

# European Commission Communication on a European Strategy for Low-Emission Mobility

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A EURELECTRIC position paper

November 2016

***EURELECTRIC is the voice of the electricity industry in Europe.***

*We speak for more than 3,500 companies in power generation, distribution, and supply.*

***We Stand For:***

***Carbon-neutral electricity by 2050***

We have committed to making Europe's electricity cleaner. To deliver, we need to make use of **all low-carbon technologies**: more renewables, but also clean coal and gas, and nuclear. Efficient electric technologies in **transport and buildings**, combined with the development of smart grids and a major push in **energy efficiency** play a key role in reducing fossil fuel consumption and making our electricity more sustainable.

***Competitive electricity for our customers***

We support well-functioning, distortion-free **energy and carbon markets as** the best way to produce electricity and reduce emissions cost-efficiently. Integrated EU-wide electricity and gas markets are also crucial to offer our customers the **full benefits of liberalisation**: they ensure the best use of generation resources, improve **security of supply**, allow full EU-wide competition, and increase **customer choice**.

***Continent-wide electricity through a coherent European approach***

Europe's energy and climate challenges can only be solved by **European – or even global – policies**, not incoherent national measures. Such policies should complement, not contradict each other: coherent and integrated approaches reduce costs. This will encourage **effective investment to** ensure a sustainable and reliable electricity supply for Europe's businesses and consumers.

***EURELECTRIC. Electricity for Europe.***

# European Commission Communication on a European Strategy for Low-Emission Mobility

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## KEY MESSAGES

- EURELECTRIC welcomes the publication of the Commission's Communication on a Strategy for Low-Emission Mobility and the renewed recognition of the important role that electricity will play in decarbonising the transport sector.
- With the European power sector fully committed to decarbonise by 2050 and an effective policy framework in place to ensure this goal, electricity is on track to become the energy carrier of the future. There is no energy carrier that can decarbonise to the same extent and scale as electricity.
- As electricity becomes increasingly low carbon replacing fossil fuel based systems with electric technologies will provide a promising pathway to decarbonise the transport sector. The power sector has already come a long way in its transformation towards low carbon generation: In 2015, the power sector generated 56% of all the EU's electricity from low carbon sources.
- Using electricity for transport would not only reduce greenhouse gas emissions but it would effectively cap the emissions of the sector by *de facto* bringing them under the EU Emissions Trading System (EU ETS).
- Europe's citizens stand to gain the most from the development of comprehensive strategies for electro-mobility: they can benefit from a cleaner and versatile technology that improves not only the environment but also their quality of life.
- EURELECTRIC stresses the need to translate the Strategy for Low-Emission Mobility into concrete and ambitious action as an effective contribution to the EU's climate and energy objectives.
- Furthermore, electro-mobility features many further advantages over fossil-fuel based internal combustion propelled transport such as improved air quality. These are laid out and explained in EURELECTRIC's Toolkit on Decarbonising Transport<sup>1</sup>.

WG Electro-Mobility

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<sup>1</sup> Decarbonising Transport – EURELECTRIC's Priorities and Policy Recommendations,  
[http://www.eurelectric.org/media/291964/transport\\_toolkit-full\\_version-2016-030-0475-01-e.pdf](http://www.eurelectric.org/media/291964/transport_toolkit-full_version-2016-030-0475-01-e.pdf).

# Reaction to the European Commission Communication on a European Strategy for Low-Emission Mobility

## Introduction

The transport sector is responsible for about a quarter of EU greenhouse gas (GHG) emissions and is the only major sector in the EU in which greenhouse gas (GHG) emissions are still rising. Meanwhile, the transition of the European electricity sector is leading to a much cleaner, interactive and customer-friendly electricity system. **With electricity becoming increasingly low carbon, replacing fossil fuel based systems with electric technologies will provide a promising pathway to achieve low-emission transport in Europe.**

Electro-mobility is an essential part of the solution to Europe's transport and energy challenges of reducing GHG emissions, limiting air pollution and improving energy security. In combination with a decarbonised power sector, is a long-term solution for the challenge of creating a striving, largely carbon-neutral economy<sup>2</sup>.

The European electricity sector has already come a long way in its transformation towards low carbon generation. **As the power sector pursues carbon-neutrality by 2050, electricity becomes the obvious choice for driving the decarbonisation of the transport sector. It is high time that electrification of transport becomes a prominent part of EU climate policy.**

EURELECTRIC welcomes the publication of the Commission's Communication on a Strategy for low-Emission Mobility. We believe that the decarbonisation of the European transport sector is an urgent task that requires concise and coherent action. We also support the Commission's conclusion that the transition to cleaner transport will lead to significant improvements in air quality and noise pollution and thus bring benefits to all European citizens.

EURELECTRIC stresses the need to translate this Strategy into concrete and ambitious action, as an effective contribution to the EU's climate and energy objectives.

## Analysis of the Strategy for Low-Emission Mobility

While greenhouse gas emissions stemming from transport need to fall by 60% below 1990 levels by 2050, the actual emissions trend currently goes into the opposite direction: efficiency gains are offset by increased demand for transport, resulting in an overall increase of transport GHG emissions of around 20% from 1990 to 2014.<sup>3</sup>

The Commission's Strategy for Low-Emission Mobility identifies a number of actions that will be necessary to achieve this, including measures aimed at increasing the efficiency of the transport system, speeding up the deployment of low-emission transport fuels and the shift towards zero-emission vehicles.

**EURELECTRIC welcomes the Commission's initiative and the renewed recognition of the important role that electricity will play in decarbonising the transport sector. The electricity sector is a crucial actor in this context and is committed to contribute to this important task.** The electricity sector has already come a long way in its transformation towards low carbon

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<sup>2</sup> Decarbonising Transport – EURELECTRIC's Priorities and Policy Recommendations:  
[http://www.eurelectric.org/media/291964/transport\\_toolkit-full\\_version-2016-030-0475-01-e.pdf](http://www.eurelectric.org/media/291964/transport_toolkit-full_version-2016-030-0475-01-e.pdf).

<sup>3</sup> European Commission: Climate Action. A European Strategy for Low-Emission Mobility:  
[http://ec.europa.eu/clima/policies/transport/index\\_en.htm](http://ec.europa.eu/clima/policies/transport/index_en.htm).

generation: In 2015, the power sector generated 56% of all the EU's electricity from low carbon sources and the share increases every year.

Decarbonising the transport sector is an opportunity, but also a challenge which needs to be addressed from several angles. We strongly welcome the upcoming revision of the Directives on Road Charging (1999/62/EC) with a reinforced polluter-pays principle the CO<sub>2</sub> emission standards for cars and vans, and the Clean Vehicle Directive (2009/33/EC), as this mirrors the Commission's aspiration to take an integrated approach towards decarbonisation of the sector.

To deliver on this ambition EURELECTRIC puts forward the following policy actions required to realise the potential of electro-mobility in the upcoming legislative agenda:

- ***A supportive market design framework***

The electricity market design has to ensure that decarbonisation is reached in a cost-efficient way while at the same time ensuring security of electricity supply. As Europe progresses towards an integrated European electricity market, renewables must be increasingly exposed to competition and be placed on a level playing field with other technologies. While the EU ETS should be the main driver for low-carbon investment support schemes may still be needed to achieve the 2030 targets. If implemented, support schemes should be cost-efficient and market based so that distortions to the merit order are minimised.

Prices should adequately reflect scarcity situations and dynamic retail prices should allow consumers to react to wholesale price fluctuations. Such a sound and market-based environment should underpin the development and the investability of battery technologies, smart charging and demand response which are central to the large scale deployment of electric vehicles. Participation of the demand side in capacity mechanisms may be an option to be considered to create further price signals.

The use of electric vehicle (EV) batteries or electric appliances as flexible demand and decentralised energy storage would allow higher renewable penetration and increase the reliability of electricity supply. Linking the transport system with the electricity system will thus unlock important benefits on both sides. The flexibility that EVs together with smart charging can provide will ultimately benefit customers through the reduction of energy costs and their access to new services. EU and national regulators must adjust the current legislation to be more reflective of demand response needs, including a clear, dynamic price signal, which is not obscured by policy costs.

- ***Use energy taxation to set the right incentives***

The electricity sector is heavily investing in order to become carbon neutral. While for the electricity sector the ETS is an important tool to achieve this, the transport sector will need other instruments to incentivise its decarbonisation and contribute to further RES penetration. The Energy Taxation Directive is a key lever here, which is not reflected in the Low-Emission Mobility Strategy.

- ***Strong and consistent CO<sub>2</sub> regulation for cars and vans***

To reach the overall 2050 decarbonisation objectives GHG emissions from vehicles must reduce drastically aiming towards zero emissions by mid-century.

EU legislation regulating CO<sub>2</sub> emissions from new cars and vans have been the important driving force of technological progress in the European car manufacturing sector. Emission regulations are a useful and technology-neutral tool to foster innovation and lead to reductions in tailpipe emissions. EURELECTRIC welcomes the fact that for the post-2020 standards the Worldwide harmonized Light vehicles Test Procedure (WLTP) will be the relevant emissions test procedure. We expect it to deliver a more realistic picture of actual emissions. However, it is vital that the higher stringency of the test procedure is not used as an excuse to lower the ambition concerning the GHG emission reduction targets for new cars and vans.

More stringent CO<sub>2</sub> standards for new cars, vans and trucks for 2025 and 2030 should be an essential element of the package of proposals to help Member States achieve their non-ETS targets for 2030. This will also send a strong political message on the EU's commitment to addressing GHG emission from the transport sector, while ensuring long-term investment and innovation. Standards must be ambitious, well verified and set on vehicles actually sold, not only on vehicles offered on the market.

A CO<sub>2</sub> standard (in g CO<sub>2</sub>/km) is preferred over an efficiency standard (MJ/km) as the latter is only an indirect and approximate measure for GHG emissions. The upcoming review of regulation setting CO<sub>2</sub> emission performance standards for light duty vehicles post-2020 should therefore lead to ambitious and stringent targets. Measures that additionally reward ultra-low emission vehicle sales (such as super-credit regimes) can play an important role to achieve such targets and should be developed further.

- ***A sound monitoring system for CO<sub>2</sub> emissions from heavy duty vehicles (HDVs)***

EURELECTRIC welcomes the Commission's initiative to introduce a monitoring and reporting system for the CO<sub>2</sub> emissions of HDVs. Heavy duty road transport accounts for about 25% of road transport's CO<sub>2</sub> emission and is expected to grow.<sup>4</sup>

Therefore, monitoring and reporting can only be the first step. In the future and just like cars and vans do buses, trucks and lorries have to be subject to emission standards.

- ***Regular monitoring of transport emissions***

The Communication on a Low-Emission Mobility Strategy clearly states the need to drastically reduce greenhouse gas emissions from transport by 2050 by 60% compared to 1990. The "Roadmap to a Single European Transport Area – Towards a Competitive and Resource Efficient Transport System" (2011 White Paper on Transport) had already indicated the need to reduce transport GHG emissions by 17-20% compared to 2005 by 2030. EURELECTRIC believes that it is crucial to constantly monitor the transport's sector emissions in order to be sure that that Europe stays on track for decarbonisation of the transport sector.

- ***Tap the opportunities of smart charging***

Smart charging, i.e. the controlled recharging of electric vehicles can deliver various benefits to the power system. Firstly, the needed network expansion can be limited, as

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<sup>4</sup> European Commission: A European Strategy for Low-Emission Mobility, July 2016: <https://ec.europa.eu/transparency/regdoc/rep/1/2016/EN/1-2016-501-EN-F1-1.PDF>.

smart charging can optimise the use of existing network assets. Our analysis<sup>5</sup> shows that even if all the cars on the road today were electric the current electricity system could cope with the resulting increase in electricity demand, provided that the charging of those cars is carefully managed.

Secondly, smart charging can help to accommodate greater amounts of renewables in the electricity system, as EVs which are parked and plugged in can charge at times when feed-in into the system is especially high.

Thirdly, customers can profit financially from their new and increasingly active role in the electricity markets both through reduced electricity bills if they shift their consumption to times of low electricity prices and by being rewarded for providing flexibility services that can be sold to the electricity market or used for congestion management by network operators. This flexibility potential can be tapped by various actors such as suppliers, aggregators, service providers, in line with the regulation applying to those entities.

These opportunities are further enhanced by vehicle-to-grid solutions in the longer term. While the Communication acknowledges the need to link the energy and transport systems, it does not develop on concrete actions, like for example obliging Member States to ensure that sufficient charging points with smart charging properties are installed in new or refurbished buildings. In this context, sector coupling could provide significant benefits to the business case for further EV deployment.

- ***Increase the number of Electric Vehicle charging stations***

EURELECTRIC is looking forward to the publication of the Member State national implementation plans required under the Alternative Fuels Infrastructure Directive. We expect an in-depth analysis of the implementation plans by the Commission in order to ensure that the plans put forward by the Member States are adequate to put in place the necessary infrastructure to enable the deployment of electro-mobility across Europe. Regular monitoring and assessment of the implementation of such plans will be necessary.

The EU must provide assistance to Member States in guaranteeing the possibility of charging in the street for citizens who do not have a private charging point. These systems should allow for roaming and avoid closed networks. The Alternative Fuels Infrastructure Directive sets a framework, but ambitious national targets and swift implementation will be required. The charging infrastructure market should generally be organised as a competitive market.

A regulatory measure to assure the roll out of alternative fuels charging stations where the market is not properly developing is to transiently allow DSOs to own and operate this infrastructure as an extension of their regulated role until market maturity.

EURELECTRIC looks forward to further discussions on the decarbonisation of the European transport sector and stresses the need to translate this Strategy into concrete and ambitious action, as an effective contribution to the EU's climate and energy objectives.

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<sup>5</sup> See EURELECTRIC: Steering the charge, driving the change, March 2015: [http://www.eurelectric.org/media/169888/20032015\\_paper\\_on\\_smart\\_charging\\_of\\_electric\\_vehicles\\_finalpsf-2015-2301-0001-01-e.pdf](http://www.eurelectric.org/media/169888/20032015_paper_on_smart_charging_of_electric_vehicles_finalpsf-2015-2301-0001-01-e.pdf).



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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