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Your industry snapshot

An updated version of HVAC&R inventory, *Cold Hard Facts*, has been produced.

The Department of the Environment and Energy has released an updated version of *Cold Hard Facts*, the definitive inventory of Australia's HVAC&R industry.

The 2019 edition updates the version released last year (which contained data up to 2016) with data collected during 2017 and 2018.

Key points from this year's report include:

- The bank of high-GWP refrigerants in Australia increased by 5 per cent from 2016 to 2018, from about 50,800 tonnes in 2016 to an estimated 53,300 tonnes in 2018. This was driven mainly by stationary air conditioning, particularly in smaller split systems and small commercial systems.
- Small air conditioning systems are rapidly transitioning to R32. In 2018, R32 systems made up 53 per cent of all pre-charged small air conditioning units imported, an increase from 39 per cent in 2016 and up from effectively zero in 2012.
- Sales of small single split systems have softened for the first time since the Cold Hard Facts series began in 2006. Sales reduced noticeably in 2018, with total sales around 1,158,000 – a year-on-year decline of nearly 8 per cent.
- HFO refrigerants have begun to be employed in some stationary equipment. Every major global chiller manufacturer now offers chiller models employing HFO-1234ze. Notably, the HFO refrigerant of choice for large centrifugal chillers has become HFO-1233zd, which can



Sales of small single split systems have softened



provide meaningful financial benefits to equipment owners due to energy efficiency gains. However, HFOs are not being used in vehicles, as was initially expected.

- Leading supermarket chains continue active programs reducing leaks of high-GWP (HFC) refrigerants, and lead the way with concerted moves to HFC alternatives. The emergence of carbon dioxide (CO₂) cascade and trans-critical systems in commercial refrigeration saw rapid growth of CO₂ systems employed in the cold food chain, although from a low base. Innovation in the use of low-charge ammonia systems added to the highly energy-efficient options for new build commercial refrigeration systems with a cooling capacity greater than 50kW.
- Adoption of hydrocarbons in other parts of the cold food chain continued with the introduction of numerous small, self-contained commercial refrigeration models employing hydrocarbons.
- The portion of total electricity consumed by RAC in 2018 was around 24 per cent of all Australian electricity generated. Electricity price increases of more than 30 per cent from 2016 to 2018 have placed significant emphasis on energy-saving initiatives, particularly with large air conditioning systems in commercial buildings, and refrigeration equipment and plant in the supermarket and cold storage industries.

For more info go to www.environment.gov.au/protection/ozone/publications/cold-hard-facts-2019 ■

Up close



Melbourne-based Mitch Yeats, Affil.AIRAH, is technical director/senior field technician for Ad Air Services.

Specialty

Our company specialises in a very broad range of commercial air conditioning equipment. However, I personally do a lot of work for clients in cardboard packaging/plastic packaging/printing and plastic injection moulding industries, as well as critical care disability services and aged care. The urgency for these clients is always high, and that is what makes it exciting for me: the equipment needs to be functioning at all times.

Passions

We are currently on the precipice of an exciting era in cooling, with many new technologies coming out that will enable better efficiency and performance for our clients and potentially reduce the detrimental effect a lot of our equipment has previously had on the environment over the years.

Challenges

Competing for work with more and more uneducated electricians and plumbers that are being given increasing freedom/licences to do the work I have studied and trained to do while I cannot get any more qualifications to do electrical work on even simple equipment. With increasing emphasis on safe refrigerant handling and the effect that incorrect handling and practices have on both the environment and the consumer, it seems absurd to me that the governing bodies continue to lower the barriers to entry for these trades that want to earn a quick buck without knowledge of the consequences.

Inspiring words

“The bitterness of poor quality remains long after the sweetness of low price is forgotten” – Benjamin Franklin ■