

Electric Vehicle Logistics: A challenge or an opportunity?

The traditional road-driven, single vehicle delivery (trade plate logistics) is a well established sector within the automotive industry. Largely unchanged for a long period, it has in recent years evolved to include data capture at the point of collection and delivery, developing a skilled workforce carrying out in-depth roadside inspections to BVRLA standards, supporting the end of contract return of assets.

With the automotive landscape as a whole undergoing a revolution as electric vehicles become increasingly commonplace, DMN Logistics asks: what's next for the logistics sector?

As the UK migrates to electric vehicles, there are a number of challenges and opportunities presented that the logistics sector must deal with to support the market.

With shorter driving ranges on a charge than a traditional petrol or diesel fuel car, longer 'refuelling' times, and heavier vehicles thanks to the battery weight, establishing a successful EV logistics plan can prove challenging. However, there are significant upsides, which with best practice solutions will now prove invaluable, both now and in the future.



EV Logistics

The challenges of EV Logistics

Single-vehicle delivery will continue to prove a vital cog in the logistics machine even within a changing automotive landscape.

While it might seem appropriate to circumvent the range-limited distance an EV can travel by placing it on a flatbed or a transporter, there simply isn't the capacity - whether that's drivers or lorries - to carry the vehicle volumes the automotive sector needs delivering each day across the country.

EV weight - usually greater than an ICE car because of the battery - also limits what vehicles can be used to safely load electric vehicles, with smaller transporters reaching legal limits in terms of payload and total weight.

As such, trade plate logistics are here to stay, but vehicle movements must be adapted to the new electric landscape.

Fuel Cards

For so long a crucial part of the delivery driver's arsenal, fuel cards are in danger of becoming redundant. There is currently no 'one card fits all' solution for multi-fuel requirements, to support movements of both ICE vehicles and EVs

Maximising Vehicle Efficiency

The drivers themselves need to adapt to learn new systems, and potentially new ways of driving to increase efficiency and reduce logistics costs. While the basic act of driving remains the same from ICE to EV, there are systems available in electric vehicles that, when made good use of, can significantly improve efficiency and extend range.

Know Your Charge Point

Drivers will be required to know how to confidently use a variety of charge points, the access requirements of different networks (a variety of apps), charging times applicable to each vehicle and charger type, and the impacts factors such as weather, load, and terrain can have on driving range.

Recharging in general will need to evolve, with logistics providers requiring analysis of both on-site charging and public offerings. Is there a need for significant on-site infrastructure at a high initial cost? Or do you rely on public charging units, which could be out of service or in use, and prove more expensive or time-inefficient?

Weighing Up Traditional Transporters

EV weights are currently only rising as manufacturers look to increase driving range with larger battery capacities. As a significant proportion of the vehicle's weight, a larger battery could push an EV over the limits of payload for smaller, single-car transporters, ruling out a vital tool for vehicle delivery.

Logistics managers will be required to not only factor in the issue of greater weight more than ever before, but existing routing and planning solutions have been designed around ICE movements; these may need full reconsideration once the fuel type is changed to electric.

Time Management

Not only are the refuelling stations in a different place most of the time, but they take longer to 'top-up' the vehicle, potentially causing problems in productivity. Despite charging times coming down, most EVs will take at least 20-45 minutes for a reasonable charge to 80%, allowing an onward journey. Compared to the current situation of a few minutes required to refill and pay, there are going to be changes required to routes and time management.

EV Logistics: The Opportunities

While there are certainly challenges facing the logistics industry with the transition to electric vehicles, there are significant opportunities, as well.

EV growth in the market is real, it is happening now - not in the future - and as with any operational changes, there may be resistance to change.

But the logistics sector needs to adapt and needs to adapt now. The early adopter will reap the advantage of being a market leader, establishing price points, service levels, and a must-have product proposition.

The rate of change will see EVs as the dominant choice in the fleet sector within the next 18-24 months, driven by governmental targets, taxation policies and the corporate and social responsibility policies of major UK corporations.



Multi-Fuel Cards

Currently familiar elements that will see significant changes include fuel cards, which are set to evolve into a multi-fuel offering. There are plans from existing providers to incorporate public EV charging networks into accounts, and new entrants are coming along with a focus on recharging electric vehicles, across multiple networks with simplified billing.

New Routing Systems

Logistics managers are seeing routing and planning systems shaken up by new entrants to the market, offering insights into range, charger availability, timings, and vehicle target charge rates.

EV-Focused Driver Training

Logistics managers also have access to driver training courses with a variety of EV focused tuition on the market. These can bring drivers up to speed with 'new' features such as recharging, EV-tailored efficient driving techniques, and handover requirements.

Improved familiarity with EV driving techniques, can significantly extend range on each leg, quickly reducing recharging costs. The greatest saving available, however, is time, with fewer or shorter charging stops, reducing lost driver productivity.

This, combined with expanding numbers of high-power charge points and EVs on the market capable of accepting such charging loads, means that charging times can come down, closer to refuelling breaks familiar to many. Newer charge points and EVs can see almost 200 miles of range added in 10-15 minutes.

Making The Move On EVs

The logistics industry must demonstrate how it can pivot its knowledge and ability acquired with ICE vehicles in the last decade to the new requirements of EVs.

At DMN we have listened to our clients and have embraced the development of our people, systems, and support process to ensure we can provide a seamless transition from ICE logistics to the new world of EV logistics.

Case Study

150 Van Fleet



DMN was contacted by one of the leading UK vehicle converters to support them in the delivery of more than 150 electric vans across the UK to a major infrastructure support business.

The initial four-week programme resulted in a combined delivery distance of more than 16,000 miles across the UK, from Perth in Scotland to Truro in Cornwall.

There was a steep learning curve, not only for the driving team, but also the operations department. Route planning had added complexity in that managers not only had to ensure the driver delivered the vehicle in minimal time and without running out of charge, but also that the EVs were handed over with a minimum of 80% charge.

Fully kitted out, the commercial vehicles had a significantly shorter range than the manufacturer's official figures, with equipment, roof racks, and ladders combining to contribute to range anxiety for a number of drivers.

The solution was to ensure that a robust and carefully plotted delivery plan was put in place, allowing flexibility in charge routing. It was communicated clearly to drivers, and dedicated support contacts set up should they encounter any issues en route.

A few lessons that were quickly learned included not running the vehicle's charge below 20%. Charging times are quickest between 20%-80%, and by retaining a fifth of the vehicle's charge in reserve allows for re-routing to a different charge point if required.

The drivers were carefully briefed on public charging, including the crucial 'handshake' between charge point and vehicle when initially plugged in. During the communication between unit and EV, if the steps are not followed correctly, this can cause delays in starting the charge, or cancel it altogether, requiring the process to be started again.

Knowledge of the current public EV charging infrastructure became crucial, with the networks suffering from reliability issues to a lesser or greater degree. UK regulations mean that public points must be 'smart-enabled' allowing live status updates from networks. Knowing where charge points are available and working is essential in driven logistics.

Certain charging locations may require registration of the vehicle or potentially even parking fees while being charged. Hotels often need a registration plate listed at reception, but some supermarkets and public car parks require something similar, or there is the risk of a penalty. Briefing the drivers beforehand to check parking requirements on a location-by-location basis reduces the number of costs being added to a job after it's complete.

Since the initial delivery project, DMN has subsequently been awarded additional volumes of 130-200 EVs with full UK wide distribution. There has been investment in BVRLA-instructor lead training courses on electric vehicles for driver control and support functions, and EV updates are regularly reported throughout the business.

About DMN Logistics

DMN Logistics is a provider of UK-wide Vehicle Inspection and Logistics services. DMN's core market is the Fleet and Remarketing sector and through utilising the latest technology and processes they deliver a digital-led service giving clients total visibility and control of vehicle inspections and time sensitive movement data. Every aspect of their process can be managed online and through use and integration of data they also offer a white-label solution

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