

Session IV: Other considerations

WORKSHOP
2 JULY 2023
BANGKOK

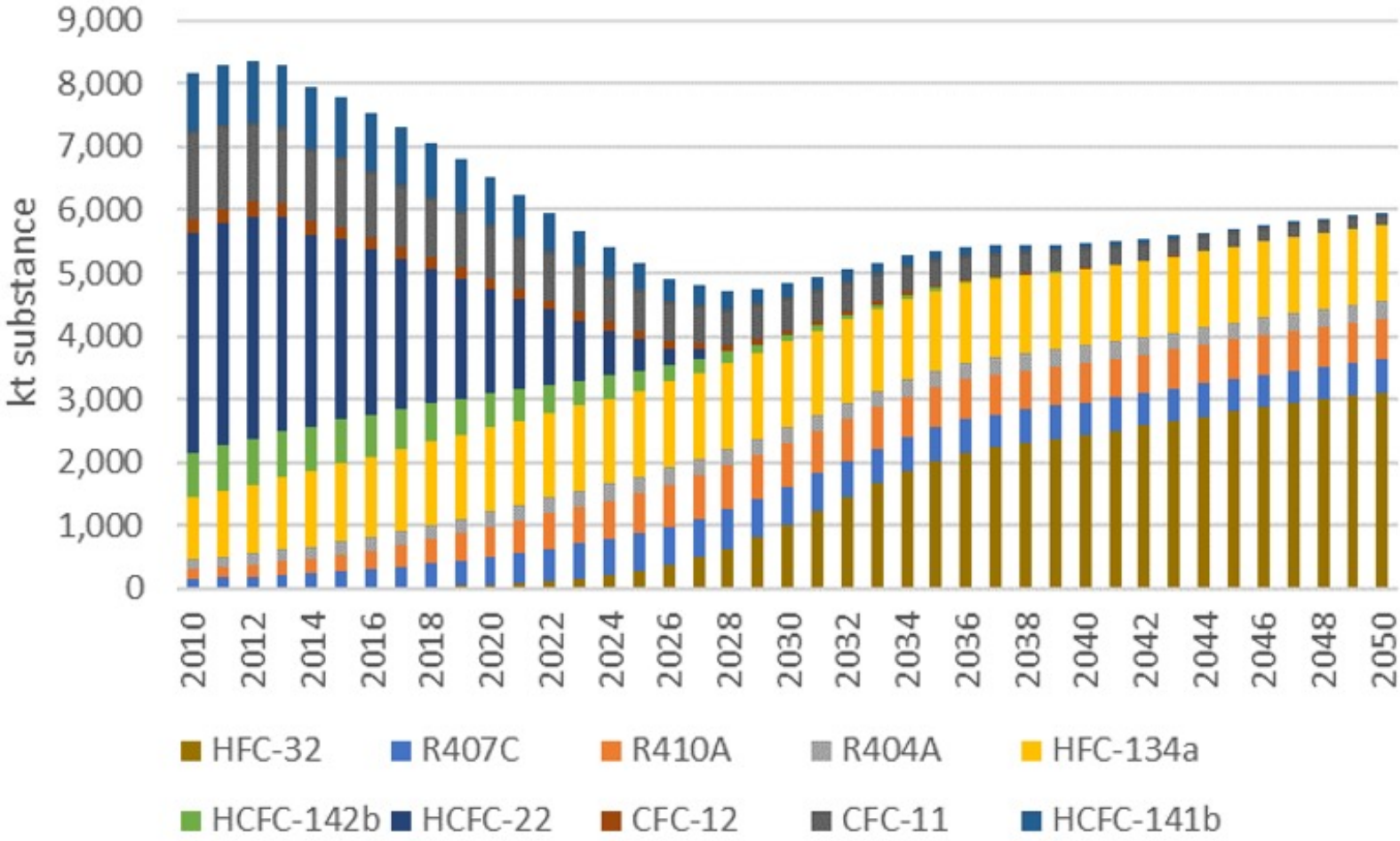
Environmentally sound management of banks of controlled substances

Bella Maranion, Co-chair,
Technology and Economic
Assessment Panel (TEAP)

Environmentally sound management of banks of controlled substances

- MP imposes very few direct compliance obligations for environmentally sound management (ESM) of end-of-life (EOL) ODS/HFCs:
 - Article 2J destruction requirements for HFC-23;
 - A7 reporting of destruction using MP approved technologies.
- Predominant approach has been, “easier/cheaper” to emit, which ignores ***long-term societal costs!*** Out of sight, out of mind!
- Effective banks management maximizes recovery, recycling, reclamation, reuse, and destruction after all other options have been exhausted, minimizing global impacts of potential EOL emissions.

Total estimated ODS/HFC banks, RACHP and foams sector combined, several sources, 2010-2050 (ktonnes)



Source: 2022 MCTOC Assessment Report

Increasing the environmentally sound management of banks in RACHP and foams sectors

- How can we facilitate and prioritize ESM EOL of banks, more than it has been?
- There is increasing attention to removing barriers that prevent effective implementation, including:
 - Refocus on issues related to banks sources that will ultimately reach EOL, including the process of EOL banks capture, integration with reclamation and recycling, optimization of logistics and economies of scale (rather than historic focus on destruction end as the limiting “barrier”)
 - ExCom/MLF funding window for A5 parties to estimate EOL inventories and develop EOL management plans
 - Increased policy frameworks for regulation and local based economic incentives
 - Emerging market based financial mechanisms by monetizing carbon and expanding extended producer responsibility throughout the chemicals supply chain, and in a manner that ensures equitable distribution of revenues and liabilities

Environmentally sound management of banks of controlled substances: fire suppression sector

- 2022 FSTOC AR estimates current global bank of halon 1301 to be 34 kt (245 Mt CO₂eq)
 - Available bank, however, is approx. 7.6 kt (54 Mt CO₂eq.); this gives projected run-out dates of 2030-2049, depending modelling scenario chosen.
 - Remaining banks of halons 1211 and 2402 and HCFCs are much more uncertain.
 - Halons still needed for enduring uses so are typically not yet at end-of-life.
 - Significant and increasing economic value drives effective banking and recycling.
 - Destruction of halons should be a last resort - some destruction of recovered halon 1301 has occurred; if this becomes widespread, this could affect the size of the global bank and hence the run-out dates.
 - Several instances of incorrect application of the Basel Convention has hindered transboundary movement of recovered halon 1301.
- HFC banking is established; especially for HFC-227ea.
 - Estimated global bank of HFC-227ea for fire suppression applications to be 168 kt in 2022 (540 Mt CO₂eq)