

# Essential Elements of a Reauthorized Federal Clean Air Act

## America's Clean Air Plan for the Next 25 Years



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# Introduction – CAA Reauthorization

- Disclaimer – all opinions on CAA policy are my own
- Key recent and pending Supreme Court CAA rulings
- Primer on air quality regulatory concepts
- CAA history 1970 to present
- USA's GHG reduction commitments under the Paris Accords
- What is the Clean Air Dividend?
- Environmental laws Congress passed in 2021 and 2022
- Problems with the current CAA – is it obsolete?
- Recent EPA CAA rules that may represent bad public policy
- Need new and improved paradigm for future CAA programs
- Proposed common-sense moderate elements for a new CAA

# U.S. Supreme Court Rulings

- June 30, 2022 – Supreme Court issues 6 to 3 landmark decision in *West Virginia v. EPA*
  - Ruled unconstitutional: EPA’s Clean Power Plan to reduce GHG emissions under CAA Section 111(d)
  - Introduced the Major Questions Doctrine – court requires a clear statement from Congress to give agencies like EPA the authority to regulate issues of major economic and political significance
- Current CAA does not address the USA’s commitment to decarbonize the economy – however, see Inflation Reduction Act changes to CAA



# U.S. Supreme Court Rulings

- Pending decision in two non-CAA cases may overturn the Chevron Deference Doctrine from the 1984 case *Chevron v. NRDC*
  - Where statutory language is ambiguous or lacks clarity, the court defers to EPA for reasonable interpretation of requirements
  - Many existing environmental regulations rely on the Chevron Deference, and the effects of striking down this doctrine will be far-reaching and substantial
- Conclusions:
  - EPA has limited authority to make GHG rulemakings under the existing CAA even with Inflation Reduction Act changes to CAA
  - Congress needs to provide more specificity and clarity in future environmental laws

# Primer on Air Quality Regulatory Concepts

## **Air Problem Categories 1**

- Local
- Regional
- Global

## **Air Problem Categories 2**

- Chronic
- Acute
- Esthetic

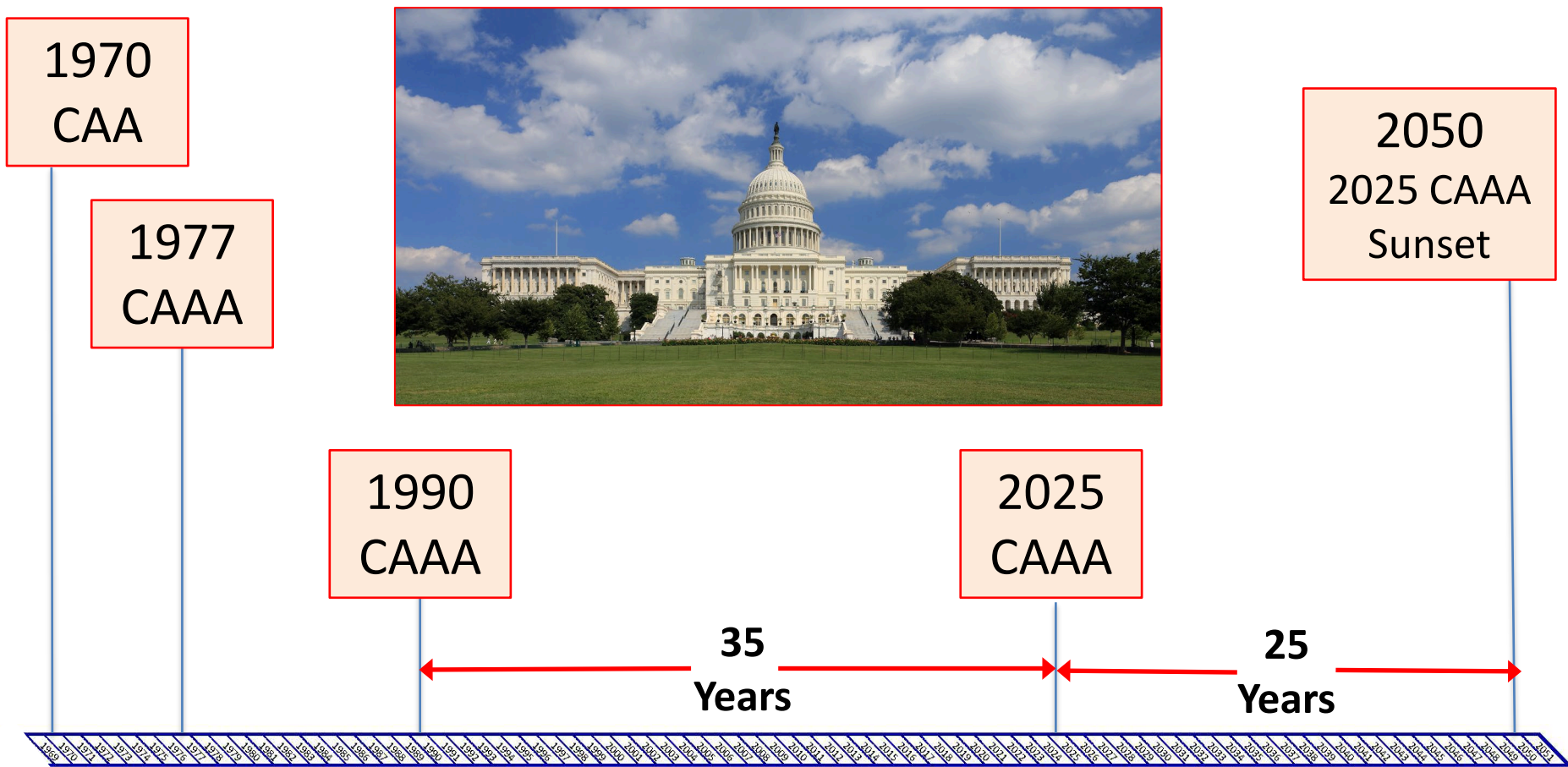
## **Air Rulemaking Approaches**

- Risk-based
- Technology-based

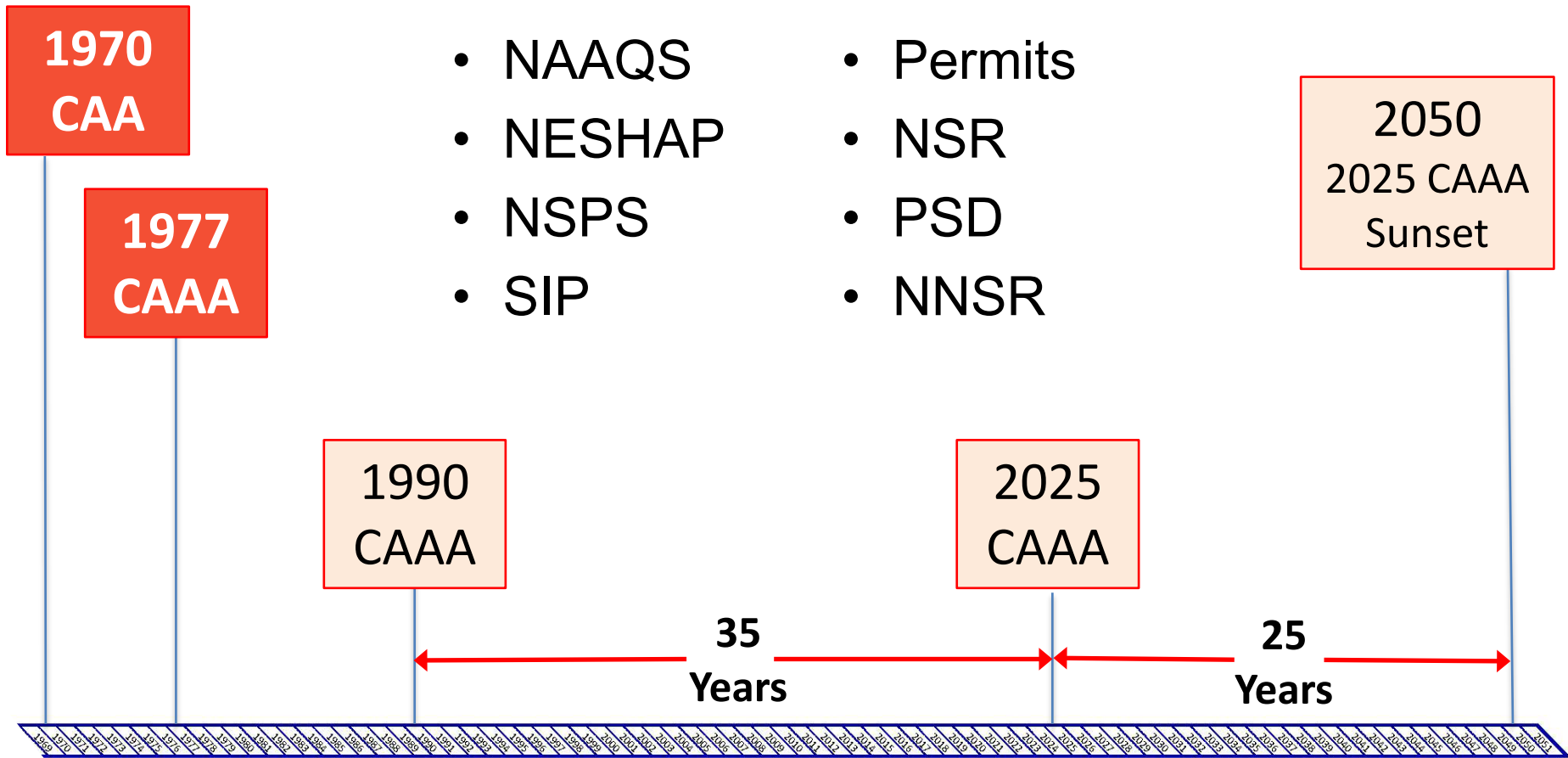
## **Air Regulatory Toolbox**

- Ambient-air Standards
- Permitting Requirements
- Emission Limit Standards
- Equipment/Design Standards
- Work Practice Standards
- Monitoring/Records/Reports

# Timeline: CAA History and Projected Future

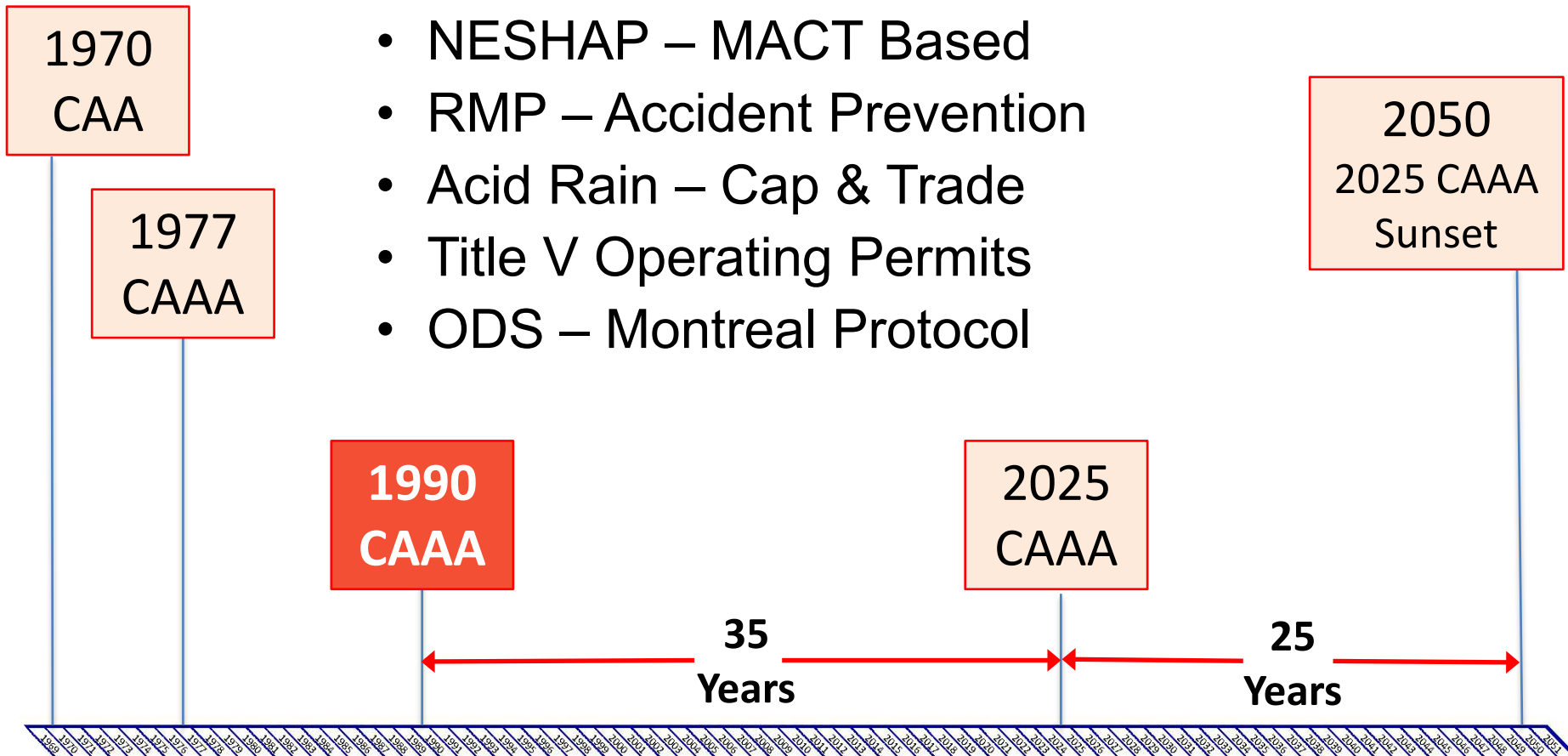


# 1970 and 1977 Clean Air Act Amendments



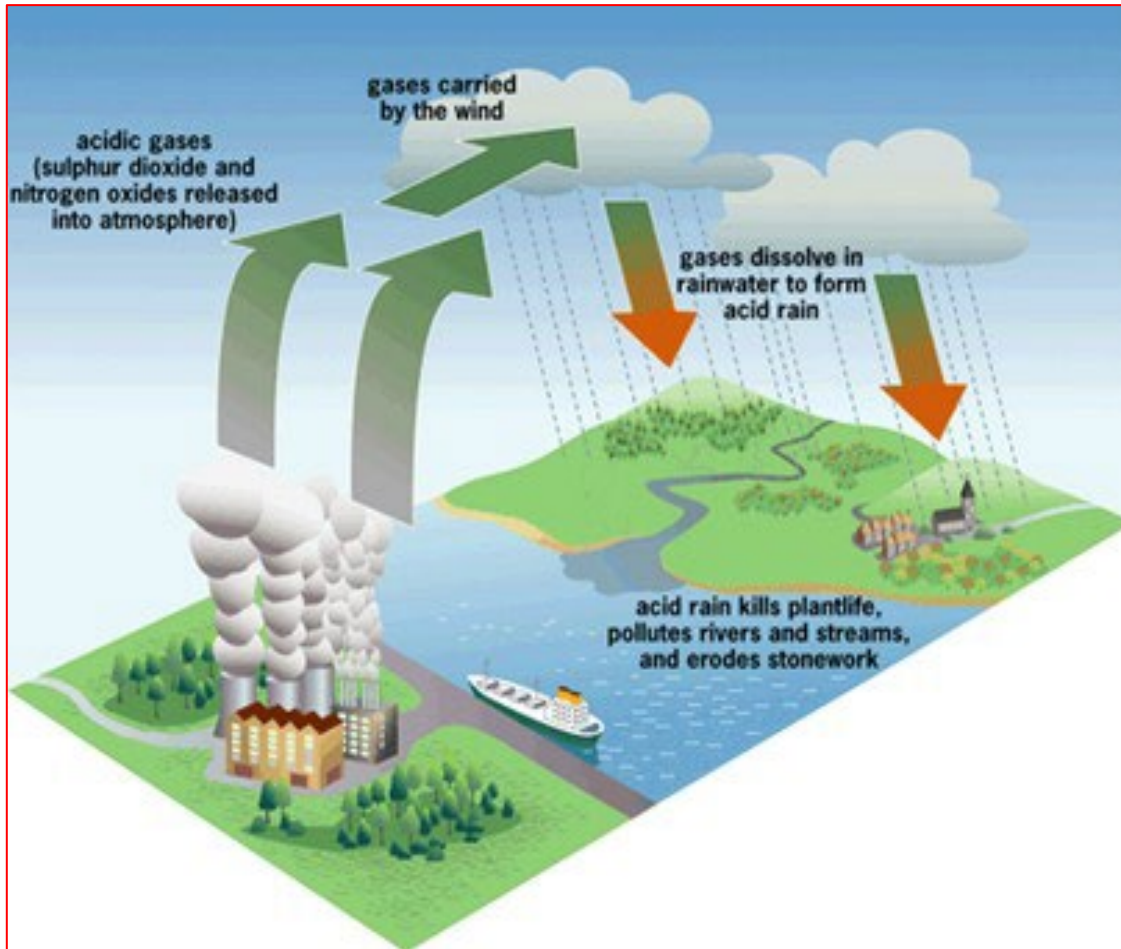


# 1990 Clean Air Act Amendments



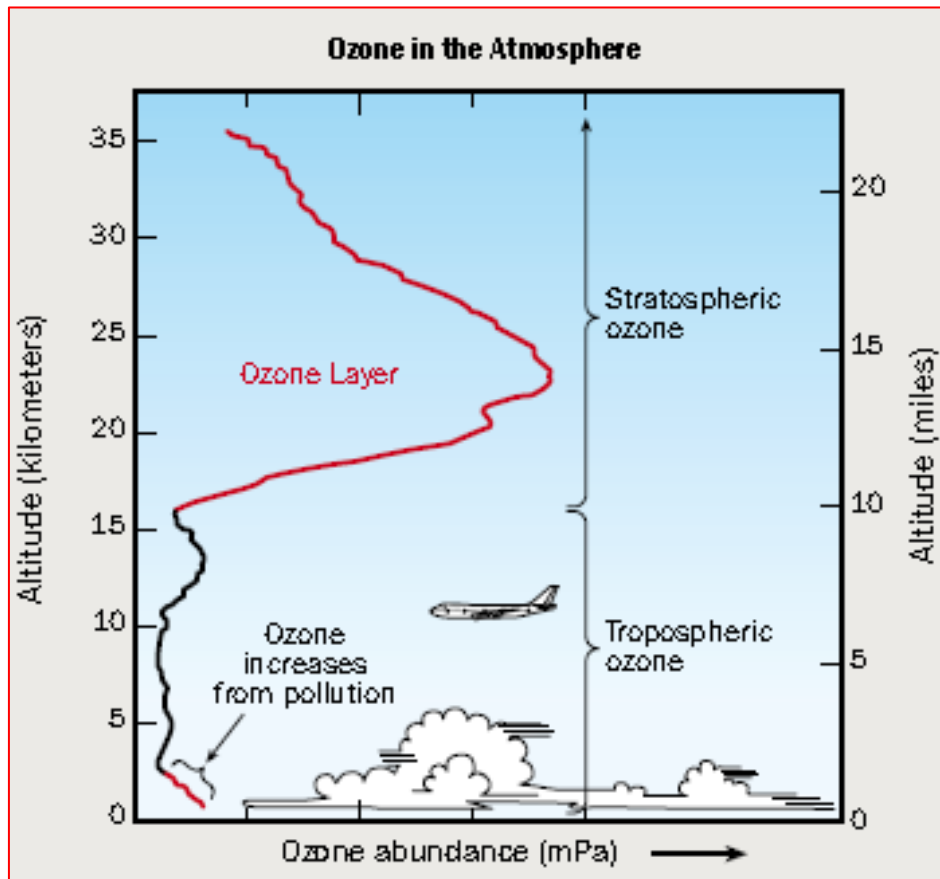


# 1990 CAAA Title IV Acid Rain Program



- Primarily limits  $\text{SO}_2$  from EGUs
- Our first Cap & Trade Program
- 1  $\text{SO}_2$  allowance needed to emit 1 ton of  $\text{SO}_2$
- A success story!

# 1990 CAAA Title VI ODS Program



- Low tropospheric ozone = “bad ozone” – a criteria pollutant
- High stratospheric ozone = “good ozone” – it protects us from solar uv radiation
- Human CFC emissions deplete stratospheric ozone
- CAAA90 Title VI called for CFC phase out as per the Montreal Protocol
- Another success story!

# Only Reference to Climate Change in The 1990 CAAA

## **SEC 821. INFORMATION GATHERING OF GREENHOUSE GASES CONTRIBUTING TO GLOBAL CLIMATE CHANGE**

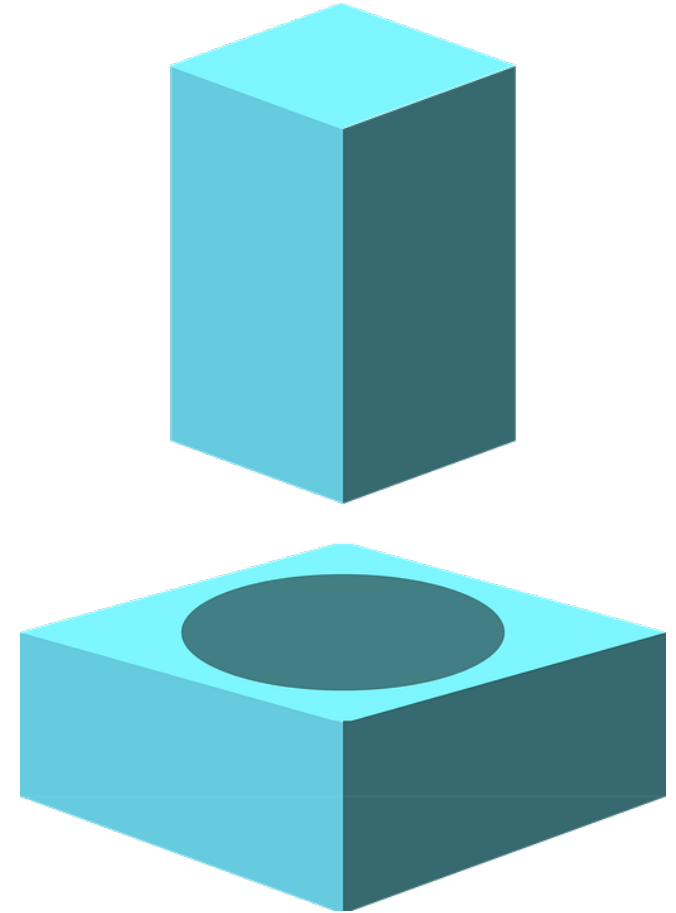
(a) Monitoring – The Administrator of the Environmental Protection Agency shall promulgate regulations within 18 months after the enactment of the Clean Air Act Amendments of 1990 to require that all affected sources subject to title V<sup>1</sup> of the Clean Air Act **shall also monitor carbon dioxide emissions** according to the same timetable as in section 511<sup>1</sup>(b) and (c). The regulations shall require that such data be reported to the Administrator. The provisions of section 511<sup>1</sup>(e) of title V<sup>1</sup> of the Clean Air Act shall apply for purposes of this section in the same manner and to the same extent as such provision applies to the monitoring and data referred to in section 511<sup>1</sup>.

### **Footnote Not in Actual Text of the 1990 CAAA:**

1. References to section 511 probably intended to refer to section 412. References to Title V probably intended to refer to Title IV, relating to acid deposition

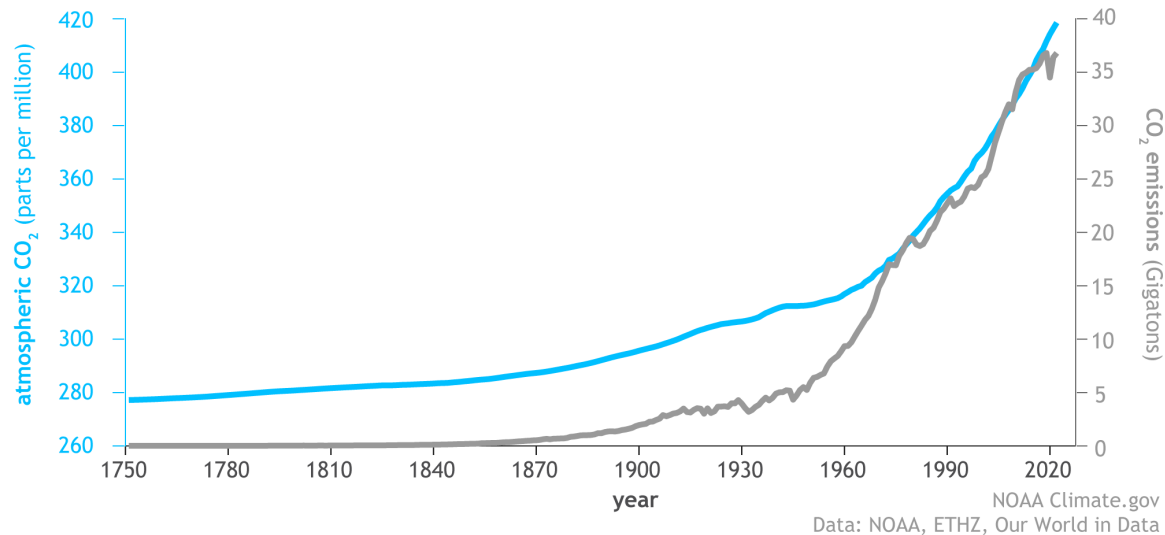
# GHG Control Efforts Under the 1990 CAAA

- CAAA90 – No specific or clear authority to control GHG emissions
- EPA did manage to “push through” a few GHG rules
- CAAA90 GHG rules still facing legal challenges



# Recommitment to the Paris Accords Via Executive Order on January 20, 2021

Global atmospheric carbon dioxide compared to annual emissions (1751-2022)



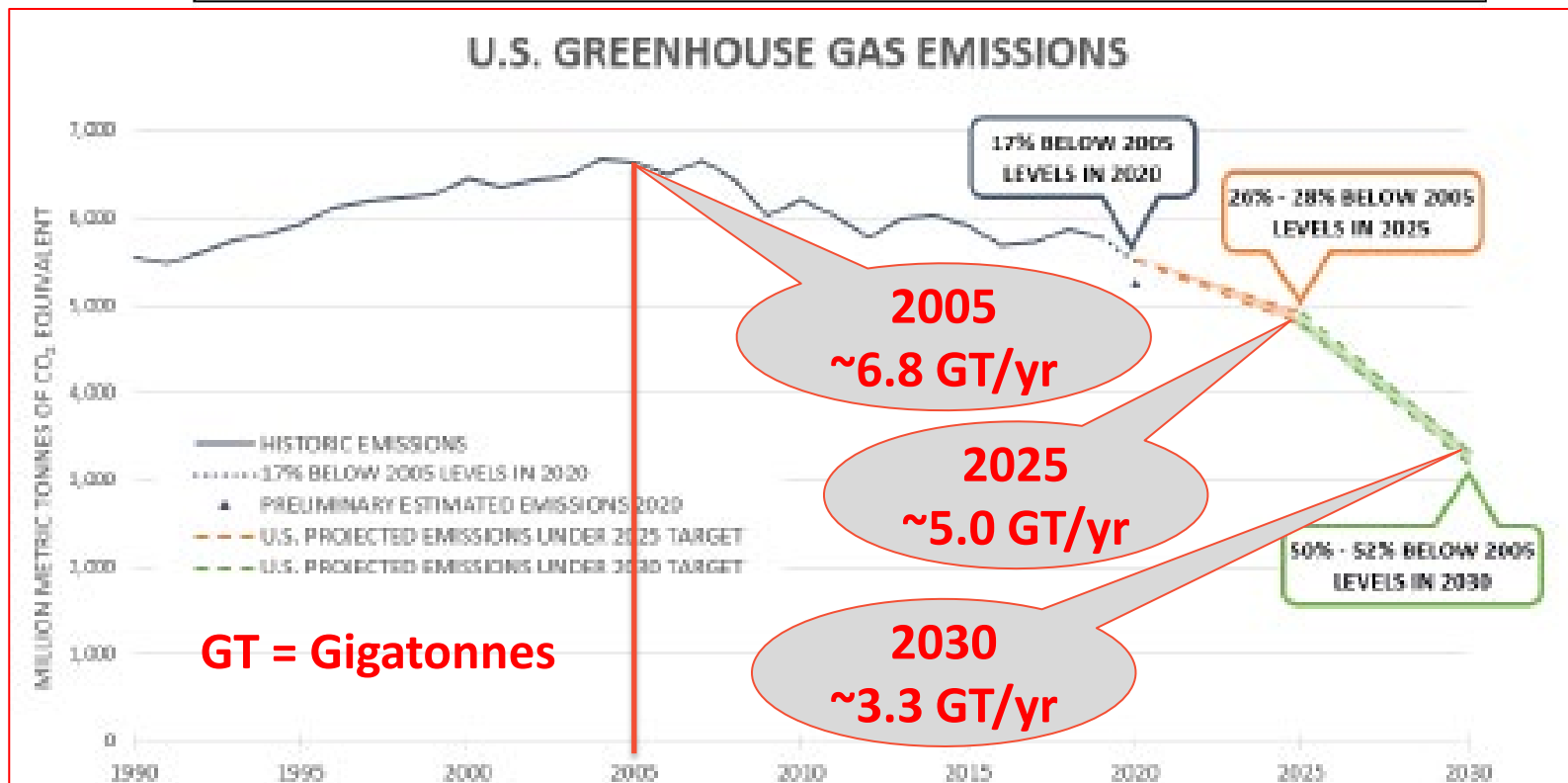
- Keep  $\Delta T < 2 \text{ C}$  – Preferably  $\Delta T < 1.5 \text{ C}$
- NDCs – Nationally Determined Contributions
- Reassess NDCs Every 5 Years
- Net Zero GHG Emissions by 2050

# America's Pledged NDC – April 2021

## NATIONALLY DETERMINED CONTRIBUTION

**The nationally determined contribution of the United States of America is:**

To achieve an economy-wide target of reducing its net greenhouse gas emissions by 50-52 percent below 2005 levels in 2030.



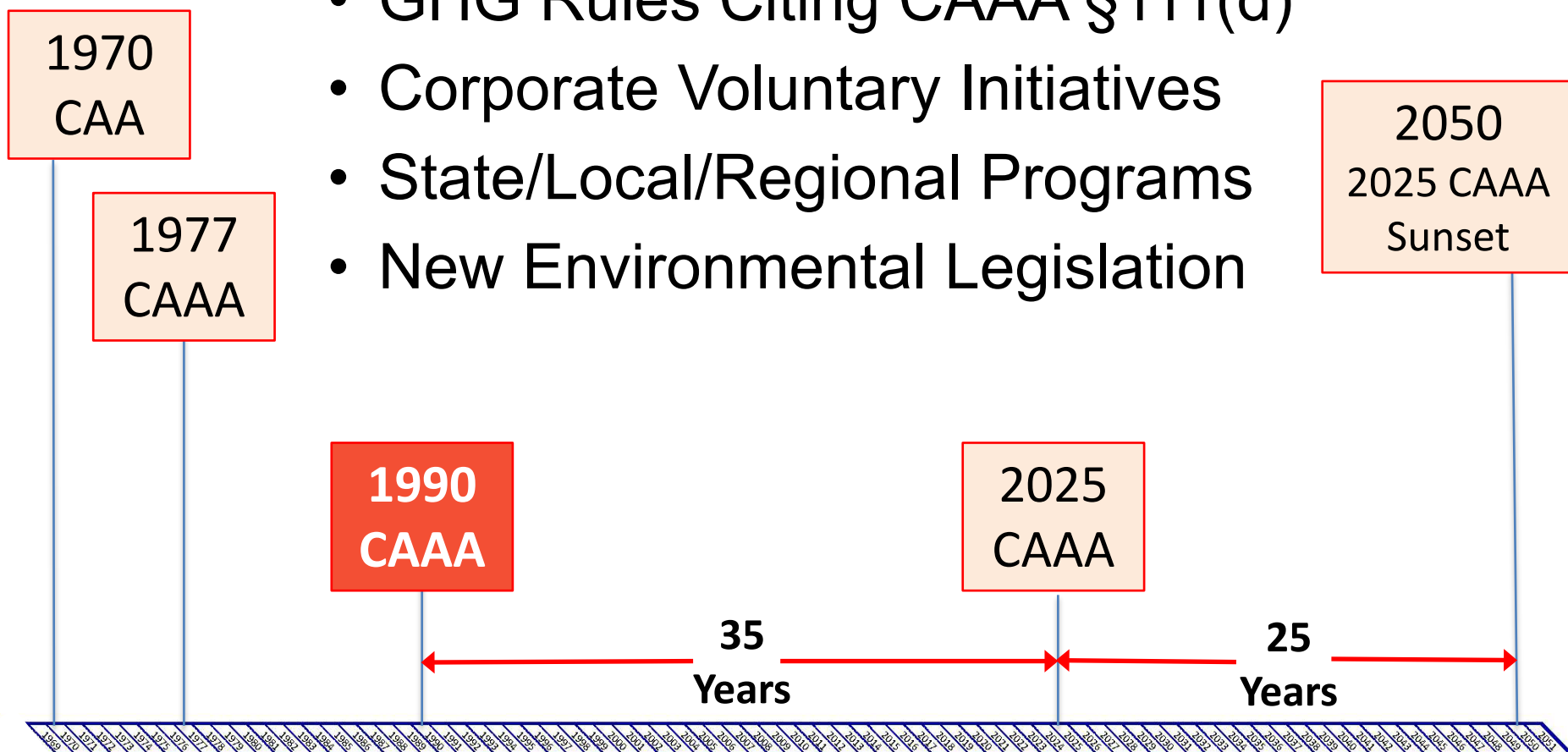
## Definition of the Clean Air Dividend

***Clean Air Dividend:*** The inevitable, dramatic improvement in air quality, particularly in urban areas, resulting from our efforts to reduce GHG emissions consistent with America's Nationally Determined Contributions made pursuant to the Paris Agreement



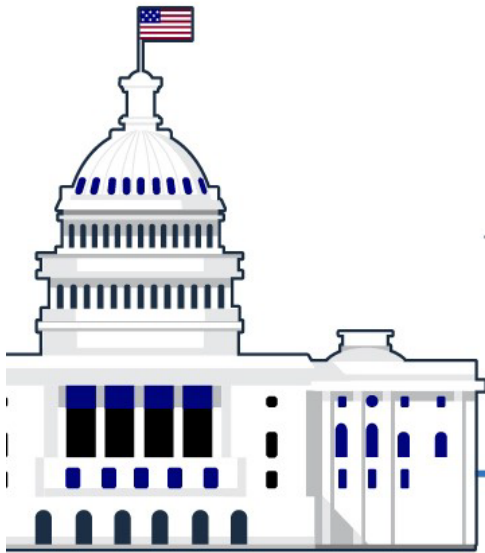
# Efforts to Date to Control GHG Emissions

- GHG Rules Citing CAAA §111(d)
- Corporate Voluntary Initiatives
- State/Local/Regional Programs
- New Environmental Legislation



# November 2021 Bipartisan Infrastructure Bill – Promotes Electric Vehicles (EVs)!

The U.S. is aiming for 50% EV sales by 2030.



< 1%

Today, fewer than 1% of the country's 250 million vehicles are electric.

55%

U.S. voters support requiring all new cars sold to be electric by 2030.



## U.S. bipartisan \$1.2 trillion infrastructure bill



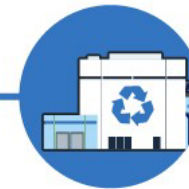
Replaces government's **650,000** vehicle motor pool with EVs.



Electrifies 20% of the **500,000** U.S. school buses.



Invests **\$7.5 billion** to build out a network of 500,000 electric vehicle chargers across the country.



Offers **\$6 billion** in grants for battery materials processing and recycling.



# CAA Changes in Title VI of the 2022 IRA

- Scope of CAA changes limited by US Senate's budget reconciliation process – does not allow consideration of any non-budgetary “extraneous matters”
- The budget reconciliation process allowed the Senate to pass the IRA without filibuster, which would have required 60 senators to override
- At the time the IRA was passed, the senate vote was split 50 to 50 along party lines, and the Vice President cast the final deciding vote
- IRA added 7 new Sections 132 to 138 to Title I of the CAA

# CAA Changes in Title VI of the 2022 IRA

- §132 – Clean Heavy Duty Vehicles - \$1 billion
- §133 – Grants to Reduce Air Pollution at Ports - \$3 billion
- §134 – GHG Reduction Fund or “Green Bank” - \$27 billion
- §135 – Low Emissions Electricity Program - \$86 million
- §136 – Methane Emissions Reduction Program - \$1.5 billion
- §137 – Climate Pollution Reduction Grants - \$5 billion
- §138 – Climate Justice Block Grants - \$3 billion

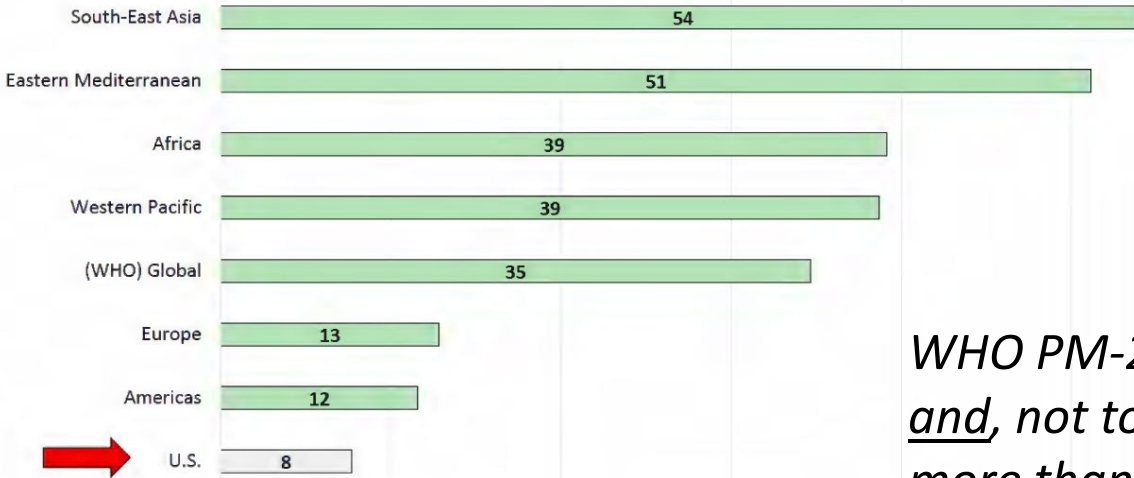
EPA contends these CAA revisions fix many of the legal roadblocks to GHG regulation. The outcome here is uncertain pending the future Court challenges.

# Is the 1990 CAA Obsolete?

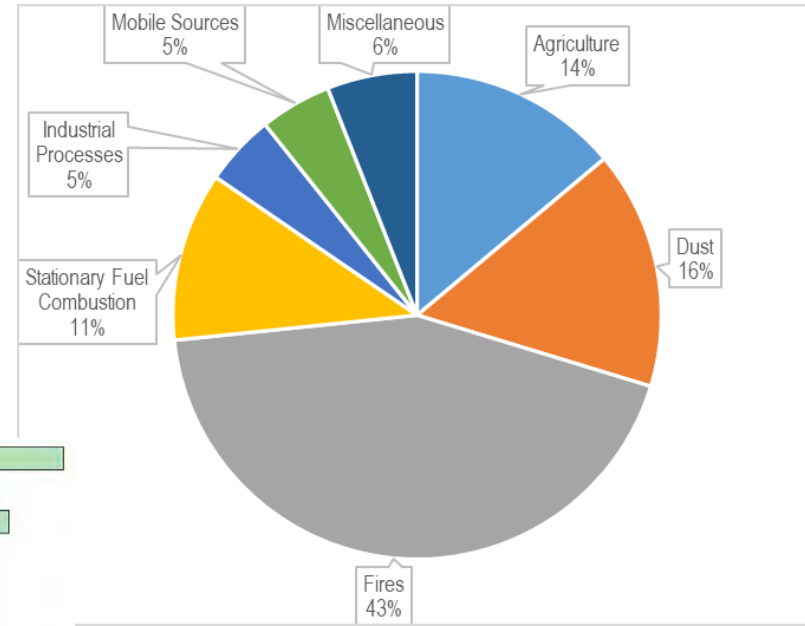
- Failure to address decarbonization ⇒ business uncertainty
- Fails to consider the Clean Air Dividend from GHG cuts
- Political forces drive bad policy rulemakings
- CAA ties EPA's hands causing bad policy rulemakings
- Too short 5-year review cycle for NAAQS
- Too short 8-year review cycle for NSPS and NESHAP
- Conservative risk assessment process lacks scientific rigor
- Roadblocks to permitting environmentally-sound facilities
  - Public participation in the age of social media
  - Environmental Justice
- No sunset provision

# PM-2.5 NAAQS Lowered February 7, 2024

- EPA lowered the primary (health-based) annual PM-2.5 NAAQS from 12.0 to 9.0  $\mu\text{g}/\text{m}^3$
- By law (CAA), EPA cannot consider cost in revising NAAQS – Really?



Source: World Health Organization (WHO)



Source: EPA 2017 NEI Data

*WHO PM-2.5 standard is 5  $\mu\text{g}/\text{m}^3$ , 1-yr avg, and, not to exceed 15  $\mu\text{g}/\text{m}^3$  24-hr avg more than 3 -4 days/yr – Really?*



# Canada Wildfires PM-2.5 Impact on June 7, 2023

Location	Daily PM-2.5 Air Quality Index (AQI)	Daily PM-2.5 Monitor Data ( $\mu\text{g}/\text{m}^3$ )	% of 24-hr PM-2.5 NAAQS Of $35 \mu\text{g}/\text{m}^3$
Freemansburg, PA	309	258.9	740%
Scranton, PA	268	217.7	622%
Philadelphia, PA	261	211.1	603%
Queens, NY	254	203.5	581%
Syracuse, NY	233	182.6	522%
Trenton, NJ	222	172.0	491%
Wilmington, DE	229	178.8	511%

Source: <https://www.des.nh.gov/blog/summer-2023-marked-canadian-wildfire-smoke>

*“A 2016 study found climate change enhanced the drying of organic matter and doubled the number of large fires between 1984 and 2015 in the western United States. A 2021 study supported by NOAA concluded that climate change has been the main driver of the increase in fire weather....”*

Source: <https://www.noaa.gov/noaa-wildfire/wildfire-climate-connection>

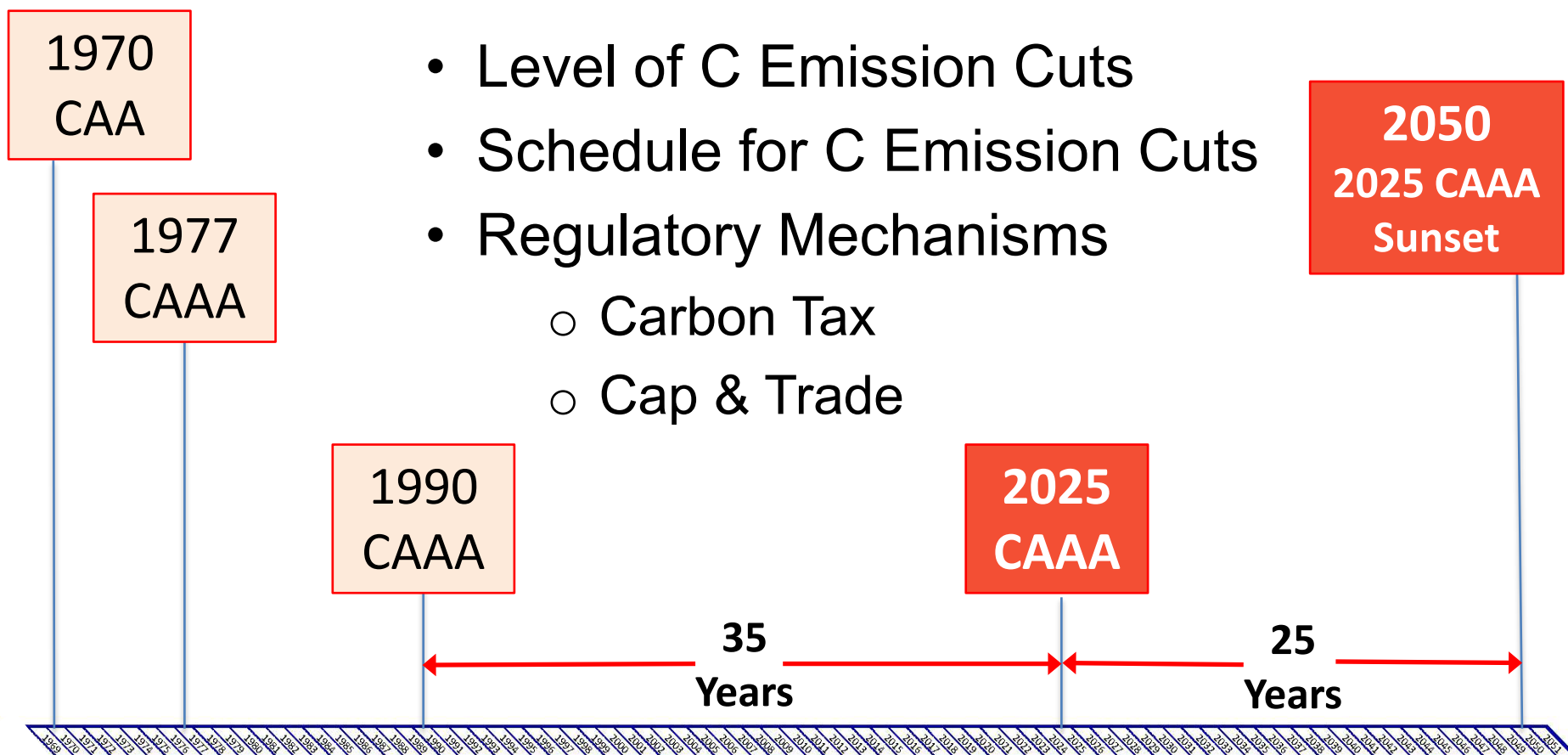
# Other Candidates for Bad Policy CAA Programs

- Regional Haze Rule to improve visibility in pristine Federal Class I areas by the 2060 timeframe
- The Good Neighbor Rule under the Cross State Air Pollution Rule (CSAPR)
- Residual Risk and Technology (RTR) MACT rulemakings with limits for specific chemicals including ethylene oxide, chloroprene, etc.
- Certain elements of Public Participation rules and Environmental Justice programs

# To-be-Determined New CAA Components

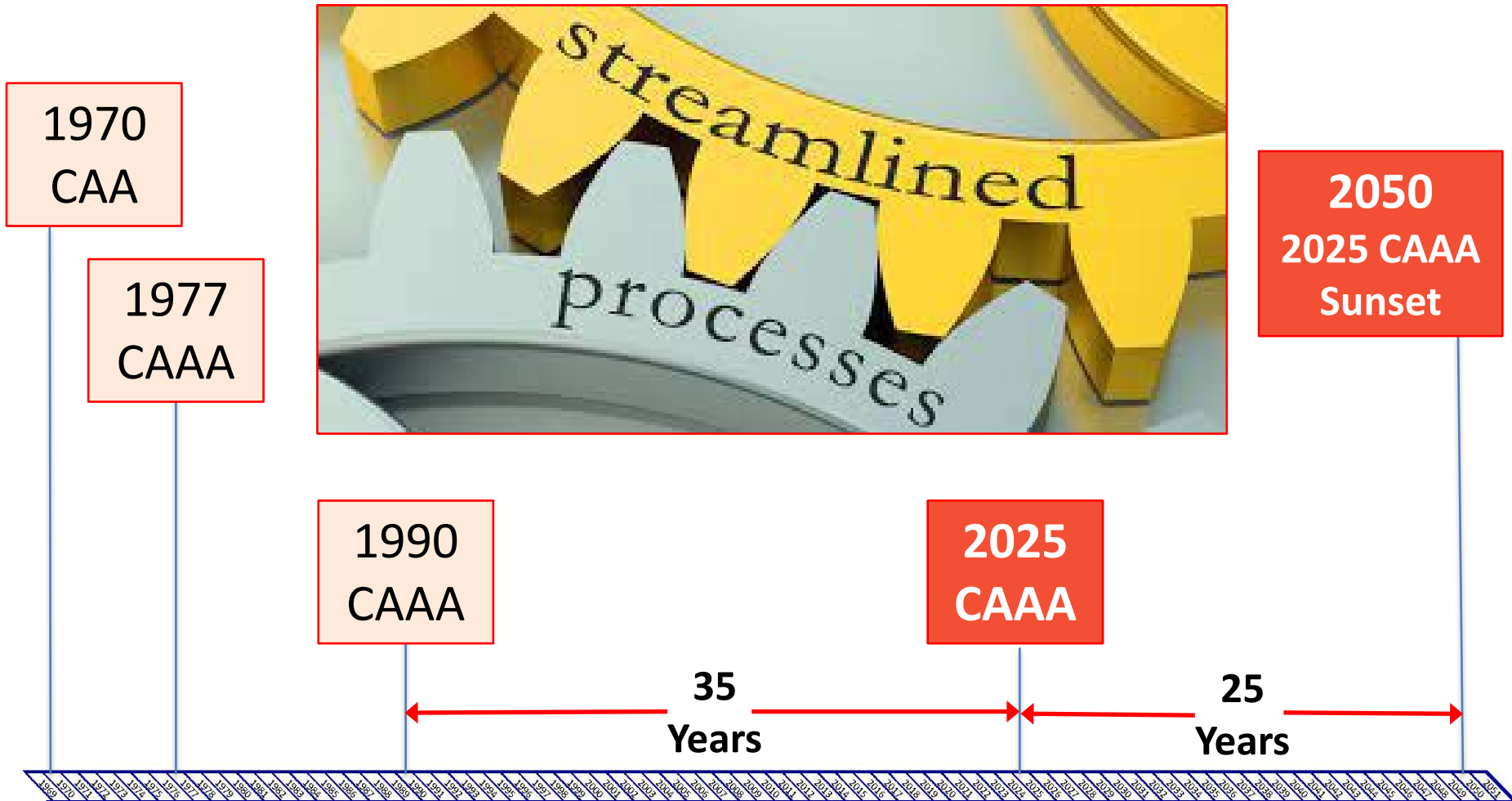
## Decarbonization

- Level of C Emission Cuts
- Schedule for C Emission Cuts
- Regulatory Mechanisms
  - Carbon Tax
  - Cap & Trade



# Potential for CAA Program Streamlining

## The Key Compromise



# Common Sense CAA Streamline Changes

- Moratorium on NAAQS changes until 2050
- Extend deadlines for NAAQS attainment
- Moratorium on PSD/NNSR program metrics until 2050
- Moratorium on Regional Haze Program rules until 2050
- Limit NSPS/NESHAP review cycles until 2050
- Extend Title V permit renewal cycle from 5 to 10 years
- Provide a transparent, unambiguous path forward on how to address public participation and Environmental Justice
- Expedited permit processing for proposed new environmentally-sound facilities

# Conclusion: Proposed New CAA Elements

- Provide a 25-year master plan to address America's most urgent and important clean air issues
- Allow EPA to fully consider the inevitable Clean Air Dividend resulting from decarbonization
- Greatly reduce or eliminate business uncertainty as it pertains to decarbonization
- Speed up the air permitting process
- Remedy Court-identified CAA deficiencies
- Streamline many existing mature CAA programs

# The End – Thank You

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