

Action Platform on Urban Electric Mobility Initiative (UEMI)

The transport sector is a vital enabler of economic activity and social connectivity, but is also the second largest and one of the fastest growing energy end-use sectors, representing 23% of global energy-related greenhouse gas emissions. The bulk of energy used by the transport sector (about two-thirds) is accounted for by passenger transport while the rest is consumed by freight transport. According to the International Energy Agency, greater uptake of electric vehicles will form an important part of a low-carbon technology pathway for transport (IEA 2012).

However, the high uptake and adoption of electric vehicles depend on a number of factors, for example: advances in vehicle and battery technologies and reduction in costs from economies of production; the availability of charging infrastructure, increased awareness of citizens and an enabling policy environment and incentives provided by governments including city governments. Also important is the integration of Electric Vehicle Technologies as a part of larger transportation systems in cities (for example, short distance travel by electric vehicles to public transport hubs).

The IEA suggests that if transport is to contribute to a CO₂ target consistent with a 2 °C stabilization pathway, technologies such as plug-in hybrid (PHEV), battery electric vehicle (BEV) and fuel cell vehicles (FCEV) will have to increase their market shares substantially over the coming years (figure 1). These three technologies combined would have to reach a market share in annual sales of about 30% of global light-duty vehicles (LDV) sales in a balanced Avoid/Shift/Improve 2 Degrees scenario by 2030.

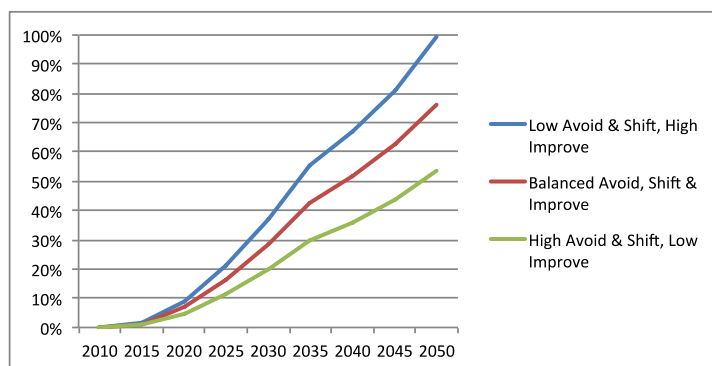


Figure 1: Combined battery electric vehicle (BEV), plug-in hybrid vehicle (PHEV), Fuel cell sales share in three versions of a 2 Degrees stabilisation scenario (Fulton, Lah, and Cuenot 2013).

Many private sector companies are making advances in promoting electric vehicles. However, progress towards a vision of electric vehicles dominating the transportation mix of cities will need the joint efforts of the private sector, national and local governments.

The “Action Platform on Urban Electric Mobility (UEMI)” is an initiative that will bring together these various actors from the “supply” and the “demand” side as described below:

Action Platform on Urban Electric Mobility: Complementary Commitments by Industry, Cities and Financial Institutions.

Commitment/Pledge by Industry and Cities

Industry (Supply Side); CEO Urban Electric Mobility Mandate

Industry leaders (car and battery manufacturers, energy producers, distributors, renewables) pledge that in pursuing the goal of sustainable development, with particular reference to transport and mobility, they will strive to increase the global market share of electric vehicles in cities to reach at least 30% by 2030.

Demand Side

Cities: Government and City representatives pledge that in pursuing the goal of sustainable urbanisation, they will strive towards a goal of: “by 2030 Electric Vehicles will form 30% of the fleet of light duty vehicles (LDV), plying in their cities”.

Multilateral Development Banks: Will Pledge to increase their investments in infrastructure to support cities in attaining the goal of 30% of the LDV fleet being comprised of Electric Vehicles.

With commitments from industry and government, UEMI will function as an open forum for knowledge transfer and support for the take-up of e-mobility solutions around the world. It will initiate a process of dialogue and continue to gather commitments from local and national governments as well as businesses on e-mobility targets. The Action Platform will be established with a work programme setting out voluntary international, national and city targets on e-mobility such as the global market share of electric vehicles and total number of passenger kilometres travelled on e-vehicles. While these targets will be voluntary in nature, a global monitoring system will be developed to track progress on implementation.

The reduction of GHG Emissions from the adoption of Electric Vehicles is not the only reason to encourage their widespread uptake. In its latest estimates, WHO indicates that outdoor air pollution caused 3.7 million premature deaths worldwide per year in 2012. People living in low and middle income countries disproportionately experience the burden of outdoor air pollution with 88% (of the 3.7 million premature deaths) occurring in these countries. As transport is amongst the major sources of outdoor air pollution, the transition to electric-mobility will contribute towards reducing the associated mortality and economic losses.

The electric mobility industry can also give a new impetus to economic development and reduce the carbon intensity of development and create new jobs. Considering the whole value chain including energy generation and distribution, fuelling, battery and components, and Electric Vehicles sales, a World Bank study indicates a total value chain greater than \$250 billion worldwide (*The China New Energy Vehicles Program Challenges and Opportunities; March 2011, World Bank*).

The promotion of electric-mobility should be accompanied with improvements in urban planning and design with a focus on “people centred planning” and greater attention to adequate streets and public spaces in cities, together with improvements in public transport and integration between public and non-motorised transport. Innovations such as car-sharing also have a role. To achieve the potential of E-Mobility in reducing GHG emissions, a shift to cleaner and renewable sources of energy and more efficient energy transmission and distribution will also be required. Together with these improvements, E- Mobility can play a major role in the Post 2015/ Post MDG development framework.

To take forward the Urban Electric Mobility Initiative, UN-Habitat organised an event during the World Urban Forum in Medellin (April 2014) bringing together industry representatives and policy makers. This was followed by an Expert Group Meeting held in Barcelona from 24-25 May. These discussions have helped to raise more awareness and in developing the ideas presented in this paper. Potential partners in the UEMI initiative include the International Energy Agency; Partnership on Sustainable Low Carbon Transport (SLoCAT); TRL; the Wuppertal Institute for Climate, Environment and Energy; and leading Private Sector Organisations Like Siemens AG and Michelin.

Following the Ascent meeting in Abu Dhabi, UN-Habitat will continue to engage with companies and cities in gathering statements of intents of joining the UEMI platform. The Action Platform is proposed to be launched at the Climate Summit in New York in September 2014. Subsequently, it is proposed that it features in the COP 21 in Paris in 2015. After the Summit UN-Habitat will continue to engage with partners, including through the UN Global Compact and facilitate pledge making and experience sharing. A resolution on the UEMI will also be proposed in the UN-Habitat Governing Council in 2015. It will feature in other international Transport and Mobility events such as the Michelin “Challenge Bibendum” in Chengdu, China (November 2014); Transport Day 2014 in the context of COP 20, in Lima, Peru; and CODATU 2015. In the Habitat III conference in 2016, Urban Electric Mobility Initiative will feature as pillar of the New Urban Agenda.

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