

FUELLING FRANCE'S FUTURE

Low-carbon vehicles can generate 66 000 jobs and reduce passenger cars' CO2 emissions by over 40% by 2030 in France.

Paris, Wednesday 25 November 2015 – France can boost its growth by 0.2% and create 66 000 jobs by 2030, including in the car industry.

The smart deployment of low-carbon car technologies would allow a reduction of French spending on oil imports of €5.9 bln per year in 2030. The transition to mobility fuelled by a growing share of electricity, for example from renewable sources, and hydrogen produced locally would bring important economic benefits for France.

These are the main conclusions from a new study "En route pour un transport durable" published today and conducted by a group of French and European enterprises and NGOs. The technical analysis has been conducted by Element Energy and Artelys and the economic modelling by Cambridge Econometrics.

Key findings :

- Total annualised cost of mitigation technologies across French light duty vehicle fleet in 2030: €6.1 bln (this spending is of course a revenue for the automotive value chain)
- Total reduction in annual energy costs across French light duty vehicle fleet in 2030: €12.4 bln. (€591 per motorist per year (if energy taxation approach unchanged. Based on IEA oil price projections))
- Annual reduction in French spending on oil imports in 2030: €5.9 bln
- Reduction in annual revenues for the French refining sector: €470 mln
- Increase in annual revenues for French producers of electricity and hydrogen: €3.1 bln
- Net employment impact: 66,000 – 71,000 net additional jobs in 2030 (split 50/50 between automotive value chain and wider economy), (the range represents different approaches to handling the tax shortfall that results from lower tax revenues on fossil fuels)
- Reduction in CO2 in 2030 (vs 2015): 40%
- Reduction in Nox in 2030 (vs 2015): 72%
- Reduction in particulate matter in 2030 (vs 2015): 92%
- Annualised cost of reinforcing French electricity distribution network to allow EV integration: €150 mln in 2030 in dumb charging scenario, or €10 mln in smart charging scenario (cost of smart charging infrastructure = €90 mln)
- Annualised potential benefits from EV integration in French electricity grid in 2030: €240 mln (from short-term reserve, response and avoided curtailment)
- Maximum number of e-drive vehicles that can be deployed without increasing demand for generating capacity: 4 million in 2030 (>20 million with smart charging)

ABB :

"For ABB, tomorrow's mobility lies in electricity : passenger cars, buses, ships,... As demonstrated in the report, electric vehicles and associated infrastructure will play a growing part in mobility, not only to improve air quality but also to bring larger advantages to the whole energy system", Jacques MULBERT President, ABB France.

AFA, Association française de l'aluminium and EA, European Aluminium :

"Designing energy efficient vehicles can not be achieved without a sustained and thoughtful approach to the choice of materials. This choice must not only be influenced by the design, safety and weight reduction, but also by the never-ending recyclable nature of the material. This report clearly shows that the French and European industry is committed to innovation and provides materials meeting the challenges of tomorrow's vehicles", Caroline COLOMBIER, General manager, Association française de l'aluminium.

AIR LIQUIDE :

" The energy transition will only be completed by also including transport and through the spread of electric motors. In this context, hydrogen is the missing link that can store renewable energy and provide it for clean transportation", Pierre-Etienne FRANC, Director Advanced markets and technologies, AIR LIQUIDE.

CFDT FGMM :

" From the perspective of employee representatives, this study demonstrates that low-carbon technologies are an opportunity to create new jobs in our territories in all sectors relevant to the car industry. Current developments concerning approval of the vehicles must not be an excuse to slow down the transition but should be an opportunity to train employees to prepare for these changes", Philippe PORTIER, Secretary General, CFDT Métallurgie.

ERDF :

"The development of clean vehicles, emitting no CO2, is a key factor in achieving European energy and climate objectives, and helps reduce the share of oil products in final consumption", Michel DERDEVET, Secretary General and member of the board, ERDF.

FONDATION NICOLAS HULOT POUR L'HOMME ET LA NATURE :

" The analysis showed that with an intelligent charge and a concurrent deployment of solar PV in France, the development of electric vehicles seems realistic without any particular need for nuclear capabilities, facilitating the evolution towards a higher integration of renewables in the electricity mix", Mathieu ORPHELIN, Spokeperson, FONDATION NICOLAS HULOT.

GROUPE RENAULT :

"The results of this study reinforce Renault's strategy as the first European manufacturer to have invested in electric vehicles. They are today a sustainable mobility solution accessible to all. The 280,000 electric vehicles in circulation produced by the Renault-Nissan Alliance are already contributing to improved air and life quality in our cities. The carbon footprint of electric vehicles, already low in France, will be further reduced by the on-going development of renewable energy", Jean-Philippe HERMINE, Director for environmental planning and strategy, GROUPE RENAULT.

European manufacturers of storage batteries (EUROBAT) :

" EUROBAT welcomes the results of this study showing that electrification and hybridization of transportation have beneficial effects for the economy and French society. The batteries are at the heart of improving vehicles energy efficiency thanks to the different levels of hybridization and electric mobility. EUROBAT's priorities in terms of R&D will support this transition. We call on public officials to consider these studies as part of the decarbonisation of transport discussion ", Alfons WESTGEEST, Managing Director, EUROBAT.

LANXESS :

"Low-carbon mobility is not only a challenge for car manufacturers. Success can only be achieved if the most advanced companies work closely together to develop innovative solutions", Hartwig MEIER, Head of PAD Engineering Plastics chez LANXESS.

MICHELIN :

"This report demonstrates that low carbon automotive technologies represent an important growth potential for the French economy. It is important that the means are given to all players in the industry in order to develop their solutions together. At Michelin, we deeply believe in it. Our efforts in research and development for the tyres of the future and our investment in fuel cells, for example, demonstrate this commitment", Eric VINESSE, Directeur of pre-development, Michelin.

The summary of the study and the technical report can be [downloaded here](#).

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