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Market insight paper launch

Harnessing the electric vehicle revolution

The transport revolution
will accelerate the transition to clean and smart energy systems.

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Sustainable energy experts, Regen, have today launched a new market insight paper highlighting how the growth of the electric vehicle (EV) market will create new opportunities for consumers and generators of electricity, and accelerate the transition towards cleaner and smarter energy solutions.

The paper – Harnessing the electric vehicle revolution - looks at the key factors that are driving the UK towards a transport revolution, and assesses both the challenges and opportunities that this will create.

"The government's announcement that it intends to ban new petrol and diesel vehicles from 2040 is a useful backstop, but the opportunity is there for the UK to be more ambitious, not only to tackle pollution and climate change issues, but also to use a radical change in transport to promote innovation, smart technology and new businesses opportunities, in energy.

The horror stories of lights going out when EVs are being charged are being turned on their head. In fact, provided it is managed in a smart and flexible way, the increase in electricity demand could be used to make more efficient use of decentralised low carbon energy." Johnny Gowdy, director, Regen.

The report, is sponsored by Burges Salmon, Scottish and Southern Electricity Networks (SSEN) and ZCM, calls on policy makers to seize the opportunity and makes a number of recommendations that would position the UK to lead the global shift to low emission vehicles.

"With millions of EVs expected to be on UK roads by 2030, we will need to use smart and flexible solutions to integrate the clean power and transport sectors together, in a complementary way. This challenge can be solved with the right response, and the substantial new commercial and industrial opportunities are undeniable. Regen estimates that in a high growth scenario 85% of new car sales in 2035 will be battery EVs, an extraordinary increase from less than 1% today." Olly Frankland, project manager, Regen.

"Electric vehicles will bring transformative change for transport and energy users. How quickly this happens will depend on a number of factors, including how grid reinforcement is financed and managed and the development of smart, flexible usage options for consumers. We are already seeing new business models emerging and this report offers valuable insights for anyone wanting to understand how to unlock the enormous potential of the sector." Ross Fairley, partner, Burges Salmon.

"As we continue to transition from a distribution network operator to a distribution system operator, understanding and managing the impact of electric vehicles and other low carbon technologies is an increasingly important aspect of how we operate our two electricity distribution networks in central southern England and the north of Scotland.

While the speed and scale of the transition to electric vehicles remains unclear, it is our job to ensure this transition is as smooth as it can be, avoiding disruption to customers and any unnecessary increase in costs.

The publication of this report is another important contribution in the UK's journey to a low carbon economy and SSEN remains fully committed to work with all stakeholders to identify the impacts and opportunities the shift to low emission vehicles presents." Richard Hartshorn, electric vehicle readiness manager, Scottish and Southern Electricity Networks.

"We welcome the launch of this paper which is undoubtedly the most comprehensive briefing on the emerging market for EVs published to date. It is a must read for policymakers, fleet operators and local and regional government planners and paves the way for what will increasingly become a unified, decarbonised power and mobility market in forthcoming decades." Peter Crone, director, Zero Carbon Marine.

To find out more, you can download the published paper, '*Harnessing the Electric Vehicle revolution'* here.

Notes to editors:

Regen is an independent not for profit that uses expertise to work with industry, communities and the public sector to revolutionise the way we generate, supply and use energy. Regen passionately believes that sustainable energy has a vital role at the heart of a successful economy and thriving local communities and has a clear goal – accelerating the transition to a decarbonised, decentralised and democratic energy system.

Burges Salmon is the independent UK law firm which delivers the best mix of advice, service and value. We are market leaders in the transport and energy sectors and uniquely well placed to develop the new commercial structures required to support EV networks. We are able to bring together our unparalleled

expertise in energy supply, battery storage, gird reinforcement, on-site generation and corporate energy contracting as well as our extensive knowledge of infrastructure projects, public transport operations, emerging mobility based products, smart ticketing and transport technology. The firm is closely involved in several Innovate-UK connected and autonomous vehicle projects - VENTURER, FLOURISH, CAPRI and ROBOPILOT - as well as a V2G trial.

Scottish and Southern Electricity Networks (SSEN) forms part of the FTSE-50 energy company, SSE. It operates the electricity transmission network in the north of Scotland, and the electricity distribution networks across central southern England and northern Scotland, including the Scottish islands, delivering electricity to over 3.7 million homes and businesses. It also delivers a range of small and large-scale innovation projects which aim to ensure the UK has a high quality and affordable electricity network in the future, such as the £9 million My Electric Avenue project which revealed both the impact of EV charging on distribution networks and the ability to use managed charging to manage risks and defer or avoid costly and disruptive reinforcement.

ZCM has a long history of project development in the renewable energy sector, having originated the London Array offshore wind farm, the Atlantic Array in the Bristol Channel and a number of onshore wind farms in the Orkneys, North Devon, Outer Hebrides and Pembrokeshire. Since 2015 ZCM have been running E-Car Hebrides, a fleet of 10 electric cars and vans based in Stornoway, as a joint venture with E-Car Club. Endorsed by Renault as being one of the greenest fleets anywhere, it is wind powered for the overwhelming majority of the time by the company owned wind farm on the Isle of Lewis. The E-Car Hebrides partners recently won funding from the Innovate UK Vehicle-to-Grid (V2G) competition to assess the barriers to introducing a V2G car club operating throughout the Western Isles.

'Market insight series: Harnessing the Electric Vehicle revolution' has been published on 10 April by Regen and is available online at https://www.regensw.co.uk/harnessing-the-electric-vehicle-revolution-publication.