

EPA CLIMATE POLLUTION REDUCTION GRANT PROGRAM

Comprehensive Climate Action Plan: Draft Results

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MWAQC Technical Advisory Committee
September 12, 2025

Agenda

1. Carbon Pollution Reduction Grants Program (CPRG) Program
Background
2. Greenhouse Gas (GHG) Inventory and Business as Usual (BAU)
Projections
3. CCAP Measures List and Emission Reduction Potential

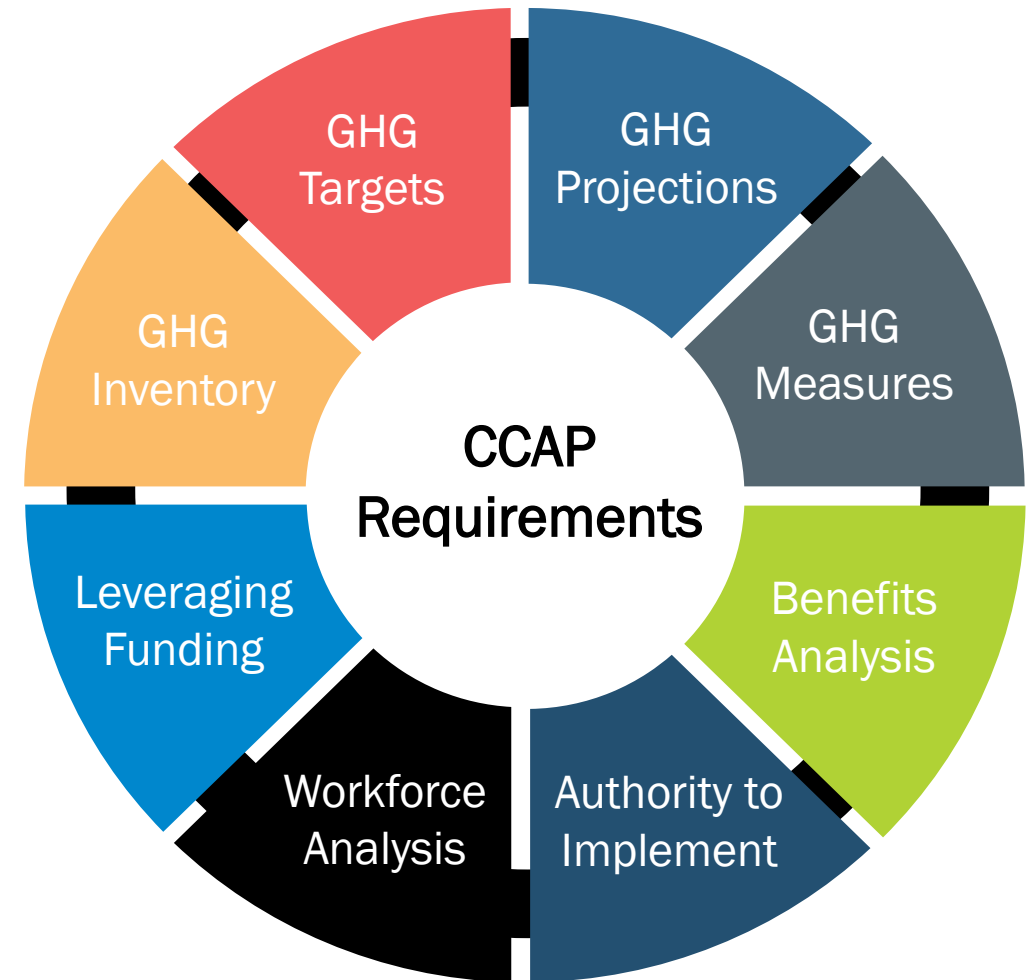
CPRG Overview

- The [Climate Pollution Reduction Grants \(CPRG\) program](#) provided a grant to the DC MSA to develop and implement plans for reducing economy-wide greenhouse gas emissions and other harmful air pollution.
- Multiple rounds of planning:
 - [Priority Climate Action Plan \(PCAP\)](#) – due March 1, 2024
 - [Comprehensive Climate Action Plan \(CCAP\)](#) – due December 1, 2025
- COG, via DC's allocation, is managing \$1 million for MSA climate planning, which includes communities from VA and WV.

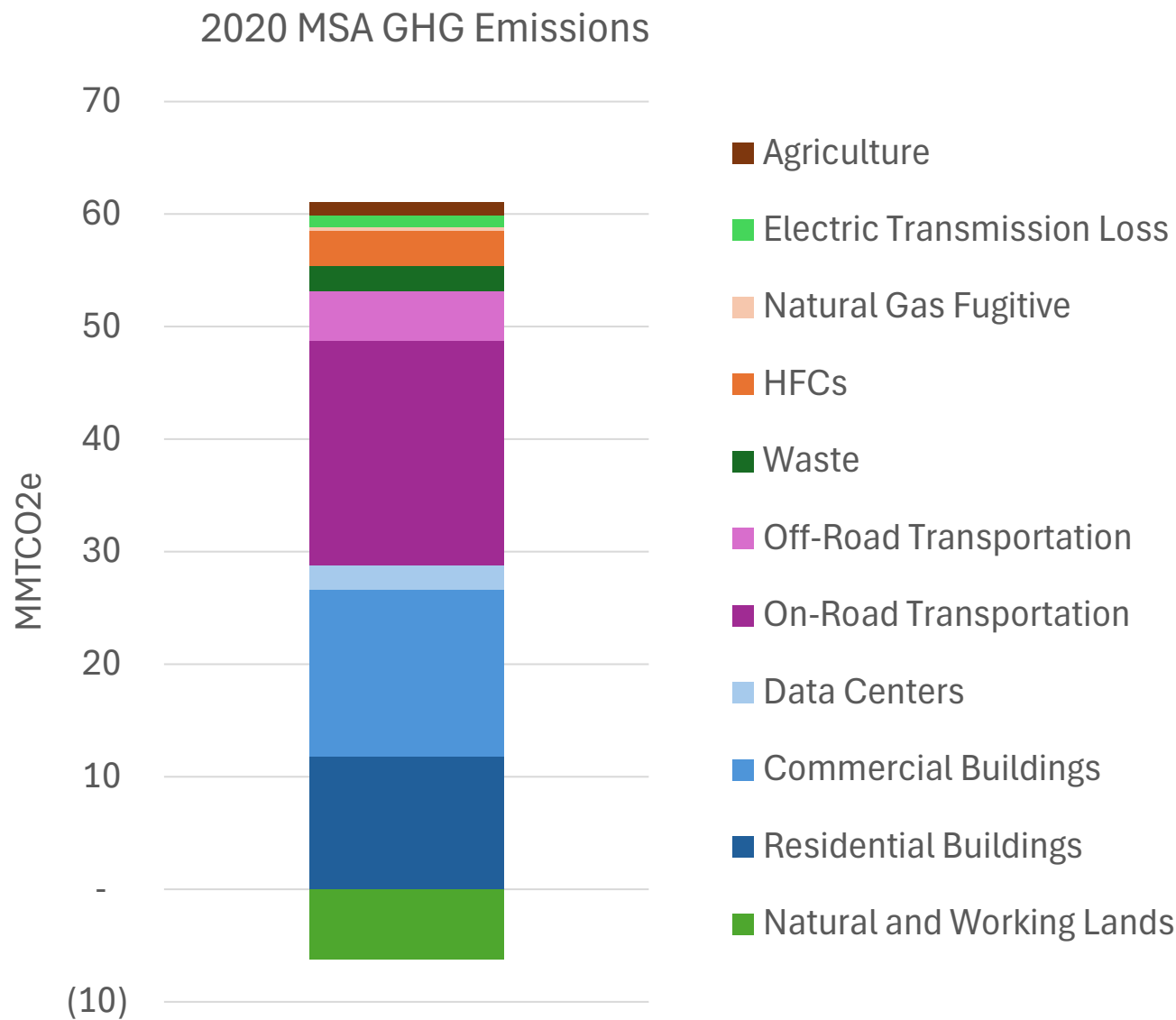


CPRG CCAP Requirements

- GHG mitigation measures and modeling potential GHG reductions across all sectors
 - Transportation
 - Buildings
 - Electric Power
 - Waste
 - Agriculture
 - Natural and Working Lands
- “What would it take” to reach net-zero GHG emissions by 2050?
 - Measures list: aggressive but feasible mitigation strategies to put the region on a pathway to net zero emissions
- Benefits Analysis: co-pollutants assessment
- Workforce Assessment



2020 GHG Emissions Inventory for the MSA

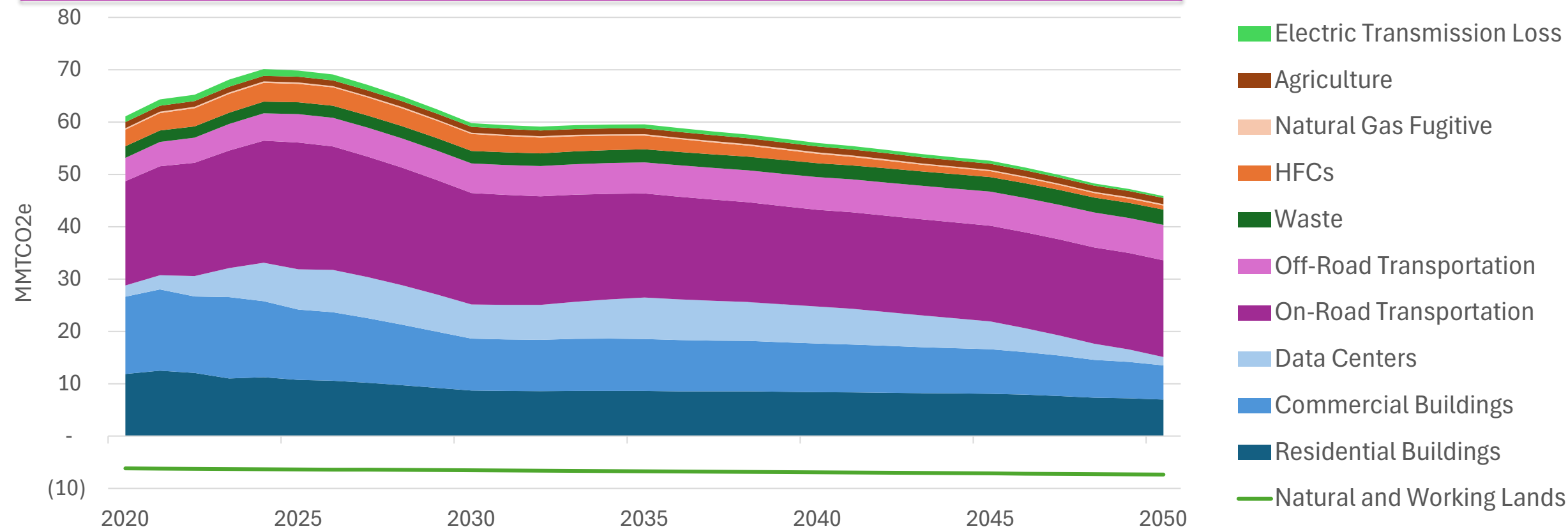


Subsector	MMTCO2e	% of Gross Total
On-Road	20	33%
Off-Road	4	7%

On- and off-road transportation emissions are from EPA's National Emissions Inventory (NEI)

Business-As-Usual GHG Emissions for the MSA

On-Road Emissions 2020: 20 MMTCO2e 2030: 21 MMTCO2e 2050: 18 MMTCO2e



On-road and off-road projections were based off inventories developed using NEI data for the MSA.

CCAP Measures List: Key GHG mitigation strategies to put the region on a path to net zero emissions

Buildings and Clean Energy

- Accelerate the deployment of energy efficiency solutions and decarbonization of residential, institutional, municipal, and commercial buildings
- Accelerate the deployment of clean and renewable energy
- Study, plan for, and deploy district energy and microgrid opportunities
- Clean and efficient data centers (*new measure for CCAP*)

Transportation

- Provide and promote new and expanded opportunities to reduce VMT through public transportation, non-motorized travel, micromobility, shared travel options, and development
- Accelerate the deployment of low-emission transportation, fuels, and vehicles
- Accelerate the deployment of off-road/non-road electric equipment

Waste

- Reduce GHG emissions from waste and wastewater treatment

Land Use

- Accelerate the expansion of the regional tree canopy and reduce tree canopy loss

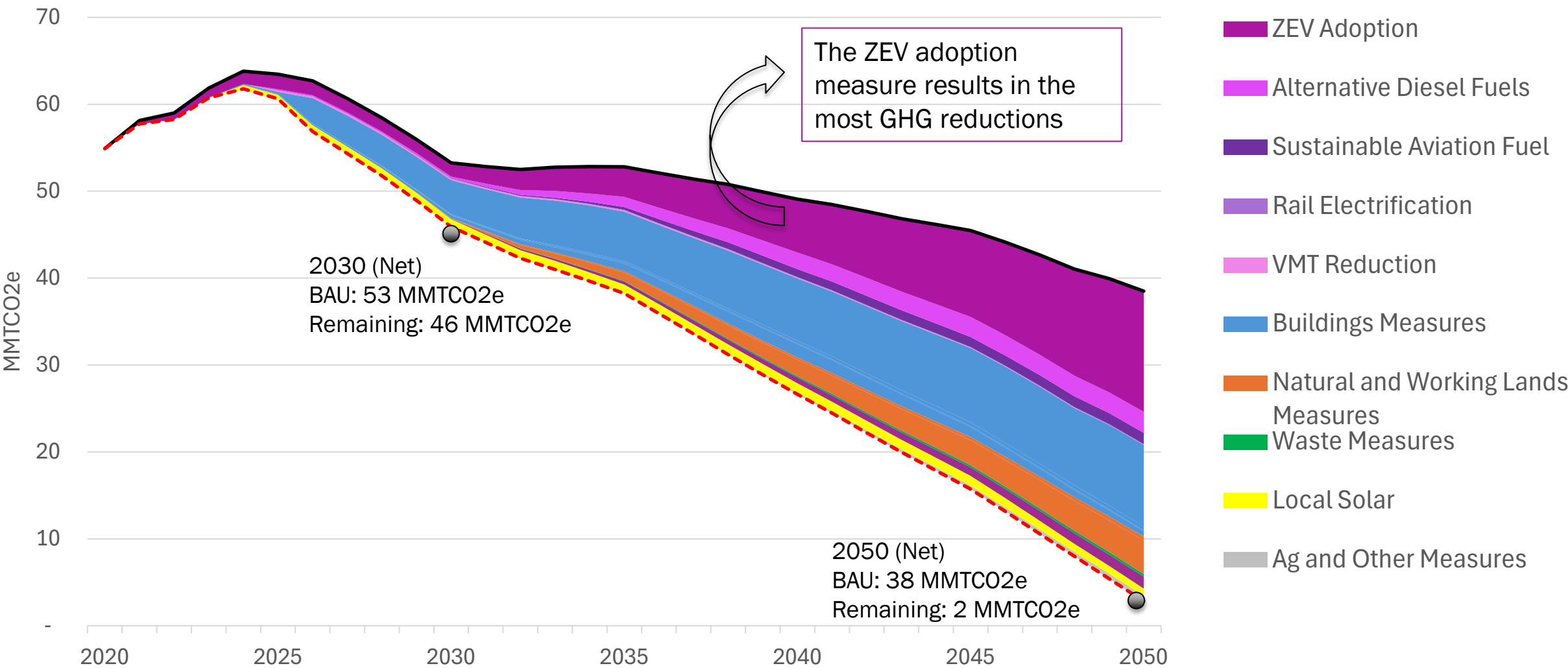
Engagement

- Conduct education and public outreach to support measure implementation (*new measure for CCAP*)

CCAP Transportation Measures

- Accelerate the deployment of low-emission transportation, fuels, and vehicles
 - ZEV adoption – on-road
 - Clean fuels – on-road and off-road
 - Sustainable aviation fuel (SAF) – off-road
- Provide and promote new and expanded opportunities to reduce VMT through public transportation, non-motorized travel, micromobility, shared travel options, and development
 - VMT reduction – on-road
- Accelerate the deployment of off-road/non-road electric equipment
 - Penn Line electrification – off-road

Draft Economy-Wide GHG Reduction Results



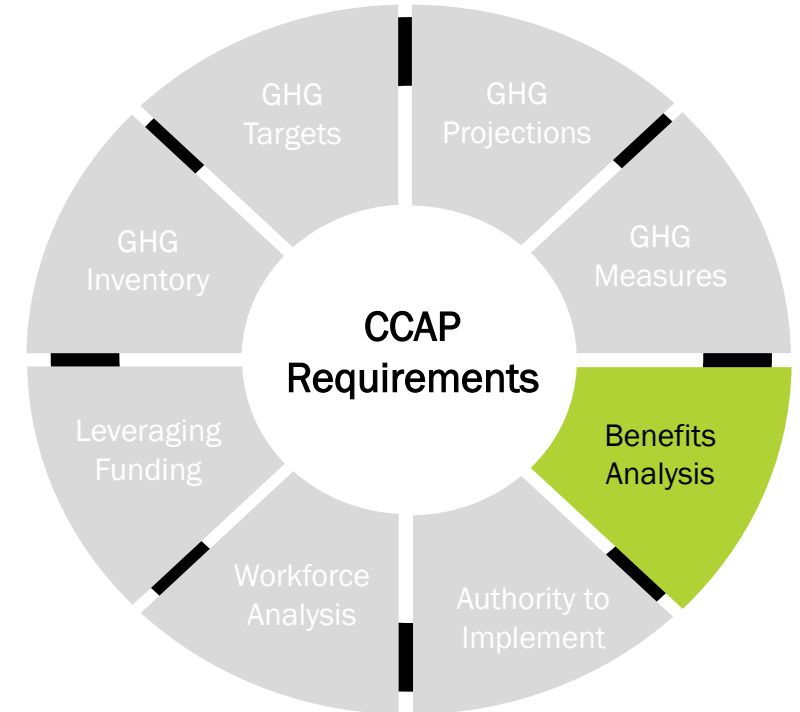
Transportation Assumption Drivers

Measure	Assumption	Driver
LDV ZEV Adoption	100% BEV sales by 2040	Demonstrates a potential for ZEV adoption rates, based on ACCII sales targets, which had been adopted by several states, including MD and DC.
MHDV ZEV Adoption	100% BEV (short-haul) or FCEV (long-haul) by 2050	DC, MD, and VA have all signed the medium- and heavy-duty vehicle memorandum of understanding; hydrogen more viable for long-haul transport.
Bus ZEV Adoption	100% electric sales	Local trends; more municipal authority over transit buses.
Alternative Diesel Fuels	10% biodiesel and 90% renewable diesel by 2050 for on-road; 100% renewable diesel by 2050 for off-road	Renewable diesel is a drop-in fuel, thus easier to swap in than renewable diesel; however, biodiesel vehicles already exist in the area and biodiesel blends could become more available.
VMT Reduction	1.8% reduction by 2030, 3% reduction by 2050 from BAU levels	Priority GHG Reduction strategies adopted by the TPB in June 2022.
Penn Line Electrification	100% electrification of the Penn Line by 2035	Existing plans to electrify Penn Line by 2035.
Sustainable Aviation Fuel (SAF)	\$2.00/gallon SAF tax credit to reach 98% SAF by 2050	Reduces the price premium for SAF enough to increase profitability such that 98% of the jet fuel supply converts to SAF by 2050

Co-Pollutant Benefit Analysis

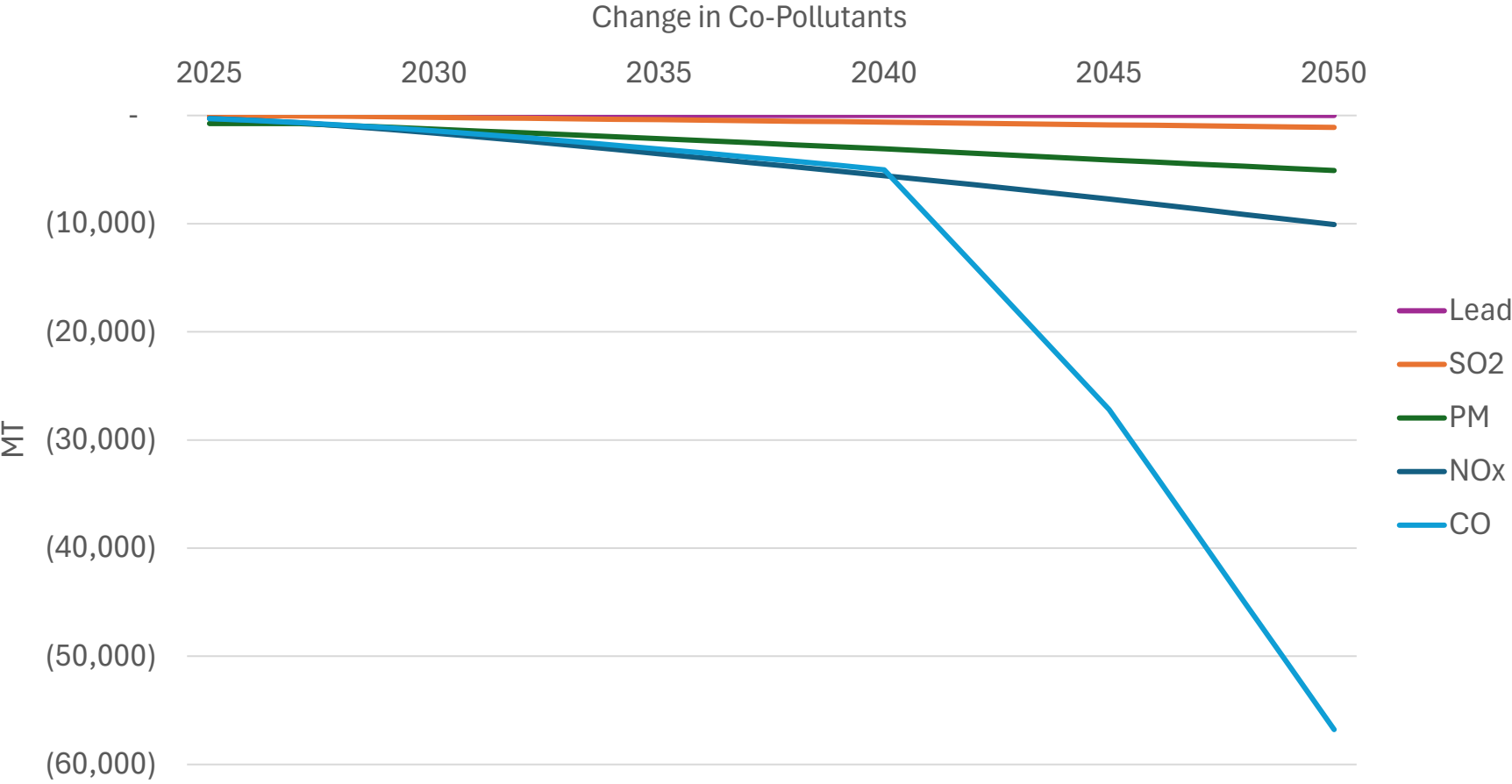
As required by the CPRG program guidance, the CCAP must include:

1. **Base year inventory** for criteria air pollutants (CAPs) and hazardous air pollutants (HAPs) emissions by county
2. **BAU projections** of co-pollutant emissions (based on EPA's NEI data)
3. **Co-pollutant reduction estimates** for the suite of measures



Co-pollutants covered include CAPs and HAPs: CO, SO₂, NO_x, VOCs, PM_{2.5}, PM₁₀, and NH₃

Draft Economy-Wide Co-Pollutant Results



Pollutant	Cumulative Reduction (MT)
NOx	120,000
SO2	13,000
PM	70,000
CO	350,000
Lead	1

Draft Transportation Co-Pollutant Results

Change in Co-Pollutants compared to BAU due to transportation measures



Pollutant (On-Road)	Cumulative Reduction, 2025-2050 (MT)
NOx	35,000
SO2	1,700
PM	13,000
CO	630,000

Pollutant (Off-Road)	Cumulative Reduction, 2025-2050 (MT)
NOx	430
SO2	1,200
PM	13,000
CO	240,000

Next Steps

Schedule	Action Item
September 2025	Committee and stakeholder engagement Internal draft and review of CCAP
October 2025	CCAP public comment period
November 2025	CCAP revisions based on comments received
December 2025	Publish final CCAP and submit to U.S. EPA

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