



EUROCITIES STATEMENT ON THE CLEAN POWER FOR TRANSPORT PACKAGE

The European Commission's plans to develop a clean power infrastructure across Europe are very ambitious, and they need to be if the EU is going to reduce greenhouse gas emissions by 60% by 2050. EU member states - and in particular EU cities - will need to put in place effective frameworks and incentives to encourage industry and motorists to use clean power.

Cities represent one of the main challenges for a sustainable and competitive transport policy: more than 75% of EU citizens live in urban areas and cities are the centres of competitiveness and innovation. Urban transport has an impact on the whole European transport chain. Cities also increasingly serve as 'laboratories' for the transport sector, testing grounds for the development of new technological and financial solutions. At the same time, most CO₂ is produced in cities and so the potential for greatest impact is in cities.

Europe's city leaders are fully committed to improving the health and quality of life of their citizens. Reducing vehicle emissions will result in a better quality of life in cities. We welcome an EU strategy to boost the market of alternative vehicles. Our main recommendations are:

MODAL SHIFT TOWARDS MORE SUSTAINABLE TRANSPORT MODES IN URBAN AREAS

- **Behavioural change:** New technologies are necessary to tackle climate change and reduce greenhouse gas emissions but, in cities, the most energy-efficient solutions are more sustainable modes of transport such as public transport, cycling, walking and car-sharing. It is important to also encourage citizens towards modal shift. Traffic remains a challenge for cities in terms of congestion, liveability, road safety and parking space.

MARKET DEMAND

- **Clean vehicle demand must develop in parallel with the infrastructure:** While we agree that infrastructure is a necessary part of the transition to fossil-free vehicles, infrastructure alone will not necessarily create demand. The real issue is vehicle take-up which is held back by vehicle costs, and their business models having to compete with traditional car sales models. The risk of building an infrastructure that has no market base is otherwise an inefficient use of resources and public resistance to alternative fuels. Business models for infrastructure investment should also include complementary measures for stimulating demand, such as innovative incentives to increase the sale and use of clean vehicles.
- **Privileged access rights in cities:** This incentive, proposed in the Clean Power for Transport Package, includes special charging and fuelling rights for clean vehicles in urban access restriction zones. We believe that for some cities this could be a good tool to promote the use of alternative fuel vehicles. Nevertheless, it should be accompanied by time limits in order to avoid problems of congestion of such zones in the future, e.g. when the clean vehicles' market has expanded.

CLEAN FUELS INFRASTRUCTURE AND SMART CITIES

- **Number of charging points/urban space:** Space in cities is a challenge when it comes to installing charging points and filling stations, for example. The Clean Power for Transport Package's requirement for a minimum number of recharging points for electric vehicles by 2020, could be difficult to implement in dense city areas. Extensive facilities, in particular, may not represent the best use of urban space. This must not lead to an increase in individual traffic as public transport is by far the most environmentally friendly mode of transport. Europe's cities have undertaken considerable efforts to increase the modal split of public transport, which should not be obstructed.
- **Location of charging and fuelling stations:** The decision on how many charging stations and where they should be located should remain with the city government. This is crucial both in terms of meeting the real needs of citizens, but also taking into account the diversity of conditions and local policy priorities.

The most efficient way to deploy public charging stations is to locate them either on the outskirts of the city, where car drivers can then switch to more sustainable modes of transport, or at home, where most citizens so far tend to charge their clean vehicles.

Charging facilities on city centre streets, even for the sake of combined charging infrastructure with light rail for instance, would be limited by the lack of public space. Another option would be to make charging an off-street facility - i.e. in existing parking garages - rather than an on-street facility that foregoes the chance to remove parked cars from the townscape. City authorities would generally prefer to use public space for public transport, bicycle lanes and walking facilities.

The experience from the CABLED project¹ and recent consultations in some EU cities (e.g. in Sweden and Denmark) have shown that the majority of EU citizens prefer charging their electric vehicle at home. Nevertheless in many cities finding a parking spot near your home is difficult. It is important to place charging and fuelling points where citizens really need and want them, otherwise the take-up will not be guaranteed.

- **New charging technologies:** In the future, dynamic induction (charging without charging points) could be a solution to the challenge of creating a large number of charging points that is needed for current electric charging technologies. Vehicle batteries could be charged whilst driving with dynamic charging infrastructure integrated in roads, tracks or at intersections. This technology is still in the R&D and pilot phase, but once deployed, it could significantly change the planning and parking situation in cities. It should therefore be addressed in the Clean Power for Transport Package as a valid charging technology for the medium or long term.
- **Smart Cities and Communities proposals:** The Smart Cities and Communities Communication, in its Annex II on cross-cutting themes, recommends "matching energy supply from electric public transport vehicles (for example trolley buses, trams, metro vehicles) that are able to exchange surplus energy (braking and accelerating energy) with the energy system - using ICT to manage energy flows". While trams feeding surplus energy back to the grid is a valid option, feeding energy directly to other vehicles in city centres would be problematic in many cities due to the lack of public space. It would attract more cars into already congested parts of the city and require car parks for car charging.

This combined energy supply concept can only work if the facilities are not adjacent in city centres - this would use up too much public space, and if the local context and

¹ www.arup.com/Home/Projects/CABLED.aspx

public policy priorities, e.g. ambition to minimise cars in city centres and preserve quality of public space, are respected.

TECHNICAL STANDARDS

- **EU standards for new infrastructure:** We would support the development of standards for equipment, e.g. technical specifications for electric vehicle recharging points and storage systems for alternative fuels. These standards should only apply to new or replacement infrastructure.
- **Interoperability of services:** Any EU action on technologies should also promote interoperability and try to avoid lock-ins, especially concerning data exchange and communication between systems. Mobility services, e.g. charging/fuelling services and parking services, should be organised as an open but interconnected market, allowing for new types of mobility in the city.
- **Energy efficiency:** There is a gap between vehicle fuel consumption in real situations and when measured in test cycles. The Commission should create standards making this data more transparent, and also ensure that information on energy consumption when charging/fuelling is available, e.g. via energy management systems that provide information on the charging stage of batteries. Users should also have the possibility to manage charging time and power in accordance with their needs.

TECHNOLOGY NEUTRALITY AND THE URBAN

CONTEXT

- **Flexibility and subsidiarity:** While the Communication states that “all options need to be included in the strategy without giving preference to any particular fuel, thereby keeping technology neutrality”, the proposal for a Directive states that “electricity is a clean fuel particularly attractive for deployment of electric vehicles and electric two-wheelers in urban agglomerations which can contribute to improving air quality and reducing noise”. Electricity is obviously a well-suited alternative fuel for short distances like in urban areas. Nevertheless, cities need to retain the flexibility to choose the most appropriate technology that suits their local circumstances, e.g. where investments have already been made in other alternative fuels.
- **Renewable fuels:** We believe biogas is a cleaner option than natural gas. Further research should be carried out to investigate the real impacts of natural gas as a clean fuel. The European Commission proposes to mainly develop infrastructure for natural gas as burning natural gas is better for air quality than diesel combustion. Biogas could be a more sustainable option as studies suggest that using natural gas vehicles may be worse for the climate than using diesel vehicles, largely due to methane emissions during the production and supply of natural gas to the vehicle².
- **Different urban situations, different technologies:** It is important to also take into consideration the urban impact of new technologies. Technologies that might be clean for long distance and high speed journeys might not be as clean in the urban context, which involves lower speeds and many start/stop situations. A clear example is the disappointing effects of Euro 5/V vehicles, in particular diesel vehicles, on NO_x emissions when used in urban areas. Cities need technologies that are cleaner both for long distance journeys and in urban situations. Test cycles and methods must be realistic and mirror urban driving conditions, both for GHG and for pollutant emissions.

² Alvarez.R. et al. 2012. Greater focus needed on methane leakage from natural gas infrastructure. PNAS vol 109, No 17, p. 6435-6440

- **EU research:** The EU should strengthen research activities, particularly large scale demonstration projects, on alternative fuels and help ensure that a range of viable and sustainable technologies can be made available as quickly as possible. This should include work on a wide range of clean fuels, such as biofuels like ethanol, biogas and biodiesel together with electric vehicles, but also Compressed Natural Gas (CNG) and hydrogen-based technologies.

EMISSIONS

- **Holistic approach:** Emissions along the entire supply chain need to be considered to ensure truly sustainable alternative fuels. Any potential negative effects caused by the production of alternative energy should therefore be taken into account - electric power generation is not sustainable unless it is from renewable sources.
- **EU legislation to limit emissions at source:** There needs to be a continued tightening of EU legislation on vehicle emissions, including effective test methods (for GHG and other pollutants e.g. NO_x/NO₂ and particulate matter). Additional measures to address air emissions from road transport should start with effective emission reduction at source, including:
 - Swift introduction of revised test methods to ensure that real world CO₂ and pollutant emissions of Euro 6/VI vehicles, including in urban areas, are as close as possible to the test results. The test cycle should include provisions to address the driving patterns of vehicles used for particular tasks in urban areas, such as buses and refuse trucks, to ensure that pollution control technologies operate effectively under these specific urban driving conditions.
 - Strengthening EU-wide requirements for in-service compliance with emissions standards, to ensure that vehicles on European roads continue to produce low emissions over their lifetime.
 - Exploring ways of limiting NO₂ emissions from Euro 6/VI and older vehicles, in particular diesel vehicles, without compromising other emissions such as particulate matter.
 - Development of new standards, including more stringent Euro standards to enter into force in 2020. In particular, the new standards (Euro 7/VII) must reduce NO₂ emissions specifically, not only NO_x emissions.

A supplementary non-mandatory Euro pollutant emission standard that is stricter than the Euro standards could help member states design incentives for cleaner vehicles. However, making this mandatory for national and local governments would not be helpful, as it could prevent authorities from taking specific local air quality situations into account.

- **Users' information:** We welcome the proposal that all charging and fuelling stations should display information on the clean fuel for use. We would also recommend including information on climate effects linked to each clean fuel. This would enable users to make an informed decision on which fuel to use.

FINANCING

- **No costs for member states or cities:** The Clean Power for Transport Package states that “no public spending is required for the build-up of alternative transport fuel infrastructure if the member states use the wide range of measures available to mobilise private investment cost-efficiently. EU support will be available from TEN-T funds, Cohesion and Structural Funds together with the European Investment Bank lending”. This suggested business model is very ambitious as it is based on the assumption that PPPs are usually successful and that EU co-funding is easily accessible. The failure of this

model could lead to public spending being required, increasing the financial burden on member states and cities.

Furthermore, while public spending should not be required, providing space for charging infrastructure clearly implies costs for cities as it reduces space for normal parking, meaning less revenue for city authorities. City authorities do not make a profit from public charging stations. If the business model suggested in the Clean Power for Transport Package fails, it is then up to member states to provide for the infrastructure, but this responsibility is usually passed on to cities.

TRANSEUROPEAN TRANSPORT NETWORKS (TEN-T)

- **Green corridors and urban nodes:** We believe that the EU should encourage corridors to become greener, e.g. by promoting green incentives and green procurement for TEN-T projects. ‘Green Corridors’ will be a good basis and testing ground for the deployment of the EU’s clean power strategy. Good connectivity of cities on these corridors to the core network will be key to the success to all TransEuropean Transport Networks.

NATIONAL POLICY FRAMEWORKS, CITIES AND THE INDUSTRY

- **Cooperation with cities for optimised deployment:** The proposal for a Directive requires member states to implement national frameworks for the market development of alternative fuels and the related infrastructure, including the implementation of common technical specifications. These frameworks should also be developed together with city governments, since they are among the largest procurers and providers of transport services.