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document is a supporting

RU vision for Commercial Conditions (CC) – Traction Support

Description and use cases, 30 April 2025





To explore the RU Vision and other documents related to CC, visit our dedicated webpage: <u>https://www.forumtraineurope.eu/services/capacity-projects/commercial-conditions</u>

Introduction



Traction support component

- Scope: applicable to big Temporary Capacity Restrictions (TCRs) with a re-routing with worse infrastructure parameters than the TCR line
- > Goal: keep railways cost attractive for customers, avoid shift to road
- > **Provided to:** all applicants
- > **Support:** IM-provided locos * in case the re-routing:
 - > is not electrified
 - Requires higher traction power
 (e.g. extra loco due to higher gradient)







Traction support examples

- Czech Republic, 2021-2024: during several TCRs on the main corridor line between Kolín-Ceska Trebova-Brno, the IM made available for freight RUs locomotives when they used the electrified but hilly re-routing via Havlickuv Brod.
- Sermany, July-December 2024; during the High Performance Corridor 6 months works on the so-called Riedbahn, one of the re-routing options (Alsenztalbahn) was non-electrified, the IM rented diesel locos and offered them to the RUs.
- France/Germany, August 2024: during 3 weeks TCR on Rheintalbahn between Karlsruhe and Offenburg, the used re-routing line was via France (Wörth (DE) Lauterbourg (FR) Strasbourg (FR) Offenburg (DE). The IM DE provided financial support for RUs to organise traction support via the French re-routing.
- > Germany, 2026: during TCR Nürnberg-Regensburg, diesel locomotives will be provided by the IM for the nonelectrified re-routing via Schwandorf.
- > Hungary, 2024: during the TCR on the key line from Budapest to Vienna, the IM organised diesel locomotives for freight RUs for the re-routing line Székesfehérvár-Komárom.



Technical solutions

- > Resources for the traction support preferably included already in the IMs' investment plan.
- > Different experiences on the technical solution how to organise the locos:
 - → The discussion within "International Contingency Management" demonstrated that the most effective scenario is when the locos are <u>organised centrally</u> for all RUs on the re-routing stretch, instead each RU organising loco for itself. Especially, RUs with low volumes on the route have challenge to lease a loco.
 - 1. Use case CZ: IM tendered a contract; winning RU provided the push-service for other RUs.
 - 2. Use case DE: IM provided locos; RU could have used the locos with their drivers.
 - 3. Use case FR/DE: Financial support was provided to RUs and they organised the external locos themselves.
 - 4. Use case HU: IM provided locos and loco drivers.
 - → If RUs are responsible for organisation of the loco, higher efficiency can be reach, if the IMs provide traffic management data for operational management of the locos.
- > Certain good practice:
 - > Early IMs' planning to establish a transparent path catalogues for efficient resource planning
 - > Whenever possible prolong the traction support to larger stations with sidings capacity
 - > Plan a ramp-up phase: more test trains in different configurations, plan start in lower-demand period (e.g. weekend) to allow fine-tuning of the plan/operation





Use case CZ: pushing service – diversions of freight trains through Vysočina

Traction support: use case CZ

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Description of the use case

- > 3 TCRs on key TEN-T/RFC line (Bezpráví, Blansko, Pardubice st.)
- > TCR Bezpráví (05/2021-07/2023)

Night total closures for 8 hours Single-track operation over day Impossible to allocate ad hoc paths

- > Re-routing line via Havlíčkův Brod
 - > Sufficient capacity (based on NS)
 - Comparable max train lenght (674m) and track load class
 - > But steep gradient conditions
 - > Permitted load per single loco is reduced





Impact

- > TCR affected the main line towards PL/AT/SK
- > A significant amount of freight and passenger trans re-routed
- ČD Cargo: around 80 regular train paths, numerous ad-hoc trains, and dozens of business cases were impacted.

Measures by the IM

- > RUs eligible for compensation of TAC difference
- Introduction of shunting service on the diversionary route (traction support)
 - \rightarrow enabled the same load to be carried as on the original line, without increased costs for RU for extra loco.
 - \rightarrow only first experience with the traction support, certain technical challenges in tendering and operation-management.







Use cases DE: diesel locos for non-electrified re-routing

Traction support: use case DE



TCR Riedbahn 2024

- > TCR on an important corridor line.
- > 3 re-routing options, one not electrified (Alsenztalbahn).
- > The diesel locomotives were provided by DB InfraGO.
- > RUs themselves managed the operation of these locomotives.
- Relatively low usage rate due to other rerouting options with relatively little extra effort.





Traction support: use case DE





TCR Rheintalbahn 2024

- > The Rhine Valley line at Rastatt (DE) was closed for 21 days due to construction work (9-30 August 2024)
- > DB InfraGo and SNCF Reseau were able to organise approx. 50% of normal capacity via France being the only reasonable re-routing for trains with P400 profile.
- > The re-routing via the northern Alsace (Wörth-Lauterbourg-Strasbourg-Offenburg) is not electrified.
- > Diesel shuttle locos were organised centrally by 2 RUs, DB InfraGo contributed financially to the costs of the traction support.

Traction support: use case DE



TCR Nürnberg-Regensburg 2026

- > TCR on Nürnberg-Regensburg section
- > 2 re-routings, one via Schwandorf, nonelectrified route.
- > The diesel locomotives will be provided by DB InfraGO.
- > RUs themselves managed the operation of these locomotives.
- > Main challenge: line parameter limitations of rerouting-line(s):



Section Name	IM	Line Category	Traction Power	Intermodal Freight Code	Gauging	Number Of Tracks	Maximum Train Length
Regensburg Hafen Abzw - Regensburg Hafenbrücke	DB InfraGO Aktiengesellschaft	D4	AC 15kV-16.7Hz	P/C 80/410	G2	Single-track	upon request
Regensburg Ost - Regensburg Hafen Abzw	DB InfraGO Aktiengesellschaft	D4	AC 15kV-16.7Hz	P/C 80/410	G2	Single-track	upon request
Regensburg Hafenbrücke - Maxhütte-Haidhof	DB InfraGO Aktiengesellschaft	D4	not electrified	P/C 55/385	G2	Double-track	550 - 599 m
Maxhütte-Haidhof - Schwandorf	DB InfraGO Aktiengesellschaft	D4	not electrified	P/C 80/410	G2	Double-track	550 - 599 m
Neunkirchen am Sand - Hersbruck	DB InfraGO Aktiengesellschaft	D4	not electrified	P/C 80/410	G2	Double-track	600 - 649 m
Nürnberg Ost - Neunkirchen am Sand	DB InfraGO Aktiengesellschaft	D4	not electrified	P/C 80/410	G2	Double-track	600 - 649 m
Nürnberg Rbf - Nürnberg Langwasser	DB InfraGO Aktiengesellschaft	D4	AC 15kV-16.7Hz	P/C 80/410	DE3	Double-track	upon request





Use case HU: diesel locos for re-routing from Budapest-Rajka

Traction support: use case HU



Budapest – Rajka 2023

- Late TCR on the most important line between Vienna and Budapest.
- Alternative route Komárom Székesfehérvár is not electrified.
- MÁV (IM HU) via MÁV Rail Tours Kft. provided diesel locomotives between 28 October and 18 November.
- > MÁV will managed the operation of these locomotives themvelf.
- > These locomotives fell under the scope of the agreement between MÁV and the RUs concerned about the reimbursement of the costs related to this temporary capacity restriction.

Urgent construction works on line Budapest - Rajka from 18th September 2023 updated: 23-10-2023

13 September 2023





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