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DRAFT REPORT

on deployment of infrastructure for alternative fuels in the European Union: time to act!
(2018/2023(INI))

Committee on Transport and Tourism

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MOTION FOR A EUROPEAN PARLIAMENT RESOLUTION

on deployment of infrastructure for alternative fuels in the European Union: time to act! (2018/2023(INI))

The European Parliament,

– having regard to the Commission communication of 8 November 2017 entitled 'Towards the broadest use of alternative fuels - an Action Plan on Alternative Fuels Infrastructure under Article 10(6) of Directive 2014/94/EU, including the assessment of national policy frameworks under Article 10(2) of Directive 2014/94/EU' (COM(2017)0652),

– having regard to Directive 2014/94/EU of the European Parliament and of the Council of 22 October 2014 on the deployment of alternative fuels infrastructure[1],

– having regard to Directive 2009/33/EU of the European Parliament and of the Council of 23 April 2009 on the promotion of clean and energy-efficient road transport vehicles[2],

– having regard to the Paris Agreement, Decision 1/CP.21 and the 21st Conference of the Parties (COP 21) to the UNFCCC, and the 11th Conference of the Parties serving as the Meeting of the Parties to the Kyoto Protocol (CMP 11) held in Paris, France from 30 November to 11 December 2015,

– having regard to the Commission proposal for a Regulation of the European Parliament and of the Council setting emission performance standards for new passenger cars and for new light commercial vehicles as part of the Union's integrated approach to reduce CO2 emissions from light-duty vehicles and amending Regulation (EC) No 715/2007 (recast) (COM(2017)0676),

– having regard to Rule 52 of its Rules of Procedure,

– having regard to the report of the Committee on Transport and Tourism and the opinions of the Committee on the Environment, Public Health and Food Safety, the Committee on Industry, Research and Energy and the Committee on the Internal Market and Consumer Protection (A8-0000/2018),

A. whereas mobility is a basic need and the backbone of our societies and economies, and should be clean, reliable and affordable; whereas, in this context, clean technologies offer huge opportunities and benefits for society, the automotive industry, energy suppliers, utilities, and grid operators;

B. whereas the decarbonisation of transport will strengthen Europe's energy security and independence vis-à-vis imported energy and fossil fuels, and will therefore require a swift and substantial change in the type of energy, fuels and powertrains used, as well as an increase in energy efficiency, by deploying the most efficient technologies and

[1] OJ L 307, 28.10.2014, p. 1.
[2] OJ L 120, 15.5.2009, p. 1.

changing mobility behaviour;

C. whereas transport is the only major economic sector in the European Union where greenhouse gas (GHG) emissions have increased since 1990; whereas it is responsible for 23 % of CO2 emissions, and this share is still growing; whereas road transport accounts for almost 75 % of all energy used in transport and causes almost 73 % of the transport sector's greenhouse gas emissions;

D. whereas, in order to keep the increase in the global temperature to well below 2°C while pursuing the 1.5°C target as signed up to in the Paris Agreement, road transport needs to be fully decarbonised with zero net emissions by 2050 at the latest;

E. whereas switching to alternative fuels and powertrains is the best means to decarbonise the existing and future vehicle fleet; whereas the overall effect will be even greater when combined with increased vehicle efficiency, use of public transport and bikes, the development of shared mobility and improvements to the overall efficiency of transport systems through C-ITS systems and automation and digitalisation technology; whereas urban and spatial planning can support and complement the technological efforts;

F. whereas the price disadvantages of alternative-fuel vehicles compared to regular internal combustion engine (ICE) vehicles are still one of the main barriers to customers' purchasing decisions; whereas, in this context, buyers' premiums, tax exemptions and non-fiscal incentives have proven to accelerate market uptake and should reflect the GHG performance of different alternative fuels;

G. whereas shifting towards alternative fuels and powertrains represents an opportunity for European industry rather than a threat, as the other main automotive markets such as China and California have already introduced mandatory shares of low and zero-emission vehicles for manufacturers' fleets;

H. whereas the recast of the Directive on emission standards for new passenger cars and for new light commercial vehicles will hopefully set ambitious reduction targets and incentivise low and zero-emission vehicles, thus leading the way to a decarbonised European vehicle fleet, which will require the deployment of an adequate infrastructure network for alternative fuels;

I. whereas 94 % of Europe's transport sector is dependent on oil, 90 % of which has to be imported, including from some politically unstable countries;

J. whereas according to Directive 2014/94/EU, alternative fuels still encompass fuels of fossil origin, thus contradicting the goal of decarbonisation and the phasing out of fossil fuels;

K. whereas the energy and transport sectors need to be coupled more closely together in order to allow for deep decarbonisation in mobility; whereas two energy carriers – electricity and hydrogen – allow for zero-emission mobility while integrating renewable energy sources (RES); whereas with the energy sector progressively shifting towards using RES only, storage for excess energy in periods of low demand has to be provided; whereas Battery Electric Vehicles (BEVs) and Fuel Cell Electric Vehicles (FCEVs) can contribute to that end;

L. whereas robust electricity grids, the better integration of power and gas grids via power-to-gas, access to the grid for charging service providers and private charging points and the roll-out of Hydrogen Refuelling Stations are key to electromobility; whereas with BEV and FCEV smart and controlled charging can help balance grids, but there is still a lack of regulatory, tax and technical frameworks;

M. whereas the TEN-T networks constitute the main transport networks in the European Union; whereas focussing on deploying alternative fuels infrastructure and pursuing the goal established in the communication to provide full coverage of the trans-European transport network (TEN-T) core network corridors with charging points by 2025 should be a key priority; whereas this target should be complemented by also taking into account urban and rural areas;

1. Welcomes the aforementioned Commission communication on the deployment of alternative fuels infrastructure;

Stepping up efforts

2. Calls, however, on the Commission to bring forward a revision of Directive 2014/94/EU within the shortest possible timeframe in order to fill the gaps in alternative fuels infrastructure throughout the European Union;

3. Notes that the Commission's evaluation of the National Framework Plans (NFPs) reveals differing levels of effort and ambition between Member States and that the deployment of alternative fuels is falling short; calls therefore on the Commission to replace NFPs with mandatory objectives such as those put forward in the 2013 proposal, while also taking into account the projected and realised uptake of alternative-fuel vehicles and their technological progress, as well as the goal of having a trans-European infrastructure network for all alternative fuels;

4. Suggests an annual evaluation of the Member States' implementation status and broadening of the Directive's scope to shift it from deployment along the TEN-T network to also covering urban and regional nodes and the infrastructure for public fleets;

5. Calls on the Commission to create a level playing field between the different alternative fuels, thus making hydrogen infrastructure mandatory with deployment requirements equal to those for CNG, but adjusting these deployment requirements in accordance with their contribution to decarbonisation;

Clean Mobility Fund: financing alternative fuels infrastructure

6. Welcomes the Commission's effort to provide an additional EUR 800 million as start-up financing to support the uptake of alternative fuels infrastructure; doubts, however, that the leverage will be sufficient given the projected need for EUR 5.2 billion up to

2020 and an additional EUR 16-22 billion of overall investment up to 2025[1];

7. Suggests setting up a European Clean Mobility Fund to cover the estimated necessary investment of EUR 25 billion up to 2025; calls for the fund to be co-financed, with the European Union contributing 10 % and 90 % coming from industry, notably manufacturers, suppliers, energy and fuel producers and other interested parties; suggests that, by contributing to the fund, companies or consortia should be granted preferential access to grants and loans provided by the CEF, EIB and EC IPE; requests that financial resources from the fund should be awarded according to the criteria of feasibility, European added value, the achievement of deployment goals and cohesion policy; asks that the INEA, which already oversees the CEF, become the responsible agency;

8. Calls on Member States to review their energy taxation frameworks in order to facilitate and incentivise the uptake of alternative fuels and to remove burdensome taxation on electricity used to generate alternative fuels, including power-to-gas as storage for intermittent renewable energies;

Alternative fuels - an alternative industrial policy

9. Regrets that progress regarding the deployment of alternative fuels infrastructure and the availability of alternatively powered vehicles is too slow, and calls on manufacturers to step up efforts in this regard;

10. Welcomes the Commission's initiative for a European Battery Alliance and strongly supports the establishment of European battery cell production focussing on next-generation technology; calls on the Commission to extend the initiative to other powertrains such as fuel cells in order to maintain European technology leadership;

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11. Instructs its President to forward this resolution to the Council and the Commission.

[1] COM(2017)0652.

EXPLANATORY STATEMENT

In 2015, 195 member states of the United Nations Framework Convention on Climate Change (UNFCCC) signed the Paris Agreement; they especially agreed on the goal to keep global temperature rise this century well below 2 degrees Celsius above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius. This translates into a reduction of 80 to 95% of greenhouse gas (GHG) emissions for the EU. Currently responsible for a quarter of the EU's GHG emissions, the transport sector has to contribute a considerable effort to reach this goal.

Transport is the only major economic sector in the EU where greenhouse gas emissions have increased since 1990. It is responsible for 23% of CO2-emissions, and this share is still growing. Road transport represents almost 75% of all energy used in transport and causes almost 73% of transport's GHG emissions. 94% of Europe's transport sector is depending on oil, 90% of which have to be imported, including from some countries with an unstable political situation.

In order to fulfill its commitments to fight climate change, protect the environment and to strengthen its energy independence, Europe will have to increase efforts in decarbonising its economy. In the transport sector, there are many ways to achieve this goal. Standards for efficiency, emissions and fuel consumption have proven very effective. The use of new technologies like C-ITS or automated driving can help to improve traffic flows and lower consumption. Urban and spatial planning can also create traffic systems that support the use of public and shared transport, encourage environmental choices like walking or bikes and thereby reducing emissions. Promoting a modal shift from the road towards railways or inland waterways is another approach to lower transport emissions. Especially for road transport, shifting to alternative fuels and alternative powertrains is a direct method of decarbonisation. As those fuels need specific infrastructure, legislation is needed to foster its uptake.

Deficits of existing directive

In 2014, Directive 2014/94/EU on the deployment of alternative fuels infrastructure was adopted. Unfortunately, the binding targets for each Member State as foreseen in the European Commission's proposal were deleted. The evaluation of the National Framework Plans (NFP), which were introduced by the directive, showed, that the ambition and effort differs widely between Member States and that the NFPs. In their actual form they are not suitable to stimulate the fast deployment of a sufficient and comprehensive alternative fuels infrastructure.

As a consequence, the deployment of alternative fuels infrastructure is lagging behind the initial plans: of roughly 800.000 charging points envisaged for 2025 only a bit more than 100.000 are already there. For CNG more than two thirds of filling stations are yet to build. For hydrogen - which is not mandatory under the directive - the situation is even worse.

Therefore, the directive should be revised as soon as possible. It should include concrete and binding targets for the Member States reflecting the actual and projected market uptake of alternative fuels vehicles and providing a decent network of alternative fuels infrastructure alongside the TEN-T-network as well as in urban areas and regional nodes.

Alternative Fuels

The Directive defines three types of fuels as alternatives: electricity, hydrogen and gas (CNG and LNG). While renewable electricity and green hydrogen are real alternatives to fossil fuels, CNG and LNG are still mainly of fossil origin. It is possible to replace them by biogas or synthetic gasses. However, in order to be really sustainable, the former should be produced locally, preferably from waste and the latter have a high loss of energy compared to the direct use of electricity for transport and should therefore only be produced of excess energy that would otherwise be curtailed. A complete shift to alternative fuels without fossil origin must be the main goal.

As there are different modes, different types and environments of transport which have their own specific requirements as regards fuels and powertrain technologies, a mix of alternative fuels is the most promising approach in the medium term. Energy should also be used as efficiently as possible to decarbonise. This touches upon vehicle and engine efficiency, but also on fuel production and energy generation.

Tank-to-wheel efficiencies of alternative powertrains may vary but are usually higher than those of internal combustion engines (ICE) running on petrol or diesel. Their total cost of ownership (tco) is expected to drop significantly in the near future and some alternative fuels vehicles already have cost advantages. Yet, there are three main barriers to their mass deployment, compared to traditional ICE vehicles. First, purchase prices are still higher but they might fall due to technological progress and higher production volumes. Second, the number of vehicle models available is still lower. Third, the network of refilling infrastructure for alternative fuels is less dense. While public authorities should support the deployment of sufficient alternative fuels infrastructure, industry must also contribute by offering more attractive alternative fuels vehicles.

Sector coupling

Increased use of electricity-based fuels will bring the transport and energy sector closer together. However, it is important to also pursue the goal of decarbonising energy generation by a complete shift to renewables. As renewable energies are intermittent, energy supply and demand will have to be matched by using storage mechanisms.

Surplus energy can be used in power-to-gas applications to generate green hydrogen which in turn can be used directly as fuel for FCEVs or fed into gas grids. This technology is rapidly developing and will bring green hydrogen to the market at a competitive price. It is crucial to ensure non-discriminatory access to the gas grid for this application.

Another option to balance energy grids is smart and controlled charging. With an increasing number of Battery Electric Vehicles (BEV) significant storage capacity will be built up in the form of car batteries. In order to avoid demand peaks at certain times of the day, charging of BEVs could be remotely controlled and delayed thus spreading energy demand and charging activity over a longer period. While this is still unidirectional, so-called smart charging solutions would allow for bi-directional charging which would allow energy suppliers to charge and discharge batteries during a certain period and more actively balance their grids. However, for consumers, full price transparency must be guaranteed and high standards of data and consumer protection must be respected.

Similarly, for electricity, non-discriminatory access to the grid is crucial. This accounts for customers' access to public charging points as well. There should be full price transparency, no

subscription obligation and interoperability for payment methods. Public charging points must be complemented by private ones. Charging behaviour for BEV is slightly different than for ICE for which you need a central place to refill in a short period of time. Fast charging is essential for electric long-distance travel and consumers' trust, yet most charging will be done when the vehicle is parked – for example overnight or at work – and charging behaviour will change over time with customer experience.

To realise coverage with private charging points grids and connections have to be reinforced to allow for the connection of charging points on the one hand and on the other hand authorities' authorisation procedures must be easier, and faster.

Taxation and regulatory environment

Taxation has a major impact on the price competitiveness of alternative fuels. Taxation of renewable energy used in the production of green hydrogen can be a burden for its market price. The same accounts for land side electric charging of ships where energy generation with dirty combustion engines on board is exempted from taxation while landside electricity has to cope with taxation and higher provision cost due to the very special nature of the demand.

The objective of this report is to address specifically infrastructure gaps by taking into account the bigger picture and the different issues and perspectives when it comes to decarbonisation of the transport sector.