

EFM

ESSENTIAL FLEET MANAGER *Magazine*

ISSUE 5 2023



The Fleet Interview:

Marston Holdings

with Sam Digby, Head of Fleet & Transport





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Essential Fleet Manager - Issue 5 (2023)

Welcome to Issue 5 2023 of Essential Fleet Manager Magazine, published for fleet professionals that operate the vehicle fleets that support the UK's essential services.

We've always been committed to providing the great advice and workable solutions that assist in meeting the ever greater demands on compliant, efficient and environmentally responsible operations and this issue is no exception.

Essential Fleet Manager is available in a free to view digital edition or printed paid-for subscription.

We have published a great number of Fleet Insight Interview features over the last few years and if you would like to be featured, to highlight your achievements and to share ideas with your industry colleagues, please get in touch.

For more information please email production@essentialfleetgroup.co.uk

Regards, Debbie Cheadle - Editor

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Since March this year, the fleet has been managed, along with his team, by Sam Digby, Head of Fleet and Transport. Sam explains below in a recent interview with Essential Fleet Manager Magazine, how not only Marston Holdings is embarking on the journey to operating a fleet that will be in the vast majority electric by the second quarter of 2028, but also how innovative systems are being utilised to implement the highest standards in risk management, compliance and safety.



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The remarketing landscape is evolving, especially in the light of the increasingly widespread adoption of electric vehicles and Essential Fleet Manager Magazine is delighted to have spoken with Zoe Sutton, Sales Director at MAG, who discussed with us how they are meeting the changing needs and current challenges affecting vehicle remarketing and consequently remaining at the forefront of the industry.



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In the spotlight | Grundon Waste Management

With customers ranging from major property management firms to leisure and hospitality facilities; universities, airports, and NHS Trusts; it has a reputation for innovation and investment in new technologies. It recently announced an ongoing annual £5 million commitment to investing in a greener, cleaner fleet; part of the company's commitment to achieving net zero. To explain further, Essential Fleet Manager Magazine was delighted to catch up with John Stephens, General Manager, Logistics at Grundon.



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Government launches review of DVLA to strengthen agency for the future

The government has launched an independent review of the Driver and Vehicle Licensing Agency (DVLA) so that it can continue to provide excellent customer-focused digital services to keep drivers and vehicles on the road simply, safely and efficiently.

With over 50 million driver records and more than 40 million vehicle records, the DVLA maintains the correct registration and licensing of millions of drivers while protecting data and tackling vehicle tax evasion.

DVLA also collects £7 billion in vehicle excise duty (VED) annually on behalf of

HM Treasury and is a net contributor to government finances, raising more than £260 million in 2022-23 for HM Treasury and the Department for Transport (DfT) through the sale and processing of personalised registrations and transfers.

The review will assess DVLA based on the 4 pillars set by the Cabinet Office of efficiency, efficacy, accountability and governance. Further detail on areas the review will cover can be found in the terms of reference.

Janette Beinart, non-executive director of the Cabinet Office and National Highways and previously Vice President and Global Chief Information Officer at Shell International, has been appointed to lead the review with support from DfT officials. The review is expected to conclude this winter.

Roads Minister Richard Holden said:

"DVLA plays a crucial role in making sure drivers and vehicles can get around legally, safely and with confidence, giving drivers peace of mind by storing their records safely and tackling vehicle tax evasion.

"With over 80% of all transactions now

being carried out online, this review will help us understand how the DVLA can continue to grow from strength to strength and how we can support it to become more digital to efficiently serve the increasingly digitally savvy driver."

The review will also assess how DVLA works with its wide range of stakeholders within and outside of government to help keep Britain's roads safe.

DVLA Non-Executive Chair, Lesley Cowley OBE, said:

"Our customers remain at the heart of everything we do at DVLA and we welcome this review as an opportunity to highlight our commitment to delivering world-class services, our role in keeping Britain's roads safe, and the continued hard work and dedication of our over 6,000 staff.

"It comes at an important time for DVLA, as we continue to launch new digital services and set ambitious targets for the future, as a forward thinking, dynamic organisation.

"We look forward to working closely with the government in support of this review over the coming weeks and months." ●

Less than two months until ULEZ expansion goes live - 30% of Londoners still drive non-compliant vehicles

A recent survey of London motorists commissioned by Europcar will bring some cheer to the London Mayor. With less than two months until the Ultra Low Emissions Zone (ULEZ) expansion comes into force, 61% of motorists said they drive compliant vehicles.

Of the remaining motorists, 14% intend to replace their non-compliant vehicle this year and 7% will do so in the future. While 9% believe their vehicle is non-compliant, they stated that they cannot afford to buy a more environmentally friendly

replacement currently. 3% intend to give up their vehicle entirely.

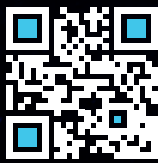
"With the on-going cost-of-living crisis, inflation rising month on month and the lack of quality new and used vehicles available in the market, now is a challenging time to make the investment in a compliant vehicle", said Mark Newberry, Sustainability spokesperson at Europcar Mobility Group UK.

"It's good news, therefore, that the Mayor of London has announced an extension to the ULEZ scrappage scheme to help drivers and smaller businesses registered in London. Drivers need as much help as possible if they are to upgrade to compliant vehicles and help reduce air pollution in London."

The other option is to rent a vehicle, just for the journeys that encompass the new ULEZ.

Europcar is working with many organisations, supporting their sustainability journeys by enabling motorists and businesses to access a wide range of vehicles that are less polluting and more efficient. ●





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Supplier Spotlight: Specialist Fleet Services

Specialist Fleet Services Ltd (SFS), as readers have already seen in Issue 4 2023 of Essential Fleet Manager Magazine, is proud to be celebrating 30 years of outstanding service to Local Authorities in the UK. What began as a bespoke arrangement to meet the contract hire needs of Northamptonshire County Council, developed through a joint venture with Serco into a provider of specialist Municipal Vehicle Contract Hire, Workshop Management, Fleet Management Services and Leasing.

Essential Fleet Manager Magazine was delighted to visit the SFS site in Northampton for a chat with Bob Sweetland, founder and MD, who not only spoke about the company's origins, but also how it has constantly evolved and adapted to the changing needs of Local Authorities throughout its 30-year history.



Bob Sweetland, founder and MD

We began by asking Bob how the company originated:

"At the time, Contract Hire of Municipal Vehicles was unusual, but I had, through my Merchant Banking background, developed experience in Operating Lease packages. At the same time, Serco was making inroads into Local Authorities and part of this involved the purchase of some council Direct Labour departments, including Northamptonshire County Council's. Alongside this there was the idea that Contract Hire could be added to their services, but Serco needed a funding partner. My banking experience meant that I was able to step in and meet that need. What resulted was a tripartite arrangement between the Bank, Serco and Northamptonshire County Council".

So how did this specific arrangement expand and become SFS? Bob went on to explain:

"We all realised that the tripartite arrangement was not marketable to the wider public sector. The solution was to form a joint venture between ourselves and Serco. Originally, Contract Hire was packaged with service and maintenance through subcontracting work back to

council workshops. However, we thought it was vital that we were in full control of service levels and quality so consequently began taking full control of the council workshops. To date, of our 13 workshops, 9 are based at council depots and were acquired in this way".



SFS workshop - Brackley



SFS workshop - Epsom

From this point, SFS has successfully grown into a major business supporting the needs of Local Authorities and some of their contractors across the UK. We asked Bob about the main strengths of SFS and how they provide huge benefits for the growing customer base. Beginning with contract hire expertise:

"The core function of the business has remained unchanged, in other words Municipal Vehicle Contract Hire, along with a full range of fleet management and workshop services that complete the picture. The key difference now is that all this is based on so much experience, so not only are our customers getting the financial efficiency of Contract Hire allied to extensive experience of maintaining all types of vehicles used in the delivery of council services, but this is underpinned by the security of being owned by Paragon Bank and residual value expertise that achieves the best possible hire rates."

Bob went on to expand on the complexities of setting those residual values:

"It only takes a moment's thought to realise that setting the residual value of a Municipal Vehicle is far more involved than that of a car or basic van. They are vehicles designed for specific uses and with that in mind, we assess the value at the end of the hire term taking into account the purpose for which the vehicle has

been utilised. For electric RCV's we consider the value of the vehicle as a whole and also the collective value of component parts if the vehicle is broken down. We leave no stone unturned as it were!"

He then added how SFS expertise is key to supporting Local Authority Fleet operations, throughout the life of the vehicles, explaining that:

"We begin with sourcing exactly the right vehicles for the customer requirements, with the best rates based on our knowledge of the maintenance requirements and the residual value expertise that I've just explained. One of the most damaging things for any of our customers is unplanned Vehicle Off Road time and of course a stringent SMR routine must be in place to avoid this as much as you possibly can. Teams of fully qualified, high-quality technicians are vital in achieving this, but the sad fact is that there is a major skills shortage, and this has pushed costs up and, in many instances, out of reach of many Local Authorities. However, as a business, we can attract the right skills and therefore give our Council customers the peace of mind promise that vehicles will be maintained to the highest standards. We also have "spot hire" available through CTS for those occasions when Vehicle Off Road time is planned for or is unavoidable." ...cont'd on page 08



Spelthorne Council Fleet



SFS apprentice, Connor



CTS Hire RCV

...cont'd from page 07

A huge range of expertise, both financial and technical, has been established over 3 decades and this is utilised to the great benefit of a growing number of customers. However, we wanted to know how the significant pressure for fleets to decarbonise, most often through electrification, had presented new challenges. SFS is determined to be at the forefront of this transition and Bob began by explaining:

"Without doubt, the pressure to decarbonise has been the biggest single challenge to fleet operators and suppliers, such as ourselves, in recent years. To address this, the first thing we have done is to develop a deep understanding of the whole process and how each part must be in place, to enable the other parts to function. This must begin with infrastructure and when you are looking at electrifying Municipal Vehicles, this is a potentially huge task. It simply isn't enough to talk to an EV charge point installer as the charging demands of large vehicles are significantly greater than those of a standard car or van. We're therefore working in partnership with infrastructure specialists who can ensure that power demands can be met at council depots. This can be in a highly innovative way, for example at Exeter, the Solar Array at Water Lane in the city is supplying power to charge all council electric vehicles, including the fleet of Dennis Eagle e-Collect RCVs, the first E-RCVs supplied on contract hire in the UK."

Bob continued and spoke about how SFS is now able to manage the whole electrification process:

"We're very proud of the fact that we are the leader in the contract hire of E-RCVs. As well as ensuring that the correct infrastructure is in place, we also offer customers full vehicle appraisals. It's vital that there is interdepartmental engagement during this process, and through our CTS Hire fleet we can provide E-RCVs on hire for appraisal for up to 3 months.. An obvious example is perhaps when you realise that the charging infrastructure may be the responsibility of Facilities and the vehicles being charged the responsibility of Transport/Fleet Services. Every department needs the opportunity to communicate how each of their needs is best met."



CTS Hire eRCV

We went on to ask what other preparations are necessary and how does SFS deliver the whole package:

"As well as establishing the right infrastructure, we are also investing huge amounts of time and resources into new equipment, procedures, and staff training. There are, for example, several Health & Safety protocols that apply to working on electric vehicles that simply must be followed. Again, working with SFS means that a Local Authority can concentrate on the benefits of operating an EV fleet with the confidence that we have the skills and support in place with no requirement for them to retrain or recruit technical staff. The skills shortage that I've already mentioned is even more acute in the EV sector, so our expertise removes a major concern from a Local Authority's plans for fleet electrification."

Being the first Municipal Vehicle specialist to offer a contract hire solution for E-RCVs is a significant milestone. Bob explained how this is achieved and which major obstacles are overcome:

"The glaring fact about E-RCVs is that the unit cost falls somewhere in between £400,000 and £450,000, with diesel equivalents around £180,000. For a great many Local Authorities, however much they are committed to decarbonising operations, this is prohibitive. Outright Purchase is still the main funding model for RCVs and there is not only the vast gap in capital cost, but also a whole list of uncertainties and risk factors to consider. Under Outright Purchase, Local Authorities will need to make their own decisions on uncertainties

such as battery and motor life and set down their own end of life solutions. As the technology is still relatively new, this is an incredibly daunting task and can distract from the core tasks of delivering efficient public services."

Bob continued by explaining how SFS can reduce risk and uncertainty through the Contract Hire solution:

"Essentially, SFS can bear a great deal of the risk, allowing the Local Authority to implement technology and concentrate on delivering the huge benefits of decarbonisation. This is all down to the fact that our 30 years' experience in Municipal Vehicle Contract Hire, means that we have specialist teams who can constantly assess uncertainties and along with expert problem-solving abilities, they are able to produce fundable solutions. With this degree of certainty, Local Authorities can make the business case for adopting E-RCVs, based on the benefits of decarbonisation."

We finished by asking Bob how the future looks:

"Certainly, we will continue to be a leader in Municipal Vehicle Contract Hire, building on what is already huge experience and expertise. We have now worked with some customers for over 20 years, proof I think that our service is not only top class, but also that we adapt to changing needs and pressures. Significantly, as I've already mentioned at length, decarbonisation is very high on the list of these, and we will be helping a growing number of Local Authorities implement strategies that are vital to achieving demanding targets, but at the same time reducing risk and budget uncertainty."

For more information about SFS contact 01604 234 601 or email info@sfs.co.uk or Visit the website at: www.sfs.co.uk

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Falkirk Council: Bin lorries go green thanks to alternative fuel source

Falkirk Council is powering ahead with its goal to operate a greener fleet having introduced Hydrotreated Vegetable Oil (HVO) as a fuel source for all 24 of its bin lorries.

The ground-breaking initiative marks a significant step forward in the Council's commitment to reducing emissions and promoting environmental stewardship through the establishment of a green fleet.

Earlier this year, the Council embarked on a three-year, £5-million initiative to create a more sustainable fleet. As part of its efforts, the local authority has introduced 43 electric vehicles so far this year, bringing the total number of electric-powered cars and vans it operates to 129.



Pictured: Falkirk Council Leader, Cllr Cecil Meiklejohn (far right) and Cllr Bryan Deakin, spokesperson for Climate Change (in cab), with members of the Council's Environment & Operations management team.

However, due to the current limited mileage range and high cost of electric-powered heavy goods vehicles like bin lorries, the Council decided HVO - a diesel alternative that reduces net carbon emissions by up to 90% - was a positive step towards reducing carbon emissions while awaiting advancements in technology.

Moving to HVO required limited investment due to the transition being a simple fuel swap, which meant no vehicle modifications were needed as the fleet could immediately run off the high-grade alternative fuel derived from waste plant matter.

Crews and drivers have been extremely positive about the move, stating the switch has had no impact on the driving experience and there have been no reported breakdowns or mechanical issues associated with HVO.

The Council now plans to expand the use of the biofuel to other diesel vehicles in its fleet, with the aim of achieving a total carbon emissions reduction through the adoption of HVO of 2,000 tonnes over the next 12 months.

It is also actively promoting the use of HVO and its green fleet, raising awareness through decals on its vehicles which helps to visibly showcase its commitment to sustainability and encourage other companies to follow suit.

Cllr Bryan Deakin, spokesperson for Climate Change, highlighted Falkirk Council's early adoption of HVO as an alternative fuel.

He said: "We were among the first Scottish councils to trial HVO, transitioning a number of our refuse and roads vehicles to HVO biofuel. The success of that pilot confirmed HVO as an affordable and effective alternative to diesel, capable of potentially cutting up to 90% of carbon emissions from vehicles over 3.5 tonnes. By transitioning our large vehicles to HVO, we reinforce our commitment to supporting a thriving economy and green transition by reducing emissions and improving air quality. The move also positions us as a leader in eco-friendly practices, which we hope will inspire others to follow suit." ●



Pictured (left to right): Mark Cox, Fleet Manager, and Douglas Gardiner, Head of Environment & Operations, talk to Council Leader, Cllr Cecil Meiklejohn about the Council's green fleet.



Significant fleet investment at CTS Hire

In its most significant fleet investment to date municipal vehicle hire company CTS Hire has purchased 10 brand new Refuse Collection Vehicles (RCVs), which are arriving during June and July. This will bring the company's total hire stock to over 200 vehicles.

The new fleet comprises a combination of Dennis Eagle Elite narrow and standard width 18t and 26t refuse vehicles, including four twin packs. All the vehicles are fitted with Terberg automatic split bin lifts and are FORS compliant equipped with 360° camera systems and tracking technology.

Bob Sweetland, Managing Director, CTS Hire:

"This is a major fleet investment and signifies further growth for CTS Hire. It is also a demonstration of our commitment to maintain a high proportion of new vehicles within our rental stock. We want our customers to benefit from the very latest vehicle technology. These vehicles feature lower emission Euro 6 engines and are fully equipped with safety and tracking technology."

CTS Hire is the municipal vehicle rental division of contract hire and fleet management company Specialist Fleet Services Ltd (SFS). The company added

two all-electric RCVs to its rental fleet at the end of last year giving councils and vehicle operators the unique opportunity to trial the technology over a period of months and make a proper evaluation before committing long-term. The initiative has proven very popular with councils and the vehicles have been hired by local authorities across the UK.

The CTS Hire fleet includes 3.5t-26t Refuse Collection Vehicles (RCV), specialist recycling vehicles, caged tippers, and hook loaders all available for short to long-term hire including contract hire options. ●

For more information about CTS Hire: Tel: 01453 511 050; email info@ctshire.co.uk; visit www.ctshire.co.uk

Fleet in Focus: Marston Holdings

With Sam Digby, Head of Fleet and Transport

Introduction

Marston Holdings has been providing services that support the implementation of public policy, for almost 40 years.

With clients within local and central government, utilities and the private sector, Marston Holdings' technology enabled, integrated solutions, are employed to conduct a range of tasks including parking enforcement, council tax recovery, traffic and air quality management, the recovery of assets and supporting the EV charging infrastructure.

For the successful delivery of a complex and varied range of services, Marston Holdings operates a fleet of around 1,300 vehicles.

Since March this year, the fleet has been managed, along with his team, by Sam Digby, Head of Fleet and Transport. Sam explains below in a recent interview with Essential Fleet Manager Magazine, how not only Marston Holdings is embarking on the journey to operating a fleet that will be in the vast majority electric by the second quarter of 2028, but also how innovative systems are being utilised to implement the highest standards in risk management, compliance and safety.



Pictured: Sam Digby, Head of Fleet and Transport

The Interview

Q: What is the current break down of your fleet assets?

Total fleet size: **1300**

- **HGVs (125)**
- **A 7.5t modified flatbed truck** - with a crane for removing vehicles on the back, supplied by Tip & Lift. Tip & Lift recently used the vehicle on their display at the UK Road Haulage show in Coventry.
- **Scooters (300)** - the vast majority of the scooters are the E-Max VS 1 and E-Max VS 2, electric scooters that mainly aid in the movement of parking enforcement officers to cover vastly more ground than they can on their feet.
- **Cars and Vans (875)** - most of our cars and vans are modified to carry out our operations. The 'commercial' cars and vans have additional kit added - quite unique in a way with ANPR cameras and a host of other parts added at the conversion stage.



'Commercial' conversion - wheelclamp storage



Scooters mainly used by parking enforcement officers



7.5t modified flatbed truck supplied by Tip & Lift

Q: Could you describe your role within fleet at Marston Holdings?

Personally I lead a team of seven, who administer, procure, manage, and strategically lead the business in relation to the need of the operational vehicles that we use. From order to de-fleet, as a team we guide the business in all things fleet-related. In addition, we try to ensure that our operational colleagues stay as safe and compliant, in the most cost-efficient way.

We're a tight-knit team and everyone's attitude and work ethic is unfaultable, from our senior administrator Nicole, to the guys Tony, Pete, Neil and Andy - they are all a joy to work with.

Fleet management brings new challenges everyday and throws up different obstacles to overcome. Each colleague has their own part to manage - we get together regularly for updates, to ensure everyone is working together effectively.

Q: With an ambitious target to electrify the majority of your fleet by Q2 2028, what are the necessary preparations to ensure access to charging?

We all face I think, the same challenges, from identifying the correct vehicles, to mapping the local operating area for electric vehicle (EV) chargers, including assessing the need for home charging facilities for drivers.

Although 'range anxiety' is still an issue throughout the business, as a fleet team we have tried to educate as best we can. Sometimes the 'new world' is more about change management and drivers adapting to a new way of thinking about vehicle journeys.

The Q2 2028 target doesn't include our HGVs where we are waiting on technology to get to where we need it to be and to become more affordable.

From my personal point of view the race to achieving net zero within a fleet operation can be viewed like this; as an early adopter you ride the crest of the wave but may well be the first to hit the rocks, or you can swim in the pack. We are probably in the middle of the pack waiting for the breakaway group to find the rocks!

Q: What training is needed for your drivers as they move over to operating electric vehicles (EVs) and how is this provided?

Our fleet department have implemented ten e-learning modules, but in my opinion, 'e-learning' is not without its faults. We probably haven't gone far enough within our fleet operations to cover all aspects of driving an EV and we need to spend more 'induction time' when new vehicles arrive. For example we don't yet have any literature to say only charge to 80%-90% as charging to full will damage the long-term health of the battery. But this can be addressed in the near future.

Q: How important is significant engagement with your suppliers when transitioning to EVs?

I feel it is very important to engage with suppliers, but this engagement could go further. For example we recently procured a number of EV LCV's and didn't know that the onboard inverter limits AC charge to 7.4kw and there is factory option for this to be increased to 22kw. Unfortunately, this can't be retrofitted so I learnt the 'hard way' with that situation, maybe that's us 'hitting those rocks' I talked about earlier.

Q: You have mentioned a part of your fleet that cannot at present be moved over to EVs and remain operationally fit-for-purpose. Are there alternatives, such as "fuel agnostic" engines, that can be utilised to bring these vehicles into the overall decarbonisation process?

Of course, price limits us in this respect as present, as your readers will be aware the cost-of-living crisis in fleet has been felt hard and deep.

The future of bigger engines with the ability to use multiple fuels is incredibly exciting, a real move into the future that can't come quick enough.

This is part of the job that really intrigues, and I can't wait to be able to put this kind of thing into practice. A bit like autonomous vehicles, we need to embrace these innovations.

Q: Whilst pursuing the complicated strategic objective of fleet decarbonisation and electrification, you have also committed to the aim of the highest standards of compliance, safety and efficiency. Could you describe how your Motor Governance Group (MGG) is made up and how it identifies the main challenges?

The MGG is a team that meets on a monthly basis to try to overcome and address our internal fleet challenges. The team is made up of interested parties such as the head of H&S for example, but mainly the team is made up of senior operational leaders who are generally directors, that have the responsibility for different regions of the country or hundreds of vehicles.

My team will create the agenda from the issues that arise over the month and then the MGG gets together to 'solve' them. Our mission statement is:

'Our task as the MGG is to minimise the risk, maximise our compliance and to do this in the most cost-efficient way possible.'

...cont'd on page 14



'Commercial car' roof rack conversion



Commercial car conversion - secure storage



One of Marston's Peugeot electric vans

...cont'd from page 13

Q: What are the three main fleet management duties that underpin the objectives of the MGG?

We work to a mantra of moral, legal and financial focus. So, safety plus compliance equals cost efficiencies.

We use this as a steer to become a 'best in class' transport company and fleet management operation. In an ever changing and ever more expensive environment, chasing the percentage point efficiencies in our safety and compliance procedures is becoming ever more important.

Q: Which are the key stages on the journey to an 'Optimised' fleet operation?

In the beginning we set targets for all the fleet metrics, I devised a scale made up of four stages; chaotic, reactive, managed and optimised.

For example, our target for our internal fleet audits at our 120+ locations is <64.9% = chaotic, 65% to 84.9% = reactive, 85% to 94.9% = managed and >95% = optimised. The audit covers vehicle records, driver records, daily vehicle checks, telematics system use and much more.

Those parameters of the metrics were agreed by the MGG this ensures a clear vision of what is expected and a clear consistent message from all leaders in the business.

Q: How important is communication between departments in ensuring that challenges are identified and solutions are fit-for-purpose? How does the

MGG help facilitate engagement between departments?

The sharing of best practice is absolutely key to the success within our group. A recent example of this can be illustrated by one of our Scottish based contract directors who shared information about the use of the telematics system to the leadership team in that region. This led to a single-issue meeting which concentrated on talking about the insights the telematics data had provided - this has now been replicated across the rest of the country.

Q: How does data and technology contribute to risk reduction, compliance and efficiency?

The simple answer is hugely! The telematics system we use is a key cornerstone, together with our tachograph system from Tachomaster. Arguably, however, our most important technological tool is the fleet management software provided by Jaama. We use the data collected as our 'single source of truth', as it includes data on who was driving which vehicle, when, together with many more useful data insights.

With a steady turnover of drivers within our business, this key tool is utilised to help us navigate what can sometimes be choppy waters. Vehicle lead times being as long as they are, mean our hire vehicle spend and dependence has increased. This in turn means additional data that needs to be updated and tracked and reported on. Jaama's system helps us do this in a way that we would struggle to do without it.

Q: How do the learnings of the MGG translate into action through reporting to the Transport Committee?

Learnings from the MGG are presented to the Transport Committee (TC) that meets on a quarterly basis. This is where I present to the Chief Executive Officer (CEO), Chief Financial Officer (CFO), and Managing Director (MD). During this meeting I highlight trends, problem areas and inform them as to what my fleet team has been doing to address any issues.

The CFO is our named O License holder, so these meetings focus on our compliance performance and cost efficiencies. The vehicle fleet is Marston's largest outlay, after people, so it is under extreme scrutiny - focus is always placed on how we can improve.

At present we are focusing on what I term, the 'low hanging fruit' and 'big ticket items'. Our accident record in comparison to previous years (non-moving covid years in fairness) has seemed to have increased dramatically, so we have a plan to combat this endorsed by the TC.

Q: With a complex fleet decarbonisation strategy, mixed with a huge focus on stringent compliance, safety and efficiency, what do you think the overall picture will be in three years' time?

Hopefully it'll be smooth sailing!

If we can hit our targets, we will be in a great place and we will have an engaged and fleet focused workforce.

Thanks for your time today I hope the readers enjoy the article. ●



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Jaama fleet management – the single source of truth for your fleet

Jaama is celebrating onboarding a half century of local authority and essential fleet organisations onto its Key2 fleet management platform.

Dedication to this market has seen Jaama become an APSE approved partner, an Associate FORS member, enabling fleets to achieve FORS accreditation and a Van Excellence partner.

With vehicle operating costs spiralling and more compliance regulations than ever before, essential fleets are investing in software to identify improvement initiatives through stringent data collection and management.

Key2 and Jaama's approach is helping essential fleets make timely strategic fleet decisions, which is why in the past few 18 months Jaama have seen significant growth within this market and a number have decided to make the change over to Key2 for various reasons (free Software upgrades, a more innovative solution,

not charging customers for things that we feel should be covered within your contract such as reports/process reviews/best practice advice etc.).

Jaama's Key2 fleet management system covers all fleet and asset management requirements in one accessible centralised

Compliance is key and the Compliance Manager module is fully configurable to each fleet's needs. Regular and one-off vehicle-related events such as servicing in accordance with manufacturer requirements, MOTs, and commercial vehicle inspections can be created and scheduled

to check whether historic events are being completed; prematurely, on time or late. It then auto-creates the 'due date' for the next event such as a service, MOT, or inspection.

It can also pause events and record a reason – for example if a vehicle is SORN or is used seasonally.

Managing electronic documentation

An increasing number of Jaama's new fleet customers have invested in Key2 with the objective of helping them securely manage the growing amount of electronic documentation now required to run their assets. Drivers can carry out many tasks including daily inspections via MyVehicle App – the mobile app fully integrated with Key2. This negates any unnecessary paperwork and the need for manual data keying as information entered into the app is submitted automatically and updates the back office Key2 system in real time triggering reminders. ●



system. It makes previously manually intensive tasks a thing of the past such as defect management, pool car bookings, reporting, event management and the checking of drivers' licences.

to ensure they are never missed.

Compliance functionality includes an audit trail of historical events store against the asset record to enable fleet managers

So what do our customers say about us?

Marston Group have stated "...our most important technological tool is our Jaama system" and "We use this as our single source of truth for our fleet..."

Falkirk Council have said "without Key2 we would be totally lost. With one of the key factors in choosing to install the solution being the fact that the system was 'future-proof' with Jaama investing more than £2 million a year on new modules and enhancements..."

And **Skanska** revealed "we wanted a system to not only manage our vehicle and equipment assets and hold all information in a single location, but also to interface with our HR system, feed data back to our finance department and link with our workshops and stores..."

Contact us today on 0844 8484 333 or email enquiries@jaama.co.uk and see how we can help.



Westminster Council unveil UK's largest electric waste collection fleet - powered by the waste they collect

Westminster City Council and Veolia have announced the full-scale rollout of the UK's largest electric refuse collection fleet. The vehicles are the next generation in electric Refuse Collection Vehicle (RCV) development and will deliver a cleaner and quieter service, powered directly by energy generated from the waste they collect. Housed in a specially designed depot, smart charging infrastructure will ensure they are always ready to go when needed.

Westminster Council has invested £20m in the 45 new zero emission trucks which will be introduced over the coming weeks in a ground-breaking initiative that will benefit residents by reducing vehicle noise, cutting air pollution and drastically reducing the borough's carbon emissions.

Westminster will gradually replace its entire 80-strong truck fleet, in the biggest decarbonisation programme of its kind by a UK local authority. Many of these vehicles will be housed at the new fully electric depot at Landmann Way, near Bermondsey. The electric vehicles will charge their batteries by drawing electric power from an adjacent energy recovery facility which uses the waste collected from homes and businesses in Westminster.

Westminster's fleet, operated by its environmental partner Veolia, completes 50 million collections every year and each electric vehicle saves up to 89% CO₂e compared to a diesel-powered fleet. Veolia worked to procure, design and operate the new depot and charging infrastructure which will be capable of charging 54 vehicles simultaneously. Smart charging will allow the partnership to support the National Grid by receiving power at non-peak times to maximise local resources and strengthen the Grid's resilience.

Pascal Hauret, Managing Director Veolia UK Municipal said:

"It's fantastic to see our teams working together with Westminster City Council to deliver a cleaner, greener and quieter service for residents, businesses and visitors across the city."

"Using the waste we collect to power the electric fleet is an exciting innovation because that creates a local loop of energy, using local resources to run local services. I'm incredibly proud of the solutions Veolia and Westminster are pioneering together to build the sustainable municipal services we need, now and in the future."

Cllr Paul Dimoldenberg, Cabinet Member for City Management and Air Quality, said:

"By replacing diesel-powered refuse trucks with a £20m investment in UK-built electric vehicles, Westminster City Council is voting with its fleet."

"The trailblazing electrification will deliver an essential service that is quieter for residents, improves air quality in central London and reduces our fleet emissions by 50 per cent, or over 2,000 tonnes of CO₂ per year. This is a significant moment in the evolution of sustainable council services and we look forward to further expanding our zero-emission vehicle fleet in the future."

The trucks, built by Dennis Eagle Ltd in Warwick, will be the mainstay of a zero-emission refuse fleet which also includes 90 electric street cleaning vehicles ranging from e-bikes to e-sweepers.

The South East London Combined Heat and Power facility (SELCHP) will provide the site with 3.3GWh of electricity per year via a private wire to charge the e-fleet. This facility treats residual waste to create 265GWh of electricity, supplying enough electricity to the grid to power 48,000 homes, and generating heat for a local district heating scheme serving over 2,800 homes. Over 50% of the electricity generated by SELCHP qualifies as renewable under the Renewable Energy Guarantees of Origin (REGO) scheme. ●

Why fleet drivers need more knowledge about electric vehicles



According to reports, 45% of fleet managers are missing out on the opportunity to transition to electric vehicles due to a lack of expertise in taking the first steps.

The research, carried out by mobility solutions company Alphabet, found that pressure to meet both government and business environmental deadlines means demand for EVs is on the rise, however navigating the rapid developments around EV implementation is placing fleet decision makers under pressure.

Nonetheless, fleet managers are expecting electric and hybrid vehicles to make up 56% of vehicle fleets within two years and more than three quarters expect to have fully electric fleets before 2030. Research by Churchill Expert, Direct Line Group's flexible fleet insurance business, found that petrol and diesel

vehicles currently make up two-thirds of fleets, with 16% being hybrid and less than one-fifth being electric vehicles (EVs). Fleet managers expect this breakdown to change in two years with the proportion of EVs increasing to 37% and hybrid vehicles to 20%.

With the push for sustainability and clean energy sources, many companies are already taking the leap towards electric vehicles (EVs) as a way to reduce their overall emissions. While this is a step in the right direction, Autotech Training points out that it is important to remember that simply owning an EV fleet is not enough to achieve these sustainability goals. In fact, if the drivers aren't comfortable and knowledgeable using EVs, it may just end up being a tick-the-box exercise on the part of the employer.

Overcoming range anxiety

One of the major concerns among drivers when it comes to switching to an EV is range anxiety. With petrol/diesel vehicles, refuelling is a relatively straightforward and quick process. However, with EV batteries, range capacity, charging speed and availability of charging stations can be a real issue unless fully understood. This is why it is crucial for fleet drivers to have adequate knowledge about the use of EVs. If drivers are confident on the EV range and what affects it, such as weather or vehicle load, they will have a better overall experience and feel more comfortable using EVs on the road.

Understanding charging methods

Another area where drivers need knowledge is on charging methods. While most EV drivers are familiar with the

For further information visit www.autotechtraining.co.uk

public or private charging options and modalities such as AC or DC, they may not know how charging affects the vehicle's battery health, which is a key driver of maintenance costs for EVs. Understanding how to best utilize charging facilities, set rules for unplugging vehicles after they are fully charged, and using different charging modes depending on needs and the battery, can help drivers to get the most out of their EV and achieve the best mileage in each trip.

Regulation compliance

For fleets, compliance with regulation and environmental policies is a must. With the rise of low-emission zones and other environmental restrictions in urban areas, EV driving is seen as the ultimate answer, but failure of the fleet to abide by them can lead to fines and negative brand perception. As such, it is essential for drivers to be clued up on government regulations relating to EVs and how to follow the same to avoid penalties. With the right training and knowledge, fleet drivers can navigate the changing

landscape of regulations and provide an image of professionalism and compliance when using EVs.

Maintenance

Finally, proper maintenance of EVs is crucial to keep the fleet in top condition and extend battery life. Drivers who are familiar with basic EV maintenance such as cleaning, caring for the battery, and diagnosing issues can identify early signs of trouble with their vehicle, avoiding costly repairs and maximising driving performance. Educating drivers on maintenance can also help companies avoid misunderstandings about the ownership relationship of EV fleets between employees and the company.

Electrification of a fleet is a big step, and it is key to get drivers on board from the start. Importantly, drivers must have the right knowledge about EVs to use them effectively and without any anxiety. A properly trained fleet not only drives cost benefits and increases environmental credentials, but it also translates to a positive brand image and productive

employee engagement.

For fleet operators looking to embrace sustainability and reduce emissions, employing the right training curriculum for their drivers can be one of the key factors to success. By doing so, they will be able to prepare their team for the transition and the result will be a committed workforce that is willing and able to utilise EVs to their full potential and meet the goals set by the business.

Autotech Training delivers IMI accredited Levels 1-4 Electric/Hybrid Vehicle training from either its dedicated electric vehicle training suite in Milton Keynes or on the premises of any garage or business across the UK.

Its IMI Level 1 Electric/Hybrid Vehicle Course is ideal as a simple awareness course for employees of a company which is electrifying its fleets. The half a day course provides a basic understanding of electric vehicles and the safety requirements when working within the vicinity of an EV. ●





Part of Autotech Group

ELECTRIFYING YOUR FLEET? THE SAFETY OF YOUR STAFF SHOULD BE YOUR NUMBER ONE PRIORITY!

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Supplier Insight:

Achieving the maximum return on your fleet disposals

with Zoe Sutton, Sales Director at Motor Auction Group (MAG)

Introduction

Motor Auction Group (MAG) is a family business, established in 1947 and is therefore one of the longest established vehicle remarketing specialists in the UK. It has grown and developed up to the present day, into an operation that successfully remarkets over 35,000 vehicles, of all types, per annum and is trusted to achieve the greatest returns for many of the UK's largest fleet operators, dealer groups along with leasing, contract hire providers and finance houses.

The remarketing landscape is evolving, especially in the light of the increasingly widespread adoption of electric vehicles and Essential Fleet Manager Magazine is delighted to have spoken with Zoe Sutton, Sales Director at MAG, who discussed with us how they are meeting the changing needs and current challenges affecting vehicle remarketing and consequently remaining at the forefront of the industry.



Insights

Q: Could you give us an overview of MAG in the UK and how you provide full, nationwide coverage?

At MAG we have 10 transporters which cater for multi and single movements, that operate both nationally, and within 48 working hours.

In addition, we also have 25 secure compounds located across the UK from Aberdeen to Portsmouth to ensure our logistics remain environmentally friendly and efficient.

As well as standard collections, our service also includes the completion of real time BVRLA inspections and collections, with secure portal access.

Q: As one of only a few remarketing specialists offering “physical” auctions, how does this contribute to gaining the best returns for your sellers?

Our performance data continues to show that physical auctions remain a key remarketing channel for vehicles, particularly those with mechanical issues or extensive cosmetic damage. At a physical auction, a buyer can touch and listen to a vehicle to determine the repair costs prior to retail.

By remarketing through both physical and digital channels we can market

a seller's vehicles to different buyers - our aim is to achieve for them, the maximum return.

Uniquely, our extensive buyer base isn't solely motor traders. Thanks to our physical sales channel, 10% of our vehicles are sold to members of the public. This helps to drive our performance because members of the public are usually prepared to bid more for vehicles in auction, than a trader would. This is because they are effectively cutting out additional costs usually passed on by a dealer.

On a weekly basis we also collect unsold vehicles from other auctions - this helps to enhance our performance in comparison to our peers in both the physical and digital remarketing space.

Q: What are the other key services that fleets should look for in a remarketing specialist?

At MAG we are always asking our customers, for instance “*what about this?*” It is important for us as an organisation to remain proactive, and as a smaller player, to have the flexibility to meet requests.

This is why MAG launched its In-Life Management services last year, after we identified some of our customers were facing service issues and needed our help.

MAG Corby in Northamptonshire is our dedicated fleet remarketing centre and ensures we process, market and sell vehicles through the most lucrative remarketing channel for our sellers.

We sell for a wide range of fleets from contract hire, daily rental, public sector and corporate fleets, with the ability to process and sell vehicles without moving them if required.

Our support services include:

- Secure vehicle storage
- Vehicle collections
- Vehicle deliveries
- A2B vehicle moves
- Return vehicle body inspections
- Vehicle safety checks
- Body repair quotes authorisation
- Vehicle body repairs
- Off-site service/repair management
- Consolidated invoicing as required

All of MAG's In-Life Management services can be fully tailored to meet the individual needs of each fleet, and can be controlled via a web-based portal which can also be white labelled.

Q: After collection, how are vehicles prepared before auction to achieve the maximum value?

Once vehicles arrive on-site, they are initially sent for a thorough valet and they are then inspected to NAMA (National

Association of Motor Auctions) standards. The final stage of the process is imagery, which is displayed via our 360 degree turntable that includes: exterior, interior and damage photos.

Sellers can view their vehicles from the point at which they arrive on-site, via our stock management portal. After viewing a vehicle's condition they can also advise MAG on reserve figures.

Once a vehicle is entered into an auction, it is marketed to our extensive national buyer base to gain interest and proxy bids prior to a sale starting.

Q: It has been highlighted in recent times how the issues within the supply chain have created an ageing vehicle parc. What are the challenges when taking on vehicles that may be coming to disposal later than originally planned?

The condition of a vehicle determines the desirability. Vehicles with minimal damage and no mechanical issues will perform strongly against CAP, even in a challenging market, and when compared against vehicles with both mechanical issues and damage. The difference in CAP can be as much as 30%, which can be thousands of pounds for a seller to swallow.

We see many vehicles coming back into the used car market which are in a less desirable condition. At MAG, we can provide pre-sale quotes for both repair costs for mechanical issues and for cosmetic refurbishment.

Using data analytics and our expertise, we advise on vehicle repairs on a case-by-case basis. We will only suggest a repair where the sale price can be improved, and where there will be a return

on investment.

As a business we have seen an up-take in this service over the last 12 months, due to increase in volume of less desirable vehicles. We now refurbish 30% of all vehicles sold.

Q: Large, diverse fleets are increasingly replacing ICE assets with Electric Vehicle (EV) equivalents. In an environment where those EVs are significantly more expensive than ICE vehicles, how much more important is your commitment to achieving the greatest possible resale values?

Some manufacturers have recently reduced the price of their EVs and there are many new entrants looking to gain EV market share. With prices positioned lower than established brands and vehicle capabilities around connectivity and range being comparable, this shift in the market and pricing has naturally had a negative effect on the pricing of used EVs. As a consequence, it has also made both new and used hybrids look expensive when compared to pure EVs - this will obviously lead to the next residual value (RV) challenge for fleets.

These changes in the market will undoubtedly impact operators with existing EV fleets. However, when it comes to new brands, data shows that an association with a strong and established OEM drives RV performance - a strong consideration for operators deciding on replacement vehicles.

As a remarketing partner, our mission, regardless of vehicle fuel type, is to achieve the maximum return for our sellers.

Our industry knowledge and expertise allows us provide guidance on when

and how vehicles should be sold, and as I said above, MAG's aim is to always achieve maximum returns. To achieve this, it is important to utilise a variety of sales channels, to consider volumes and 'hot spots' and this is no different for EVs. Ultimately, at MAG we are very 'hands on' and have live daily visibility of wholesale values and access to buyer feedback, all of which helps us to offer the very best fleet disposal service and advice.

When looking at EV disposal how have you changed your infrastructure to cope with demand and does the remarketing of EVs throw up any additional challenges?

MAG has membership of several associations, this helps us to stay on top of any developments particularly with EVs whilst also investing in physical infrastructure.

For example, all EVs held on-site have a State of Charge (SOC) that remains above 20% and below 80% to maintain battery health, this is achieved using our multiple wall-mounted 7.7kw chargers.

Battery electric vehicles (BEVs) require additional data points for remarketing, especially regarding battery health. Most models feature an eight year battery warranty which limits exposure during the first remarketing transaction.

As part of a working group headed by the BVRLA, supported by NAMA, the University of London, and Office of Zero Emissions, MAG is striving to make progress on universal battery health checks, because as of yet there is no industry standard.

...cont'd on page 20.

At MAG, we can provide pre-sale quotes for both repair costs for mechanical issues and for cosmetic refurbishment.





...cont'd from page 19

When it comes to re-selling used EVs it is about educating dealers. There seems to be plenty of incentives to encourage consumers into new EVs however, very little for used. We often educate our 'dealer' buyers about the benefits of EVs so they can pass this information to their potential consumers, for example charging an EV outside of peak times can save money, and in addition, how an EV can help to avoid for example the impending extension of ULEZ charges.

Specialised remarketing centres for BEVs and plug-in hybrids (PHEVs) can add value, as giving buyers peace of mind naturally increases the sale price with the opportunity to up-sell additional services and warranties.

Q: Could you give an example of remarketing EVs for a specialist operator, and take us through the steps.

To give you an example, we worked with London Fire Brigade (LFB) whose fleet was managed by Babcock and they had specific remarketing requirements to fulfil. They wanted to sell a batch of BMWi3s which were all very similar in age, mileage, colour, and specification.

LFB also wanted their employees to be able to bid on the vehicles along side our overall buyer base.

We advised the importance of not

flooding the wholesale market in order to maintain the RVs.

The vehicles were processed for sale as usual with the addition of the livery being removed. This included being valeted, NAMA inspected and imaged before being marketed to both LFB and Babcock employees and additionally to MAG's buyer base.

Through the whole process we worked with Babcock to ensure that all interested staff were registered for the auctions. A standalone, 24-hour timed auction, for 10 vehicles took place on a fortnightly basis.

We were delighted to be able to assist LFB and Babcock with remarketing these vehicles to both employees and to the motor trade, offering maximum return and reduced risk.

If any organisation has employees who are interested in purchasing company vehicles, having access to an auction like this can be a great perk, however, it does come with a huge risk.

It is worth noting that if a business wishes to sell a vehicle to any employee directly this sale would be subject to legal rights under the Consumer Rights Act 2015, meaning they could potentially be held responsible for any repairs or replacement. But by allowing employees access to a vehicle auction in order to purchase a vehicle previously owned by the company then this Act does

not apply. MAG, therefore can support fleets to provide their employees with an opportunity to purchase vehicles in this way.

Q: What do you see as the main challenges that will arise on the road to 2030 and the ban on the sale of new petrol and diesel (only) cars and vans?

The key areas for concern that I feel need addressing as we approach the 2030 deadline include both improving consumer knowledge and ensuring there are sufficient financial incentives offered to support businesses, and consumers, to make the switch to EVs. In addition, a comprehensive strategy on charging infrastructure and further support for universal battery health checks, are also just as important.

For how the future looks, I suppose it depends on the political landscape we face leading up to, the 2030 deadline. It may well be extended, for example as Germany have agreed, to 2035, but the future and how well we deal with the challenges will be as always to achieve the maximum return for our sellers.

As I mentioned previously, what has been perhaps the most interesting development is that hybrid vehicles are starting to look considerably more expensive than fully electric vehicles and I suspect that hybrid RVs will be the next hurdle for fleets who are yet to switch to full EV. ●

For more information visit: www.mag.co.uk

Autotech Training strengthens its offering by acquiring unique state-of-the-art EV training vehicle

Autotech Training strengthens its offering by acquiring unique state-of-the-art EV training vehicle

Autotech Training has become one of only five global owners of an Electude Connect - Electric training vehicle to support the delivery of its IMI accredited EV training courses.

Initially created for the WorldSkills Automotive Technology Competition, the exclusive training vehicle, which is based on the Volkswagen e-up! has been extensively modified to enable electrical diagnosis and fault finding without having to remove any parts of the vehicle.

The unique state-of-the-art vehicle features 39 in-built failures, and the wiring harnesses have been extended and switches incorporated into the car to allow the trainer to induce faults across all main components without causing damage to the vehicle and its low and high voltage systems.

Autotech Training has been forging ahead in the electric/hybrid vehicle training stakes for almost four years. Delivering IMI Levels 1-4 electric/hybrid vehicle training courses, the company's commitment to remaining flexible has seen over 1,500 delegates receive EV training over the last 18 months.

Dedicated to upskilling the aftermarket, and any organisation that electrifies its fleet, the procurement of the Electude Connect - Electric training vehicle is testament to Autotech Training's dedication to ensuring the electric vehicle revolution is sustained by people with the right skill set.

The company's headquarters in Milton Keynes includes an Electric Vehicle Training Suite, featuring an electric car for hands on learning, while its fleet of EVs are regularly driven across the UK to aid the delivery of IMI electric hybrid vehicle training on the premises of any garage or business.

"Hands on learning is of paramount importance to Autotech Training as it helps put the theory into practice during the delivery of our EV training courses," comments Simon King, Managing Director of Autotech Training. *"We are delighted to now add the Electude Connect - Electric training vehicle to our portfolio as it is one of just five available in the world.*

The vehicle will help safely diagnose and resolve issues and engage our delegates even more to ensure they hold both the theoretical and practical skills to repair and maintain EVs in their place of work." ●



The exclusive training vehicle, has been extensively modified to enable electrical diagnosis and fault finding without having to remove any parts of the vehicle



For further information visit: www.autotechtraining.co.uk

A Journey to Carbon Neutrality



In the spotlight:

Grundon Waste Management

with John Stephens, General Manager – Logistics

Grundon Waste management is the UK's largest family-owned supplier of integrated waste management and environmental services. Its operating area stretches from its core Thames Valley base as far as Bristol in the south-west and Stansted in the east. As well as collecting commercial waste, it owns and operates industry-leading treatment facilities, including Energy from Waste (EfW) plants generating electricity for the National Grid. With customers ranging from major property management firms to leisure and hospitality facilities; universities, airports, and NHS Trusts; it has a reputation for innovation and investment in new technologies. It recently announced an ongoing annual £5 million commitment to investing in a greener, cleaner fleet; part of the company's commitment to achieving net zero. To explain further, Essential Fleet Manager Magazine was delighted to catch up with John Stephens, General Manager, Logistics at Grundon.

Q: Could you give a brief history of the business, how it started and early innovations.

The Grundon story began in 1929 when Stephen Grundon (grandfather of our current chairman Neil Grundon) and his brother Les bought their first internal combustion vehicle – a 1915 Pierce-Arrow R8 3 Ton truck, which set the business on its path for the extraction and supply of aggregates. Grundon Sand & Gravel (as it became known) is still in business today and operates as a separate company.

The company expanded into associated areas, including excavation, demolition, haulage and bulk earth moving – bringing the first JCB into London to dig the foundations for what is now Brunel University.

By the late 1960s/early 1970s, the environmental movement was beginning to find its feet and the Grundon family made the decision to focus more on waste management and the drive towards increasing recycling.

As the business began to take shape, so did the vehicle fleet, with the purchase of the first Grundon Rolonof – so named because the Scammel Routeman 8x4 30 tonne chassis vehicle had rollers that enabled a hook to roll the large metal container on and off the vehicle body.

In 1979, Grundon's innovation credentials were underlined with the arrival of the UK's first Front End Loader (FEL) vehicle. Imported from the US, it was a 30 cubic yard Garwood FL3000 FEL used to collect light packaging wastes from industry and

commerce customers.

In the 1980s, the company introduced the now ubiquitous 'wheelie bin' to the UK; the following decades saw investment in facilities including a state-of-the-art Materials Recovery Facility (MRF) opened in 1996, and a joint venture Lakeside Energy from Waste (EfW), officially opened by the late Prince Philip, Duke of Edinburgh in 2010.

As the environmental agenda began to gather pace, Grundon began measuring its own carbon emissions in 2000 and, in 2014, became the first of the major waste industry players to adopt CarbonNeutral® certification across its vehicle fleet, offsetting its carbon emissions and ensuring that collections did not add to customers' carbon footprint.

Now, nearly a decade later, comes the launch of Grundon's repowered all-electric refuse collection vehicles – including one powered by customer waste – something we think is an industry first.

Q: Could you briefly introduce yourself and your background within fleet?

I joined Grundon Waste Management in 2011 as Depot Operations Manager for the company's Beenham site, near Reading. Since then, the role has grown to include responsibility for waste collection operations, vehicle workshops, fabrication and Grundon's operational training team.

Alongside that I support a number of large contracts, including Heathrow Airport, British Airways and numerous NHS Trusts; as well as overseeing Grundon's waste management responsibilities at high profile British sporting occasions such as the Henley Regatta, Royal Ascot, Queens Club Tennis Championships, and events at Silverstone Circuit including the British Grand Prix.

I now have responsibility for around 500 staff, 11 operational depots and the company's fleet of over 330 commercial vehicles, all of which keep me on my toes.

Q: What is the breakdown of your fleet assets in terms of numbers and vehicle types?

Our overall fleet totals 336 commercial vehicles, comprising:

- (52) Rolonof - 32t
- (29) Skip loaders - 18t
- (24) Front End loaders - 32t
- (144) Trade Waste - 12 - 32t
- (36) Box/Curtainsider/double deck 7.5 – 44t
- (23) APCr bulk tankers 44t
- (20) Flatbed 12 – 26t
- (8) Wet Vacuum tankers 18 – 44t (from the above there are 71 trailers within the fleet)
- (23) Small commercial vehicles (under 3.5t)
- (124) Company cars, of which 68% are electric vehicles (EVs)

Q: During your journey towards lowering your fleet emissions and achieving net zero, what are the key challenges you have faced as a waste management service provider with such a complex and diverse fleet?

As far as our commercial waste collection fleet is concerned, the main challenge is that we can only be as good as the



Three generations of the Grundon family (L-R) Neil with an FEL, Norman with an Albion and Stephen with the horse-drawn cart

technology itself. By that, I mean when we are sending our new fully-electric waste collection vehicles out on their rounds, we have to be sure they have the battery capacity to complete them – and that is down to how quickly battery life technology develops.

When we started going down the EV road, we carried out very detailed trials in conjunction with our Gloucester-based partner Refuse Vehicle Solutions (RVS), a leader in the remanufacture of waste vehicles.

They lent us a trial electric vehicle as far back as autumn 2021, so we could run collection routes out of our Colnbrook depot in and around Central and West London, Slough and Windsor, testing the

technology to understand the vehicle's range and suitability.

We're pleased to say it exceeded our expectations, completing average waste collections of around 120-140km per day and enabling us to press ahead with converting our existing diesel Mercedes-Benz Econic with a Dennis Eagle body waste collection vehicles to electric.

What sets us apart from fleet operators in other industries is our critical 'must have', because in addition to powering the vehicle, the battery technology also needs to be sufficient to drive all the necessary hydraulic and compulsion systems to manage collections, bin lifts and compaction processes.

...cont'd on page 24



Neil Grundon in front of one of the new EVs



Grundon's new EV operating in London

...cont'd from page 23

It was described to us as effectively one big mathematical calculation and, thanks to RVS's expertise we now have 280kW battery packs fitted to the vehicles, which provide the necessary capacity.

While the primary focus began with (and continues to be) conversions from diesel to electric, we also took the decision to purchase our first new Scania electric waste collection vehicle (due to arrive soon) to help speed up the overall electrification process. Further Scania EVs will be added to the fleet at a later date.

We are still very mindful of carefully choosing the EV routes and acknowledge that, at present, not all customer collection journeys may be suitable for our EV waste wheelers because of locations and charging opportunities. We work extremely closely with Scania, developing vehicles that are fit for our specific purposes, this closeness creates trust and harmonic drive to introduce alternative fuelled vehicles.

We are determined however, that as the technology progresses, more and more of our customers will be able to benefit from this clean technology and they, together with local communities and our own drivers, will see the increased benefits of our zero emission and zero noise collections.

The waste collection vehicles aside, we also operate a fleet of small commercial box vans up to 3.5 tonnes (typically used smaller volumes of hazardous and clinical wastes), these are next in line for change to EV along with our company cars. Sixty-eight percent of our company cars are already electric and, as the car fleet is gradually renewed, we expect it to be 100% electric within the next 18 months. That's obviously meant installing plenty of electric recharging points across all our locations, from offices to depots – 53

in total – quite a major undertaking and a significant investment; plus we have further plans to expand this area as more EVs are purchased.

Operating a tanker and articulated fleet with tractor units (largely used for clinical and hazardous wastes) also creates its own challenges when looking at alternative fuels.

Because these vehicles are much heavier and, in the case of our powder tankers especially, generally undertake much longer journeys, running them on electricity isn't currently the best option.

We think hydrogen (or a hydrogen fuel cell) is likely to be the best alternative but at present, the technology and the refuelling options just aren't there yet. In the meantime, we specify the cleanest, leanest Euro 6 diesel engines, and we also provide specific driver training to ensure they maximise fuel efficiency.

Q: In seeking replacements to your ICE powered vehicles, have you trialled or are you intending to trial any further alternatives to those already adopted within your fleet.?

We take the view that we don't want to put all our eggs in one basket, so we're always looking at innovative and evolving technologies.

Right now, that includes HVO and we continue to monitor a hydrogen/diesel dual fuel vehicle in service. This was our first venture into hydrogen power back in 2017, with the support from hydrogen technology specialist – ULEMCo. When we launched our first ultra-low emission hydrogen diesel dual-fuel waste collection vehicle, it was another first for the commercial waste industry, and we've continued to pursue the hydrogen option ever since.

However, this does come with the problematic issue of obtaining the fuel

(hydrogen), as fuelling options are limited around the country. The infrastructure needs to be improved for this to gain further traction.

However, one solution we are actively looking at, is if it will be possible to power hydrogen-fuelled vehicles from hydrogen produced by waste treatment processes, which would be another great example of the circular economy in action.

Q: Grundon is at the forefront of transforming waste material into power. Could you explain more about your Lakeside EFW facility and how it has helped with implementing electric vehicles within your fleet and with powering the wider community?

We are fortunate that, as a waste business, we own and operate many of our waste treatment facilities.

The non-recyclable waste that our vehicles collect goes into our Lakeside EFW plant, a joint venture between ourselves and Viridor, one of the largest resource management companies in the UK and part of the FTSE 250 Pennon Group plc.

The EFW process is recognised as a much more sustainable solution for managing waste – it provides 100% diversion from landfill – all the while generating electricity.

The facility currently processes around 450,000 tonnes a year of waste, collected from local authorities and businesses across the region. It goes into a combustion chamber where it is incinerated at 1,000 degrees Centigrade and the heat that is generated powers a steam turbine that generates 37MW of electricity to the National Grid, enough to power around 56,000 homes – equivalent to a town the size of Slough.

Each of the electric waste vehicles collects an average of five tonnes of waste per round and for every tonne of non-recyclable waste deposited, the EFW generates around 620kW of power. Over the course of a day, it means the EFW is capable of generating 3,100kW of energy per vehicle.

Setting aside 280kW to recharge each vehicle, this still leaves a further 2,820kW of electricity for export to the National Grid on a daily basis – enough to power an average-sized house for a year.

We now have the first of our all-electric repowered refuse collection vehicles operating from our base at Colnbrook near Slough, serving commercial

customers across London and the wider Thames Valley.

What makes this one different to any others – and we believe is a first in the UK – is that because the Lakeside EfW facility is adjacent to our Colnbrook-based depot, we have been able to install an EV charging point directly at the side of the EfW.

The Colnbrook EV comes back after its early morning or evening rounds, deposits its waste and plugs straight in – literally the circular economy in action. Eventually we plan to run a direct feed from the EfW to the depot so the entire Colnbrook operation will become energy self-sufficient.

A second electric waste vehicle at our Bristol depot is serving customers across the city, and a third is shortly due to start collections in Reading and Newbury from our base at Beenham, in Berkshire. Three more repowered electric vehicles will come into play later this year and go into service in Oxford, a second one into London and the third into the Banbury area.

Our other EVs are all powered in the traditional way, using electricity drawn from the National Grid and, as we add more EVs, so the number of charging stations will increase.

Q: We understand you have recently undertaken the conversion of some of your RCVs to electric. This is obviously a great recycle and reuse project and sits well within your company's ethos, but how complicated was the procurement process and how did you utilise the expertise of industry partners or suppliers to achieve this?

It's fair to say that it's been quite a lengthy process, due in no small part to the availability of the batteries themselves caused by component shortages off the back of the pandemic. The decision to start integrating electric vehicles into our waste collection fleet was taken as far back as 2021 but we also knew we had to do our homework and get it right first time. We couldn't afford to let our customers down because we had rushed into the technology.

We already had a long-standing relationship with RVS, which in turn, introduced us to the all-electric repowered refuse collection vehicle they had developed as a joint initiative



Grundon lead driver Shaun Wormald gets ready to plug in at the Lakeside Energy from Waste facility

with Dutch company EMOSS, specialists in converting diesel vehicles into electric vehicles.

Together with a team from RVS, we went over to visit the EMOSS factory and see their work for ourselves, spending time with their technical experts looking at the performance of different vehicles and determining the best technology to suit our needs.

We owe a debt of gratitude to both the RVS and EMOSS teams for their expertise and experience which has helped us at every step of the way.

Q: As a business, how far along are you on your journey to achieving Carbon neutrality and are there any current barriers that you feel could hinder the business in its achievement in the short to medium term?

If I were to say that there were any barriers, it would be around the vehicles we have within our fleet that could and can be repowered. With the incoming legislation operating in London around the direct vision standard (DVS), we are heavily restricted in what we can repower.

We have a number of vehicles that can be converted, and these are currently going through the programme to electrification. The weight of the vehicles, or more specifically the weight of the additional batteries is a concern, however this may change in the near

future allowing up to 2 tonne offsetting the weight of the batteries enabling payload to be achieved.

We know our customers make decisions based on a provider's commitment to environmental issues – so everything we do is about meeting that goal and demonstrating our own progress on the carbon agenda.

We have been measuring our own company-wide carbon footprint since 2000 and since then we've reduced carbon emissions by almost 80% through a series of measures, including an ongoing energy self-sufficiency program and investment in state-of-the-art technology.

This is at the same time as growing the business by over 270% and more than doubling our number of employees.

In many ways, achieving that final 20% reduction to reach net zero is likely to be the hardest target of all, but it is one we continue to work towards, both for ourselves and for the benefit of our customers.

Obviously, the work to divert our vehicle fleet away from fossil fuels is a key part of our journey towards net zero and I come back to the comment I made about only being able to move as fast as the technology is available. We keep a very close eye on sustainability developments and are very much about continuing to increase efficiency throughout the business. ●

For more information visit: www.grundon.com

Join the **Green Revolution** with **Refuse Vehicle Solutions**

Promoting a Greener Future: Refuse Vehicle Solutions Leading the Way in Retrofit and Repowering for Waste Management

Refuse Vehicle Solutions (RVS) is an industry leader in the retrofit and repowering of refuse vehicles. With a steadfast commitment to sustainability and environmental responsibility, RVS has emerged as a driving force in transforming the waste management sector. Through innovative solutions and an impressive track record, RVS has played a pivotal role in supporting renowned organisations like Grundon Waste Management, The Recycling Partnership, Biffa, Recorra, Chichester Council, Islington Council and Wrexham Council in their transition towards a greener, cleaner future.

Championing Green Initiatives: RVS and Grundon Waste Management

Grundon Waste Management, a prominent name in the waste industry, has joined forces with RVS to realise their vision of a sustainable waste management fleet. By expertly retrofitting and repowering a few of their refuse vehicles, RVS has significantly reduced their carbon footprint, leading the way in green initiatives within the sector. This collaboration serves as an exemplary model for the waste management industry, demonstrating the positive impact that environmentally conscious practices can have on the planet and the community.

A Pioneering Partnership: RVS and The Recycling Partnership

The Recycling Partnership, a trailblazer



in promoting recycling practices, has found a valuable partner in RVS. The Recycling Partnership has exemplified their dedication to reducing emissions and promoting sustainability by transforming their refuse vehicles through innovative retrofitting and repowering techniques. RVS's expertise has played a key role in enabling The Recycling Partnership to achieve their ambitious goals, further solidifying their position as leaders in the pursuit of a cleaner, more sustainable future.

Leading the Green Movement: RVS and Islington Council

Islington Council's dedication to creating a greener borough has been greatly enhanced through their collaboration with RVS. By retrofitting and repowering their refuse vehicles, Islington Council has taken a giant leap towards achieving their sustainability goals. RVS's unmatched expertise and commitment to excellence have been instrumental in helping Islington Council build a cleaner, healthier community for its residents.

RVS: Transforming the Waste Management Landscape

As the waste management sector

faces increasing pressure to address environmental concerns, RVS has emerged as a beacon of hope, offering practical and sustainable solutions. Their expertise in retrofitting and repowering refuse vehicles has gathered widespread recognition from their innovative approach.

With a focus on minimising emissions, maximising efficiency, and reducing environmental impact, RVS has transformed individual fleets and set a precedent for the entire industry to follow. RVS has played a crucial role in shaping a more sustainable waste management landscape by supporting and enabling organisations to embrace greener practices.

Leading the Way in Green Innovation

The success stories serve as powerful testaments to RVS's expertise and commitment to creating a greener tomorrow. By converting conventional waste vehicles into eco-friendly models, these organisations have not only reduced their environmental impact but have also set new benchmarks for sustainability within the industry. ●

Join the Green Revolution with RVS

As the world increasingly recognises the urgency of addressing climate change and reducing carbon emissions, the waste management industry plays a pivotal role in effecting positive change. RVS has positioned themselves at the forefront of this green revolution through their commitment to retrofitting and repowering refuse vehicles.

We encourage all stakeholders in the waste management sector to explore the possibilities offered by RVS's innovative solutions. Together, we can drive a significant and lasting impact on the environment, fostering a cleaner, more sustainable future for generations to come.

For more information visit: www.refusevehiclesolutions.co.uk



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NHS trust taking a leading role in transitioning its fleet to electric vehicles (EVs) after a major project to install charging infrastructure.

Cumbria, Northumberland, Tyne and Wear NHS Foundation Trust has been able to accelerate its fleet electrification after Mer installed charge points at 13 of its sites. Mer worked on the project with NTW Solutions Ltd, which is the subsidiary responsible for support services to the Trust. NTW Solutions provides the Trust with estates and facilities management, car leasing, finance, workforce and procurement services.

Lee Cant, Commercial Director of NTW Solutions, said: "Working with Mer to

procure these chargers has been an enabler for us to move forward with our decarbonisation strategy. We benchmark ourselves against other trusts in the region and we know that we are out in front in terms of fleet electrification thanks in part to this project."

"Mer have been fantastic; they have gone above and beyond in terms of customer service. Working with them has significantly increased the speed of electrification and the decarbonisation of our fleet."

"NTW Solutions runs a fleet of 1,400 lease cars for Trust employees as well as around 90 service vehicles ranging from pool cars to vans and trucks."

"In total 40 percent of the lease cars are now fully electric or plug-in hybrids, while about a quarter of the service fleet is the same," added Lee. "Some of the service vehicles are larger and they need full payloads for operations like laundry, so they won't be electrified yet, we'll concentrate for now on the lighter vans."

"Mer won a competitive tender to deliver the charge points after meeting all the key criteria. One of the main priorities for the Trust was the ability to set different tariffs – free charging for fleet vehicles,

a preferential rate for staff, and a higher rate for visitors.

"It was imperative that we could set different rates for public charging, staff charging, and also for our fleet service vehicles," said Lee. "It was important to be able to differentiate for different use cases and also to have different methods of accessing the chargers, from contactless payment to RFID cards and key fobs."

"We were also keen on having a viable management system that we could extract data from, in order to ascertain which chargers were the most popular and identify where we might need additional infrastructure to meet demand."

"Mer have been fantastic; they have gone above and beyond in terms of customer service. Working with them has significantly increased the speed of electrification and the decarbonisation of our fleet."

"We are proud to be helping the Trust with the decarbonisation of its fleet. This was a complex but rewarding project to install chargers across multiple locations. The Trust is making full use of the smart charger technology to set different tariffs for various use cases and utilise Mer's proprietary back-office software for data analytics." ●



NHS Shetland rolls out fleet of new electric vehicles

As part of NHS Shetland's commitment to sustainability, a fleet of new electric vehicles have hit the road, helping staff get around the isles while also cutting the board's carbon footprint.

A total of 24 MG4 vehicles have been phased in to replace the former Mazda 2 fleet. This expansion will take the Board's overall total electric car fleet to 35.

NHS Scotland is aiming to become a net zero health service by 2040, with all vehicles to be net zero emission vehicles by 31 December 2025.

To keep the vehicles on the road, the Board has also installed 22 electric vehicle charging points across NHS locations to ensure the fleet can recharge when required. Funding of £76,000 for the charging point infrastructure came from the Scottish Government fleet decarbonisation programme.

Charging points have been installed in the following locations for use with NHS Shetland vehicles only: Unst Health Centre, Yell Health Centre, Whalsay Health Centre, Brae Health Centre, Bixter Health Centre, Hillswick Health Centre, Levenwick Health Centre, Lerwick Health Centre and Scalloway Hub. In addition, four charging points have been installed at the Montfield Board HQ to support the higher cluster of pool vehicles based in Lerwick.

This is a long way from the Board's first electric car, the Nissan Leaf, which entered the Community Nursing team's pooled fleet in Lerwick in 2011.



Pictured: (L- R) Lawson Bisset - Head of Estates, Facilities & Medical Physics, Laura Powis - Dental Special Programmes Co-ordinator, and Gary Robinson - Board Chair.

Since 2016, the Board has been steadily increasing the proportion of its vehicle fleet that runs on electricity. This month marks a significant step towards change as zero emission vehicles now account for 75% of the NHS overall vehicle fleet.

Board Chair Gary Robinson said: *"This is an important step for NHS Shetland and it demonstrates our commitment to tackling climate change.*

"By replacing almost all our fleet with fully electric vehicles, we are significantly reducing our emissions from our vehicles." ●

New funding to accelerate Cardiff Council carbon cutting

A £300,000 fund to support Cardiff's journey towards becoming carbon neutral and help further embed climate change awareness in decisions taken by Cardiff Council, has been announced.

The funding from Innovate UK, part of UK Research and Innovation (UKRI), for the 'Let's Go Net Zero' project will be used to accelerate the behaviour change within Cardiff Council that has already seen:

- emissions from council buildings

fall from 40,000 tonnes in 2014/15 to just over 18,000 tonnes in 21/22 (excluding leisure centres);

- the start of a process to transition its fleet of vehicles to electric;
- the development of a new social responsible procurement strategy;
- the development of highly energy-efficient sustainable new council homes.
- 50,000 new trees planted.
- multiple sustainable drainage schemes introduced.
- the development of a network of fully segregated cycleways.
- work commence on the delivery of a new, low carbon District Heat Network.
- a 9MW solar farm delivered at Lamby Way.

The funding will increase staff capacity to help ensure that low-carbon thinking is built into the day-to-day behaviour of council employees and the wider public sector, as well as the Council's decision-making, and investment strategies.

Cabinet Member for Climate Change, Cllr Caro Wild, said: *"Since introducing our One Planet Cardiff strategy, good progress has been made to reduce the amount of carbon created by the Council's own operations. The latest figures show a 12% reduction in the space of a year, but we can and must go further.*

"Responding to the challenge of climate change requires all of us to change the way we think and behave and as a Council it's important we try to lead by example. This funding will help us further analyse our own decision making and help us build low-carbon thinking into everything we do." ●



Technology Q & A: Inseego

with Steve Thomas, Managing Director

Steve Thomas, Managing Director of Inseego, discusses with Essential Fleet Manager Magazine how fleets can improve road safety, better protect drivers, and reduce associated costs by focusing on prevention. In our latest Technology Insight Q&A, he provides useful insight into the latest telematics developments and industry best practice.

Why do fleets need to focus more on prevention?

Around 90% of crashes are a result of driver error or distraction, so there is a huge opportunity for fleets to take a proactive approach to prevention. Of course, there will always be other factors involved in these collisions, but if you can eliminate the human element by encouraging drivers to correct issues then you will achieve meaningful results.

The insurance industry is certainly embracing prevention, having for years focused on first notification of loss (FNOL).

What we are now seeing is a switch towards first notification of risk (FNOR) as insurers recognise the added benefit of identifying where threats exist and doing something about it. From a fleet perspective, if you can become a low-risk operation, it's possible to not only save lives, but also associated costs.

How is fleet technology evolving to help?

Traditional vehicle cameras record a collision, allowing investigation after the event, but with advances in AI dashcams, fleets can tackle risk and

prevent incidents happening in the first place. Using the latest developments in machine vision and artificial intelligence (MV and AI), it is possible to detect and help drivers self-correct dangerous or distracted behaviour. Therefore, it becomes more about the prevention rather than the cure.

The AI dashcams provide a greater understanding of risky behaviour and distraction within the vehicle such as using a mobile device, eating and drinking, and eyes off the road. The MV-and AI-capabilities work together to

identify and assess risk in and out of the vehicle, so the driver can be notified of any issues. We have seen some driver pushback against these devices, but any initial reluctance has quickly been replaced by that the cameras are having a positive effect on risky driving habits and improving their safety.

What other ways can fleets engage with drivers?

We are seeing some exciting developments in targeted training that provides engagement and coaching, triggered by specific behaviour. This ability to create bespoke programs – with automated safety messages, performance reports and training modules – can address individual issues, change driver attitudes and mitigate fleet risk.

Meanwhile, gamification is a proven way of achieving improved performance on the road.

Providing drivers with an individual score, viewed alongside company and peer group averages, creates a competitive element that can quickly translate to safety and efficiency benefits. For even greater returns it can also be linked to an incentive scheme that rewards the best or preferably most improved performers.

Is there just too much data for fleet managers to handle?

One of the biggest issues we see from a fleet manager's perspective is that the amount of data can become overwhelming. Many simply don't have the time or resources to convert the information into actionable insight, so its about using clever tools and processes to capture, measure and use the data. For example, vehicle cameras typically

upload video clips based on g-force trigger events. For a fleet of 50 vehicles, if each generates four clips per day, the fleet manager would have 1,000 videos to watch, which is simply not workable.

Post event machine vision effectively means that the video telematics software views the video clips for you and flags up those that need attention. This means a fleet manager can quickly focus on actual collisions or an incident where a vulnerable road user (pedestrian, motorcyclist or cyclist) was involved rather than false positives generated by harsh driving, potholes and speed humps. The AI technology has been shown to reduce the number of clips needing review by as much as 99% leaving just a handful that can be checked in a matter of minutes.

How do you calculate the true risk of speeding?

Severity of speeding should always be considered alongside frequency, so fleets can see where the highest levels of risk exist. By comparing against road limits and vehicle types helps provide the context and understanding needed to identify true risk, because not all speeding should be considered the same. Is someone that consistently drives marginally above the speed limit on a motorway worse than someone that sometimes drives above 40mph past a school? A traditional vehicle tracking system would probably say so, but the latest speed band reporting measures the severity of events and weights them accordingly.

What are the consequences if fleet ignore speeding, especially in urban areas?

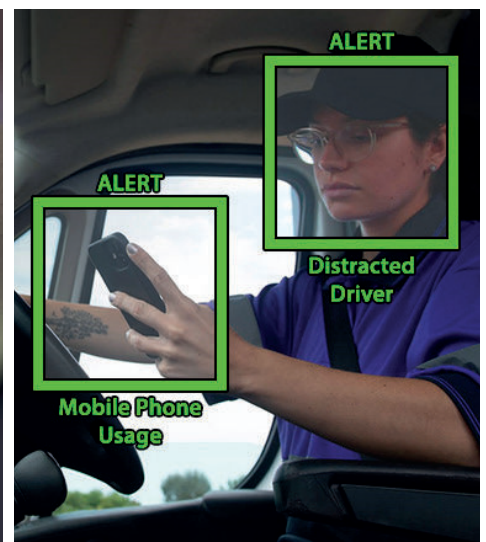
A vehicle travelling at 20mph can typically stop in 12 metres or less if a pedestrian crosses in front of them, but at 30mph the vehicle is likely to hit the same pedestrian at 27mph and at 40mph would not slow at all. Now consider that if someone is struck at 20mph the survival rate is 90%, but this drops to 50% at 30mph and just 10% at 40mph. As this shows, the potential consequences of high-risk speeding are extreme and will eventually lead to serious injury or loss of life.

What's the next development for telematics?

The next step will be to completely automate driver communication to reduce the burden on the fleet manager. Ultimately, telematics is about altering behaviour, but historically this has been the responsibility of the fleet manager to use performance data to directly engage with the driver.

We want to see a system that can be set up to analyse the available vehicle and driver information and automatically take steps to encourage change. This is already happening around driver behaviour monitoring and training where the telematics system can detect high-risk actions – such as speeding or harsh driving – and send the driver an appropriate message or training module. If moving forward, we can make it handle other aspects of fleet management including compliance, vehicle usage, and working hours, the technology will take on much of the hard work and the benefits will be seen throughout the organisation. ●

AI Dashcam



For more information visit: <https://inseego.com/uk/>



Cutting edge technology and innovation takes centre stage at The Emergency Services Show

The Emergency Services Show (ESS) returns to the NEC in Birmingham in September 2023, and it promises to be an extraordinary showcase of the latest breakthroughs in the dynamic world of emergency services.

Packed with a host of new features, this year's event offers police, fire & rescue, ambulance and rescue professionals even more to discover, learn, share and collaborate around. Occupying Halls 4 and 5, ESS will be co-located with The Emergency Tech Show, a brand new event that will showcase emerging technologies and innovations including digital transformation tools; connectivity; control room solutions; software and apps; wearable tech; cloud storage; virtual reality training simulation; and the use of AI for predictive emergency response, resource allocation and data analysis.

With more than 550 leading brands represented, show visitors can source new products and technology from leading names in the industry.

New for 2023, the Road Safety Zone will bring together a dedicated focus area

for suppliers of road safety equipment and solutions and a Road Safety Solutions Hub. The hub will cover the biggest emerging issues for the sector, including the challenges associated with incidents involving all types of electric vehicles (EVs), such as battery fires. Also incorporated in the new zone will be the ever-popular Extrication and Trauma Challenges hosted by West Midlands Fire Service. The two competitive challenges showcase the latest technology and equipment in action, livestreamed to large video screens.

The Resilience & Recovery Theatre will focus on the Government's Resilience Framework document. Topics covered include developing a new Resilience Academy; a reinvigorated national exercising programme to test preparedness; the new emergency alerts system; strengthening Local Resilience Forums; the benefits of ResilienceDirect, resilience as a career, and how the private sector can impact resilience planning.

"Resilience and preparedness have never been more important for our emergency

services after recent unforeseen events ranging from Covid and the Ukraine to extreme weather and the energy crisis," says David Brown. "The Emergency Services Show offers a unique meeting place to support the entire emergency services community to be better prepared in every way for future incidents."

Dedicated to providing cutting-edge industry practices and fostering forward-thinking discussions, the seminar programme at the show will feature an impressive line-up of keynote speakers and expert-led sessions. Attendees can expect to gain valuable insights and receive practical guidance from these sessions, all of which are CPD accredited. One notable highlight is The Policing Theatre at ESS, which will be aligned with the visionary objectives outlined in the Strategic Policing Board's recently published Policing Vision 2030 statement. This forward-thinking vision aims to revolutionise the entire policing system, promising transformative changes that will shape the future of law enforcement. The College of Paramedics is set to

offer its highly sought-after 30-minute CPD workshops, designed to cater to paramedics of all experience levels. These workshops provide actionable learning opportunities that can benefit both seasoned professionals and newcomers to the field. Regardless of their background, paramedics attending the show can expect to gain valuable insights and practical knowledge to enhance their skills.

The Lessons Learned Leaders' Summit, will delve into the profound takeaways from significant events of the past year. Topics covered will include fostering diversity in leadership positions, implementing review recommendations, and analysing specific incident reports like the impactful Manchester Arena attack.

Additionally, the Health & Wellbeing Theatre will focus on addressing the physical and mental health challenges faced by emergency responders. This year's spotlight will be on maintaining a healthy diet, managing the pressures associated with shift work and the rising cost of living, appreciating the advantages of a neurodiverse workforce, and developing coping strategies for life's key challenges, from recruitment to retirement. Topics such as pregnancy, promotion, and the menopause will also be explored, providing valuable insights into navigating these crucial stages in an emergency responder's career.

Unveiling a refreshed Collaboration Zone for 2023, this enhanced area will unite the emergency services, voluntary groups, charities and NGOs in a vibrant community to showcase their support and foster collaborative co-response and partnership initiatives.

Networking opportunities have long been one of the biggest draws at ESS and this year there will networking drinks at the end of the show's first day, taking place in the Hall 5 Networking Café.

Registration for the event is now live

Entry to the Emergency Services Show and parking at the NEC are both free.

The NEC is linked to Birmingham International Station and Birmingham Airport and is directly accessible from the UK motorway network.

For more information about The Emergency Services Show 2023, visit www.emergencyuk.com

For The Emergency Tech Show 2023, visit www.emergencytechshow.com



Exhibiting at The Emergency Services Show

19-20 September 2023 | NEC Birmingham

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Stand: Hall 5 / L124



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Staffordshire County Council takes delivery of pioneering Pothole Pro machine

Highways teams at Staffordshire County Council will soon be taking delivery of the latest addition to their fight against defects—the JCB Pothole Pro.

Fresh off the production line at the JCB Heavy Products factory in Uttoxeter, the Pothole Pro is set to be brought into commission by the county council's highways teams.

Crews will also undertake training on the new machine, and it will get its first outing later this month when the council repairs a roundabout on the A522 outside the entrance to the JCB factory.

The JCB Pothole Pro machine is a unique 3-in-1 machine, designed to repair potholes in an average time of eight minutes without the need for additional specialist equipment or extra manpower.

The Pothole Pro can prepare up to 250m² of roadway in a single shift, or 5,000m³ per month and allows local authorities to cut the defect, crop the edges and clean the hole with one machine before they

are filled with bitumen – mechanising jobs traditionally done by pothole gangs and delivering up to a 50% cut in daily costs.

In Staffordshire, it will be mainly used for patching and larger pothole repairs.

Staffordshire County Council Cabinet Member for Commercial Mark Deaville said:

"After being put through its paces last year in trials around the county, the Pothole Pro proved its mettle in a variety of different situations and will be seen out and about on Staffordshire's roads in the coming months. This purchase further cements our long-standing, strong partnership between the county council and JCB.

"We are always looking for opportunities to trial new machinery so we can repair our roads as quickly and as effectively as possible, minimising the disruption to Staffordshire motorists. The Pothole Pro will be a great addition to our arsenal of machinery and, alongside our £30 million investment in Staffordshire's highways

over the next two years, will really make a difference to our roads."

JCB Government and Municipalities General Manager Ben Rawding said:

"We are delighted that Staffordshire County Council is joining a growing number of UK local authorities in purchasing a JCB Pothole Pro. As the number one solution for pothole repairs in the UK, this machine is making a real difference up and down the country, both in the quality of repairs and the speed at which they are completed.

"Supporting local authorities is key priority for JCB. This is a perfect example of the team providing tangible solution to a real challenge faced by councils and residents.

"As a Staffordshire company we are very proud that the county council will be deploying technology on our doorstep which has been developed in our home county. We will continue to support them with ongoing training to ensure the machine delivers the transformational results seen by many other local authorities." ●



L-R: Cabinet Member for Highways and Transport David Williams, Cabinet Member for Commercial Mark Deaville and JCB Government and Municipalities General Manager Ben Rawding with the Pothole Pro.

Energy Superhub Oxford charges 32,000 vehicles, supporting the doubling of EV uptake in the region



On its first anniversary, Energy Superhub Oxford (ESO), a partnership between EDF Renewables UK, Oxford City Council, Fastned, Tesla Superchargers and Wenea, has reduced carbon emissions and encouraged uptake of EVs in the region, playing an essential role in Oxford's path to net zero.

Since its opening, around 32,000 vehicles have been charged, saving approximately 732.66 tonnes of carbon, the equivalent of planting around 4,300 trees in the Oxford area to absorb the CO² in the atmosphere. It has also provided 1,145 MWh of power to local residents.

Energy Superhub Oxford is the first example of a new model spearheaded by EDF Renewables UK, with the UK's first transmission-connected battery combined with Europe's most powerful EV charging network. It supplies power for rapid charging for EVs and vehicle fleets, meeting the rising demand for power that electrification brings without overburdening the local electricity distribution network. On average, data shows it supports roughly 95 charging sessions per day, enabling residents to drive around 3,309,248 miles over the course of the year,

powered by clean energy.

Throughout 2022, 9,084 EVs and 4,967 hybrid petrol and diesel cars were registered in Oxfordshire, compared to 5,022 battery electric cars and 3,695 hybrid petrol and diesel cars in 2021.¹ According to the DVLA, half (50.8%) of newly registered vehicles in Oxfordshire were electric in June 2023, the highest uptake figures in the whole of the UK² which indicates that, with ESO providing consumers with the option of clean energy infrastructure on their doorstep, citizens in the region are making greener choices. With demand for EVs showing no signs of diminishing, the technology's connection to the transmission grid – effectively the motorway of the electricity system – means the future-proof hub can continue to scale as demand increases.

In ESO's first year, it has become a key piece of the puzzle in scaling up green transport and power in Oxford, with the infrastructure allowing companies like Oxford Bus Company to bring a brand-new fleet of 104 electric buses to the city from the end of 2023. The city has an ambitious goal of achieving net zero carbon emissions by 2040 – ten years ahead of the legal deadline

set by the Government. With the increase in EV uptake, Oxford is now well on its way to the Government's Road to Net Zero Strategy forecast of having at least 1 in 5 cars fully electric by 2030, and ahead of many other regions in the UK.

Matthew Boulton, Director of Solar, Storage and Private Wire at EDF Renewables UK, said:

"One year on, we're thrilled to see the impact that Energy Superhub Oxford has had on EV uptake and net zero targets for Oxford, ensuring that these essential goals can be achieved in tandem, without overburdening the grid. With emissions down and electrification on the rise, it's great to see how, with the right infrastructure, individuals and organisations can – and do – make greener choices. With our technology able to scale as demand grows, we look forward to continuing to work with our partners across the city to drive decarbonisation in the region as we near 2040."

Councillor Anna Railton, Cabinet Member for Zero Carbon Oxford and Climate Justice, Oxford City Council, said:

"It is very exciting that the Energy Superhub Oxford project has achieved one year of operation. This was a significant moment for our city as we work

to become a zero-carbon Oxford by 2040 and I am delighted that so many people have visited and used the Superhub. This is a prime example of how private companies and local councils can work together to achieve net zero."

ESO's data gathering capabilities also highlights insights into people's behaviour concerning EV charging. People are most likely to charge their vehicles in the afternoon – around 16-16:30 following work or the school run – rather than into the evenings post-19:00. They are also more likely to charge on a Sunday rather than a Monday. The data, therefore, shows that the best time to charge your vehicles and avoid a queue would be a weekday, in the morning, early afternoon or later in the evening.

This project is part of EDF Renewables UK's nationwide rollout of Energy Superhubs. The company plans to deploy 40 Energy Superhubs across the UK, with the next two battery storage projects already underway in Coventry and Sandwell. Once complete, the network could provide almost 10% of the energy storage that the UK is predicted to require by 2035. ●

Now more than 170 ultra-rapid charging hubs across the UK

Zapmap, the UK's leading charge point mapping service, has published new mid-year statistics for charge point installations in 2023, showing that the rate of installation has increased significantly.

During the first half of 2022 an average of 891 charging devices were installed each month. Fast-forward to the beginning half of 2023 and the UK is now seeing an average of 1,622 charging devices installed per month. This means the rate of installation has increased by around 82%. If the current rate of growth continues, Zapmap calculations indicate there will be more than 50,000 charge points in the UK by the end of the year.

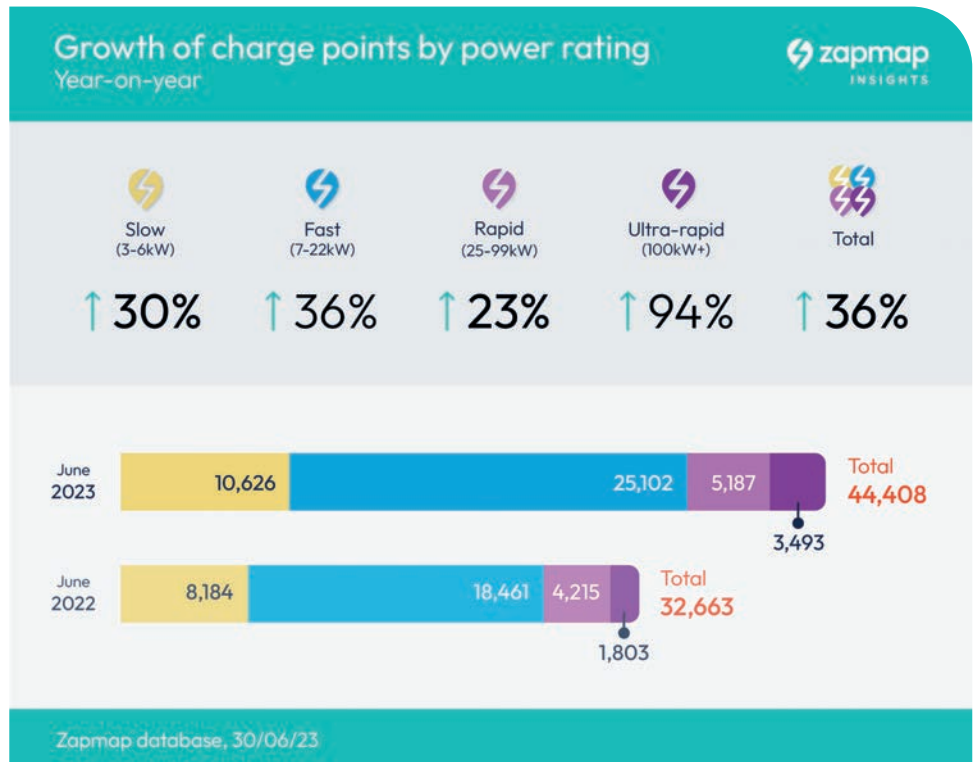
At present, the latest Zapmap figures show there are more than 44,000 public charging devices installed across the UK as of the end of June 2023, representing overall year-on-year growth of 36%.

Breaking these latest figures down by power rating shows that almost 20% of devices are rapid or ultra-rapid chargers. Indeed, at the end of June 2022 there were 1,803 ultra-rapid devices in the UK – the majority of which were Tesla Superchargers. As of last month, there are now 3,493 ultra-rapid devices, the vast majority of which are open for public use. This represents an impressive 94% increase.

Nine of twelve geographical areas of the country saw more than 100 new ultra-rapid devices installed, with the South East seeing the most at 269.

In contrast, the North East and Wales saw only 61 and 62 new ultra-rapid chargers each. Northern Ireland saw the smallest number of ultra-rapids installed, with only 16. However, this was up from zero the previous year.

Of course, ultra-rapid devices are not the only type of charger being installed. As of June 2023, Zapmap's figures show that 56% of devices are destination chargers,



useful for topping up the battery when parked at locations such as supermarkets or gyms. There were 25,102 of these chargers as of the end of last month, exhibiting year-on-year growth of 36%.

Significantly, around 24% of public charging devices are 'slow' chargers, predominantly found on residential streets to provide an alternative to charging at home.

In terms of overall regional distribution, 36% of all new charge points were installed in Greater London and the South East over the past year. However, there are distinct differences in what was installed within the two areas.

The South East, for example, saw high installations of all types of chargers across the board. Meanwhile, most of the chargers installed in Greater London (83%) were on-street chargers. Indeed, Greater London was the only region to show a significant net increase in slow, on-street chargers – reflecting the area's high concentration of relatively affluent households without off-street parking.

Other areas showed high growth from a low base. Wales, the West Midlands and the East of England, for instance, all showed increases of around 50% over the same period, with notable growth in both destination chargers as well as rapid and ultra-rapid chargers.

Melanie Shufflebotham, Co-founder & COO at Zapmap, said:

"It's really encouraging to see the pace of charger installation across the UK grow by over 80% compared to this time last year. We know that the perceived lack of charge point infrastructure is a concern for those considering getting an electric car. These latest figures should go a long way to alleviate those concerns and give drivers confidence to make the switch.

"In particular, as we approach the summer holidays, having an additional 90 new charging hubs spread across the UK is a huge step up from last year, and will make a real difference for electric car drivers travelling long distances.

"All areas of industry need to continue to work together to make sure the rollout continues at pace across the whole UK as more and more electric car drivers take to the road."

Jade Edwards, Head of Insights at Zapmap, said:

"It's great to see these latest Zapmap figures because they can really help people to understand how the rollout of the UK's charging infrastructure is playing out across the country.

"We know it can be difficult to see larger changes occurring from the ground. But from the rate of installation increasing through to the types of chargers being installed at a regional level, these statistics can help to give clarity on how the UK's charging infrastructure is growing." ●



Study shows premium fuels with lower Ethanol levels improve efficiency and reduce costs for consumers

Trakm8, a leading provider of vehicle technology solutions, conducted a study to examine the impact of ethanol levels in petrol fuels on efficiency and cost-effectiveness.

The study found that premium fuels with lower ethanol levels deliver approximately 10% more range compared to standard fuels tested.

The UK government has mandated a standard ethanol content of 10% in 95 ron fuels to reduce CO₂ emissions from petrol vehicles. However, this study reveals that increasing ethanol content in fuel reduces its energy density, making it less effective and efficient for consumers.

Premium fuels available in the UK, on the other hand, have retained lower ethanol levels, providing consumers with a more efficient fuel source. In addition to improved mileage, using these fuels offers other advantages such as reducing carbon deposits in the engine and providing cleaning properties. These benefits can help prevent failures of components like fuel injectors,

turbochargers, catalytic converters, and keep inlet ports clearer of carbon deposits, especially in vehicles utilising direct injection.

From a cost perspective, using reasonably priced premium fuels for a year at an average of 10,000 miles could save consumers around £80 at the pump. Furthermore, by reducing fuel-related repair bills and decreasing CO₂ emissions by up to or even in excess of 100kg, consumers can contribute to a greener and more sustainable environment.

The study employed a 2018 1.5L automatic BMW 1 series as the test vehicle, driven exclusively in comfort mode with stop-start enabled. The test vehicle had 40k miles on the clock and only ever ran on 95 ron before this testing was conducted. Various driving conditions were documented throughout the test to ensure accurate comparisons. The research team reset the engine control module's adaptation before each fuel type was tested.

Specific drive cycles were conducted, and

comprehensive data on the management of fuel by the vehicle was logged, including ambient air temperature, barometric pressure, injector duty cycle, injection on time, and fuel pump duty cycle.

The study compared three fuel types: E10, E5, and E0, all purchased from locations within a 2-mile radius. Tesco supplied E10 and E5, while Esso provided E0, which was chosen due to its lower ethanol content. The tests included runs at 70 mph on dual carriageways, an uphill test on a gradient hill, and a stop/start test around a block.

Trakm8's study clearly demonstrates that premium fuels with lower ethanol levels offer significant advantages to consumers. Not only do these fuels provide a more efficient range, but they also lead to potential savings at the pump and reduced CO₂ emissions. By choosing a fuel with lower ethanol content, consumers can optimise their vehicle's performance, minimise repair costs, and contribute to a cleaner environment. ●

For more information visit: www.trakm8.com

UK Power Networks helping to drive forward zero-emission bus agenda



Pictured: Twickenham Bus Depot, where new electric buses are now running following a Green Recovery power upgrade by UK Power Networks. (L to R) Jon Eardley, Managing Director, Abellio London Bus, with Adam Lakey, leading the Green Recovery projects for UK Power Networks.

A green power upgrade by UK Power Networks has enabled the electrification of up to 150 buses at Abellio London's Twickenham Bus Depot.

UK Power Networks has installed new underground cables and equipment at a local substation through its Green Recovery programme to fully convert the depot to electric buses in future, cutting carbon emissions and improving air quality.

The first 30 new electric double-decker buses are now operating from the depot on route 111 between Heathrow Central and Kingston's Cromwell Road Bus Station.

UK Power Networks is delivering £66 million investment across 85 'shovel ready' sites, to fast-track low carbon energy projects that will help achieve the Government's Ten Point Plan towards Net Zero by 2050, with Twickenham among the sites to benefit.

The electricity distributor has installed 2.5km of new underground cable and upgraded the local substation through an investment of approximately £1.8 million to deliver 3.86MVA of additional

power capacity. The equipment will connect 30 charge points that will charge buses overnight.

Adam Lakey, leading the Green Recovery projects for UK Power Networks, said: *"This investment in essential new power infrastructure will enable Twickenham Bus Depot's entire bus fleet to go completely electric in the years ahead, improving air quality and reducing carbon emissions. "We worked with local communities, Government and Ofgem to identify projects where investment in electricity infrastructure could kick-start a Green Recovery, promote economic recovery and make tangible progress to connect more electric vehicles."*

The project supports the transition to net zero carbon emissions and London Mayor, Sadiq Khan's plans for the capital's entire bus fleet to be fully-electric by 2034.

Jon Eardley, managing director, Abellio London Bus, said: *"This project will give us the capacity to fully convert our buses at Twickenham to electric, cleaning the air and helping to deliver the Mayor's zero emission ambition.*

"We're delighted to work with UK Power

Networks to accelerate these plans through their Green Recovery fund. Here at Abellio London we are committed to ambitious and sustained investment in green infrastructure and a zero emission fleet. We see this as essential for attracting more people onto public transport, which in turn promotes other forms of active travel." Louise Cheeseman, Director of Bus at TfL, said: *"These works at the Twickenham garage are helping drive forward our zero-emission bus agenda, giving bus operators the capacity to charge the significant number of vehicles now operating in London. London has one of the largest and greenest fleets in the world, but we won't stop until every single one of the capital's buses is zero-emission. With their smooth, quiet journeys and innovative features, zero-emission buses don't just help reduce the effects of climate change and improve air quality – they help to make our city better for everyone and offer a great alternative to the car when getting around town."*

The new Electroliner buses, built by Wrightbus, have high back seats, better information screens inside and out and roof lights on the top deck. ●

For information about Green Recovery see www.ukpowernetworks.co.uk/green-recovery

SMMT Sustainability Report 2023: How the industry is reducing its emissions

SMMT's latest Sustainability Report shows that the UK automotive manufacturing sector shrunk its emissions to the lowest level on record last year, with emissions per vehicle made cut by -2.8% – while at the same time producing a record-high proportion of EVs.

The recently published research is further evidence of the sector's commitment to delivering UK net zero targets – despite the higher energy demands of EV output at present, efforts to drive efficiencies and use more green energy are having a significant impact, with CO2 emissions down by nearly 17,700 tonnes compared with 2021 – the equivalent annual carbon reduction of more than 800,000 trees.

These savings were delivered in part by growth in green tariff energy use, while manufacturers themselves generated some 4.7% more renewable energy than last year thanks to continued investment in on-site green infrastructure, delivering a total of 46GWh – enough to produce up to 767,000 EV batteries a year.

At the same time, manufacturers have further streamlined their recycling and reuse, with the average amount of waste per vehicle down by more than a third (-37.0%).

It is clear that Britain is scaling up its EV output, but battery production is lagging behind, with up to 90GWh of gigafactory capacity needed by 2030 to meet the UK's EV manufacturing needs.

With various factors affecting investment decisions, involving many stakeholders, SMMT has set out an industrial strategy that calls for a range of measures, including major investment in more affordable, renewable energy supply in the UK.

The sector's historic excellence, combined with its highly skilled



workforce and undoubted R&D capability, can help make it one of the top global locations for producing zero emission vehicles.

Against a backdrop of increasingly fierce competition for investment and the need for industrial security provided by domestic battery production capacity, Britain urgently needs a plan to grow its supply of low cost, low carbon energy.

This is essential not just for manufacturing competitiveness but also for EV drivers, who must be confident that they can cost-effectively charge an EV with green energy – a vital step to accelerating uptake.

Mike Hawes, SMMT Chief Executive, said: "Britain's automotive industry is building record numbers of zero emission vehicles while cutting its carbon footprint to a record low. This double success has been delivered thanks to huge investments from manufacturers to decarbonise both their facilities and vehicles.

"As demand for electric vehicles continues to grow at home and overseas, the UK can distinguish itself as a low-carbon manufacturing nation – but this depends on critical investment in gigafactories and the affordable, renewable energy needed to power them. The sector has made huge strides in recent years but there is much more to be done."

Since Europe's first mass market EV entered production in the UK in 2011, manufacturers have allocated some £11 billion in long-term commitments to deliver zero emission vehicles and decarbonise production facilities.

Recent sustainability investments in automotive manufacturing, included in the Sustainability Report, range from

green technology innovations to solar panel sites and production efficiencies.

Leyland Trucks

In what was one of the largest and most significant deployments of zero emission trucks in the UK last year, 20 DAF LF Electric vehicles entered service with a range of public bodies including the NHS and Local Authorities, as part of the Battery Electric Truck Trial (BETT) funded by the Department for Transport.

The trucks entered day-to-day operations while at the same time gathering real-time data – the results from which are available on an interactive website to inform future fleet operator buying decisions and help stimulate the sale of battery electric trucks.

One of the key operators in partnership with BETT is NHS Supply Chain, which, supported by financing and maintenance services from Prohire, is deploying eight DAF LF Electric rigidis with refrigerated bodies in several of its locations around the country.

BETT is valued at £10 million and focuses on an end-to-end solution, covering vehicles, charging infrastructure, user training, repair and maintenance as well as total-cost-of-ownership, providing operational insight across a variety of duty cycles.

It is part of the Government's wider £20 million Zero Emission Road Freight Trial and is delivered using the SBRI (Small Business Research Initiative).

Lancashire-based Leyland Trucks – where the LF Electric is manufactured – is working with CENEX, the low carbon research and consultancy organisation, to create the interactive BETT report and website. ●

New Volkswagen - Touareg



The new Volkswagen Touareg is now available with bright lights that don't dazzle, upgraded running gear and superior comfort - the latest upgraded Touareg strikes the perfect balance whether you are on-road, off-road or towing.

One of the most eye-catching features is the newly-developed IQ.Light HD LED matrix headlights, which use 38,432 LEDs to turn night into day. Three light modules in each headlight create an unmistakable design and project a lane of light ahead of the driver to provide maximum visibility without dazzling oncoming traffic. There's also lighting for cornering and poor weather, and with the optional Night Vision assist system – which detects people and animals using a thermal imaging camera and shows them on the cockpit and optional head-up display – the Touareg is set to offer one of the best lighting and night vision systems in the world.

Lighting also plays a part in the vehicle's striking good looks. The redesigned front end features, for the first time on the Touareg, an illuminated horizontal strip in the radiator grille; a similar line across the rear also offers a first for any Volkswagen model in the UK, in the form of an illuminated red brand logo. New 20-, 21- and 22-inch alloy wheels will also turn heads when people see the new Touareg from the side.

Different design touches are included for specific equipment levels. For

example, the flagship Touareg R eHybrid, developed by Volkswagen R, features standard 22-inch Estoril diamond-turned wheel rims with blue brake calipers and decorated with a silver R logo. The R logo is also projected on to the road by the exterior mirrors.

The new Touareg is available in five powertrains, each with a 3.0-litre V6 power unit: one turbocharged petrol engine (340 PS), two turbodiesel engines (231 PS and 286 PS) and two plug-in hybrid drives (V6 petrol engine plus electric drive motor). The plug-in hybrid drive of the Touareg eHybrid delivers 381 PS, and the Touareg R eHybrid delivers a hefty 462 PS. All engines are paired as standard with an eight-speed automatic gearbox and 4MOTION permanent all-wheel drive.

The Touareg is already famous for providing high levels of comfort, and this is only getting better with the latest version.

The running gear has been revamped to allow an even greater spread between performance and comfort on all types of terrain, from smooth motorways and undulating lanes to bumpy and hilly tracks.

A roof load sensor works with the vehicle electronics and running gear for increased agility when carrying a roof box, and the all-wheel-drive Touareg has high-tech options such as active roll compensation and all-wheel steering. A plethora of innovative technology

systems include Travel Assist (assisted driving up to a maximum speed), Area View (360-degree bird's eye view shown in the infotainment display console to assist with manoeuvring), Park Assist Plus with remote parking capability (allowing the driver to control parking remotely, via an app, from outside the vehicle), Trailer Assist (assisted manoeuvring with a trailer) and the previously mentioned Night Vision.

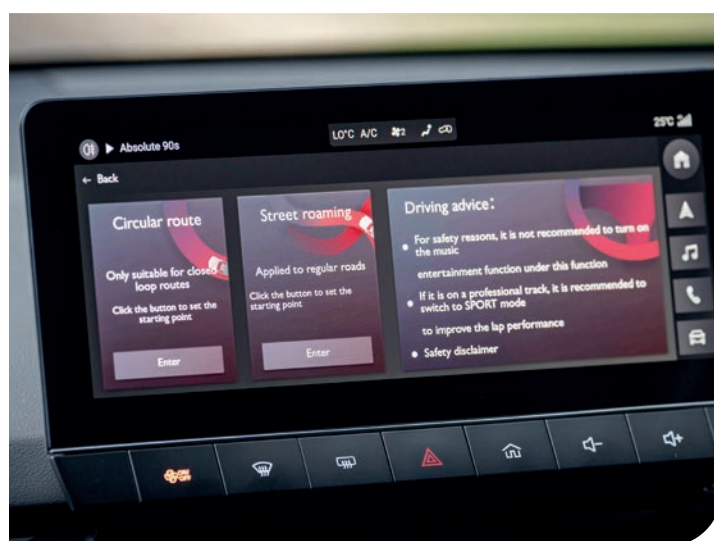
Volkswagen has upgraded the Touareg's interior for added comfort on long journeys, including soft armrests and even padding on the centre console to cushion people's knees from bumps. New door panels made of a foamed material come with attractive double decorative seams.

The InnoVision Cockpit features the latest hardware and software, including lane-level navigation and high-resolution HD map data, voice control system and wireless app integration for smartphones. It combines a digital 12-inch instrument cluster and the Discover Premium infotainment system with a central 15-inch touchscreen. The two displays form a continuous digital landscape on one viewing and operating axis.

Electronic devices such as tablets can be charged with 45 instead of 15 Watts, while an optional 730-Watt Dynaudio Consequence sound system promises as many thrills for people's hearing as the rest of the vehicle does for their other senses. ●

The new MG4 XPOWER

The most powerful production MG ever, offers power and dynamics at an extremely competitive price



The new MG4 XPOWER is the most powerful production MG yet and is as the new flagship model in the award-winning MG4 EV range.

The new range-topping MG4 XPOWER firmly underlines MG's 'Get More' philosophy, as an EV performance car offering drivers power and dynamics at an extremely competitive price. It features a dual motor powertrain delivering 435PS and up to 600Nm of torque, giving it the capability of 0-62mph in 3.8 seconds and a top speed of 124mph. The all-new dual motor configuration also delivers up to

320kW and 435PS¹ all four wheels, via front (150kW) and rear (170kW) electric motors. This positions the latest MG4 model alongside the most potent high-performance hatchbacks on the market. The new MG4 XPOWER retains the high levels of technology, equipment and practical hatchback features of the MG4 EV, with exceptional storage, cabin and boot space.

On the outside it has design and specification enhancements including orange 'XPOWER' brake caliper covers, a two-tone black roof, new 18" 'Cyclone'

alloy wheels, polished trim accents and a new Racing Green colour option exclusive to XPOWER.

On the inside drivers get Black Alcantara seat upholstery and metal sports pedals. In terms of safety MG4 XPOWER comes with MG Pilot advanced driver assistance as standard on all models, Blind Spot Detection, Lane Change Assist, Rear Cross Traffic Alert and Door Opening Warning.

The iSMART system in the cockpit integrates car, internet, and user communication, with voice activation and remote control features. ●

Škoda's Crew Protect Assist



As provisional UK road casualty figures for 2022 show the need for intelligent, fast-acting safety systems is as important as ever. Figures released by the Department for Transport show that there were 15 traffic collision casualties every hour in Great Britain in 2022 with more than 136,000 road casualties over the course of the year.

Škoda's Crew Protect Assist was first introduced in 2013 on the Octavia and is now available on Scala, Kamiq, Karoq, Kodiaq, Superb and Enyaq ranges. The system, which was once the preserve of premium and luxury cars, works with a vehicle's radar and stability control systems to react to an impending collision.

Crew Protect Assist does exactly as its name suggests and ensures that car occupants are given the highest possible levels of protection in the event of an accident. Key to reducing the risk of injury in a collision is ensuring that all occupants are in the right place to benefit from the car's other safety features such as airbags. To achieve this, Crew Protect Assist reacts to inputs from the car's stability and radar systems. Crew Protect Assist automatically pre-tensions the driver and passenger seatbelts, minimising any potential movement in the event of an impact.

The system also engages with the Electronic Stability Control to partially close any open windows, leaving a 5cm gap, and fully close the panoramic sunroof to prevent foreign objects entering the vehicle and causing injuries.



In the event of an accident occurring, other standard features across every vehicle in the Škoda model range, such as airbags and Emergency Call (part of the Škoda Connect system) spring into action. If an accident is avoided, the seatbelts will automatically release to a more comfortable tension.

Crew Protect works alongside Škoda's extensive suite of safety features, designed to reduce the chances of accidents happening, and to mitigate the damage caused if they do.

Emergency Assist is designed to reduce the chance of a collision happening by monitoring the driver's condition and behaviour. If no steering movement or other activity is detected for a particular amount of time, the driver is alerted with a warning signal. If Emergency Assist detects no response, the system initiates a minor swerve to jolt the driver alert, and if there is still no reaction, the system will automatically activate the

hazard lights and bring the vehicle to a halt.

Should an accident occur, systems such as Multi-Collision Brake on the Škoda Kodiaq and Post Collision Brake on the Superb are designed to minimise additional injury or damage after an initial collision. The systems apply the brakes to prevent further uncontrolled movement, reducing the risk of the vehicle rolling into the path of other vehicles and causing a second collision.

Radar-based Adaptive Cruise Control, meanwhile, available on every model in the Škoda line-up, ensures the driver maintains a safe distance from a slower or slowing vehicle. Additionally, Front Assist, available on the Scala, Fabia, Octavia, Superb, Kamiq and Karoq, warns the driver of a collision at speeds between 3 and 130mph and activates automatic partial braking, or triggers emergency braking if necessary. ●

New Nissan LEAF Shiro



Nissan is introducing a new LEAF variant to the range; Shiro, providing both high value and attractive pricing.

Based on an N-Connecta grade, this new derivate also includes ProPILOT Assist, Nissan's popular driver assist package, which is made up of Traffic Jam pilot, Intelligent Lane Keep Assist and an electronic parking brake. It offers synthetic leather trim with cloth inserts and is available with the 39kWh battery only. Shiro is Japanese for white and accordingly comes with Arctic White paint as standard. This new variant is available with optional Spare Wheel Pack

and two-tone paint (Storm White with a Pearl Black roof).

Nic Thomas, Nissan GB Marketing Director commented:

"LEAF was the first mass market car when it launched in 2010; with the 2nd generation following in 2018, Nissan continued to be at the forefront of the electric revolution. Since then, LEAF has gone from strength to strength and continues to represent an excellent customer proposition for both new and used

vehicle customers. I'm pleased to introduce this new version, Shiro is a welcome addition to our line-up which is great value and tech advanced and I'm sure will be an incredibly popular choice."

Available now, Shiro is built in the UK at Nissan's Sunderland plant and is incredibly well priced.

The Nissan LEAF has become an electric vehicle icon and has sold more than 646,000 units globally. It continues to win awards, for both new and used cars. ●

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Alfa Romeo Tonale Plug-In Hybrid Q4



The Alfa Romeo Tonale Plug-In Hybrid Q4 completes the Tonale range—the model with which the brand made its entrance into the world of electrification. This new version sits at the top of the range and combines maximum efficiency and sportiness: more than 49 miles in full-electric in the urban cycle, 372 miles in the total cycle and emissions reduced to 26g/km.

Quality and attention-to-detail have been combined with dynamic characteristics, while its on-board technology and connectivity make it the most hi-tech Alfa Romeo ever.

The powertrain in the Plug-in Hybrid Q4 makes it the most efficient Tonale in the range, offering the best in terms of performance and battery life. The advanced hybrid system combines a 180hp, 1.3-litre turbocharged MultiAir, 4-cylinder engine coupled to a 6-speed automatic transmission to provide traction to the front axle, with an electric motor capable of supplying 90kW of max peak power and 250 Nm of torque to the rear axle.

The 306-volt, 15.5 kWh lithium-ion battery supplies an electric range of over 49 miles in the urban cycle and more than 372 miles of total range, making the Tonale Plug-in Hybrid one of the most efficient plug-in hybrid SUVs. The new hybrid powertrain reduces CO2 emissions to 29 g/km and improves fuel consumption to deliver 217.3 mpg in the WLTP cycle. With the aim of providing maximum efficiency, it takes less than 2.5 hours to fully charge the battery from a 7.4 kW charger.

Equipped with a Q4 all-wheel-drive system—the front wheels are powered by the internal combustion engine and the rear wheels are powered by the electric motor— helping to provide best-in-class agility, lightness and driving dynamics.

Its 280hp hybrid powertrain ensures it accelerates from zero to 62 mph in just 6.2 seconds and onto a top speed of 84 mph in full-electric mode and 128 mph in hybrid mode, with the e-AWD system providing instantaneous deployment of 100 per cent of available torque from the electric motor on the rear axle.

The advanced 4x4 hybrid system guarantees maximum stability both off-road and on. It does not physically connect the two propulsion systems, but rather coordinates them, making the

Tonale Plug-In even lighter and unmatched in its handling.

It is possible to manage the Q4 traction and the electronic controls, coordinate the action of the engine and transmission and modify the sensitivity of the commands all on a single selector dial.

- **Dynamic mode** prioritises the vehicle's performance with a specific calibration of the throttle, management of the transmission and stability controls, which have been combined with a more direct steering response.
- **Natural mode** uses hybrid driving and all-wheel drive to optimise the efficiency of the internal combustion engine and electric motor, without compromising performance.

Advanced Efficiency obtains maximum energy efficiency in full-electric driving mode. When the driver removes their foot from the throttle the car will continue to drive in Sailing mode, while the new eCoasting Descent Control is activated when going downhill to maintain a constant speed of 31 mph (adjustable with a light touch of the throttle or brake).

The addition of EV features on the Tonale Plug-in Hybrid Q4 guarantee an even more efficient and relaxing driving experience. E-Save allows drivers to recharge or maintain the battery level when the internal combustion engine is on; the regenerative braking system allows drivers to recover energy during the phases of deceleration and braking, storing it in the battery pack, and by activating E-Coasting, energy recovery takes place even when slowing down without a foot on the



brake pedal. The EV Features can be controlled by the driver through the instrument panel.

Superior software and connectivity have been provided as standard to offer the brand's trademark driving pleasure, while guaranteeing a comfortable and connected experience. The integration with the Amazon Alexa voice assistant offers the convenience of interacting with the system without the driver having to remove their hands from the wheel.

The brand-new infotainment system comes as standard and offers functionality and services which are constantly updated via its customisable Android operating system and 4G connectivity with Over The Air (OTA) updates. The high-resolution 22.5-inch screens — 12.3-inch totally digital screen and 10.25-inch main touchscreen unit — features an intuitive and easy-to-use system. The dials in the Tonale Plug-in Hybrid Q4 includes features such as the *elettro-biscione*, in the lower part of the right dial, which changes colour based on the electric motor's status (off, on, on and charging) and provides all the information related to power and charging.

Four new functionalities make their debuts on the Tonale Plug-in Hybrid Q4 and further expand upon the Alfa Connect Services:

- **E-control:** allows the customer to control various functionalities based on the EV features—including charging and the climate control system— directly from the My Alfa Connect App
- **Dynamic Range Mapping:** allows drivers to travel with peace of mind, showing them the destinations they can reach based on the battery charge
- **Charging Station Finder:** allows the customer to see the nearest public charging stations both on the navigation system map and the My Alfa Connect app
- **My eCharge:** allows for the use of the My Alfa Connect app to directly access Free2Move eSolutions services to manage public and private charging. It will be possible to locate

the public charging stations, check the charging methods, make payments, visualise the charge history and manage charging from a home Wallbox – allowing drivers to decide how much electricity to use and even increase, decrease, suspend and reactivate the charge

The Tonale Plug-in Hybrid Q4 is the top-of-the-range model. It is available in Ti trim, with an elegant and distinctive character, and Veloce trim, with a more sporty feeling.

The Ti version is externally distinguished by a satin chrome V front bezel, 18-inch dark finish diamond cut alloy wheels with coloured Alfa Romeo centre wheel caps, a gloss-black body kit, with satin side and front inserts, privacy glass and black painted mirror caps. Inside, sporty black cloth upholstery, driver's seat with four-way lumbar adjustment, 60/40 split rear seats with ski pass and sport leather steering wheel with start button complete the Ti.

The Veloce builds on this with dark miron V front bezel, *veloce* badging and body kit, with matt side and front inserts, gloss black window surround, and 19-inch dark finish diamond cut alloy wheels with monochrome Alfa Romeo centre wheel caps and red painted Brembo brake calipers. Inside, the Veloce adds aluminium door sills and column mounted aluminium shift paddles to its distinctive black and red Alcantara upholstery. Under the skin, the Veloce also gains Alfa Dual Stage Valve suspension (DSV) for an even more compliant ride.

The Tonale Plug-In Hybrid Q4 will also be available as an exclusive SPECIALE launch version with enhanced contents and connectivity including gloss black body kit with titanium side and front inserts, a SPECIALE badge on the wing and a black Tonale badge, 20-inch alloy wheels, metal pedals and red Brembo brake calipers.

The Tonale range is available in a choice of six solid, metallic and tri-coat colours – Alfa White, Alfa Red, Alfa Black, Misano Blue, Montreal Green and Vesuvio Grey. A leather pack is available on all trims to enhance their standard interior offering.

SSE's Aberdeen teams road test First Hydrogen's green hydrogen-powered vehicle



Energy firm SSE continues to lead the charge on low carbon transport as it becomes the first UK utility to trial First Hydrogen's first-of-its-kind hydrogen-powered vehicle.

As the UK's largest energy infrastructure company, SSE has recognised the crucial role the decarbonisation of transport will play in meeting net zero. Trialling First Hydrogen's groundbreaking hydrogen-powered van in a real-life setting will enable SSE to evaluate the benefits of hydrogen mobility alongside its growing fleet of EV engineering and maintenance vehicles as an alternative to fossil fuels.

The light commercial vehicle (LCV) has spent the last few weeks operating from one of SSE's sites in Aberdeen, which is

located next to a hydrogen fuel station. After two days' training, four SSE drivers have been using the First Hydrogen's vehicle to carry the equipment and tools which play a key part in the engineers' day-to-day job.

Will Hannaford, driver for SSE says: *"First Hydrogen's van is very pleasing to drive and is much smoother than my diesel vehicles. The zero-emission van will obviously improve the environmental impact of our day-to-day operations, but it has the additional benefit of performing well in city driving and recharging its battery during use, which gives it an impressive range."*

SSE driver Angus Burrows adds: "Having learnt about operating a hydrogen-powered vehicle in the pre-trial training,

I was excited to use the First Hydrogen's van. It was also exciting to see how much work had gone into developing the vehicle and my enthusiasm has continued throughout the trial - I still find myself speaking about the vehicle in my day-to-day conversations!"

SSE currently operates one of the largest fleets in the UK and has already pledged to switch 2,500 of its vehicles to electric and install charging points for its 11,000 employees to use. SSE vehicles work in a wide variety of operational roles and conditions, from maintaining the electricity network spanning central southern England and the north of Scotland, to navigating the diverse and challenging environments of its hydro and onshore wind farm sites.

First Hydrogen's fuel cell electric vehicle (FCEV) can travel further on a single tank of fuel than equivalent battery electric vehicles (BEV) on a single charge and can carry heavier loads without compromising on range. With fast refuelling – approximately 5 minutes compared to 5 hours for BEV charging – it also means more vehicle "uptime" i.e., longer periods that the vehicle can be on the road.

The vehicle will be closely monitored throughout the trial via onboard instruments. This helps First Hydrogen's engineers to understand fuel consumption, mileage, and vehicle performance in different conditions. It also enables them to keep track of the vehicle's use, location, and status in real-time to keep the drivers and vehicle safe.

Ronnie Fleming, chief procurement officer at SSE, added: "In line with our

commitment to net zero and EV100 pledge to electrify our fleet, we're keen to explore all alternative fuel options. It's been really interesting to see the vehicle in action, for our drivers to experience how it operates in practice and for our fleet managers to evaluate how hydrogen vehicles could fit into our future fleets should the infrastructure further develop."

Steve Gill, CEO for First Hydrogen Automotive, explains: "We see the future of zero emissions transport as a mix of technologies to suit different vehicle types and usage, with fleets comprising hydrogen fuel cell and battery electric vehicles. We are thrilled to be operating in Aberdeen, which is already championing hydrogen use and is establishing good infrastructure.

"Trialling the van in the North East of Scotland will help us to demonstrate how hydrogen vehicles can carry larger

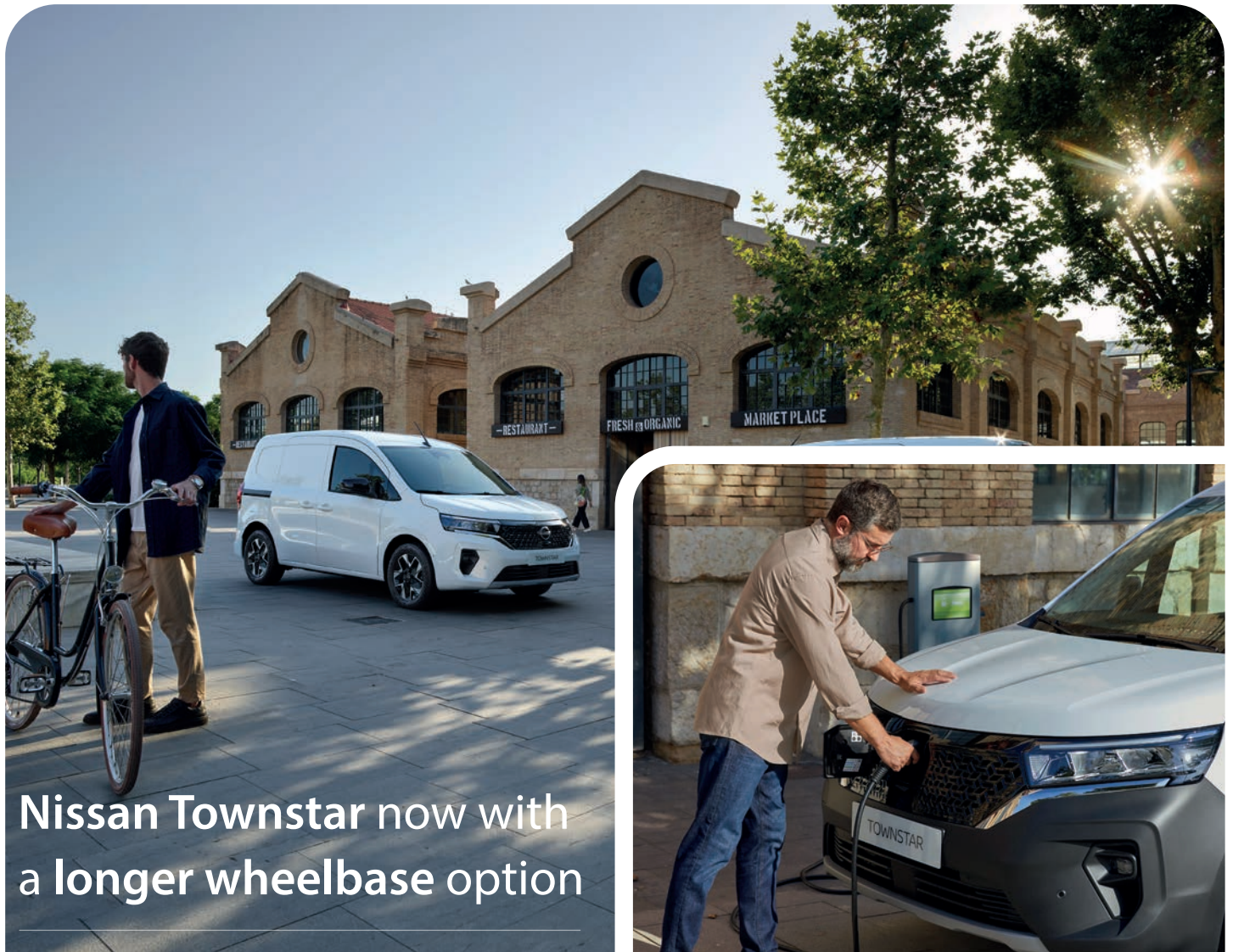
payloads and to compare operational performance in scenarios where BEVs are currently used. Data collected during the trial will help us to optimise the vehicle, demonstrate its capabilities for future customers and inform further development."

Aberdeen City Council Co Leader Ian Yuill says: "Aberdeen has been working for more than ten years to position itself as a leading city in bringing hydrogen technology to the market. Our city is genuinely a world-leader in the delivery and the use of hydrogen as a fuel.

"Hydrogen is here now and is providing an important part of the transport mix in our city.

"We welcome the decision by SSE to trial First Hydrogen's vehicle in Aberdeen and wish them every success in adding hydrogen technology to their day-to-day operations." ●





Nissan Townstar now with a longer wheelbase option

Nissan introduces the all-new Nissan Townstar Van L2 (long wheelbase), an exceptional addition to its successful Light Commercial Vehicle (LCV) line-up.

With increased cargo capacity and length likened to that of a mid-size van, the Nissan Townstar Van L2 redefines the concept of a small van to offer a new experience and versatility. Boasting all the innovative features of the popular Townstar Van, the new model goes a step further to meet the evolving needs of small and medium enterprise (SME) owners, fleet companies and municipalities who require a versatile and efficient transportation solution.

The Nissan Townstar Van L2 boasts an increased length of 4910mm – close to that of a mid-sized van. This length allows for a wider side door of 831mm, ensuring customers can load one Euro pallet, and giving greater versatility in terms of loading options to other competitors.

This increased length, combined with its loading capabilities, set it apart from

other small vans in the market. The cargo capacity is an impressive 4.3m³ representing a significant increase on the L1's capacity of 3.3m³, while still matching the two Euro pallet capabilities and adding additional space. Moreover, the payload of the new model is up to 800kg, thanks to revised rear suspension, while the impressive maximum towing capacity of 1,500kg remains the same.

With its urban cycle range of up to 242 miles, the electric Townstar Van L2 delivers great benefits to city-based SMEs, while its total combined range is up to 171 miles.

It comes with a 45kWh battery that allows both AC (11/22 kW) or DC charging (up to 80kW); and offers 245Nm of torque from its 90kW motor. The zero-emission nature of the model also allows drivers to comply with potential or existing emissions restrictions legislation introduced for urban areas across the market.

As Nissan further accelerates towards Ambition 2030 and its long-term vision for empowering mobility and beyond,

the electric version of the Nissan Townstar Van L2 embodies Nissan's continued commitment to electrification. With roughly 50% of the Small Van segment expected to be electric by the end of the decade, the Nissan Townstar EV Van L2 has been introduced in anticipation of meeting the demands of an ever-growing segment.

The Townstar Van L2 is also equipped with an array of active and passive safety features common in most Nissan models, designed to give drivers and passengers extra peace of mind. Such features include Blind Spot Warning, ProPILOT and – unique to Nissan in the segment – Intelligent Around View Monitor.

Moreover, with its industry-leading five-year/100,000-mile warranty and 8-year battery warranty, the Townstar Van L2 continues Nissan's commitment to quality and to putting its customers first.

Both EV and ICE versions of the all-new Nissan Townstar Van L2 are available to pre-order now. ●

Understanding the implications of public Charge Point regulations for Fleet Managers

The Government's recently announced new electric vehicle Public Charge Point Regulations 2023, which are set to improve EV drivers' charging experience as the industry enters the crucial mass adoption phase. So, Drax has shared everything you need to know as a fleet manager to take advantage of the new regulations:

What are the Public Charge Point Regulations?

The Public Charge Point Regulations are the outcome of a government consultation on public EV charge points. They focus on four key areas:

- Making it easier to pay
- Opening up charge point data
- Using a single payment metric
- Ensuring a reliable network

The regulations come at a crucial point in the transition to EVs. It's no longer just the early adopters who are making the switch. We're in the mass adoption phase, where there's a need to remove obstacles and make the green transport transition as easy as possible for everyone.

Until now, it's fair to say that charging an EV at a public charging station hasn't been without its challenges. Fleet drivers and their organisations have had to deal with a whole range of tariffs. They've had to be ready to use many payment apps, and they've had to cope with a lack of reliability and information about which chargers were working.

Based on feedback from real public charging station users and with a lot of common-sense solutions, we should all welcome these new regulations. Ideally, the public charging experience should be as uniform and require as little thought as filling up your car with petrol or diesel today – the new rules go some way to making this a reality.

What do the regulations mandate?

As a result of the 2021 consultation, the Public Charge Point Regulations mandate:

Easier payment

Contactless payment will be available on all new charging stations of 8kW and above within one year. This means fleet drivers will no longer have to fill their smartphones with an app for almost every charging network. They can simply pay for their charge in the same way as they'd pay for anything else.

In the next two years, payment roaming will also be mandated at all public charge points. This should enable fleet drivers to recharge at any public charger and pay with a single app. This could be linked back to their company credit card, making it even simpler to keep track of their expenses.

Using a single payment metric

Pricing transparency will guarantee a consistent pricing metric across the public network. Prices will be given at charge points in pence per kilowatt hour of charge.

From fleet drivers' point of view, this will make it easier to compare pricing at different charge points and achieve the best value for money. It'll also make it easier to reclaim expenses as it will be clear exactly what has been paid for.

Transparent, accessible data

All chargers will have to provide real-time information on their status. Transparent data will make it easier for fleet drivers to locate a public charge point nearby when they need to use one - and check in

advance that it's in good working order. This'll combat any range anxiety or issues of drivers having to go out of their way to find a functioning charge point when they need to recharge.

These electric insights will allow for further innovation, too. Fleet managers will be able to use open data to identify charging locations in advance and plan their drivers' routes accordingly, making it even easier for drivers to do their job as efficiently as possible.

A reliable charging network

The government is committed to improving reliability with a 99% reliable charging network across all rapid charge points, including the strategic road network. There's also a requirement for a free 24/7 drivers' helpline to be provided at all charge points.

This, allied with better information, should make it easier than ever for your drivers to recharge when they need to. This will ultimately help make sure your fleet is in the place you need it to be at the end of the day, and your drivers are happier and more productive too.

A positive step in the EV transition

The new Public Charge Point Regulations are a positive step in the EV transition, making it easier for every organisation that runs a fleet of EVs to play its part in decarbonising road transport.

While these changes will present challenges to the industry and may put some pressure on network costs, Drax is already innovating with features like contactless payments on AC chargers. ●



If you'd like to find out more about how fleet managers navigate the transition to EVs, visit this 8 steps to electrifying your fleet guide visit: <https://energy.drax.com/download-ev-ebook/>



Diesel to electric HGV depots: in 10 steps

What are the key considerations for building new, or transitioning existing, HGV depots to fully electric multi-megawatt facilities? Andy Vickers, Business Development Manager at energy company Vattenfall, gives a deep dive on the 10-step design and planning process.

- 1. Matching connection size to charging demand** - One of the first, and most important, considerations is a company's 'ultimate load scenario', which refers to the development endgame. It can be a very costly, disruptive and time-consuming process to go back and
- 2. Establishing site loads** - Site electrical loads are determined by the quantity of HGV's a facility needs to charge at any given time, the size of the batteries of the vehicles, and the charging times that need to be achieved. A detailed load and time of use profile must be established to fully understand the power requirements under every use
- 3. Design for resilience** - Power failures can be catastrophic for business-critical charging facilities where downtime leads to loss of revenue, loss of reputation and loss of customers. It is imperative to design networks with redundancy and resilience at their core. Power networks should incorporate N+1 designs and HV ring circuits to

ensure single point failures don't take down the whole site. For critical applications, dual connections to the grid at different substations may be required to ensure a secure energy supply from the grid.

- 4. Be prepared** - Good quality modern substation equipment is highly unlikely to fail, but if it does, it's best to be prepared. It's good practice to allow for the connection of an emergency backup power source onto the main low voltage (400V) switchboards; traditionally this would be supplied via a diesel generator, but in today's Net Zero world this should be through connection of battery storage systems, ideally charged by renewable power from solar or wind.

The Electricity at Work Regulations mandates "the need to carry out suitable and sufficient assessment of risk, and to put measures in place to protect those who could be put at risk". This indirectly infers that Arc Flash studies are mandatory, and that equipment designed and tested to reduce the impact of and arc flash to personnel and property should be incorporated within network designs.

- 5. Charger selection** - Charger suitability will depend on the vehicles, their charging requirements, and their connector types. High-power charging for vehicles such as HGVs, require DC power, however AC is a viable (and cheaper) option for vehicles that can be charged overnight. DC chargers are available in a traditional stand-alone design, or more recently as multi-megawatt power centres, which are particularly suited for dense parking applications such as depots. Most electric vehicles are now compatible with the latest CCS2 connectors, however some vehicles still use less popular CHAdeMO designs. Also bear in mind the new Megawatt Charging standard (MCS) products will soon

be with us. Checking charger compatibilities ahead of time is therefore essential.

When evaluating equipment be cautious with chargers costing 50% or less than the main tier one OEM's products, they are not equal in many respects. eHGV charging facilities demand the highest quality and reliability, therefore only high-end chargers should be considered.

- 6. Watch out for harmonics** - High harmonics, and poor power quality, can wreak havoc on any site, resulting in premature failures of critical equipment. High power eHGV charging facilities exacerbate this problem because they are nonlinear loads. Distribution Network Operators (DNOs) who are responsible for delivering power from the grid, can disconnect a business's power if a facility is found to be non-compliant with the power quality standard G5/5. Chargers that do not utilise IGBT PWM technology are unlikely to comply with the G/5 standard when used on high power eHGV charging facilities.
- 7. Time is of the essence** - There is a limited (and rapidly diminishing) amount of capacity available via the UK power grid. Heightened demand for new grid connections from already constrained networks is leading to long delays, where in some cases customers are being quoted 10+ years for new grid connections. UK Electricity demand is predicted to double in the next 30-years as we move towards Net Zero, therefore pressure on UK grids is only going to get worse, hence we recommend early engagement with your DNO or IDNO (Independent Distribution Network Operator) to secure the power you need for your project.
- 8. Duty of Care** - Owning and operating a high-power electric HGV charging facility comes with onerous

and complex Duty Holder liabilities at law with respect to health and safety, environmental & technical regulations. Serious breaches are subject to prosecution, unlimited fines and potential jail time.

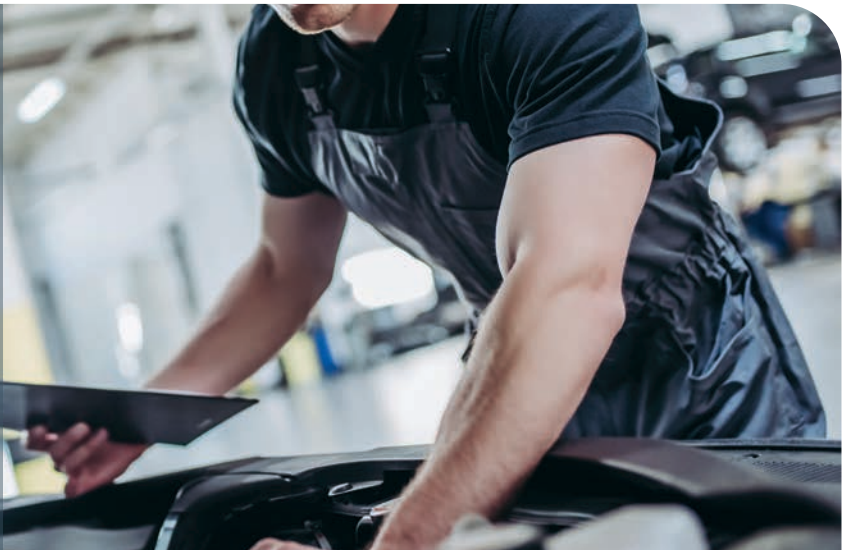
Compliance with these mandatory regulations requires deep knowledge and competence within a business and will likely require investment in new highly skilled personnel for the transport sector.

- 9. Seek specialist support** - Designing, and operating high-power electric HGV charging facilities requires specialist electrical knowledge, which is not typically the purview of traditional fleet businesses or run-of-the-mill building services consultants or contractors. A detailed knowledge of power electronics is required, as is securing a timely grid connection at the optimum capacity required for HGV charging. Businesses wanting to avoid delays and inflated costs in securing a grid connection can partner with an IDNO, who offer an alternative route onto the grid, they can reserve capacity on their clients' behalf, and provide 'Asset Adoption payments', a cash injection to reduce the capital cost of designing and building new power networks for developers.
- 10. Plan for investment competence** - The investment required for the infrastructure and equipment for a high-power electric HGV charging facility can be significant. Operational Leasing such as Power-as-a-Service from Vattenfall can provide an attractive option for owners looking to outsource the design and construction together with all operational risks and responsibilities to a specialist, who can also provide the investment capital for the electrical infrastructure and provide operational expertise throughout the facilities life. ●

About Vattenfall

Vattenfall is a European energy company with approximately 20,000 employees. For more than 100 years we have electrified industries, supplied energy to people's homes and modernised our way of living through innovation and cooperation. Our UK division, Vattenfall Network Solutions, specialises in building, owning and operating climate-smart high voltage electrical network infrastructure. We are determined to enable fossil-free living within one generation. To succeed we must become fossil free ourselves. But that's not enough. We are looking beyond our own industry to see where we can really make a difference. Together with our partners, we are taking on the responsibility of finding new and sustainable ways to electrify transportation, industries and heating.

Any shift in the 2030 deadline **CANNOT** be a 'free pass' to delay EV training



Steve Nash, CEO of the Institute of the Motor Industry (IMI) urges the automotive sector to keep its eye on the ball for EV training, regardless of a potential move of the 2030 ban on the sale of new ICE vehicles.

"The government has a difficult job to do to balance the UK's ability to be ready for the 2030 deadline with the hard to ignore environmental threats. The lack of a strong strategy to date for UK-based control of the supply chain is certainly raising questions about the vulnerabilities this could create for our economy and infrastructure.

"However, if the government acknowledges its miscalculation and moves the deadline it is absolutely crucial that this is NOT seen as a 'free pass' to delay investment in infrastructure and training.

"Our latest data already shows that we are already behind the trajectory needed to have an automotive aftermarket workforce EV-ready. The number of newly qualified EV technicians in the first three months of this year is actually 10% lower than the same period in 2022. Even more concerning is our projection that for the second quarter there will be a decline of 31% in technicians

obtaining EV qualifications compared to Quarter 2 2022.

"The IMI predicts that by 2030 the UK will require 107,000 IMI TechSafe qualified technicians to meet the evolving demands of the growing parc of electric vehicles. This figure rises to 139,000 by 2032, with our projections indicating a potential shortfall of 25,000 technicians if the current trends persist.

"Any change in government strategy over the 2030 deadline MUST NOT, therefore mean investment in training can be paused." ●

Van fleets are returning to established strategies designed to reduce emissions as many choose to slow their electrification process, the Association of Fleet Professionals has reported...

An increasing number are working to further reduce CO² in their existing diesel vehicles rather than adopt further electric vehicles (EVs), explains Paul Hollick, chair of the industry body.

There has been a general assumption among van fleets in recent years that the arrival of EVs would mean a decisive move towards meeting corporate ESG targets in the medium-long term but, for many, it has become clear that electrification is just not going to happen at the expected speed, so they are returning to established strategies.

There is a renewed interest in areas such

as utilisation analysis, driver training and idling reduction, all of which can help to cut CO², NO_x and other emissions. Interestingly, this doesn't appear to be just a case of returning to the 'old school', with new products designed to help fleet managers in this area continuing to make their way to market.

Paul explained that the trend was very much a result of van fleets slowing their adoption of EVs in the face of several difficulties.

Many of our members who were committed to electric van adoption as soon as supply was available have slowed or even put a temporary halt on the rate of acquisition. They are hitting a range of operational issues – range, payload, charging infrastructure and more – that means replacing existing diesel vehicles directly with electric equivalents is not yet practical.

This doesn't mean that they are intending to resist electrification but that more work needs to be done in all kinds of areas including domestic and public

charging, changes in operational practices and improvements in the vehicles themselves.

An area of frustration for some AFP members, Paul added, was the lack of action being taken when it came to making hydrogen a practical alternative to electrification for vans.

In other European countries, there is considerable public and private investment underway in creating a hydrogen transport infrastructure but in the UK, it barely exists. This means that the hydrogen vans that are entering production globally are unlikely to make their way here in anything other than very small numbers.

Many fleet operators believe a mix of hydrogen and electric power would be ideal for the van fleets of the future, and it does feel as though this is a potential solution that is being effectively denied for no good reason. There may also be a role for synthetic fuels and this is something that needs further investigation. ●

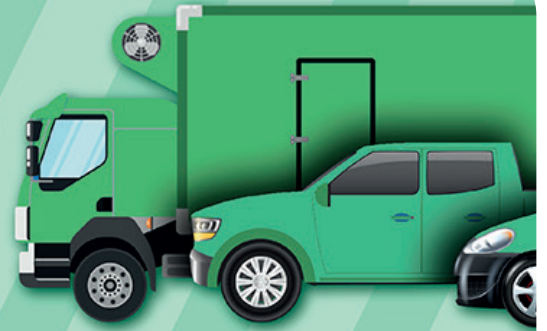
JUNE 2023

NEW LCV REGISTRATIONS

TOTAL: 34,630

31.0%

YEAR-ON-YEAR CHANGE



Category	Registrations	Year-on-Year Change
Pickups	3,390	40.8%
4x4s	801	180.1%
Vans <=2.0t	508	-42.8%
Vans >2.0-2.5t	6,291	160.8%
Vans >2.5-3.5t	23,640	15.6%
Rigids >3.5-6.0t	538	3.5%

Best performing half year for new van market since 2019



The UK new light commercial vehicle (LCV) market has risen for the sixth consecutive month, growing by 31.0% to 34,630 units in the best June since 2019.

According to the latest figures published by the Society of Motor Manufacturers and Traders (SMMT), 169,926 new vans, pickups and 4x4s were registered in the first half of 2023, up 17.7% compared with the same period last year, as once persistent supply chain shortages ease.

Registrations of the largest LCVs, weighing greater than 2.5 to 3.5 tonnes, rose by 15.6% to 23,640 units to account for 68.3% of the market in June, while registrations of medium-sized vans weighing more than 2.0 to 2.5 tonnes reached 6,291 units, up 160.8%. Conversely, lighter vans weighing less than or equal to 2.0 tonnes fell -42.8%, the only segment to decline and the one

which has seen demand consistently fall as operators favour larger workhorses with the potential for greater cost efficiencies. Pickups and 4x4s, meanwhile, increased by 40.8% and 180.1% respectively.

Despite overall growth, demand for battery electric vans (BEVs) fell -11.9% in the month to 1,775 units, even with a growing number of models on the market. This brings the total of all electric vans registered so far this year to 8,803 units, a year on year increase of 703 but a market share decline to 5.2% in the year to date. Given that commercial vehicles are integral to keeping Britain on the move and subject to the same end of sale date as the much further progressed passenger car market, urgent action is needed to accelerate uptake ahead of a zero emission vehicle mandate set to be implemented in just six months' time. ●

As we reach the year's midway mark, the surge in light commercial vehicle registrations is good news and delivers continued optimism to the market. The fall in electric van uptake just at the time when we need it to grow is, however, very concerning. Despite the continued availability of the plug-in van grant, more needs to be done to give operators the confidence to make the switch. This means a long-term plan which supports purchase and helps overcome some of the barriers to the installation of van-suitable charging infrastructure, given the unique needs of this sector.

**Mike Hawes, SMMT
Chief Executive**



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