



# CUTTING VICTORIA'S EMISSIONS 2021–2025

## Industrial processes and product use sector emissions reduction pledge

### Minister's foreword

The industrial processes and product use (IPPU) sector's contribution to Victoria's total greenhouse gas emissions is relatively small compared to other sectors.

The majority of IPPU emissions come from gas leaks in refrigeration and air-conditioning (RAC) equipment used by Victorian businesses and households. Action to reduce emissions requires improved management and maintenance of RAC equipment, safe handling and disposal of refrigerants, and support for a transition towards lower emissions equipment.

A coordinated approach between state and national governments is the best way to reinforce action that is already underway to reduce emissions in the sector. Through the IPPU emissions reduction pledge, Victoria will improve the management of RAC equipment and refrigerant gases at a state level, while advocating for further national action to reduce emissions from RAC equipment and accelerate the transition to lower-emissions alternatives.



The Hon. Martin Pakula MP  
Minister for Industry Support and Recovery



## Overview of the IPPU sector

In 2019, the industrial processes and product use (IPPU) sector accounted for 4 per cent (3.3 Mt CO<sub>2</sub>-e) of Victoria's greenhouse gas emissions. Despite improvements in refrigeration technology over recent decades, IPPU emissions increased by 0.3 Mt CO<sub>2</sub>-e (9 per cent) from 2005 to 2019, as the state experienced rapid population growth and increased use of refrigeration and air conditioning.

The main source of IPPU emissions (77 per cent) is the leakage of synthetic greenhouse gases such as hydrofluorocarbons (HFCs) used in refrigeration and air conditioning (RAC) in commercial, residential and transport applications. These gases have a high global warming potential, trapping heat in the

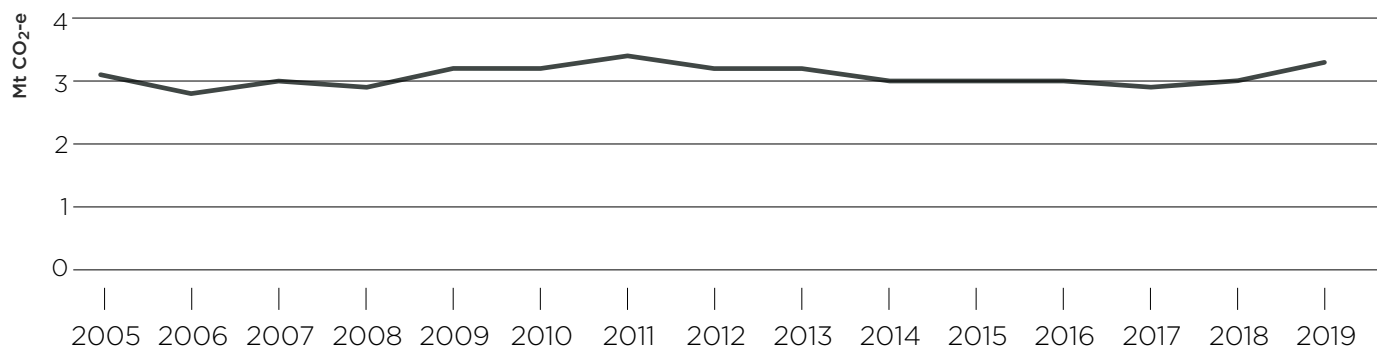
atmosphere when released. Leakage of refrigerant gases from RAC equipment can also mean the equipment performs less efficiently, leading to increased energy use and emissions.

Greater use of RAC equipment due to population growth is the main driver of the increase in Victoria's IPPU emissions since 2005. However, these emissions are expected to decline over the coming decades as alternatives begin to be used.

In line with the international agreement to phase out HFCs, Australia is implementing a gradual phase down of HFCs to 15 per cent of baseline levels by 2036. New, cost-competitive and lower-emissions RAC equipment is becoming widely available. The push to reduce emissions from the sector is also supported by national regulations under the Ozone Protection and Synthetic Greenhouse Gas Management Programme, which covers the handling, storage and disposal of HFCs.

There is an opportunity for a coordinated approach to drive down HFC emissions even further and accelerate the transition to lower-emissions alternatives.

IPPU sector emissions (2005–2019)



Source: State and Territory Greenhouse Gas Inventories 2019 (DISER 2021)





## Emissions reduction pledge 2021–2025

The IPPU sector pledge focuses on actions to enhance the management of large RAC systems, and the handling and disposal of refrigerant gases in Victoria.

The pledge also acknowledges the importance of national policy and enforcement of regulations to reduce HFC emissions and accelerate the transition to lower-emissions equipment.

**ACTIONS**  
under the IPPU sector  
pledge will reduce emissions  
in Victoria by an estimated

**0.4 Mt**  
CO<sub>2</sub>-e in 2025 and

**0.4 Mt**  
CO<sub>2</sub>-e in 2030<sup>1</sup>

<sup>1</sup> These emissions estimates represent the difference between projected emissions with these actions in 2025 and in 2030 compared to projected emissions without these actions.

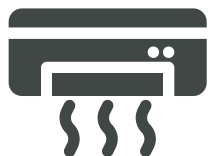
# Emissions reduction actions

## Reducing leakage of gases

The Government will work in partnership with Victorian industry to develop targeted guidance on how to reduce leakages of refrigerant gases while saving on energy costs – leveraging, where appropriate, the general environmental duty under the *Environment Protection Amendment Act 2018*. This initiative will include guidance on:

- / Enhanced maintenance of large commercial RAC systems
- / Safe management and disposal of refrigerant gases with high global warming potential in accordance with existing national legislation.

These actions will reduce leakages of refrigerant gases while saving on energy costs



## A stronger national regime

Victoria will advocate to the Commonwealth for a stronger national policy regime for RAC equipment. We will seek to work collaboratively with the Commonwealth to develop:

- / National minimum emissions performance standards for RAC equipment
- / National phasing out of specified types of high-emissions equipment
- / Enhanced enforcement of the existing national legislative framework
- / Enhanced accreditation of technicians handling alternative refrigerant gases.

IPPU emissions are expected to be further reduced through actions under the energy sector pledge. The actions include rebates offered to low-income and vulnerable households to install high efficiency reverse-cycle air conditioners, and government investment to replace inefficient appliances in public and community housing properties.

These actions will not only lead to further emissions reductions in the IPPU sector; they will also generate other crucial benefits such as improving the comfort, liveability and efficiency of households, and savings on energy bills.

## Smart heating and cooling

The Home Heating and Cooling Upgrades program is a \$335 million initiative to support 250,000 Victorian households to upgrade their heaters to energy efficient reverse-cycle split systems. The program will support vulnerable and low-income households to save money on their energy bills and increase the thermal comfort of their homes by making it easier to keep their homes warmer in winter and cooler in summer.

The program's approved product list only includes products that use the R32 refrigerant, which has a lower global warming potential than alternative synthetic refrigerant gases used in air conditioning. This will reduce emissions in the IPPU sector, and contribute to Victoria's transition to a cleaner, greener future.

## Acknowledgement

We acknowledge and respect Victorian Traditional Owners as the original custodians of Victoria's land and waters, their unique ability to care for Country and deep spiritual connection to it. We honour Elders past and present whose knowledge and wisdom has ensured the continuation of culture and traditional practices.

We are committed to genuinely partner, and meaningfully engage, with Victoria's Traditional Owners and Aboriginal communities to support the protection of Country, the maintenance of spiritual and cultural practices and their broader aspirations in the 21st century and beyond.

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This instrument has been made to give effect to the requirements in Division 3 of Part 5 of the *Climate Change Act 2017*.

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