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Online emissions guide, van cost and carbon calculator tools will help fleet managers make informed decisions on vehicle purchase

[Cenex](#) and the [Low Carbon Vehicle Partnership](#) have updated their [Low Emission Van Guide](#) and accompanying [Van Cost and Carbon Calculator](#) (VC3) to provide fleet managers and policy makers with the very latest data on how to make cost and CO₂ emissions savings.

The Low Emission Van Guide is aimed at operators of small-to-medium sized fleets of commercial vehicles (up to 3.5t gross vehicle weight). Twelve months after its initial launch the Guide has been updated to reflect a changing market, including new topic sheets, information for hydrogen vans, guidance on how to get involved in the low carbon van community, and much more.

The supporting online tool, VC3, has also been updated to include user-defined payload data, bio-fuel blends, congestion charge information and more.

Commercial vehicles have been contributing a rising share of road transport emissions and now account for more than 30% of CO₂ emissions from the sector. While emissions from HGVs are down by around 9% since 1990 (2014 figures), emissions from vans have grown by 48%.

Steve Carroll, Senior Technical Specialist at Cenex, said: "The current month-on-month growth in UK van registrations is good news for the motor industry, but this means UK van parc CO₂ emissions are also on the rise. As some UK cities are looking to set up clean air zones by 2020 by imposing charges on polluting vehicles, it is an ideal time to inform van owners of their alternative options to diesel. The Low Emission Van Guide and web tool make essential reading for operators who want an understanding of the key low emission van options available."

Gloria Esposito, Head of Projects at the Low Carbon Vehicle Partnership, added: “The updated Low Emission Van Guide clearly demonstrates the business, environmental and operational case for using low emission commercial vehicles. Fleet managers can access case studies showing the cost savings achievable through the use of low emission fuels and technologies, and access information on the low emission van market, government policy, infrastructure and assistance.”

The [Low Emission Van Guide](#) and [Van Cost and Carbon Calculator](#) can be found on the Low Emission Van Hub at www.lowcvp.org.uk/lev

Notes to editors:

About Cenex

Established in 2005 as the UK’s first Centre of Excellence for Low Carbon and Fuel Cell technologies, Cenex (www.cenex.co.uk) is currently celebrating ‘10 years of excellence’ in the low carbon vehicle sector. Cenex operates as an independent not-for-profit consultancy and Research and Technology Organisation, specialising in projects which support innovation and market development to accelerate the shift to a low carbon economy. Cenex runs the UK’s largest annual low carbon vehicle technology showcasing and networking event (www.cenex-lcv.co.uk).

Sue Glanville/Cate Bonthuys

Catalyst Communications

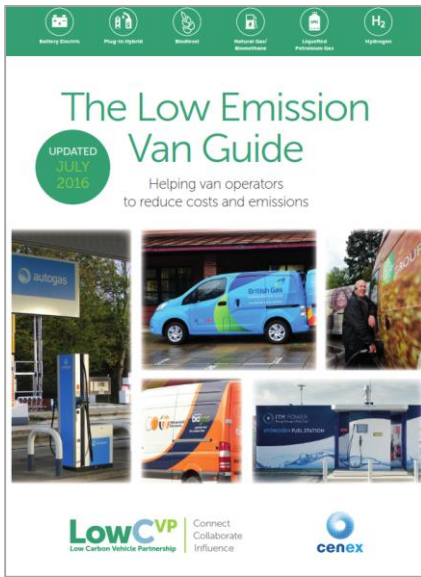
Tel: +44 (0)771 581 7589/ +44 (0)774 654 6773

sue@catalystcomms.co.uk / cate@catalystcomms.co.uk

About the LowCVP

The LowCVP is a public-private, not-for-profit partnership that exists to accelerate a sustainable shift to lower carbon vehicles and fuels and create opportunities for UK businesses. The LowCVP has been - and continues to be - mainly funded by the Department for Transport but with increasing contributions via membership fees and sponsorship/project income. Approaching 200 organisations are members, from diverse backgrounds including automotive and fuel supply chains, vehicle users, academics and environment/not-for-profit bodies.

For more information visit: www.lowcvp.org.uk



Topic Sheet 1

Battery Electric Vans

Technology Introduction

Battery electric vans (BEVs) operate entirely on electricity using an electric motor instead of a petrol or petrol engine. A high capacity battery allows BEVs to travel long distances. BEVs are classified as ultra-low emission vehicles.

Fits for Purpose

- Electric vans are suitable for regular and low mileage due to their limited driving range between recharging.
- Typically they can offer up to an 80 mile range and 100 miles (large van) range in the real-world. High payloads, aggressive driving or high heater use in winter can all reduce the available range. Range can be increased by using specialist routing software to optimise daily journeys for BEV use.
- The daily range can be extended by topping up the battery during the day.
- Public charging stations are used to top up. The growing number of fast and rapid public charging stations also allow top-up charging during the day – links to charging station maps are provided in the 'What to do next?' section at the end of this guide.
- Due to the weight of the batteries, payload for a small panel van typically reduces by around 5 to 15% with up to 20% for a large panel van. Load space is not affected.
- Some manufacturers offer (in an effort to offset purchase or battery leasing arrangements) the battery leasing option alleviates any concerns around battery life time and potential performance degradation.

Environmental performance (compared to diesel)

Trip/tonne CO₂ 100% saving

Real life cycle CO₂ 35% saving

Excellent for air quality

Low noise

Operational performance

Range
Up to 80 miles (small van) or 100 miles (large van)

Recharging times
Standard: 10 hrs
Fast: 4 hrs
Rapid: 30 mins

Headline features
City and suburbs
Back to base

Benefits
City council, 5p/h delivery and service engineer

Whole Life Cost Example

| | Nissan NV200 1.5dCi Acacia (Diesel) | Nissan e-NV200 Acacia (Electric) | Vehicle: |
|--------------------------------|-------------------------------------|----------------------------------|--|
| Vehicle | £15,050 | £22,000 | 2.2t Small panel van |
| Plug-in van grant discount | | £5,301 | Annual mileage: |
| Fuel costs | £5,449 | £2,103 | 12,000 miles (48 miles per day) |
| Road tax | £700 | £0 | Ownership period: |
| Maintenance costs | £2,114 | £1,416 | 5 years |
| Resale value | £3,096 | £4,022 | Cost saving: |
| Life time cost | £20,158 | £25,084 | £4,534 riding to £17,639 if used daily in the London Congestion Charging Zone |
| Cost per mile | 53.7p | 26.1p | The example shows the economic case for electric vehicles is strong. The plug-in van grant, lower fuel costs, zero road tax, lower maintenance costs and stronger residual value all work together to offset increased vehicle cost saving. When regional incentives, such as free on-street parking in London, are included the economic case for electric vehicles is even stronger. |
| Whole life cost savings | | £4,864 | Complete Charging Zone use (including the whole life savings) provides a 10% saving on the whole life cost of the vehicle. |

If used in the London Congestion Zone (1 day/week)

| | Nissan NV200 1.5dCi Acacia (Diesel) | Nissan e-NV200 Acacia (Electric) |
|--------------------------------|-------------------------------------|----------------------------------|
| Life time cost | £21,323 | £25,084 |
| Whole life cost savings | | £22,839 |

Note: We have calculated the whole life cost and emissions. All costs exclude VAT. Purchase Cost Commercial Fleet Van Running Cost Fuel Consumption manufacturer's literature with a 20% real-world van uplift factor applied. Fuel Cost diesel 2015 average @ 60.9p per litre, electricity @ 10.3p per kWh. Maintenance Cost Commercial Fleet Van Running Cost tool. Resale Value Commercial Fleet Van Running Cost tool. Emissions UK Government fuel emission factors applied to estimated van fuel consumption.

Case Study

Fruit 4 London is a small company, with a big environmental ethos, dedicated to delivering fresh fruit to over 200 London office every day. Running a successful vehicle fleet in 2012, Fruit 4 London operates five specific Renault Kangoo ZE delivery vans. The vans typically travel 40 to 50 miles and make up to 16 delivery stops per day. Initially attracted by the environmental benefits of zero emission vehicles, they found it was easy to make the business case work too, as Fruit 4 London director Lavinia Musto explains. Operating in the congestion charging zone saves as much as £15,000 per year over the five vehicles, but we also saving around 70% fuel savings compared to our two diesel delivery vans. Having operated BEVs for 5 years now Lavinia has also noticed the vans address the vehicles are directly responsible for 20% their carbon footprint. Fruit 4 London purchases all their electric vans on a battery leasing model, preferring the financial security and comfort of knowing that the batteries performance and lifetime are guaranteed for as long as they own the vehicles.

Which other fleets are using electric?

British Gas, Birmingham City Council, Great Cargo, Loughborough University and more

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