

Interview with Neil Wallis, Head of Communications at Zemo Partnership



Neil is responsible for all [Zemo Partnerships](#)' (formerly LowCVP – the Low Carbon Vehicle Partnership) media, communications and events. He has worked in both the public and private sectors in a variety of policy, public affairs, business development and communications roles.

After 7 years with the energy company, Texaco, and a two-year assignment as a VSO volunteer, Neil joined the Energy Saving Trust's nascent transport programmes division before coming to Zemo Partnerships. He has a degree in Economics and Politics, a Masters in Business Administration and a Postgraduate Certificate in Journalism. He is a Fellow of the Royal Society of Arts. Neil is responsible for media and parliamentary communications and for aspects of the Secretariat's information management.

What benefits do LEVs offer?

To tackle climate change the UK government has a legal target to meet net zero greenhouse gas emissions (which effectively means zero emissions transport) by 2050. Cars and vans with an internal combustion engine are to be phased out by 2030/5 and other vehicle types are expected to follow.

All sectors of transport in the UK will be affected and people will need to be using increasingly low emission vehicles (LEVs), leading to fully zero emission vehicles (ZEVs) before 2050.

Low and zero emission vehicles are important not just in terms of tackling climate change but also to deal with air pollution which has become an increasingly urgent problem, though mostly in urban areas.

Why is accelerating the decarbonisation of rural infrastructure so important and what is being done to develop the necessary infrastructure in both urban and rural locations?



In order to meet the targets and reduce the impacts of climate change, all sectors will need to be tackled and a recharging infrastructure that is fit-for-purpose in both town and country areas will be vital for people, wherever they happen to live.

Moreover, the lockdowns associated with the pandemic have shown that many people can much more easily live and remote work in rural areas so it's likely that we'll see some migration out of the cities, putting more pressure on rural infrastructure and other resources.

There will need to be a focus not just on recharging infrastructure for electric vehicles but also for home heating.

Aside from transport and energy, all types of infrastructure (telecoms, water and waste systems etc) will also need to focus on, and reduce, the carbon footprints of their operations in the coming decades.

Which are the most likely farm transport fuel scenarios to develop – electric, hydrogen or biogas?

We expect electrification to dominate the markets for smaller and medium-sized vehicles in the medium to long-term. Battery costs and range capabilities are heading in the right direction fast; there's already a good commercial case for EVs for many uses and the range of cost-effective applications is increasing rapidly. The recently announced 2030/5 ICE phase-out deadline for new car and van sales will help to accelerate progress.

Apart from electrification, we'll also need to take opportunities to decarbonise the fuels that we'll be using in conventional fleets and operations. Demand for certain types of ICE vehicles may last to the mandated 2050 deadline. There will be opportunities for biogas and other renewable fuels suppliers and users, and some attractive niche applications in farm transport. Fuels have to be verified as sustainable and contribute to emissions reductions. Zemo Partnership's [Renewable Fuels Assurance Scheme](#) is designed to verify claims made by companies supplying renewable fuels to end users. Waste and residues are expected to be increasingly important feedstocks.

What role do you see hydrogen playing in this market, now and in the future?

Green (renewably-sourced) hydrogen could well have an important role to play in fuelling some transport applications, especially those particularly hard to fully electrify. This will require additional renewable electricity generation capacity and mechanisms to ensure that hydrogen is produced (through electrolysis) at times when energy supply exceeds demand.

There are big cost, energy efficiency and infrastructure challenges but the rapid growth in renewable energy production in the UK make this an increasingly realistic prospect and a business opportunity for the rural sector.

What LEV related opportunities are there for farmers?

There may well be a business case for some farms to install electric charge points but this will be very location-specific. In certain circumstances there will be a business case for the installation of charge points which are accessible to the public. Farms with employees may also be able to benefit from grant support through the Government's Workplace Charging Scheme.

Farmers and landowners would need to fully consider the health & safety, insurance implications of allowing third-parties on to their land for recharging (or other) purposes, of course.

There are an array of opportunities connected with the production of renewable energy (especially wind and solar) by farmers which, ultimately may be used in transport, either directly as electricity or renewably-sourced hydrogen.

There may also be opportunities for the production of some biofuels for use in transport, though farmers need to be aware of the detailed sustainability requirements, including the potential for negative indirect effects where fuel crops are displacing food crops or environmentally important habitats. Biomethane is likely to be the key renewable fuel for much of the farming sector for the foreseeable future.

Farmers, rural businesses and landowners will have a very important part to play in both the decarbonisation of our energy supplies and in the provision of that energy for transport purpose. There are a wide range of very significant business opportunities for those who really embrace the opportunities presented by the coming energy and transport transitions!

The electric tractor – how far away are we from seeing powerful tractors go electric?



Market research firm IDTechEx predicted \$50 billion in sales of electric farm equipment during the next decade.

The first electric tractor (the small Farmtrac 25G) became commercially available in late-2020 but much larger and more powerful products are in the pipeline, particularly in the US.

Georgia-based AGCO (one of the top ten agricultural equipment manufacturers in the world) is planning a global refresh of its mission to include electrified farm machinery and a range of autonomous and high-tech analytical applications.

AGCO isn't the only big equipment provider to be ploughing this particular furrow; UK start-up Small Robot Company envisions an electrified future and is developing 'farmbots' that can weed, plant and feed crops. Japanese company Kubota is beginning to market an autonomous, electric tractor with four treads instead of wheels that can traverse all sorts of terrain. Meanwhile, another US supplier, Monarch Tractor has introduced a fully electric, "driver optional" smart tractor (\$50,000 in US). It claims "hundreds" of pre-orders for deliveries planned to begin in autumn 2021.

The huge John Deere company is also reported to be developing electrified farming equipment, including an autonomous, electric tractor.

The electrification of farm machinery could become a particularly enticing prospect for farms with on-site renewable generation, cutting costs and improving productivity. Advances in the cost and efficiency of batteries in the automotive industry should spill-over into the prospects for tractors and other agricultural machinery.

Enabling sustainable farm production – using less energy and inputs – is expected to be a core tenet of future product design. Farmers will be encouraged to move away from heavier equipment to help reduce soil compaction, allowing fields to absorb and sequester more carbon dioxide from the atmosphere.

Are there any low emission vehicle grants available to farmers?

In addition to the [Workplace Charging Grant Scheme](#) mentioned above farmers (like anyone else) can access the [Plug-in Car, Van and Truck grants](#). There are a range of significant business-related tax benefits for vehicle/equipment purchase and other tax benefits and funded opportunities are likely to be available for capital expenditure on investments to reduce carbon dioxide emissions.

Many Local Authorities and County Councils have committed to ambitious net zero targets of their own, so it is also a good idea to check for any rural/farming/business support schemes in your area.

Are we on track to ban the sale of new petrol and diesel vehicles by 2030?



Sales of 'conventional' petrol and diesel cars and vans are scheduled to end in 2030 but there will be a stay of execution to 2035 for vehicles that have a 'significant zero emission range'. Details are to be finalised soon but this means that some new plug-in hybrids that have a substantial battery as well as an internal combustion engine may still be sold between 2030-5.

The market is moving very quickly, with manufacturers ramping-up production globally and battery prices falling fast. Many forecasters are now suggesting that the car and markets could 'flip' rapidly, but there remain big challenges in terms of developing the appropriate mix of infrastructure to enable regular, local recharging and rapid charging for longer distances. In any event, some ICE vehicles – and the fuel and infrastructure to supply them – will almost certainly be available beyond 2035.

For those with the means as well as access to suitable, local recharging facilities, electric vehicles are already the lower cost alternative in many situations; and forecasts suggest that the total cost of ownership of EVs will become lower for the majority of use profiles compared with their conventional ICE counterparts in the next few years. So there is a very real prospect that by 2030 there will be very little, if any, demand for cars and vans with a combustion engine – the full electric offerings will be cheaper to own and use, quieter, more reliable and altogether far more desirable than the "fossil vehicles" of yesteryear.

To find out a lot more about the transition to zero emission vehicles, join (free to delegates) the **Zemo Partnership Annual Conference, being held online on Tuesday July 20**, with Energy Now as a media partner! Transport minister, Rachel Maclean MP will deliver a keynote and there will be a range of expert speakers commenting on the decarbonisation plan for transport as well as an array of potential solutions to the challenges

More information on the conference and the Zemo Partnership can be found on the [company's website](#).