

Refrigerated transport innovation eyed in government clean air plans

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Fuel duty rates and their potential impact on innovative refrigerated transport technologies are among consultation areas intended to transform HVAC infrastructure to try and tackle air pollution.

The government has announced it will be reviewing fuel duty rates and their possible impact on uptake of petrol and diesel alternatives for technology such as refrigerated transport as part of its draft Clean Air Strategy that has been published today.

Industry feedback is being sought until 14 August on new proposals set out in the strategy that are intended by 2025 to halve the number of people living in areas with particulate matter levels recorded above WHO guideline limits of 10 ug/m³.

Other proposals are focused on introducing primary legislation to create new government powers for tackling air quality and focusing on the sales of cleaner domestic fuels, as well as investing in innovative new industrial and domestic technologies.

A broad range of proposals including reviewing financial initiatives such as the non-road diesel tax rebate that the strategy argues may have made use of the fuel a lower-cost option for running equipment such as transport refrigeration over more innovative cooling technologies.

The draft strategy said, "The non-road diesel rebate also costs the public purse £2.4bn each year, compared to if duty was charged at the main rate. The government has launched a call for evidence on non-road mobile machinery usage, its impact on air quality, and the interaction between the availability of red diesel and uptake of cleaner technologies, especially in urban areas."

The draft strategy has been published as part of four interconnected government strategies that have focused on trying to tackle key environmental concerns and the economic impacts of addressing them. This interconnected approach will include the government's new Industrial Strategy, 25 Year Environmental Plan and the Clean Growth Strategy.

The draft Clean Air Strategy document stated, "Air pollution is a result of the way we currently generate power, heat our homes, produce food, manufacture consumer goods and power transport. Better, cleaner technologies and simple changes in behaviour will tackle the pollution that claims lives."

"In the past, the priority was to tackle the biggest individual sources of pollution. As these major sources of emissions have decreased, the relative contribution of smaller and more diffuse sources of air pollution, like smaller industrial sites, product use, open fires in homes and spreading manure on farms, has increased."

Cooling innovation

Case studies are also outlined in the strategy with regard to potential cooling technologies such as retailer Sainsbury's decision to implement a refrigerated delivery truck that makes use of a liquid nitrogen powered engine to curb emissions. The project has been undertaken as part of ongoing trials of technology across Europe provided by Dearman to improve supply chain efficiency of cooling.

Other examples of potential innovation in the built environment given in the report include a project undertaken by an organisation called EarthSave that aims to curb environmental impacts and improve performance within energy-intensive sectors.

The report said, "The project aims to develop a prototype heat recovery system using a novel 'wet scrubbing' system. This could provide cooling, power generation and hot water services, whilst reducing air pollutants and carbon dioxide emissions."

“Members of the research consortium have previously tested the ‘wet scrubbing’ system and found it reduced particulate matter emissions by up to 90 per cent and nitrogen oxide emissions by over 80 per cent. This is alongside carbon dioxide emission reductions of up to 20 per cent and the production of clean water for recycling and use in the wet scrubbing system.”

Environment Act

Greener UK, which is a coalition of 13 environmental organisations including Greenpeace and Friends of the Earth, welcomed commitments in the Clean Air Strategy to introduce new primary legislation to curb pollution, but said government must be more ambitious with regulatory reform.

Greener UK head Amy Mount [argued](#) that an ‘Environment Act’ should be introduced to ensure sustained and binding commitments to police infringements of environmental ambitions, which must also be backed by effective oversight.

She said, “None of these high standards are likely to be met without a powerful and well-resourced green watchdog. The EU has played an important role in ensuring governments implement environmental law. After Brexit, we need a new body that has the same power to take the government to court.”
