CALIFORNIA
AIR RESOURCES BOARD

Proposed Amendments to the Small Containers of Automotive Refrigerant Regulation

October 26, 2023

What is a Small Container of Automotive Refrigerant?

- Used by do-it-yourselfers to recharge motor vehicle air conditioning (MVAC) systems
- 1.5 million containers sold annually
- Hydrofluorocarbon (HFC)-134a is the predominant refrigerant

CARB

Impact of HFC-134a

- HFCs are the fastest-growing source of greenhouse gas (GHG) emissions
- Short-Lived Climate Pollutant
- Global Warming Potential (GWP) of 1,430

12 oz. container

=

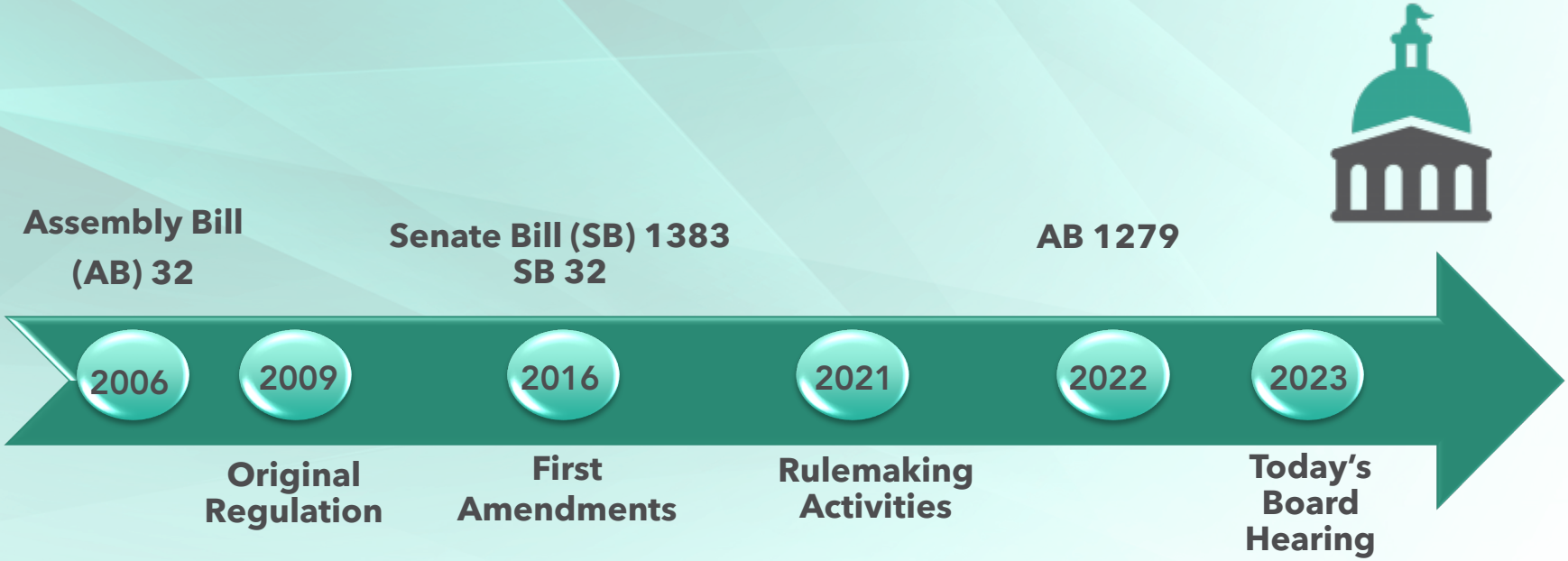
Pounds of CO_2

50 Gallons of Gasoline

1 Barrel of Oil

CARB

Background and Timeline

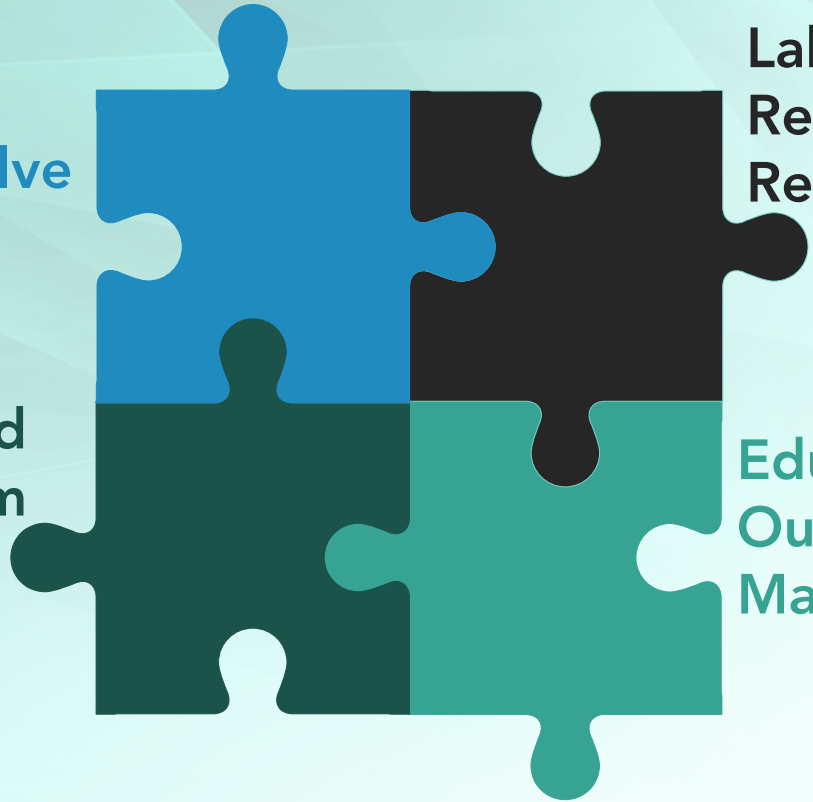


CARB

Overview of Regulation Requirements

Self-sealing valve

Labeling, Reporting, and Recordkeeping



Deposit and Return Program

Education and Outreach Materials

CARB

Impact of Current Regulation

- Self-sealing valve
  - Responsible for the majority of emission reductions
  - U.S. EPA adopted a self-sealing valve requirement
- Deposit and Return Program
  - 4% refrigerant recovered (Original estimate was 22%)
  - 66% return rate (Original goal was 95%)
  - $5.5 million per year in unclaimed deposits

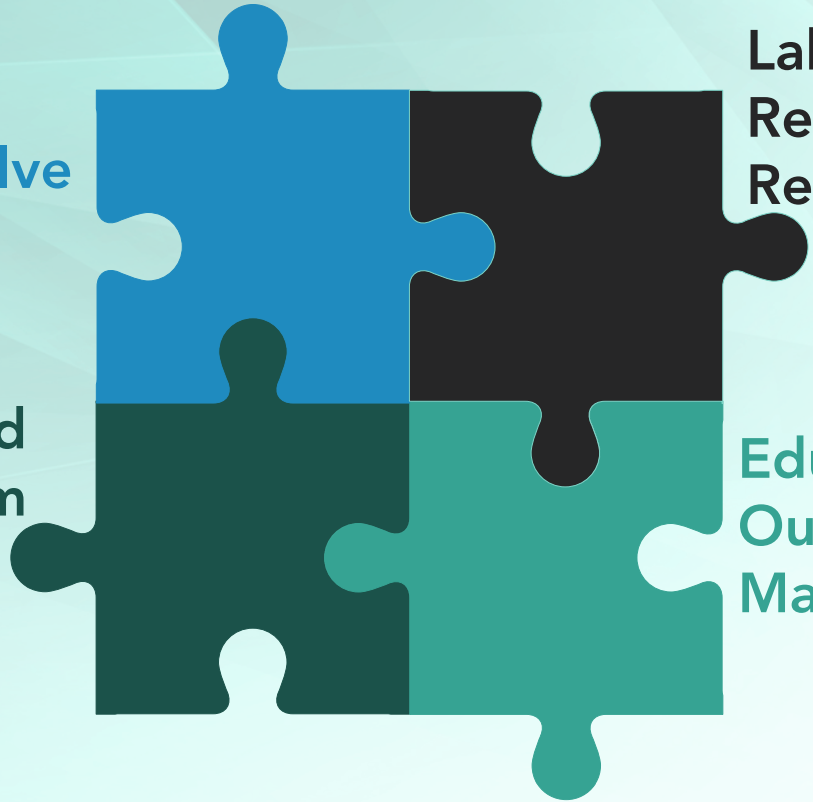
Impact of Current Regulation

- Labeling, Reporting, and Recordkeeping Requirements
  - Promote consumer education on proper MVAC recharging and ensure accountability for retailers, distributors, and manufacturers
- Education and Outreach Program
  - Emphasizes best practices for vehicle recharging
  - Launched an Enhanced Education Program in 2017 to increase return rate
    - Resulted in increase in small can usage with no change in return rate
    - Ceased program in 2021

Overview of Proposed Amendments

Self-sealing valve

Labeling, Reporting, and Recordkeeping



Deposit and Return Program

Education and Outreach Materials

CARB

Removal of Deposit and Return Program

- Starting January 1, 2025:
  - Remove consumer deposit of $10
  - Remove container labeling referencing the Deposit and Return Program
  - Use reclaimed refrigerant when filling small containers

CARB

Phase-in of Reclaimed Refrigerant

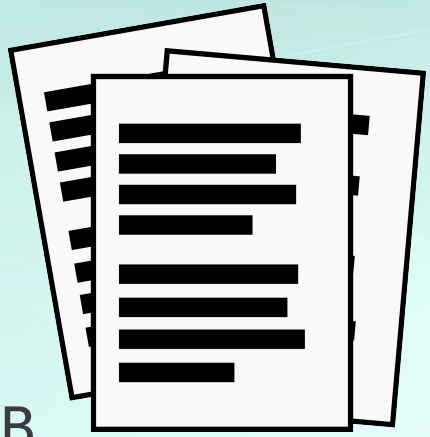
Reclaimed Refrigerant Requirement	Starting Date
25%	January 1, 2025
50%	January 1, 2026
100%	January 1, 2027

- Reclaimed refrigerant must be reclaimed from a previously operational appliance and have 0% virgin allowance when meeting U.S. EPA specifications.
- Aligns with the American Innovation and Manufacturing (AIM) Act of 2020
- Sufficient supply of reclaimed refrigerant available to meet demand in California

CARB

Reporting and Recordkeeping Requirements

- Remove reporting and recordkeeping requirements for the Deposit and Return Program
- Add reporting and recordkeeping requirements for the reclaimed refrigerant requirement



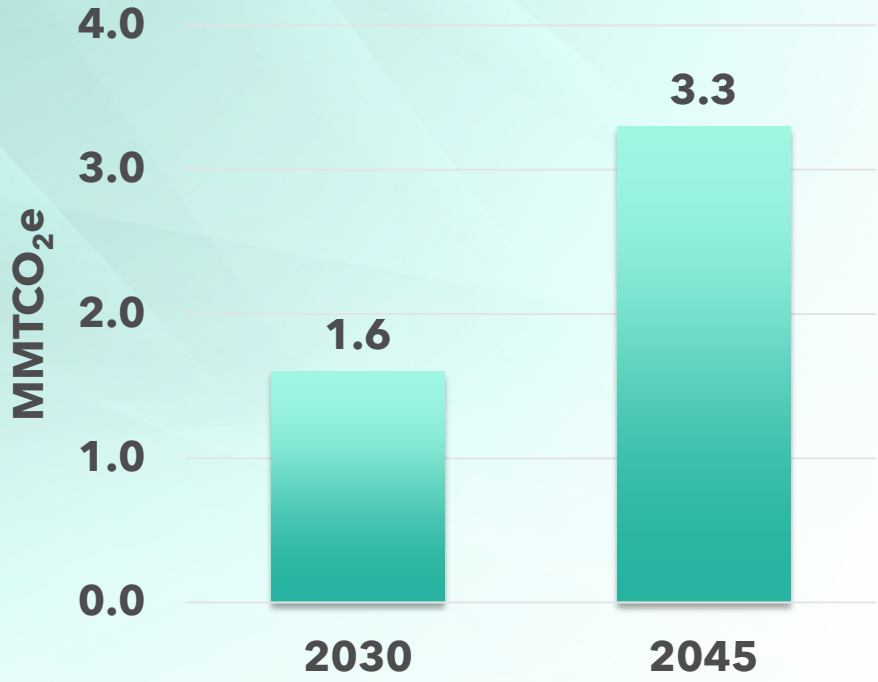
CARB

Spending Plan Changes

- Unclaimed deposit spending directed towards following two measures:
  - Motor vehicle air conditioning repair
  - Recovery and reclamation of refrigerants or foams with a GWP value greater than 150
- Outreach to affected communities
- All unclaimed deposits must be spent by 2030

Emission Benefits

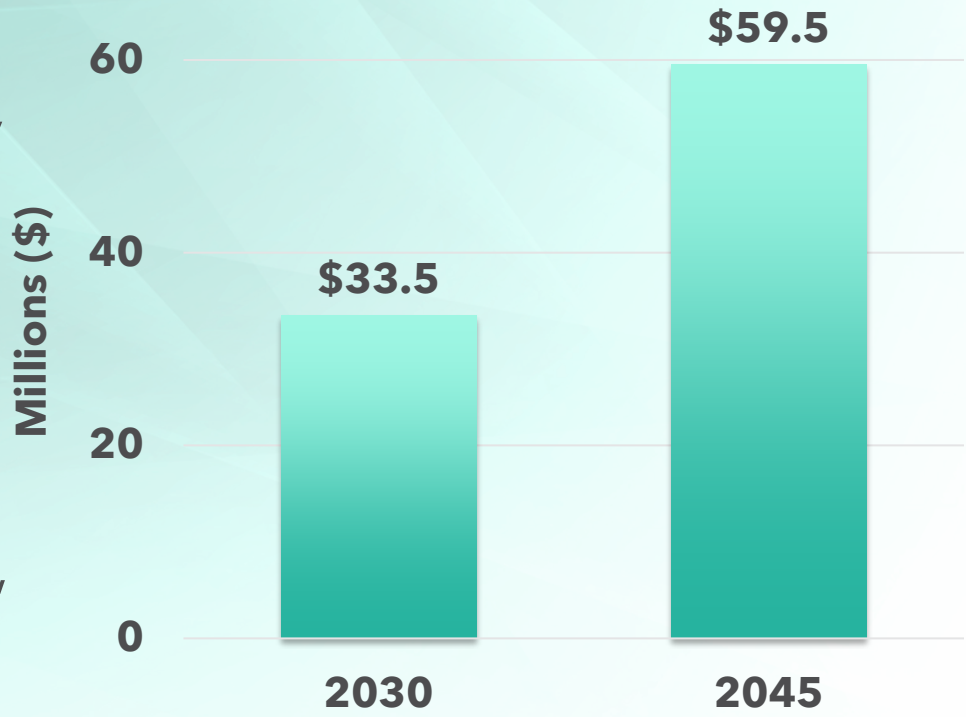
- Achieve cumulative emission reductions of 1.6 and 3.3 Million Metric Tons Carbon Dioxide Equivalent ($MMTCO_2e$) by 2030 and 2045, respectively



CARB

Economic Benefits

- Currently, it costs consumers approximately $5.5 million, including $1.8 million from Disadvantaged Communities per year
- $33.5 million and $59.5 million by 2030 and 2045, respectively



CARB

Recommendations

- Amendments will:
  - Achieve emission reductions while reducing the regulatory burden on consumers, retailers, and manufacturers
  - Align with the U.S. EPA small container rule and the AIM Act
  - Support California's climate goals
- Staff recommends the Board approve and adopt the Proposed Amendments to the Regulation for Small Containers of Automotive Refrigerant