three advance payments.

In the event of an announced transfer of traffic between candidates, Infrabel will take this into account and send the advance payment invoice to the candidate who takes over the traffic.

The invoice for these advance payments is sent on the 25th of the month preceding the month of use and must be paid within 30 days.

Definitive invoices

Definitive invoices are issued in the month following the use and are payable within 30 days.

When drawing up the definitive invoice, account shall be taken of the advance payments already invoiced and paid.

Interest on arrears

Infrabel may charge interest on arrears in line with the legal interest rates on the amounts billed but unpaid within the deadlines set out above. The requisition and collection costs are payable by the user.

2. Services for exceptional transports

Each exceptional transport must be preceded by a study.

The railway infrastructure manager performs this study in various phases:

- A technical analysis of the load and/or the rolling stock
- A study of the itinerary
- An optional additional study when the nominal gauge or the maximum permitted load is exceeded
- Whether or not to deliver a provisional authorisation
- Invoicing for this study.

The amount to be invoiced is determined as follows:

$$\text{Amount} = \text{unit price} \times \text{multiplier} \times \text{routes}$$

2.1 Unit prices

The indexed unit prices (excluding VAT) for 2026 are:

Exceptional transport in height	€284.88
Exceptional transport in width	€284.88
Exceptional transport in length	€284.88
Other exceptional transport	€284.88
Exceptional transport in height + additional study	€348.18
Exceptional transport in width + additional study	€348.18
Exceptional transport in weight + additional study	€348.18

The applicable unit price will be determined based on the date on which the authorisation is issued.

2.2 Period of validity of the provisional authorisation

The period of validity for a provisional authorisation for exceptional transport is at most, according to the choice of the applicant:

- 100 calendar days, starting from the date of issue of the authorisation or
- one year, which corresponds to a timetable (in any case, the annual authorisation ends on the second Saturday of December).

In the second case, i.e. in the case of the annual authorisation, the multipliers in point 2.3 below apply.

2.3 Multipliers

For transports with a recurrent nature, the provisional authorisation can be issued and renewed per timetable. As the study of these latter takes longer, the following multipliers are applied to the unit prices mentioned in point 2.1:

Annual renewal of authorisation	2
Annual authorisation study	3

2.4 Routes

For invoicing an exceptional transport, "routes" means:

- For domestic services: the number of destination stations, provided the departure station remains unchanged
- For domestic services: the number of departure stations, provided the arrival station remains unchanged
- For international transport: the number of departure and arrival stations in Belgium plus the number of border points.

The number of routes is multiplied by two if the request for exceptional transport involves a return journey.

When using the permanent authorisation 9.0.2.40.100/18 (see Appendix C.2 of the network statement), an additional study may be requested for the use of loading units that are larger than permitted according to the codification of the lines. If the study allows it, each additional mandatory route (point 2 of the provisional authorisation for exceptional transport) will be considered as one route, regardless of the number of departure and destination stations on the lines with the original codification included in the aforementioned permanent authorisation.

2.5 Prices for the modification of an authorisation

A modification of an existing authorisation will be treated as a new request in the following cases. Consequently, the request will be invoiced in accordance with the applicable prices (see table unit prices above):

- Study of a new or additional itinerary
- Study due to the addition of a departure station, a destination station and/or a border point
- Additional load / modification of the load
- Modification of the wagon.

A modification due to unavailable Belgian rail infrastructure (works, disturbances ...) will not be charged for.

Remark:

For requests for which the study will take longer than 1 day, an adapted offer will be made.

2.6 Indexing of unit prices

The unit prices applied by Infrabel are indexed annually on 1 January. This indexing corresponds to a weighting of the consumer price 'health' index (65%) and 'service' index (35%). The reference index is that of the month of November preceding the indexing.

3. Technical inspection of rolling stock

3.1 Applicable rates

These rates apply to the technical inspection of rolling stock without the use of train paths. The basic rates for personnel do not apply during the weekend or during the night. These unit prices exclude VAT.

Rates per hour - personnel	Value 1 January 2026
Industrial engineer	€119.28
Head of technical sector	€110.23
Deputy head of technical sector, technician mechanic	€103.19
Administrative employee	

Description of fixed-rate charges	Value 1 January 2026
Fixed administrative charge per dossier: issue of documents for (re-)testing, extension or in case of loss	€103.19
Type D, shunter with 2 axles and 1 driver's cab	€477.12
Type D, On Track Machine autonomous, max. 4 axles and 1 driver's cab	€596.38
Type G, On Track Machine towed: wagon max. 4 axles	€357.83
Type J, rail-road traction unit	€477.12
Type K&S, rail-road crane standard type, elevating platform, spraying/mowing tractor - including work authorisation	€412.75
Type R, heavy trolley	€309.57

Fixed-rate supplements	Value 1 January 2026
Per extra axle (from 2 or 4 axles)	€59.64
Second component of a dual rig (e.g. locomotive with tender, packing machine consisting of two units)	€178.91
Radio-controlled shunting	€119.28
Radio-controlled works (equipped with AWI, fall protection, ...)	€60.12
Second driver's controls, extra man-basket for elevating platform	€89.45
Work authorisation On Track Machine crane car, rotation and/or uplift limits, emergency pump, gantry clearance, track loading	€178.91

Fixed-rate supplements	Value 1 January 2026
(Auto)function test of the safety systems (TBL 1+)	€59.64
Call-out costs	Value 1 January 2026
Domestic network: fixed call-out cost	€238.50
Abroad: number of kilometres in €/km + per hour worked (see rates per hour - personnel)	€0.46
Extra costs	Value 1 January 2026
Vehicle not ready for testing (still work to do, safety equipment to be supplemented, or to be positioned on another track)	Rates for personnel per hour of delay
Unfavourable conditions for testing (not above inspection pit, ...)	€335.19
Urgent testing (day of request – day of testing < 5 days)	€103.19
Overnight charge (travel, hotel, parking, meals, Infrabel day/night work pay)	On request
Test drives on-site for journeys off route	On request
Electromagnetic Compatibility and detection tests Compatibility study based on examination of the dossier and practical tests on test site I-AM)	On request

3.2 Indexing of unit prices

The unit prices applied by Infrabel are indexed annually on 1 January. This indexing corresponds to a weighting of the consumer price 'health' index (65%) and 'service' index (35%). The reference index is that of the month of November preceding the indexing.

4. Traffic Information Messages

4.1 Applicable rates

As part of the gradual introduction of charging for Traffic Information Messages (TIM) data flow, the services listed below will not be invoiced in 2025.

From 1 January 2026, the following rates (VAT exclusive) will be invoiced:

Description	Value 1 January 2026
Costs to set up the data stream (one-time payment)	€50 000.00
Costs for maintaining the data stream (payable annually)	€15 000.00

4.2 Indexing (applicable from 1 January 2027)

The following formula is used for the annual indexation of rates (indexation coefficient):

$$Price(Y) = \frac{(I\ Health\ Sept(Y-1) \times 0.50) + (I\ Services\ Sept(Y-1) \times 0.50)}{(I\ Health\ Oct(Y-2) \times 0.50) + (I\ Services\ Oct(Y-2) \times 0.50)} \times Price(Y-1)$$

with:

<i>Price (Y)</i>	price indexed on 1 January
<i>(Y)</i>	the year to which the index applies
<i>I Health Sept (Y-1)</i>	Health index for September of the year preceding the year (Y)
<i>I Health Oct (Y-2)</i>	Health index for October of the year preceding the year (Y-1)
<i>I Services Sept (Y-1)</i>	Services index for September of the year preceding the year (Y)
<i>I Services Oct (Y-2)</i>	Services index for October of the year preceding the year (Y-1)