EPA
United States
Environmental Protection
Agency

Office of Air and Radiation

Climate, Clean Air, & Environmental Justice

Alejandra Nuñez

Deputy Administrator for Mobile Sources

U.S. Environmental Protection Agency

OAR Climate Priorities

"It is the policy of my Administration to listen to the science, to improve public health and protect our environment; to ensure access to clean air and water,… to reduce greenhouse gas emissions,… and to prioritize environmental justice."

-- President Joe Biden,
Executive Order 13990
January 20, 2021

Key activities:

- Phasing down HFCs
- Reducing methane emissions from the oil and gas sector
- Tackling GHG emissions from cars and trucks
- Setting standards for a cleaner power sector
- Catalyzing a cleaner economy through the Inflation Reduction Act

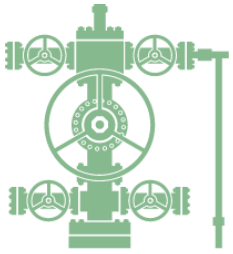
HFC Phasedown

- Hydrofluorocarbons are highly potent GHGs used as refrigerants, aerosol propellants, foam blowing agents, solvents, and fire retardants.
- The American Innovation and Manufacturing (AIM) Act authorizes EPA to phase down HFCs by 85% by 2036:
  - Phase down production and consumption
  - Maximize reclamation and minimize releases from equipment
  - Facilitate the transition to next-generation technologies through sector-based restrictions on HFCs.
- HFC phasedown will yield climate benefits equivalent to 4.6 billion metric tons CO_2 from 2022 through 2050
- Global phasedown of HFCs can avoid up to 0.5^{o}C of global warming by 2100.

Oil and Gas Sector

- Nation's **largest industrial source of methane**
- Accounts for approximately one-third of the warming from greenhouse gases.
- Also a leading source of **volatile organic compounds and hazardous air pollutants** such as benzene.
- The New Source Performance Standards (NSPS) Rule and Emission Guidelines final rule **strengthen standards for new sources and establish** –for the first time – **for existing sources of methane emissions** in the oil and gas sector.

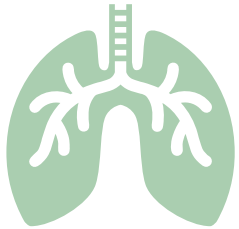





Climate and Health Benefits

- The rule will achieve:
  - **Historic reductions in methane pollution**
  - Reductions in smog-forming VOCs
  - Reductions in air toxics like benzene

- From 2024-2038 the rule will avoid:
  - 58 million tons of methane – nearly **80 percent lower** than expected emissions without the rule
  - 16 million tons of VOCs
  - 590,000 tons of air toxics



- **Net climate and ozone health benefits** from 2024-2038 ($2019)
  - **$97 to $98 billion dollars / $7.3 to $7.6 billion a year**

Mobile Sources: Standards for Light- , Medium-, and Heavy- Duty Vehicles

- Transportation: **largest U.S. source of GHG emissions**.
  - Passenger cars and trucks - 58% of transportation GHGs; 17% of total U.S. GHGs
  - Heavy-duty vehicles - 25% of transportation GHGs, and is a significant source of smog and soot
- **April 2023,** proposed new **multi-pollutant standards for passenger cars and light trucks** for model years 2027 and beyond.
- Also proposed strong **new federal GHG emissions standards for heavy-duty trucks**, for model years 2027 and beyond.
- Proposals would avoid more than 9 billion tons of CO2 emissions (= to 2X total US CO2 emissions in 2022).
- Combined benefits more than $1T.

Power Sector: Proposed Carbon Pollution Standards

- Power sector is **second largest source of GHG emissions in the U.S.**
- **May 2023**, EPA **proposed new pollution standards** that would reduce carbon dioxide from new and existing fossil-fuel fired power plants, **delivering up to $85 billion** in climate and public health benefits over the next two decades.
- **The proposal for coal and new natural gas would avoid up to 617 million metric tons of total carbon dioxide (CO2) through 2042,** equal to reducing the annual emissions of roughly half the cars in the United States
- This proposal **would also significantly cut other harmful pollutants** that endanger people's health.
- Comprehensive proposal would strengthen standards for new fossil fuel-fired stationary combustion turbines, and provide guidelines for states to limit carbon pollution from existing fossil fuel-fired steam generating units and for large fossil fuel-fired stationary combustion turbines

Inflation Reduction Act of 2022

- The Inflation Reduction Act (IRA) makes historic investments in climate action, air quality and environmental justice
- Expected to reduce U.S. greenhouse gas emissions ~40% by 2030
- Investments will drive the most significant emissions reductions in electricity generation and transportation while establishing the groundwork for long-term decarbonization in industry, buildings, and agriculture
- EPA's role – **$41.5 billion in appropriated funds** to support 24 new and existing programs

IRA: Climate Pollution Reduction Grants

- $5 billion to help states, municipalities, tribes and territories develop and implement strong climate action plans
- Goal to:
  - Achieve significant GHG reductions
  - Provide benefits to communities, including low-income and disadvantaged
  - Complement funding from other sources
  - Pursue policies and programs that can scale
- Phase 1: $250M in grants to develop Priority Climate Action Plans (PCAP)
- Phase 2: $4.6B implementation funds
- Both PCAPs and applications for implantation grants are due this spring
  - March 1 deadline for states and municipalities
  - April 1 deadline or Tribes and territories

Investing in America – IRA Methane Emissions Reduction Program

- **Technical and Financial Assistance**
  - **$1.55 billion** to reduce methane emissions through financial assistance and technical assistance.
  - $700 million for activities at marginal conventional wells.
  - EPA partnering with U.S. Department of Energy (DOE) to provide financial and technical assistance to monitor and reduce methane emissions from the oil and gas sector.
- **Waste Reduction Incentive Program**
  - Waste Emissions Charge on methane from oil and gas facilities that emit over 25,000 metric tons CO2e and exceed waste emissions thresholds, beginning in 2024.
  - Updating and strengthening greenhouse gas reporting requirements to improve accuracy of reported methane emissions for oil and gas sector, including reporting of large emission events, or “super-emitters.”

Investing in America – Transportation Provisions

- **Inflation Reduction Act**
  - Clean Heavy-Duty Vehicles – **$1 billion** to replace fossil-fuel models with zero-emission school buses, refuse haulers, delivery vehicles, etc.
  - Clean Ports – **$3 billion** for the purchase or installation of zero-emission port equipment/technology
  - Diesel Emissions Reduction Act – **$60 million** to replace legacy diesel equipment with cleaner versions in low-income, disadvantaged communities

- **Bipartisan Infrastructure Law**
  - Clean School Bus Program – **$5 billion** to accelerate turnover of high-emissions diesel school bus engines to low- and zero-emission school buses

Addl. IRA Provisions – Greenhouse Gases

- **HFCs – AIM Act –** additional implementation funding
- **Low Emissions Electricity Program** – new funds under a new section of the Clean Air Act to reduce emissions from domestic electricity generation and use.
  - **$68 million** for education, partnerships, technical assistance, and outreach focused on consumers; low-income and disadvantaged communities; Industry, and State, Tribal, and Local Governments
- **Corporate Reporting** – **$5 million** to develop standards and methodologies to promote transparency of corporate climate commitments and related plans to reduce GHGs
  - Support EPA in transparently tracking corporate progress in meeting their commitments and implementing their plans

School Air Quality Grants and Technical Assistance

- **$50 million** to support improved air quality in schools
  - **$37.5 million** for grants and other activities to monitor and reduce air pollution and greenhouse gas emissions at schools in low-income and disadvantaged communities.
  - **$12.5 million** for technical assistance to schools in low-income and disadvantaged communities to address environmental issues, develop school environmental quality plans that include standards for school building, design, construction, and renovation, and to identify and mitigate ongoing air pollution hazards.

Other Technical Assistance/Consumer Education