

# Towards a revision of the Alternative Fuels Infrastructure Directive

## SUMMARY

In the December 2019 European Green Deal communication, which aims to reboot the EU's efforts to tackle challenges related to climate change and the environment, the European Commission proposed to review the Alternative Fuels Infrastructure Directive.

The Directive was adopted in 2014 to encourage the development of alternative fuel filling stations and charging points in EU countries, and required Member States to put in place development plans for alternative fuels infrastructure. However, according to a 2017 Commission evaluation, the plans did not provide sufficient certainty for fully developing the alternative fuels infrastructure network, and development has been uneven across the EU.

Car-makers and alternative fuels producers, clean energy campaigners and the European Parliament have called for the revision of the Directive, to ensure that sufficient infrastructure is in place in line with efforts to reduce emissions in the transport sector and to help meet the climate and environment goals set out in the Paris Agreement and the Green Deal.

On 27 May 2020, in response to the coronavirus pandemic, the Commission proposed the recovery plan for Europe in which it puts even greater focus on developing alternative fuel infrastructure, electric vehicles, hydrogen technology and renewable energy, repeating its intention to review the 2014 Directive.



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## Implementation of the 2014 Directive

The [2014 Alternative Fuels Infrastructure Directive](#) required EU countries to develop national plans (national policy frameworks, NPFs) to put in place a sufficient number of publicly available refuelling and recharging points for alternative fuel vehicles and vessels, according to a [timetable](#). The Directive aimed to address issues such as a lack of coordinated development of infrastructure across the EU, which was seen to inhibit the long-term security needed for investment in the technology for alternative fuels and alternative fuel vehicles.

To take stock of the progress made, the Commission [reviewed](#) the national plans in 2017, and in an accompanying [communication](#) said that the deployment of alternative fuel infrastructure had gained momentum. However, it pointed out that infrastructure development must speed up along the [trans-European transport \(TEN-T\) network](#) and in urban and sub-urban areas. It noted that the plans vary in completeness and ambition and do not provide long-term market certainty and that without further action gaps would remain. For example, in regard to targets for recharging infrastructure for electric vehicles in the NPFs, the Commission pointed out that some NPFs set targets that are already nearly reached, while others set targets difficult to reach with the planned policy measures. For compressed natural gas (CNG), most Member States do not set targets, and the targets for liquefied natural gas (LNG) for trucks will not result in the required coverage of the core TEN-T road network.

The 2017 communication also presented an action plan to provide further impetus to the take-up of alternative fuels, listed measures that should be taken by EU countries to improve the NPFs, and Commission measures to complement action at national level, including those to strengthen coordination of EU funding instruments in support of the roll-out of alternative fuel recharging and refuelling points. The 2014 Directive further required Member States to submit a report on the implementation of NPFs by 18 November 2019 to be reviewed by the Commission. Two Member States, as well as the United Kingdom, which did not submit reports by this date, were reminded to do so in [infringement decisions](#) published by the Commission in May 2020.

## The Green Deal, pandemic recovery plan and alternative fuels

In its communication on the [Green Deal](#), published in December 2019, the Commission stressed the need for a renewed focus on speeding up the shift to sustainable and smart transport and the use of alternative transport fuels. Among measures to support the EU's efforts to tackle environmental and climate-related challenges, the Commission said it would launch a new funding call, and announced that it will review the Alternative Fuels Infrastructure Directive. A [public consultation](#) to evaluate the effectiveness of the Directive, 'with the ambition to propose a revision in 2021', was launched on 4 April 2020. The [roadmap](#) in the annex to the Green Deal also puts the review of the Directive in 2021. A Sustainable Transport Forum set up by the Commission, composed of stakeholders and national experts, produced a [report](#) in November 2019 to feed into the evaluation of the Directive.

According to Article 1, the 2014 Directive:

- 'establishes a common framework of measures for the deployment of alternative fuels infrastructure in the Union **in order to minimise dependence on oil and to mitigate the environmental impact of transport**;
- sets out **minimum requirements** for the building-up of alternative fuels infrastructure, including **recharging points for electric vehicles and refuelling points for natural gas (LNG and CNG) and hydrogen** to be implemented by means of national policy frameworks, as well as common technical specifications for such recharging and refuelling points, and user information requirements.'

### What are alternative fuels?

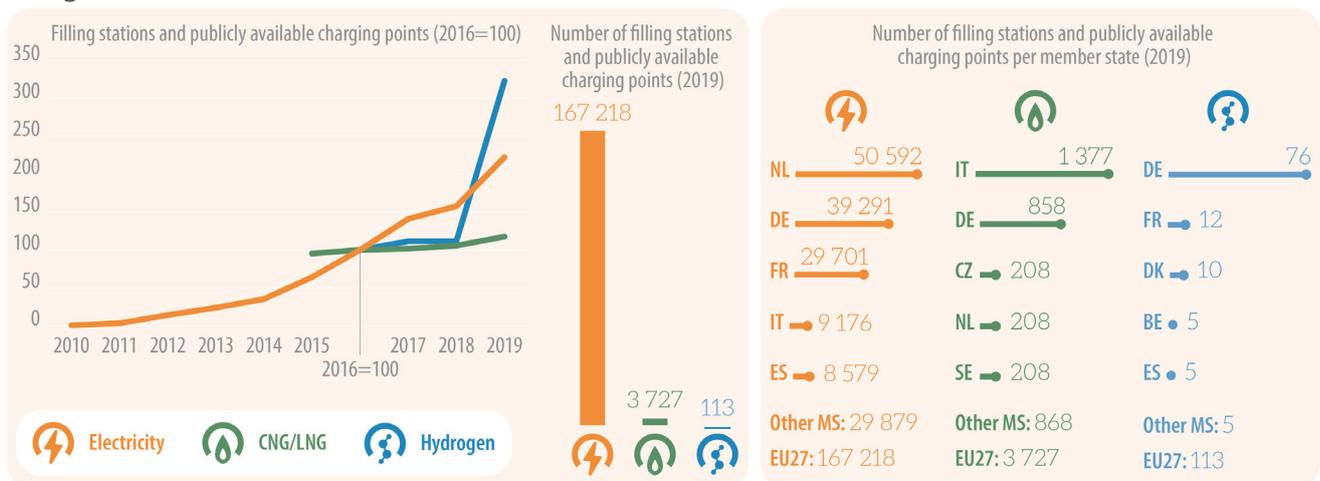
Article 2 of the 2014 Directive defines alternative fuels to mean 'fuels or power sources which serve, at least partly, as a substitute for fossil oil sources ... . They include, inter alia:

- electricity,
- hydrogen,
- biofuels as defined in ... Directive 2009/28/EC, synthetic and paraffinic fuels,
- natural gas, including biomethane, in gaseous form (compressed natural gas (CNG)) and liquefied form (liquefied natural gas (LNG)), and
- liquefied petroleum gas (LPG).'

## How many charging points and filling stations are needed?

In the Green Deal, the Commission noted that one million public recharging and refuelling stations in the EU will be needed by 2025 for the 13 million zero- and low-emission vehicles expected on European roads. Clean transport campaigners have stated that, across the EU, 1.3 million public charging points are needed in 2025 and 3 million in 2030. By comparison, according to the [European Alternative Fuels Observatory](#), just over 167 000 publicly accessible recharging points for electric vehicles, 3 727 LNG/CNG refuelling points and 113 refuelling points for hydrogen vehicles were available in 2019, with a doubling of charging stations and threefold increase in hydrogen stations between 2016 and 2019 (see Figure 1, left).<sup>1</sup> Whereas some Member States have developed their electricity recharging infrastructure, others have focussed on CNG/LNG filling stations, and there are substantial differences between Member States in regard to available infrastructure (see Figure 1, right).

Figure 1: Alternative fuel infrastructure, EU-27



Data source: [European Alternative Fuels Observatory](#).

Meanwhile, the automotive industry has voiced [concern](#) that the market take-up of alternatively fuelled vehicles is uneven across the EU, citing affordability as a barrier for consumers, but also pointing out the shortage of alternative fuel infrastructure. In regard to a sufficient number of electricity charging points, a 2018 [study](#) puts the ideal figure at 10 to 16 plug-in electric vehicles to one charging point. The 2014 Directive suggests at least one recharging point per 10 cars is needed.

## Coronavirus and the European recovery plan

On 27 May 2020, the Commission proposed the [economic recovery plan](#), putting the Green Deal at its centre. On alternative fuels infrastructure, it wants the EU financing instruments to be used to finance the installation of one million charging points, and it has repeated the intention to revise the Alternative Fuels Infrastructure Directive.

### European Parliament position

Parliament has highlighted the need to address the development of alternative fuel infrastructure in several resolutions. In [October 2018](#), it stressed the connection between the availability of alternatively fuelled vehicles, the deployment of alternative fuels infrastructure and consumer demand for these technologies. It called on the Commission to revise the 2014 Directive to fill the gaps in the build-up of infrastructure and to replace the system of national plans with more efficient instruments, such as binding and enforceable targets. It stressed that the scope of the Directive needs to be broadened, e.g. to cover the TEN-T comprehensive network and urban and regional nodes, and to

Charging points for electric cars in apartment blocks and office buildings

Whereas the Alternative Fuels Infrastructure Directive focuses on publicly accessible charging points, the [Energy Performance in Buildings Directive](#), revised in 2018, includes provisions to ensure that residential and non-residential buildings' car parks are progressively equipped with recharging points for electric vehicles.

include the infrastructure for public fleets. It called on the Commission to make hydrogen infrastructure deployment mandatory. In a [March 2019](#) resolution on reducing greenhouse gas emissions, Parliament called on the Member States and the Commission to ensure that consumers have access to zero- and low-emission vehicles for consumers, and stressed the role of smart charging infrastructure to 'establish synergies between the electrification of transport and the deployment of renewable energy sources'. In a [January 2020](#) resolution on the Green Deal, Parliament welcomed the proposal to review the Alternative Fuels Infrastructure Directive, and called on the Member States 'to commit to proper funding and step up the pace for the deployment of innovative strategies, charging infrastructure and alternative fuels'. Outlining its view on how to tackle the coronavirus impact, in a resolution adopted on [17 April 2020](#), Parliament stressed that the Green Deal should play a central role in the EU recovery.

## Views of the industry and the third sector

In the months ahead of the announcement of the European Green Deal initiative, vehicle and electricity producers and clean transport campaigners [called](#) on the EU to boost development of smart charging infrastructure for electrically chargeable vehicles. Car companies, and the hydrogen and road transport industries have [called](#) for mandatory targets for hydrogen-filling infrastructure. Following the announcement in the Green Deal of the revision of the 2014 Directive, car manufacturers and alternative-fuel producers and suppliers have [stressed](#) that the revision should take a technology neutral approach and stick with the current definition of alternative fuels. On the other hand, clean transport campaigners have [called](#) for priority for zero-emission road transport and 'to acknowledge [that] natural gas is a dead-end' for decarbonising. They also suggest turning the 2014 Directive into a regulation, with binding charging infrastructure targets per Member State, and for charging infrastructure to become a flagship of the European Green Deal.

## MAIN REFERENCES

[An Action Plan on Alternative Fuels Infrastructure](#), European Commission, 2017.

[Charging infrastructure for electric road vehicles](#), Policy Department for Structural and Cohesion Policies, Directorate General for Internal Policies of the Union, European Parliament, June 2018.

[European Alternative Fuels Observatory](#).

[The European Green Deal](#), European Commission, December 2019.

## ENDNOTE

<sup>1</sup> The 2014 Directive requires Member States to set up NPF that include targets for electricity charging points, CNG and LNG filling stations. Targets for hydrogen should be included if they choose to include hydrogen in their national plans. Data presented in the line graph is indexed.

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