Alternative fuels infrastructure
- New EU law enabling speed up with energy transformation in transport sector and its consequences to member states
AFIR – Alternative Fuels Infrastructure Regulation


- Final version agreed by the Council of European Union on July 25, 2023
- Published in Official Journal of the European Union on September 22, 2023
- Apply from 13 April 2024
- Binding in its entirety and directly applicable in all Member States
- Sets targets for electric charging and hydrogen in road, maritime and aviation sectors
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As of when?

• Enter into force on October 13, 2023
• Apply on April 13, 2024
• Direct articles refer to the year of application (2024)
• Three main dates on TEN-T network:
  • by the end of 2025,
  • by the end of 2027,
  • by the end of 2030.
Article 3 - Targets for recharging infrastructure dedicated to eLDV

- At the end of each year, starting from (2024) publicly accessible recharging stations offers
  - 1.3 kw / each registered battery LDV
  - 0.8 kw / each registered Plug-in LDV
  - Cap: registered battery LDV >= 15% of all registered LDV in the MS
Article 3 - Targets for recharging infrastructure for LDV on TEN-T network

- TEN-T core road network - maximum distance of 60 km
  - 400 kW (min. 1 x 150 kW) by 2025
  - 600 kW (min. 2 x 150 kW) by 2027

- TEN-T comprehensive network - maximum distance of 60 km
  - 300 kW (min. 1 x 150 kW) by 2027 on 50%
  - 300 kW (min. 1 x 150 kW) by 2030
  - 600 kW (min. 2 x 150 kW) by 2035

- Neighbouring MS shall ensure that the maximum distances are not exceeded for cross-border sections
Article 3 - Targets for recharging infrastructure for LDV on TEN-T network

• Flexibility mechanism:
  • Pool may serve two directions of travel provided that:
    • is easily accessible,
    • is signposted,
    • the requirements are complied for both directions of travel (power, number of ultrafast chargers)
    • except for roads with total annual average daily traffic below 8500 LDV.
  • Total power of pool may be reduced by 50% if it serves only one direction of travel and total annual average daily traffic is below 8500 LDV.
  • The distance of 60 km between recharging stations may be extended to 100 km if the total annual average daily traffic is below 3000 LDV and it is signposted.
  • Derogations must be notified to the Commission
Article 4 - Targets for recharging infrastructure for HDV on TEN-T network

- On 15% of total TEN-T network by 2025 – max. distance 120 km
  - 1400 kW (min. 1 x 350 kW) by 2025.
- On 50% of total TEN-T network by 2027 – max. distance 120 km
  - 2800 kW (min. 2 x 350 kW),
  - 1400 kW (min. 1 x 350 kW).
- TEN-T core road network by 2030 – max. distance of 60 km
  - 3600 kW (min. 2 x 350 kW).
- TEN-T comprehensive network by 2030 – max. distance of 100 km
  - 1500 kW (min. 1 x 350 kW).
- Neighbouring MS shall ensure by 2030 that the maximum distances are not exceeded for cross-border sections
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**Article 4 - Targets for recharging infrastructure for HDV on TEN-T network**

- Flexibility mechanism:
  - Pool **may serve two directions of travel** provided that:
    - is easily accessible,
    - is signposted,
    - the requirements are complied for both directions of travel (power, number of ultrafast chargers, etc.)
    - except for roads with total annual average daily traffic below 2000 HDV.
  - Total **power of pool may be reduced by 50%** if it serves only one direction of travel and total annual average daily traffic is below 2000 HDV.
  - **The distance** of 60 km between recharging stations **may be extended to 100 km** if the total annual average daily traffic is below 800 HDV and it is signposted.
  - Derogations must be notified to the Commission
Article 4 – Other targets for recharging infrastructure for HDV

- In each urban node pool of 900 kW (min. 150 kw each point) by 2025
- In each urban node pool of 1800 kW (min. 150 kw each point) by 2030

- In each safe and secure parking area at least 2 x 100 kW by 2027
- In each safe and secure parking area at least 4 x 100 kW by 2030
Article 5 – other requirements

- Recharging 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,
  - for publicly accessible recharging points with a power output below 50 kW, devices using an internet connection and allowing for secure payment transactions such as those generating a specific Quick Response code.
- Existing recharging stations with power >=50kW, to be upgraded in payment methods up till 2027.
- Prices shall be reasonable, easily and clearly comparable, transparent and non-discriminatory.
- Points are digitally-connected (6 months after the application of the regulation) and capable of smart recharging (all new and renovated as of application of the 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.
Article 6 – targets for hydrogen

- Flexibility mechanism:
  - ADT <= 2 000 heavy-duty vehicles, the capacity may be reduced to 500 kg / day, provided that HRS complies with the pressure and distance targets,
  - Derogations must be notified to the Commission.
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.
- Existing HRS stations, to be upgraded in payment methods up till October 14, 2024.
- Prices shall be reasonable, easily and clearly comparable, transparent and non-discriminatory.
- Clearly shown an information on the ad hoc price per kg.
- HRS present in each urban node.
Article 8 – Infrastructure for liquefied methane

Until 31 December 2024, Member States shall ensure that an appropriate number of publicly accessible refuelling points for liquefied methane are deployed, at least along the TEN-T core network, in order to allow heavy-duty motor vehicles using liquefied methane to circulate throughout the Union, where there is demand, unless the costs of doing so are disproportionate to the benefits, including environmental benefits.
Thank You

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