

Consumer focus

NEWS RELEASE

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Government advisory body says consumers must be in the driving seat for the electric vehicle revolution

An unprecedented collaboration between key players in the energy, infrastructure and transport sectors demonstrates that an effectively managed integration of electric vehicles with the energy system can bring significant consumer benefits including lower costs and a seamless recharging experience.

Under certain circumstances, the introduction of ‘smart’ charging could enable a typical motorist to enjoy very low - or even zero - motoring energy costs, potentially saving £70/month or more.¹

These are findings of the Electric Vehicle Energy Taskforce which is today submitting twenty-one key proposals for actions to be taken by government and industry to enable the efficient integration of electric vehicles with the energy system during the electrification transition (see Annex 2). The proposals are included in a report which is being launched at an event this afternoon in central London.

The Electric Vehicle Energy Taskforce, an unprecedented collaboration (established jointly by business and transport ministers at the Prime Minister’s Zero Emission Vehicle Summit, in September 2018²) is made up of more than 350 organisations including many household names (see Annex 1).

In its formal report to the Government, the Taskforce sets out a range of proposals. These include:

- Placing consumer needs at the centre of the EV transition;
- Providing financial incentives to EV drivers to ensure that the potential energy storage capacity of millions of electric vehicles is used to reduce peak demand;
- Prioritising ease of access to public charge points and introducing greater standardisation across the charging network to provide easy access for all;

¹ Based on comparison with Ford Focus 2019 Ecoboost doing 8,000 miles pa @50mpg. Some zero and low cost off-peak EV tariffs are already available.

² <https://www.gov.uk/government/news/zero-emission-vehicle-summit>

- Establishing an independent body to promote the benefits of smart charging through a major publicity campaign to ensure EV drivers are confident and well informed;
- Co-ordinating energy and transport planning to ensure we have the right infrastructure in the right place.

An AA Populus survey of over 17,000 motorists³ found that the vast majority of motorists underestimate their potential monthly savings from running an electric vehicle. The survey found that the average car driver thinks they can save around £30 a month; less than half the actual saving possible.

The same survey found that an overwhelming majority of car drivers believe that easy interoperability between charge points is a key factor in deciding whether or not drivers will buy an EV.⁴

The Electric Vehicle Energy Taskforce is believed to be the most wide-ranging collaboration between the UK's energy and transport/mobility industries. The Low Carbon Vehicle Partnership was asked to convene and facilitate the work of the Taskforce.

The Taskforce states that “the transition to electric motoring is now well under way”, but that the pace must increase. Road transport accounts for 28% of the UK's total energy consumption and 25% of carbon emissions.

Philip New, Chief Executive, Energy Systems Catapult and the EV Energy Taskforce Chair said: “Ensuring that the mass roll-out of electric vehicles delivers benefits for both drivers and the wider energy system requires actions from industry, Government and the regulator, including creating the new markets and policies that can unlock EVs’ huge potential.”

In order to meet climate change targets, the government has already announced that conventionally powered cars will be phased out by 2040. The Committee on Climate Change estimates that the new net zero target could mean that this date will be brought forward. National Grid ESO's Future Energy Scenarios show that 11.9 million vehicles could be electric by 2030.⁵

The Taskforce expects electric vehicles to become ubiquitous on Britain's roads, providing a significant challenge – and opportunity – for the UK's electricity network.

Coordinating the introduction of a smart charging infrastructure will enable network operators to balance demand and supply through an electricity grid increasingly incorporating intermittent renewable energy sources. EV drivers willing to charge their vehicles during periods of low electricity demand or when surplus renewable energy is being generated will benefit from lower fuel costs in the transition ahead.

³ AA Populus survey 10-17 December 2019. 17,633 responses Qu: “How much do you think you could save in your monthly fuel costs by running an EV compared with a typical petrol car?”

⁴ AA Populus, as above. 87% of drivers agree (66% ‘strongly agree’) that “Being able to use any available public charge point is an important factor in deciding whether or not drivers will buy an EV.”

⁵ <http://fes.nationalgrid.com/>

Three important recommendations relate to the correct use of consumers' personal data and the means to ensure people's privacy is properly protected and smart charging of EVs is secure.

Commenting in advance of today's launch event in Westminster...

Minister for the Future of Transport George Freeman said: "We are 100% committed to decarbonising the UK's road network. Our £1.5bn Road to Zero strategy is supporting a thriving electric vehicle market; last year in the UK a battery electric vehicle was sold every 15 minutes.

"Government commissioned the Taskforce to advise how we can best work with industry to make sure the energy system is ready for the transition to electric vehicles. This report provides important evidence to shape the next stage of our Road to Zero roadmap."

Business Minister Nadhim Zahawi said: "From cycling, to opting for an airline that offsets its carbon emissions, the ways we travel are changing as the UK makes positive strides towards ending its contribution to global warming by 2050.

"This report takes us a step closer towards the mass uptake of electric vehicles on our streets – providing guidance to ensure our energy system is prepared for an electric transport revolution and helping consumers top-up their vehicle more cheaply and conveniently on the go."

"For the mass uptake of electric vehicles to succeed, consumers need independent advice, support and protection starting at the point of sale, combined with effective complaint handling." said **Gillian Guy**, Chief Executive Officer, **Citizens Advice**.

"The welcome growth in electric vehicles shows there's increasing buyer appetite for these new exciting technologies. Vehicle manufacturers are investing heavily to bring more choice to the UK – which must be supported by an appropriate and appealing electric vehicle charging network for EV drivers." said **Mike Hawes**, Chief Executive, **Society of Motor Manufacturers and Traders (SMMT)**.

Fiona Howarth, CEO of **Octopus Electric Vehicles** said: "With the emergence of brilliant electric cars, the revolution on our roads is happening quicker than most people can imagine. This will create a huge distributed battery sitting outside our homes - that can help us balance the grid as we move to a green economy.

"As we do this, it is critical that we put the customer in control with smart energy tariffs - that reward drivers for charging at off-peak times - and clever tech to make it easy."

Edmund King, President of the AA (which commissioned the associated Populus survey) said: "Consumers must be at the heart of the EV revolution. Drivers are concerned about air quality, climate change and costs - the transition to EVs can begin to address all three.

"Drivers underestimate the fuel savings of switching to an EV by at least £360 a year. There are further savings too which include; vehicle excise duty, servicing, parts, parking and congestion charges. Add all these together and the total savings climb to more than £1,000

a year – and much more for residents where their council charges combustion vehicles for access. We need to convince consumers that they can save costs and carbon.”

Andy Eastlake, LowCVP's Managing Director said: “Developing a multi-stakeholder co-ordinated view on what is needed to liberate the electric vehicle smart charging sector has been vital in providing ‘no regret’ proposals to government and industry.”

Notes to Editors

DOWNLOAD THE EV ENERGY TASKFORCE REPORT [HERE](#).

A SELECTION OF IMAGES IS [AVAILABLE HERE](#)

IMAGES FROM THE LAUNCH EVENT WILL BE [AVAILABLE HERE](#) (from c3pm, 14.2.20)

An industry/energy sector-sector focused version of this media release can be found [here](#).

1. The Electric Vehicle Energy Taskforce was established in September 2018⁶; an initiative announced at the Prime Minister’s Zero Emission Vehicle Summit, held in Birmingham, in September 2018. The Taskforce was established to make suggestions to Government and industry to ensure that the GB energy system is ready for and able to facilitate and exploit the mass take up of electric vehicles.
2. In order to meet climate change targets, the Government has already announced that conventionally powered cars will be phased out by 2040. The Committee on Climate Change estimates that the new net zero target could mean that this date will be brought forward. National Grid ESO’s Future Energy Scenarios show that 11.9 million vehicles could be electric by 2030.⁷
3. The Taskforce’s recommendations are made under five themes:
 - Theme one: Delivering consumer benefits through interoperability
 - Theme two: Rewarding consumers for charging smartly
 - Theme three: Utilising and protecting data for better consumer outcomes
 - Theme four: Winning consumers’ trust and confidence
 - Theme five: Developing and maintaining the charging infrastructure consumers need

More information: www.lowcvp.org.uk/evet

4. The LowCVP (www.lowcvp.org.uk), which was established in 2003, is a public-private partnership that exists to accelerate a sustainable shift to lower carbon vehicles and fuels and create opportunities for UK businesses. Nearly 200 organisations are engaged from diverse backgrounds, including automotive and fuel supply chains, government, vehicle users, academics, environment groups and others.

⁶ <https://www.gov.uk/government/news/zero-emission-vehicle-summit>

⁷ <http://fes.nationalgrid.com/>

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ANNEX 1

Over 350 organisations have been involved in the EV Energy Taskforce including⁸:

ABB; Automotive Council; Aviva Investors; BEAMA; BMW UK; BP; British Gas; BSI; BT; Burns & McDonnell; Centrica; Charge Point; Charging Around Britain Ltd; Citizens Advice; CMS Cameron McKenna Nabarro Olswang LLP; Cornwall Insight; Cummins; Delta Energy & Environment; Drivenenergy Ltd; EA Technology Ltd; Eaton; EDF Energy; Elexon; Energy Networks Association; Energy Saving Trust; Energy Systems Catapult; Energy UK; Engenie; ESB Networks; EV Driver; ev.energy; Eversheds Sutherland (International) LLP; Ford; GE; Gemserv; Geo Together; Greater London Authority (GLA); Honda; HSBC; Imperial College London; Innogy; Innovate UK; Institute of Transport Studies (Univ of Leeds); Intel; Kaluza; LG; Lex Autolease; Low Carbon Vehicle Partnership (convenor); National Grid Electricity System Operator; National Grid Electricity Transmission; NCSC; Newcastle University; Nissan Motor GB; Northern Ireland Electricity Networks; Northern Powergrid; Npower; Nuvve; Octopus Electric Vehicles; Octopus Energy; Office for Low Emission Vehicles; Ofgem; OVO Energy; Pinsent Masons LLP; Pod Point; RAC Foundation; Renewable Energy Association (REA); Renewable Energy Consumer Code (RECC); Ricardo; Schneider Electric; Shell; Siemens; Smart Energy GB; Society of Motor Manufacturers and Traders; SSE; TechUK; Tesla; Thales eSecurity; The AA; UK Power Networks (UKPN); UKEVSE; UKPIA; UPS; Vattenfall; VW; Warwick University; Western Power Distribution; WHP Telecoms; Zenith; Zenobe.

⁸ Organisations listed were involved in Taskforce work packages or committees or have made explicit contributions.

ANNEX 2

Electric Vehicle Energy Taskforce proposals

Theme 1: Delivering Consumer Benefits Through Interoperability

Proposal 1

By no later than 2025 industry must have reached convergence on a preferred set of standards that meet interoperability requirements across the EV charging infrastructure. Government must intervene if this is not achieved. Government and industry should, as a matter of urgency, review, define and propose international standards for communications, data and security protocols in order to meet this goal. To support this work government should establish a body with industry to coordinate the involvement of industry stakeholders.

Proposal 2

Government and industry must ensure system resilience by design. This includes ensuring that charge point operators (CPOs) are aware of their responsibilities for ensuring the security of their systems. Government with industry should agree a common standard base for cyber security but not mandate a single solution, however, Government should provide support for the preferred set of standards, including device certification.

Proposal 3

Industry should enable roaming services to deliver a seamless EV charging experience between public charge points by 2021.

Proposal 4

Government and Ofgem, through the electricity industry technical and market code governance frameworks, should ensure overall operational coordination of industry parties seeking to exploit EV flexibility through smart charging technologies and electricity market products by 2021. Clear visibility as to which market products are in play must be evident to both industry and users at any time, as well as which transactions have occurred over a settlement period. It must also ensure that the operation of smart charging does not present a risk to the stability of the electricity system.

Proposal 5

Industry should agree to extending the minimum technical requirements for smart chargers set out by OLEV to facilitate the management of electricity network capacity and energy availability. These requirements should be introduced in line with the powers set out in the Automated and Electric Vehicles Act by 2021.

Proposal 6

If permitted, network and system operators must work with Ofgem, industry and consumer representatives to develop governance arrangements for the use of emergency charge limitation by a network company. Emergency charge limitation should only be used as a last resort to maintain the safety and security of the electricity system.

Proposal 7

By 2021 industry must develop common labelling standards for EVSE, enforced by Government if necessary, so that consumers are aware of the forms of interoperability available from clear, comprehensible EVSE package labelling and other product material. There are a number of types of interoperability and it is proposed that generally, offering these is left as an option for EVSE providers.

Theme 2: Rewarding Consumers for Charging Smartly

Proposal 8

Require private EV charge points to charge smartly by default, thus making smart charging participation an opt-out function by 2021.

Proposal 9

The Government and Ofgem must ensure that existing markets for flexibility are made accessible for EV users. They must also support the development of new co-ordinated and accessible markets for flexibility to compete with traditional networks and wider whole electricity system solutions by 2023 at the latest. Markets and price signals should maximise the opportunities for consumers to utilise their flexible resources, including EVs, and sufficiently reward them for offering demand flexibility services that support optimised network operations and investment, emission reductions and whole electricity system efficiency.

Proposal 10

The Government and Ofgem should ensure on an ongoing basis from 2020, possibly through a process triggered by a charge point installation, that the number of consumers who have a smart meter installed before or alongside the installation of a charge point is maximised, and that consumers have been properly informed of the potential benefits.

Theme 3: Utilising and Protecting Data for Better Consumer Outcomes

Proposal 11

Industry players should cooperate to develop comprehensive data sharing arrangements (including standardisation where appropriate) and open and interoperable exchange principles and mechanisms, in conjunction and alignment with implementation of the Energy Data Taskforce recommendations. They should also advise Government and relevant regulators if industry licences or codes need changing or if legislation is required to allow such sharing of data by 2021. Government and regulators to review progress and to act if necessary.

Proposal 12

To facilitate the availability of open and accurate charge point data, public charge point operators, owners and market actors must make data on public charge point location, type, status, capacity, price and availability consistent and openly available for EV drivers by 2021. A single asset register, aligned with the Energy Data Taskforce Asset Registration Strategy, must include all fixed charge points (i.e. private, public, workplace, etc) and should include all relevant data to ensure optimum planning and operation of the electricity networks.

Proposal 13

The Electric Vehicle Energy Taskforce proposes that Ofgem and Government introduce a Data Access and Privacy Framework for the EV sector to ensure that consumers have full control over their data by 2021. Consumers should be made aware of all data access issues at the point of sale of all EV products and services as well as their powers to control and delete this data.

Theme 4: Winning Consumers' Trust and Confidence

Proposal 14

The Taskforce proposes that an ongoing and proactive campaign be undertaken to promote the

benefits of smart charging to the public. An existing independent organisation could be given this task, or a new consumer-facing body established during 2022.

Proposal 15

The Taskforce proposes that Government fund the provision of an independent, tailored advice and information service on smart charging and EVs, to be established by 2022.

Proposal 16

Industry must develop and adopt common, principle-based complaint handling standards by the end of 2021 to ensure that consumers are transferred seamlessly (between market boundaries if necessary) to resolve their problem(s), regardless of who they have initial contact with.

Proposal 17

The Taskforce proposes that Government and/or Ofgem undertake a full review of protections for EV users by the end of 2021. This should build on and be coordinated with ongoing work (such as Ofgem's Future Energy Retail Market Review).

Proposal 18

Industry to develop and implement best practice standards, backed up by an independent accreditation scheme, for the information provision for smart charging and electric vehicle services at the point of sale by 2021.

Theme 5: Developing and Maintaining the Charging Infrastructure Consumers Need

Proposal 19

The Government and Ofgem, as a matter of urgency, need to facilitate effective forward planning and coordination of the rollout of EV and electricity network infrastructure at a national and local level to meet consumer needs. This needs to be aligned nationally and to wider local area energy, transport and emission reduction plans and be implemented and used through RII0-2 price control.

Proposal 20

Ofgem should ensure RII0-2 price control supports well-justified anticipatory network investment, including LV monitoring, that benefits consumers and enables efficient and co-ordinated deployment of the network infrastructure necessary for EV charging (with due consideration paid to other future additional loads including from the electrification of heat).

Proposal 21

The Government should provide support to all public bodies and private organisations concerned with developing and procuring the delivery, operation and maintenance of public EV charging infrastructure. This should include the sharing of best practice and providing specific guidance on procurement of public charging solutions and requirements for effective delivery, ongoing operation and maintenance of public charging by the end of 2021.