

Evaluation of the Directive on the Deployment of Alternative Fuels Infrastructure (2014/94/EU)

Eurelectric response to EC Consultation

Eurelectric represents the interests of the electricity industry in Europe. Our work covers all major issues affecting our sector. Our members represent the electricity industry in over 30 European countries.

We cover the entire industry from electricity generation and markets to distribution networks and customer issues. We also have affiliates active on several other continents and business associates from a wide variety of sectors with a direct interest in the electricity industry.

We stand for

The vision of the European power sector is to enable and sustain:

- A vibrant competitive European economy, reliably powered by clean, carbon-neutral energy
- A smart, energy efficient and truly sustainable society for all citizens of Europe

We are committed to lead a cost-effective energy transition by:

investing in clean power generation and transition-enabling solutions, to reduce emissions and actively pursue efforts to become carbon-neutral well before mid-century, taking into account different starting points and commercial availability of key transition technologies;

transforming the energy system to make it more responsive, resilient and efficient. This includes increased use of renewable energy, digitalisation, demand side response and reinforcement of grids so they can function as platforms and enablers for customers, cities and communities;

accelerating the energy transition in other economic sectors by offering competitive electricity as a transformation tool for transport, heating and industry;

embedding sustainability in all parts of our value chain and take measures to support the transformation of existing assets towards a zero carbon society;

innovating to discover the cutting-edge business models and develop the breakthrough technologies that are indispensable to allow our industry to lead this transition.

Dépôt légal: D/2020/12.105/11

Evaluation of the Directive on the Deployment of Alternative Fuels Infrastructure (2014/94/EU)

Interview checklists - Refuelling station and charge point operators, energy service providers, fuel and battery producers and retailers and electro-mobility service providers

1 Objectives of the study

The European Commission is conducting an evaluation of the Directive on the Deployment of Alternative Fuels Infrastructure 2014/94/EU (henceforth the Directive or AFID).

The Directive was adopted in 2014 and creates a common framework of measures for the deployment of alternative fuels infrastructure in the EU.

The Directive requires Member States to set up long-term National Policy Frameworks (NPFs) for the development of the market as concerns alternative fuels and the planning of the deployment of relevant alternative fuels infrastructure. It also stipulates requirements for the rollout of alternative fuels infrastructure along the core network of the Trans-European Transport Network (TEN-T) and its urban nodes - with different milestones for 2020, 2025 and 2030 for different alternative fuels. The Directive sets common technical specifications for recharging and refuelling stations that aim at ensuring interoperability and adequate consumer information. It covers electricity (including shore-side electricity for ships), hydrogen, and natural gas (CNG for light duty road and LNG for heavy duty road, maritime and inland waterway transport).

The Commission has contracted a team led by consultants Ricardo (including Transport and Environmental Policy Research (TEPR) and E3-Modelling (E3M)) to undertake a support study for the European Commission for the evaluation of the Directive.

The objective of the study is to provide a comprehensive evaluation of the Directive and to collect and analyse evidence to help assess whether it has achieved its objectives in an effective and efficient manner. In addition, the study aims to determine whether its objectives and priorities remain relevant with emerging needs and consistent with other EU policies and priorities. It aims to provide an overall assessment of how successful the Directive has been in achieving its objectives and it will examine the progress made across the relevant policy areas.

In the context of the study we are organising surveys with national and local authorities, with direct experience in the development of NPFs and the implementation of measures related to the Directive.

The **objectives of the interviews** are to obtain your input and data (where relevant) on the evaluation of the Directive on the deployment of alternative fuels infrastructure.

The roadmap of the evaluation process can be found [here](#).

If you have any questions, please do not hesitate to contact us at AFInfrastructure.Eval@ricardo.com

2 Introduction to the interview checklist

Our interview programme targets EU-level representatives of different interest groups directly or indirectly affected by the Directive. However, we appreciate that there is significant relevant input to be provided by your members at national or regional level (associations or individual members), that may have been directly involved in the implementation of specific provisions or measures of the Directive and/or may have first-hand experience on how these actions have affected the deployment of alternative fuels infrastructure.

Thus, as a first step we propose that you share the interview checklist with your members and ask them to provide relevant input within a given period (ideally no more than 3 weeks).

Following that, we can organise a phone interview to discuss the questions in detail where it will be possible for you to reflect their inputs in your responses. Alternatively, if you consider it more appropriate/convenient, you can provide us with a summary of the input you received with your members. During the interview we will then have the chance to discuss in more detail certain key

points/questions or ask for clarifications. This interview could also be a joint one with some of your members that express interest in participating. Of course, we are happy to discuss any other alternative arrangements that you consider more appropriate.

3 Use of your input

The study team will keep detailed notes of the discussion and will make use of your contribution (information/data provided) only for the needs of this study and of the underlying evaluation report prepared by the Commission services. The interview notes will be shared with the Commission services. The interview notes and any subsequent written contribution will not be published. Please indicate how you would like us to present the information provided during our discussion and any other information or data you provide to us:

Your contribution will be referenced to the organisation represented;	<input checked="" type="checkbox"/>
Your contribution will be anonymised (i.e. without the name/name of the organisation but with affiliation to industry sector, e.g. “national authority, transport operator representative, environmental NGO”).	<input type="checkbox"/>

With your permission, we will record and take notes during the interview. The recording is only to help ensure that the notes capture the information you provide. If you agree to being audiotaped but feel uncomfortable at any time during the interview, we can turn off the recorder at your request.

4 Contact information

4.1 In order to analyse the input to this interview, we would ask you to provide some personal information (name, email address, telephone number, etc). Undertaking this interview means you are providing consent to Ricardo to store your data for the purposes of the study. Your personal data will not be shared with any third party outside of this study and your responses will be treated as specified in the box above (see ‘Use of your input’). You can read our policy on how we process data [here](#).

<i>Please complete below:</i>	
1. Organisation name:	Eurelectric
2. Member State (if applicable):	European business association
3. Contact name:	Petar Georgiev
4. Position/role in the organisation:	Policy Advisor - Electromobility
5. Email address:	pgeorgiev@eurelectric.org
6. Telephone number:	+32 4 8558 6446

5 Effectiveness of the Directive – Overall assessment

The primary aim of the assessment of **effectiveness** is to evaluate where the EU stands in terms of achieving its objectives and the factors that have contributed to this progress (or led to a lack of progress in certain areas). The assessment will be based on a detailed analysis of the progress made so far and the expected impacts up to 2050 of the measures adopted against the objectives (both specific and general).

5.1 Based on your experience, please indicate the extent to which the implementation of the Directive has contributed to the following:

	Do not know	Not at all	To a limited extent	To some extent	To a significant extent	Fully
The adoption of a common set of policies to support the deployment of AFI across Member States	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Avoiding the adoption of contradictory policy measures for the promotion of AFI across Member States	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please explain your answer.

National Policy Frameworks are not coherent at Union level, which can lead to market fragmentation. This prevents the development of economies of scale on the supply side and Union-wide mobility on the demand side.

5.2 Based on your experience, please indicate the extent to which the implementation of the Directive has contributed (and is expected to contribute) to:

	Do not know	Not at all	To a limited extent	To some extent	To a significant extent	Fully
1. The reduction of CO ₂ emissions in the transport sector	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. The reduction of air pollutant emissions in the transport sector	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please explain your answer. In what way has it contributed?

The main driver for electric mobility are the CO₂ emission performance standards for light- and heavy-duty vehicles. The availability of electric vehicles is one of the most important factors to achieve significant reductions and we still see a lack of vehicles.

While the Directive can be an enabler, it does not currently promote an ideal list of energy vectors. Many of the 'alternative' fuels currently allowed in the Directive emit CO₂, sometimes as much as or even more than fossil fuels, while some are pure or derivative fossil fuels. This also explains the limited achievement of the emissions reduction objective of the Directive.

5.3 If you indicated that the Directive has contributed to a reduction in either CO₂ or air pollutant emissions from the transport sector (Q5.2), are you able to indicate which specific measures/aspects of the Directive have contributed to this (e.g. in relation to which fuel types and/or transport modes)?

[Click here to enter text](#)

7. CNG for road transport	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. LNG for maritime transport/inland navigation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Electricity supply for use by stationary airplanes at airports	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Other alternative fuel and mode <i>Click here to enter text</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please explain your answers:

Question is very unclear. Answers above consider that the question refers to “electricity networks”. In any case, the Directive should address this aspect.

Important gaps for charging points for electric vehicles remain in urban and near urban areas in the comprehensive TEN-T network. This would be resolved by expanding the coverage to urban and near-urban areas, minor urban areas where charging point customer experience shows the future market uptake potential for electric vehicles is higher.

5.6 In your opinion, would the same level of investment in AFI have happened in the absence of the AFID?

Yes	No	Do not know
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Please explain your answer

The Directive led to increased awareness of the national governments and the need to deliver strategic plans. The Directive also initiated the implementation of laws on national level and the facilitation of national funding schemes. However, we have not observed a great deal of coordination between Member States and cross-border projects have been largely market driven.

5.7 In your view, to what extent are the financial incentives provided by Member States for the promotion of AFI sufficient to develop infrastructure on a purely commercial basis?

Do not know	Not at all	To a limited extent	To some extent	To a significant extent	Fully
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please explain your answer. What, if any, are the problems and limitations?

To a limited extent since financial supports is available only for CAPEX costs. Due to the lack of vehicles, we see very low utilisation rate of the charging points which prevents their efficient and profitable economics.

Incentives should be targeted to support charging infrastructure deployment where the business case is at risk and/or should cover in priority grid connection (and upgrade where needed) costs.

5.8 In your view, how effective have measures taken by Member States been to encourage and facilitate the deployment of recharging points that are not accessible to the public (e.g. in residential buildings, workplaces, other non-residential buildings)?

Do not know	Not at all	To a limited extent	To some extent	To a significant extent	Fully
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please explain your answer.

Measures greatly differ across countries. In addition, many of these are very recent which makes it difficult to assess effectiveness.

Proper implementation of the European Energy Performance of Buildings Directive (EPBD) across Member States is crucial, and specific measures to incentivise charging for free at the workplace should be strongly encouraged in EU legislation.

5.9 In your view, which types of measures have been more effective in promoting the implementation of AFI and why?

	Effective in promoting the implementation of AFI?	Why? Please explain:
1. Regulatory measures	<input checked="" type="checkbox"/>	<i>AFI created the basis for common legal framework and provided certain clarity in the long term</i>
2. Financial incentives	<input checked="" type="checkbox"/>	<i>TEN-T and CEF funding has fostered the deployment of fast charging and high-power charging infrastructure, which has decreased investment costs</i>
3. Non-financial incentives	<input type="checkbox"/>	<i>Click here to enter text</i>
4. Other (please specify): <i>Click here to enter text</i>	<input type="checkbox"/>	<i>Click here to enter text</i>

5.10 Based on your experience, please indicate the extent to which the current AFI market can be characterised as:

	Do not know	Not at all	To a limited extent	To some extent	To a significant extent	Fully
1. EU-wide	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Open to access to all interested parties	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Please explain your answer. Please differentiate depending on the transport mode or fuel type.

Harmonisation of EU-wide legislation can be improved (e.g. interoperability, VAT treatment of EV charging)

5.11 Is there evidence of any of the following in any of the AFI markets?

	Yes	No	Do not know
1. High levels of concentration/ dominant positions of specific players	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Barriers to entry	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Please explain your answer:

Still a fragmented market with some product technical specifications in certain countries only

5.12 What has been, so far, the role of the measures adopted in the context of the AFID towards achieving a competitive EU wide market with open access to all interested parties?

Do not know	Not at all	To a limited extent	To some extent	To a significant extent	Fully
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please explain your answer:

Hardware product harmonisation, ad-hoc access to charging points for drivers

5.13 Have the necessary standards to ensure the interoperability of recharging/refuelling points been adopted by relevant standardisation bodies? Are there any gaps? Are there new/additional standards under development?

Standardisation process has been very dynamic. Currently, there are still no standards for heavy-duty vehicles. Important not to create technology lock-ins in future legislation.

The EU should not prescribe how to roam, but let the market decide instead. Openness to all methods and technologies will ultimately create a more competitive market.

5.14 What is the level of use of standards for interoperability already developed? Are there any barriers to their use? Are there any areas where standards are missing?

Data access and management still a hindrance, despite no barriers to use. Adaptation needed by vehicle OEMs.

5.15 Please indicate the extent to which you agree with each of the following statements.

	Do not know	Strongly disagree	Disagree	Neither disagree or agree	Agree	Strongly agree
1. The focus on core networks and urban nodes in the AFID has attracted higher level of investment (public and private) than it would have without such focus	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. The financial instruments adopted by Member States have favoured investment in AFI across core networks and urban nodes (in comparison to other parts of the network)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. The focus on core networks and urban nodes has led to significant gaps created at other parts of the network and less densely populated areas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Please explain your answers:

Funding in Member States has largely been unspecific to regions. Some countries, e.g. Germany, are changing towards a more localised approach.

6 Effectiveness – Information on specific measures

In this section we ask you to provide information and views on the effectiveness of specific measures taken that are related to the deployment of AFI and the implementation of the Directive.

6.1 Are you aware of any unintended or unexpected (positive or negative) effects as a result of the implementation of the Directive in any of the following domains:

	Yes	No	Do not know
1. Economic (e.g. in the alternative fuels and Alternatively Fuelled Vehicles market)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Environmental impacts (impact outside CO2 and pollutant emissions)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Social (e.g. on employment in specific sectors)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Spatial impacts (e.g. in terms of the use of urban space)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please explain the type of effects and indicate how important they are:

Environmental: noise reduction thanks to electric vehicles adoption in cities

Social: development of a new start-up ecosystem for development of apps and services related to e-mobility (B2B, B2C)

7 Effectiveness - Interoperability

7.1 Are you aware of measures being taken at national level to **ensure the interoperability of AFI across Europe** in relation to the following? (Interoperability refers to the ability of different systems to work together and for users to be able to use charging/refuelling infrastructure wherever it is located, whichever vehicle the customer uses and irrespective of who operates the charging point).

	Yes	No	Do not know	Please provide examples
1. Recharging/refuelling points	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	CCS
2. Ad-hoc payments	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Ladesauleverordnung (Germany)
3. Other (<i>Click here to enter text</i>)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<i>Click here to enter text</i>

7.2 Are you aware of problems/limitations concerning the interoperability of AFI across Europe in relation to the following?

	Yes	No	Do not know	Please explain the nature of the problem/limitation
1. Recharging/refuelling points	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<i>Click here to enter text</i>
2. Ad-hoc payments	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<i>Click here to enter text</i>
3. Other (<i>Click here to enter text</i>)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Roaming platform costs should not be high for the final consumer.

7.3 Please indicate the extent to which you agree that there is currently sufficient availability of information to consumers on the following:

	Do not know	Strongly disagree	Disagree	Neither disagree or agree	Agree	Strongly agree
1. Location of recharging/refuelling points?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Availability of recharging/refuelling points	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3. Power of charging point (for electromobility)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Please explain your answers:

Information is largely available via EMSP applications, however there are limitations regarding the accessibility of such information

7.4 Are standards harmonising fuel labelling and graphical expressions at pumps and nozzles currently in place?

Yes	No	Do not know
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

7.5 If you answered YES, how effective are they at providing sufficient information?

Do not know	Not effective	Slightly effective	Fairly effective	Effective	Very effective
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please explain your answers. Are there any problems?

Click here to enter text

7.6 How effective have the measures adopted at EU and national or regional/local level been in:

	Do not know	Not effective	Slightly effective	Fairly effective	Effective	Very effective
1. Improving availability and clarity of information provided concerning alternative fuels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Increasing consumer awareness concerning alternative fuels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please explain your answers:

Click here to enter text

8 Effectiveness and electromobility

8.1 What is the current situation in the EU concerning the level of integration of electromobility into the electricity system?

	Not integrated (No examples exist or prevented by current legal or regulative frameworks)	Partially integrated (Small scale pilots and demonstrations possible without legal or regulatory barriers)	Well integrated (National implementation possible / ongoing without legal or regulatory barriers)	Fully integrated (National policy and regulatory framework exist to facilitate and appropriate standards in place to ensure interoperability, and consumer friendliness. National level roll-out underway.)	Do not know

1. Consumer can choose a different supplier for electric vehicle charging than for their general electricity supply	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Distribution System Operator cooperate with any charge point operator on a non-discriminatory basis	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Smart Charging and associated energy network services	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Vehicle-to-grid (V2G) and associated energy network services	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please explain your answers:

[Click here to enter text](#)

8.2 Have you already noticed (or do you expect in the future) that the uptake of electric vehicles has led to (temporary) grid congestion?

1. NO, I have not noticed and do not expect it to happen in the future	<input checked="" type="checkbox"/>
2. NO, but I expect it to happen in the future	<input type="checkbox"/>
3. YES, already noticed in some cases	<input type="checkbox"/>
4. Do not know	<input type="checkbox"/>

Please explain your answers:

Situation across Member States differs. Largely, Europe's grids are ready for the uptake of million EVs. However, in some places this would require the full adoption of smart charging and V2G.

8.3 Are you aware of specific cases of restriction and discriminatory practices in terms of the purchase of electricity by operators and in consumer contracts?

Yes	No	Do not know
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

If YES, how common are they?

Do not know	Not common at all	Not common	Common	Very common
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please explain your answers:

[Click here to enter text](#)

What do you consider to be the effect of these practices?

Click here to enter text

8.4 In your view, to what extent do you think the measures adopted by Member States have been successful in ensuring an efficient integration of electro-mobility into the electricity system?

Do not know	Not at all	To a limited extent	To some extent	To a significant extent	Fully
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please explain your answers:

Currently, smart charging offers are available on the market in some Member States while V2G has been so far mostly tested in pilot applications with first commercial offers slowly emerging in some markets. However, access to in-vehicle data, such as battery state of charge, is not always available and subject to control of car manufacturers. Access to such data is critical for aggregators and EMSPs to provide such services.

From an electricity market design perspective, competitive balancing services and retail markets are still largely missing in Europe today. The recently adopted Electricity Directive²¹ has taken a positive step forward by providing incentives for the procurement of flexibility services at distribution level. This has opened up a clear pathway to include electric vehicles in view of congestion management via load shifting and peak shaving, adding an alternative to the costly physical grid reinforcement. Eurelectric believes that developing local flexibility markets will reward financially the contribution of smart charging to the power system. At retail level, dynamic pricing plans could be an effective tool to incentivise smart charging when the high-peak to off-peak price difference is greater compared to the benefit provided by time-of-use tariffs. Such plans have already been introduced²² and have to be further explored

Full transposition of the Electricity Directive (2019/944) is needed on Member State level.

8.5 What type of measures adopted by Member States have been more effective at achieving integration of electro-mobility?

Integrated approaches between transport, energy and digital policies.

9 Effectiveness - Demand for and investment in AFVs and AFI

9.1 To what extent has the increase in the uptake of AFVs led to a decrease in the costs for investment in AFI?

Do not know	Not at all	To a limited extent	To some extent	To a significant extent	Fully
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please explain your answers:

Lack of EVs leads to very low utilisation rate of charging points, making the economic operation not yet possible especially for fast and ultra-fast charging points business case.

9.2 Has the increase in the uptake of AFVs made investment in AFI more attractive?

Do not know	Not at all	To a limited extent	To some extent	To a significant extent	Fully
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Please explain your answers:

[Click here to enter text](#)

9.3 To what extent have the existing requirements on CO₂ emissions from vehicle fleets (Regulation (EU) No 443/2009 as amended by 333/2014 for passenger cars/Regulation 510/2011 for vans) affected the level of demand for development of Alternative Fuels Infrastructure?

Do not know	Not at all	To a limited extent	To some extent	To a significant extent	Fully
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Please explain your answers:

Existing requirements are main driver for demand in alternative fuels infrastructure, mainly charging points for electric vehicles.

These standards provide long term certainty and visibility to car manufacturers and buyers about market developments. Sales numbers for January 2020 in Western European markets already show a clear shift happening guided by the new CO₂ emissions legislations and potential fines on OEMs if individual fleet targets are not met.

9.4 What do you expect to be the role of the more recently adopted requirements for the post-2020 period (Regulation 2019/631)?

Real driving emissions (RDE) in regards to the gaps between WLTP and real driving, especially when it comes to PHEVs.

9.5 Has the adoption of the requirements on CO₂ emissions ensured that the development of AFI is consistent across the EU?

No because current Directive is older than these target and based on an Impact assessment from 2013, when the EV market was very nascent. An updated AFI should be aligned in terms of the new CO₂ standards post-2020 and their goals (both for light- and heavy-duty vehicle), while also differentiating what is to be considered an alternative fuel. Separate definitions for light- and heavy-duty will be necessary to reflect this.

9.6 To what extent have the requirements setting minimum levels of public procurement of AFVs (under Clean Vehicle Directive 2009/33/EC) affected the demand for development of the AFI?

	Do not know	Not at all	To a limited extent	To some extent	To a significant extent	Fully
1. Public transport	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. For all transport	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please explain your answers:

Despite not being fully implemented, the recently revised Clean Vehicles Directive (CVD) links with AFID. The CVD defines light-duty vehicles (LDV) in terms of tailpipe emissions expressed in CO₂g/km and for heavy-duty vehicles (HDV) refers to the definition set in current AFID. To avoid a negative domino effect, Eurelectric proposes a consistent approach and amended list of sustainable fuels for light-duty vehicles which answers the significantly greater need to invest in zero-emission solutions. This would also reflect the market maturity for passenger cars. Increased attention and political support is at the same time needed for buses and trucks charging infrastructure to attain the desired decarbonisation efforts for these vehicle segments.

9.7 Has the adoption of the requirements ensured that the development of AFI is consistent across the EU?

On hardware side yes. Ad-hoc payment not always possible on public chargers despite requirements.

9.8 What do you expect to be the role of the more recently adopted requirements under the revised Clean Vehicle Directive (CVD)?

An increased number of EVs. Please refer to CVD impact assessment for specific numbers of vehicles procured. Would be relevant to update these estimates in the context of AFID review.

9.9 To what extent have the requirements concerning the deployment of recharging infrastructure for electric vehicles in the building stock (Energy Performance of Buildings Directive 2018/844) contributed to the deployment of AFI?

Do not know	Not at all	To a limited extent	To some extent	To a significant extent	Fully
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please explain your answers:

*Not yet effective. A decreasing demand for public charging would be expected following an ambitious adoption on Member State level. Unfortunately, current ambition is very low.
Right to plug at EU level should be guaranteed.*

9.10 How have they affected the availability of private charging points?

Impact is very low due to the low level of ambition.

9.11 What, if any, has been the impact of the following in the development of AFI?

	Do not know	Negative role	No role	Positive role
1. Reductions in battery prices and improvements in battery technologies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Developments in the use of renewable energy sources and smart grids	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. The adoption of the Renewable Energy Directive (2009/28/EC)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4. The ITS Directive (2010/40/EU) and the delegated acts (including in relation to provision of information on refuelling/recharging points)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Please explain your answers:

Click here to enter text

10 Effectiveness – Reporting requirements of the Directive

10.1 Are you familiar with the reporting requirement of the AFID?

Yes	No	Do not know
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

10.2 Have you used any of the reports developed by the European Commission summarising the content of the National Policy Frameworks (NPFs) developed by Member States in the context of the AFID?

Yes	No	Do not know
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please explain your answers:

For the purposes of market analysis and policy recommendations.

10.3 In your view, are the current reporting requirements of the AFID appropriate to ensure the relevant information on the uptake of AFVs and AFI is available?

Do not know	Not at all	To a limited extent	To some extent	To a significant extent	Fully
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please explain your answers:

Member States have experienced difficulties with completely reflecting all relevant information.

10.4 In your view, is the frequency¹ of reporting by Member States appropriate?

Yes	No	Do not know
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please explain your answers:

Click here to enter text

10.5 In your view, is the type of information required in the National Policy Frameworks (as provided in Annex I) appropriate?

Yes	No	Do not know
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please explain your answers. Should other/additional information be required?

--

11 Efficiency

The focus of the analysis of the **efficiency** is on assessing the costs and resources allocated to the implementation of the Directive and the extent to which they are justified by the benefits achieved, or expected to be achieved.

11.1 Around what share of the total level of investment in AFI in your sector across the EU comes from the private sector?

1. % infrastructure with 100% private financing	85%
2. of total number of infrastructure points	Majority from private sector
3. of total investment	Click here to enter text

¹ Article 10: "Each Member State shall submit to the Commission a report on the implementation of its national policy framework by 18 November 2019, and every three years thereafter. Those reports shall cover the information listed in Annex I and shall, where appropriate, include a relevant justification regarding the level of attainment of the national targets and objectives referred to in Article 3(1)"

11.2 How has this evolved over the last 3 years?

Do not know	Decreased significantly (>25%)	Decreased (<25%)	Stayed the same	Increased (<25%)	Increased significantly (>25%)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please explain your answer

[Click here to enter text](#)

11.3 Based on your experience, please indicate specific **financial policy measures** and **non-financial policy measures** adopted by Member States to promote AFI that have been:

	Financial policy measures	Non-financial policy measures
1. Particularly cost-effective	<i>Support programmes for charging infrastructure exist in 18 Member States, as of mid-2019</i>	<i>Click here to enter text</i>
2. Particularly non-cost effective?	<i>Click here to enter text</i>	<i>Click here to enter text</i>

Please explain your answers:

[Click here to enter text](#)

11.4 Do you think that the same impact could have been reached with less public financial resources?

Not at all

11.5 Please indicate the extent to which the implementation of the AFID has contributed to private sector investments in AFI:

Do not know	Not at all	To a limited extent	To some extent	To a significant extent	Fully
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please explain your answers:

11.6 Based on your experience, are there any provisions/requirements of the Directive that introduce unnecessary costs, including in relation to:

	Yes	No	Do not know
1. Development of the relevant measures (under article 4-6)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Requirements related to promoting user information? (under article 7)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. National reporting (Article 10)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Other articles?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please explain your answers:

[Click here to enter text](#)

11.7 Would it be possible to remove/simplify specific provisions without a negative impact on the effectiveness of the Directive?

Yes	No	Do not know
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please indicate which provisions and why:

11.8 Are there provisions of AFID that overlap with other pieces of legislation and lead to duplication of effort for your members?

Yes	No	Do not know
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Please indicate which provisions and how:

Click here to enter text

11.9 Are you aware of cases where operators of AFI have not introduced ad hoc access (access when needed/necessary)? (Yes/No) How common is it?

Please explain your answers:

Click here to enter text

12 Relevance of the Directive objectives and provisions

The following set of questions ask you to provide input to help us understand the relevance of the Directive's objectives, targets and provisions reflecting on the ongoing political, economic, technological and social developments. Key aspects are the extent to which the scope (in terms of fuels and modes covered) and the approach (based on Member States NPFs and indicative targets) are appropriate in view of the development, especially in view of the policy objectives concerning the decarbonisation of transport.

12.1 At the time of the adoption of the Directive, the identified challenges for the uptake of AFs in the EU were:

Technological and commercial short-comings: The network for the provision of electricity, hydrogen and natural gas (LNG for trucks and waterborne transport and CNG for road transport vehicles) was considered insufficient compared to a network that would be necessary to enable market take up of these fuels and was not likely to become available in the near future.

Lack of consumer acceptance: Full scale deployment and commercialisation of alternative fuels was considered hampered by poor acceptance by potential consumers, due to perceived distance needs, knowledge of availability of recharging/refuelling stations, longer refuelling times than they are accustomed to, high cost of alternative fuelled vehicles (AFVs) compared to conventional internal combustion engine vehicles.

Missing adequate infrastructure: The industry was reluctant to invest in alternative fuel vehicles due to concern of viability and profitability in the absence of sufficient network of refuelling/recharging points (and vice versa). There was a 'chicken and egg' problem between vehicles and investing in infrastructure.

In your view, to what extent are the challenges described above still relevant today?

	Do not know	Not at all	To a limited extent	To some extent	To a significant extent	Fully

1. Technological and commercial short-comings	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Lack of consumer acceptance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Missing adequate infrastructure	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please explain your answers:

[Click here to enter text](#)

12.2 Based on your experience, how (if at all) have the following developments **not directly related to the AFID** affected (positively or negatively) the level of uptake of alternative fuels/ infrastructure?

	Do not know	Not relevant	Positive impact (increase in uptake)	No impact	Negative impact (decrease in uptake)
1. Increase in level of e-commerce/ increase online purchase	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. New mobility patterns and new business models (e.g. mobility as a service, ride sharing)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Increasing connectivity and digitisation of vehicles	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. New alternatively fuelled technologies and increasing use of renewables	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Adoption of restrictions for the use of vehicles in urban and suburban areas	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Smart electricity grid management technologies	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Improved quality of vehicles (e.g. increased range of electric vehicles)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Overall reduction in the price of vehicles	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Other technological developments (please specify): <i>Click here to enter text</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Other economic developments (please specify): <i>Click here to enter text</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Other environmental developments (please specify): <i>Click here to enter text</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Other societal/behavioural developments (please specify): <i>Click here to enter text</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please explain your answers:

[Click here to enter text](#)

12.3 Considering the new issues and challenges concerning the uptake of AFVs (as identified in the previous question), please indicate the extent to which there is still a need to apply new measures at the EU level intending to achieve each of the following objectives:

AFID objectives	Do not know	Not at all	To a limited extent	To some extent	To a significant extent	Fully
1. Increase/trigger investments in Alternative Fuels Infrastructure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Ensure interoperability of Alternative Fuels Infrastructure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Increase consumer awareness of alternative(ly) fuelled infrastructure (i.e. location, price, availability)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4. Increase consumer awareness of alternative(ly) fuelled vehicles	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5. Ensure integration of electromobility into the electricity system	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Please explain your answers:

[Click here to enter text](#)

12.4 As currently stated within the Directive, the alternative fuels are: electricity, hydrogen, biofuels, synthetic and paraffinic fuels, natural gas (including biomethane, CNG, LNG) and LPG.

Do you consider that there is a need to make changes relating to the following aspects?

	Yes	No	Do not know	Please explain
1. Changes in the fuels included in the Directive relevant for all transport modes	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<i>The definition of 'alternative fuel' in the current Directive is not fit-for-purpose. Eurelectric proposes separate 'sustainable fuels' definitions for light and heavy-duty vehicles as well as maritime that would address the required levels of ambition under the Green Deal and the assessment by the European Commission on achieving climate neutrality. Classifying fossil fuels as clean is not acceptable in view of the Green Deal objectives.</i>
2. Inclusion of other transport sectors that are not currently covered by AFID (e.g. aviation sector)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<i>Click here to enter text</i>

Please explain your answers:

The definition for light-duty vehicle should prioritise zero-emission alternatives at the tailpipe only.

In terms of trucks, LPG should absolutely not be considered as a viable alternative for investment purposes in view of delivering on the Green Deal in the transport sector. The use-cases of natural gas for trucks is very limited and is not a long-term alternative. In any case, natural gas should not be placed at equal footing with zero-emission vectors at the tailpipe.

12.5 The Directive (in Article 2) sets out a broad definition of ‘alternative fuel’. It states that an **alternative fuel should be able to (at least in part) substitute for fossil oil sources and have the potential to reduce GHG and pollutant emissions from the sector.**

Please indicate the extent that you agree with each of the following statements:

	Do not know	Strongly disagree	Disagree	Neither disagree or agree	Agree	Strongly agree
1. The inclusion of fossil fuels (e.g. CNG/LNG) as part of the AFID for <u>road - LDV/cars</u> - is still justified	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. The inclusion of fossil fuels (e.g. CNG/LNG) as part of the AFID for <u>road – HDVs</u> - is still justified	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. The inclusion of fossil fuels (e.g. LNG) as part of the AFID for <u>inland waterways</u> is still justified	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. The inclusion of fossil fuels (e.g. LNG) as part of the AFID for <u>maritime transport</u> is still justified	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. There is a need to prioritise the adoption of zero tailpipe emission solutions (i.e. electricity and hydrogen)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6. The absence of specific minimum targets concerning the <u>deployment of AF</u> (in the NPFs) appropriate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please explain your answers:

On 1-5.

The definition of ‘alternative fuel’ in the current Directive is not fit-for-purpose. Eurelectric proposes separate ‘sustainable fuels’ definitions for light and heavy-duty vehicles as well as maritime that would address the required levels of ambition under the Green Deal and the assessment by the European Commission on achieving climate neutrality. Classifying fossil fuels as a clean alternative is not acceptable in view of the Green Deal objectives.

What’s more, the recently revised Clean Vehicles Directive (CVD) links with AFID. The CVD defines light-duty vehicles (LDV) in terms of tailpipe emissions expressed in CO₂g/km and for heavy-duty vehicles (HDV) refers to the definition set in AFID. To avoid a negative domino effect, Eurelectric proposes a consistent approach and amended list of sustainable fuels for light-duty vehicles which answers the significantly greater need to invest in zero-emission solutions. This would also reflect the market maturity for passenger cars. Increased attention and political support is at the same time needed for buses and trucks charging infrastructure to attain the desired decarbonisation efforts for these vehicle segments.

On 6.

The current Directive is underpinned by the supply-driven assumption that EV infrastructure sufficiency can be achieved by ensuring public charging point (PCP) to EV ratio of 1 to 10 or 1 PCP every 60km of highways. Such apparent patterns between electric vehicle uptake and charging infrastructure availability have been observed in literature. While this type of sufficiency estimate helps revealing trends on average, it cannot be conclusive for all locations and countries.

Against this background, an adjustment of the legislation is needed to ensure both the timely acceleration of the expansion of exclusively smart charging infrastructure and the recognition of investment costs for the network operators with a long-term perspective. Therefore, several other interrelated considerations should be added to the debate on alternative metrics and methodology for assessing infrastructure coverage and sufficiency:

- **Charging power (differentiate between AC and DC charging)**
- **Charging locations (focus on areas where lack of charging opportunities is greater)**
- **Demographics (population density, number of inhabitants, traffic intensity and its projected growth/decline)**

12.6 Please indicate the extent to which the current provisions of the AFID are sufficient to provide the necessary infrastructure in view of expected uptake of AFVs on the basis of:

	Do not know	Not applicable	Not at all	To a limited extent	To some extent	To a significant extent	Fully
1. Recent statements by manufacturers of expected sales targets for AF vehicles in Europe by 2025?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Targets set in your country concerning the share of AFVs post-2020 and the banning of conventionally fuelled vehicles (if applicable)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please explain your answer

Power output breakdown (AC/DC as well as slow/fast/ultra-fast) needed

12.7 In your opinion, are there issues, challenges and/or obstacles related to ensuring interoperability of AFI with other consumer services?

	Yes	No	Do not know
1. Access to information on the availability of EV charging points	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Use of smart charging services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Other issues	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please explain your answer. How important are they?

[Click here to enter text](#)

12.8 If yes, is there a need to adopt special provisions in the AFID to address these challenges?

Yes	No	Do not know
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please explain your answers:

[Click here to enter text](#)

13 Meeting the needs of people with disabilities and older people

13.1 Based on your experience, are the needs of people with disabilities and older people considered in the National Policy Frameworks (NPFs) in relation to the following aspects? If YES, please describe specific measures implemented at national level aiming to address the needs of people with disabilities and older people.

	Yes	No	Do not know	If YES, please describe specific measures implemented at national level
1. Accessibility of recharging/refuelling points	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Click here to enter text
2. Ensuring access to information/labelling	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Click here to enter text

Please explain your answers, citing examples:

[Click here to enter text](#)

13.2 Based on your experience, to what extent do the existing technical specifications applicable to recharging/refuelling points take into consideration the needs of people with disabilities?

Do not know	Not at all	To a limited extent	To some extent	To a significant extent	Fully
-------------	------------	---------------------	----------------	-------------------------	-------

1. Recently adopted requirements for EU-wide average CO ₂ emissions for passenger cars and vans for 2025 and 2030 and the expected increase in the share of zero and low emission vehicles?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Commitments for banning conventionally fuelled vehicles by 2030 or 2040	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Stated intentions of vehicle manufacturers for the share of alternative fuelled vehicles in their fleet by certain years	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Agreement in the context of the IMO to reduce CO ₂ emissions per transport work as an average across international shipping by at least 2030.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Development in technologies for the propulsion of vessels using alternative fuels	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please explain your answer

[Click here to enter text](#)

14.2 Please indicate the extent to which the objectives of the Directive stated below are still relevant in addressing the need to reach full decarbonisation with zero net emissions by 2050 as a result of the Paris Agreement:

AFID objectives:	Do not know	Not applicable	Not at all	To a limited extent	To some extent	To a significant extent	Fully
1. Increase/trigger investment in Alternative Fuels Infrastructure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Ensure interoperability of Alternative Fuels Infrastructure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3. Increase consumer awareness of alternative(ly) fuelled infrastructure (i.e. location, price, availability)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

4. Increase consumer awareness of alternative(ly) fuelled vehicles	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5. Ensure integration of electromobility into the electricity system	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Please explain your answer

[Click here to enter text](#)

14.3 Please indicate the extent to which the objectives of the Directive stated below are still relevant to foster the uptake of alternative fuels:

AFID objectives:	Do not know	Not applicable	Not at all	To a limited extent	To some extent	To a significant extent	Fully
1. Increase/trigger investment in Alternative Fuels Infrastructure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Ensure interoperability of Alternative Fuels Infrastructure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3. Increase consumer awareness of alternative(ly) fuelled infrastructure (i.e. location, price, availability)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4. Increase consumer awareness of alternative(ly) fuelled vehicles	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5. Ensure integration of electromobility into the electricity system	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Please explain your answer

[Click here to enter text](#)

15 EU Added Value

The following set of questions ask you to provide input on the specific added value that has come from the presence of EU action, beyond that which would have been possible on the basis of national or sub-national action.

15.1 In your view, are there any actions/measures related to the promotion/development of alternative fuels infrastructure which could not have been implemented without the EU intervention under the AFID?

Yes	No	Do not know
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

If YES, please indicate which initiatives

Financing mechanisms at national, regional and city level

15.2 Based on your experience so far, please indicate the extent to which the presence of an EU legal framework in the form of the AFID has contributed towards the following:

	Do not know	Not applicable	Not at all	To a limited extent	To some extent	To a significant extent	Fully
1. Presence of a consistent and common framework of action across the EU (Coherence)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Avoiding fragmentation of measures related to the promotion of AFIs across the EU	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Free/easy circulation of alternative fuel vehicles and vessels throughout the EU (Effectiveness)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Cost-savings and better value for money (for authorities, industry and/or consumers) by avoiding duplication of effort and resources (Efficiency)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Cooperation and information exchange among national authorities (Synergy)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please explain your answer

[Click here to enter text](#)

15.3 If EU level intervention in the form of the AFID were to stop, how would that affect the capacity to address the following issues at the **national level**?

	Do not know	Significant negative impact	Small negative impact	No impact	Small positive impact	Significant positive impact
1. Dependency on oil for transport	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Level of CO ₂ emissions and air pollutants from transport	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Ensuring a common framework for the deployment of AFI	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4. Ensuring the facilitation of interoperability at national/regional level	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Supporting the development of a comprehensive network of AFI in the Union for all transport modes	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Ensuring product standards and interoperability of infrastructure	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Ensuring availability of appropriate consumer information and awareness regarding AFs	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Ensuring efficient integration of electro-mobility into the electricity system and compliance with electricity market rules	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please explain your answer

[Click here to enter text](#)

15.4 In your view, could action at **international level** on its own (e.g. international standards/agreements or other action) have been sufficient to address any of the following issues (rather than implementation of the AFID at EU level)?

	Yes	No	Do not know
1. Dependency on oil for transport	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Level of CO ₂ emissions and air pollutants from transport	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Ensuring a common framework for the deployment of Alternative Fuels Infrastructure	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4. Ensuring the facilitation of interoperability at national/regional level	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5. Supporting the development of a comprehensive network of Alternative Fuels Infrastructure in the Union for all transport modes	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6. Ensuring product standards and interoperability of infrastructure	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
7. Ensuring availability of appropriate consumer information and awareness regarding AFs	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
8. Ensuring efficient integration of electro-mobility into the electricity system and compliance with electricity market rules	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Please explain your answer

[Click here to enter text](#)

15.5 What would you expect to be the progress to date in the absence of the AFID in relation to the following aspects (in comparison to the current situation):

	Do not know	Significantly worse	Slightly worse	About the same	Slightly better	Significantly better
1. Level of deployment of AFI	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2. Level of interoperability of AFI	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Please explain your answers:

[Click here to enter text](#)

15.6 What would you expect the situation to look by 2030 in relation to the following aspects in the absence of the AFID:

	Do not know	Significantly worse	Slightly worse	About the same	Slightly better	Significantly better
1. Level of deployment of AFI	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Level of interoperability of AFI	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please explain your answers:

[Click here to enter text](#)

16 Coherence

The coherence questions ask you to comment on the coherence of the AFID provisions and requirements of the Directive internally (with each other) and externally (with other EU legislation and policy and relevant EU strategies).

16.1 Are you aware of any overlaps, inconsistencies or contradictions among the different provisions/requirement of the Directive?

Yes	No	Do not know
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Please explain your answer – How important are they?

[Click here to enter text](#)

16.2 Based on your experience, are there any overlaps, inconsistencies or contradictions between the Directive provisions and the provisions of existing legislation in the following areas:

	Yes	No	Do not know
1. CO ₂ emission performance standards for light and heavy-duty vehicles	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. CO ₂ emissions reporting, monitoring and verification from ships	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Provisions on emissions of oxides of sulphur (SO _x) from ships	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4. Provisions related to the procurement of clean vehicles under Directive 2009/33/EC	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Requirements related to the energy performance of buildings (Directive 2010/31/EU)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Renewable Energy Directive (Directive 2018/2001/EU), 14% renewables target in transport	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7. Governance Regulation (EU2018/1999), reporting required for National Energy and Climate Plans (NECPs)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Please explain your answer

On 7.

Some NECPs include key performance indicators, setting specific goals in the e-mobility domain.

16.3 Based on your experience, are there any overlaps, inconsistencies or contradictions between the Directive provisions and requirements and the actions related to the **implementation of policy and relevant legislation** in the following areas:

	Yes	No	Do not know
1. TEN-T network implementation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Implementation of intelligent transport systems	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Actions to promote of sustainable urban mobility	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. The electricity market design initiative	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. The EU batteries action plan and the related EU batteries alliance initiative	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. The European Disability Strategy	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7. The UN Convention on the Rights of Persons with Disabilities	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Please explain your answer

On 1.

TEN-T should be modified to support the availability and adequacy of charging infrastructure. The comprehensive network should be expanded to cover urban and near-urban areas.

16.4 Based on your experience, are there any overlaps, inconsistencies or contradictions between the Directive provisions and the provisions under the following **EU financing instruments**

	Yes	No	Do not know
1. Connecting Europe Facility	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Horizon 2020	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3. European Structural and Investment Funds	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4. European Fund for Strategic Investments	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5. Other funding instrument <i>Click here to enter text</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please explain your answer

Click here to enter text

The main aim of the EU Clean Planet for all Strategy is to confirm Europe's commitment to lead in global climate action and to present a vision that can lead to achieving net-zero greenhouse gas emissions by 2050 through a socially-fair transition in a cost-efficient manner. It underlines the opportunities that this transformation offers to European citizens and its economy, whilst identifying challenges ahead. It is meant to set the direction of travel of EU climate and energy policy, and to frame what the EU considers as its long-term contribution to achieving the Paris Agreement temperature objectives in line with UN Sustainable Development Goals, which will further affect a wider set of EU policies.

16.5 In your view, are objectives of the Directive in line with the objectives of EU Strategy Clean Planet for all?

Yes	No	Do not know	If YES, please indicate which initiatives
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<i>Pollution reduction</i>

17 Final comments

Please use the space below to leave any other comments that are relevant to the evaluation of the Directive on the Deployment of Alternative Fuels Infrastructure.

Overarching principles and objectives:

- Placing clean and smart electrification in the transport sector at the core of the European Green Deal;*
- Ensuring the availability of electric vehicles and the relevant charging infrastructure for citizens will be the prominent catalyst for the clean transition of the automotive and energy sectors;*
- Accelerating the roll out of electric charging infrastructure within a competitive environment by increasing financial support schemes and lifting remaining barriers to smart charging in order to ensure the effective integration of electric vehicles in the power system.*

Thank you for completing this checklist

If you have any questions, please contact the study team at:
AFInfrastructure.Eval@ricardo.com

Eurelectric pursues in all its activities the application of the following sustainable development values:

Economic Development

- Growth, added-value, efficiency

Environmental Leadership

- Commitment, innovation, pro-activeness

Social Responsibility

- Transparency, ethics, accountability



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