The American Innovation and Manufacturing (AIM) Act

Sector Workshops

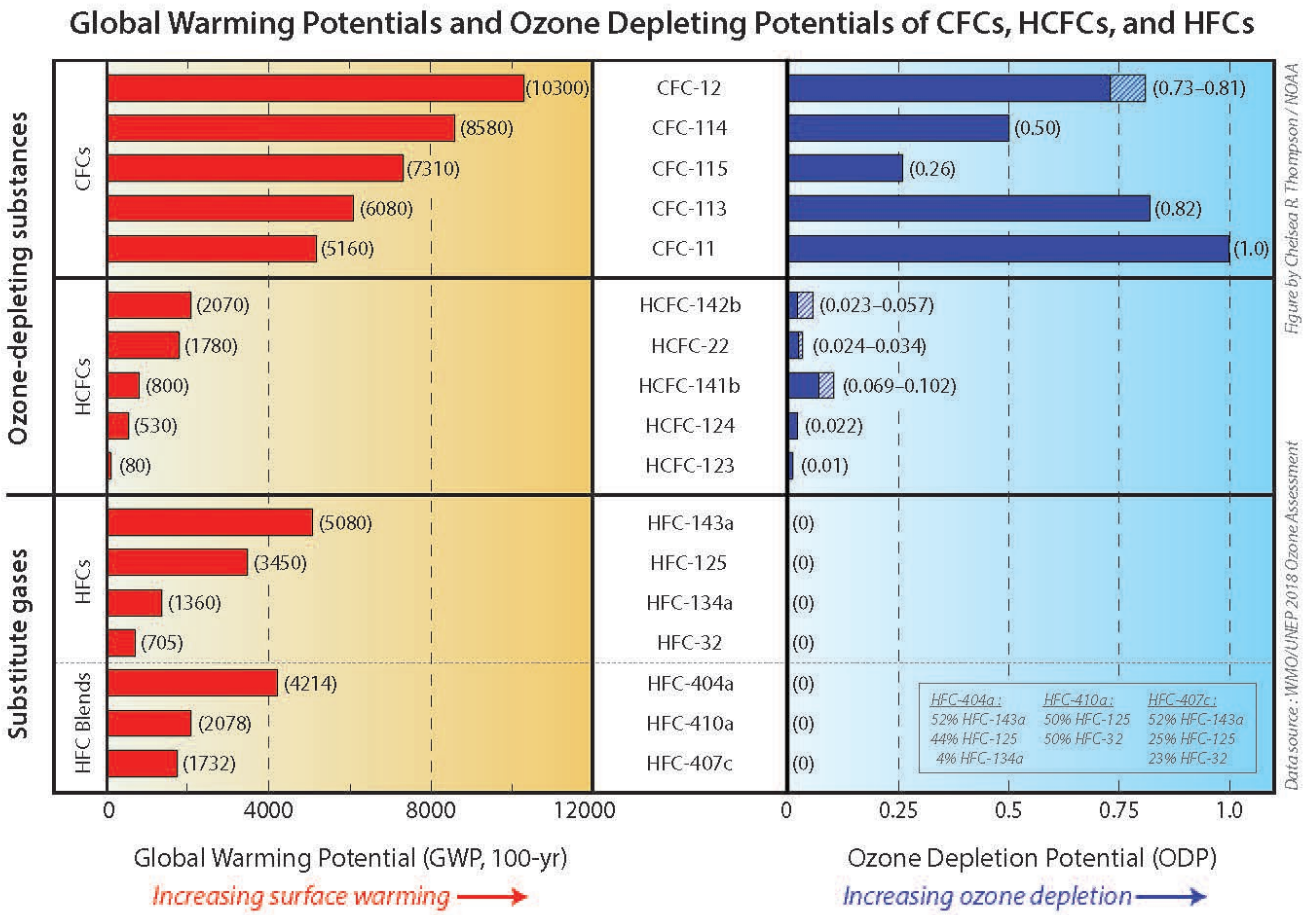
MARCH 11-12, 2021

Agenda

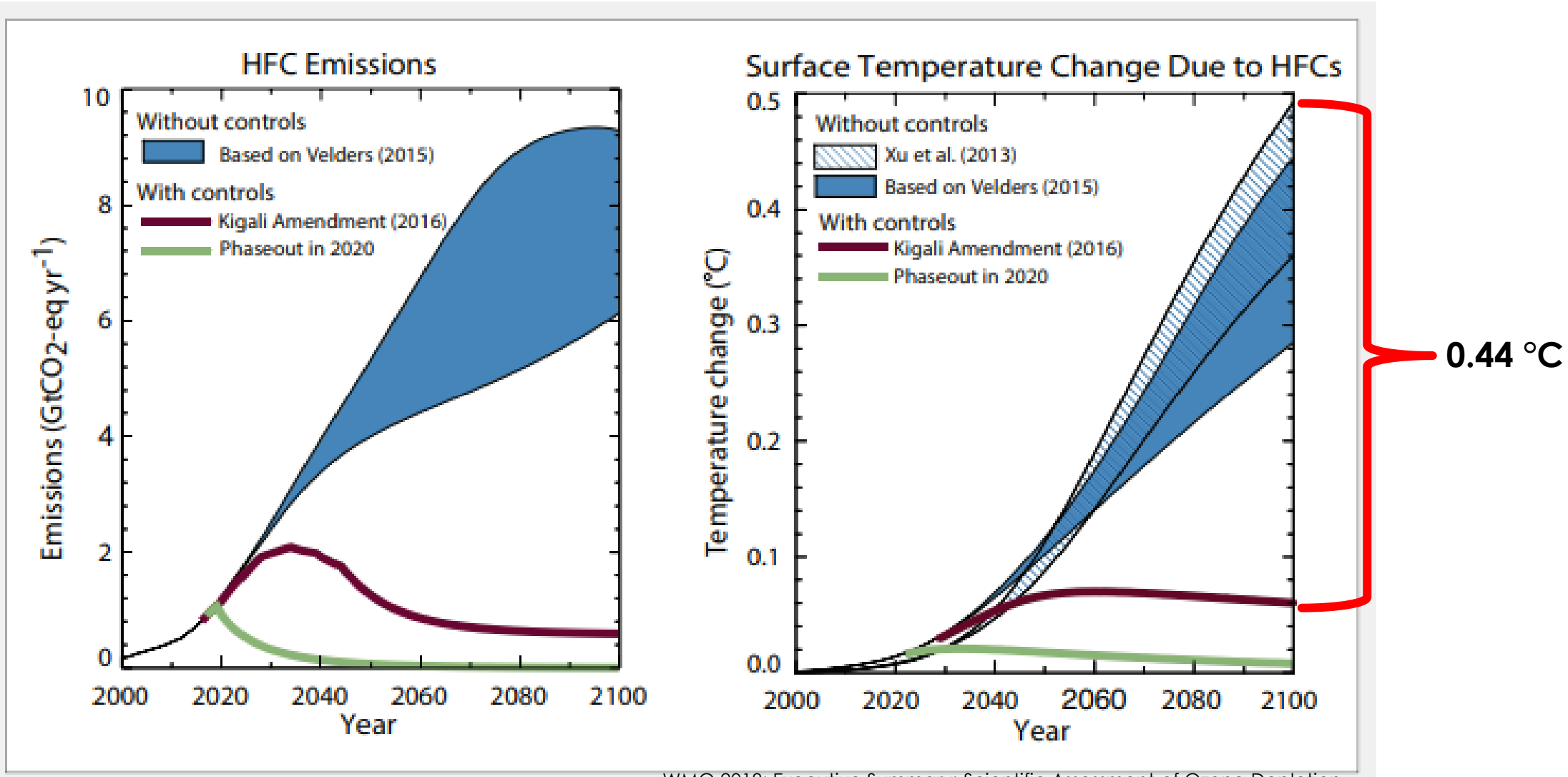
- Welcome & Introductions
- The AIM Act and First Actions
- HFC Application
- Open Dialogue
- Closing

Hydrofluorocarbons (HFCs)

- HFCs are used as replacements for ozone-depleting substances (ODS) in sectors including refrigeration, air conditioning, foam blowing, and fire suppression
- HFCs are potent greenhouse gases with global warming potentials (GWPs) hundreds to thousands of times higher than carbon dioxide (CO_2)
- HFC use is growing rapidly worldwide



A global HFC phasedown is expected to avoid up to 0.5°C of global warming by 2100



WMO 2018: Executive Summary: Scientific Assessment of Ozone Depletion

The American Innovation & Manufacturing (AIM) Act

- The AIM Act establishes three main types of regulatory programs:
  - Phase down HFC production and consumption
  - Facilitate transition to next-generation technologies
  - Management of HFCs
- Certain provisions are similar to provisions in CAA Title VI, but there are clear differences, including:
  - Includes a limited state pre-emption clause
  - Provides targeted small business technology grants

HFC Phasedown Schedule

- Important 2021 statutory deadlines:
  - 270 days after enactment EPA to issue phasedown regulations = **September 23**
    - Less than **200** days to go
  - **By October 1st** allocate allowances for 2022

Date	Caps: Consumption & Production
2022–2023	90 percent
2024–2028	60 percent
2029–2033	30 percent
2034–2035	20 percent
2036 & after	15 percent

HFC Phasedown Allocation Rulemaking

- Rule will stand up allocation program
- Provide the methodology for distributing allowances
- Account for application-specific allowances listed in the Act:
  - metered dose inhalers
  - defense sprays
  - structural composite preformed polyurethane foam for marine & trailer use
  - etching of semiconductor material or wafers & cleaning of chemical vapor deposition chambers
  - mission-critical military needs
  - onboard aerospace fire suppression

Next Generation Technologies

- EPA authorized to restrict use of HFCs on a sector or subsector basis to support transition to next-generation technologies
- EPA must consider using negotiated rulemakings
  - If not using negotiated rulemaking, EPA must publish explanation
- Specified timelines:
  - grant or deny petitions within 180 days
  - promulgate final rules within 2 years from granting a petition

Management of HFCs

- EPA will establish a program for maximizing reclamation and minimizing releases of HFCs and their substitutes from equipment, and ensuring safety of technicians and consumers
  - Establish regulations to control, where appropriate, practices, processes, or activities regarding the servicing, repair, disposal, or installation of equipment
  - Consider using authority to increase opportunities for reclaiming HFC refrigerants
- EPA may coordinate with any other similar regulations (e.g., CAA 608 regulations)
- Subject to appropriations, EPA shall establish a grant program for small businesses for purchase of recycling, recovery, or reclamation equipment for HFC substitutes (e.g., HFO-1234yf), including for servicing motor vehicle air conditioners

First Actions: Notice of Data Availability (NODA)

- NODA published 2/11/21; comment period closed 2/25/21
- Provided information on HFC production and consumption between 2011 and 2013 as reported to the GHGRP
- Identified potential data gaps and requested comments on areas of additional information
- Provided preliminary information on HFCs for some of the specific applications allowed under the AIM Act for allocations
- Data will inform the establishment of U.S. HFC baselines for production and consumption

First Actions: HFC Phasedown Allocation Rulemaking

- NPRM allocation rule
- Fast-tracked, planned signature late April/early May
  - Planning for a 45-day comment period
- Rule will stand up allocation program, list entities receiving allowances, and set up methodology for distributing allowances
  - Amounts of application-specific allocations to be issued
- EPA will issue a benefits-costs analysis and other technical support documents

Defense Sprays

Historical and Current HFC Use

- In the mid-1990s, the defense spray industry transitioned from ODS to HFC propellants, specifically HFC-134a
- In 2020, industry estimates that 125 metric tons (MT) of HFC-134a propellant was contained in defense sprays sold in the United States

Projected HFC Use

- HFC-134a propellant is used in defense sprays in the U.S. today due to its non-flammability and physical properties to provide adequate spray distance for foam, fog, and vapor defense sprays
- In 2025, EPA estimates that, absent transition to alternatives, 138 MT of HFC-134a propellant are projected to be used in defense sprays
  - Reclaimed HFCs could offset need for newly produced/imported HFCs
  - Assumes an average growth rate of 2% from 2020, in line with EPA (2020) estimated growth rate of technical aerosols

Reminders

- Unless called to speak, please keep your speaker on **MUTE**
  - If joining by phone, unmute by entering ***6**
- During Q&A session:
  - Raise your **HAND** to ask to speak
  - Open **CHAT** to submit questions or ask to speak
  - Please indicate your **NAME** and **AFFILIATION**
  - Please be mindful of time to allow others opportunity to ask questions or speak
- If your internet connection is unstable, turning off your **VIDEO** might help

Questions for Discussions

- Are the historic and projected estimated amounts of HFCs for defense sprays reasonable?
- What growth rate do you anticipate for defense sprays?
- What alternative propellants do you see in the future for defense sprays?
  - What challenges remain in finding and implementing alternatives?
- What is the quantity of HFC-containing defense sprays manufactured in the U.S. that are exported each year?
- What relevant data is EPA seeking for this application?
- How can information be submitted to EPA?

Closing