



CO2 Regulation Green Paper Response
Great Minister House
33 Horseferry Road
London
SW1P 4DR

(Redacted - Regulation 13 of the
Environmental Information
Regulations) 2004)

By email: CO2RegulationGP@dft.gov.uk

22nd September 2021

Green Paper on a New Road Vehicle CO₂ Emissions Regulatory Framework for the United Kingdom – Drax Response

Drax Group plc (Drax) owns and operates a portfolio of flexible, low carbon and renewable electricity generation assets – providing enough power for the equivalent of more than 8.3 million homes across the UK. Drax also owns Drax Energy Solutions and Opus Energy who supply renewable electricity and gas to over 390,000 business premises. Our retail businesses offer renewable products and actively help Small and Medium Enterprises (SMEs) with their energy needs, as well as providing products to larger, industrial customers.

Drax also offers its Drax Electric Vehicles (EVs) proposition to the market. We aim to help our customers transition their fleets to EVs through the provision of a turnkey solution which aims to help organisations realise the economic and sustainability benefits of EVs. Alongside fulfilling the roles of a Charge Point Operator (CPO) and E-Mobility Service Provider (eMSP), our proposition includes site assessment for suitability of EV infrastructure, installation of EV infrastructure and operating software, support for vehicle telematics, and the supply of renewable electricity at the charging points.

We welcome the opportunity to respond to the government's Green Paper on a New Road Vehicle CO₂ Emissions Regulatory Framework for the United Kingdom. While we do not participate in the automotive sector, EV charging infrastructure and energy supply are now linked industries. Therefore, we present responses based on principles and outcomes, rather than technical details.

We agree with the government's view that decarbonising road transport is critical for achieving net zero and that the current regulatory framework for cars and vans is not ambitious enough to achieve our commitments for cutting carbon and for phasing out ICE vehicles by 2030. We see the proposed regulatory framework as an opportunity for government to ensure more EVs are available for purchase by fleet operators, which are the main procurer of new EVs in the UK. In turn, this will help to provide much needed investment certainty for the EV infrastructure the UK requires. We would like to highlight the following points from our response:

- **The regulatory framework** – We support any measure that delivers a move towards zero emissions vehicles. In this instance we support option 2, which Drax believes is the strongest combination of metrics, grams of CO₂ per kilometre and continuous zero emissions range combined. We see these mechanisms as effective tools to reduce emissions from 2025 and to combat range anxiety. These metrics should be tapered from 2025 in order to continuously reduce CO₂ emissions and improve battery ranges up until 2035 when full BEV's are the only vehicle type available at the point of sale.



- **BEV Targets** –In addition to the regulatory framework offered in option 2, Drax views having sales targets for BEV's identified by the CCC as the most effective way to ensure market certainty. This market certainty provides certainty to charge point operators, stimulating investment to meet future demand and growing infrastructure and will ensure consumer confidence in infrastructure in the UK.
- **Regulatory start dates** – Drax supports the most ambitious climate targets. We therefore would recommend for the regulations to start in 2025, to create a tapered reduction in CO2 emissions and improvement in zero emissions capability that signals the UK's ambition to the market.

Please find detailed answers to individual questions relevant to Drax appended to this letter. We would welcome the opportunity to discuss the points raised in the inquiry in further detail with government.

Yours sincerely,

By email

(Redacted - Regulation 13 of the Environmental Information Regulations)

(Redacted - Regulation 13 of the Environmental Information Regulations)

Drax Group plc

Appendix

Significant Zero Emission Capability

Q1 - What metric, or combination of metrics should be used to set eligibility for cars and vans between 2030 and 2035?

Drax is supportive of the government's target to phase out the sale of new petrol and diesel cars and vans by 2030, and for all new cars and vans to be 100% zero emission at the tailpipe by 2035. The five-year period between 2030 and 2035 will see Plug-in Hybrid EVs (PHEVs) and Hybrid EVs (HEVs) remaining on sale in the UK, and we agree that these vehicles should be required to have a significant zero emissions capability (SZEC) to achieve our climate and air quality goals.

Drax believe that the established metrics, or combination of metrics, to set the eligibility for cars and vans between 2030 and 2035 need to be based on the principles of ensuring that carbon emissions from road vehicles is reduced as much as possible in each year between 2030 and 2035, and that vehicles travel increasingly greater distances in 'zero-emission mode' over the same period. The outcome by 2035 is that all cars and vans emit zero-emissions at the tailpipe and travel 100% of journey distance in zero emission mode (i.e. are Battery Electric Vehicles (BEVs).

Therefore, we are supportive of using two metrics to measure SZEC: grammes of CO₂ per kilometre (gCO₂/km) and continuous zero emission range.

We believe this is important for PHEVs and HEVs as firstly it will ensure that these vehicles are operating in zero-emission mode for as a greater distance as possible, eliminating tailpipe emissions. Secondly, when the vehicle runs out of electric power, the eligibility metric for carbon emissions will ensure that the Internal Combustion Engine (ICE) is as clean as possible. This will create a scenario where automotive manufacturers need to improve the carbon emissions of the ICE and the zero-emission range.

Drax does not have a specific view on the technicalities of the metrics, and the testing procedure for vehicle. However, we disagree that continuous zero emission range cannot be applied to HEVs. It is critical that all cars and vans on sale between 2030 and 2035 operate on a significant zero emission range, and it is therefore our view that the continuous zero emission range metric is applied evenly to PHEVs and HEVs, as is the gCO₂/km metric, to achieve the desired outcome stated above.

Q2 – For your chosen metric, what threshold should new cars and vans be required to meet from 2030?

Drax agrees that any metric chosen must ensure that all cars and vans on UK roads are zero emissions after 2035. Option 2 discussed in detail below is the most suitable for this objective, as it fits with the need to reduce carbon emissions in the framework. We believe that the metrics must year on year be tapered to continuously increase the range of EV' and continuously reduce CO₂ emissions (gCO₂/km) from PHEVs until the point that only BEV's are on sale from 2035.

Drax also believes that metrics must be clearly understood by the consumer, possibly by using a similar grading system to an energy performance certificate which is widely understood. Having an easy-to-understand metric will help at the point of sale where this information should be easy to relay to a consumer.

Q3 - What other requirements could be introduced, if any, to maximise zero emission capability?

Drax is of the view that the end goal for passenger vehicle and van sales should be full BEV as soon as possible. The increase in EV's on UK roads will increase consumer confidence and drive greater sales. The government will have a role in driving this certainty through the introduction of this CO2 and continual zero emission range regulatory framework.

As demand for charge points increases through SZEK requirements the government should ensure that charge point installation is a quick and simple process and not hindered by over-regulation or unfavourable charges.

Drax believes real world testing of vehicle performance in terms of amount of CO2 emitted and zero emission range would offer the best way for consumers to maximise their zero emissions capability. While we recognise this does happen, the accuracy of these results vs what consumers find often varies and this is a widely recognised phenomenon. Therefore, requirements for more accurate real word testing would help ensure consumers can maximise their zero emissions capability, and push manufacturers to improve theirs further than the metrics above would on their own.

The Real Driving Emissions Test Procedure 2 currently tests a vehicle by driving them on public roads and over a wide range of different conditions. Specific equipment installed on the vehicle collects data to verify that legislative caps for pollutants such as nitrogen oxides (NOx) are not exceeded. A similar test could be imposed on CO2 values of new hybrids after 2030. Any make of vehicle which does not meet these targets currently sees a band increase in vehicle excise duty which is reflected on the final price of the vehicle. Currently, this applies to fleet vehicles and not consumer vehicles. However, this type of regulation could apply to consumer and fleet hybrid vehicles.

Q4 – What would the impact be on different sectors of industry and society in setting an SZEK requirement, using evidence where possible?

Drax as a charge point operator, believes an SZEK requirement would be beneficial to the UK's net zero objectives. An SZEK requirement provides further consumer confidence, as they would have greater understanding of the capability of their vehicle. With ICE vehicles removed from sale after 2030 an increase in the sale of EV's makes the SZEK requirement more of a necessity to ensure consumer take up is high.

In the near term an SZEK requirement would have a positive impact on air quality, with PHEV and HEV's producing significantly less emissions over their lifetime, as their electric range is higher. A zero emissions target would also continue to stimulate R&D in batteries and further improve their ranges. Range anxiety is one of the main push factors away from EV's, so we view a SZEK requirement as crucial to reduce this.

Following on from this, the resulting increase in EV's and plug in hybrids will mean that demand for charge points increase. As a charge point operator Drax would ask the government to ensure that charge point installation is a quick and simple process, that is not hindered by over regulation, or unfavourable changes. **Possible Future Frameworks**

Q5 - Do you have any comments regarding Option 1, to replicate the current regulatory framework, albeit with strengthened targets, to meet our wider carbon reduction targets and phase out dates?

Option 1 is not Drax's preferred option as it fails to achieve targets for a full transition to EV's. While this option would reduce CO2 emissions from hybrids it does not promote the

role of BEV's in the transition, and as a result has the potential to leave consumers/vehicle manufacturers facing a cliff edge in 2035 once hybrids are phased out.

Q6 - Do you have any comments regarding Option 2, to introduce a ZEV Mandate or sales target alongside a CO2 regulation?

Drax is supportive of option 2 as it will deliver on the highest number of EV's by 2035 which will be important to meet our carbon budgets. Drax recommends that option two uses a tapering system to see incremental changes in the level of CO2 reductions and increasing zero emissions ranges.

Drax's view is that these tapered CO2 regulations and zero emissions ranges should apply from 2025 rather than 2030. By implementing these regulations earlier it would encourage further investment in more efficient batteries for EV's over a longer period of time which is important in future EV uptake and would also reduce CO2 emissions from ICE and hybrid vehicles earlier.

The CCC have outlined that some fuel efficiency improvements for ICE vehicles to 2030 will be possible and driving emissions for BEVs are expected to decrease much more (by around 60%) as the carbon intensity of the UK grid electricity reduces¹. Therefore, the government should set stronger CO2 emissions reduction targets for ICE and hybrid vehicles from 2025. Additionally, the CCC recognises new BEV sales will take time to feed through to the fleet as the average car remains in use for around 14 years. In their analysis, BEVs will comprise 27-37% of the car and van fleet in 2030, rising to 56-67% by 2035 and 81-88% by 2040. To ensure that BEV uptake is as high as possible the government must encourage a switch to EV's before 2030. The CO2 and zero emissions ranges regulatory framework should encourage innovation in BEV's and reduce emissions.

The CCC's sixth carbon budget outlines the number of BEV's needed from 2025-2035, starting at 3 million by 2025 to nearly 25 million BEV's on the road by 2035². The government should outline sales targets for BEV's year-on-year based on the CCC's targets to ensure the sixth carbon budget can be met. A set of targets for the number of BEV's sold each year would also provide greater market certainty for charge point operators who could then invest in infrastructure.

Q7 - Do you have any views on the government's initial preference for the regulatory approach set out in Option 2?

Drax welcomes the regulatory approach set out in option 2. However, any regulatory approach should be more ambitious and set from 2025 with tapered targets to further reduce emissions and improve zero emissions capability before the 2030 ICE phaseout.

Q8 - Are there alternative approaches that could deliver on the government's carbon budget and 2030/2035 commitments?

To ensure we meet future carbon budgets government needs to find a way to get second and third hand cars off the road that are less fuel efficient and emit far higher levels of CO2. One way to do this is through stronger incentives to purchase second hand EV's as they are currently far above the market price for second-hand ICE vehicles. One successful way of moving people on to lower emissions vehicles was the scrappage scheme which encouraged people with older high emission cars to scrap them in favour of new cars that produced less CO2. We would encourage the government to explore the role of a similar

¹ <https://www.theccc.org.uk/wp-content/uploads/2020/12/Sector-summary-Surface-transport.pdf>

² <https://www.theccc.org.uk/publication/sixth-carbon-budget/>

scrappage scheme whereby older ICE vehicles are rewarded when scrapped and replaced with an EV alternative either first- or second-hand. A scheme like this on top of the plug-in car grant would provide strong incentives to switch to an EV either first or second hand. Without market intervention the government should recognise that affordability will remain a key barrier to people who cannot afford a new car, whether that is an electric or ICE vehicle. With electric currently costing far more, the market currently forces many people towards older ICE vehicles instead.

The existing market perpetuates this financial problem. For new ICE vehicles we have introduced E10 petrol which the government claim is some of the cleanest in the world. However, the rest of Europe already use E20, which is twice as clean as E10. Incentives for manufacturers to make vehicles that can run on E20 and future, cleaner fuels would also help to deliver on the government's carbon budget commitments by reducing the amount of carbon dioxide produced by an ICE vehicle or hybrid each journey. Cars that cannot run on E10 and E20 fuels could also be some of the first to be targeted for a revamped scrappage scheme to make greater strides in meeting the carbon budget.

There must also be some financial barriers for car collectors who may wish to drive older, dirtier vehicles with a high carbon footprint. This could include the introduction of a tax for driving these higher polluting vehicles, perhaps linked to the carbon price, which would allow enthusiasts to continue to own and collect classic vehicles but to pay for the negative externality they cause.

Lastly, and as discussed previously any metric should help improve market confidence. Charge point operators would benefit from the release of BEV targets year-on-year until 2035 to stimulate investment in infrastructure. From this, consumer confidence will grow as charge point growth year on year improves, generating confidence that EV's are a viable, accessible option for consumers.

Q9 - Do you have any views on how either, or both, of the options could be implemented?

We would be supportive of a future consultation to decide on specific targets and their implementation.

Q10 - Do you have any further comments or evidence which could inform the development of the new framework?

Drax sees a great opportunity within this framework to incentivise fleet operators. The majority of EV's are purchased by fleet operators and should be a key target demographic for any new framework. Fleet operators, through a new framework would need market incentives to move more quickly to long range, low emission hybrids or EV's. The government should consider carefully what incentives would stimulate market growth from fleet operators.

One area of concern for consumers is the amount of infrastructure available for EV's. We have welcomed previous commitments to build more charge points and recognise the government ambition in this area. However, greater government support for infrastructure roll-out either through finance or guidance would further stimulate the market roll out of charge points.

The EU has identified urban mobility as a key area of change in the next 30 years. EV charge points are to be placed in areas that will not compete with walking, cycling or other active or public transport methods according to the strategic rollout plan to support the rapid

deployment of alternative fuels infrastructure³. This focus on building the infrastructure is important in reaching any objective to decarbonise transport. Having a stronger understanding of where charge points are needed and can be used without impeding alternative forms of transport is vital for CPO's and to see the largest CO2 reductions in urban areas.

Stringency of CO2 Target

Q11 - If deploying a combined ZEV Mandate and CO2 regulatory framework, how should the CO2 element be set?

Drax would value a regulatory framework that gradually tapers CO2 emissions down to zero by 2035 and zero emissions capability up from 2025. This would create the largest carbon savings and support the transition to BEV vehicles by increasing consumer confidence in range. It would also increase the cost of manufacturing hybrid vehicles which would act as an incentive for the market to shift towards the highest carbon saving option, which is BEV's.

Q12 - Should the focus be on delivering the largest possible CO2 savings, or the quickest possible switch to zero emission mobility?

When considering the method to decarbonise road transport, Drax believes that a focus on both of these metrics is the best approach as this will deliver the largest possible CO2 savings and support the transition to zero emissions mobility. In doing so, the government will improve consumer confidence in the role of EV's and facilitate the ICE phase out target and transition to full BEV's.

Q13 - How do we ensure that the target allows for sufficient supply of low and zero emission vehicles; supports investment in the UK; and delivers our carbon reduction commitments?

Drax is of the view that the release of targets would stimulate market certainty, with CPO's being able to anticipate future demand and invest in infrastructure accordingly. In turn this would allow for consumer confidence in the infrastructure available. With manufacturers mandated to meet targets, and consumers provided market certainty, a greater proportion of vehicle sales would be of low emission, long range hybrids or EV's.

In addition, fleet operators encouraged by the growth and reliability of infrastructure would invest in more EV's and hybrids, while ensuring that a considerable proportion of overall vehicle sales each year will be low emission. These metrics also encourage manufacturers to invest in more R&D as they meet more ambitious range targets and lower CO2 emission levels. This R&D will help combat range anxiety, another major barrier to market entry for consumers and will help increase demand for EV's and help meet these potential future targets.

Derogations and Exemptions

Q14 - Should the new regulatory framework include exemptions or modified targets for certain specialist vehicles and/or niche and small volume manufacturers?

Drax is of the opinion that all road vehicles need to be zero emissions to reach net zero. We want to avoid any exemptions in the market as this could create market distortions resulting in perverse outcomes whereby smaller manufacturers are able to avoid regulations. So,

3

https://ec.europa.eu/info/sites/default/files/strategic_rollout_plan_support_rapid_deployment_of_alternative_fuels_infrastructure.pdf

although we must recognise the challenges they will face, the government must find a way to integrate specialist vehicles and niche or small manufacturers into the regulations to create a balanced market.

Credit Levels Q's 15-16

Not answered.

Credit banking and trading Q's 17-20

Not answered.

Levels of fines for non-compliance

Q21 - How, and at what level, should fines be set in the new UK regulatory framework and should this vary for different vehicle types?

The fine metric in the existing regulations is appropriate. However, we are concerned that it fails when then the volume of non-compliant vehicles drops the fine will get smaller. Therefore, the value of the fine per gCO₂ over the threshold for a given year needs to increase between now and 2035 so the fine remains sufficiently harsh to disincentivise the wrong products reaching the market. We see tapering the fine year on year as the most appropriate mechanism to ensure that the strength of the fine is maintained through the 2030-2035 period.

Target setting process

Q22 - Would there be benefits in seeking to ensure any CO₂ targets in the new UK regulatory framework take into account real-world emissions data alongside the lab-tested WLTP CO₂ emissions figures? If so, how might the two be linked?

Drax is supportive of real-world emissions data. Real world emissions data is a vital tool and very important in understanding a more accurate level of CO₂ emissions expected from a new hybrid or ICE vehicle, as referenced previously a mechanism like The Real Driving Emissions Test Procedure 2 could be highly effective on this matter. An easy-to-understand metric at the point of sale could then assist customers in making a more informed decision based on a vehicles CO₂ emission. However, the extent to which a hybrids two power modes are used will vary from person to person and should be used to inform customer choices rather than for emissions projections exclusively.

Q23-26: Extending the Framework to All Road Vehicles

Drax does not have a specific view on the technicalities for specific vehicle types outside of cars and vans. However, Drax believes to reach net zero it is important that all road vehicles are zero emissions in the future. At an appropriate juncture, when the technology allows, the regulatory framework should aim to cover these other vehicle types to create a balanced market.