

Approval and registration of M1 pure electric vehicles with a reference mass over 2,840kg

GB whole vehicle approval

Obtain a heavy-duty emissions approval on the basis of retained **Regulation 595/2009** or **UN Regulation 49.07**.

For pure electric vehicles, only a test to **UN Regulation 85** (power determination) is required, per VCA technical interpretation [TI-EMH-0006](#).



Optionally, conduct WLTP testing (2nd Act or 3rd Act) for CO₂ (0g/km), electric energy consumption, test mass, and electric range as per **Regulation 2017/1151** or **UN Regulation 154**. Obtain a test report from a technical service designated by VCA or an EU technical service (until the end of 2026).



If WLTP testing has not been conducted, vehicles may not qualify as a zero emission vehicle (ZEV) under the **The Vehicle Emissions Trading Schemes Order 2023**. Vehicles must have a WLTP electric range of at least 100 miles to qualify as a ZEV.



Present heavy-duty emissions approval to VCA for the issuing of GB whole vehicle approval.
If WLTP testing has been conducted, provide test report alongside this.

Vehicle CoCs and registration

If WLTP testing has been conducted, where possible the following data should be added to the CoC Remarks field (item 52):

- Specific CO₂ emissions (0g/km for pure electric vehicles)
- Electric energy consumption
 - Test mass
 - Electric range



If WLTP testing has not been conducted, when registering the vehicle with DVLA, no WLTP data should be provided whatsoever.



If WLTP testing has been conducted, when registering the vehicle with DVLA (e.g., via RaV), data based upon the WLTP test report supplied to VCA at the point of approval should be supplied.



WLTP data should be equivalent in content and format to that provided for conventional M1 pure electric vehicles (i.e. those below 2,840kg reference mass). Interpolation should be performed as per **Regulation 2017/1151** where necessary.

VCA technical interpretation, TI-EMH-0006 (part 1)

References:

GB: Article 2 of Retained Regulation (EC) No 595/2009

1. Are new types of pure electric vehicles (PEVs) with a reference mass exceeding 2,610 kg in the scope of Regulation (EC) No 595/2009?

Yes. However, according to an answer given by the European Commission at the Forum for the Exchange of Information on Enforcement in June 2021, the only technical requirement that heavy-duty PEVs need to comply with for Emissions (Item 41A in Regulation (EU) 2018/858), is the measurement of engine/motor power, according to Annex XIV of Implementing Regulation (EU) No 582/2011, as amended. This is due to a lack of specific provisions in the regulation for PEVs currently; there is no electric energy consumption or electric range testing prescribed.

The Commission also confirmed (Forum, July 2020) that type-approval authorities are able issue type-approvals in accordance with 595/2009 for heavy-duty PEVs, despite the lack of technical provisions and requirements for these vehicles.

For GBWVTA, the manufacturer shall hold a 595/2009 type-approval or test report to fulfil the requirements of Item 41A in Retained Regulation (EU) 2018/858. In the absence of a dedicated character for heavy-duty PEVs, the emissions character assigned to heavy-duty PEVs at approval or registration shall be the latest that applies in GB, 'D' (or later, if it is a more stringent regulatory act), such to not prohibit the registration of vehicles.

Certain categories of heavy-duty PEVs are also in scope of Regulation (EU) 2017/2400 (Item 41B of 2018/858), and manufacturers are required to obtain a simulation tool licence. However, PEVs are currently exempt from the determination of CO₂ or energy efficiency with the simulation tool (until otherwise introduced by future implementing acts), in accordance with Article 9 of that Regulation, but does still require some administrative information to be inputted into the tool by the manufacturer.

VCA technical interpretation, TI-EMH-0006 (part 2)

References:

GB: Article 2 of Retained Regulation (EC) No 595/2009

2. Are new types of hybrid electric vehicles (HEVs) with a reference mass exceeding 2,610 kg in the scope of Regulation (EC) No 595/2009?

Yes. However, similar to the interpretation given for question 1, specific provisions do not currently exist in the regulation for heavy-duty HEV powertrains. But, due to the presence of a combustion engine, the 595/2009 requirements implemented by 582/2011 (as amended) for any engine components installed on a HEV shall meet the requirements of the regulation.

Similarly, certain categories of heavy-duty HEVs are also in scope of Regulation (EU) 2017/2400, but exemptions also apply to HEVs as detailed in Article 9 of this regulation.

Please note:

PEVs and HEVs with a reference mass exceeding 2,610 kg are not in scope for light-duty vehicle emissions, CO₂ or fuel/energy consumption testing (in accordance with Regulation (EC) 715/2007) unless it is an extension of a light-duty emissions type-approval (and the reference mass is no greater than 2,840 kg).

However, VCA may issue test reports, following the procedures of 715/2007, to determine electric energy consumption and range values for heavy-duty PEVs/HEVs, where requested (e.g. for marketing purposes).

