



Case study

South Yorkshire Police

South Yorkshire Police is a regional constabulary serving Barnsley, Doncaster, Rotherham and Sheffield, an area with a population of 1.2 million. They have a fleet of approximately 700 vehicles, ranging from traffic patrol vehicles to general purpose vehicles delivering mail.

Recent years have seen major improvements in the management of South Yorkshire Police's fleet. Efforts to maximise vehicle utilisation, introduce telematics and adopt fuel-efficient driving have resulted in significant cost savings and a lower environmental impact. Following a successful long-term trial, their latest venture will be introducing twelve new electric vans, a move set to save the force over £100,000 in whole life costs.

Challenge

Exhaust emissions from vehicles lead to poor air quality. Some sections of urban motorways are causing particular concern due to their high density of traffic and proximity to large numbers of people.

Highways England are responsible for the Strategic Road Network and are looking for solutions to improve air quality for people using and living near urban motorways. Greater uptake of electric vans by regular users of urban motorways, such as South Yorkshire Police on the M1 near Sheffield, could improve the situation.

South Yorkshire Police are not new to electric vehicles and have experience of operating ten hybrid electric Vauxhall Ampera cars for enquiry work. However, fully electric vans represent a new experience for the force's drivers.

In general, the electric van market is less well developed than the electric car market with fewer models available, especially for cost-effective, larger vans with mileage ranges to suit their needs (i.e. 120 miles). Other challenges include installing charging infrastructure in commercial buildings and the suitability of current models for higher speed, higher payload motorway driving in comparison to urban driving and deliveries.

Process

To explore the barriers and opportunities for regular motorway users to adopt electric vans, Highways England funded a 6 month "try before you buy" pilot project of 17 electric vans in 5 fleets across England, ending in April 2018.

South Yorkshire Police's facilities management and driver services teams received five Nissan e-NV200s, which have a real world driving range of around 70 miles on a single charge. Energy Saving Trust was responsible for the development, delivery and evaluation of the project, supporting the fleet throughout.

The force also installed three additional charging points at its sites, bringing their total to 16.



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Results

The trial proved a highly positive experience for South Yorkshire Police as the vehicles and newly installed charging points fully met their business needs and high expectations.

There were some challenges to overcome such as range anxiety and the winter weather but these were resolved with proactive management and a positive attitude from the drivers, allowing the vans to be successfully integrated into the fleet. There was even a little healthy competition between the drivers, as to who could get the most range out of the vehicles!

As a direct result of this experience, they will be taking delivery of 12 new Nissan e-NV200s in late 2018, more than the number used in the trial.

This move is set to save the force approximately £9,900 on whole life costs and over 24,700kg of CO₂ per vehicle over 4 years, compared to similar diesel engine vans together with air quality benefits. This will generate a total saving of £118,800 and over 296,000 kg CO₂.

“After taking delivery of the vehicles from Energy Saving Trust, it quickly became apparent that the electric fleet was going to bring considerable benefits to the force.

These e-NV200s are quiet and efficient with no tailpipe emissions. My colleagues have enjoyed using them, and the vans have delivered considerable fuel savings.

With just the electricity cost to meet, but no fuel bills and reduced maintenance costs to pay, it makes sound financial sense. Our new electric additions are good for our limited resources and the environment too.”

Sarah Gilding, Head of Vehicle Fleet Management

If you run a fleet, you are likely to be eligible for free of charge consultancy. For more information, [visit our website](#) or email fleetadvice@est.org.uk