



COOLCHANGE

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Cold Hard Facts 2021 released



The Australian Government Department of Agriculture, Water and the Environment (DAWE) has released Cold Hard Facts 2021. The report, written by the Expert Group, analyses data from 2020 to identify key developments and emerging trends in Australia's refrigeration and air conditioning industry.

Cold Hard Facts 2021 predicts that the peak carbon dioxide equivalent (CO₂e) value of the bank of refrigerants was probably reached in 2020. Even with strong equipment sales, the bank is now expected to drop steadily because of new equipment designs and lower global warming potential (GWP) refrigerants that require smaller charge sizes to deliver equivalent refrigeration services.

Energy related emissions are expected to peak within the next 10 years because of ongoing improvements in equipment energy efficiency, even though the stock of equipment will continue to grow.

The use of lower GWP refrigerants, including hydrocarbon (HC), and hydrofluoroolefin (HFO)/hydrofluorocarbon (HFC) blends is increasing across many types of refrigeration and air conditioning equipment. Lower GWP HFO/HFC blends are starting to be used in larger commercial refrigeration display cases.

In motor vehicles, HFO-1234yf is starting to contribute to the transition away from HFC-134a. Of the 917,000 new vehicles imported into Australia in 2020 almost 15% were estimated to use HFOs for air conditioning.

The level of demand for HFC-404A has remained consistent over the past five years, despite a move by major supermarket chains to deploy trans-critical carbon dioxide (CO₂) charged refrigeration systems.

The full report is available at www.awe.gov.au/environment/protection/ozone/publications/cold-hard-facts-2021



R32 adoption rises



Australia's RAC industry is making a rapid transition of small split systems to R32 refrigerant, according to the sixth edition of Cold Hard Facts 2021.

The report, which was recently released by the federal Department of Agriculture, Water and the Environment (DAWE), showed year on year growth of more than 31 per cent of the installed R32 bank from 2019 to 2020.

Overall sales of single split systems totalled 1.22 million units for 2020, a five per cent increase on 2019 sales although still short of the all-time peak of 1.3 million units sold in 2017.

The stock of HFC-32 charged non-ducted single split systems made up more than 30 per cent of the equipment in this category in 2020. HFC-32 is displacing the once nearly universal use of the high GWP HFC-410A in this equipment segment.

HFC-32 is also starting to make an appearance in larger AC applications including split ducted systems and chillers with charges up to 100 kg seen in the market.

In 2020 there were more than 1,400 large AC devices imported with a charge greater than 12 kg, of which 35 contained in aggregate 9.0 tonnes of HFC-32 (10 per cent by refrigerant volume).

As R32 is approved for use in more countries and in larger charge sizes, it is also starting to displace HFC-134a and HFC-410A in some chillers. Scroll chillers, that would previously have used HFC-410A, are now being manufactured with HFC-32.

HFC-32 is being offered in large AC with some manufactures offering chillers from 70 kW up to 700 kW, using HFC-32 charges two thirds of the previous HFC-410A charges required.

To assist with the rapid transition to R32, the ARC has previously sent out R32 information packs to RAC technicians, providing information on workplace safety considerations when interacting with R32 in installation, repair, service and recovery practices.

This information can be accessed on the ARCTick website: <https://www.arctick.org/information/r32/>

New RTO information packs



ARC has recently sent out newly developed information packs to registered training organisation (RTO) teachers in both the automotive and stationary sectors.

The packs provide a sample of the educational information resources we provide for technicians. These resources can help assist RTO teachers with their teaching and pass on invaluable information to young RAC technicians entering the industry.

The RAC industry is essential to modern life, and limiting emissions and reducing its environmental footprint is critical to the health of society.

Each year around Australia, increasing numbers of young people begin apprenticeships in the RAC sector and more technicians return to the classroom to gain new qualifications and advance their careers.

Quality training is a key to technician and the licence scheme's success. The ARCTick licence scheme was established in 2003 and today ensures that 115,000 technicians and businesses have the

qualifications, skills and commitment to limit the release of synthetic greenhouse gases into the atmosphere.

So far, the industry has contributed to a reduction of more than 25 million tonnes of carbon dioxide equivalent direct emissions, helping to reduce global warming.

If you would like to download all of the materials contained in the information packs, please visit our website www.arctick.org



Keep an eye out for dodgy emails

Here at ARC, our customer service team takes great care to protect your privacy.

Any automated emails such as renewals, reminders, approvals etc. will ALWAYS come from noreply@arctick.org. And any general enquiry replies will always come from enquire@arctick.org.

If you receive what appears to be an ARC email that's sent from a slightly different address, please delete it immediately as it is likely to be spam. Don't hesitate to call our customer service team on **1300 884 483** or email enquire@arctick.org if you have any concerns.

Perth business cuts admin time with its barcode asset registry



It wasn't long after starting his business, At Temp Refrigeration Services, that Travis Barham found he was spending a lot of time responding to customer queries about warranty.

"It wasn't just emails and calls either," explains Travis.

"Our technicians were also entering warranty details every time they completed a report, an extra step that was taking up heaps of their time."

At Temp already had a digital management program in place, so it was a simple enough process to incorporate a barcoded asset registry into the existing set-up.

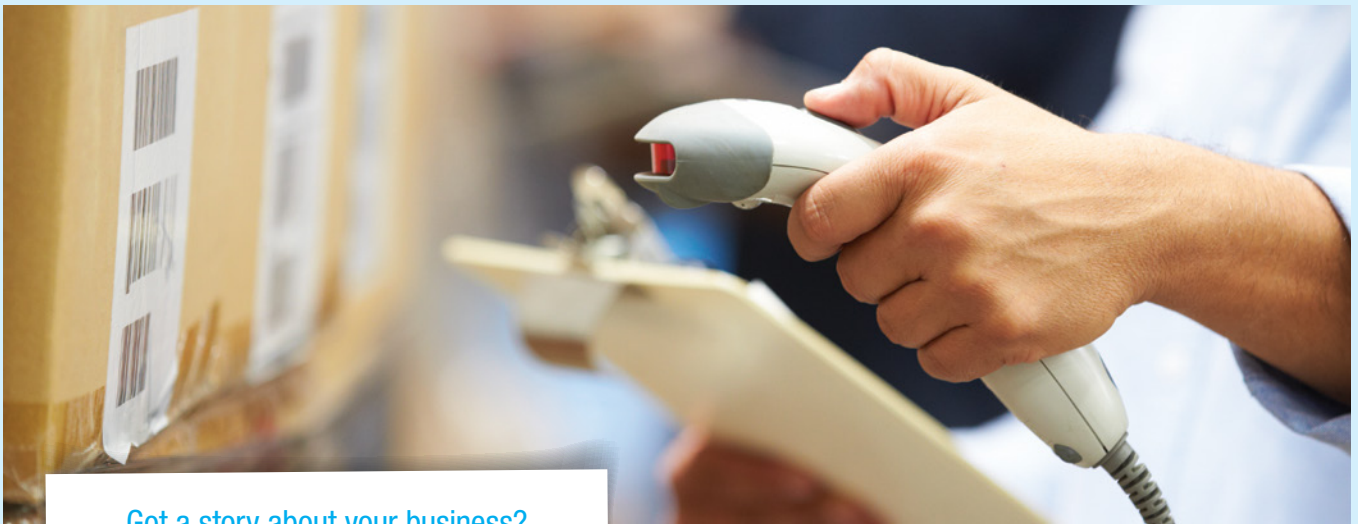
Today, the system is simple and saves Travis and his team a lot of time. Whenever a technician installs a piece of equipment or carries out a first service, a pre-purchased barcoded asset sticker is attached to the unit, scanned and uploaded to the program.

Details like the unit's model and serial number, warranty details, gas type, and location, along with a photo, are uploaded to the registry right from day one. And the initiative keeps paying for itself, according to Travis.

"The benefit of having all the information task notes, quotes, unit manuals and photos all stored in one place is massive," he says.

"Every job we have been on for any unit is stored, making it so much easier for the technician to have all information on hand.

"When you're working on a site where there might be over 100 units that need 6 monthly servicing, it makes everyone's job so much easier."



Got a story about your business?
Contact us at enquire@arctick.org

Putting technician safety first: free A2/A2L refrigerant training resources for RTOs

ARC, in partnership with Refrigerants Australia and selected TAFE Colleges, has developed and is road testing a set of free A2/A2L refrigerant training resources and assessment materials for Registered Training Organisations (RTOs).

When finalised, the resources and assessment materials will be made available to RTOs for free.

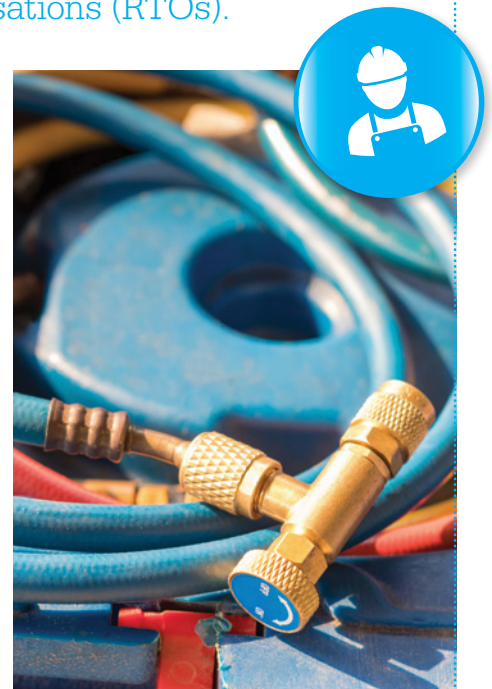
In 2018, ARC created a unit of competency for A2/A2L refrigerants. These new resources, set for wider release in April, build upon the developed unit of competency and will assist RTO teachers in successfully teaching students about A2/A2L refrigerants, in particular, R32, which is quickly rising in popularity.

R32 is mildly flammable and presents significant changes to the service tools, working practices, component standards and workplace safety considerations needed during the installation, repair, service and refrigerant recovery process.

An A2/A2L learning manual and assessment resources have been developed to provide extensive information on topics including:

- Environmental considerations
- Safe handling and transport
- Tools and equipment
- Emergency procedures and incident management
- First aid for A2/A2L exposure
- Cylinders and storage
- Installation requirements

RTO teachers are encouraged to incorporate the unit of competency, training resources and assessment material to their training to ensure technician safety is of highest priority.



If you would like to receive these documents, please email enquire@artick.org or download via www.arcltd.org.au

NextGen 2022

ARC is again proud to be the exclusive sponsor of NextGen 2022, a Climate Control News (CCN) initiative aimed to provide a platform to showcase the future of the refrigeration and air conditioning industry.

As part of the NextGen program, nominations were taken for the Top 20 Australian RAC apprentices under 25 years of age.

Qualifying criteria:

- Outstanding performance in the workplace
- Achievements demonstrating skills excellence
- Ability to be an ambassador for the RAC sector
- Aged under 25 and employed in Australia

Keep your eyes peeled as the Top 20 winners will be announced soon and profiled in the CCN magazine, online and across social media channels. These profiles are a celebration of the industry's best and brightest and are an opportunity for NextGen winners to share their passion for the trade, to talk about how their trade began and the challenges that make it such an interesting vocation.

Do you know a technician worthy of recognition? Don't forget to nominate them next year for the Top 20 under 25.





6,000 extra EV mechanics needed by 2030

Electric vehicle (EV) owners could face long waits to have their cars serviced due to a predicted shortage of qualified mechanics, with new modelling by the Victorian Automotive Chamber of Commerce (VACC) showing Australia will need about 6000 EV technicians by 2030 to maintain the growing fleet.

VACC estimates there are currently only 500 qualified EV technicians in Australia servicing approximately 25,000 EVs nationally. The number of EVs is expected to boom, climbing to 1.7 million by the end of the decade according to the Federal Government.

EV technicians require specialist skills, that are closer to those of an IT professional than of a traditional mechanic. These skills include coding and reprogramming vehicle software and repairing high voltage rechargeable energy storage systems.

Currently, most EVs are serviced by the dealerships that sell them, but it is predicted that owners will increasingly want to take their

vehicles to independent workshops and local repairers as sales ramp up and the cars are resold on the second-hand market

As EV sales continue to grow, the VACC is calling upon the government to provide funding for education providers to focus on upskilling the existing ageing workforce of mechanics and training people for jobs that don't quite exist yet, but will have a shortfall in the future.

The EV worker shortage is expected to be a global issue. In the UK, which has outlawed the sale of new diesel and petrol cars by 2030, the Motor Institute of the United Kingdom has forecast that there will be a shortage of 35,000 technicians by the end of the decade.

Cooling Matters: World Refrigeration Day 2022

World Refrigeration Day (WRD) is held each year on June 26. WRD is an international initiative that raises awareness of cooling's benefits and inspires development and adoption of innovative and sustainable cooling solutions by the public, governments, industry and technicians for the wellbeing of future generations.

This year's theme, 'Cooling Matters', aims to promote the importance of cooling for our wellbeing and how cooling technology choices can safeguard the wellbeing of future generations.

Despite policies, standards and codes related to the RAC industry, there is still a significant lack of public understanding of cooling's importance even though issues such as refrigerant transition, emissions reduction and maximising energy efficiency have been addressed by governments due to global policies and binding international frameworks.

Last WRD, the ARC partnered with WRD and Kirby to host barbecues Australia wide to thank RAC technicians for their contribution to safety, wellbeing and comfort.

Keep your eyes peeled in coming Cool Change editions for what ARC does this year to celebrate this very special day for our sector.



DID YOU KNOW RRA WILL PAY YOU FOR YOUR USED AND UNWANTED REFRIGERANT?



To recover refrigerant:



- STEP **1** Collect a recovery cylinder from your refrigerant gas supplier,
- STEP **2** Fill it with used, contaminated and unwanted refrigerant from systems you service, repair, or decommission.
- STEP **3** Return it to your refrigerant supplier and collect your rebate
- STEP **4** RRA will collect, safely destroy the recovered refrigerant and re-imburse the refrigerant supplier.



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