



Department
for Transport

Zemo Hydrogen workshop

21/04/22

Hydrogen

- Hydrogen can help the UK to achieve net zero by 2050, and our Sixth Carbon Budget target by 2035
- The PM's 10-point plan set an aim for 5GW of low carbon hydrogen production capacity by 2030 for use across the economy
- The Hydrogen Strategy, published last year, sets out how we will achieve this
- Energy Security Strategy doubled this ambition to 10GW by 2030

UK Hydrogen Strategy



Hydrogen

- Renewable hydrogen supplied in the UK is eligible for support under the Renewable Transport Fuel Obligation (RTFO), a certificate trading scheme.
- Under the RTFO renewable hydrogen is categorised as a development fuel, which potentially benefits from a higher tradeable certificate value.
- The Energy Security Strategy committed to set up a hydrogen certification scheme by 2025
- Government is also aiming to run annual allocation rounds for electrolytic hydrogen, moving to price competitive allocation by 2025 as soon as legislation and market conditions allow

Hydrogen buses



- HM Government takes a technology neutral approach to zero emission buses
- The Low and Ultra-Low Emission Bus Schemes have supported 60 Hydrogen buses
- The EU supported Joint Initiative for hydrogen Vehicles across Europe (JIVE), also provided funding and support

Zero Emission Bus Regional Areas (ZEBRA)

ZEBRA scheme has provided nearly £270m funding supporting 1,279 zero emission buses:

- On 26 March 2022, we announced £198.3m from the ZEBRA scheme to 12 areas to support 943 zero emission buses.
- In October 2021, we announced nearly £71m from the ZEBRA scheme to five areas to support 335 zero emission buses.
- A further c.£200m funding is available over FY 2022-23 to FY 2024-25, which will support even more ZEBs.
- The West Midlands Combined Authority's bid to ZEBRA, for 124 hydrogen buses and refuelling infrastructure, is the largest ever hydrogen bus project in the UK.



BSOG Zero Emission Bus incentive

- All buses which meet the normal BSOG rules and can demonstrate zero tailpipe emissions and have no internal combustion engine (e.g. electric and hydrogen fuel cell buses), will be eligible
- Operators claiming the ZEB incentive will be able to claim for any kilometres that would ordinarily be payable under BSOG rules for conventionally fuelled vehicles.
- Unlike the LCEB, this includes vehicles under 22 seats/passengers



BSOG Zero Emission Bus incentive

- For the purposes of this uplift only, all hydrogen buses will be eligible, regardless of the source of the hydrogen. The future treatment of ZEBs, particularly the treatment of energy source for both hydrogen and electric buses will be consulted on as part of the wider reform of BSOG
- This is a pragmatic approach for the uplift, recognising the currently limited supply of green hydrogen and aligns with ambitions across government.



Zero Emission Bus definition

- The Zemo Partnership and DfT have developed a new ZEB definition and certificate. A ZEB is defined as a bus which:
 - Has no combustion engine on board.
 - Has no tailpipe that emits any regulated air pollutants.
 - Achieves 50% GHG savings target vs Euro VI diesel bus over UK Bus Cycle



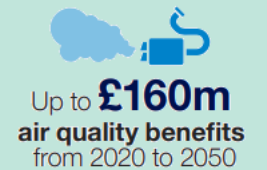
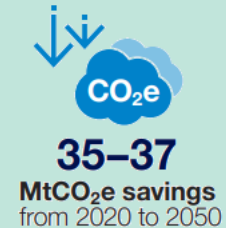
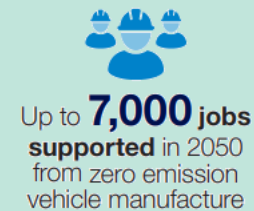
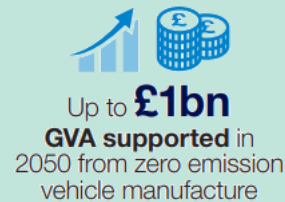
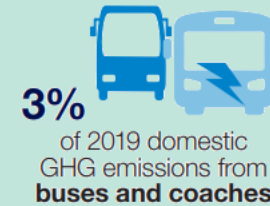
Zero Emission Bus definition

- The Zemo Partnership is developing a Zero Emission Vehicle Re-power Accreditation Scheme (ZEV-RAS), which will create and develop a code of practice for ZEB retrofit installations.
- Vehicles accredited through this process will be able to receive ZEB certificates, and thus the BSOG uplift.



Ending the sale of new, non-zero emission buses

- The Government is now seeking views on setting a specific date between 2025-2032 for ending the sale of new non-zero emission (at the tailpipe) buses.
- The proposed position is that the end of sales would apply across the UK, regardless of where or how a bus operates
- It is proposed that the end of new sales date would apply to Class I and II, M2 and M3 buses, i.e. those with a capacity exceeding 22 passengers, in addition to the driver.
- The final agreed end of sales date for new non-zero emission buses could be enabled by regulation laid out in proposals for a future UK CO₂ Regulatory regime for road transport vehicles.





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Thank you

