



Innovation
that excites

WINTER 2020

Nissan Fleet

Electrifying your business



A guide on how to upgrade your fleet to 100% electric

Nissan's experience will give decision-makers a head start on EVs

Concept vehicles are pushing the boundaries

Ariya and IMk offer new driving experiences

Good reasons to switch to a 100% electric fleet

Save on tax, running costs and SMR

Vehicle-to-grid solutions have special appeal for fleets

Nissan uniquely placed on V2G progress



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NISSAN LEAF

THE TECH ADVANCED, 100% ELECTRIC CAR.



**ZERO CO₂ WHILST DRIVING
AND 0% BIK FROM APRIL 2020** / NISSAN FLEET. **WE MEAN BUSINESS.**

AVAILABLE TODAY, DRIVE AWAY TOMORROW



E-PEDAL



PROPILOT

Nissan LEAF: Fuel consumption figures for Nissan LEAF; CO₂ while driving: 0. MPG: N/A.

Figures shown are for comparability purposes; only compare figures with vehicles tested to the same technical procedures. Model shown is LEAF Tekna. E-Pedal standard on all grades. ProPILOT standard on Tekna grade and above, optional on Acenta and N-Connecta grades. ProPILOT is an Advanced Driver Assist technology but cannot prevent collisions. ProPILOT is intended for "Eyes on/Hands On" for highways only (road separated by barriers). It is the driver's responsibility to stay alert, drive safely and be able to take control of the vehicle at any time. You should not rely solely on driver convenience features. Some features may not work in all conditions and circumstances. Speed and other limitations apply. For terms and conditions relating to Nissan technologies, please visit www.nissan.co.uk/techterms. Nissan Motor (GB) Ltd does not offer tax advice and recommends that all drivers consult their own accountant with regard to their particular tax situation. Information correct at time of print. Nissan Motor (GB) Ltd, Rivers Office Park, Denham Way, Rickmansworth, Hertfordshire WD3 9YS. Registered in England (No 2514418).

WELCOME



Welcome to this Nissan guide to electric vehicle (EV) fleet. The EV revolution presents inevitable changes, but, with our help, we can turn this into fantastic opportunities.

As a top 10 brand in the UK, Nissan is uniquely placed for future progress and has the most experience of EV product and infrastructure across passenger car and light commercial vehicle fleets.

Corporate fleets are encountering the complexity that comes from the transition to EVs and are looking for trusted and experienced partners to provide support and advice.

Nissan's leadership team, dealer network and supplier base will combine to simplify this complexity and accelerate this change for customers.

This edition of Nissan Fleet offers a comprehensive guide to electrifying your fleet, covering everything from benefit-in-kind (BIK) tax change benefits for EV drivers, to the latest information on clean air zones (CAZs) and insightful case studies on fleets which have made the transition to EVs.

We hope you find it a valuable resource in your transition to an electric fleet.

Peter McDonald, Fleet Director

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It's time to clear the air

Local authorities weigh up best ways to reduce pollution in British cities

Cutting transport emissions in urban areas has become an increasing focus for towns and cities as the damaging effects of air pollution become clearer.

The UK is exceeding EU targets on safe levels of nitrous oxide (NOx) and particulates in many places, with emissions from petrol and diesel vehicles estimated to be responsible for around 75% of this pollution.

This poor air quality worsens people's quality of life and increases the risk of respiratory and cardiovascular disease, stroke and dementia, reducing life expectancy.

The Royal College of Physicians and the Royal College of Paediatrics and Child Health estimate that 40,000 premature deaths are attributable to exposure to poor air quality.

Also, a survey of 2,000 adults across the UK carried out by Nissan in 2019 found more than 40% of adults suffer with additional breathing issues when getting around cities than they do in the countryside, while more than 60% think air quality is the most dangerous long-term health concern facing people who live in modern cities.

One solution to improve urban air quality is the introduction of clean air zones (CAZs) – areas which polluting vehicles have to pay a charge to drive in, while cars and vans, such as the 100% electric Nissan LEAF and Nissan e-NV200 van, do not.

More than 60 local authorities around the country have either introduced or are currently considering introducing a CAZ. In addition, more than 240 UK councils have made climate declarations setting carbon neutral date targets.

The largest of those introduced so far is the ultra-low emission zone (ULEZ) in London, which was launched in April last year and is due to expand to 18 times its current size in October 2021.

Most major cities in the UK, including Birmingham, Bristol, Cardiff, Edinburgh, Leeds, Manchester, Newcastle and Oxford are looking at introducing CAZs.



These will affect a huge proportion of organisations and drivers: analysis by Datastore found that in 2010, 90.1% of the UK population lived in cities. By 2030, it expects this proportion to have risen to 92.2%.

Currently, the majority of CAZs allow petrol and diesel cars which meet the latest Euro emissions standards to enter without paying the charge, but in some cities even this may not be enough.

Bristol, for example, has proposed a CAZ which bans all diesel cars and vans from an area in the city centre from March 2021, while Transport for London has announced that only 100% electric vehicles will be exempt from its charge after October 25, 2021. All other vehicles – including plug-in hybrids – will be subject to the charge.

This means that as well as the environmental benefits of driving a BEV, organisations can make huge savings.

For example, cars and vans which do not comply with London's ULEZ emissions standards face a daily £12.50 charge to drive within the zone: this means if a non-compliant vehicle operates in the zone just twice a week, it will rack up charges of around £100 a month, or £1,200 a year.

MORE THAN 60 LOCAL AUTHORITIES AROUND THE COUNTRY HAVE EITHER INTRODUCED OR ARE CONSIDERING INTRODUCING A CAZ

Enriching people's lives

Valuable and sustainable mobility solutions for all is a key goal of Nissan

In 2018 the Government launched its Road to Zero strategy, which aims to see the UK lead the world in zero-emission vehicle technology.

Its ambition is to see at least half of new cars – perhaps as many as 70% – be ultra-low emission by 2030 alongside up to 40% of new vans, as part of plans to make the UK the best place in the world to build and own an electric vehicle (EV).

As part of the strategy, the Government is taking significant steps to enable a massive roll-out of infrastructure to support the EV revolution, in what it calls “the biggest technology advancement to hit UK roads since the invention of the combustion engine”.

To help this revolution take place, vehicle manufacturers are embracing new technologies and production processes to meet both current and future demand. Alongside these changes, manufacturers are also more aware than ever of their environmental impact and sustainability credentials.

Speaking at the recent Electric Vehicle Energy Taskforce report launch event, George Freeman MP, Minister of State, Department of Transport (DfT), said that at the 2020 UN Climate Change Conference (COP26) being held in Glasgow this November, he wants the UK to “be able to announce a series of tangible, specific measures that we're putting in place to drive the acceleration of our decarbonisation of transport”.

The DfT has confirmed it intends to bring forward the

2040 target to end the sale of new diesel and petrol cars to 2035 and has committed that all central government cars will be electric by 2030. The department will also shortly be announcing its “first integrated decarbonisation plan”.

In order to help the increased uptake in EVs, Freeman also said that “by 2024 I'd like to think about more than doubling the number of rapid charge points to top 5,000 through our work to stimulate infrastructure investment”.

In 2018 Nissan also published its sustainability strategy, 'Nissan Sustainability 2022'. The strategy renews Nissan's commitment to contribute to a more sustainable society and focuses on three aspects: environmental, social and governance.

Guided by the vision of “Enriching People's Lives”, Nissan seeks to contribute solutions to society by delivering valuable and sustainable mobility for all.

The four key pillars of the Nissan Green Program 2022 environmental plan – which forms part of its sustainability strategy – are climate change, resource dependency, air quality and water scarcity.

Products such as the Nissan LEAF aim to address many of these issues, with a particular focus on CO₂ emissions reduction. As of December 2019, cumulative sales of the LEAF exceeded 438,000 and, by encouraging the adoption of solutions that take advantage of EV batteries' ability to store and discharge electricity, the carmaker is aiming to make a significant contribution to the realisation of a zero-emission society by establishing an entire ecosystem around EVs.



TIMELINE OF NISSAN EV EVOLUTION



1947: Tama EV
Tokyo Electro Automobile Co develops a Tama car and truck in response to a gasoline shortage. In 1951, Tama merged with Prince Motor, which in 1966 became part of Nissan.

1970: Nissan 315X EV city concept
The Nissan 315X, a bubble-shaped 56mph two-seater electric city car with a single motor powering the rear wheels, debuts at the Tokyo Motor Show.

1983: Nissan March EV
The March EV is the first car to use an electric propulsion system with an induction motor and two-speed electromagnetic transmission, giving a range of 100 miles at a constant 25mph.



1991: FEV concept car
The FEV (Future Electric Vehicle) concept debuts with an aerodynamic shape and spacious interior. The short-range vehicle uses heat-pump air conditioning and has a heat-insulated, water-beading windshield that blocks ultraviolet rays and improves visibility.

1995: FEV II concept car
Nissan introduces its first concept car to use lithium-ion batteries, promising high-density, lightweight and long battery life.



2005: PIVO concept
PIVO examines electric vehicle potential. Its most distinctive feature is a cabin that revolves 360-degrees, eliminating the need to reverse. A compact lithium-ion battery powers two electric super motors.



2007: Mixim concept
The Mixim combines an electrified powertrain with the latest computer technology to attract younger drivers.

2008: NUVU prototype
The compact NUVU (new view), showcases Nissan's vision for the future of electric cars. It has 2+1 seating and roof solar panels to help charge the lithium-ion battery.



2009: Nissan Land Glider concept
Nissan explores new forms of zero-emission mobility that could redefine existing segments. The result is a radical new concept vehicle with a unique two-seater, cocoon-like structure.

2010: Nissan LEAF launched in USA and Japan
Sales of the Nissan LEAF begin in the USA and Japan. In the same year, it becomes the first electric car to gain the prestigious European Car of the Year award.



May 2016: Vehicle-to-grid trials begin
Nissan and Enel announce a major new project to trial vehicle-to-grid charging in the UK for the first time.

March 2016: 'Fuel Station of the Future' unveiled at Geneva
Incorporating a range of pioneering Nissan technologies, the vision showcases how V2G, battery storage, wireless charging, autonomous drive technology and over-the-air connectivity could combine to revolutionise how energy is used and distributed.

February 2016: Nissan LEAF 30kWh goes on sale in Europe
New battery gives a 26% increase in driving range and only increases weight by 21kg.



October 2015: IDS concept launches at Tokyo Motor Show
The IDS showcases Nissan's vision for a long-range, lightweight 100% electric vehicle that has autonomous driving technology.

December 2014: Nissan LEAF owners drive collective 1bn km
In their first four years Nissan LEAFs registered on CarWings telematics reach a milestone of one billion zero-emission kilometres.

May 2014: e-NV200 production starts
Production of the 100% electric e-NV200 compact van begins, ready for sales to start in June.



Jan 2014: Nissan LEAF hits 100,000 sales globally
The 100,000th all-electric Nissan LEAF is bought in the UK. It remains the best-selling EV, with a 45% market share.

2013: Nissan LEAF production begins at Sunderland
After a refresh, the LEAF begins production at Nissan's Sunderland plant alongside the Juke and Qashqai.



2012: Nissan LEAF takes record for the fastest car over a mile in reverse
Stunt driver Terry Grant showcases the flexibility of the LEAF's electric powertrain by setting a world record at the Goodwood Festival of Speed for covering a mile in reverse. It travelled 1.16 miles, uphill, in 1 minute and 57 seconds.



2011: Nissan LEAF launched in Europe and wins World Car of the Year
Nissan LEAF is named World Car of the Year at the New York International Auto Show. In the same year European sales begin.



June 2017: BladeGlider prototype debuts at Festival of Speed
BladeGlider makes first public appearance in Europe at the Goodwood Hillclimb.

September 2017: All-new Nissan LEAF unveiled
The second generation LEAF is introduced, showcasing two new technologies: the ProPILOT advanced driver assistance system and e-Pedal, which enables the driver to accelerate and brake to a full stop by moderating just the accelerator.

October 2017: Nissan announces entry into FIA Formula E Championship
Nissan confirms it will become the first Japanese automotive brand to compete in the all-electric FIA Formula E racing championship starting in 2018.

October 2017: Nissan IMx concept
The Nissan IMx, an all-electric crossover offering fully autonomous operation and a driving range of more than 370 miles, is unveiled at the Tokyo Motor Show.



January 2018: Real-world V2G trials
Nissan enters into two real-world vehicle-to-grid trial projects with Innovate UK alongside OVO Energy and E.ON.

March 2018: New Nissan LEAF is World Green Car of Year
The new Nissan LEAF became the first 100% EV to be named World Green Car at the 2018 New York International Auto Show.

June 2018: Excellence in Climate Solutions Award
Nissan wins the Excellence in Climate Solutions Award for its pioneering work to develop EV technology and energy services systems.

September 2018: Longer range e-NV200 launched
A 40kWh battery means the Nissan e-NV200 extends its range up to 187 miles.

January 2019: Nissan LEAF e+ available in Europe
The latest versions of the successful Nissan LEAF family are now available to buy throughout Europe, including the longer-range LEAF e+ – up to 239 miles (WLTP) on a single charge – which had received 8,000 pre-orders since its reveal.



September 2019: Nissan and EDF partner on smart charging
Nissan and EDF Group sign a cooperation agreement to accelerate the delivery of electric mobility – particularly through smart charging.

Nissan e-NV200 & Nissan LEAF: Fuel consumption figures: CO2 while driving: 0mpg. Figures shown are for comparability purposes; only compare figures with vehicles tested to the same technical procedures. The electric range shown achieved using the new (WLTP) test procedure. Figures obtained after the battery was fully charged. Actual real world driving results may vary dependent on factors such as the starting charge of the battery, accessories fitted after registration, weather conditions, driving styles and vehicle load.

Nissan LEAF crowned Stuff Magazine's 'Car of the Year'

The Nissan LEAF has been named 'Car of the Year' in the 2019 Stuff Gadget Awards.

Judged by the team at the world's biggest gadget magazine and website Stuff.tv, the Stuff Gadget Awards recognise excellence across 20 different product categories.

Stuff Magazine editor-in-chief James Day says: "Cars are big gadgets on wheels and 2019 has been an amazing year for automobiles with ever-more connected features and eco-friendliness without forfeiting performance.

"Nissan's LEAF has been a trailblazer for electric vehicles since its inception, and the latest model comes packed with a number of smart driver aides



that guarantee massive grins when getting from A to B... or parking in a multi-storey."

The Stuff judges were impressed by the extended 239-mile range and increased 217PS of power in the new-for-2019 LEAF e+; along with the model's smart e-Pedal function and advanced driver-assistance features such as ProPILOT and Around View Monitor. The judges added: "The LEAF is packed with the kind of technology you wouldn't expect from such an affordable family car."

Scottish Car of the Year Alternative Fuel Car of the Year 2019: Nissan LEAF e+



The latest generation Nissan LEAF e+ was named Alternative Fuel Car of the Year at the 2019 Scottish Car of the Year Awards.

The 239-mile range (WLTP) of the latest generation LEAF e+ was praised by the judges who said it has "a real-world range and quick charging".

Commercial Fleet Awards 2019 Zero Emission LCV of the Year: Nissan e-NV200



The 100%-electric Nissan e-NV200 proved itself a top choice for fleet operators by picking up the award for Zero Emission LCV of the Year at the Commercial

Fleet Awards 2019 Judges were impressed by the van's favourable total cost of ownership compared with diesel rivals, naming it a "viable electric van".

Pocket-Lint Product of the Year 2019: Nissan LEAF e+

Pocket-Lint named the Nissan LEAF e+ its Product of the Year as well as Best Car at its annual awards, which celebrate the best technologies, gadgets and games of the past 12 months, as voted for by both the industry and general public.

2019 Energy Awards Energy Efficient Partnership of the Year and Technology Innovation of the Year: Nissan and Mackie



Nissan and Mackie's all-electric, zero-emission, sustainably-powered 'Sky to Scoop' e-NV200 ice cream van campaign received both the Energy

Efficient Partnership of the Year and Innovation of the Year: Technology awards at the 2019 Energy Awards.

The concept van combines a zero-emission drivetrain, second-life battery storage and renewable solar energy generation; while Mackie's ice cream is produced using wind and solar energy.



CES Best of Innovation award winner for Vehicle Intelligence and Self-Driving Technology: Nissan LEAF

The 2018 Consumer Electronic Show (CES) unveil ceremony saw the Nissan LEAF pick up its first major international award, recognising its ProPILOT advanced driver assistance system and innovative e-Pedal.

Judges also named the LEAF an honouree in the Tech for a Better World category.

* Nissan LEAF 62kWh: Fuel consumption figures: CO2 while driving: 0 MPG. Figures shown are for comparability purposes; only compare figures with vehicles tested to the same technical procedures. The electric range shown achieved using the new (WLTP) test procedure. Figures obtained after the battery was fully charged. Actual real world driving results may vary depending on factors such as the starting charge of the battery, accessories fitted after registration, weather conditions, driving styles and vehicle load.

Unleashing potential of EVs and batteries

White Paper examines the route to becoming carbon-neutral by 2050



Electric vehicles (EVs) represent an enormous opportunity to both improve air quality in our towns and cities and enhance the lives of those who live, work and visit these spaces. However, to fully realise the potential of EVs and the battery technology they rely upon, increased use of renewable energy generation and the integration of vehicles with power grids across European countries will be vital.

To help realise this and play a key role in enabling Europe to meet its goal of becoming carbon-neutral by 2050, Nissan has produced a White Paper as part of the European Innovation Partnership on Smart Cities and Communities (EIP-SCC), a programme supported by the European Commission that brings together industry, cities and researchers.

The White Paper, *Intelligent Mobility for Energy Transition: Accelerating Towards More Sustainable Societies*, covers the pivotal role battery technology will play, the need to ensure batteries have a full second life as mobile or static storage units and the ways to tackle the current blocks to delivering energy systems such as vehicle-to-grid (V2G).

Nissan Europe has been leading the initiative within the EIP-SCC, interviewing key figures working in

transport and energy to find out where the key pinch points are preventing transition to a greater level of renewable energy.

To help achieve the EU's carbon-neutral 2050 target, part of which includes at least 32% renewable energy production by 2030, authorities need to rethink how mobility and energy policies are designed and implemented.

Practical recommendations include introducing vehicle incentives which target mid-range EV models to drive uptake in mass-market segments, simplifying procedures for smart charging installation, introducing tax incentives based on the amount of energy sent back to the grid from EVs, and promoting the financial benefits available through integrating EV ownership with solar panels and energy storage in the home.

The White Paper highlights how EVs "will be a decisive tool to both decarbonise transport and help achieve this transition".

As well as replacing internal combustion engine (ICE) vehicles, EVs and their related technologies – including recycled or second life batteries for energy storage – extend the sustainability offering of this solution. Indeed, as the report states: "That the battery in an electric vehicle has a life beyond the life of the vehicle, presents a great opportunity to rethink how we manage and store energy."

Three intelligences at core of Nissan's ethos

We spell out what drives Nissan in its bid to improve the future of motoring

Nissan Intelligent Power

The Nissan LEAF is redefining the power fleet drivers crave behind the wheel. It beats most popular cars off the line thanks to its 100% instant torque. Also, it has zero emissions while driving – proof that sustainable transportation doesn't have to compromise the thrill of driving. And commercial fleets can enjoy the award-winning versatility of the e-NV200. It features a 40kWh battery that's chargeable in 40-60 minutes, a range of up to 187 miles (WLTP) and up to 4.2 cubic metres of cargo capacity.¹ We are committed to expanding our range of EVs, to allow more and more people enjoy the multiple benefits of 100% electric driving.

Nissan Intelligent Driving

Forget stressful driving – Nissan ProPILOT helps to make driving safer and easier. It takes care of some of the tasks of daily driving at the push of a button to follow the vehicle ahead at a pre-set distance, stop and move again with the flow of traffic, and keep you in the middle of your lane.² And that's not all. Soon your Nissan will pick you up, navigate heavy traffic, and find parking all on its own. And at the push of a button, it will give you back control. It will even communicate with other cars and pedestrians. Nissan is testing autonomous driving on public roads today, which means this advanced driving experience is within reach.

Nissan Intelligent Integration

A connected ecosystem of drivers, cars and communities is key as we look ahead to a 100% electric and safer world. Nissan is playing a central role in defining what the roads of the future will look like, from autonomous cars to traffic management systems to car-sharing. Seamless Autonomous Mobility (SAM), for example, is a system designed to make autonomous cars smarter with every trip. It uses human mobility managers to help autonomous cars deal with the unexpected, like construction zones, then share what they have learned with other cars in the system – a case of human and AI creating a sense of community on the road.

¹ Nissan e-NV200: Fuel consumption figures; CO2 while driving: 0 MPG. Figures shown are for comparability purposes; only compare figures with vehicles tested to the same technical procedures. The electric range shown achieved using the new (WLTP) test procedure. Figures obtained after the battery was fully charged. Actual real world driving results may vary depending on factors such as the starting charge of the battery, accessories fitted after registration, weather conditions, driving styles and vehicle load. Figure quoted is for a 40kWh battery: Time dependant on charging conditions, including charger type and condition, battery temperatures as well as ambient temperature at point of use. Indicated home (or office) charging requires use of a 32A / 6.6 kW (7kW) wall box. Indicated rapid charging time requires use of a CHAdeMO rapid charger. Rapid charge capability standard on Acenta grade and above.

² ProPILOT is an Advanced Driver Assist technology but cannot prevent collisions. ProPILOT is intended for "Eyes on/Hands On" for highways only (road separated by barriers). It is the driver's responsibility to stay alert, drive safely and be able to take control of the vehicle at any time. Technology available on selected models and grades.

Concept vehicles are pushing the boundaries

Ariya and the IMk will offer entirely new driving experiences



The Nissan Ariya Concept, introduced at the 2019 Tokyo Motor Show, was designed to embody the three pillars of Nissan Intelligent Mobility – Intelligent Power, Intelligent Driving and Intelligent Integration (see facing page).

The SUV combines advanced electric vehicle (EV) technology with a new level of seamless human-machine interface connectivity and offers an entirely new driving experience.

It offers a spacious, premium cabin with high-tech features and a body that conveys the pure, clean nature of electric cars.

A dual motor driveline delivers balanced, predictable power to all four wheels, giving a sports car-like driving experience.

The Ariya Concept also features ProPILOT2.0, which combines navigated highway driving with hands-off single-lane driving capabilities.

Although it's a concept vehicle, the crossover EV's bold styling and unconventional interior and exterior could make it into production in the near future.

For city-dwellers, the IMk Concept showcases a more compact electric Nissan. Designed to be the ultimate urban commuter, the chic city car is about more than just function.

It's fully connected and provides the latest ProPILOT advanced driver assistance technology. Nissan's Invisible-to-Visible (I2V) technology merges information



Ariya's body conveys the pure, clean nature of electric cars

from sensors outside and inside the vehicle with data from the cloud. It can track the vehicle's immediate surroundings and anticipate what's ahead, even showing what's behind a building or around the corner.

EVs only go part of the way to fully de-carbonise transport. That's why Nissan Intelligent Mobility is a core part of Nissan's sustainability strategy, ensuring drivers have access to zero-emission while driving vehicles, but also a renewable energy source to fuel them.

If the transition from petrol and diesel to electric is to achieve a carbon-neutral society, it must be coupled with an increase in renewable energy generation.

With the right systems, infrastructure and incentives in place an increase in EV ownership can directly aid the transition towards a new model of a clean, decentralised energy system.

Intelligent Mobility is the interaction of EVs with the surrounding infrastructure, including energy systems. It represents a transformation in the way vehicles are driven, integrated into society and powered.

Nissan is involved in the development of many additional technologies supporting the transition to low carbon, including smart charging, battery storage and vehicle-to-grid (V2G).

Utilising the batteries in EVs through energy storage or V2G will be crucial if we rely on renewable energy sources, which have fluctuating power outputs.

You can store excess energy in the vehicle when supply is high, and use that stored energy when production is low. Using the EV battery in this way would mean the timing of energy production and energy consumption can be de-coupled.

The ability to use batteries in EV or second life batteries as storage units represents a readily available solution.



Ariya has a spacious premium cabin

Good reasons to switch to 100% electric

Enjoy savings on tax, running costs and service, maintenance and repair



Organisations are adopting battery electric vehicles (BEVs) at an increasingly rapid rate as they switch on to the benefits – both environmental and financial – of the technology.

Latest registration figures from the Society for Motor Manufacturers and Traders (SMMT) show that 37,850 BEVs were sold last year, a rise of 144% compared with 2018 – a large jump although from a low start point.

This increase coincides with many of the obstacles which have traditionally put organisations off the technology – such as range anxiety, lack of charging infrastructure and vehicle availability – being overcome.

For example, the Nissan LEAF e+ has a range of up to 239 miles¹ on one battery charge, while in August 2019 the manufacturer published research that there were almost 1,000 more public places to charge EVs than there were forecourts to pump petrol in the UK – 9,300 EV charging locations compared with 8,400 fuel stations.

Although there are still lengthy waiting lists for many BEVs, Nissan has great stock availability of its LEAF, e-NV200 van and e-NV200 combi models in the UK, and is advertising “available today, drive away tomorrow”.

While the environmental benefits of BEVs are well documented, the financial case for adopting the

technology is also strengthening for both employers and employees.

From April, the Government has announced that for the 2020/21 tax year, drivers of BEVs will pay 0% company car tax, increasing to 1% in 2021/22 and 2% in 2022/23².

This means that, for example, in the 2020/21 tax year, a 20% taxpayer who drives a Nissan LEAF with a P11D price of £31,990 will save £1,663 a year compared with an identically priced petrol car with CO₂ emissions of 105g/km (26% benefit-in-kind – BIK), and £1,791 over a 95g/km of CO₂ diesel (28% BIK), with the same P11D price².

Employers also stand to gain from the new BIK rates. As the Class 1A National Insurance Contributions (NIC) for company cars is calculated using the BIK tax band, organisations will pay no Class 1A NIC on pure EVs.

Using the same cars as in the previous example, they will save £1,148 and £1,236^{*} a year by opting for a BEV over an equivalent petrol or diesel model respectively.

In addition, BEVs are also exempt from vehicle excise duty (VED), while companies are able to claim first year allowances for charge point equipment bought.

Operating pure electric vehicles also has a number of other financial benefits for fleets, with the running costs significantly cheaper than for comparable petrol or diesel cars.

BEVs are designed to be as efficient as possible and there are generally just three main components

powering the vehicle: the on-board charger, inverter and motor.

This is far fewer components than a petrol or diesel car uses, which means their wear and tear costs are significantly lower.

Cornish business C&C Taxis, for example, reports that over 174,000 miles and outside of scheduled annual services, one of its Nissan LEAF taxis needed just three sets of wipers, two sets of brake pads for the rear and one damper, as well as tyre replacements when necessary.

“With an equivalent diesel taxi doing that sort of mileage you’d be looking at things like replacing a clutch and that sort of work can see the vehicle out of the business for three days,” said Mark Richards, C&C transport manager.

“For us, that length of downtime can hurt the business, but we haven’t had that problem with the EV. The service and maintenance savings are impressive.”

BEVs are also exempt from congestion and low-emission zone charges, while it also costs much less to ‘fuel’ a pure electric car. Dependent on the user’s electricity tariff, it could cost as little as two pence per mile (ppm) to drive a Nissan LEAF, compared with 9ppm to 12ppm for comparable diesel or petrol vehicles.

Mileage reimbursement will also cost an employer much less if employees use electric vehicles for business journeys.

The Government’s advisory fuel rates (AFRs) for a petrol car with an engine size of 1,401cc to 2,000cc is

FOR US, THE LENGTH OF SMR DOWNTIME CAN HURT THE BUSINESS, BUT WE HAVEN’T HAD THAT PROBLEM WITH THE EV

Mark Richards, C&C Taxis

14ppm, while a diesel car with an engine of 1,600cc or less has a figure of 9ppm.

In comparison, the advisory electricity rate (AER) for fully electric cars is 4ppm. Using these rates, an employer would save £1,000 over 10,000 business miles.*

Government help is also available to organisations adopting electric vehicles. Its Office for Low Emission Vehicles (OLEV) offers a range of grants, including plug-in vehicle grants which go up to a maximum of £3,500 for cars and up to £8,000 for vans.

OLEV’s Workplace Charging Scheme is a grant that businesses can use to reduce the cost of installing charge points for staff by up to £10,000.

The grant is for £500 per charge point socket up to 20 sockets per applicant business and is available to any business, charity or public authority. Pod Point’s AC hardware, as well as its partner Delta’s DC rapid charger, is eligible for the grant scheme.

* Source: Fleet News

¹ Nissan LEAF 62kWh: Fuel consumption figures: CO₂ while driving: 0 MPG
Figures shown are for comparability purposes; only compare figures with vehicles tested to the same technical procedures. The electric range shown achieved using the new (WLTP) test procedure. Figures obtained after the battery was fully charged. Actual real world driving results may vary depending on factors such as the starting charge of the battery, accessories fitted after registration, weather conditions, driving styles and vehicle load.

² Nissan Motor (GB) Limited does not offer tax advice and recommends all company car drivers consult their own accountant with regard to their particular tax situation.

A step-by-step guide to introducing EVs

First decide if replacing an ICE vehicle makes good operational sense

Cost savings, environmental issues and company ethos are just some of the reasons why organisations have either introduced, or are looking to add electric vehicles (EVs) to their fleets.

When the right EVs are selected for the right roles, they have many beneficial effects.

The first step towards adding EVs to your fleet is to identify which vehicles can be replaced by them. It is not cost-effective, or practical, to simply replace every internal combustion engine (ICE) vehicle – yet.

Fleets with telematics will find it more straightforward to analyse the journeys of each driver to see if an EV would suit their needs. Otherwise, you'll need to look at fuel card data or mileage logs to see where the opportunities are.

Once fleet decision-makers have identified opportunities where vehicles could be replaced with EVs, they should carry out a wholelife cost (WLC) analysis of the prospective vehicles against the petrol or diesel models that would be used in the role.

Generally, EVs carry a P11D price premium over their petrol or diesel counterparts, but, once purchased, fleets can make significant savings on fuel and service, maintenance and repair.

Many organisations are reconsidering their fleet policy structure to increase access to EVs across all grades. This could be achieved through WLC modelling, but also allowing drivers to apply a personal use contribution to trade up to a vehicle outside their grade. While this may cost the driver more in contribution, the driver would save on benefit-in-kind (BIK) tax and the fleet would benefit from lower National Insurance Contributions (NIC).

Traditionally, residual value (RV) setters expected

EVs to suffer heavy depreciation, but this has not been the case as used car buyers have become more confident about the reliability of the technology, with fears over areas such as battery degradation and lack of charge points proving unfounded.

The cost of installing necessary charge points should be considered, as should the availability of grants that are aimed at encouraging take-up of EVs. These include plug-in vehicle grants which provide up to £3,500 towards the cost of a new electric car and £8,000 towards the cost of a 100% electric van.

A Nissan LEAF is priced from £26,345 (on-the-road with the grant taken into account) and the e-NV200 van is available from £20,005 (on-the-road exc. VAT).

The Workplace Charging Scheme (WCS) is a grant that businesses can use to reduce the cost of installing electric vehicle chargepoints for their staff by up to £10,000. The WCS grant is for £500 per chargepoint socket up to 20 sockets per applicant business.

However, even if EVs are found to be both viable and cost-effective alternatives to ICE models, there are some operational matters to consider.

These involve deciding when and where to charge, as well as whether the vehicle's duty cycle should be changed, possibly through route optimisation, to get the best out of the new technology.

Winning driver buy-in is key to ensuring EVs are successfully integrated into a fleet. For car drivers, an effective way to do this is by highlighting the cost-savings they can make through both BIK and any private fuel they pay for.

From April 2020, company car drivers choosing an electric car such as a Nissan LEAF or e-NV200 Combi will pay no BIK tax in the first tax year and only 1% BIK in the second – making them significantly cheaper than even the most efficient petrol and diesel cars.

Some organisations choose to introduce a limited number of EVs on a trial basis or as pool cars to help win driver acceptance.

Charging is an important aspect of EV ownership. With power rating, connector type, cabling requirements and vehicle specification to consider.

There are three main types of EV charging – rapid, fast and slow. These represent the power outputs, and, therefore, charging speeds available to charge an EV.

Dependent on the nature of their operations, some

fleets may need to consider installing rapid chargers which are more expensive than traditional fast chargers.

AC chargers with an output of 6.6kW are required for Nissan EVs. It is possible for drivers to plug LEAFs and e-NV200s into chargers with higher capacity, but they will still only draw at the same 6.6kW rate.

Rapid AC devices use a tethered Type 2 connector and Rapid DC chargers are fitted with a CCS, CHAdeMO or Tesla Type 2.

Fast chargers provide power from 7kW to 22kW and tend to use a tethered Type 1 or a Type 2 socket, which users can connect to the charging cable supplied with their vehicle.

Slow chargers connect via a three-pin domestic socket and are best used for overnight charging as it can take between six and 12 hours to charge an EV.

The time it takes to recharge an electric car depends on both the charger being used and the charging capacity of the vehicle.

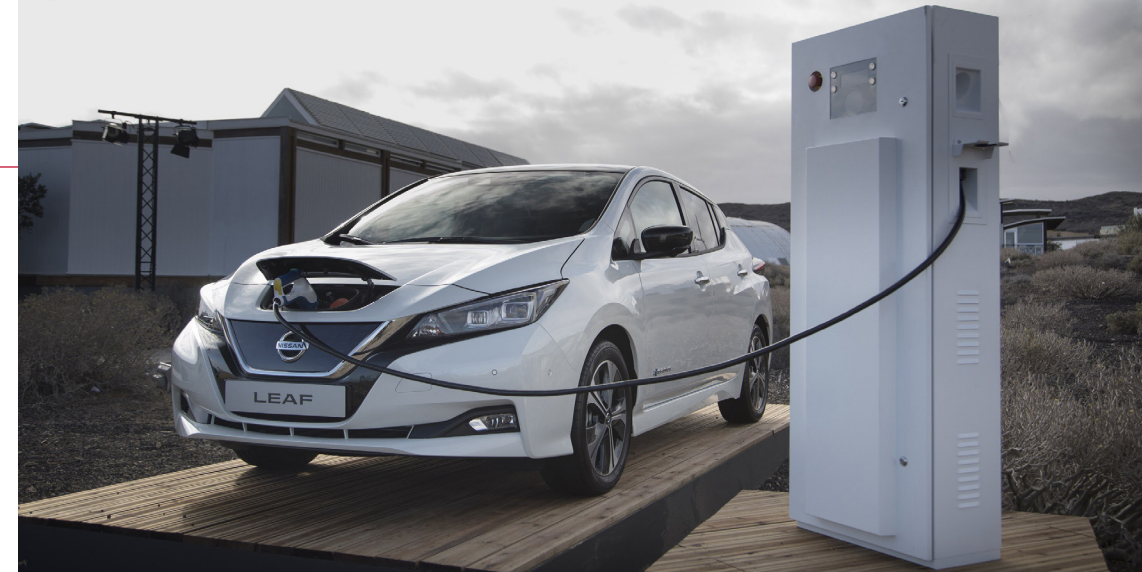
The Nissan LEAF and the e-NV200 are fitted with an AC 6.6kW on-board charger and have 50kW DC 'rapid' charge capability. This means it will take around 7.5 hours to fully charge on a fast charger and around one hour to reach 80% capacity from 20% existing charge on a rapid charger.

WINNING DRIVER BUY-IN IS KEY TO ENSURING EVs ARE SUCCESSFULLY INTEGRATED INTO A FLEET

¹ Nissan Motor (GB) Limited does not offer tax advice and recommends all company car drivers consult their own accountant with regard to their particular tax situation.

Vehicle-to-grid solutions appeal to fleet customers

Nissan is uniquely placed as the only volume car manufacturer able to offer V2G (vehicle-to-grid) technology on its vehicles. Nissan is leading on this technology, proactively working with energy infrastructure partners.



E.ON



E.ON has been working with Nissan on V2G technology since signing a strategic partnership at the 2018 Geneva Motor Show.

Both are part of a consortium that is part-funded by Innovate UK.

Luke Ellis, E.ON Head of Projects and Innovation, says: "We developed the software platform that helps the chargers

manage energy flow between the vehicle and the grid.

The first pilot installation will commence February 2020 with 20 V2G chargers at the Nissan Technical Centre, Cranfield.

Ellis says this will give E.ON an opportunity to test the technology in a real environment before launching to B2B fleet customers towards the end of Q1 2020.

He says: "We take a joint approach working with Nissan to discuss the benefits of V2G with potential customers. Nissan's business development team starts the conversation around suitability and then E.ON's team will do site surveys."

While it is still early days with the new V2G technology, we are currently expecting to be able to provide Nissan/E.ON customers with up to 10,000 miles free energy as part of the trial. There may well also be future additional benefits available as the need to support the electricity network continues to increase.

Get in touch via eondriveuk@eonenenergy.com if you're interested in helping trial V2G technology.

'WE TAKE A JOINT APPROACH WORKING WITH NISSAN TO DISCUSS THE BENEFITS OF V2G WITH POTENTIAL CUSTOMERS'

OVO Energy



OVO Energy and Nissan have long term ambitions to develop EV energy management solutions.

They are running a three year trial to offer free V2G charging solutions to LEAF and e-NV200 customers for those that charge at home.

Both companies are part of Project Sciurus, which is

made up of a consortium of companies part-funded by the Office for Low Emission Vehicles (OLEV) and the Department for Business Energy and Industrial Strategy (BEIS), in partnership with Innovate UK.

The first 1,000 Nissan EV customers will get the charger and installation free and the information from the charging data will be shared with the consortium and Innovate UK to inform future policy.

Nick Arnott, Senior Commercial Manager at OVO Energy, said customers could save up to £570 a year by using V2G technology.

Customers can set charging schedules, minimum charge levels, see live charging updates and view historical charging data all through an app from Kaluza, an OVO company that also manages the chargers' software platform.

Arnott says: "V2G and smart charging will play a pivotal part in the expansion of the UK's EV market."

Visit: www.ovoenergy.com/electric-cars/vehicle-to-grid-charger

'V2G AND SMART CHARGING WILL PLAY A PIVOTAL PART IN THE EXPANSION OF THE UK'S EV MARKET'

EDF Group



Nissan and EDF Group signed a cooperation agreement last autumn to accelerate the delivery of smart charging and vehicle-to-grid (V2G) by bringing together technology mastered by both companies.

EDF already has the platform and services in place to facilitate the roll-out of V2G services for return-to-depot

fleets in the UK.

Phil Valarino, EDF in the UK Electric Vehicle Lead, says: "The partnership with Nissan has been established for many years and it has grown to more than just commodity supply. We're at a crossroads where energy meets transport and working together on V2G is the next step in the electrification journey."

Valarino says V2G isn't just limited to industrial fleets but will be beneficial to any that have return-to-depot vehicles such as university campuses.

Valarino says: "We're positioning things very simply for customers around a message of drive for free with V2G. Based on our estimates an average driver would be able to fund around 8,000 miles of driving a year by smartly managing and exporting energy back to the grid through this technology.

"That works out at around £300 per vehicle a year or £25 a month."

Visit our website: edfenergy.com/electric-cars/business/vehicle-grid

'WE'RE POSITIONING THINGS VERY SIMPLY FOR CUSTOMERS AROUND A MESSAGE OF DRIVE FOR FREE WITH V2G'

Pod Point



Pod Point has been working with Nissan since the LEAF was launched in 2011 and are still working together today.

Nissan partnered with Pod Point to provide home charging points to private and fleet customers that charge their LEAF or e-NV200 at home. The partnership forms a vital part in the ecosystem for EV drivers

who need charging solutions where they live.

James McKemey, Pod Point's Head of Insights, says: "Nissan has been a leading light on EV. We work with customers before their vehicle arrives and while there's always a lot of excitement around the new car or van, there can be a bit of trepidation about how the charging will work and fit in with their lives. This is where we come in to offer support and guidance, including help with navigating the Government grant (£500 towards the cost of home chargers) to help reduce the cost of installation."

While Pod Point chargers aren't V2G-enabled, they are smart and Wi-Fi-enabled with the ability to dynamically load balance and send charging data to the Pod Point app, so drivers can understand and optimise their energy usage. Wi-Fi connection also enables over-the-air software updates to unlock new smart features that become available in future.

Please visit the fleet section of our website: pod-point.com/solutions/business/fleet-charging

'THERE CAN BE TREPIDATION ABOUT HOW THE CHARGING WILL WORK AND FIT IN. THIS IS WHERE WE COME IN'



The leader when it comes to V2G

Currently the only volume car maker tested for V2G and running commercialisation programmes



More drivers are joining the plug-in vehicle revolution and vehicle-to-grid (V2G) will be key in managing energy and granting greater control to fleets when charging cars and vans.

National Grid is predicting there will be up to 11 million electric vehicles (EV) on UK roads by 2030 and as many as 36 million by 2040.

The smart technology behind V2G can charge an EV and also discharge power back to the grid or a company's own building or a driver's home. The surplus charge from the EV's batteries can be sold back to the grid to help balance energy demands at peak times when the value of electricity is high. EVs can then be recharged when demand is lower and the cost of electricity is cheaper.

This V2G technology will be vital in managing the charging needs of vehicles as demand increases.

Future-proof

We are one of a small group of volume car manufacturers that is currently able to offer V2G with our LEAF and

e-NV200. This is because our EVs utilise the CHAdeMO protocol which is a charging standard that is compatible with V2G. Most European manufacturers use the Combined Charging System (CCS), but Charin EV, the body behind this standard, said it is not expecting compatibility with V2G for at least another five years.

We have been working in cooperation with energy companies like EDF, E.ON and OVO Energy to accelerate the delivery of V2G technology ready for the UK market (see previous spread).

Both EDF and E.ON are working alongside us to develop solutions for fleets that charge back at the depot and want much greater control over how they manage and pay for their energy. OVO Energy, the retail arm of SSE, is also working with us to roll-out 1,000 free V2G home charging solutions as part of a two-year trial co-funded by Innovate UK.

Cost savings with V2G

It's estimated that users of V2G can expect hundreds of pounds in savings off annual energy bills per vehicle. Energy companies like EDF have already shown it's possible to run vehicles for free for up to 8,000 miles a year.

A recent trial in Denmark carried out by Nuvve found that over two years, a fleet of 10 e-NV200s each performed 100 hours of V2G, selling a total of 130,000kWh to the grid. This saw each van generate €1,860 (£1,600) per year.

Mitie is on course to hit its EV target for 2020

Company aims to have 20% of its car and small van fleet switched to electric



Mitie, the UK's leading facilities management and professional services company, has a large fleet of around 5,500 vehicles and has already made the commitment to switch 20% (717) of its small van and company car

mix to electric vehicles (EVs) by the end of 2020.

Mitie has been working with Nissan since late 2018, when it began its EV journey. It has 100 e-NV200 vans and 135 LEAF e+ cars, with new vehicles arriving with drivers every week.

Simon King, Mitie fleet and procurement director, says: "Our 250th EV was delivered in January 2020 and with around 400 models on order and due for delivery in Q1 2020, we are well on track to meet our target."

Mitie said the e-NV200 was a natural choice for the company, as it was the only van with the range needed to be a viable alternative to the diesel models it currently has on the fleet.

Likewise, the LEAF e+ cars were added due to the size of the vehicle and 239-mile extended range they offer.

Every Mitie driver who receives an EV will also have a charge point installed by Mitie's partner Pod Point, at their home (provided off-street parking is available). Mitie also has a team focused on installing charge points at its offices all over the UK, with 50 already installed.

The feedback King has had from drivers of Nissan EVs on the fleet has been incredibly positive.

He says: "Many of our colleagues have been taking to Twitter, LinkedIn and our internal social media channel, Yammer, to share their photos and positive experiences."

WHILE THEY NEEDED A LITTLE TIME TO ADAPT TO ELECTRIC, OUR COLLEAGUES HAVE LOVED THE IMPROVED DRIVING EXPERIENCE AND LOWER FUEL COSTS

Simon King, fleet and procurement manager, Mitie

"We've had many comments that, while they needed a little time to adapt to it, our colleagues have loved the improved driving experience and lower fuel costs, while also playing their part in helping the planet."

As a business, Mitie has moved away from reviewing just the purchase cost, to considering the vehicle's wholelife cost when deciding which models to choose.

Fuel costs are significantly lower, around 4p per mile compared with 12p per mile for the equivalent diesel model*. And with fewer moving parts, the service, maintenance and repair costs are much lower too.

King says: "Bearing all this in mind, our 20% by 2020 commitment is, at worst case, cost-neutral."

"With regard to cars, there's also a significant financial benefit for our company car drivers, as electric vehicles drivers pay no benefit-in-kind tax. We'd like to see a similar financial incentive introduced for vans, so we can encourage more of our van drivers to make the switch to electric too."



*<https://www.gov.uk/government/publications/advisory-fuel-rates/advisory-fuel-rates-from-1-march-2016>



Dundee City Council saving big on SMR

Authority is replacing ICE vehicles with aim of 100% electric within next five years

Dundee City Council has been a major advocate of switching to electric vehicles and it already has 129 on its fleet.

A growing part of this fleet involves Nissans with a mix of 29 LEAFs and e-NV200s, but Fraser Crichton, Dundee City Council corporate fleet operations manager, is already expanding the relationship with Nissan with a further 65 EVs scheduled to join the fleet this year.

It's part of the council's plans to convert 40% of its fleet of around 450 vehicles to EV by the end of this year and Crichton is working towards going 100% electric within the next five years.

The majority of Dundee's Nissans are electric e-NV200 vans and these are used by the council's facilities engineers, as well as for things like laundry services and cash collections.

The LEAFs are used at the council as pool cars and as part of a car-sharing scheme.

Crichton says: "The 40kWh e-NV200 is the best product on the market for the kind of work we do.

"They are replacing diesel engine equivalents. We had been having real problems with keeping diesel particulate filters clear due to a lot of our drivers doing relatively short distances for their routes.

"Dundee has been such a good location for switching on to the EV revolution due to most journeys being

possible within a 20-mile radius of the city. It means EVs can comfortably complete their journeys and the city has prepared so well with infrastructure that it's easy for drivers to charge."

There is a council-owned network of four solar-powered charging hubs capable of taking 78 vehicles at a time (with sites for another 60 being built).

Not only does the switch to EVs with Nissan deliver on Dundee's environmental goals, it's also helping to save money.

Crichton adds: "We're getting payback on these vehicles after two-and-a-half years and we're running the vans between six and seven years.

"So, it's cost-effective for us when looking at total cost of ownership. Maintenance has been a big area where we're saving money. We have been really pleased with the reliability of the vehicles and we're saving around 35% on servicing compared with the outgoing internal combustion engine (ICE) models."

It's early days, but there are plans to work on vehicle-to-grid (V2G) with Nissan and E.ON in 2020. This will mean Dundee City Council will have greater control about how energy is managed between its fleet and the grid.

Crichton says: "I've worked with Nissan on EVs for the past eight-and-a-half years. They've always been a proactive fleet team and they come up and see us and find out what we need.

"It's become a partnership."

DPD expands EV fleet with 300 e-NV200s

DPD will more than triple its electric vehicle (EV) fleet by the end of May after ordering 300 40kWh e-NV200 vans.

The company aims to have 10% of vehicles as EV at all of its 68 UK depots by the end of this year as part of its strategy to be the most sustainable city centre delivery business in the UK.

The e-NV200 already makes up the majority of DPD's fleet, with 91 successfully delivering parcels over the past 18 months.

The new vehicles will be dispatched to DPD depots

across the country in the coming weeks, where they will be used for local, multi-drop deliveries, travelling up to 100 miles a day.

DPD expects to charge the vehicles overnight at its depots, and will decide where to deploy the EVs each day using its in-house route calculation and vehicle optimisation systems.

Dwain McDonald, DPD CEO, says: "These vehicles are changing the way we work. It is an all-encompassing revolution for our industry and electric, emission-free vehicles are at the heart of that vision."



Uber signs deal for up to 2,000 LEAFs

Uber has signed a deal to introduce 2,000 40kWh LEAFs to London drivers that use its app as part of the ride-sharing company's Clean Air Plan.

Nissan has put together a dedicated electric vehicle (EV) education programme, transaction price and marketing plan to drive uptake of the zero-emission vehicles.

The deal aims to help deliver Uber's vision for every car on the app in the capital – around 45,000 drivers – to be EV by 2025.

The Clean Air Plan has raised £80 million-plus in its

first year by adding a 15p per mile fee to all London journeys to help subsidise the cost of switching to an EV.

Drivers can save around £4,500 off the cost of the LEAF, dependent on the miles they've driven.

Jamie Heywood, Uber regional general manager for northern and eastern Europe, says: "The partnership with Nissan is a significant step towards meeting our 2025 goal. The Mayor of London has shown strong leadership on measures relating to air quality and we're proud to support him in delivering his vision."



Huge rise in EV sales set to continue

This year is expected to be the tipping point for 100% electric vehicles (EV) sales, with the 0% benefit-in-kind tax rate due to come into force in April, boosting demand from company car drivers.

That prediction is backed up by sales trends seen in 2019.

According to figures released by the Society of Motor Manufacturers and Traders, registrations of 100% electric vehicles increased by 144% last year compared with 2018, giving them a 1.6% share of the total market, up from 0.6%. The Nissan LEAF sold 5,274 units, giving it 14% of the full-EV market.

The rate of growth accelerated towards the end of the year, with 100% electric vehicles achieving a 3% share of the November market and 3.3% in December.

Further proof is provided in the most recent Department for Transport quarterly Vehicle Licensing

Statistics¹, which shows that the number of electric cars more than tripled in Q3 2019 compared with the same period in 2018, increasing by 234%.

According to the report, 22,596 ultra-low emission vehicles (ULEVs) were registered in Great Britain between July and September – an increase of 39% on 2018 Q3 and 56% on 2017 Q3.

The number of diesel cars registered for the first time declined by 16% in Q3 compared with the previous year, to the lowest number since 2001.

A *Fleet News* poll supported the view that demand will increase for electric vehicles this year.

It revealed that more than a quarter of fleets (27%) have already or plan to introduce EVs this year.

Fleet News research also showed that the 0% BIK rate would persuade 71% of company car drivers to switch to electric.

Air pollution linked to Alzheimer's disease

A study published in the *Journal of Neurology* has found a connection between exposure to air pollution, Alzheimer's-like brain changes, and worsening memory in older women². Researchers analysed data from 998 women, aged 73 to 87, who had up to two brain scans, five years apart.

Additional information about where the women lived, as well as environmental data from those locations was used to estimate their exposure to fine particulate matter.

The brain scans were then scored in relation to their similarity to Alzheimer's disease patterns by a machine learning tool that had been 'trained' via brain scans of people with Alzheimer's.

When this information was combined, researchers could then see the association between higher pollution, brain changes and memory problems, even after taking into account differences in geographical location, income, education, race, cigarette smoking and other factors.



¹<https://www.gov.uk/government/statistical-data-sets/veh02-licensed-cars>

²<https://global.nissannews.com/en/releases/release-d47e2bd8192d14c383483ebde7066762-191216-01-e>

³<https://academic.oup.com/brain/advance-article-abstract/doi/10.1093/brain/awz348/5628036>

Ultra-fast LEAF NISMO RC debuts at Spanish race circuit

Nissan's world-leading expertise in electric vehicles and top-class motorsport experience seamlessly come together in the Nissan LEAF NISMO RC, which made its European debut in January at Circuit Ricardo Tormo in Valencia, Spain. Delivering 322hp and 640Nm of instantly available torque, the LEAF NISMO RC offers lightning-quick acceleration, achieving the 0-100km/h sprint in just 3.4 seconds.

Upgrades announced for LEAF in Japan

Nissan has announced it is upgrading driver assistance technologies and connected features in the Nissan LEAF for the Japanese market.

The upgrades were due to be available from February 2020, in time for the 100% electric model's 10th anniversary.

The changes include improvements to the LEAF's ProPILOT driver assistance technology, the ProPILOT Park feature and the NissanConnect system, as well as the introduction of Nissan's Intelligent Blind Spot Intervention.

New body colour options are also available. More than 132,000 LEAFs have been sold in Japan since its launch in 2010².



TRL trial highlights need for managed EV charging

The benefits of managed charging – whether by incentivising drivers to charge at set times, or by suppliers controlling charge times – have been shown in a trial conducted by the Transport Research Laboratory (TRL).

More than 200 consumers took part in the eight-week trial using either a battery electric vehicle (BEV), or a plug-in hybrid electric vehicle (PHEV).

The research, undertaken as part of the Consumers, Vehicles and Energy Integration (CVEI) project funded by the Energy Technologies Institute, identified that managed charging (or smart charging) is highly effective at shifting EV charging demand away from peak times and is very popular among mainstream consumers.

Without intervention, the increased uptake of EVs could add significantly to existing peak electricity demands and could lead to issues in supply-demand balancing and local network capacity. However, managed charging decreased average charging demand during peak times (4-6pm) by about 70% compared with unmanaged charging.

MICRA

BIK (2019/20)	24%
CO2 FROM	103
NCAP	★★★★★
MPG UP TO (WLTP)	50.4
INSURANCE FROM	GROUP 1
TCO	£14,334 ^{††}



*Acenta IG-T 100 3 years/30,000 miles.
† Based on Acenta IG-T 100 manual WLTP Combined fuel consumption

QASHQAI

BIK FROM (2019/20)	28%
CO2 FROM, NEDC	102G/KM
NCAP	★★★★★
MPG UP TO (WLTP)	53.3
INSURANCE FROM	GROUP 14
TCO	£18,601*



* Visia 1.3 DiG-T 3 years/30,000 miles.



LEAF

BIK (2019/20)	16%
BIK (2020/21)	0%
TAILPIPE EMISSIONS	0G/KM
NCAP	★★★★★
RANGE	239*
INSURANCE FROM	GROUP 12
TCO	£15,077 ^{††}

*e+ Tekna model only. Other models have a maximum WLTP combined range of 168 miles and a power output of up to 150PS. † † 3 years/30,000 miles.

X-TRAIL

BIK FROM (2019/20)	33%
CO2 FROM, NEDC	135G/KM
NCAP	★★★★★
MPG UP TO (WLTP)	47.7
INSURANCE FROM	GROUP 17
TCO	£24,449*

*Visia 1.7 dCi 150 3 years/30,000 miles.



JUKE

BIK (2019/20)	26%
CO2 FROM, NEDC	110G/KM
NCAP	★★★★★
MPG UP TO (WLTP)	47.9
INSURANCE FROM	GROUP 13
TCO	£15,099*

* Visia DiG-T 117 3 years/30,000 miles.



NAVARA

MAX PAYLOAD	1,315KG
CO2 FROM, NEDC	184G/KM
MPG UP TO (NEDC)	38.4
MAX TOWING	3,500KG
TCO	£16,394*

*Visia King Cab 2.3 dCi 163PS 3 years/30,000 miles.



e-NV200



CO ₂ WHILE DRIVING	0G/KM*	MAX VOLUME	4.2M ³
RANGE (WLTP COMB)	214 MILES	TCO	£6,265*
PAYLOAD	705KG		

*Based on 3 years/30,000 miles (Visia 40kWh). TCO correct at time of publication. † Zero tailpipe emissions

NV250



CO ₂ FROM, NEDC	117G/KM	PAYLOAD UP TO	4800KG
MPG UP TO (NEDC)	62.8	MAX VOLUME UP TO	4.6M ³ ** (L2)
GVW UP TO	2,200KG	TOW WEIGHT (BRAKED)	1,050KG
TCO FROM	£14,102*	TURNING CIRCLE	10.7M (L1)

*Based on 3 years / 30,000 (NV250 L1 1.5 dCi 80ps Visia Van)
** With swivelling bulkhead

NV300 MY20



CO ₂ FROM, NEDC	143G/KM	PAYLOAD UP TO	1,280KG
MPG UP TO (NEDC)	52.3	MAX VOLUME UP TO	8.6M ³ (L2+H2)
GVW UP TO	3,040KG	TCO FROM	£18,364*

*Based on 3 years / 30,000 (NV300 28 L1 Diesel 1.6 dCi 95ps H1 Visia Van)

NV400 MY20



CO ₂ FROM, NEDC	154G/KM	PAYLOAD UP TO	1,526KG
MPG UP TO (NEDC)	48.7	MAX VOLUME UP TO	17M ³ (L2+H2)
TCO FROM	£21,049*		

*Based on 3 years / 30,000 (NV400 F28 L1 Diesel 2.3 dci 135ps H1 Visia Van)



ALL AVAILABLE WITH OUR 5-YEAR/100,000 MILES WARRANTY*

BiK: Based on latest VED rates announced by HMRC. Rates are subject to change. Nissan Motors GB does not offer tax advice and recommends that all Company Car Drivers consult their own accountant with regards to their particular tax position.

TCO: for full T&C's visit <https://corporate-sales.nissan.co.uk/fleet-cars/tools/tco/full/passenger>. TCO supplied by Cap HPI.

Warranty: 5 year/100,000 miles (whichever comes sooner) manufacturer warranty. For full terms and conditions visit your local Nissan Business Centre.

CO₂: WLTP figures shown are for comparability purposes; only compare figures with vehicles tested to the same technical procedures. Actual real-world driving results may vary dependent on factors such as weather conditions, driving styles, vehicle load or any accessories fitted after registration. WLTP is a new test used for fuel consumption and CO₂ figures; however, until April 2020 the CO₂ figures are based on the outgoing (NEDC) test cycle which will be used to calculate vehicle tax on first registration.

Correct as of January 2020

NISSAN INTELLIGENT MOBILITY



Innovation that excites



NISSAN e-NV200. YOUR FUTURE IS ELECTRIC.

Now's the time to get your business ready for the future. The 100% electric e-NV200 can take on big projects with its best in class cargo capacity of up to 4.2m³ and a payload of up to 705kg. With an 8-year battery warranty and range of up to 187 miles, it's the van to take your business forward. **The 100% electric Nissan e-NV200. Your future guaranteed.**



100% ELECTRIC



RANGE UP TO 187 MILES



RAPID CHARGE IN 40-60 MINUTES*



CARGO CAPACITY UP TO 4.2m³



Nissan e-NV200 Acenta: Fuel consumption figures; CO₂ while driving: 0 MPG: N/A

Figures shown are for comparability purposes; only compare figures with vehicles tested to the same technical procedures. The electric range shown achieved using the new (WLTP) test procedure. Figures obtained after the battery was fully charged. Actual real world driving results may vary depending on factors such as the starting charge of the battery, accessories fitted after registration, weather conditions, driving styles and vehicle load. Model shown Nissan e-NV200 Acenta with flame red solid paint at £21,525 (excluding VAT)*. Figure quoted is for a 40kWh battery. Time dependent on charging conditions, including charger type and condition, battery temperature as well as ambient temperature at point of use. Indicated home (or office) charging requires use of a 32A/6.6kW (7kW) wall box. Indicated rapid charging time requires use of a CHAdeMO rapid charger. Rapid charge capability standard on Acenta grade and above. 8 year/100,000 miles battery warranty (whichever comes sooner). Visit your local business centre for full terms and conditions. Information correct at time of going to print. Nissan Motor (GB) Ltd, Rivers Office Park, Denham Way, Rickmansworth, Hertfordshire WD3 9YS. Registered in England (No 2514418).



**Innovation
that excites**

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