



## Proposed additional requirements in relation to the SEVs Performance criterion (section 130 of the Rules)

It is proposed to determine the following matters under section 136 of the Road Vehicle Standards Rules 2018 (the Rules). The purpose of making this determination is to provide clarity around how a variant's power to weight ratio will be calculated.

Section 130 of the Rules sets out that variants of a model meet the performance criterion if the variant is above the power to weight threshold. The power to weight threshold is:

- For a vehicle originally manufactured before 1 January 2020 - 110 kw/t
- For a vehicle originally manufactured on or after 1 January 2020 - 130 kw/t

### Proposed additional requirements

1. For a variants manufactured both before and on or after 1 January 2020, the power to weight ratio will be 110 kw/t.
2. Power to weight ratio will be determined by the following formula:

$$\text{Power to weight ratio} = \frac{\text{manufacture nominal net engine power}}{\text{uladen mass}}$$

Manufacturers nominal net engine power = the power in kilowatts as determined by an applicable standard acceptable for advertising these specifications in the Australian Market;

Unladen Mass is as determined in Vehicle Standard (Australian Design Rule – Definitions and Vehicle Categories) 2005.

3. Where the variant includes versions of vehicle with different nominal net engine power and different unladen mass, the assessment will be based on the worst case. i.e. all vehicles in the variant must comply.

### Rationale

The rationale for these requirements is that for variants manufactured both before and after 1 January 2020, it was felt an approach was needed to allow vehicles with an older design to comply. As all vehicles within the variant need to comply, setting the value at the 130 kw/t threshold would not work.

The concept of power to weight ratio varies around the world, so a consistent approach is needed. Some older approaches to determining net engine power allow for testing without engine ancillaries giving a more favourable result. These additional requirements will standardise and streamline the application and assessment process. Considering that the source of this information may involve different calculation methods it may be necessary for some sort of conversion to be performed.

- Questions:
- Are the above additional requirements reasonable?
  - Should additional requirements be added?
  - Should any of the requirements be removed or amended?