

EV Forum April 2023:

Welcome to the latest REA EV Forum.

Hello from Matthew Adams.

Transport Policy Manager



REA Competition Law Policy

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 - Competitively sensitive information covers any non-public strategic information about a business's commercial policy. It includes, but is not limited to, future pricing and output plans.



Agenda:

- 13:00: Introductions and meeting the new chair.
- 13:10: ZEV Mandate – DfT Overview + Q&A.
- 13:40: Consumer Experience Regulations OZEV Overview + Q&A.
- 14:10: ZEV Mandate Draft Response + Q&A.
- 14:35: Break.
- 14:45: Smart and Secure Energy System Consultation Govt Response – Overview from DESNZ and Q+A.
- 15:05: REA Campaign Update and Upcoming Priorities.
- 15:25: KPMG – Presenting their idea on VAT at public chargepoints.
- 15:45: LEVI Fund Update & member discussion.
- 16:00: Meeting End.



Introducing our new chair

Mark Constable – Head of
Public Affairs - Trojan Energy



ZEV Mandate DfT Overview + Q&A

With James Vickery,
Head of ZEV
Regulation



UK Government



TRANSPORT
SCOTLAND
CDYSODD WY ALBA



Uywodraeth Cymru
Welsh Government



Infrastructure
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**Consultation on a zero emission
vehicle (ZEV) mandate and CO₂
emissions regulation for new cars
and vans in the UK**



March 2023



Consumer Experience Regulations+ Q&A

With Seb Allen



Consumer Experience at Public Chargepoints

Government Response to the 2021
Consultation on the Consumer Experience at
Public Chargepoints

March 2023



ZEV Mandate Deep Dive

Table 1. Annual targets for ZEV sales shares from 2024-2035 for cars

| Year | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 |
|--------|------|------|------|------|------|-------|
| Target | 22% | 28% | 33% | 38% | 52% | 66% |
| Year | 2030 | 2031 | 2032 | 2033 | 2034 | 2035 |
| Target | 80% | 84%* | 88%* | 92%* | 96%* | 100%* |

*Target will be set out in future legislation.

Table 2. Annual targets for ZEV sales shares from 2024-2035 for vans

| Year | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 |
|--------|------|------|------|------|------|-------|
| Target | 10% | 19% | 22% | 34% | 46% | 58% |
| Year | 2030 | 2031 | 2032 | 2033 | 2034 | 2035 |
| Target | 70% | 76%* | 82%* | 88%* | 94%* | 100%* |

*Target will be legally adopted in a future policy



REA's ZEV Mandate Response Overview

- Supporting the sales targets for cars and vans in the UK up to 2035, although we believe in future as ZEV's become more normalised and demand grows there should be a review process in place, which should only be in place to strengthen targets.
- We see the targets only being mandated up to 2030 as problematic as this does not provide enough certainty, particularly with the flexibility the mechanisms discussed below already provide manufacturers. We would prefer stronger commitments which provide more certainty to the market, which is important for the charging industry.
- Our concerns regarding the significant number of options available to manufacturers to reduce levels of compliance with the targets for ZEV sales and CO2 emissions targets.
- As a result of the generous mechanisms such as borrowing, early levels of CO2 reductions are likely to be reduced which will likely be detrimental to long term CO2 emissions reductions targets and make carbon budgeting harder to forecast and fulfil.
- Incentives for the development of zero emission WAVs could go further and could incentivise manufacturers to produce zero emission WAVs directly, reducing waiting times for wheelchair users wanting to purchase a WAV.
- Government should consider the lifetime emissions of vehicles produced by manufacturers, particularly in instances of pooling where one manufacturer will be able to produce vehicles with a higher level of gCO2/km as a result.
- We support the proposed payment system for non-ZEV CO2 regulations.



ZEV Mandate: Sales Targets

- As it stands sales targets will only be legislated for up to and including 2030. 2031-35 will be consulted on “later this decade” when enough data is available. DfT have indicated that this is because they are concerned that these targets will be unachievable for manufacturers by 2030, suggesting they could lower the targets or extend the timeline for compliance.
- Government state that fines should be greater than the cost of producing a ZEV. However, the fines listed £15,000 for cars and £18,000 for vans are almost exactly half the cost of purchasing a new ZEV today.



ZEV Mandate: Banking

- Banking – Allocations of allowances to cover the sale of non-ZEVs will be made following the end of each calendar year for an amount equivalent to manufacturer's sales. E.G a manufacturer is mandated to sell 10,000 ZEV's, they can then produce 40,000 non ZEV's in 2024. But if they produce 20,000 ZEV's there would be 10,000 extra non ZEV allowances leftover for the following year.
- Allowed until 2030, with a 3 year expiry date. This means banking from 2030 will carry over to 2033, which would enable a larger proportion of hybrids to be manufactured than we would assume.



ZEV Mandate Borrowing

- Borrowing – Manufacturers who cannot achieve compliance in a trading period using allowances from that trading period or previous periods may choose to borrow allowances from a future trading period.
- A manufacturer's allowance deficit is multiplied by 1.035 each year that it is not repaid, acting as a 3.5% compounding interest rate. 3.5% mirrors HM Treasury's social time preference rate — how much society prefers something today versus next year. This is intended to reflect the lost environmental benefit to society of delaying the deployment of a ZEV in a given year.

Table 3. Share of ZEV credit targets which may be borrowed from future years in 2024-2026 for cars and vans

| | | 2024 | 2025 | 2026 | 2027 |
|-----------------------------------|-----------------------------|-------|------|-------|-------|
| Borrowable fraction of trajectory | | 75% | 50% | 25% | 0% |
| Cars | ZEV trajectory | 22% | 28% | 33% | 38% |
| | Borrowable allowance share | 16.5% | 14% | 8.3% | 0% |
| | Minimum in-year compliance* | 5.5% | 14% | 24.8% | 38%** |
| Vans | ZEV trajectory | 10% | 18% | 22% | 33% |
| | Borrowable allowances share | 7.5% | 9% | 5.5% | 0% |
| | Minimum in-year compliance* | 2.5% | 9% | 16.5% | 33%** |

*May be met through earning credits from selling ZEVs, bonus credits or trading

**In addition to the repayment of any deficit accrued from borrowing in 2024-2026



CO2 Standard Pooling

- Pooling – Allows two manufacturers who are part of a bigger company pool in the ZEV mandate and non ZEV CO2 trading schemes. Essentially allowing manufacturers who are capable of greater innovation to reduce costs by complying with a lower CO2 standard, the medium between the two. Overall, the example in the consultation has no CO2 benefit and is just an additional resource intensive activity to regulate.
- Pooling only produces a net CO2 benefit if the larger polluter X g/km produces more non ZEV's as this will provide a net reduction in potential CO2.

Example: Manufacturer A and Manufacturer B are part of the same connected entity³⁵ and wish to form a pool in the ZEV mandate and non-ZEV CO₂ trading schemes. Manufacturer A sold 100,000 non-ZEV cars in 2021 in the UK which had average CO₂ emissions of 140 g/km. Manufacturer B sold 50,000 non-ZEV cars in 2021 in the UK which had average CO₂ emissions of 170 g/km. The resulting non-ZEV CO₂ baseline target for cars for this pool would be:

$$\frac{100,000 * 140 + 50,000 * 170}{100,000 + 50,000} = 150 \text{ g/km}$$

Manufacturer A is producing 10 g/km more CO₂ than they could.

Manufacturer B is producing 20 g/km less, so...

100,000*10=1,000,000 g/km.

50,000*20= 1,000,000 g/km

In addition, there are now 100,000 cars producing more emissions over a wider area.



CO2 Standard Over Compliance

- Over compliance mechanism – manufacturers whose vehicles produce less emissions than in 2021 will be deemed over compliant and they can trade excess credits to the ZEV mandate in the first 3 years to a maximum of **25%** of the sales targets. Meaning in 2024 a manufacturer maximising this and borrowing could produce **zero** ZEV's but meet the manufacturing threshold, and by 2026 only produce **50%** of the target if continued.
- This significantly jeopardises the 2031-35 target as it is likely Government begin to examine data and consult on these targets by 2027/28.



Consumer Experience Regulations Overview

The REA engaged with OZEV for several months on the Consumer Experience Regulations, achieving some significant wins for our members these include:

- Moving the 7kW threshold for contactless payment up to 8kW.
- Moving contactless for the 8kW to 12 months when it was initially proposed as immediately.



REA's Consumer Experience Regulations Outline

- **Contactless:** New chargepoints above 8kW and existing rapid chargepoints 50kW and above must offer contactless. Contactless can be offered either per chargepoint or per site.
- **Payment Roaming:** Chargepoint operators must ensure that payment roaming is available at all of their public chargepoints. Chargepoint operators must connect to a third party roaming provider. This can be either an eMSP, clearing house or another CPO.
- **Pricing Transparency:** The price of a charge must be displayed in pence per kilowatt hour (p/kWh) either at the chargepoint or through a separate device. Bundles such as for parking and charging are acceptable but the equivalent price in p/kWh must be displayed.
- **Reliability:** Rapid chargepoints must be 99% reliable, measured as an average across a chargepoint operator's rapid network.
- **Open Data:** Chargepoints must open their data through the Open Charge Point Interface (OCPI) protocol. Static and live data must be made open to the public and government bodies. Dynamic data must be made available to distribution network operators (DNOs) and transmission network companies.
- **Helpline:** Chargepoint operators must offer a 24/7 free consumer helpline for anyone struggling to charge at their chargepoints. The helpline must be displayed clearly on the chargepoint.



Consumer Experience Regulations Timeline, Immediate Changes

The below will be mandated as soon as legislation comes in to effect.

- **Pricing Transparency:**
 - Pricing to be displayed in pence/kWh.
 - Bundling e.g. parking and charging are acceptable but there must be a pence/kWh version. Currently some industry participants will use a pence per minute metric, these industry members will now need to also have a pence/kWh version.



Consumer Experience Regulations Timeline, enforced after 12 months

The below will be mandated 12 months after legislation comes in to effect.

- **Open Data:**
 - Chargepoint operators to publish data and adopt the Open Charge Point Interface (OCPI) data standard.
- **Contactless:**
 - New chargepoints above 8kW and existing rapid chargepoints 50kW and above must offer contactless. Contactless can be offered either per chargepoint or per site. Rapid chargepoints must be retrofitted.
- **Reliability:**
 - Rapid chargepoints including those situated on the SRN to be 99% reliable.
- **Helpline:**
 - Chargepoint operators must offer a 24/7 free consumer helpline for anyone struggling to charge at their chargepoints. The helpline must be displayed clearly on the chargepoint.



Consumer Experience Regulations Timeline, enforced after 24 months

The below will be mandated 24 months after legislation comes in to effect.

- **Roaming:**

- Chargepoint operators must comply with payment roaming.
- OZEV define roaming as roaming as the ability to use a payment app across multiple chargepoint networks, with all public chargepoint networks covered by at least one roaming provider.

- **Government will also:**

- Allow a provision for Government to designate approved providers if industry does not demonstrate sufficient progress in this timeframe.
- Government will then take powers to mandate a 99% reliable charging network across the entire public UK network if progress has not been made.
- Government will list publicly the chargepoint operators who do not maintain a reliable network and enforce self-reporting until open data has come into effect.



Break



SSES Consultation Government Response Overview, Daniel Lett, Senior Policy Advisor



Delivering a smart and secure electricity system

Government response to the 2022
consultation on interoperability and cyber
security of energy smart appliances and
remote load control

March 2023



SSES Consultation Deep Dive

| Proposal /Indicative timeline* | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 |
|---|--|---------------------------------|---|---|------|------|
| Development and adoption of an ESA standard | Primary legislation put in place Further detail of proposals to be consulted on | Secondary legislation developed | | Window for proposals to become operational | | |
| Introducing the “smart mandate” to heat technologies | Primary legislation put in place | Secondary legislation developed | | Window for proposals to become operational | | |
| ESA minimum cyber security requirements | Further detail of proposals to be consulted on | | | | | |
| Tariff interoperability | Further detail of proposals to be consulted on | Secondary legislation developed | Window for proposals to become operational | | | |
| Introducing a licensing regime | | | | Window for potential further changes to licence to be made reflecting on implementation of other proposals. | | |
| Expanding the scope of the Network and Information Systems Regulations 2018 to include certain load controllers | Primary powers to amend NIS Regulations put in place | | Window for proposals to become operational, supported by the Cyber Assessment Framework | | | |
| | Consultation, as appropriate, on changes to NIS Regulations | | | | | |
| | Secondary legislation developed | | | | | |



SSES Confirmed Intentions

- Bring load controllers into the scope of the Network and Information Systems Regulations (NIS).
- Use a 300MW threshold for load controllers to be considered Operators of Essential Services under the NIS.
- Use the Cyber Assessment Framework (CAF) as a means of assurance in relation to the security duties under the NIS Regulations.
- Develop a new licensing framework for organisations carrying out DSR, focussed on domestic and small non-domestic consumers.



SSES Confirmed Consultation Topics

- Possible provisions to ensure cyber security of load controllers that are below the 300MW threshold.
- The technical and governance solution for interoperability of time-of use tariff data.
- The role of common systems to mitigate potential system-wide risks from energy smart appliances.
- The approach to mitigating grid stability risks from energy smart appliances.
- Controls to ensure grid stability from DSRSP load control activities.



NIS Regulations?

- The UK Government's Network and Information Systems (NIS) Regulations aim to improve the cybersecurity of organizations that provide essential services to society, such as energy, healthcare, transportation, and digital services.
- The regulations require these organizations to take measures to manage their cybersecurity risks adequately and report significant cyber incidents to the relevant authorities.
- The regulations aim to enhance the resilience of these organizations to cybersecurity threats, protect their systems and data, and maintain the continuity of their services in the face of cyber incidents.
- Failure to comply with the NIS Regulations can result in enforcement action, including fines and reputational damage.



Estimated Cost to a Chargepoint Operator to comply with the NIS Regulations

- The cost of compliance with the NIS Regulations can vary depending on the size of the organization, the complexity of its IT systems, and the level of cybersecurity measures already in place.
- The cost of compliance for a small chargepoint operator is difficult to estimate without specific information about their IT systems and security measures.
- However, some of the costs that a small chargepoint operator may incur to comply with the NIS Regulations could include:
 - Cybersecurity Assessment: Several thousand pounds.
 - Cybersecurity Measures: Several thousand pounds.
 - Reporting and Incident Management: Cost of hiring a cybersecurity expert.
 - Ongoing Maintenance: Cost of hiring staff or third-party service providers.
- In summary, the cost of compliance with the NIS Regulations for a small chargepoint operator can vary widely, but it is likely to cost several thousand pounds in total, depending on the complexity of its IT systems and the level of cybersecurity measures already in place.



SSES Member Discussion



LEVI Fund

- In March the Government announced that there would be **£381 million** of funding for the LEVI fund which they launched on the same day. The application deadline is 26th May.
- The fund is designed to:
 - Provide capital funding to support chargepoint delivery.
 - Provide capability funding to ensure that local authorities have the staff and capability to plan and deliver chargepoint infrastructure.
- In addition to **£15 million** new funding for the On Street Residential Charging Scheme (ORCS).
- The fund is designed to:
 - Increase the availability of on-street chargepoints in residential streets where off-street parking is not available, ensuring that on-street parking is not a barrier to realising the benefits of owning an EV.



REA Campaign Update

- The REA EV Forum will be rebranding as Recharge UK. This will launch in July when our Campaign is ready to publish.
- The campaign will focus on barriers to chargepoint deployment and identify demand for chargepoints per post code.
- We will be looking at a full package solution, getting case studies from members on the need of fleets, the need for safe and accessible public charging and the need for skills to install and maintain them. As well as the obvious need for upgrades to local and national grid capacity.
- Work will begin next week.
- For anyone who would like to join the campaign, or feel they may have something to contribute to it, or wants to know more please let me know and I'll set up a call.



REA Q2 Priorities

- REA Campaign – breaking down barriers to chargepoint installation.
- ZEV Mandate Engagement – consultation response.
- LEVI Fund – Implementation – our work in the industry WG – industry feedback.
- RAPID Fund – Progress.
- HGV Decarbonisation – Electrification.



KPMG: VAT Campaign Idea



Rishi – Ask me anything

Is there anything you've ever wanted to ask me? Well, now's your chance.

On Monday 24 April I'll be answering questions from the business community live on LinkedIn. One of my top priorities as Prime Minister is to grow the economy. And you – the British transport businesses, entrepreneurs and innovators inventing the future – are at the heart of that.

Click the links below to attend and ask me a question.

Speak to you then,
Rishi Sunak
The Prime Minister

Register to attend [here](#).

Register a question [here](#).



Thank you!

On June 23rd the REA will be hosting the British Renewable Energy Awards 2023. Have you registered?

You can [here](#).

