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RÉPUBLIQUE FRANÇAISE

Paris, 25 November 2019

NOTE FROM THE FRENCH AUTHORITIES

Subject: Accompanying note to the annual report on the implementation of the Directive on alternative fuels

Ref.: Directive 2014/94/EU of 22 October 2014 on the deployment of alternative fuels infrastructure

This note and the appended tables make up the first implementation report on the National Policy Framework for the Development of Alternative Fuels *(cadre d'action national pour le développement des carburants alternatifs – CANCA)* in the transport sector and on deployment of the relevant infrastructure, notified by France to the European Commission under Directive 2014/94/EU of 22 October 2014 on the deployment of alternative fuels infrastructure. The publication of the national policy framework in 2017 formed part of an overall strategy for the energy transition in transport, as provided for under the Act on the Energy Transition for Green Growth (*loi relative à la transition énergétique pour la croissance verte* – LTECV) of August 2015 and included in the proposal for an integrated National Energy and Climate Plan (*plan national intégré énergie-climat*). Several documents support the development of alternative fuels:

- The National Low-Carbon Strategy (*Stratégie Nationale Bas-Carbone* – SNBC) sets the strategic guidelines for implementing the transition to a low-carbon and sustainable economy in all business segments. It establishes greenhouse gas emission reduction targets for each economic sector by means of 'carbon budgets' that set greenhouse gas emission ceilings for successive periods of 4 to 5 years.
- The Multiannual Energy Plan (*Programmation pluriannuelle de l'énergie* – PPE), the strategic document for French energy policy, establishes two main priorities: reducing energy consumption, particularly of fossil fuels; and developing renewable energy. In the transport sector, the PPE draft revision (PPE2) will set targets for reducing energy consumption and developing electric or plug-in hybrid electric vehicles and for the development of bio-NGV and hydrogen.
- The Clean Mobility Development Strategy (*Stratégie de développement de la mobilité propre* – SDMP), appended to the Multiannual Energy Programme, lays down the guidelines for the decarbonisation of transport. The SDMP2 proposal appended to the PPE draft revision (PPE2) will set new objectives for 2023 and 2028 (the first SDMP set objectives for 2016-2018). This strategy focuses in particular on the broader aims of the national low-carbon strategy. The SDMP chiefly clarifies scenarios of trends relating to vehicle fleets, the outlook in terms of increasing the number of recharging points to boost alternative fuels, changes in terms of transport's consumption of the various energy sources and the proposed guidelines for each of the levers (decarbonisation of the fuel consumed by vehicles, vehicle energy efficiency, control of transport demand, modal shift, optimisation of vehicle use). The estimates presented in the reporting table on the fleet of vehicles using alternative fuels and those relating to the number of recharging and refuelling points are

therefore based on the objectives of the SDMP2 proposal **which is still awaiting adoption**; as yet these fleet deployment estimates are therefore not French commitments. The SDMP was drawn up with reference to the scenario also used by the SNBC and PPE.

- Lastly, this implementation report is an opportunity to note that the legal framework for alternative fuels is about to change in order to speed up the deployment of the related vehicles and infrastructure. Whereas the CANCA notified in 2017 was based mainly on measures derived from Law No 2015-992 (Act on the Energy Transition for Green Growth – LTECV) to achieve national targets, the French legal framework is likely to be extensively overhauled in the near future. The Mobility Framework Act (*Loi d'Orientation des Mobilités* – LOM), examined at second reading in Parliament, provides a set of support measures for the development of the least polluting transport modes and promotes the transition to clean vehicles. In this context, the LOM is aimed at supporting the boom in alternative drive systems and fuels: it schedules numerous support measures for the deployment of alternative fuels, by extending or widening existing schemes or by creating new ones that take into account the initial lessons learned. It also transposes several EU directives that pave the way for the market entry of vehicles using alternative fuels.

Infrastructure deployment and targets

In addition to the information provided in the appended reporting tables, some clarification is needed on the deployment of recharging and refuelling infrastructure for alternative fuels.

Note on reporting:

For estimates of the vehicle fleet using alternative fuels, the table proposed by the European Commission had to be adapted to the data currently available.

Recharging infrastructure for electric vehicles

In 2018, the French government and manufacturers pledged to have one million electric vehicles (EV+PHEV) in circulation and 100 000 charging points installed by the end of 2022. Achieving this ambitious target hinges on developing electric vehicles that can compete with internal combustion engine vehicles.

The density of charging points is still difficult to estimate in the medium term. Uncertainties relate to the following:

- Fleet composition in terms of vehicle numbers and distribution between EV and PHEV;
- Geographical spread of electric or plug-in hybrid electric vehicles;
- Access to a private charging point: effectiveness of the 'right to plug in' (*droit à la prise*) in communal properties, provision for existing companies and businesses;
- Vehicle range;
- Driver behaviour.

In view of these uncertainties, the implementation report contains no targets for 2025 and 2030.

It should be noted that there were around 28 000 recharging points for some 250 000 electric vehicles (EV+PHEV) by the end of 2019, thereby meeting the criterion of one charging point for every 10 vehicles in circulation. This charging infrastructure consists of a network of 11 600 stations providing more close-knit

territorial coverage than announced under the CANCA, which was based on a scenario of 8 150 recharging stations.

The Corri-door network operated by Izivia and co-funded by CEF-T can be seen as representative of existing networks **in terms of the utilisation rate of high-power recharging points**. The network's 200 high-power recharging points recorded 40 000 charges with an average duration of 32 minutes in 2018. On average, they therefore recorded a charge time of 18 minutes per day with 0.55 recharges per day (i.e. one recharge every 1.825 days).

Note on reporting:
The level of detail requested by the Commission on deployment could not be satisfied in some cases (chiefly as regards the high-power recharging point distinction). The figures shown in the tables under publicly accessible recharging points do correspond to recharging points. However, the figures broken down according to normal and fast recharging correspond to the numbers of stations. Enedis, the public distribution system's operator, was able to estimate the number of private recharging points, but unable to break down these numbers according to fast and standard recharging points.

NGV refuelling

At the time of notifying the National Policy Framework, France set a national target of 80 CNG refuelling points to allow the circulation of CNG-powered vehicles by the end of 2020. By the end of 2019, this target had been reached with 110 CNG stations and 34 LNG stations. For 2023 and 2028, the SDMP proposal specifies the number of stations needed to supply the projected vehicle numbers. Thus, by 2023 France will require at least 121 CNG stations and 17 LNG stations; 285 CNG and 41 LNG stations will need to be installed by 2028. The analyses show that France should exceed these objectives.

Hydrogen refuelling

Today, France has 29 hydrogen stations, the deployment of which has been supported chiefly by the '*Territories hydrogène*' labelling scheme.

In 2018, the government adopted the Energy Transition Hydrogen Deployment Plan (*Plan de déploiement de l'hydrogène pour la transition énergétique*), setting targets for the deployment of vehicles and stations that will be appended to the SDMP when it is adopted. The plan does not specify differentiated targets between stations open to the public and those for captive fleets. 100 stations will have to be deployed by 2023, which is a significant increase compared to the CANCA target for 2025 of 30 to 50 stations.

LPG refuelling

LPG is sold at almost 1 700 stations in France. LPG is the alternative fuel that currently has the densest coverage in terms of stations, which are capable of supplying 10 times more vehicles than the current vehicle fleet.

Quayside electrification

Investments in quayside electrification are mostly carried out by the public management bodies of ports or waterways. In contrast to the planners of electric vehicle recharging infrastructure (IRVE), the promoters of quayside electrification schemes cannot invest without consulting the future users of the facilities. The vast majority of schemes are launched with the support of the local authorities in areas around ports, the national government and European funds such as the ERDF or CEF-T.

The **port of Marseille** currently has 3 supply points for 5 *La Méridionale* and *Corsica Linea* ferries operating between Corsica and the French mainland. The South (*Sud*) region recently announced its **new 'zero-fume stopovers' (*Escales zéro fumées*) electrification scheme**, which should result in all ferry quays being connected by 2023. The scheme should also allow the installation of a feed for cruise ships in Marseille by 2025. The French government has announced its intention to support the Region's scheme (see 3. Deployment and manufacturing report in the reporting table).

Dunkirk's **Grand Port Maritime** also plans to equip its container terminal with an 8-MW supply point by the end of the year; initially, it should be able to cater for 7 vessels. There are also plans to install 2 additional supply points depending on how needs evolve.

In the inland waterway sector, quayside electrification is making progress, as some waterways not included in the CANCA objectives also offer it or are currently installing it. One such case is the Rhône, on which the sites at Vienne and Arles now have 2 high-power supply points, with 7 medium-power supply points on the networks of the *Compagnie Nationale du Rhône* and the publicly-owned Waterways of France (VNF). The Seine basin is also the recipient of VNF investment, in partnership with HAROPA (an alliance of the ports of Le Havre, Rouen and Paris) and with the support of the French government, ADEME and CEF-T, to allow the installation of 9 water and electricity supply points, each of which can accommodate 2 vessels. In total, the French inland waterway network had at least 110 power supply points for inland waterway vessels in 2019 (including 17 around the Seine basin and 91 in the Nord-Pas-de-Calais region).

LNG refuelling in ports

All ports with LNG tanker terminals (Marseille-Fos, Dunkirk, Nantes-Saint Nazaire) currently offer LNG bunkering services by truck. Despite not having a terminal, the port of Le Havre uses trucks to provide an LNG refuelling service.

Availability of electricity on the ground at airports

Pursuant to Article 45 of the LTECV, France's 11 main airports have pledged to reduce their fossil fuel consumption. The 11 emission reduction plans were endorsed and approved by ADEME; by 2025 they are expected to result in a 20% cut in emissions from aircraft on the ground compared to the 2010 reference year. The 11 target airports have included objectives on the electrification of aircraft stands in their policy frameworks.

Availability of aviation bio-fuels

A roadmap setting out the government's aims in terms of the deployment of aeronautical biofuels is under preparation. Several working groups contributed to producing this concerted strategy – among them Lab'line, ANCRE and the *Engagement pour la Croissance Verte* green growth initiative – on the establishment of a sustainable aviation biofuels sector in France, a joint initiative between the public authorities and the main stakeholders in the aviation fuel sector.

Five key principles were prominent in the development of this strategy: maintaining an optimum level of flight safety; ensuring fuel sustainability; the sector's economic viability; development of cost-effective logistical chains; and consistency with supranational initiatives. Sustainable aviation fuels will be deployed in France by adding them to conventional fuels, with a target of 5% by 2030. In the long term, in line with the objectives on achieving carbon neutrality in France, sustainable aviation fuels should replace 50% of conventional fossil fuel used for aviation by 2050. **As aviation biofuels are 'drop-in' (i.e. fully miscible with fossil fuels), their distribution at airport hubs will use existing logistics in order to limit their costs and**

carbon footprint. The next step will be a demonstration project involving the use of pipelines to supply airports.

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The French authorities are happy to provide the Commission with any further information it requires and to examine any cases referred to us for comments.