

METROPOLITAN WASHINGTON 2030 CLIMATE AND ENERGY ACTION PLAN REVIEW

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Air and Climate Public Advisory Committee

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Summary of Draft Plan Changes

Based on comments received, main changes include:

- Clarify equity as a 5th pillar of *Region Forward*.
- Align climate goals with goals adopted by the COG Board in October 2020.
- Clarify climate resilience goals.
- More background and context on climate resilience and regional transportation initiatives.
- Align 2030 Scenario with mitigation strategy action areas. Clearly identify what the strategy does and does not address.
- Add transportation/land use mitigation strategy initiatives to influence mode shift and travel behavior.
- Enhance *Region Forward* Co-Benefits throughout mitigation and resilience actions.
- For actions, some additions to local examples and what COG and local governments can do to support implementation.

COG Region Forward

Region Forward Vision:

Prosperous, Accessible, Livable, Sustainable, **Equitable** Region

Region Forward Goals:



Climate and Energy



Economy



Environment



Health and Human Services



Transportation



Education



Land Use



Public Safety



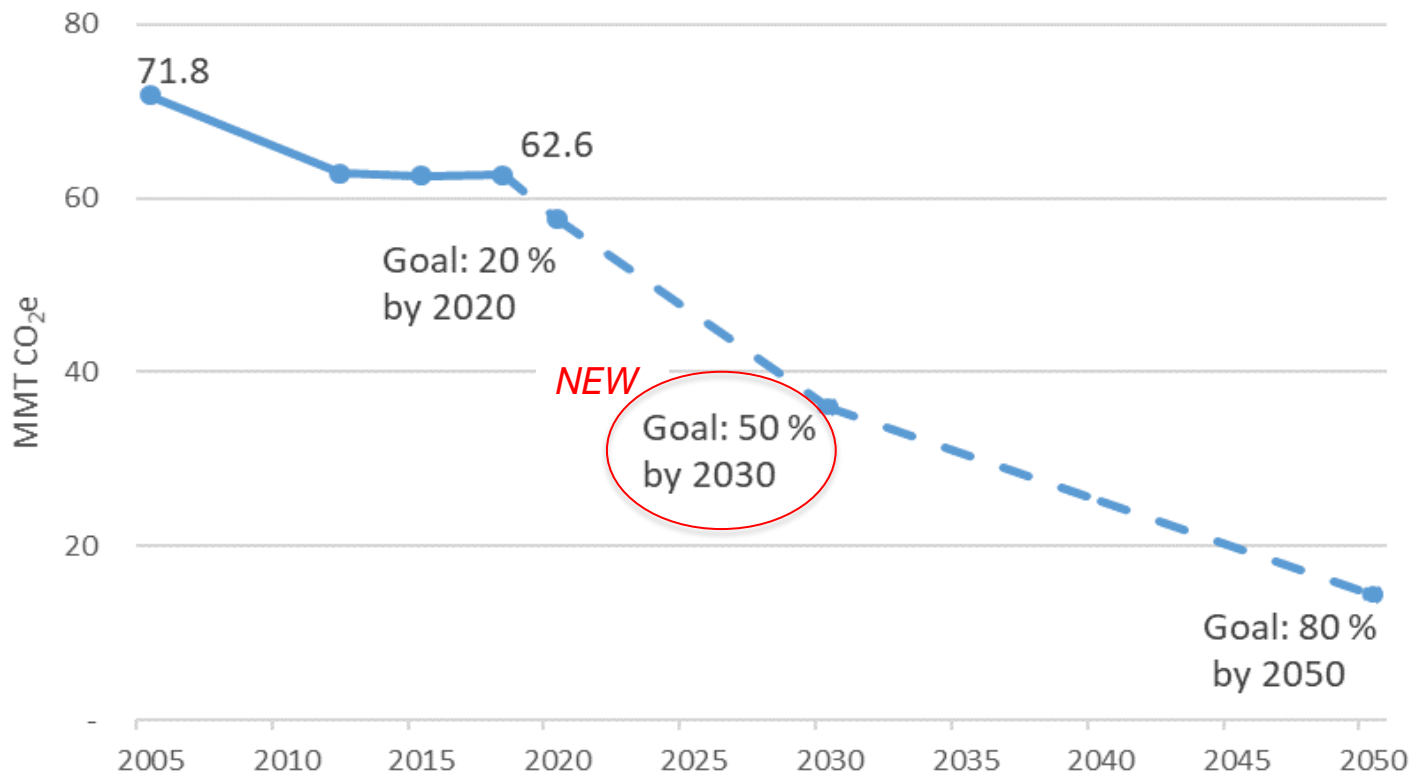
Housing

Four Main Plan Elements

Element	Description
1. Greenhouse Gases	Summary of regional GHG inventory trends from 2005 – 2018, business-as-usual (BAU) GHG emission projections through 2030, and technical scenario showing what it will take for the region to reach GHG reductions of 50% below 2005 levels by 2030.
2. Climate Mitigation Strategy	CEEPC’s priority collaborative mitigation actions to move the region toward achieving the GHG emission reduction goal of 50% by 2030, below 2005 levels. Climate action areas include Planning, Equity, Clean Electricity, Zero Energy Buildings, Zero Emission Vehicles, Mode Shift and Travel Behavior, Zero Waste, and Sequestration.
3. Climate Risks and Vulnerabilities	Summary of the Regional Climate, Risk and Vulnerability Assessment (CRVA). Evaluates climate hazards: extreme heat, drought, lightning and thunderstorms, flash and riverine flooding, coastal flooding and extreme winter conditions.
4. Climate Resilience Strategy	CEEPC’s priority collaborative climate resilience actions to move the region toward achieving the goal of becoming a Climate-Ready Region and making significant progress to be a Climate Resilient Region by 2030. The action areas include Planning, Equity, and Resilient Infrastructure.

Updated Regional GHG Mitigation Goals

In October 2020, per CEEPC's recommendation, the COG Board adopted (and TPB affirmed) the climate mitigation goal of 50 percent greenhouse gas emission reductions below 2005 levels by 2030.



50% Reduction – Technical Potential

Climate Action Area	Assumptions
Clean Electricity	Assuming current standards (DC 87%, MD 50%, Northern VA 38% by 2030).
	Distributed generation: > 200,000 additional solar systems, equivalent to 24% of single-family homes.
	Green power purchases: continued 10 percent annual growth.
Zero Energy Buildings	Zero energy new construction: All new construction net zero energy by 2030.
	Deep retrofits of existing buildings: 2 percent of residential and commercial deep retrofits annually.
	HFCs assumptions from COG Multi-Sector Work Group (MSWG).
Zero Emission Vehicles	EV adoption rates of >20 percent light duty cars, >9 percent light duty trucks, >4 percent medium/heavy duty trucks, and >30 percent transit buses. Assumptions derived from National Renewable Energy Laboratory Electrification Futures Study high EV adoption rates.
Mode Shift and Travel Behavior	Activity centers: 75 percent new housing in Activity Centers with high capacity transit.
	Travel demand management, transit incentives, and transit fare reduction
Zero Waste	The assumption is 80 percent diversion by 2030.
Sequestration	Sequestration assumptions from MSWG.
Other	Actions that are needed to reach the 2030 goal but are not addressed in this Plan, including deployment of renewable natural gas (RNG), enhanced gas repair leak initiatives, commercial aviation improvements, and non-road engine emission reduction.

Mitigation Actions

Climate Action Area	Action ID	Priority Collaborative Action
Planning	PL - 1	Advance Climate Planning and Track Progress
Equity	EQ - 1	Enable Equitable Planning Practices
	EQ - 2	Prioritize Sustainable Energy Access for All
Clean Electricity	CE - 1	Advocate for Aggressive Renewable Portfolio Standards
	CE - 2	Accelerate Development of On-Site Renewables
	CE - 3	Accelerate Deployment of Battery Storage
	CE - 4	Accelerate Development of Microgrids for Critical Infrastructure
	CE - 5	Accelerate Development of Large-Scale Off-Site Renewables
	CE - 6	Advocate for and Implement Community Choice Aggregation
Zero Energy Buildings	ZEB - 1	Expand Building Benchmarking Requirements
	ZEB - 2	Accelerate Deep Building Retrofits
	ZEB - 3	Enhance Green Building Codes and Policies to Facilitate Net Zero Energy Building Development
	ZEB - 4	Expand Proper Disposal and Leak Detection of Refrigerants



Mitigation Actions (continued)

Climate Action Area	Action ID	Priority Collaborative Action
Zero Emission Vehicles	ZEV - 1	Expand Light-Duty Electric Vehicle Deployment
	ZEV - 2	Accelerate Electrification of Medium- and Heavy-Duty Vehicles
	ZEV - 3	Build Out Regional Electric Vehicle Charging Network
Mode Shift and Travel Behavior	MSTB - 1	Invest in Infrastructure that Increases Transit, Carpooling, and Non-Motorized Travel
	MSTB - 2	Bring Jobs and Housing Closer Together
	MSTB - 3	Enhance Options for Commuters
Zero Waste	ZW - 1	Implement Curbside Organics Recycling Programs
	ZW - 2	Reduce Solid Waste Generation
	ZW - 3	Build Markets for Circularity
Sequestration	SQ - 1	Strategically Plant New Trees on Publicly Owned Land
	SQ - 2	Enhance Regulatory Capacity to Manage Tree Canopy and Forest Protection
	SQ - 3	Enhance Incentives and Financing Mechanisms for Tree Planting and Preservation on Privately Owned Lands



Regional Transportation Initiatives

National Capital Region Transportation Planning Board (TPB)

- Visualize 2045, adopted in 2018, is a federally mandated, long range transportation plan for the region.
- TPB Aspirational Initiatives to significantly improve the region's transportation system performance, including GHG emission reductions.
- Equity Emphasis Areas (EEAs) are small geographic areas that have significant concentrations of low-income, minority populations, or both,

Washington Metropolitan Area Transit Authority

- High-capacity transit, such as Metrorail, is a critical element for connecting Activity Centers, which are places with high concentrations of jobs and population with mixed land use.
- In addition, Metro is fine tuning its own operations to reduce its energy and resource usage and mitigate risks via an Energy Action Plan and advancing several energy efficiency programs.

Climate Resilience Goals

In October 2020, per CEEPC's recommendation, the COG Board adopted (and TPB affirmed) the climate resilience goal of becoming a Climate Ready Region and making significant progress towards becoming a Climate Resilient Region by 2030.

Climate Ready Region:

To be Climate Ready by 2030, all local governments must assess current and future climate risks, and be actively integrating climate planning across government plans, operations, and communications.

Climate Resilient Region:

To fully be a Climate Resilient Region, the region must have the ability to adapt and absorb against disturbances caused by current and future, acute and chronic climate impacts and successfully maintain essential functions.

Risk Levels and Adaptive Capacity

Degree of Challenge

Hazard	Probability	Consequence	Risk
Extreme Heat	3	3	9
Drought	2	3	6
Flooding (Flash and Riverine)	3	3	9
Coastal Flooding	3	2	6
Lightning/Thunderstorm	3	2	6
Extreme Winter Conditions	2	3	6

Factor	Degree of Challenge
Infrastructure Conditions/Maintenance	High
Access to Basic Services	Moderate
Access to Healthcare	Moderate
Public Health	Moderate
Housing	Moderate
Poverty	Moderate
Community Engagement	Moderate
Environmental Conditions	Moderate
Economic Health	Low



Climate Resilience Initiatives

Local Plans:

- Climate Ready DC
- Alexandria Environmental Action Plan 2040
- Arlington County Community Energy Plan

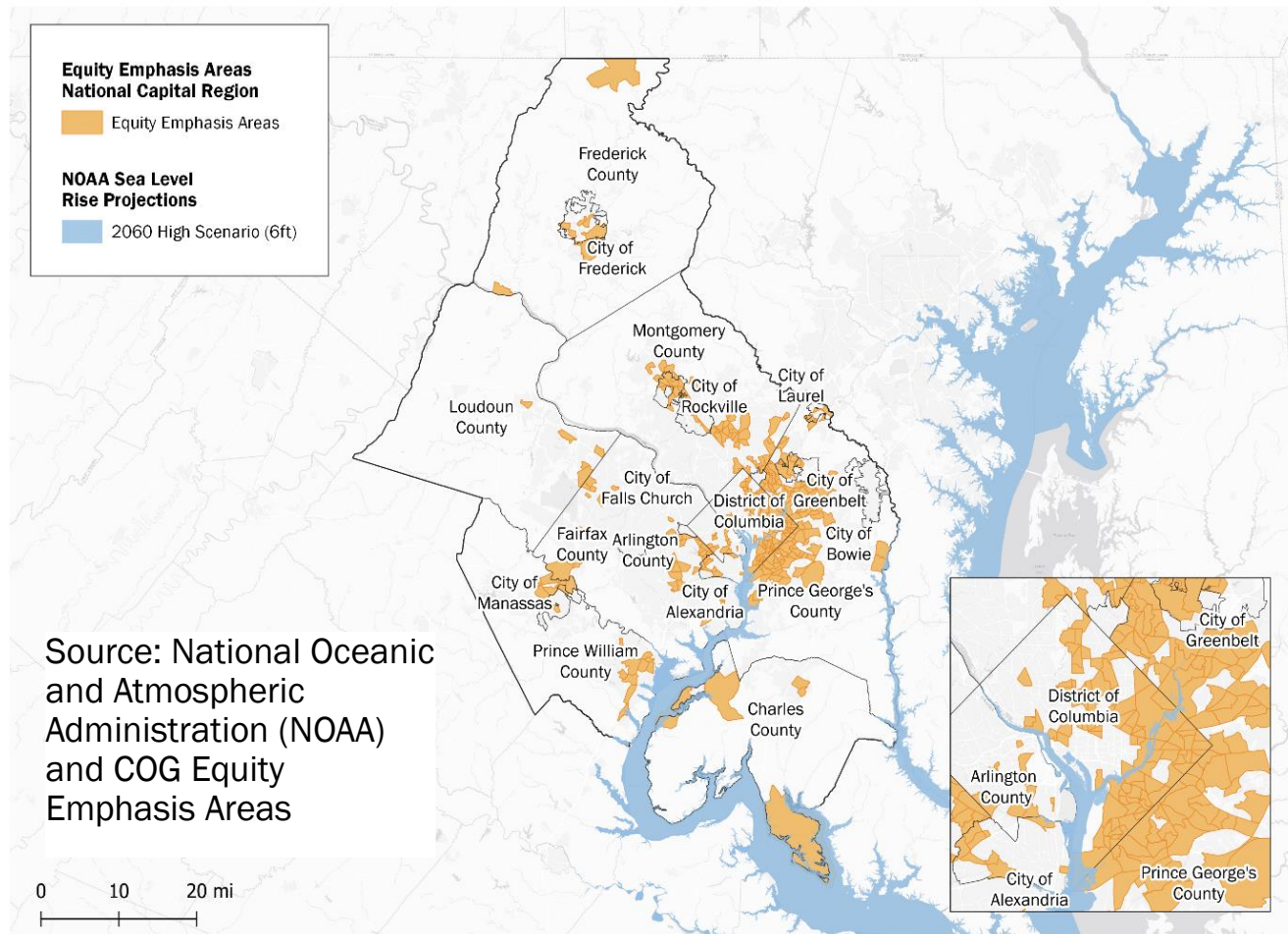
State Legislation and Initiatives:

- DC Commission on Climate Change and Resiliency
- Maryland Coast Smart Construction
- Maryland Commission on Climate Change and the Adaptation and Resiliency Work Group
- Maryland Energy Administration Resilient Maryland Program
- Virginia Coastal Resilience Master Plan
- Virginia RGGI revenues, in part, benefit flood resiliency initiatives

Resilience Actions

Climate Action Area	Action ID	Priority Collaborative Action
Planning	PL - 2	Support Capacity Building for Climate Resilience Planning
	PL - 3	Develop Integrated Approach to Climate Resilience Planning
	PL - 4	Update Local Regional Plans to Address Climate Risks
Equity	EQ - 3	Support Engagement of the Public on Climate Risks, with a Particular Emphasis on Potentially Vulnerable Populations
	EQ - 4	Support Equitable Secure Energy Access
Resilient Infrastructure	RI - 1	Support Establishment of Resilience Hubs
	RI - 2	Improve the Resilience of Critical Infrastructure
	RI - 3	Implement Measures to Equitably Address Urban Heat Island
	RI - 4	Enhance Green Infrastructure Networks
	RI - 5	Implement Measures to Reduce Flood Risk

Equity Emphasis Areas and Sea Level Rise



Source: National Oceanic and Atmospheric Administration (NOAA) and COG Equity Emphasis Areas



Next Steps

- Adopt Metropolitan Washington 2030 Climate and Energy Action Plan
- Submit to Global Covenant of Mayors
- Continue support for local plan development
- Continue implementation support
- Support local action cost effectiveness

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