

Key processes to manage ODS banks

A contribution to the ozone layer protection and climate change mitigation

THE CHALLENGE

The excessive use of **ozone depleting substances (ODS)** as refrigerants and foam blowing agents in the past has led to the accumulation of large amounts of these substances, e.g. in old refrigerators, insulation foams or cylinders.

The emissions from these so-called ODS banks¹ significantly contribute to both ozone layer depletion and climate change.

1.5 Gt CO_{2,eq}

are emitted annually from global ODS banks. This equates to the annual emissions from

441 coal power plants



Source: own calculation



E-waste containing ODS can also release other toxic, cancer-causing substances: lead, cadmium, polychlorinated biphenyl (PCB), flame retardants and many more.

¹ ODS banks = total amount of substances contained in existing equipment, chemical stock piles, foams and other products not yet released to the atmosphere.

THE GOAL

No leakage or release of ODS to the atmosphere!

THE ACTION NEEDED

To save the ozone layer and reduce global warming, the existing ODS banks need to be well managed in order to effectively prevent their uncontrolled leakage or release into the atmosphere. Only well-informed decision makers with access to sufficient resources will be able to tackle the four key processes of good ODS bank management:

Policy

A suitable set of laws and regulations target both ODS and equipment containing ODS. A venting ban and mandatory recovery of ODS for destruction, recycling or reclamation are essential. Ideally, equipment operators are obligated to conduct leak checks, adhere to national standards and comply with monitoring schemes. The related technicians' training and certification should be mandatory.



Financing

A sustainable financing mechanism for appliances containing ODS includes extended producer responsibility (EPR) schemes, where the equipment producers are responsible for handling the waste components.



Collection

An effective collection mechanism is based on a sector plan which defines the responsibility of all involved players. If an informal sector exists, it should be incorporated into the mechanism. Both old equipment and refrigerants should be accepted free of charge by manufacturers, retailers or collection points. Equipment replacement programmes have to ensure that the returned, old equipment is subject to proper waste management.



Recycling and destruction

A functioning recycling and destruction infrastructure is based on a sufficient number of recycling and reclaim facilities. This prevents the accumulation of large amounts of disused ODS which would have to be destroyed. The use of local destruction facilities is only feasible if more than 10 tonnes of ODS are available annually. The export of smaller amounts follows the established procedure under the Basel Convention.



ODS banks management

