

**BRIEF SUBMISSION ON VEHICLE EFFICIENCY STANDARDS
MARCH 2024**

NB: Further background can be found in our initial submission.

Overview

Refrigerants Australia agrees with the Government's preferred approach to managing vehicle efficiency, with one vital caveat.

As stated in our initial submission, Refrigerants Australia is calling on the Australian Government to use the *Ozone Protection and Synthetic Greenhouse Gas Management Act* to put a GWP limit of 150 on refrigerant used in car air conditioning systems – we do not support creation of an incentive to accelerate transition to a lower GWP refrigerant.

Australia's transition to low GWP refrigerants has been glacial compared to comparable countries and significant cost-effective abatement has gone begging. Any effort to reduce emissions from motor vehicles must consider refrigerant emissions, as well as those from the tailpipe. There is a fantastic opportunity to include all vehicle emissions into a comprehensive vehicle emissions strategy.

Refrigerants Australia calls on the Government to announce a GWP limit on refrigerant simultaneously with its position on fuel efficiency.

Background

Approximately 90% of all new cars in Australia, including EVs, continue to use refrigerant R134a. This refrigerant has a high GWP of 1430.

In Europe, North America, Japan and Korea, more environmentally friendly refrigerants with a GWP of no more than 150 have been either mandated or incorporated into fuel efficiency standards, in some cases for nearly a decade. As of the end of 2021, there were over 120 million cars using low GWP refrigerant globally, almost exclusively R1234yf.

The two main differences between the gases are:

- The global warming potential of R134a is 1430, whereas for R1234yf it is less than 1. To put these numbers in perspective, releasing the refrigerant from a normal petrol car is equivalent to the emissions created for driving that vehicle for 2 months, whereas emissions of a car's refrigerant charge of R1234yf is equivalent to driving a few minutes.

- Given that adoption and production of R1234yf is still ramping up, there is a price difference of about \$25 per car, but this is reducing over time. R1234yf is the only refrigerant being put into cars in significant quantities other than R134a.

According to Cold Hard Facts 3 (a DCCEEW publication) emissions from MACs likely total the equivalent of about 1.0 million tonnes of carbon dioxide.¹ While it will take several years to drive that figure down, given the stock of existing equipment, the sooner Australia commences the transition to a lower GWP refrigerant the sooner emission reductions will be realised.

Additionally, despite suggestions that the HFC phasedown would drive early introduction of new technologies this has not happened for MACs. The delay in this transition means Australia will need to use some of its increasingly precious quota supporting service of cars, rather than supporting high efficiency heat pumps and other new technologies. It also means that a BAU regulatory approach will not see the introduction of this new technology in Australia.

Further Contact

Please contact us if we can be any further assistance:

Greg Picker
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Refrigerants Australia



¹ <https://www.dcceew.gov.au/sites/default/files/documents/cold-hard-facts3.pdf>



Organisation questionnaire response

Privacy Setting: I agree for my response to be published with my name and position.

What organisation do you represent? (required)	Refrigerants Australia
What is your name? (required)	Gregory Picker
What is your position at the organisation? (required)	Executive Director
Please rank the proposed options in order of preference. (optional)	Option A - 3rd, Option B - 1st, Option C - 2nd
Briefly, what are your reasons for your choice? (optional, 3000 character limit)	NULL
Do you support the Government's preferred option (Option B)? (optional)	NULL
Do you have any feedback on the analysis approach and key assumptions used? (optional, 3000 character limit)	NULL
Briefly, describe how the NVES might impact your organisation (optional, 3000 character limit)	NULL
Who should the regulated entity be? (optional, 3000 character limit)	NULL