



# PRESS RELEASE

28 May 2019

## **Ricardo report supports zero emission vision for UK heavy goods vehicles**

**A new Ricardo study – commissioned by the Committee on Climate Change as part of research for its ‘Net Zero’ report – outlines the costs and requirements of infrastructure to support a zero-emission heavy goods vehicle fleet in the UK by 2050**

To meet the UK Government’s proposed decarbonization targets, heavy goods vehicles need to become net zero emission by 2050. With electric and hydrogen vehicles emerging as viable alternatives to diesel in the passenger car fleet, the most cost-effective route to decarbonizing the heavy-duty vehicle sector is not straight forward. Policy makers need a full understanding of the entire eco-system that will enable net zero emission heavy goods vehicle transport to become a reality. The new study from Ricardo provides the much-needed insight into the infrastructure required to enable the shift to net zero emission transport for heavy goods vehicles.

A range of infrastructure types were considered in the study, including refuelling stations for hydrogen fuel cell electric vehicles; depot-based chargers and ultra-rapid charge points at strategic locations for battery electric vehicles; electric road system infrastructure – specifically overhead catenaries for battery electric or battery hybrid vehicles; and hybrid solutions combining elements of the above.

The outputs of the study have led the Committee on Climate Change to recommend the Government to make decisions on how heavy goods vehicles will be decarbonized by the second half of the 2020s, due to lead times on infrastructure and turnover of vehicle stocks. Following the results of this infrastructure study, further work is required to investigate vehicle costs and electricity network upgrade costs to formulate a full understanding of the most cost-effective route for the shift to zero emission heavy goods vehicles.



Ricardo's approach involved the development of a complex model to assess the infrastructure costs and requirements for zero emission heavy goods vehicle deployment for several technology-focused scenarios. Ricardo was uniquely positioned to develop this model by drawing on extensive experience and expertise from across the Ricardo group, including from the energy and environment, strategic consulting, automotive engineering and commercial vehicle teams. The model also utilized prior research on alternative fuels for light-duty vehicles and engagement with industry stakeholders, including infrastructure suppliers and manufacturers, road operators, road freight trade associations and current infrastructure operators. The scenarios, developed in conjunction with the Committee on Climate Change, were constructed to assess the infrastructure requirements for a fully zero emission heavy goods vehicle fleet in the UK by 2050, or as soon as practical thereafter.

In addition to estimating the infrastructure costs for net zero emission heavy goods vehicles, the project also considered issues around build rates and other infrastructure changes needed to deliver these scenarios. Identification of these challenges will help policy makers consider the broader implications of the deployment of various types of infrastructure, facilitating well-informed decision-making.

The study highlighted that implementing infrastructure that would support zero emission heavy-duty vehicles is achievable, but consideration needs to be made for a number of key challenges including: planning, co-ordination, supply chains, resource and materials, a skilled workforce and requiring a strong government policy to enable the market to deliver.

Denis Naberezhnykh, Ricardo's technical director for sustainable transport said, "Transitioning to zero emission heavy goods vehicles will be necessary for the UK to meet its challenging decarbonization targets, in line with the country's commitment to

the Paris Agreement. Ricardo used its extensive technical and analytical capability, and ability to engage with the different industry sectors, in carrying out this complex and market-leading research. Our analysis of the infrastructure requirements and costs for the different technology options to support such transition has shown that annualized costs of infrastructure and fuel for all scenarios are lower than the diesel-baseline. This study identifies that as well as a significant environmental benefit, there is also an economic opportunity from decarbonizing the heavy goods vehicle sector.”



The full Ricardo report *Zero Emission HGV Infrastructure Requirements* is available on the Committee on Climate Change’s website - <https://www.theccc.org.uk/publication/net-zero-technical-report/>

Ends



## NOTES TO EDITORS:

**Ricardo plc** is a global, world-class, multi-industry consultancy for engineering, technology, project innovation and strategy. Our people are committed to providing outstanding value through quality engineering solutions focused on high efficiency, low emission, class-leading product innovation and robust strategic implementation. With a century of delivering excellence and value through technology, our client list includes the world's major transportation original equipment manufacturers, supply chain organizations, energy companies, financial institutions and governments. Guided by our corporate values of respect, integrity, creativity & innovation and passion, we enable our customers to achieve sustainable growth and commercial success. Ricardo is listed in the FTSE4Good Index, which identifies global companies that demonstrate strong environmental, social and governance (ESG) practices. For more information, visit [www.ricardo.com](http://www.ricardo.com).

**Ricardo Energy & Environment** is a leading sustainability consultancy, helping clients to respond to environmental challenges and opportunities around the world. Its team of over 450 staff draws on an impressive heritage supporting governments and businesses for over 40 years. The consultancy is an operating division of Ricardo plc.

## Media contacts:

Trevor Glue  
Ricardo Energy & Environment  
Tel: +44 (0)1235 753429  
Email: [trevor.glue@ricardo.com](mailto:trevor.glue@ricardo.com)

Anthony Smith  
Ricardo Media Office  
Tel: +44 (0)1273 382710  
E-mail: [media@ricardo.com](mailto:media@ricardo.com)