

Brussels, 6 September 2017

RESPONSE TO THE TARGETED CONSULTATION ON ALTERNATIVE FUELS INFRASTRUCTURE DEPLOYMENT IN THE EU

1. GENERAL COMMENTS

Orgalime thanks the Commission for the opportunity to provide comments to the targeted consultation on alternative fuels infrastructure deployment in the EU in view of the announced second EU Mobility Package ‘Europe on the Move’ and Alternative Fuels Infrastructure Action Plan in particular. Considering that Directive 2014/94/EU on the deployment of alternative fuels infrastructure at EU level is now in the critical phase of implementation, the Commission should, as part of its upcoming strategy, require National Policy Frameworks (NPF) that are sufficiently timely and ambitious and contain clear targets and objectives to enable the EU to live up to its international and EU energy and climate commitments. Where loopholes have arisen, the upcoming package is an opportunity to close them. We consider the following elements essential for NPFs to deliver:

- Giving a clear investment signal for both, private and public investors.
- For sizing the infrastructure, it is usually agreed that there need to be, on average, two charging points per electric vehicle and that the large majority of these points will be private. Consequently, there should be typically two public charging points per ten vehicles.
- Enabling smart charging for both, public and private charging points (see Orgalime position paper [here](#)).
- Considering the highest possible level of interoperability regarding publicly accessible recharging points.
- Pursuing user friendliness and make available as open data the location and the practical characteristics of each public accessible electric vehicle recharging point.
- Ensuring equal access to recharging points for electric vehicle users of all existing modes in Member States, when planning infrastructure deployment.
- Establishing and deploying ambitious plans for shore side electricity infrastructures in harbours with the proper incentives schemes. This is complementary to the deployment of other alternative fuels infrastructure, such as LNG.

Also, we see a clear link of the Action Plan to come and the Clean Energy Package and ongoing revision of the Energy Performance of Buildings Directive 2010/31/EU (EPBD) in particular. This revision should aim at complementing Directive 2014/94/EU in the area of deployment of electric vehicles (EVs) infrastructure. Our recommendations on this topic are available [here](#), which the upcoming strategy should also be consistent with. EVs have an important role to play in the modernised energy system, especially through smart charging capabilities and as energy storage systems.

Orgalime, the European Engineering Industries Association, speaks for 41 trade federations representing the mechanical, electrical, electronic, metalworking & metal articles industries of 23 European countries. The industry employs nearly 11 million people in the EU and in 2016 accounted for some €2,000 billion of output. The industry represents over a quarter of the output of manufactured products and over a third of the manufactured exports of the European Union.

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Considering that the large majority of EV recharging points will be private, we thus promote an ambitious article 8 of the Energy Performance of Buildings Directive (EPBD) to complement the provisions of Directive 2014/94/EU.

2. SPECIFIC COMMENTS TO THE GIVEN STAKEHOLDER QUESTIONS

Question 1:

What issues need to be addressed to satisfy the needs of the users of alternative fuels infrastructure? And how should they be addressed in your view, including at EU level? Please be as precise as possible and distinguish between different types of fuels, if necessary.

Orgalime response:

We believe that the following elements contribute to satisfying the needs of users of alternative fuels infrastructure and should be pursued in further action at EU level:

- Regarding electric vehicles, users need easy access to recharging points. It is therefore important that a sufficient number of recharging points and a timely roll out is foreseen in National Policy Frameworks under Directive 2014/94/EU. There should be typically two public charging points per ten vehicles.
Furthermore, smart charging will be essential for satisfying user needs as the number of EVs increases (see Orgalime Position Paper [here](#)).
Data security will be an important element for the smart grid and therefore any smart charging system. Ensuring that consumer data is communicated on secure networks for domestic and public recharging will be essential in building consumer acceptance of smart charging.
The need for interoperability must be considered, and national deployment plans for electric recharging infrastructure should take into account the highest possible level of interoperability. Publicly accessible recharging points should be equipped with intelligent metering systems and use interoperable payment systems. Member States should define within their national policy frameworks, how they will address interoperability issues, keeping in mind the need to make it simple for electrical vehicles users and also encourage the roll-out of private recharging infrastructure.
Making the location and the practical characteristics (such as charging power or payment system) of each publicly accessible recharging point available as open data, by means of a directory of existing spots, also supports user-friendliness. Such user information and labelling should be easy to understand, for example to recognise the range of different fuel types, where there is no European standard for a given alternative fuel.
Equal access to recharging points for electric vehicle users of all existing modes in Member States is essential when planning infrastructure deployment.
Finally, first movers should not be punished: it should be guaranteed that first generation EVs can use all types of infrastructure, notably for fast charging, even if their car can fast charge only in AC or in CHAdeMO, and not in Combo.
- To allow the appropriate impact of alternative fuels and bring most benefit to users, all vehicles on the road need to be addressed. Thus, fuels that allow blending or drop-in fuels should be a target.
- In case of a new fuel type is deployed, the number of filling stations/charging stations needs to be rapidly brought to a comparable level as for standard fuels - at least for specific use cases that are chosen for market entry or chosen because of unique technical benefits.
- Any type of fuel needs to follow one standard in terms of filling/charging technology.
- The use of alternative fuels must be safe and without risks for the end user and the end user's vehicles/infrastructure. This needs to be well communicated as the E10 introduction has shown.
- Alternative hydrocarbon fuels will be required for CO₂-neutral aviation and shipping. Ramping up production volumes is required as of today.

QUESTION2:

What conditions are needed to trigger investments in the alternative fuels infrastructure, including the regulatory environment, standardisation, risks and their mitigation and finance issues?

Orgalime response:

- A clear and then stable regulatory framework is essential for triggering investment: Regarding EV charging, investors receive a lot of messages about recharging technologies that could replace existing ones: new communication standards, wireless charging, very high power (350 kW), etc. To trigger investment, it is important to make investors confident that they did not invest and install obsolete technologies. Therefore, a change in the regulatory framework should be avoided, while preserving technology neutrality. A strong article 8 of the EPBD currently undergoing legislative revision, embedded into a modernised EU energy market design (see Orgalime [position paper](#) on Clean Energy Package), as well as National Policy Frameworks containing ambitious targets are, however, core elements of such a future-proof regulatory framework supporting investment. An ambitious EPBD review now matters, as investment decisions are to be taken now and can hardly be reversed later on.
- The introduction of alternative fuels via quotas, however, needs to be carefully assessed: while these could help in kicking off alternative fuels in the market in the very initial stage, they can also result in the market demanding just exactly the amount prescribed by the quota, but not more, even if this were possible and desirable from an environmental point of view. This could be particularly true for Renewable Energy quotas as currently debated under the recast of the Renewable Energy Directive.
- Alternative fuels are desirable because of their quality of being partially or completely CO₂-neutral from a “Well to Wheel” perspective. This quality needs to be part of the pricing to allow a competitive position on a fossil-fuel dominated market, where no supply shortages can be expected to improve the competitive situation the other way round: indeed, at present alternative fuels are usually not price competitive in comparison to fossil fuels. Therefore, CO₂ benefits of alternative fuels should be included in the competitive analysis. Shortage of supply of fossil fuels (that is by regulating oil on the market) would not improve the difference in competitiveness between fossil fuels and alternative fuels. The introduction of quotas without any such price competitiveness aspect could have a distorting effect in the market.
- Direct or indirect taxation needs to be included in the evaluation of competitiveness: price competitiveness also inevitably depends on the direct and indirect taxation in different member states, which should therefore be included in the evaluation of competitiveness.
- For the successful introduction of alternative fuels a balanced investment is needed in all three domains: Propulsion technology, distribution infrastructure and fuel provision.

QUESTION3:

Where do you see market gaps in terms of financing? Please differentiate, if appropriate, between geographic distribution in Europe, type of network (urban/inter-urban), the different alternative fuels, components of the network (charging points, distribution network...). How should these market gaps be addressed at EU level and what role do you see for financial instruments leveraging with private funding, and for grants and for a combination of grants and financial instruments (including, what level of grants is needed)?

Orgalime response:

Directive 2014/94/EU speaks of smart charging. However, there should be an explicit push for the deployment of smart charging infrastructure from the outset to avoid system failure at a later stage. The overall driver for smart charging is to minimise the peak load on electricity networks.

The grid can cope with the existing levels of EVs on the system today, but if we consider the trajectory for the growth in EV and plug-in hybrid vehicles and the infrastructure requirements for this going forward, the impact on peak electricity load could be significant, if the appropriate management systems are not in place. The need for smart charging will thus be high, as soon as the number of EV has grown significantly. Until then, there is however no strong market demand for smart charging. Not rolling it out from the beginning, risks giving rise to serious problems in the energy system in the coming years when the number of EVs has grown and the existing infrastructure is not capable of dealing with smart charging at that time. In its review of NPFs, the Commission should therefore check that smart charging is properly addressed from the beginning and that there is no risk of creating a market gap in the deployment of smart charging infrastructure.

In addition, the price component of CO₂-neutrality of fuels/energy carriers needs to be implemented. Indeed, the amount of CO₂ generated when producing the energy carrier (for example fuel or electricity) should be a component of the pricing.

We see a potential market gap in the deployment of the shore to ship connection arising.

QUESTION 4:

Where and how to prioritise investments? How to ensure infrastructure deployment is connected to vehicle demand in order to avoid stranded investment?

Orgalime response:

European legislation implementing the Paris Climate agreement's objectives, and the Clean Energy Package in particular, is paving the way for a low carbon economy for all Europeans. Investments in alternative fuels should follow this overarching goal and support technologies and their related infrastructure that offer the most efficient CO₂ reduction possible.

The primary task of policy makers is however not prioritisation or selection of technologies for investments but technology neutrality. The prioritisation will be done by the market players. Investors must keep the responsibility to decide the rhythm of their investment depending on market conditions. Stranded investments are a part of entrepreneurial risk, which nevertheless one should seek to reduce to a minimum; these, however, cannot be entirely excluded in a free / social market economy. What is important is that investments do not end up being stranded due to untimely or inappropriate interference of regulation. The higher the investment, the longer and more stable regulatory boundary conditions need to be. For fuel and energy infrastructure, this requires planning reliability of some 30 to 40 years. Therefore, setting in place a forward looking, future proof Clean Energy Package now is essential to give this certainty. Important investment decisions in this sector are imminent and cannot be postponed.

QUESTION 5:

Could you indicate some viable business cases that could be replicated at large scale?

Orgalime response:

- Orgalime's key recommendation is to ensure that investment made in the next few years, as a result of Directive 2014/94/EU and that Member States' initiatives, are conducted in the knowledge and recognition of the growing potential and benefits of energy management and of the need to minimise the impact of EV charging on the grid when the growth of EVs reaches a critical level from the perspective of the charging infrastructure. This can be done by building business cases now, which will drive investment over time.
- Public smart charging: barriers to public infrastructure could emerge, especially for faster DC chargers, due to reinforcement requirements on the grid as a result of connection. Orgalime therefore suggests considering business cases to alleviate the reinforcement requirement on the grid as a result of such installations, and consequently reducing the cost at installation. This would also provide in the longer-term opportunities for owners and operators of charging infrastructure.

Energy storage on the grid or at the charging station level is a way to mitigate this impact of fast charging. Indeed, business models could be made more viable through the adoption of storage technologies along with charging stations.

- Please see also the [AFNOR report](#) on smart charging with elements on how to plan business case for smart charging deployment.
- Innovative shore-to-ship electrification infrastructure has shown that valuable gains in air quality and noise reduction can be obtained. Please see [here](#) the summary of a feasibility study on shore connected power from the port of Rotterdam, as well as a general presentation on shore to side electrification from the T&D Europe association.
- On a medium-term basis an accounting scheme that gives credits to the CO2-fleet average values of an OEM for CO2-neutral synthetic fuels introduced into the market is a viable business case: a scheme, which lowers the CO2 fleet average of vehicle manufacturers that provide CO2-neutral synthetic fuels to the market by the exact amount of CO2 saved to produce this CO2-neutral fuel. This business scheme could increase investment and accelerate market uptake of synthetic fuels.

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