Government has agreed a strategy to roll out electric vehicles in a bid to reduce CO2 emissions from the transport system and to reduce air pollution. The strategy is predicated on a number of core documents. These are described briefly below.

# 1. The Road to Zero Strategy 2018

In July 2018 Government issued The Road to Zero Strategy, subtitled 'Net steps towards cleaner road transport and delivering our Industrial Strategy'. This has been regularly updated since.

The Department for Transport (DfT) has also published development and outputs of the transport energy model (TEM). The TEM assesses the energy consumption, air quality pollutant emissions and greenhouse gas emissions of a range of road transport fuels and technologies over the period to 2050. This is via 'side by side' comparisons of various vehicle powertrain technology and fuel options for cars, vans, buses, trucks and HGVs.

The Road to Zero Strategy outlines how Government will support the transition to zero emission road transport and reduce emissions from conventional vehicles during the transition. The strategy is long term in scope and ambition, considering the drivers of change, opportunities and risks out to 2050 and beyond. Its focus, however, is on what the UK will do now to lay the foundations for the transition.

One of Government's long-term ambitions set out in the Strategy is 'to drive uptake of the cleanest new vehicles'. There are 10 ways in which they intend to continue to offer grants for home chargepoints, so long as they conform with certain technical specifications which are updated from time to time<sup>1</sup> and to offer consumer incentives 'in some form' after 2020. Set out below is the text from the Road to Zero Strategy specifically relevant to the Electric Vehicle Homecharge Scheme and on Enabling EV charging at home.

### a. Electric Vehicle Homecharge Scheme

The Electric Vehicle Homecharge Scheme is administered by OLEV who keeps a list of authorised installers who can apply for a grant so long as the installation is compliant. OLEV has issued detailed guidance for consumers and installers.

## OLEV guidance for consumers:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment data/file/772404/evhs-guidance-for-customers-v-2.3.pdf

<sup>&</sup>lt;sup>1</sup> https://www.gov.uk/government/publications/electric-vehicle-homecharge-scheme-minimum-technical-specification

OLEV guidance for manufacturers and installers:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment data/file/772619/evhs-guidance-for-installers-v-2-3.pdf

## b. Enabling EV charging at home

To support and encourage EV charging at home, Government is committed to:

- continue the Electric Vehicle Homecharge Scheme (EVHS) to provide grant support for EV drivers installing a dedicated domestic EV chargepoint;
- maintain the EVHS grant which is a 75% contribution towards the cost of one chargepoint and its installation up to a maximum of £350 (including VAT) per household/ per eligible vehicle for installations that take place on or after the 1st of April 2020;
- review grant levels on at least an annual basis, with a view to removing grant support as uptake increases and the market becomes self-sustaining;
- work with industry to set requirements for smart chargepoints, so the impact of EV charging on the electricity system can be managed; and
- consider how to best ensure all types of residential property owners, including
  leaseholders or legal occupants with private off-street car parking are able to access a
  chargepoint for their plug-in electric vehicle and are not disadvantaged merely on the
  basis of having communal parking facilities or not owning their own home. We will
  review the provision of chargepoint infrastructure as part of the Law Commission's
  work to review and reinvigorate the commonhold tenure in England and Wales.

### 2. Automated and Electric Vehicles Act 2018

Since 2009 UK Governments from all parties have sought to provide a framework in which electric vehicles, or 'ultra-low emission vehicles' (ULEVs) can grow. The decarbonisation of both private cars and goods and passenger carrying vehicles is seen as critical to helping the UK achieve its climate change obligations and to improving air quality, particularly in cities such as London.

The Automated and Electric Vehicles Act 2018 is intended to help deliver the Government aim for almost every car and van to be a zero emission vehicle by 2050. Taken together, the powers contained within the Act allow Government to regulate to improve the consumer experience of electric vehicle charging infrastructure, to ensure provision of chargepoints at

key strategic locations like Motorway Service Areas (MSAs), and to require that chargepoints have 'smart' capability (see below).

Relying on one of the powers set out in the Act, Government has introduced Regulations requiring that, from 1 July 2019, all Government-funded chargepoints have had to use innovative 'smart' technology which could keep costs down for consumers. This means that, from 1 July 2019, all chargepoints which benefit from a grant under the Electric Vehicle Homecharge Scheme must be remotely accessible and capable of receiving, interpreting and reacting to signals.

The rationale for this is that smart charging can help to reduce high peaks of electricity demands, thus minimising the impact of electric vehicles on the electricity system and, crucially, keeping costs down for consumers by encouraging off-peak charging.

#### 3. The Alternative Fuels Infrastructure Directive 2014

The so called AFI Directive, adopted by the European Parliament and the Council on 29 September 2014 following the inter-institutional negotiations:

- requires Member States to develop national policy frameworks for the market development of alternative fuels and their infrastructure;
- foresees the use of common technical specifications for recharging and refuelling stations;
- paves the way for setting up appropriate consumer information on alternative fuels, including a clear and sound price comparison methodology.

## 3. Electric Vehicle Energy Taskforce

The Report of the Electric Vehicle Energy Taskforce was published in January 2020. It was the culmination of a year's discussions about how to remove barriers to the wider uptake of electric vehicles by consumers. It involved 350 stakeholder organisations. It was chaired by Philip New of Energy Systems Catapult and facilitated by Jonathan Murray of the Low Carbon Vehicle Partnership.

The Report consists of a total of 21 proposals, and places consumers firmly at the centre. Theme Two is entitled 'Rewarding consumers for charging smartly'. To deliver this theme, the Taskforce proposes:

requiring private EV chargepoints to charge smartly by default;

- developing electricity markets to properly reward consumers for the benefits their actions deliver; and
- maximising the number of consumers who have a smart meter installed before or alongside the installation of a chargepoint.

Theme Four is entitled 'Winning Consumers' Trust and Confidence'. To deliver this theme, the Taskforce proposes:

- undertaking a campaign to promote the benefits of smart charging to the public;
- promoting an independent, tailored advice and information service on smart charging and EVs;
- adopting common, principle-based complaint handling standards across the EV sector;
- undertaking a full review of consumer protections for all aspects of the EV customer journey;
- establishing best practice standards for point-of-sale information relating to EVs.

In the Report's conclusion the Taskforce calls on Government to set up a well-resourced joint industry forum to see through the implementation of its proposals.

### 4. Electric Vehicle Infrastructure Taskforce

The Electric Vehicle Infrastructure Taskforce is a new cross-industry group set up to uplift the number of electric vehicle charge points across London. The taskforce comprises representatives from the Freight Transport Association, London First, the Federation of Small Businesses, UK Power Networks and a number of other high-profile organisations.

Chaired by Deputy Mayor for Environment and Energy Shirley Rodrigues, the Taskforce is keen to hear from the private sector and learn where new charging infrastructure could aid businesses. To this end, the Taskforce has launched a new <u>interactive map</u>, on which businesses based in London have been asked to plot up to 10 locations where they believe an electric vehicle chargepoint would be beneficial to their business.

This initiative is linked to <u>Locity</u>, and initiative working to help more organisations switch to cleaner fuels – and to make it easier for them to do so. Locity aims tos make a huge impact on London's air quality, and indoing so save lives and money. The Taskforce wants to give Locity members a chance to map potential commercial demand.

## 5. London EV Infrastructure Delivery Plan

The London EV Infrastructure Delivery Plan was published on 17 June 2019. It sets out the pathway for making it easier for Londoners to make the switch from diesel to electric cars. The Mayor sees this as a key part of reducing toxic traffic emissions and realising his ambition for London to become a zero-emission City. The Taskforce and other industry partners will support the Mayor in driving forward a number of initiatives set out in the Plan including:

- Installing the next generation of ultra-rapid charging points at London petrol stations later this year.
- Delivering five flagship charging hubs, with the ability for multiple cars to quickly be charged in one place. The first of these hubs will be operational in the heart of the Square Mile by the end of the year.
- A new 'one-stop-shop' for Londoners to request new charging infrastructure from their local authority in areas of high demand led by London Councils, making it easier for drivers to switch to electric vehicles.
- Expanding electric car clubs and bringing more vehicles to market, offering greater choice to Londoners and businesses.
- New online smart tools to ensure London's energy grid continues to keep pace with demand and to help unlock private sector investment.

In addition, developments in all parts of London must ensure that 1 in 5 spaces (both active and passive) provide an electrical charging point to encourage the uptake of electric vehicles.

# 6. Ofgem's Decarbonisation Action Plan

Ofgem published its Decarbonisation Action Plan on 3 February. Ofgem recognises the huge increase in renewable and low carbon electricity that will be required going forward, especially to meet new sources of demand such as electric vehicles. The Action Plan sets out the actions needed in the next 18 months, the next steps on an urgent, but decades-long journey towards net zero. These consist of 9 separate actions. Action 7 is entitled 'Enabling electric vehicles at low cost'.

Ofgem is committed to developing a regulatory strategy on electric vehicles to support, roll out and maximise the benefits to consumers, taking account of developments in Government policy and technologies, to support roll out and maximise the consumer benefit. Ofgem is committed to identifying and tackling regulatory barriers, removing obstacles to new business models, products and services such as EV users selling flexibility services.

Ofgem recognises that an energy system will be required which can continue reliably to supply energy as and when consumers need it. Ofgem considers that, given the need for new investment, it is imperative that we have an energy system that is as efficient as possible. New technologies, better use of data and AI will also be needed to boost flexible demand.

The transition will require consumers to be engaged - and Government will need to see that the costs and benefits of the transition are falling fairly. How and when energy is used must change. This opens up opportunities for a consumer-led transition, enabled by new technologies.

April, 2020.