

Deployment of hydrogen for road and rail networks

Joint workshop
Transport and Energy Community

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Nedim Begovic, Green/Multimodal/Innovative Transport Solutions
Desk Officer

Hydrogen deployment

Sustainable and Smart Mobility Strategy

TCT annex 1

- TEN-T Regulation
- AFIR

Sustainable and Smart Mobility Strategy for Western Balkans



SUSTAINABLE MOBILITY			
Action	Type of intervention	Responsible authority	Indicative Timetable
FLAGSHIP 1 - BOOSTING UPTAKE OF ZERO-EMISSION VEHICLES, RENEWABLE & LOW-CARBON FUELS AND RELATED INFRASTRUCTURE			
Transposition of alternative fuel directive	L	MoT ⁸⁶ , TCT Secretariat support	Within 2 years from the date of application of EU legislation
Deployment of e charging stations on the busiest corridors	S, L	S - TCT Secretariat with Technical Committee I - Road authorities	2024 – 2026
Undertake feasibility study on the use of hydrogen on trucks along the busiest corridors	S	TCT Secretariat to cooperate with Energy Community Secretariat	2025 -2026
Aligning the emission standards across the region, by setting the minimum standard for new cars at EURO6	P, L	P – MoT, Ministries in charge of Economy, Ministries in charge of Environment, Ministries in charge of Finance and other relevant institutions L - MoT, MoEc., MoEnv, MoF and other relevant institutions	2024-2025
Encouraging the introduction of incentives for zero-emission vehicles	L	MoT, MoEc., MoEnv MoF and other relevant institutions	2023 - 2025
Improve emission testing in roadworthiness checks	L	MoT	2023

Proposal for TEN-T Regulation

Article 2

Scope

1. The trans-European transport network comprises transport infrastructure, including infrastructure for the deployment of alternative fuels, ICT systems for transport as well as measures promoting the efficient management and use of such infrastructure and permitting the establishment and operation of sustainable and efficient transport services.



Article 4

Objectives of the trans-European transport network

2. The trans-European transport network shall strengthen the social, economic and territorial cohesion of the Union and contribute to the creation of a single European transport area which is sustainable, efficient and resilient and which increases the benefits for its users and supports inclusive growth. It shall demonstrate European added value by contributing to the objectives laid down in the following four categories:

(a) sustainability through:

(i) promotion of zero-emission mobility in line with the relevant Union CO₂ reduction targets;

Proposal for TEN-T Regulation

Article 19

In the promotion of projects of common interest related to railway infrastructure, and in addition to the general priorities set out in Articles 12 and 13, attention shall be given to the following:

(g) developing innovative alternative fuels technologies for railways, such as **hydrogen** for sections that are exempted from the electrification requirement.

Article 29

Transport infrastructure requirements for the comprehensive network

1. Member States shall ensure that: alternative fuels infrastructure is deployed on the road network in full compliance with the requirements of Regulation (EU) [...] [on the deployment of alternative fuels infrastructure].

Article 44



New technologies and innovation

In order for the trans-European transport network to keep up with innovative technological developments and deployments, Member States shall aim in particular to:

- (b) make possible the decarbonisation of all transport modes by stimulating energy efficiency, introduce zero and low emission solutions, **including hydrogen** and electricity supply systems, as well as other new solutions such as sustainable fuels, and provide corresponding infrastructure. Such infrastructure may include grid access and other facilities necessary for the energy supply, may take account of the infrastructure-vehicle interface and may encompass ICT systems for transport. Transport infrastructure may serve as energy hub to serve different transport modes;

AFIR – Alternative Fuels Infrastructure Regulation

Article 6 – targets for hydrogen

- Publicly accessible hydrogen refuelling stations are deployed along the TEN-T core network
- 31 December 2030,
- a maximum distance of 200 km (not exceeded for cross-border sections),
- a minimum cumulative capacity of 1 tonne per day,
- at least 700 bar dispenser.
- Derogations - reduced capacity on roads with less than 2,000 HDV/day

AFIR – Alternative Fuels Infrastructure Regulation



- Article 7 – additional targets for hydrogen
- Refuelling possible on an ad-hoc basis.
- Payment instrument that is widely used in the Union, at least one of the following:
 - payment **card readers**,
 - devices with a **contactless** functionality that is at least able to **read payment cards**.
- Prices shall be reasonable, easily and clearly comparable, transparent and non-discriminatory.
- Clearly shown price information before start of refuelling session

TCT Treaty Annex 1

- AFIR
- TEN-Regulation

Thank you for your attention