See online

Volume XIX | 30 June 2019

In this issue:

Global

1. Denmark's Inger Andersen takes over as head of UN Environment Programme

Nairobi, 15 June 2019 – Danish economist and environmentalist Inger Andersen today took up her new role as Executive Director of the UN Environment Programme, promising to prioritize greater action on climate change, biodiversity loss and pollution during her four-year tenure.

Ms. Andersen was nominated for the post by United Nations Secretary-General António Guterres and approved by the General Assembly in February 2019.

"I am proud and excited to begin work at the UN Environment Programme in beautiful Kenya at a critical time for humanity," said Ms. Andersen. "Good environmental stewardship has never been more important. Climate change, biodiversity loss and pollution in all its forms pose a clear and present danger to human and planetary health, and to prosperity."

"But I would not be in this job if I did not have hope. From environmental and scientific assessments we know that it is entirely possible for humanity to fix the problems we have caused. Now, more than ever, the will to act is in place. We see this clearly in the increased ambition of governments, stronger private sector engagement and, of course, the unstoppable rise of global movements led by young people crying out for change."

"In the coming weeks and months I will work with the committed and excellent staff of the UN Environment Programme, and all of our partners and donors, to define the priorities of an organization that is central to our aspirations of a sustainable and equitable world."

"What I can say now is that the best tool at our disposal is global unity. With challenges as monumental as those we all face, we will succeed together or we will fail together. I will be looking to deepen collaboration with the UN Environment Programme's partners, old and new, to work towards a healthy environment that allows all of humanity to thrive." [...]

UN Environment, 15 June 2019

2. 41st Meeting of the Open-Ended Working Group of the Parties to the Montreal Protocol on Substances that Deplete the Ozone Layer (OEWG 41)

1-5 July 2019 | UN Conference Centre (UNCC), Bangkok, Thailand

OEWG 41 opening session taking place at the UN Economic and Social Commission for Asia and the Pacific (ESCAP).

Meeting for the first time since the entry into force of the Kigali Amendment—the “New Year’s resolution we must not break”—the forty-first meeting of the Open-Ended Working Group of the Parties to the Montreal Protocol on Substances that Deplete the Ozone Layer (OEWG 41) will address a number of issues, notably the Assessment Panel reports on unexpected increases in chlorofluorocarbon (CFC-11) emissions, and linkages between hydrochlorofluorocarbons (HCFCs) and hydrofluorocarbons (HFCs) in transitioning to low global warming potential (GWP) alternatives.

Adopted in 1987, the Montreal Protocol is the sole protocol to the 1985 Vienna Convention for the Protection of the Ozone Layer. The Protocol seeks to control and phase out ozone-depleting substances (ODS) such as CFCs, halons, carbon tetrachloride (CTC), methyl chloroform, methyl bromide, hydrobromofluorocarbons, and HCFCs. Through its most recent amendment, the 2016 Kigali Amendment, the Protocol also seeks to phase down HFCs, substitutes for many ODS that have been found to have a high GWP.

The OEWG meets annually for parties to meet and deliberate on issues to be addressed at forthcoming Meetings of the Parties (MOPs).

In addition to the Technology and Economic Assessment Panel (TEAP) and Scientific Assessment Panel (SAP) reports on increasing CFC-11 emissions, linkages between HCFCs and HFCs in transitioning to low GWP alternatives, the following issues were forwarded from the thirtieth Meeting of the Parties (MOP) to the Montreal Protocol in November 2018, as highlighted in our summary and analysis, for further consideration by OEWG 41:

- reconsideration of the TEAP Terms of Reference (ToR), composition, balance, fields of expertise and workload; and
- safety standards.

OEWG 41 will also consider:

- ToR for the study on the 2021-2023 replenishment of the Multilateral Fund for the Implementation of the Montreal Protocol (MLF);
- quadrennial assessment of the Montreal Protocol for 2018 and potential areas of focus for the 2022 assessment;
- 2019 TEAP report;
- Article 5 Parties access to energy-efficient technologies in the refrigeration, air-conditioning and heat-pump sectors;
- MLF Executive Committee membership;
- request by Azerbaijan to be included among the parties to which the phase-down schedule for HFCs, as set out in paragraphs 2 and 4 of Article 2J of the Montreal Protocol, applies; and
- risk of non-compliance with HCFC production and consumption reduction targets by the Democratic People's Republic of Korea.

The outcomes of these discussions will inform draft decisions for consideration by Parties at MOP 31, which will convene in November 2019 in Rome, Italy.

OEWG 41, IISD Daily Reporting Services

Ozone Secretariat OEWG 41

International Institute for Sustainable Development (IISD), July 2019

3. OzonAction Side-Event at the 41st Open-ended Working Group, Bangkok, Thailand

Wednesday, 3 July 2019
1:00PM - 2:30 PM

Venue: Theatre, Ground-floor, United Nations Conference Center

Sharing examples of best practice from Lao PDR, Mongolia and the Federated States of Micronesia.

Please join us to discuss the enforcement of licensing systems for HCFC import beyond the customs check-point, via:

- inspection of the local refrigerant market;
- customs post-clearance audit/market monitoring;
- prosecution of the violator and financial penalty.

Agenda

Contacts for this event:
Hu Shafeng, Montreal Protocol Coordinator for Asia-Pacific |
Meeting Manager: The contact for substantive and policy issues related to this meeting

Alvin Jose, Montreal Protocol Energy Efficiency consultant |
Meeting Administrator: The contact for registration and documentation issues related to this meeting

UN Environment, OzonAction

4. Keeping cool in the face of climate change

As global temperatures reach record highs, providing cooling systems which are effective, sustainable and which do not harm the environment is increasingly essential for everyday life. That's according to Rachel Kyte, Chief Executive Officer of Sustainable Energy for All, and Special Representative of the United Nations Secretary-General for Sustainable Energy for All (SEforALL).

From the cold chain systems that maintain uninterrupted refrigeration during the delivery of food and vaccines, to protection from extreme heat waves globally – access to cooling is a fundamental issue of equity, and as temperatures hit record levels, for some, it can mean the difference between life and death.

UN News asked Rachel Kyte why she is so passionate about cooling.

What is sustainable cooling?
Cooling is essential to human health and prosperity. As the world rapidly urbanizes, warms and populations grow, cooling is an urgent development challenge that has important ramifications for our climate. It requires fast action to protect the most vulnerable, and is vital for economic productivity by allowing workers, farmers and students to work in comfortable environments.

Yet as cooling needs rise, we must meet these challenges in an energy-efficient way, or the risks to life, health and the planet will be significant. At the same time, they provide equally important business opportunities for companies or entrepreneurs who can design and produce hyper-efficient cooling devices at affordable prices for this rapidly growing market.

Why is this such an important issue?
SEforALL's "Chilling Prospects: Providing Sustainable Cooling for All" report shows there are more than 1.1 billion people globally who face immediate risks from lack of access to cooling.

These risks are issues of both development and climate change, as they pose problems for the health, safety, and productivity of populations across the world – especially countries in Asia and Africa where access gaps are the largest. This challenge offers business and entrepreneurs the opportunity of major new consumer markets which require super-efficient, affordable technologies to meet their cooling needs.

How does cooling relate to the global goals?
Sustainable cooling creates a direct intersection between three internationally agreed goals: the Paris Agreement; the Sustainable Development Goals; and the Montreal Protocol's Kigali Amendment – with one of the key goals of the amendment to limit consumption and production of hydrofluorocarbons (HFCs), a potent greenhouse gas used widely in air conditioners and refrigerators.

As all countries have agreed to these goals, creating a national, hyper-efficient cooling plan that doesn't risk a rise in emissions or peak energy demand will be critical to deliver sustainable cooling for all and meet global goals.

A clean energy transition is already underway globally that can provide affordable, safe and sustainable energy for all. We must now incorporate cooling for all needs within this transition, while keeping us on track to reach our global climate and energy goals.

Where in the world do people find it most difficult to access cooling?
Based on the "Chilling Prospects" analysis, of the 1.1 billion people who lack access globally, 470 million people are in poor rural areas without access to safe food and medicines, and 630 million people are in hotter, urban slums with little or no cooling to protect them against extreme heatwaves.

Nine countries have the biggest populations facing significant cooling risks. These countries across Asia, Africa and Latin America include: India, Bangladesh, Brazil, Pakistan, Nigeria, Indonesia, China, Mozambique and Sudan.

With global temperatures only set to rise, providing these populations with access to sustainable cooling will be critical to ensuring their safety.

To what extent does cooling contribute to global warming - especially in developed countries where air conditioning machines are widely used to cool high summer temperatures?

It is estimated that cooling is now responsible for about 10% of global warming and growing rapidly. Future choices about refrigerants, the efficiency of cooling technologies, and how cooling is powered will have a significant impact on achieving the Paris Climate Agreement. Previous research indicates that by 2050, work hour losses by country due to excessive heat and lack of access to cooling are expected to be more than 2% and a high as 12%.

With the destructive effects of climate change now being widely felt, government policy-makers, business leaders, investors and civil society must increase access to sustainable cooling solutions for all through benchmarking progress, access to cooling initiatives to protect the world's most vulnerable populations from intensifying global heat and national cooling plans from government.

UN News, 30 June 2019

5. An energy-efficient approach to keeping cool

Letter from Durwood Zaelke, Paris, France and Washington DC, US, Financial Times, 18 June 2019

Your recent Lex piece ("Climate change: in praise of air conditioning", June 15) is correct that access to air conditioning is increasingly a matter of improving social justice and preventing declines in productivity. But given the accelerating growth in AC demand globally, making cooling compatible with climate protection will require continuous policy advancements and technology investments.

In the next 10 years, a billion more room air conditioners will be installed, and then 3.5bn more by 2050, adding over 16,800 gigawatts of cooling capacity load to electricity grids, half of that in China and India. Since ACs are the main contributor to peak electricity demand in these fastest-growing markets, they have an outsized role in determining how much new power will be needed.

Most ACs that will run in 2030 have yet to be designed, let alone built, so opportunities for increased energy efficiency are huge. The Kigali Amendment to the Montreal Protocol is helping drive the redesign of cooling equipment to be super-efficient during the protocol's mandatory phasedown of polluting refrigerants called HFCs.

Just last week, China issued an action plan partly in response to an agreement between President Xi Jinping and President Emmanuel Macron in March. Under China's plan, by 2022, energy efficiency of residential ACs and other cooling products will be increased by more than 30 per cent. These and other advances show that we can make cooling far more efficient. The size of the climate prize is worth a heroic effort: a fast phasedown of HFC refrigerants can avoid up to 0.5C of future warming. Making cooling equipment super-efficient has the potential to double the climate benefits, while saving $2.9tn in investment in power generation, transmission, and operating costs globally by 2050.

Durwood Zaelke, President, Institute for Governance & Sustainable Development, Paris, France and Washington DC, US

Financial Times, 18 June 2019

6. Ozone depletion, ultraviolet radiation, climate change and prospects for a sustainable future

Abstract

Changes in stratospheric ozone and climate over the past 40-plus years have altered the solar ultraviolet (UV) radiation conditions at the Earth's surface.

Ozone depletion has also contributed to climate change across the Southern Hemisphere. These changes are interacting in complex ways to affect human health, food and water security, and ecosystem services.

Many adverse effects of high UV exposure have been avoided thanks to the Montreal Protocol with its Amendments and Adjustments, which have effectively controlled the production and use of ozone-depleting substances.

This international treaty has also played an important role in mitigating climate change. Climate change is modifying UV exposure and affecting how people and ecosystems respond to UV; these effects will become more pronounced in the future.

The interactions between stratospheric ozone, climate and UV radiation will therefore shift over time; however, the Montreal Protocol will continue to have far-reaching benefits for human well-being and environmental sustainability.

Authors: Paul W. Barnes, Craig E. Williamson, Robyn M. Lucas, Sharon A. Robinson, Sasha Madronich, Nigel D. Paul, Janet F. Bornman, Alkiviadis F. Bais, Barbara Sulzberger, Stephen R. Wilson, Anthony L. Andrady, Richard L. McKenzie, Patrick J. Neale, Amy T. Austin, Germar H. Bernhard, Keith R. Solomon, Rachel E. Neale, Paul J. Young, Mary Norval, Lesley E. Rhodes, Samuel Hylander, Kevin C. Rose, Janice Longstreth, Pieter J. Aucamp, Carlos L. Ballaré, Rose M. Cory, Stephan D. Flint, Frank R. de Gruijl, Donat-P. Häder, Anu M. Heikkilä, Marcel A. K. Jansen, Krishna K. Pandey, T. Matthew Robson, Craig A. Sinclair, Sten-Åke Wängberg, Robert C. Worrest, Seyhan Yazar, Antony R. Young & Richard G. Zepp

Nature, 24 June 2019

Africa

7. Workshops for enabling activities for HFC phase down and training of new national ozone officers of the Southern African Development Community (SADC) of the Africa Anglophone Network

The Ministry of Environment and Energy, Department of Environment, Seychelles and UN Environment organized two events back to back in Mahe Victoria, Seychelles. (a) Enabling Activities workshop for selected countries of the Southern African Development Community (SADC) of the Africa Anglophone Network (17-19 June 2019); (b) Pilot training of National Ozone Officers of the Southern African Development Community (SADC) of the Africa Anglophone Network (20-21 June 2019).

The meetings were organised by UN Environment Law Division's OzonAction Programme. They are part of the Regional Network service that OzonAction's Compliance Assistance Programme (CAP) provides to Article 5 (developing) countries as part its role as an Implementing Agency of the Multilateral Fund for the Implementation of the Montreal Protocol.

These events were organized as part of UNEP's CAP work programme under the Montreal Protocol's Multilateral Fund, are intended to facilitate the sharing of experiences and to review the progress made with regards to the implementation of Enabling Activities and implementation of newly developed training programme for National Ozone Officers in the SADC region of the African Anglophone Network.

Contacts for this event:
Patrick Salifu, Montreal Protocol Regional Coordinator for Anglophone Africa | Meeting Manager: The contact for substantive and policy issues related to this meeting

Florence Asher, Montreal Protocol Programme Officer, | Meeting Administrator: The contact for documentation issues related to this meeting.

UN Environment, OzonAction

8. AHRI and UN Environment Launch Global Refrigerant Management Training Program

Arlington, Va. — The Air-Conditioning, Heating, and Refrigeration Institute (AHRI) and UN Environment completed the first round of training sessions for the Refrigerant Driving License (RDL), a global refrigerant management initiative June 24-27 in Kigali, Rwanda. This pilot stage initiates a global program to help Article 5 (developing) countries transition to alternative refrigerants under the Montreal Protocol Kigali Amendment's hydrofluorocarbon (HFC) phasedown schedule.

"AHRI is honored to partner with UN Environment in this important global effort to prepare for the coming refrigerant transition," said AHRI President and CEO Stephen Yurek. "It is especially fitting that the first pilot program is held in Kigali, whose name is associated with the most recent amendment to the Montreal Protocol, which AHRI fully supports."

The RDL sets minimum requirements for the proper and safe handling of refrigerants in air conditioning, heating, and refrigeration equipment. The train-the-trainer session held in Kigali is the first part of a comprehensive program in which a refrigerant management expert (Master Trainer) trains a small number of local trainers on how to administer the RDL program in their country. The local trainers will then train an initial pool of approximately 100 local technicians in the proper and safe handling of refrigerants.

In the coming months, five other countries will participate in the pilot program: Grenada, the Maldives, Sri Lanka, Suriname, and Trinidad & Tobago. AHRI and UN Environment will evaluate the pilot stage and modify the final RDL training program based on feedback from the pilot program.

Contact:

Francis Dietz, Vice President, Public Affairs, AHRI

Ayman Eltalouny, Coordinator, International Partnerships – OzonAction, UN Environment

The Air-Conditioning, Heating, and Refrigeration Institute (AHRI), 27 June 2019

9. Cameroon: Montreal Protocol on the ozone layer - Minister Advances Need for Ratification

Given the guidelines of the agreement, substances that deplete the ozone layer will be greatly reduced therefore minimizing their hazardous effects to the environment.

In order to enable Cameroon actively participate in the global action to reduce the production and expansion of hydrofluorocarbons in the atmosphere, the Minister of Environment, Protection of Nature and Sustainable Development, Hele Pierre on June 24, 2019 before the Foreign Affairs Committee of the Senate [...] defended bill No 122/PJL/SEN/2L on the amendment of the Montreal Protocol on substances that deplete the ozone layer before the Committee members [...] Going by the defence reasons of the Minister, its ratification will [...] ensure the careful and rational use of resources while enabling Cameroon benefit from financial assistance and technological transfer from the Multilateral Fund for capacity building. [...]

On the fundamental purpose for the amendment to the Montreal Protocol adopted on October 16, 2016 in Kigali, Rwanda, the Minister said it will combat global warming. "Hydrofluorocarbons (HFCs) have a global warming potential 14800 times more powerful than Carbon dioxide. They trap heat and warm the planet. The increase in their concentration in the earth atmosphere is one of the factors causing global warming. The elimination therefore of HFCs is one of the most rapid climate change mitigation levers available in the medium-term," Minister Hele Pierre explained. [...]

AllAfrica, 27 June 2019

10. Rwanda launches scheme to help promote energy efficient cooling systems

Rwanda on Tuesday launched a financial scheme that seeks to support the country's efforts to promote clean, environmentally friendly and energy efficient cooling systems.

"The financial scheme we have launched today is an important factor in Rwanda's journey to advance clean cooling, meet our obligations under the Kigali Amendment to the Montreal Protocol on Substances that Deplete the Ozone Layer and play our part to address climate change crisis," said Vincent Biruta, Rwandan minister of environment, at the launch in Kigali, capital city of Rwanda.

The innovative financial mechanism dubbed Coolease Financial Mechanism responds to the needs of both consumers and suppliers to access efficient cooling systems that the country needs in order to phase out ozone-depleting greenhouse gases used as refrigerants said Biruta.

By providing efficient cooling systems, Rwanda can also improve hospital vaccine and medication storage and agricultural cold chain facilities, he said.

According to him, the cooling financial scheme includes a green growth guarantee fund that will make it possible for companies or individuals utilizing efficient cooling systems.

The financial scheme is integrated into Rwanda's clean cooling strategy and has risk mitigation, capacity building and awareness elements to ensure its success, he said.

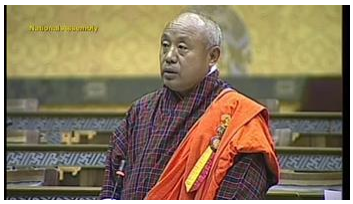
Rwanda will soon unveil a national cooling strategy that outlines the findings of a recent assessment of the current and future market for cooling products.

The mechanism is supported Business Development Fund of Rwanda, Rwanda's Green Fund, the United Nations Environment Program, according to the ministry of environment.

CGTN, 19 June 2019

Asia Pacific

11. Bhutan National Assembly passed amendment to the Montreal Protocol on substances that deplete the ozone layer



The National Assembly today passed the amendment to the Montreal Protocol on Substances that Deplete the Ozone Layer. The Protocol is a multilateral environmental agreement that regulates the production and consumption of ozone-depleting substances.

This was forwarded to the National Assembly by the National Council for re-deliberation. [...] The National Environment Commission recommended Kigali Amendment to be considered for the ratification. [...]

The Agriculture Minister while presenting the amendment in the National Council last month, said Bhutan on agreeing to the amendment will benefit in Environmental conservation and technology assistance.

BBS, 25 June 2019, By: Kinley Dem/Choni Dema, Thimphu

12. China launches new "Green Cooling Action Plan"


View this email in your browser

K-CEP Newsblast:

China launches new "Green Cooling Action Plan"

China just launched a new national "Green Cooling Action Plan" (GCAP) ahead of its national energy conservation week. This represents the first time the Chinese government has adopted an integrated master plan for the green cooling sector. The plan establishes new energy efficiency and market penetration targets for air conditioners and other cooling products, and serves as a national guide for promoting cooling efficiency. Energy Foundation China's Fact Sheet summarizing the GCAP can be found here.

K-CEP supported Energy Foundation China to initiate this work and provide the technological basis to inform the development of the GCAP. As China is the largest cooling technology consumer, producer and exporter, GCAP's impact can be profound.

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K-CEP Newsblast, 20 June 2019

Europe & Central Asia

13. Bulgaria: Illegal refrigerant will be destroyed

The Bulgarian Customs Agency has announced that the seized refrigerant it was seeking to auction will now be destroyed.

A statement on the agency's website indicates that no written bids were received by the close of business on Friday for the 977 cylinders of R404A and R410A.

The statement says: "Due to the absence of applicants who purchased documents for participation in the auction procedure in the specified period-21.06.2009, the auction ends without realising a sale, as the goods remain in the Customs Agency and are subject to destruction in compliance with regulatory and environmental requirements."

There have been no further comments from either the Bulgarian Customs Agency or the European Commission, and it is unclear at this time whether the decision is the result of international pressure. However, the Cooling Post had previously been told that the refrigerant would be the subject of three sales before destruction.

The refrigerant was from a seized shipment from Serbia in 2017. The consignment documentation falsely claimed that the refrigerant was isobutane.

Outside of the F-gas quota system and contained in illegal disposable cylinders, its proposed sale attracted disbelief and anger in the air conditioning and refrigeration community.

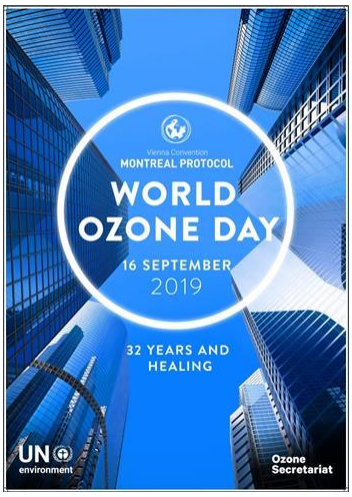
CoolingPost, 24 June 2019

Featured

OZONE SECRETARIAT

32 Years and Healing -

Theme for World Ozone Day 2019



• 62nd Meeting of the Implementation Committee under the Non-Compliance Procedure of the Montreal Protocol, 29 June 2019, Bangkok, Thailand
• 41st Meeting of the Open-Ended Working Group of the Parties to the Montreal Protocol,1 - 5 July 2019, Bangkok, Thailand
• 63rd Meeting of the Implementation Committee under the Non-Compliance Procedure of the Montreal Protocol, 2 November 2019, Rome, Italy
• Bureau Meeting of the 30th Meeting of the Parties to the Montreal Protocol, 3 November 2019, Rome, Italy
• 31st Meeting of the Parties to the Montreal Protocol, 4 - 8 November 2019, Rome, Italy

Click here for Montreal Protocol upcoming Meetings Dates and Venues

Kigali Amendment to the Montreal Protocol on Substances that Deplete the Ozone Layer, Status of Ratification 15 October 2016 to date

The UN Environment Assessment Panels

The Assessment Panels have been vital components of ozone protection since the Montreal Protocol was first established. They support parties with scientific, technological and financial information in order to reach decisions about ozone layer protection and they play a critical role in ensuring the Protocol achieves its mandate.

The Assessment Panels were first agreed in 1988 to assess various direct and indirect impacts on the ozone layer. The original three panels are:

The Technology and Economic Assessment Panel

The Scientific Assessment Panel

The Environmental Effects Assessment Panel

In the past there were 4 main panels. The Panels for Technology and Economic Assessments were merged in 1990 into one Panel, now called the Technology and Economic Assessment Panel.

Why are the three current panels important to ozone layer protection? Each carries out assessment in its respective field. Every four years, the key findings of all panels are consolidated in a synthesis report.

THE MULTILATERAL FUND FOR THE IMPLEMENTATION OF THE MONTREAL PROTOCOL

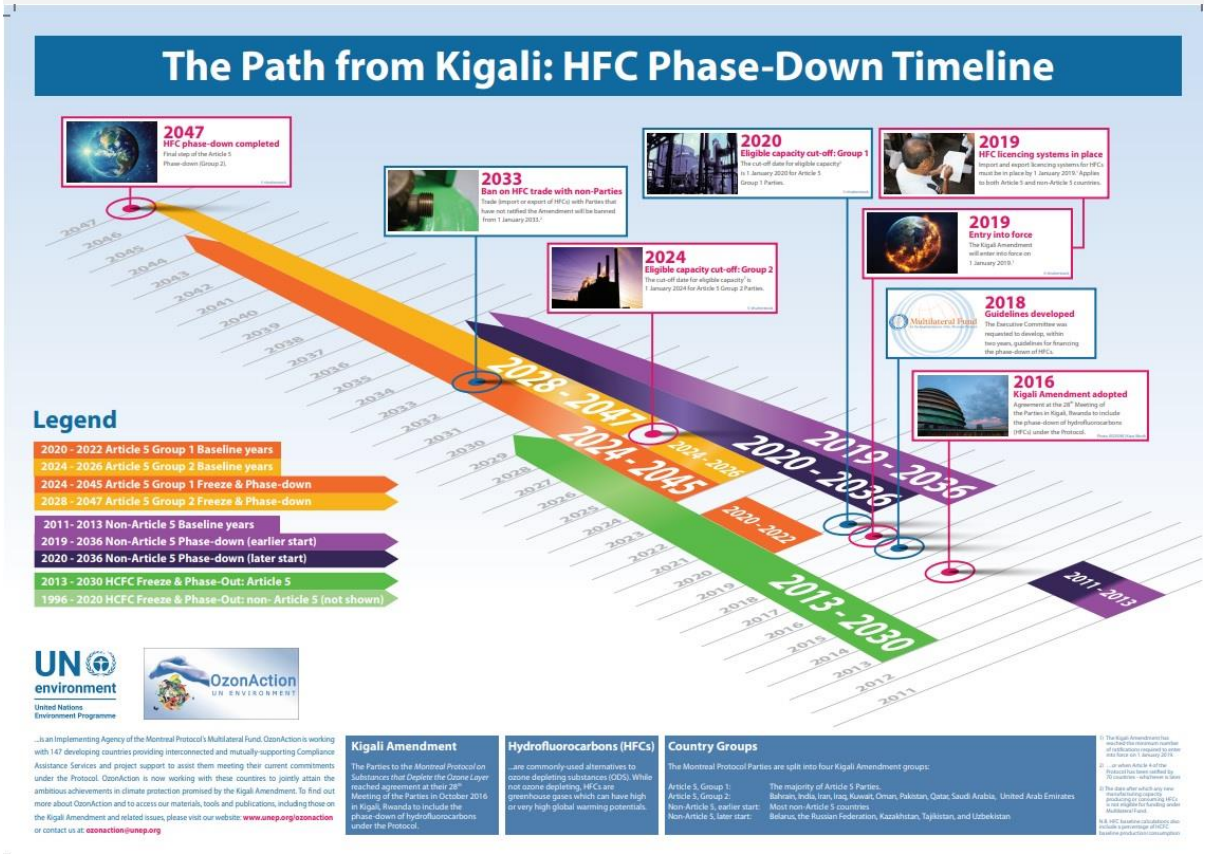
- Report of the 83rd meeting of the Executive Committee of the Multilateral Fund for the Implementation of the Montreal Protocol, Montreal, Canada, 27-31 May 2019
- 83rd meeting of the Executive Committee
- 82nd meeting of the Executive Committee

Learn more

OZONACTION

Post-Meeting Feedback Survey - OzonAction Second Global Inter-Regional and Parallel Network Meetings for National Ozone Officers, 17-20 February 2019.

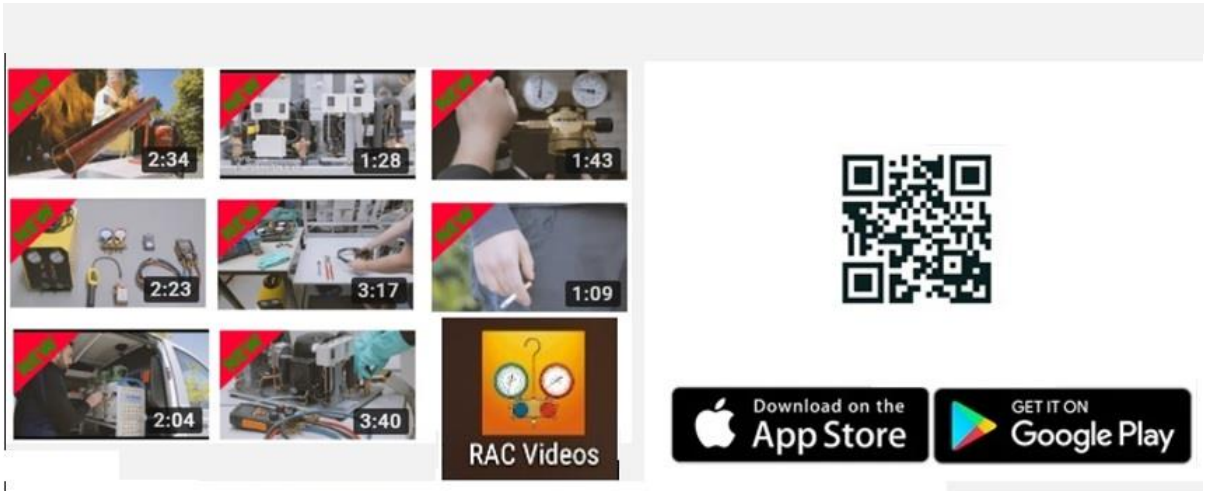
Read/Download: Meeting report | Full survey report



The Path from Kigali: HFC Phase-Down Timeline

This timeline, produced by OzonAction, highlights key hydrofluorocarbons (HFCs) phase-down dates.

Click here to download the timeline



New videos available on the OzonAction RAC video application

A series of new videos has just been released on the Refrigeration and Air-conditioning Technician Video Series application, with a focus on working with flammable refrigerants …

50,000 downloads and counting!

To install, search for “RAC Video” in the Google Playstore or Apple IOS store, or scan the QR code.

GWP-ODP Calculator Smartphone Application

The application allow you to easily convert ODP, CO_2-eq and metric quantities of refrigerants and other chemicals.

• Helps in understanding and reporting under the Montreal Protocol (and future commitments under the Kigali Amendment)

• The calculator will automatically perform the conversion between metric tonnes, ODP tonnes and/or CO_2-equivalent tonnes (or kg) and display the corresponding converted values

• The app includes both single component substances and refrigerant blends

• The components of a mixture and their relative proportions (metric, ODP, CO_2-eq) are also displayed.

Available for free from the Apple IOS store and
Google PlayStore. Search for "GWP ODP CALC" in the Playstore to install!

Download it Now!

OzonAction Smartphone Application WhatGas? Quickly search for the information you need

- Chemical name
- Chemical formula
- Chemical type
- ASHRAE designation
- Trade names
- HS code
- CAS number
- UN number
- Montreal Protocol Annex and Control measures
- Ozone depleting potential (ODP)
- Global warming potential (GWP)
- Blend components
- Toxicity and flammability class
- Main uses

OzonAction Smartphone Application WhatGas?

Available for free in the Google Play and Apple IOS Store

Scan the QR code or search for "UNEP", "OzonAction" or "WhatGas?"

The Kigali Amendment to the Montreal Protocol - Opportunities and Next Steps - OzonAction Video

The Parties to the Montreal Protocol on Substances that Deplete the Ozone Layer reached agreement at their 28th Meeting of the Parties on 15 October 2016 in Kigali, Rwanda to phase down hydrofluorocarbons (HFCs). The UN Environment, OzonAction developed a video to find out from renowned international scientific, health, technical, financial and national experts about background and significance of this Kigali amendment.

The amendment presents many opportunities: improving the environment, refrigeration and air-conditioning systems and especially energy efficiency. It also presents new challenges. It is absolutely critical now for industry, governmental bodies and civil society to work together to adopt greener technologies in each country of the world and fight global warming.

OzonAction YouTube | See also: United Nations Treaty Collection

OzonAction Factsheets

UN Environment-ASHRAE Factsheet Update on New Refrigerants Designations and Safety Classifications

OzonAction Series of 19 Fact Sheets related to the Kigali Amendment.

HS codes for HCFCs and certain other Ozone Depleting Substances ODS (post Kigali update).

The Kigali Amendment to the Montreal Protocol: HFC Phase-down - The phase-down of HFCs under the Montreal Protocol on Substances that Deplete the Ozone Layer has been under negotiation by the Parties since 2009 and the successful agreement on the Kigali Amendment at the 28th Meeting of the Parties on 15 October 2016 in Kigali, Rwanda to phase-down hydrofluorocarbons (HFCs) continues the historic legacy of the Montreal Protocol. This factsheet summarises and highlights the main elements of the Amendment of particular interest to countries operating under Article 5 of the Protocol (Article 5 Parties).

Refrigerant Blends: Calculating Global Warming Potentials (post-Kigali update).
Global Warming Potential (GWP) of Refrigerants: Why are Particular Values Used? (post-Kigali update).
Tools Commonly used by Refrigeration and Air-Conditioning Technicians.

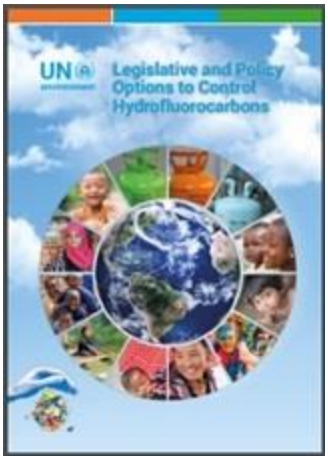
OzonAction Multimedia Video Application: Refrigeration and Air-conditioning Technician Video Series - Over 50,000 downloads to date - OzonAction has launched an exciting new application which hosts series of short instructional videos on techniques, safety and best practice for refrigeration and air-conditioning technicians.
This application, consisting of short instructional videos on techniques, safety and best practice, serves as a complementary training tool for refrigeration and air-conditioning (RAC) sector servicing technicians to help them revise and retain the skills they have acquired during hands-on training.

New videos on flammable refrigerants just added!

Please share with your RAC associations, technicians and other interested stakeholders…

OzonAction Multimedia Video Application: Refrigeration and Air-conditioning Technician Video Series
Available in the Android Play Store and Apple Store/**iTunes.**
(Just search for "OzonAction", or scan this QR code)

Publications



Legislative and Policy Options to Control Hydrofluorocarbons
In order to follow and facilitate the HFC phase-down schedules contained in the Kigali Amendment, the Parties, including both developed and developing countries, will have to implement certain measures.
This booklet contains a recommended set of legislative and policy options which the developing (Article 5) countries may wish to consider for implementation. It is intended to be a guide/tool for countries.

Latest issue of the Centro Studi Galileo - Industria & Formazione. La rivista per il tecnico della refrigerazione e della climatizzazione, N. 5, 2019

Events

2019

• 25th IIR International Congress of Refrigeration - 24-30 August 2019, Montreal, Canada

Click here for more information / International Institute of Refrigeration

Please feel free to share with us relevant events.

Reading

Twenty Questions and Answers About the Ozone Layer, presents complex science in a straightforward manner. It complements the 2014 Scientific Assessment Report of Ozone Depletion by WMO and the U.N. Environment Programme.
Lead Author:
Michaela I. Hegglin
Coauthors:
David W. Fahey, Mack McFarland, Stephen A. Montzka, Eric R. Nash

Primer on Hydrofluorocarbons (HFCs) - IGSD -11 January 2018
Summary:
Fast action under the Montreal Protocol can limit growth of hydrofluorocarbons (HFCs), prevent 100 to 200 billion tonnes of CO_2-eq by 2050, and avoid up to 0.5°C of warming by 2100.
Lead authors:
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Kristin Campbell, Xiaopu Sun, Dennis Clare, Claire Phillips, Stela Herschmann, Yuzhe Peng Ling, Alex Milgroom, and Nancy J. Sherman.

The IIR International Dictionary of Refrigeration Available in 11 languages, the complete version of the International Institute of Refrigeration (IIR) International Dictionary of Refrigeration is now freely accessible online. The IIR International Dictionary of Refrigeration offers researchers, industrialist or administrations the practical resources required to produce content related to refrigeration technologies in multiple languages.
This online tool allows you to find definitions, in English and French, of scientific and technical terms, as well as identify terms in the language of your choice and find corresponding translations in the 10 other languages.
The dictionary provides term searches in Arabic, Chinese, Dutch, English, French, German, Italian, Japanese, Norwegian, Russian and Spanish.
Access the International Dictionary of Refrigeration on the IIR website

Impact of Standards on Hydrocarbon Refrigerants in Europe – Market research report. The market research report was realised for the EU-funded LIFE FRONT project. Amongst the main result of the market research:
• Current charge limits set in standards both restrict and obstruct the development of hydrocarbon technology
• Over 50% survey respondents already work with hydrocarbons to some extent
• Most of those planning to start working with hydrocarbons in the future will do that in 2019-2020 timeframe - revision of standards could have a major impact on the scale of this shift
• Large proportion of respondents indicated they manufacture equipment using multiple refrigeration circuits - allowing higher hydrocarbon charge limits per single refrigeration circuit would have a profound impact on cost and availability of larger units.

Tip of the Iceberg: Implications of Illegal CFC Production and Use. The Environmental Investigation Agency (EIA) recently released report urges Parties to the Montreal Protocol to address a number of remaining unanswered questions, in particular the absence of comprehensive data regarding the size of current banks of CFC-11 in PU foam and other products or equipment.

Cold Hard Facts 3 - Review of the Refrigeration and Air Conditioning Industry in Australia - The refrigeration and air conditioning industry is the largest user of synthetic greenhouse gases and ozone depleting substances in Australia. Cold Hard Facts 3 provides an economic and technological assessment of the refrigeration and air conditioning industry in Australia in 2016. The report includes an analysis of 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. [...] This study provides a broad view of the composition, size and value of the industry, and projections for its future. This will assist industry and policy makers with management of ozone depleting substances as they are phased out, and synthetic greenhouse gases, including hydrofluorocarbons (HFCs) which are being phased down from January 2018.

Miscellaneous

I am in the Montreal Protocol Who's Who… Why Aren't You?

The United Nations Environment, OzonAction, in collaboration with Marco Gonzalez and Stephen O. Andersen are updating and expanding the "**Montreal Protocol Who's Who**".
We are pleased to invite you to submit your nomination*, and/or nominate Ozone Layer Champion(s). **The short profile should reflect the nominee's valuable work related to the Montreal Protocol and ozone layer protection.**
Please notify and nominate worthy candidates through the on-line form
We look forward to receiving your nomination(s), and please feel free to contact our team for any further assistance concerning your nomination.

Take this opportunity to raise the profile of women and men who made an important contribution to the Montreal Protocol success and ozone layer protection.

• View the «Montreal Protocol Who's Who» Introductory video
• Contact : Samira Korban-de Gobert, UN Environment, OzonAction

** If you are already nominated, no need to resubmit your profile*

The International Institute of Refrigeration supports World Refrigeration Day - As the only independent intergovernmental organisation in the field of refrigeration, the International Institute of Refrigeration (IIR) joins associations and companies worldwide to support the initiative of an official World Refrigeration Day on 26 June every year. The annual World Refrigeration Day, to be launched on 26 June 2019, aims to raise awareness among the wider public about the importance of refrigeration technologies in everyday life.
Refrigeration is essentially a question of temperature and, as such, it only seems natural to celebrate the field on the birthday of the pioneer at the origin of the international unit of temperature, Lord Kelvin (Sir William Thomson) – born 26 June 1824.
With increasing global stakes at hand, over the past years refrigeration has come to take a leading role at the heart of international affairs.
The inauguration of a World Refrigeration Day would not only be an ideal way to recognise the many historical achievements of the industry, but also a means to anticipate and overcome together the challenges we face. ...
Click here for more information.

New International Journal of Refrigeration service for IIR members - Access the complete archives of the International Journal of Refrigeration (IJR) online. Designed with IIR members in mind, this new and practical electronic subscription gives members substantial advantages:
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Enhanced content and functions
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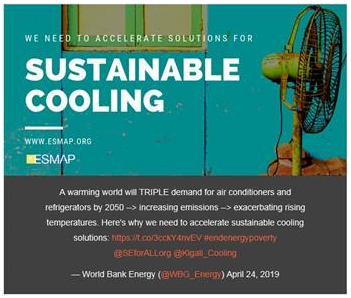
- See which papers, published in Elsevier or elsewhere, have cited any selected article.
- Consult the research highlights overview of articles in volumes from 2012 onwards.

To access this new service, click “activate my e-IJR subscription now” and follow the instructions.

International Observers - New AREA membership category - Due to the significant worldwide interest in European legislative developments and the increase in competence of personnel who handle new refrigerants, AREA is pleased to introduce its brand new “International Observer” membership category. This provides a fantastic opportunity for non-European RACHP installer bodies the world, to benefit from the expertise and discussions within Europe through access to AREA. Contact: info@area-eur.be

OZONE HOLE: HOW WE SAVED THE PLANET - New Documentary Tells the Remarkable Story of How Scientists Discovered the Deadly Hole in the Ozone – and the **Even More Remarkable Story of How the World’s Leaders Came Together to Fix It.**



New program to scale up efficient, clean cooling in developing countries- The World Bank announced today [24 April 2019] a new program to accelerate the uptake of sustainable cooling solutions, including air conditioning, refrigeration and cold chain in developing countries. The program will provide technical assistance to ensure that efficient cooling is included in new World Bank Group investment projects and mobilize further financing. Globally, demand for cooling is increasing, mainly driven by growing populations, urbanization and rising income levels in developing countries. Further exacerbating the issue, rising temperatures will increase demand for cooling appliances, which not only use large amounts of energy, but also leak refrigerants that contribute to global warming.

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