



# Electromobility provisions in the new Alternative Fuels Infrastructure Regulation

The E-Volution: urban space solutions for passengers and  
freight

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# Alternative Fuels Infrastructure Regulation (AFIR)

## Overview of the procedure

- **Political agreement** reached between the EP and the Council on **28 March 2023**
- **Vote in EP:** TRAN May 23, Plenary foreseen for July
- **AFIR application 6 months after entry into force** (on the twentieth day following that of its publication in the Official Journal of the European Union)



Publication OJ (expected September) +  
20 days + **6 months (expected  
March/April 2024)**

# Art 3 – Targets for LDV recharging infra

- **National fleet-based targets**

- 1.3 kW power output per BEV and 0.8 kW power output per PHEV
- Target to be met on **31 December of every year**, starting from year after legislation comes into force
- “Sunset clause”: target no longer applies once share of BEV in national LDV fleet reaches 15%

- **TEN-T distance-based targets**

- TEN-T core, every 60 km in each direction:
  - 400 kW power output (at least one 150 kW recharging point) by **31 December 2025**
  - 600 kW power output (at least two 150 kW recharging points) by **31 December 2027**
- TEN-T comprehensive, every 60 km in each direction:
  - 300 kW power output (at least one 150 kW recharging point) by **31 December 2027** on 50% of the network
  - 300 kW power output (at least one 150 kW recharging point) by **31 December 2030** (100% of the network)
  - 600 kW power output (at least two 150 kW recharging points) by **31 December 2035** (100% of the network)

- **Derogations (to be requested by Member States)**

- 50% reduced power output on roads with less than 8,500 LDV/day
- Increased distance of up to 100 km on roads with less than 3,000 LDV/day

# Art 4 – Targets for HDV recharging infra

- **By 31<sup>st</sup> December 2025**, on at least 15% of TEN-T Core and Comprehensive network:
  - Maximum 120 km between recharging pools
  - 1,400 kW power output, at least one 350 kW recharging point
- **By 31<sup>st</sup> December 2027**, on at least 50% of TEN-T Core and Comprehensive network:
  - Maximum 120 km between recharging pools
  - TEN-T Core: 2,800 kW output, at least two 350 kW recharging points
  - TEN-T Comprehensive: 1,400 kW output, at least one 350 kW recharging point
- **By 31<sup>st</sup> December 2030**, on the whole TEN-T core and comprehensive network:
  - Maximum 60 km between recharging pools on TEN-T Core, 100km on TEN-T Comprehensive
  - TEN-T Core: 3,600 kW output, at least two 350 kW recharging points
  - TEN-T Comprehensive: 1,400 kW output, at least one 350 kW recharging point
- **Derogations** (to be requested by Member States)
  - 50% reduced power output on roads with less than 2,000 HDV/day
  - Distance up to 100 km on TEN-T core roads with less than 800 HDV/day

# Art 4 – location-based HDV recharging infra

- Recharging stations at **Safe and secure Parking Areas**:
  - At least two 100 kW recharging stations at every safe and secure parking area by **31 December 2027**
  - At least four 100 kW recharging stations at every safe and secure parking area by **31 December 2030**
- Recharging stations at **Urban Nodes**:
  - Min. 900 kW installed power per urban node by **31 December 2025**
  - Min. 1,800 kW installed power per urban node by **31 December 2030**
  - Targets to be met through recharging stations with individual power output of min. 150 kW

# “Publicly accessible”

- Publicly Accessible recharging points
  - All **recharging points that are located in areas that are open to the general public**, incl. on-street, in publicly accessible parking lots, private retail or restaurant parkings, irrespective if the parking is reserved for clients or if parking fees apply
  - Non publicly accessible are only recharging points that are located in areas where **access is restricted to a limited, determinate circle of persons**, such as parking lots in office or apartment buildings, private depots, dedicated car-sharing parking lots, parking lots reserved for pre-registered hotel guests, sports club members etc.

- If publicly accessible



Article 5 and 18 conditions apply:

- Offer ad hoc payment
- Be digitally connected
- For AC: offer smart recharging
- For DC: offer fixed recharging cable
- Make static and dynamic data available

# Art 5 - easy payment, fair and transparent prices

## *Easy payment*

- Ad hoc payment by means of **EU-wide used payment instrument** issued by EBA-registered payment institution at all new publicly accessible recharging points
  - $P \geq 50\text{kW}$ : payment card readers / contactless (NFC)
  - for  $P < 50\text{kW}$ : + internet-based payments, eg via safe and specifically generated QR code
- Retrofitting of existing points  $P > 50\text{kW}$  along TEN-T by 1 January 2027

## *Fair, transparent and easily comparable prices*

- CPOs to charge reasonable, easily and clearly comparable and transparent prices; no discrimination between ad hoc price and contract-based price, nor between different MSPs
- at  $P \geq 50\text{kW}$ : ad hoc price shown; at  $P < 50\text{kW}$ : ad hoc price made easily available
- At  $P \geq 50\text{ kW}$  only price per kWh and occupancy fee are allowed
- CPOs & MSPs to make prices and components/fees known prior to start recharging session

# Art 20 - easy to find

- All recharging points to be digitally connected and **CPOs to make static and dynamic data available at no costs**
  - Static Data: geographic location, number and type of connectors, current (DC or AC), max power output of station and points (kW), vehicle type compatibility, no. of parkings for persons with disabilities, CPO ID code and contact information, opening hours, 100% renewable electricity supply contract
  - Dynamic data: operational status, availability, ad hoc price



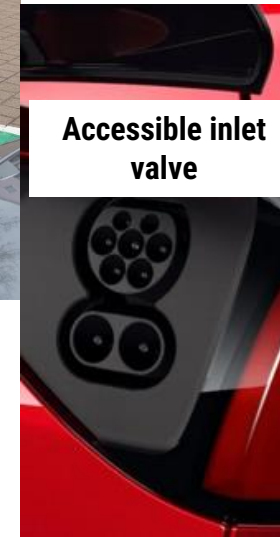
Consumers can **easily find** recharging infrastructure, know in advance if it is technically **operational and free for use**, and what **price** they can expect to pay



# AFIR “Accessibility”

- AFIR recital (31): In principle, the **location** of all recharging ... stations **as well as the recharging ... stations themselves should be designed in such a way that they are accessible and user-friendly for as much of the public as possible**, in particular for older persons, persons with reduced mobility and persons with disabilities.
  - sufficient space around the parking lot
  - recharging station is not installed on a kerbed surface
  - buttons or screen of recharging station are at an appropriate height
  - recharging cable not too heavy
  - accessible user interface
- Article 19 & Annex II 1.19: **Commission may adopt delegated acts to “to enable ... access for people with reduced mobility”**
- AFIR Article 18: CPOs to provide **data on no. of parkings for persons with disabilities**

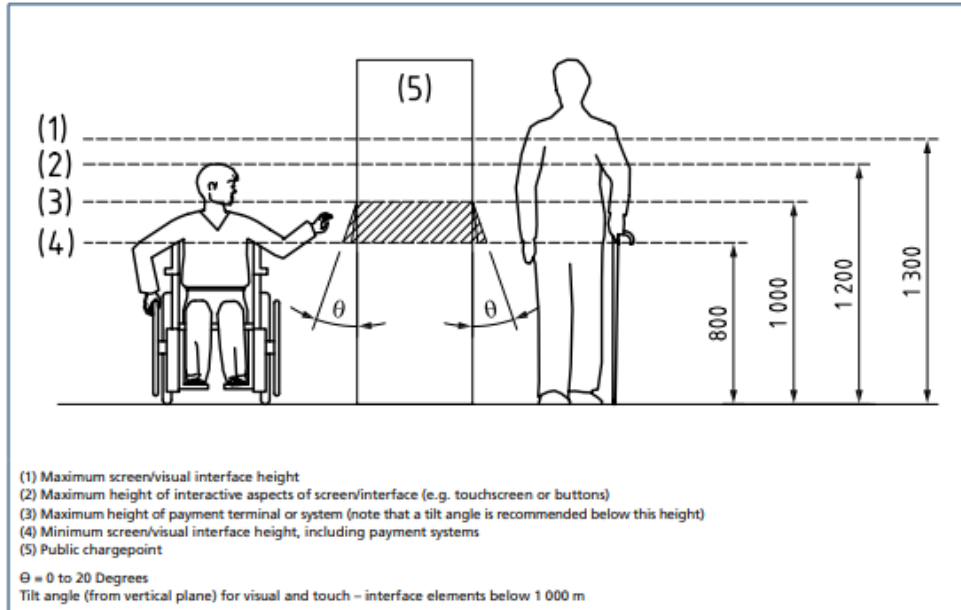
# “Accessibility” in practice



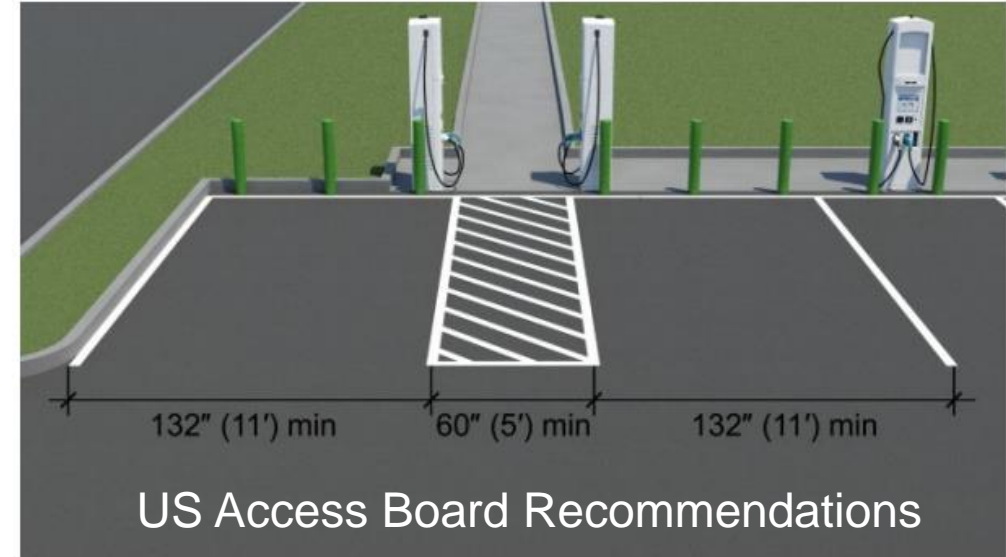
Weight cooled  
CCS charging cable:  
23 kilogram

Source: **Mathias Koch**  
**PARAVAN GmbH**

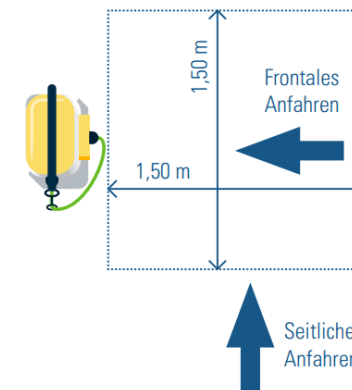
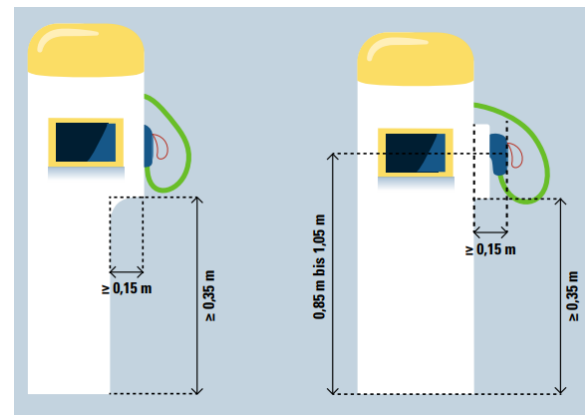
# Recharging point Accessibility recommendations



UK PAS 1899 final version

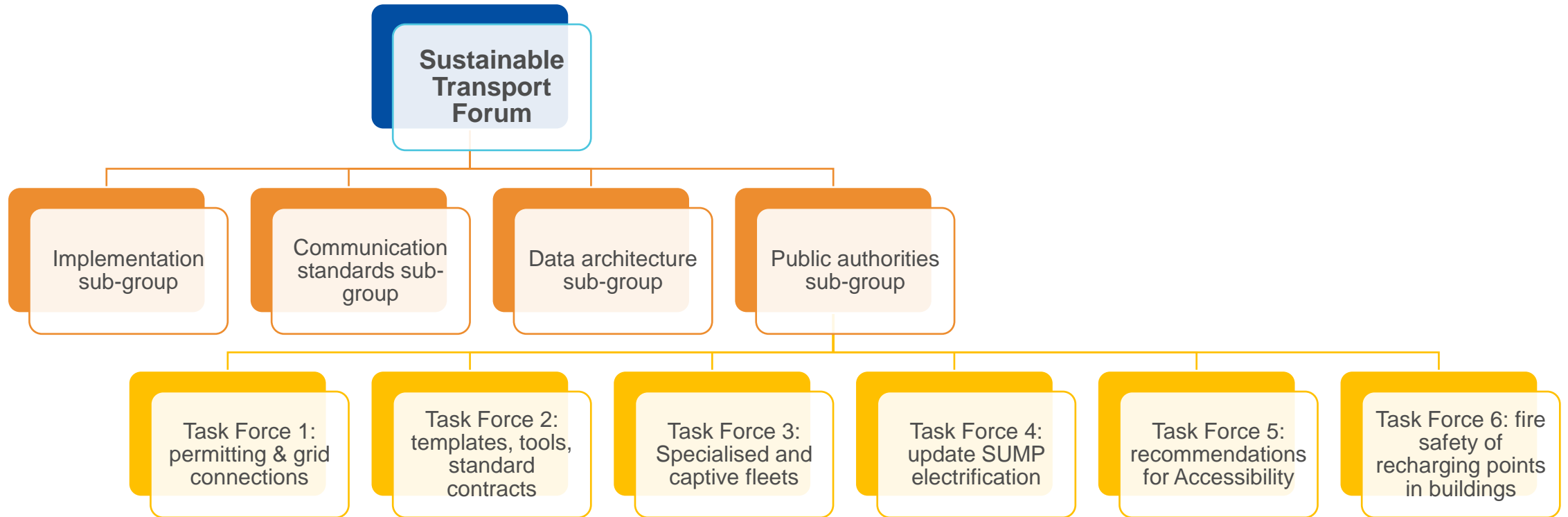


Germany recommendations



# STF and sub-groups

Overview June 2023



More information:

- ❑ [Sustainable Transport Forum \(STF\) \(europa.eu\)](https://europa.eu)
- ❑ [Policy recommendations | European Alternative Fuels Observatory \(europa.eu\)](https://europa.eu)

# STF PA Task Force 5: Accessibility

- Identify **target group** of Accessibility requirements
  - General public
  - Elderly
  - Persons with physical impairment (e.g. using wheelchairs, strollers and mobility aids, having reduced mobility)
  - Persons with mental and intellectual impairments (e.g. memory issues, cognitive overload)
  - Persons with sensory impairments (e.g. persons with visual impairment, deaf, hard of hearing)
- Three main **levels** to consider
  1. **Hardware/recharging station**: design, new technologies like wireless recharging, automated robotic recharging, ...
  2. Associated parking spaces and **surrounding environment**
  3. Distribution/location of accessible recharging stations & parking spaces (**ratio of accessible recharging infra**)

# Thank you



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