PLATFORM FOR electromobility

THE ADVANTAGES OF ELECTRICITY FOR MOBILITY

Platform for electromobility Statement on the AFIR before Vote in TRAN

As the AFIR prepares a solid legislative basis for the decarbonisation of transport, it is important to only support clean solutions and refuse the usage of fossil fuels. An increasing penetration of e-mobility implies a demand-reduction for fossil-fuel mostly imported from instable regions, and thus higher security of supply. Here are four reasons why e-mobility should be supported instead of alternative fuels in the AFIR by strong targets for charging infrastructures.

AIR QUALITY

Road transport is a major source of air pollution in European cities. 300k premature deaths can be attributed to chronic exposure to fine PM per year and 40k to NO2 exposure (EEA, 2021). EVs produce no exhaust emissions and emit 20% less PM10 from non-exhaust sources than ICE vehicles (OECD, 2020).

Modal shift, urban rail and zero emission public transport are key to improving air quality. In Europe, the rail sector's share of total NOx and PM emissions of transport is respectively 3% and 4,5% (UCI, 2018).

ENERGY EFFICIENCY

With 85% energy efficiency (compared to 21% for ICE cars), EVs are the most efficient powertrain for individual vehicles. Regarding natural gas for vehicles (NGV), 30m3 of natural gas, converted to electricity, yields 735km in an EV but 580 km in an NGV vehicle (MIT, 2010).

Rail remains the most energy efficient transport mode (T&E, 2022) and accounts for just 2% of total EU energy consumption in transport (CER, 2021).

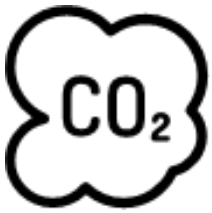
RENEWABLE ENERGY INTEGRATION

Battery-on-wheel solutions, like bidirectional charging, can facilitate the integration of renewable energy to the electricity system. The combination of EVs, their batteries and smart charging functionalities as sources of ancillary services for the electricity grid will clearly bring benefits in terms of RES integration.

30% of electric trains are currently powered by renewable energy. Since 2018, electric traction is fully from renewable energies in Austria, while in the Netherlands trains are already running on 100% wind energy and Sweden 100% use only hydropower.

TECHNOLOGICAL READINESS

EVs & rail are the only available technology to reach climate neutrality. Full life cycle emissions of EVs in Europe emit, on average, more than three times less CO2 than equivalent fossil fuel cars (T&E, 2022).



Rail accounts for less than 0.4% of transport-related GHG emissions in the EU. Compared with other modes, rail accounts for less than 2% and aournd 4% of, respectively, of all WTW GHG emissions from passenger and freight transport (IEA, 2019).

The EU should be very cautious with the list of alternative fuels. Fossil-fuels cannot be alternative fuel and must remain transitional. The definition of "alternative fossil fuels for a transitional phase" (CNG, LNG, LPG, synthetic and paraffinic fuels produced using non-carbon-free energy) should specify until when this transitional phase will last.

Voting recommendations

We support CAs

1 4 5 8 9 10 11 12 15 18

We oppose CAs

16 17

Who are we ?

The Platform for electromobility, representing 45+ organisations from industry, civil society and cities, and across all transport modes, promotes e-mobility and strive to collectively develop solutions for a quick but socially and environementally responsible electrification of European transport.