

Australia's 2019 report in relation to Article 9 of the Montreal Protocol on Substances that Deplete the Ozone Layer

Australia ratified the Montreal Protocol in May 1989 and all subsequent amendments, including the Kigali amendment in November 2017. Australia meets its international obligations to phase out ozone depleting substances (ODS) and phase down the use of synthetic greenhouse gases (SGGs) through the *Ozone Protection and Synthetic Greenhouse Gas Management Act 1989* and domestic policies and programs.

Australia's approach to the Montreal Protocol is based on a cooperative partnership between industry, community, and all levels of government. Australia's success in meeting Montreal Protocol obligations is, in part, due to our commitment to promoting research and development on ozone layer protection, improving public awareness of the treaty, building close relationships with key industry sectors and establishing long term phase out targets that give time for companies to adjust and innovate.

Ozone friendly alternatives or alternative technologies

Australia provides financial assistance through the Montreal Protocol's Multilateral Fund to assist developing countries to comply with the phase out requirements under the Protocol. Australia has directed part of its contribution to the Multilateral Fund into providing direct technical and financial assistance to other countries in the region.

For example, Australia has a bilateral relationship with Indonesia through the Joint Working Group on the Environment and agreed to assist Indonesia on ozone related matters in 2005. Australia is participating in Indonesia's refrigeration and air conditioning product stewardship program, which is a bilateral project intended to strengthen Indonesia's capacity. This is done by providing government to government assistance on policy and regulatory actions required to achieve sustainable refrigerant management, such as certification, and contribute towards the overall project objective of phase out of HCFCs.

In 2016, the Australian Government conducted a review of the Australian Ozone Protection and Synthetic Greenhouse Gas Program and found that the program was successful overall, having phased out 99 per cent of ozone depleting substances and contributed to a reduction in Australian greenhouse gas emissions of about 40 million tonnes of CO₂-e since its inception. The Government has initiated further HFC emissions reductions, streamlining the regulatory processes of ODS and SGG imports and developing an education program to encourage improved equipment installation and maintenance. Following the review, the Government amended the *Ozone Protection and Synthetic Greenhouse Gas Management Act 1989* to align with the updated approach.

The key outcome, which was consistent with the Kigali Amendment, was to phase-down the import of HFCs, as a means to reduce greenhouse gas emissions. The Act was amended to allow provide for a phase-down and quota for HFCs from 1 January 2018, in advance of Kigali Amendment obligations. The changes were supported by an extensive public awareness program about the changes to HFC controls talking to all sectors of the refrigeration and air conditioning, and fire protection industries, as well as customs brokers to alert them to altered arrangements for the import of HFCs

In 2019, Australia released its updated Halon Management Strategy. This is an information document outlining the principles and measures Australia has in place to manage its use of halon until suitable alternatives are available and halon is no longer required. The National Halon Bank has also provided halon management services to Montreal Protocol countries, including reclamation and recycling services.

In 2019, Australia updated guidance on the import and export of used ODS and synthetic greenhouse gases such as HFCs. This provides information on the Used Substances Licence, which is required to import or export used ozone depleting substances and synthetic greenhouse gases, why the licence is needed and considerations in deciding Used Substance Licence applications (see: <http://www.environment.gov.au/protection/ozone/licences-and-reporting/used-substances-licences/import-export-used-scheduled-substances-guidance>).

Promoting research and development of alternatives to ODS

The Australian Government launched its Ozone Science Strategy in 2012 to support ozone research in Australia that is both coordinated nationally and contributes to better understanding globally of ozone protection activities and accomplishments. The strategy encourages stratospheric ozone research in Australia, facilitates cooperation between ozone research and related organisations and targets Australian ozone related research to meet international needs. The strategy guides the Australian Government in its approach to ozone research by committing to strategic research, engagement and communication activities. This includes creating a forum for Australian scientists to coordinate and collaborate on research, identifying the linkages between national and international science activities, advocating for the retention of Australians stratospheric research and encouraging emerging scientists to undertake ozone research.

In alignment with the ozone science strategy, the Australian Government has facilitated an Ozone Science Group to assist ozone scientists across Australia to coordinate research activities related ozone science, share information on recent developments and to encourage Australian contributions to international ozone science since 2007. The Government has also supported Australian scientists to contribute to international scientific research. This includes providing funding to Australian scientists in 2014 and 2018 to assist participation in the 2014 and 2018 Scientific Assessment of Ozone Depletion Assessment reports.

In 2014, the Australian Government trialled the annual Ozone Science Summer Scholarship through the Australian Research Council Centre of Excellence in Climate Systems Science at the University of New South Wales. The Scholarship Program encourages second, third or post-honours year university students to consider undertaking ozone science future postgraduate studies by participating in ozone and climate science projects over six weeks. The scholarship trial program was successful and it was offered from 2015 to 2018 and will be offered again from 2019 to 2021.

Australia has contributed funding to long term studies of stratospheric research through the CSIRO Atmosphere and Oceans Division. Over the last decade, CSIRO has prepared annual reports detailing the latest atmospheric measurements of ozone depleting substances and synthetic greenhouse gases, along with the weekly updates of the Antarctic ozone hole. These reports provide information on the size and depth of the ozone hole, the amount of ozone depleting substances in the polar vortex, as well as the meteorological conditions at the pole. The weekly reports are made available to the public via the Department of Environment and Energy website (see: <http://www.environment.gov.au/protection/ozone/publications/antarctic->

[ozone-hole-summary-reports](#)). The annual reports on Australian and global emissions of ODS and SGGs are also available on the Department's website.

In 2018, the Australian Government commissioned a study of Australia's bank of ODS and SGG as well as a study of the composition, size and value of the Australian refrigeration and air conditioning industry, and projections for its future which was released publicly as 'Cold Hard Facts 3'. This report analyses the size and economic value of the industry, the equipment and refrigerant gas bank, trends in gas imports and equipment, and direct and indirect emissions in this sector. The report expands on the two previous reports; Cold Hard Facts 1 published in 2007, and Cold Hard Facts 2, published in 2013. The Government is now commissioning yearly data updates of the report to better identify emerging trends and issues and opportunities.

Promotion of public awareness of the environmental effects of the emissions of ODS and other awareness raising activities

The Australian Government is committed to improving public awareness of the Montreal Protocol, national ODS and SGG regulation legislation and policies and the effective management of ozone depleting and synthetic greenhouse gases.

Since 2017, the Australian Government has visited state government and industry partners in each state capital city to raise awareness of the HFC phase-down and new legislative requirements. These presentations share information on Australia's HFC phase-down and promote the adoption of alternative technologies.

The Australian Government participates regularly in refrigeration and air conditioning conferences and workshops to highlight the latest regulatory or policy changes. In 2017, the Department of the Environment and Energy ran information sessions around Australia to share information on the HFC phase-down, what the phase-down will mean for HFC users and other changes to the program to reduce emissions and increase efficiency. The Department of the Environment and Energy also held information sessions in 2018 and 2019 to update industry, businesses, technicians, retailers and the broader public on the progress made towards the HFC phase-down.

The Department of the Environment and Energy has several factsheets on ozone protection available on its website (see: <http://www.environment.gov.au/protection/ozone/publications>). The factsheets promote understanding of the ozone layer, the Montreal Protocol and ODS and SGGs and target a range of audiences, such as school students and members of the HVAC&R industry.

The Department of the Environment and Energy's ozone website is regularly updated to raise the Australian public's awareness of the activities being undertaken nationally and internationally to protect the ozone layer (see: <http://www.environment.gov.au/protection/ozone>). The website contains information on Australia's regulations, licensing systems, role in the Montreal Protocol and weekly updates of the progress of the Antarctic hole from September to December each year.

The Australian Bureau of Meteorology currently releases daily solar UV radiation levels and includes the UV Index in all weather predictions (see: <http://www.bom.gov.au/jsp/awap/solar/index.jsp>). This is particularly important for the Australian public as Australia has one of the highest rates of skin cancer. The Australian Radiation

Protection and Nuclear Safety Agency provides an online platform that shows the UV index at any given site at any time in the day, as well as highlighting the time the UV index will be at its highest.

This year, the Australian Government celebrated the first annual World Refrigeration Day on the 26 June 2019, which recognises the importance of refrigeration technologies in everyday life. Awareness material was shared via social media, Australian Government websites and articles by CSIRO and industry organisations.

International exchanges of information on best technologies, possible alternatives and relevant control strategies

Australia places a high level of importance on ozone science knowledge exchange and is an active participant in information exchange activities with the international community. In 2016, Australia hosted the Pacific Low-Global Warming Potential (GWP) Technology Summit in Fiji, which brought together governments and industry partners to shared information on the low-GWP alternatives available and alternatives that were already available in national markets. Australian and locally based presenters provided information on technologies already in the Pacific as well as information on the certification of technicians and supply chains.

In 2018 Australia hosted an Indonesian delegation in Melbourne to share information on the Australian system of qualification and licensing of refrigeration and air conditioning technicians. This meeting was run in partnership with industry partners and stakeholders to promote discussion on how government, businesses and industry associations support the new licensing system.

Australia is also a participant in the regional network meetings, having attended the Asia Pacific Network meeting meetings in 2015, 2016 and 2019 and the Network and Thematic Meetings of the Pacific Islands Countries' Ozone Officers in 2018 and 2019. The ozone network meetings play an important role in assisting the compliance of developing countries with Montreal Protocol obligations. The meetings also provide an avenue for information sharing and the development of new ideas.

Australia is also a partner in the Climate and Clean Air Coalition (CACC). The CACC is a voluntary partnership of governments, intergovernmental organizations, businesses, scientific institutions and civil society organisations working to improve air quality and reduce short-lived climate pollutants.
