

PRESS RELEASE

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Automotive Council UK presents Energy & Fuels Roadmap for 2050

Professor Neville Jackson, Ricardo's chief technology and innovation officer, presented the results of a research project carried out by the Automotive Council UK, to establish a long term (to 2050) transition from current gasoline and diesel fuels to a majority renewable energy portfolio

The research, presented at last week's Open Forum organized by the Society of Motor Manufacturers and Traders in London, aimed to create a high level consensus view for the future of transport energy in the UK that is consistent with the passenger car, heavy duty/off highway and advanced combustion engine technology roadmaps previously published by the Automotive Council. Chaired by Professor Jackson of Ricardo, the research team that produced the report was made up of representatives drawn from a wide range of industry stakeholder organizations including BP, Shell, Jaguar LandRover, Caterpillar, the Energy Technologies Institute, the Low Carbon Vehicle Partnership, E4tech, Element Energy and Associated British Foods.

In the near term, the roadmap sees the renewable content of gasoline moving to E10, subject to the Renewable Transport Obligation target being raised by Government. Beyond this, there is a strong preference on the part of auto industry that further increases in bio content should be made using so-called 'drop-in' fuels – renewable sources that can be blended with existing petroleum based products without major changes or investments required to engine systems, storage and distribution systems.



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On electrification, the roadmap shows increasing use of battery electric and plug-in vehicles but also highlights the potential use of ‘power to gas’ technologies. These would enable electrical power – not least possible surpluses generated from intermittent renewable resources – to be used to create hydrogen and synthetic methane. As the roadmap illustrates, however, these potential future sources of renewable gas may be best used in the refinery process to reduce the carbon content of liquid fuels. While this may at first sight appear counter-intuitive, the team consider that this approach may provide a more sustainable and lower infrastructure investment option than using renewable gases directly in transport to displace fossil sources of natural gas.

The roadmap presents this scenario of ‘drop-in’ renewables and ‘power to gas’ components in a significantly reduced carbon fuel chain of liquid fuels distributed, stored and performing in broadly similar terms to today’s fossil based products, as providing a highly practical means of moving towards a much more sustainable future for transport. It will however require fuel specifications and standards to be defined at the minimum of an EU and ideally a global scale.

“The energy and fuels roadmap that the Automotive Council is presenting today, sets out what we believe to be the most plausible and attractive pathways for the UK to achieve its targeted 80 percent reduction in total greenhouse gas emissions,” commented Ricardo chief technology and innovation officer Professor Neville Jackson. “This vision cannot, however, be realized without coordinated efforts on the part of industry, government and regulators. By combining the views and opinions of experts drawn from an extremely wide range of stakeholder organizations and industries, we believe that we have been able to demonstrate that the result is indeed achievable if the right economic, policy and regulatory conditions are put in place.”

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NOTES TO EDITORS:

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