Comprehensive Spending Review 2020 – REA Submission

Final as of 24th September 2020

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Introduction

Given the context of the COVID-19 pandemic disrupting the lives and livelihoods of people all across the UK, and the legal and moral urgency to tackle climate change, the 2020 Spending Review is a major moment which could see the public back to work in 'green jobs', or let climate change and unemployment be the defining characteristics of the 2020's.

Renewable energy and clean technologies are economically viable, proven, and able to help the UK decarbonise its heat, transport, power, and natural capital sectors. The REA is the UK's largest trade association for these sectors, representing around 550 companies operating in fourteens sectors ranging industries from biomass power and biogas to solar and battery storage. As such, the REA is well positioned to comment on the opportunities arising from Government support for the sector.

The REA is pleased to produce this Comprehensive Spending Review submission for HM Treasury.

For more information about the REA, please visit: www.r-e-a.net

Structure of Submission

This submission consists of two parts:

- A high-level series of asks taken from the REA's June 2020 Green Economic Recovery report
- More specific asks and analysis, particularly relating to the electric vehicle charging and energy storage sectors.

Many of our asks are underpinned by external reports or analysis, linked to in this document.

High-level Green Recovery asks

These high-level asks are derived from the REA's 2020 Green Economic Recovery report (link below). Further detail and background to these asks can be found in the report, which should be considered part of the REA's Comprehensive Spending Review submission.

The REA's Recovery report can be found here: https://www.r-e-a.net/wp-content/uploads/2020/07/REA-Green-Recovery-Report-FINAL.pdf

Decarbonising Power & Homes

- Bring forward new renewable power generation capacity and energy storage projects to enable the shift to Net Zero - £2bn funding could deliver an extra 15-20 GW of renewable power
- Commit to low-carbon power and heat generation in new homes and Retrofit Existing homes with energy efficiency measures and Low Carbon Technologies

- Reform the tax system to enable the low-carbon transition, particularly Business Rates and VAT
- Launch an ambitious national training and re-skilling programme to help workers in oil and gas transition to the net zero world and train a new generation of electrical apprentices to enable the low-carbon energy and transport evolution
- Invest in battery manufacturing capacity in the UK in line with the Faraday Institution's recommendations, to enable EV production and energy storage to smooth the energy transition
- Remove renewable and clean technologies from the Plant and Machinery Order to reduce inflated rateable values and business rate liabilities for those actively decarbonising their energy usage and using onsite generation.

Decarbonising Heat

- Stimulate renewable heat deployment by providing an immediate cash injection into the Non-Domestic Renewable Heat Incentive, extending it for 12 months
- Bring forward support funding for industrial heat decarbonisation. There are currently no significant plans to support the decarbonisations of small and medium scale industrial heat use once the Non-Domestic Renewable Heat Incentive comes to an end in March 2021. This is now an urgent policy gap that must be addressed as the sector contracts, leading to loss of skills, jobs and supply chains.

Decarbonising the Transport Sector

- Accelerate the programmes under way to enable the deployment of public and private EV infrastructure through regulatory support and funding to ensure continued investor confidence. Further REA analysis on specific EV charging grant schemes can be found below.
- Maintain existing low-carbon vehicle incentives and clarify future tax and regulatory questions to provide certainty to consumers and industry
- Promote renewable transport fuels and the Circular Economy by supporting the removal of 'fatbergs'

Moving to a Circular Economy

- Adequately Fund Local Authorities to take actions locally to meet Net-Zero, across waste and resources, transport, heat and power with a £2.5 billion Local Low Carbon Transition Fund
- Invest in an Education and Communications programme to drive quality recycling with funding of at least £50million for a programme to reach every home in the country
- Fund the revision of the Quality Protocols for compost and digestate at a cost of up to £260,000 & End the use of carbon intensive peat by supporting commercial peat-free sustainable compost alternatives with a £50m Fund
- Implement a targeted programme of enhanced landfill mining to recover valuable materials and promote a more Circular Economy

Requests for the domestic energy storage sector

Home energy storage is a crucial enabler for energy and transport decarbonisation. Homeowners with heat or electricity storage can better make use of their solar PV, contribute to active balancing of the grid during times of high or low renewable power output nationally, and reduce local grid constraints arising from an uptake of electric vehicles charged at home.

Recent assessments have found that creating low-carbon homes and Zero rating VAT on Energy Savings materials could create at least 66,000-86,000 new jobs, save £270 per person per year in energy bills and generate a net value to the UK economy of £7.5 billion[1]. Separately, the Faraday Institute recently estimated that with the right support and investment, 78,000 jobs could be created in battery manufacturing and supply chains by 2040.[2] Support at the consumer level is need to help kickstart the demand that will support this growth, which will ultimately increase Government tax revenue.

Home energy storage is critical to Net Zero and the Green Recovery, yet due to the need to comply with EU rules the UK increased VAT on storage in 2019 and the market is significantly constrained, falling behind global markets. In addition, in order to reach the UK's net-zero decarbonisation goals, National Grid's latest assessment[3] forecasts the need for massive increase in the total installed storage capacity from today's 4GW to 60GW by 2050.

Home energy storage is, therefore, a crucial market development but is subject to a significant market failure as half-hourly electricity settlement has not yet come into force (and will not for a further 2-3 years). The UK market is significantly lagging behind in this technology's deployment, despite having a strong research and development base. Home storage has also not yet received any for of direct government grant or subsidy, as heat pumps or solar PV has had. In light of this, we request:

1. **Zero rate VAT for <u>all</u> home energy storage**, in recognition of its energy and carbon benefits and to put it on a better tax treatment than domestic coal, oil and natural gas (all currently taxed at 5% VAT)
    - This should include phase-change material based thermal energy storage (e.g. Heat Batteries)

2. **A temporary financial incentive for <u>smart</u> home energy storage**, such as inclusion in the Green Homes Grant, until market failures are addressed.

[1] REA: https://www.r-e-a.net/rea-sets-out-plans-for-a-successful-green-recovery-as-the-prime-minister-outlines-initial-support-package/
[2] Faraday Institute: https://faraday.ac.uk/ev-battery-prod-2040/#:~:text=The%20Faraday%20Institution%20study%20forecasts,Battery%20Production%20Potential%20to%202040.%E2%80%9D
[3] FES 2020: https://www.nationalgrideso.com/future-energy/future-energy-scenarios/fes-2020-documents

The REA has produced detailed analysis underpinning these asks, which can be produced upon request to Isobel Morris – imorris@r-e-a.net

Requests for the Electric Vehicle charging infrastructure sector

The REA has complied a more detailed analysis of the EV Homecharge Scheme, Workplace Charging Scheme, Onstreet Residential Chargepoint Scheme, and wider local authority funding for EV charging infrastructure in a briefing document for OLEV. A summary of asks for HM Treasury can be found below.

The full briefing for OLEV can be found here: https://www.r-e-a.net/wp-content/uploads/2020/09/REA-EV-Forum-Spending-Review-Submission-for-OLEV-September-2020-FINAL.pdf

EV Homecharge Scheme

The REA recognises that in time, the home and workplace EV charging industry will need to transition to a system where infrastructure can be deployed without direct subsidy (e.g. in the form of grants). In the meantime, as unit costs decline and the sector establishes itself, the REA requests the continuation of the EV Homecharge Scheme. If the scheme is not to be returned to the £500 rate, and be kept at £350, we strongly urge Government to adopt new procedures and rules to ensure that the scheme remains utilised and, by extension, installation and product quality remain controlled.

High-level changes to the EVHS being requested include:

1. The leasing of charge points installed under the EV Homecharge Scheme. Banks, energy suppliers, automotive manufacturers and automotive leasing companies, in particular, should be able to bundle a leased charge point into the overall lease of a vehicle or package of smart home energy technologies (e.g. solar PV or thermal, electricity or heat storage, and heat pumps).
2. To encourage the growth of the service-based markets, decrease the minimum period that an EV must be leased to gain access to the EVHS grant scheme from 6 months to 2 months. This will raise awareness of the benefits of having an EV, develop private EV infrastructure, and encourage the market for the leasing of EVs. The WCS does not currently require an employer to prove that employees own an EV. The REA considers it highly unlikely that homeowners will to spend hundreds of pounds on an EV charging point unless they are expecting to own/lease an EV.
3. The amended EVHS should address the issue of payments being required only following an installation. We request that the scheme is transitioned to being voucher-based, akin to the Workplace Charging Scheme.

4. The REA requests greater funding to the team administering the scheme so that applications can be processed at greater speed.

If an alternative to the grant is being considered by Government, we would request that they investigate tax rebate schemes akin to those used in Belgium, Italy, and France. This is our preferred alternative option. International market research on how other European countries approach supporting the installation of charging infrastructure can be found in Annex 2.

Note on apartments & EV charging

The REA would like to note that there is currently no targeted support for EV drivers living in properties such as apartments blocks with either allocated or unallocated communal parking. This is a major issue as the existing EVHS focuses on those with private off-street parking is likely supporting those who are able to afford to live in such properties. Lower-income individuals with communal parking cannot benefit from the EVHS under its current form.

The REA requests a targeted scheme (either a grant or tax break) that supports prospective drivers living in such accommodation. Targeted support for leasehold management companies may be applicable given the majority of these property types tend to be leasehold, and running a cable from the parking space to an individual property's power supply could be challenging.

Workplace Charging Scheme

Background and issues

The REA is supportive of the Workplace Charging Scheme and sees the role of employers encouraging their staff to go electric as essential. The WCS dovetails with other Government policy to support employers going electric, including the significant reduction in Benefit in Kind rate for electric cars. Overall, members report higher satisfaction with the processes and administration of the WCS compared to the EVHS.

The scheme, however, limits the use of chargers supported under the WCS to the staff of an employer. The REA sees this as limiting and counterproductive. The REA understands that this limitation is linked to concerns around state aid and EU rules.

Request

The REA requests the continuation of the WCS at current levels to 2025, following which a transition to a tax-based incentive scheme.

Particularly following the UK's departure from the EU, the REA requests that the terms and conditions of the WCS be amended to allow:

1. For the leasing of chargers supported by the WCS, which would particularly support smaller businesses
2. For the WCS to allow for greater flexibility in the use of chargers, particularly by non-staff of the organisation participating in the scheme.

3. For it to be allowed for chargers to be made available to the public outside of working hours. This could enable many without private off-street parking to charge overnight.

Local Authority EV Charging Funding and the Onstreet Residential Chargepoint Scheme

Following significant work and consultation with REA members, local authorities, and associations such as the British Parking Association, the REA believes there should be an expanded role and support for local government to roll out charging infrastructure.

The REA welcomes the recent administration amendments to the Onstreet Residential Charging Scheme. Allowing for more upfront capital to Local Authorities claiming the grant should expand its uptake. However, the REA notes low uptake to date and uneven distribution of the application of the grant. In our view, this is because many local authorities still do not know which department should be responsible for EV installation and operation, what kind of maintenance is required, and overall are not fully aware of what their role in the decarbonisation of transport is (considering that the provision of petrol and diesel refuelling infrastructure is not presently in their remit).

Local authorities are also particularly cash poor at the moment and are generally operating at reduced capacity. This constraint also impacts the maintenance of chargers in some instances, as the ORCS does not provide operational funding to the units, just funding for the installation of a unit.

Overall, the REA would like to see an expanded role for local government in the transport transition. Local authorities are well placed to make decisions about traffic patterns and resident's needs. We note a few successful tenders by local government in the UK so far, including in Nottingham. We would like to see an expanded use of local authority tenders and the development of wider transport decarbonisation strategies.

To address this, the REA requests:

- The continuation of the Onstreet Residential Chargepoint Scheme, but with provisions for local authorities to access funding to operate and maintain the units installed (OPEX).
- A clear direction to be set by central Government on the role of Local Authorities in enabling the decarbonisation of transport. This could be set out in the forthcoming EV Infrastructure Strategy from OLEV.
    - As part of this, local authorities should be guided to manage roll-out in a demand/request led way to ensure that chargers end up in the right places to support those residents actively switching to an EV. This mirrors the model used in Milton Keynes and Dutch cities of Amsterdam and Rotterdam where the model has proved very successful.
- New funding to be made available to local government for them to upskill staff and develop low-carbon transport strategies (and how EVs sit within this strategy) that

cover charging infrastructure (as well as other potentially required energy infrastructure, such as hydrogen refuelling or enabling battery storage).

- An expanded role for the Crown Commercial Service and emphasis on local authority tenders for the provision of charging infrastructure, potentially accompanied by central government funding for LA's wishing to roll out a tender.

REA vision for deployment of the £500m Rapid Charging Fund

The REA congratulates HM Treasury on awarding the Rapid Charging Fund in the Spring Budget. This kind of timely and large-scale intervention in the rapid charging market along the strategic (SRN) and A-road network in England is part of what is needed to ensure mass-market consumer and fleet confidence in electric vehicles. Targeting grid investments is also an appropriate use of Government money because the time, cost, and level of commitment required by charge point developers (and others stakeholders) to pursue large-scale grid upgrades often poses a major barrier to deployment and represents a market failure. There is a first-mover penalty in grid upgrades, where the company who pays the full cost to upgrade a local supply opens up lower-cost grid capacity to other developers. The Fund can help address this.

The REA is concerned, however, about the Fund's structure and how it should be deployed. We believe that the **that this fund should be spent based on the principal that the end consumer – private and commercial electric vehicle drivers - is the priority**. The end-user's confidence and experience of public charging infrastructure will be crucial enabling a mass-market in electric vehicles. Government should not be afraid of being involved in this sector in order to enable this outcome. As such, Treasury should:

- **Assign the deployment of this Fund, and ownership of the subsequent assets, to an arms-length Authority.** Given the long-term nature the assets that will be built on the back of the Rapid Charging Fund, we believe that the deployment of the Fund and ownership of subsequent assets should be owned and operated by a standalone organisation. This Authority can be fully owned by, or report directly to, Government. The Authority should have a mandate to facilitate the deployment of rapid charging infrastructure at MSA sites / SRN locations, and where possible support co-location of other low-carbon energy and transport technologies, such as solar and energy storage. The Authority should be given license to partner with the private sector and operate on commercial terms, in order to 'crowd in' additional investment. The Authority should additionally be set up to facilitate competition in the provision of charge points across MSAs / the SRN.

  Assets being managed by such an organisation would allow Government to introduce contractual stipulations for those connecting to the assets, such as the requirement for the power supplied to be 100% renewable.

- **Create competition for consumers across the network.** It is essential that the end-result of this exercise is for a consumer to be able to choose their preferred charge

point operators (based on price, service, or other chosen criteria) and not be effectively locked into a single provider. This can be achieved either by allowing for consortiums of operators to develop sites or ensuring that consumers have access to multiple charge point companies at different sites along their journey.

We also believe roaming should be considered at these sites. No driver should ever face the situation in which they are unable to charge due to a lack of interoperability between public charging points. The optimal experience for drivers is that they should be able to pay using contactless credit / debit cards, but additionally have the option to pay with their membership account regardless of the operator at the MSA / SRN location they have arrived at.

- **Ensure consumer ease is prioritised at charging sites**. We in principle welcome the stipulations suggested in the announcement on the 14th May 2020 that rapid and ultra-rapid chargers at MSAs should be easy to access, should be reliable, and have a good level of associated customer service. We would welcome the opportunity to work with your office on the detail of such regulation.

- **Pursue the optimal cost solutions, for both current and future customers, for providing future proof grid upgrades**. We would welcome the Authority working with any organisation which is able to deliver future proof (accounting for electric car uptake rates and other electric vehicles, such as HGVs) grid upgrades at optimal cost for current and future customers, and at speed, be they National Grid, DNOs, Private Wires, or IDNOs. The Government target of 6,000 rapid and ultra-rapid charging units by 2035 is highly ambitious and works need to begin immediately if the sector is to achieve this target.

- **Ensure coverage at every site, existing and new**. The fundamental value of this initiative is that it communicates to consumers that they will be able to access a rapid charger when they need it. As such, delivering grid upgrades for MSAs / SRN locations should be treated as a portfolio investment. Sites that are less likely to make a 'profit' early should be treated with equal importance to higher-value sites, and all should be advanced.

  Additionally, any site currently in development, planning, or pre-planning stage should show that it will have the electrical capacity it requires for the future.

- **Be transparent and move all sites forward simultaneously**. Rather than proceed on a one-site-at-a-time approach and the prioritisation of certain locations, we would welcome the publication of a transparent plan to upgrade all relevant MSA / SRN sites. The Authority should update the Plan regularly so industry can plan accordingly. National Grid / DNOs / Private Wire companies and others should be encouraged to develop multiple sites simultaneously.

- **Leverage the private sector**. £500m of Government capital can be built upon if private sector lenders interested in long-term, low risk projects are incorporated.

Coupling with private lenders with long-term time horizons, particularly at this time of global uncertainty, could bring in large volumes of low-cost capital to ensure all sites are addressed with suitably sized connections.

- **Look beyond the car.** Presently the industry and public debate around electric vehicles primarily pertains to electric cars. However, the REA understands that a significant volume of traditional fuel sales at MSAs presently is from coaches, busses, and heavier goods vehicles. As we believe there will be a role for electrification in these market segments, capacity (infrastructure) being deployed at these sites should be developed with an eye to such vehicles.

- **The funds must drive the wider energy transition.** Prices for power produced by solar PV and onshore wind are at record lows and they represent the cheapest form of creating new electricity generation capacity in the UK. The Government and Ofgem's *Smart Systems and Flexibility Plan* has also supported the emergence of a range of 'flexible power' technologies, such as battery storage, being deployed to the UK grid. However, grid constraints and upgrade costs pose a constant barrier to their deployment.

  The Authority must deploy the Rapid Charging Fund, and structure the ownership of the new grid capacity, in a way that drives new solar PV, onshore wind, energy storage, and other low-carbon onsite power generation capacity to be deployed *so long as it does not take away capacity from the power provided to the EV charging sites*. As the market for Power Purchase Agreements expands and matures, it is even likely that charge point operators could sign offtake agreements with renewable power developers to enable low-cost power for drivers.

  All chargers should be powered by renewable electricity, be it generated on-site or procured through the energy supplier delivering power to sites.