



## What's next: 2025 refrigerant outlook

Refrigerants Australia executive director, Greg Picker, addresses speculation about the availability and cost of refrigerants labelling concerns about price hikes as unnecessary scaremongering and misinformation.

**THIS ARTICLE LOOKS** to provide insight into the context, background, impacts and what consumers can expect to see in the near future when it comes to the price and availability of refrigerants in Australia.

While change is inevitable, it provides great opportunity to work alongside our government counterparts to lead with innovation and achieve regulatory reform.

### BACKGROUND

The Kigali Amendment to the Montreal Protocol is the key driver for the changes we are seeing now. It causes HFCs (such as R404A, R410A and R134a) to be phased down. The way it works is that the Australian Government has put limits on the total import of all bulk refrigerants depending on their Global Warming Potential, which compares their impact to carbon dioxide. So, for example, R404A has a GWP of about 4,000, R410A has a

GWP of about 2,000 and R134a has a GWP of about 1,400.

What does this mean? A kilogram of R404A equals about 4 tonnes of CO2 and a kilogram of R134a equals about 1.4 tonnes of CO2. So, if an importer can import 10 tonnes of CO2, then they could import about 2.5 kilograms of R404A or about 7 kilograms of R134a – or whatever combination of refrigerant they think best.

But of course, there are other options available – and more are becoming available. For example, R448A/R449A both can be used as replacements for R404A in existing commercial refrigeration systems and they have GWPs of about 1400. An importer can import about 2 ½ times the amount of these refrigerants than R404A. R32 and other A2L refrigerants can be used in new equipment and this change further supports refrigerant transition. The Kigali Amendment is designed to foster these types of transitions.

### WHAT IS GOING ON NOW

There are two main factors impacting the refrigerant market today. The first, and the most predictable, is the HFC phasedown. Chart 1 (see graph) details Australia's commitments under the Kigali Amendment: our amount of refrigerant – in CO2 terms – reduces every 2 years.

While the refrigerant market has long been projected to grow, when this was agreed in 2017 there was not expected to be a problem with refrigerant availability. Government and industry worked cooperatively together, as we had for thirty years, and identified three main areas where a transition would enable Australia to meet our requirements.

These included increased use of R32 in split system air conditioners, R1234yf in car air conditioners, and a range of replacements for R404A in commercial refrigeration. Additionally, in the phase down legislation, Government gave itself the power to put in legislated GWP limits for new equipment.

There was a broad expectation that this authority would not be needed as the phasedown would drive technology change. Unfortunately – except for R32 – industry and Government got it

BELOW:  
Refrigerants Australia executive director, Greg Picker.



wrong. The transition away from the use of R404A in commercial refrigeration and R134a in new car air conditioners has not really happened yet, despite lower GWP refrigerants being available for a decade.

Chart 2 (see graph) displays the gap - in percentage terms - from how much refrigerant is available to be imported with the projections of what the demand will be in Cold Hard Facts 4. Prior to 2024, the market was able to meet demand through reclamation, recycled refrigerants and stockpiles. By 2024, however, stockpiles were largely depleted and the gap between refrigerant usage (i.e. demand) and availability increased from 18% in 2023 to 29% in 2024.



**“Smart buyers will look to engage proactively with their suppliers.”**

By 2026, provided nothing changes, the gap between available refrigerant through imports and demand is projected to be 38%. Recycling and reclamation will be insufficient to make up this shortfall. By 2028, the gap between refrigerant availability and demand will be 50%.

What does all this mean for the future?

This analysis suggests a difficult time for the industry. But, while there will be costs and dislocation, the forces of supply and demand will encourage end users to switch to lower GWP refrigerants which will become increasingly cost competitive. This news, however, is better over the long term. In the short term, it will take some time to sort out. The Australian Government has the capacity to take action that would reduce pressure on the industries that rely on refrigerant and, while it would take a number of years to see significant impacts, the sooner we start, the quicker we see the benefits.

Refrigerants Australia has been calling for the Australian Government to implement regulatory reform to address these issues for the past several years. These include action on commercial refrigeration and in car air conditioning. Specifically:

- Introduce restrictions on commercial refrigeration
- GWP limit on new equipment from 2026

- Prohibition of bulk imports of R404A from 2028
- Service Ban on R404A from 2030
- GWP limit of 150 for car air conditioners from 2026

If these measures were implemented, analysis using the facts provided in Cold Hard Facts 4 undertaken by Refrigerants Australia indicates there would be a reduction in refrigerant demand of about 1.8 million tonnes (CO2) by 2028. Chart 3 (see graph) details the impact of Government putting in the reforms described above.

So what does this mean for consumers?

It would be nice, but inaccurate, to suggest that the vulnerability described above will have no impact on purchasers of refrigerant. Of course it will. The forces of supply and demand will likely see prices rise and there may be moments of scarcity. The months leading into summer will likely be the most pressured as demand increases and the quota year (which is a calendar year) comes to an end. Smart buyers will look to engage proactively with their suppliers early to ensure supply and prices can be confirmed. Realising the need for extra supply in the first week of December could

well be an unhappy experience.

Of course, moving to alternative refrigerants, particularly in commercial refrigeration (R452A, R449A and R448A) offers the opportunities to stretch supply. If used refrigerants are pure and can be cleaned of oil and moisture, or sent to a supplier to be reclaimed, then refrigerants that have been seen as waste can be returned to the market and make up some of the shortfall.

Other activities are just as important. It will be vital to ensure that leaks are proactively identified and fixed. Preventative maintenance will also become even more vital, as it delivers energy benefits and reduces the likelihood of leaks. Where will all of this make the most difference - commercial refrigeration.

Refrigerants Australia recently hired the Expert Group to do a deep dive on leak rates. It showed leak rates across commercial refrigeration higher than any other sector at 15%, but smart focused companies can reduce that rate by 50%. All of these steps will help.

Clever buyers and users of refrigerants will be able to maintain supply and respond to market uncertainty as it appears. 🌟

RIGHT: Chart 1 shows phase down schedule.

BELOW LEFT: Chart 2 shows the refrigerant shortfall.

BELOW RIGHT: Chart 3 shows shortfall with government intervention.

