



Zemo Partnership NEWS

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Refreshed retrofit guide published to help operators tackle polluting emissions as first CAZ launches in Bath

Retrofit solutions for existing vehicle fleets; can cut emissions and help operators meet ULEZ/CAZ/LEZ emission standards

To coincide with the introduction of the UK's first Clean Air Zone in Bath¹, Zemo Partnership (formerly LowCVP) has published an updated Clean Vehicle Retrofit Technology Guide to highlight the role that the wide range of retrofit technologies can play in improving air quality by cleaning up the existing vehicle fleet.

There is a significant air quality challenge currently facing UK towns and cities, with an estimated 40,000 early deaths caused by poor air quality, with the poorest and most vulnerable in society most affected. Road transport is responsible for up to 80% of roadside NO_x in towns and cities, with older diesel vehicles contributing most harmful emissions.

Following the introduction of the Bath Clean Air Zone today, Birmingham will launch on June 1st this year and other CAZs will follow in cities throughout the UK.

The Clean Vehicle Retrofit Technology Guide aims to give vehicle operators and local authorities an understanding of national air quality frameworks for reducing roadside NO₂ concentrations, providing case studies with examples of a range of accredited retrofit technologies that achieve Euro VI-equivalent levels of emissions through the Clean Vehicle Retrofit Accreditation Scheme (CVRAS)². The Guide covers technologies accredited for buses, coaches, trucks, refuse collection vehicles and black cabs. (Many are also applicable to vans and minibuses.)

¹ Outside of London's Ultra Low Emission Zone (ULEZ), introduced in 2019 and Glasgow's LEZ (buses only phase one) in 2018.

² To support business and vehicle operators in meeting the emissions standards, the Joint Air Quality Unit (a collaboration between DEFRA and DfT) commissioned the Energy Saving Trust and Zemo Partnership (then LowCVP) to produce a robust accreditation process for retrofit technologies; the Clean Vehicle Retrofit Accreditation Scheme (CVRAS).

NOx abatement technologies such as Selective Catalytic Reduction (SCR) and Euro VI engine repower can provide cost-effective alternatives to purchasing new CAZ or ULEZ-compliant vehicles. Of course, retrofitting a fully electric drivetrain will also eliminate tailpipe emissions, but these too need to be accredited to ensure robust standards. Case studies and total cost of ownership (TCO) examples for accredited technologies are included in the guide to direct readers to the most suitable solution.

The CVRAS standards have also been adopted by Transport Scotland and Transport for London (TfL), so that a vehicle with CVRAS-approved technology installed is identified in the central national database and can enter Low Emission Zones in Scotland, CAZs across England and the ULEZ in London, without receiving a penalty charge. It's important to note that only CVRAS-approved retrofits are compliant with the emission zone standards.

Zemo Partnership's Project Manager, **Dan Hayes**, said: "Cleaning the air is one of the most urgent challenges we face and the introduction of the UK's first Clean Air Zone – following London's ULEZ and Glasgow's LEZ – will help to focus more minds on how we can tackle this challenge.

"Retrofit solutions have been one of the key 'tools in the box' to help owners of existing vehicles meet the strengthening emissions requirements without completely replacing their fleet in one go.

"Twenty years ago the uptake of particulate traps was accelerated in this way and, today, NOx reduction technologies (mandated on all new vehicles) are now available to be retrofitted to a wide range of commercial vehicles. With funding support available in many local areas, retrofitting can be an attractive option for hard pressed operators to clean up emissions from existing vehicles."

Nick Harvey, senior programme manager at Energy Saving Trust added: "Delivered with Zemo Partnership, the Clean Vehicle Retrofit Accreditation Scheme (CVRAS) provides valuable assurance for operators of buses, coaches, heavy goods vehicles, minibuses, taxis and vans to help identify which companies and emission reduction systems best suit their needs while conforming to the requirements of clean air zones. The introduction of clear air zones is welcomed as we work towards improving local air quality and lowering carbon emissions."

The CVRAS Register is a useful free tool to identify which CVRAS-approved companies and emission reduction systems suit vehicles best, based on make, model and engine type to support companies' efforts to improve their fleets, and lists the only retrofit options available that comply with the Clean Air Zones, Ultra Low Emission Zones, and Low Emission Zones. The Register is [available here](#).

A digital download of the Clean Vehicle Retrofit Technology Guide is [available here](#).

To download an image of the report cover, [click here](#).

Vehicle checkers to see whether you will have to pay an access charge for a CAZ or ULEZ or penalty charge in Scotland are available:

- CAZ checker ([Link](#))
- LEZ checker ([Link](#))
- TfL ULEZ checker ([Link](#))

NOTES TO EDITORS

Zemo Partnership (www.zemo.org.uk), formerly LowCVP, was established in 2003 as a public-private partnership working to accelerate a sustainable shift to lower carbon vehicles and fuels and create opportunities for UK businesses. Over 200 organisations are engaged from diverse backgrounds, including automotive and fuel supply chains, government, vehicle users, academics, environment groups and others. In February 2021 the organisation changed its name to reflect heightened ambition as the UK embarks on a trajectory to achieve net zero greenhouse gas emissions by 2050.

Energy Saving Trust is an independent organisation dedicated to promoting energy efficiency, low carbon transport and sustainable energy use. We aim to address the climate emergency and deliver the wider benefits of clean energy as we transition to net zero. We empower householders to make better choices, deliver transformative programmes for governments and support businesses with strategy, research and assurance – enabling everyone to play their part in building a sustainable future.

<https://energysavingtrust.org.uk/>

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