



How the European Union is promoting Low Emission Alternative Energy for Transport

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The EU Strategy on low-emission mobility – 20 July 2016

Main elements:

- ✓ increasing the efficiency of the transport system
- ✓ speeding up the deployment of low-emission alternative energy (e.g. advanced biofuels, renewable electricity and renewable synthetic fuels)
- ✓ removing obstacles to the electrification of transport and moving towards zero-emission vehicles



Transport in the Energy Union package - 25 February 2015

- Continue "focus on tightening **CO₂ emission standards** for passenger cars and vans post-2020, and on measures to **increase fuel efficiency** and **reduce CO₂ emissions for heavy duty vehicles and buses**";
- "**Electrification of transport** is important to break oil dependency and to decarbonise transport, especially for road (short and medium distance) and rail transport."
- "The Commission will take further action to create **the right market conditions for an increased deployment of alternative fuels and to further promote procurement of clean vehicles**".

- ✓ Electricity
- ✓ Hydrogen
- ✓ Liquid biofuels
- ✓ Synthetic and paraffinic fuels (e.g. Gas-To-Liquid)
- ✓ Liquefied Petroleum Gas (LPG)
- ✓ Natural gas, including bio-methane, in gaseous (CNG) and liquefied form (LNG)

[illegible]

Directive 2014/94

Alternative fuels 1/2



A minimum infrastructure to be implemented through national policy frameworks for:

- 1. Electricity:** publicly accessible recharging points to be built **by 2020 to allow the circulation of EVs Union-wide, both in urban and sub-urban areas,** as well as on the TEN-T Core Network.
- 2. Liquefied Natural Gas (LNG):** publicly accessible Natural gas/bio-methane refuelling points for road vehicles and ships/vessels, **with common standards,** on the TEN-T Core Network;
- 3. Compressed Natural Gas (CNG):** publicly accessible refuelling points to allow the circulation of CNG vehicles Union-wide, both in urban and sub-urban areas, as well as on the TEN-T Core Network;
- 4. Hydrogen:** sufficient number of publicly accessible refuelling points, with common standards, **in the Member States who opt for hydrogen infrastructure.**

Alternative fuels for transport

Directive 2014/94 on the deployment of infrastructure for alternatively fuelled vehicles and ships, with common standards and consumer information:

DEPLOYMENT OF ALTERNATIVE FUELS INFRASTRUCTURE	DATE
Electric vehicle recharging points – Urban agglomerations	2020
CNG - Urban agglomerations	2020
CNG - TEN-T Core Network	2025
Hydrogen	2025
LNG - Heavy duty vehicles	2025
LNG - Maritime ports	2025
LNG - Inland Waterways	2030
Shore-side electricity	2025

- MS will prepare **National Policy Frameworks** and submit them by 18/11/2016
- Minimum infrastructure coverage with common standards required
- e-mobility interoperability agreement of principle in Sustainable Transport Forum sub-group

STANDARDS	CEN/CENELEC ADOPTION DEADLINE
Electric vehicle recharging points	In force
L-category recharging points	31/12/2016
CNG connectors/ receptacles	31/12/2016
LNG connectors/ receptacles	31/12/2016
CNG refuelling points	31/12/2016
LNG refuelling points HDVs	31/12/2016
Hydrogen connectors	31/12/2016
Hydrogen refuelling points	31/12/2017
Hydrogen purity	31/12/2017
Hydrogen fuelling algorithms	31/12/2017
LNG refuelling points waterborne	31/12/2017
Shore-side electricity – Maritime ports	31/12/2018
Shore-side electricity – IWW ports	31/12/2018
Electric Bus connectors	31/12/2019
Wireless charging cars & LDVs	31/12/2019
Wireless charging buses	31/12/2019
Electric vehicle battery swapping	31/12/2022

Clean Transport Follow-up...



- **Guidelines to help Member States to prepare their National Policy Frameworks** - with data collection, best practises and recommendations - available online
http://ec.europa.eu/transport/themes/urban/studies/urban_en.htm
- **Fuel price comparison** – work on-going
- **Sustainable Transport Forum** --> to tackle specific issues such as **electro-mobility market of services**, interoperability and **alternative fuels in cities** - *To follow the work:*
<http://ec.europa.eu/transparency/regexpert/EC>
-> Registration number: E03321
- **Standardisation mandate to the CEN/CENELEC** (adopted in March 2015) - work on-going (e.g. recharging for e-buses)
- **The EU Alternative Fuels Observatory** - www.eafo.eu

Funding research and infrastructure



• **HORIZON 2020: R&D funding**

- Urban mobility = CIVITAS label (66.5 mEUR in 2015): electro-mobility topics
- Smart Cities and Communities (106 mEUR in 2015)
- SME transport fund: 58 mEUR (2016-2017)
- **Green Cars Initiative**, Fuel Cells and Hydrogen (PPPs)- **> GV calls : now with a price for the cleanest engine!**
- **ELENA – EIB facility**: technical assistance with EIB + **JESSICA** (sustainable urban-renewal projects).

• **European Structural and Investment Funds**

- **TEN-T/CEF for innovation and urban nodes**
- **EFSD financial instruments -> blending with grants !**

The European Fund for Strategic Investments (EFSI)



European
Investment
Bank

- €21 billion guarantee to leverage an extra financing capacity of €255 billion => total extra financing of €315 billion
- Cities and private promoters active in cities should engage with the EIB and the National Promotional Banks
- Investment Platforms will be created under the EFSI Regulations for certain countries and sectors, for example transport

Invest for the future



- **EFSI guarantee** will enable the EIB to take riskier projects, e.g. smart urban mobility and alternative fuels projects
- **Research and innovation** is one of the key priorities, as is **urban mobility**.
- Innovative projects can also employ **financial instruments**, facilitated by investment platforms
- **Advisory Hub** : one-stop-shop / work together with a network of national promotional banks.
- **Regional hubs are likely to be created:**
<http://www.eib.org/eiah/index.htm>



Clean buses platform

- EIB and the European Commission – announced the creation of a new Clean Transport Financing Facility. facility to be ready for 2017.
- Clean (alternatively fuelled) buses to be a priority for investment.
- In parallel, DG MOVE is advancing discussions with cities, operators and manufacturers, to better match demand and supply.



Thank you for your attention!

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