

EPA CLIMATE POLLUTION REDUCTION GRANT (CPRG) PROGRAM

Steering and Technical Committees Meeting

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Metropolitan Washington Council of Governments (MWCOG)

January 29, 2024

Agenda

1. Welcome and Introductions
2. PCAP Draft Review and Measures
3. Discussion
4. Next Steps
5. Adjourn

Recap of PCAP Development Process

Summer- Fall 2023 – Initial stakeholder discussions and contracting

November 2023 – Steering and Technical Committee kickoff

November – December 2023

- Survey for project ideas
- Survey for community climate priorities
- Meetings with stakeholders, local governments, states
- Presentations to COG Committees
- Draft measures
- Stakeholder feedback on draft measures
- Stakeholder discussions

January 2024

- Final measures list
- PCAP drafting and modeling
- Continued stakeholder discussions
- LIDAC Survey
- Stakeholder discussions

PCAP Outline

1. Introduction
2. Metropolitan Washington's Climate Context
3. Metropolitan Washington's LIDACs
4. Priority GHG Reduction Measures
5. Next Steps

APPENDIX A. GHG Inventory, BAU, and GHG Reduction Measures Quantification

Technical Appendix

APPENDIX B. Metropolitan Washington Climate and Energy Plans and Targets

APPENDIX C. Identification of LIDACS in Metropolitan Washington

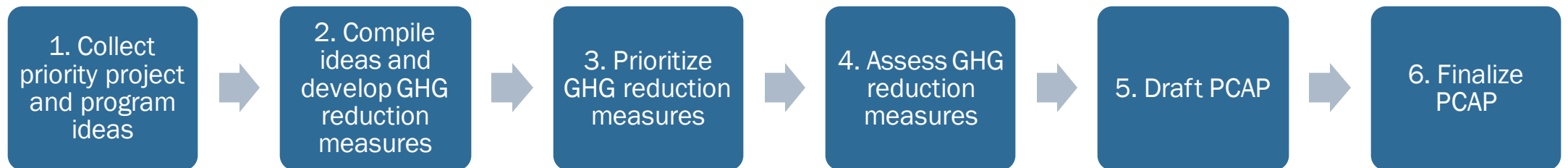
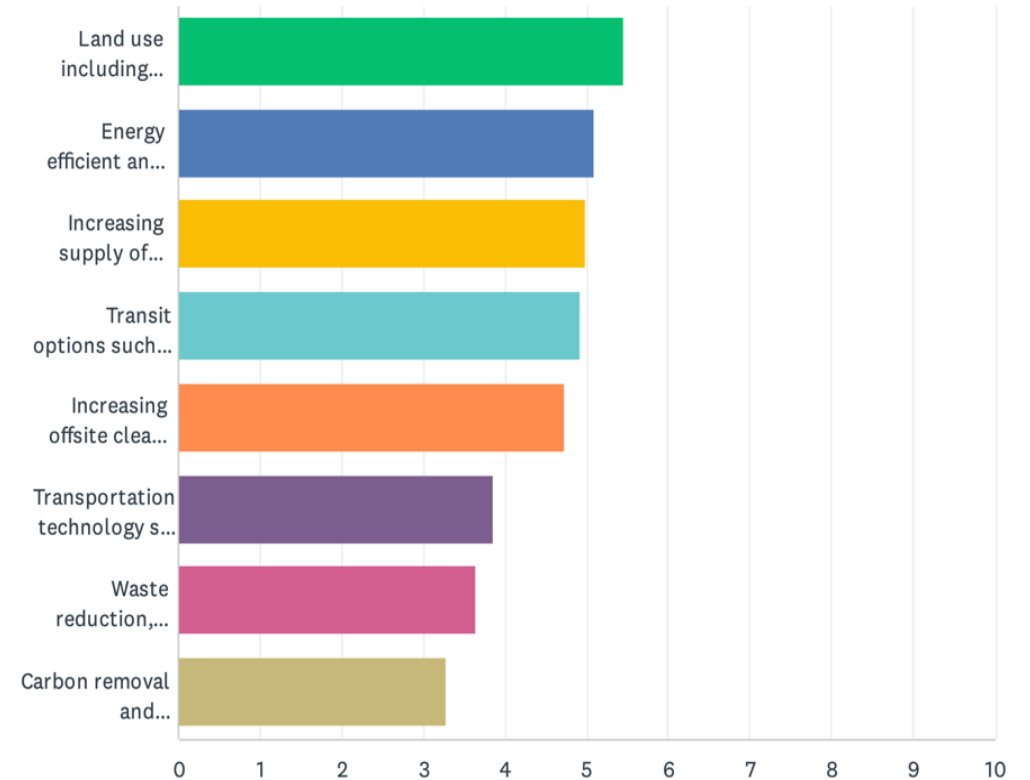
APPENDIX D. Project Ideas Submitted to COG

APPENDIX E. Community Climate Priorities Survey Results

Introduction

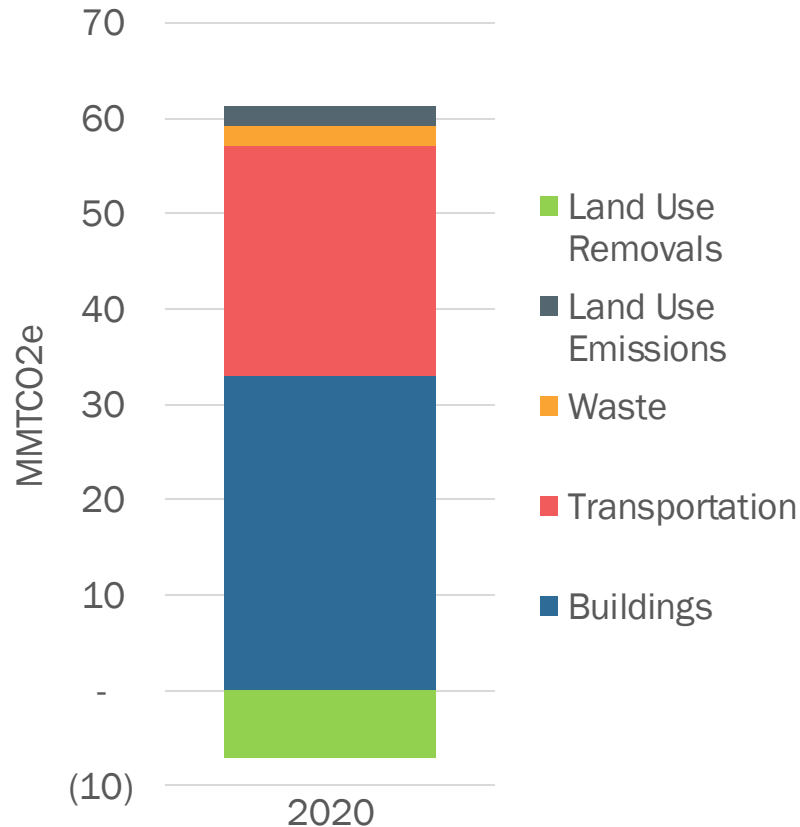
- CPRG Program Overview
- PCAP Overview and Definitions
- Scope of the PCAP
- Approach to Developing the PCAP
 - GHG Inventory, BAU and GHG Reduction Targets
 - Identifying and Engaging Stakeholders
 - PCAP/Priority GHG Reduction Measures

CPRG Community Climate Priorities Survey



GHG Inventory and Reduction Targets

2020 MSA GHG Emissions by Activity

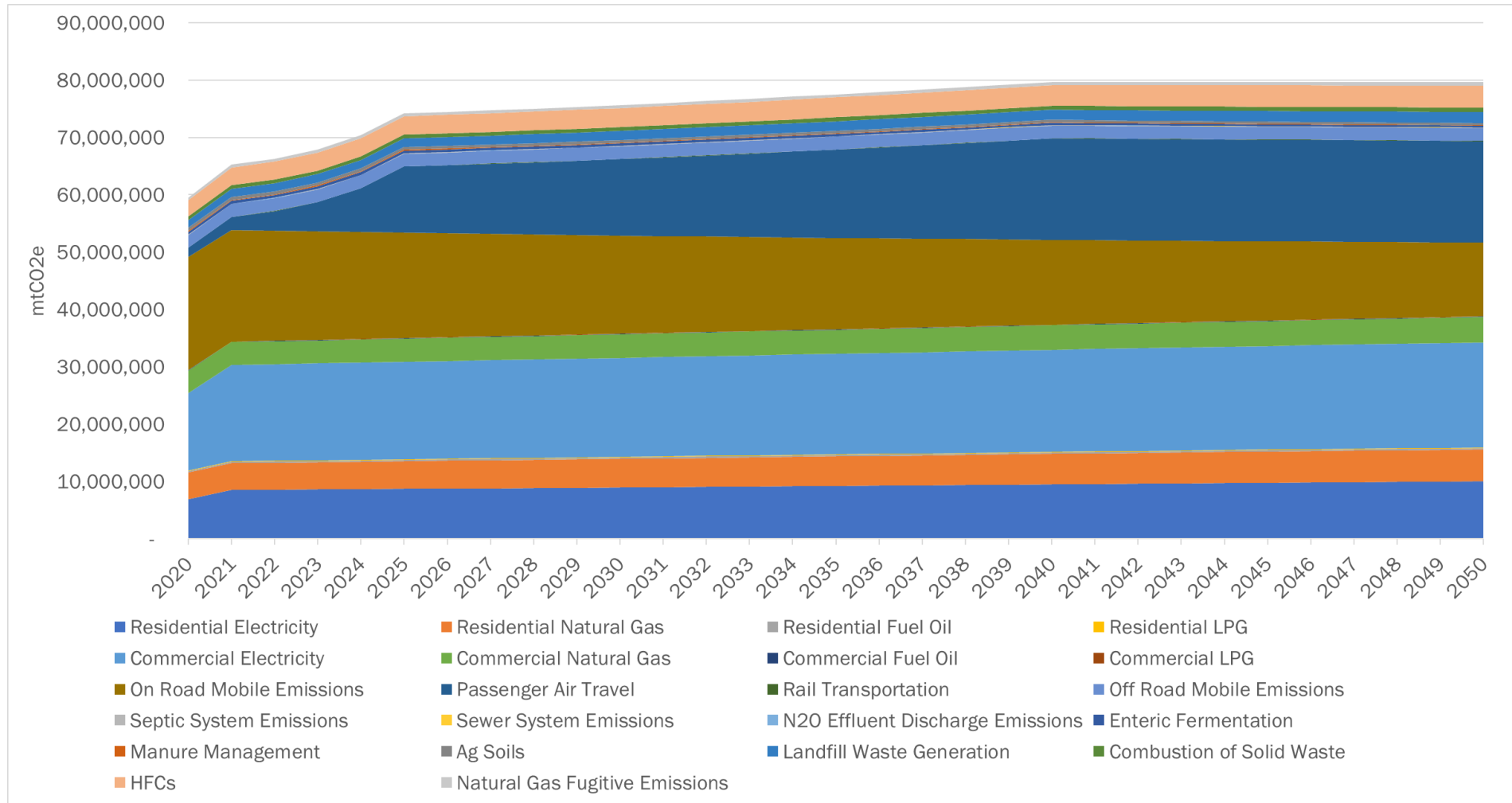


GHG Reduction Targets

- 50 percent GHG emission reductions below 2005 levels by 2030
- Become a Climate Ready Region and making significant progress toward becoming a Climate Resilient Region by 2030
- Along with the COG goals, local governments across and states have established goals
- During the CCAP development COG will work with members within and outside of the region to establish MSA-wide GHG reduction target(s)

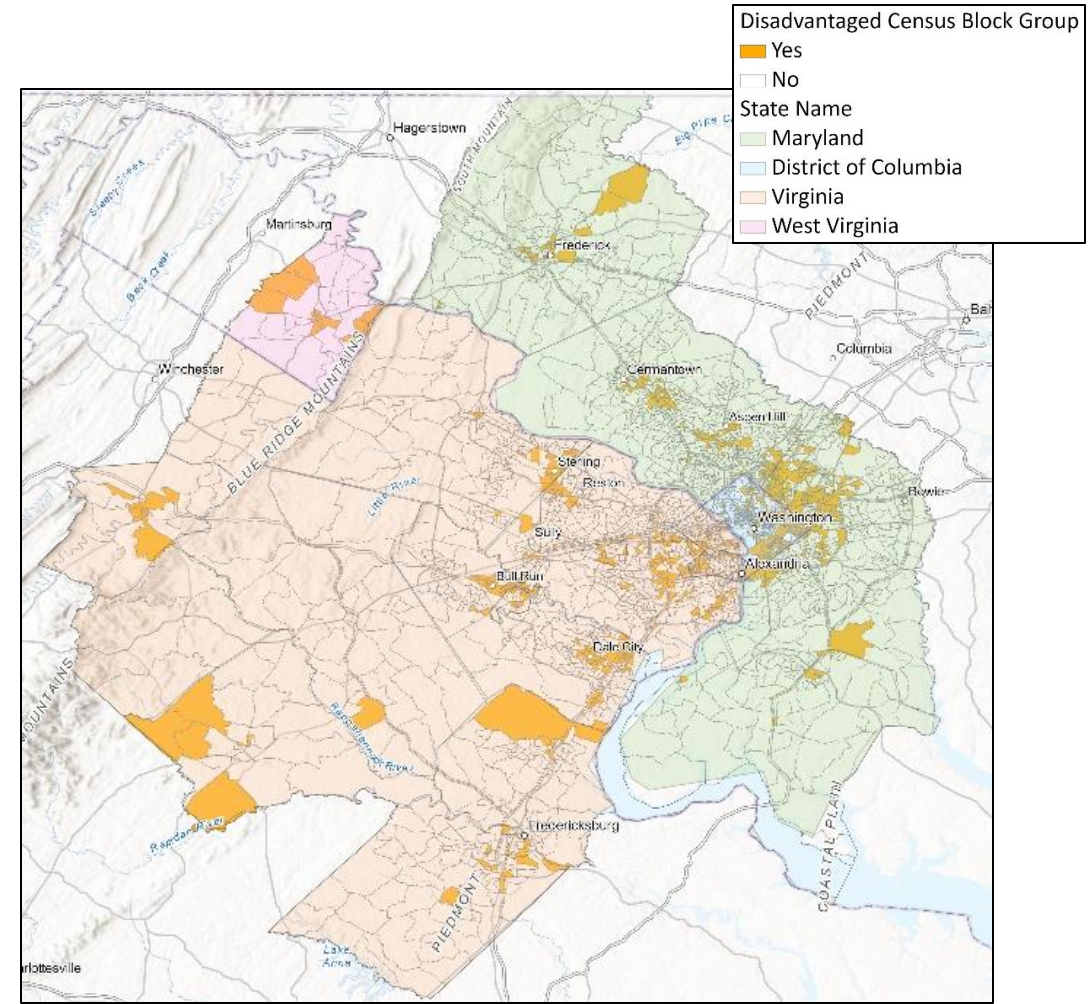
**BAU projections under development*

BAU Projections



Metropolitan Washington LIDACs

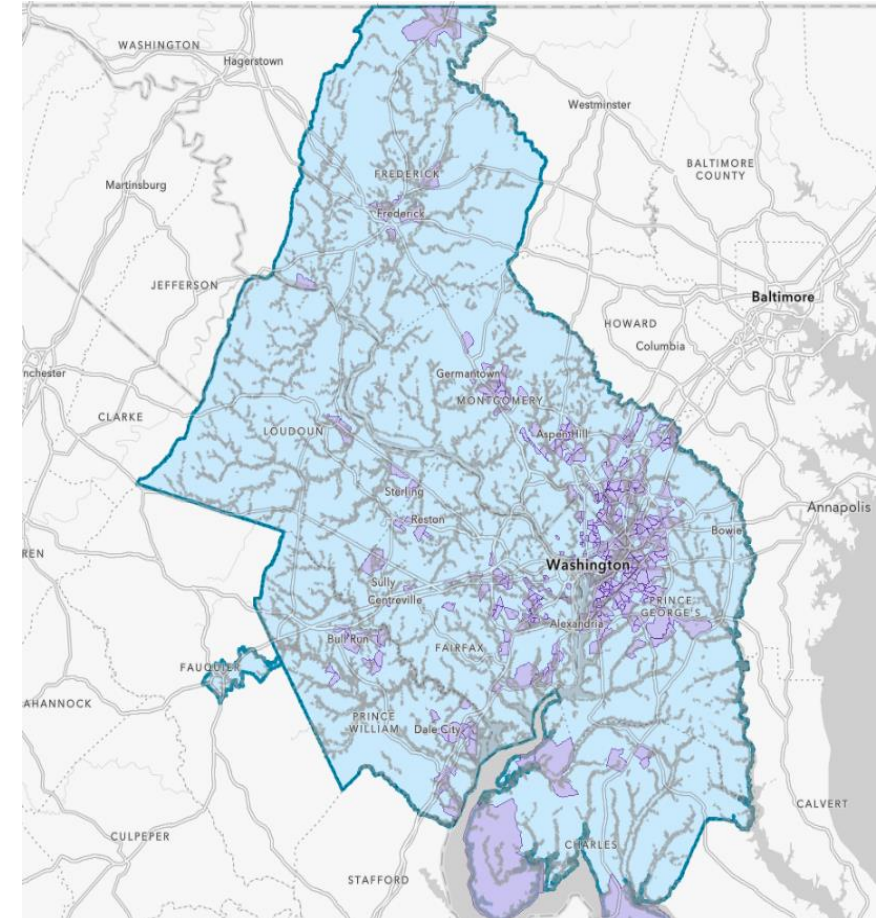
- LIDACs identified in EJScreen
 - 25% of Census block groups in the MSA
- Education levels
 - MSA - 4% without a high school diploma
 - LIDACs - 8%
- Economic diversity
 - MSA - Simple average median income ~\$125,000
 - LIDACs - ~\$85,000 (VA increases to ~\$98,000)
- Unemployment rates
 - DC has the highest rate in the MSA
 - DC - 5% and DC LIDACs - 10%



Metropolitan Washington LIDAC Climate Risks

- Most prevalent risks are **flooding** and **heat**
- Median number of **extreme heat days** a year
 - MSA - 8.61 days
 - MSA LIDACs - 8.75 days
- In COG Equity Emphasis Areas (EEAs) which have significant overlaps with MSA LIDACs:
 - 60% lie in FEMA 100-year floodplains (about 1 million people total)
 - More than 10% s (100,000 people) will be impacted by a 6-foot sea level rise

Equity Emphasis Areas and Inland Flooding Zones for the COG region (gray areas indicate 100- and 500-year FEMA flood zones, while purple areas indicate EEAs)



Engagement with Metropolitan Washington LIDACs

Community LIDAC Priorities

- Air and water quality
- Greenspace availability
- Quality of life
- Community engagement and empowerment
- Creating employment opportunities and workforce development
- Access to infrastructure
- Food security
- Non-care travel options
- Reducing waste
- Affordable housing near transit
- Energy efficiency
- Inclusive energy transition

Ongoing Activities

- LIDAC engagement survey
- LIDAC and community engagement plan
- Tribal engagement plan

Example LIDAC Webinar/Meeting Participants

- Accokeek Foundation
- Common Grain Alliance (CGA)
- Faith Alliance for Climate Solutions (FACS)
- Greater Washington Region Clean Cities Coalition (GWRCCC)
- Hola Cultura
- Institute for Local Self-Reliance (ILSR)
- Montgomery County Food Council
- Prince George's County Food Equity Council
- Prince George's Soil Conservation District
- Sierra Club, Virginia Chapter
- Southern Environmental Law Center
- University of Maryland (UMD)
- Voters for Animals



PCAP Measures

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.

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.

EXAMPLE: ACCELERATE THE DEPLOYMENT OF ENERGY EFFICIENCY SOLUTIONS AND DECARBONIZATION OF RESIDENTIAL, INSTITUTIONAL, MUNICIPAL, AND COMMERCIAL BUILDINGS

Decarbonizing buildings through energy efficiency, fuel switching, adaptive reuse, and other actions are a high priority for the MSA. Building energy consumption accounted for approximately 50% of GHG emissions in the metropolitan Washington region in 2020. This measure focuses on increasing opportunities for owners and users of all building types to access and install technologies to decrease overall energy consumption, increase energy efficiency, and reduce GHG emissions from the built environment. It covers both market rate and low/moderate income customers and private and public buildings.

Implementation Activities

- Create voluntary and/or mandatory benchmarking programs for buildings.
- Improve building energy performance standards (BEPS).
- Strengthen green building policies and energy codes. Implementing strengthened codes, including “stretch codes,” can encourage the mitigation of air pollutants from buildings.
- Conduct energy audits and site assessments. By conducting these assessments, implementers can collect information on which areas of the building inventory, if any, need additional support in achieving improved energy efficiency and decarbonization, and have the highest potential to result in energy savings.
- Facilitate net zero building development. Prioritizing low-emissions practices across the lifecycle (in construction, maintenance, and end of life) of new buildings and retrofits to existing buildings can yield more integrated emissions savings.
- Expand or create new programs and incentives for retrofits and upgrades to single and multifamily homes (e.g., building efficiency retrofits including window replacements, insulation, more efficient and/or electric appliances, hybrid or all-electric heat pumps or more efficient gas heat pumps).
- Implement energy efficiency and fuel switching in data centers and other large energy users (e.g., hospitals), including implementing solutions to reduce the use of back up diesel generators and transitioning to cleaner alternatives.
- Expand and/or create new programs for retrofits and incentives and upgrades to municipal and government buildings, including public schools, government buildings, and operations (e.g., building efficiency and electrification retrofits, street lighting and stadium lighting retrofits, microgrids).
- Plan for and address electric panel upgrades in residential and commercial properties to support electrification.

Other Implementation Information

KEY IMPLEMENTING AGENCIES AND PARTNERS: State and local governments, energy utilities, businesses, hospitals, private schools, universities, data centers, places of worship, property owners, developers, renters, contractors and equipment/service providers.

AUTHORITY TO IMPLEMENT: Maryland and D.C. have enacted legislation mandating BEPS, but Virginia law does not currently allow local governments to establish BEPS or related policies such as energy benchmarking. Energy code implementation across the region is governed by state law, which with some variations limits local governments' ability to implement codes different from that adopted at the state level. All other activities mentioned above can be implemented or are being implemented through existing voluntary or regulatory programs.

GEOGRAPHIC COVERAGE: This measure will reduce GHG emissions across the entire MSA.

FUNDING SOURCES: U.S. Department of Energy (DOE) Energy Efficiency and Conservation Block Grants, DOE Home Efficiency Rebates and Home Electrification and Appliance Rebates, DOE State Energy Program, U.S. Department of Housing and Urban Development (HUD) Green and Resilient Retrofit Program, DOE and State Weatherization Assistance Programs, Washington DC Sustainable Energy Utility (SEU), DC Green Bank, Montgomery County Green Bank.

SAMPLE METRICS FOR TRACKING PROGRESS: Number of units retrofitted, square footage retrofitted, number of units constructed as net zero, high efficiency or electric, square footage of buildings constructed as net zero, high efficiency or electric.

DRAFT GHG Reduction Estimates*

Measure	GHG reductions (MMTCO ₂ e), 2025-2030	GHG reductions (MMTCO ₂ e), 2025-2050
Accelerate the deployment of energy efficiency solutions and decarbonization of residential, institutional, municipal, and commercial buildings.	In progress	In progress
Accelerate the deployment of clean and renewable energy.	In progress	In progress
Study, plan for, and deploy district energy and microgrid opportunities.	In progress	In progress
Provide and promote new and expanded opportunities to reduce VMT through public transportation, non-motorized travel, micromobility, shared travel options, and development.	4.54	32.03
Accelerate the deployment of low-emission transportation, fuels, and vehicles.	2.81	122.03
Accelerate the deployment of off-road/non-road electric equipment.	3.4	17.74
Reduce GHG emissions from waste and wastewater treatment.	5.31	29.44
Accelerate the expansion of the regional tree canopy and reduce tree canopy loss.	0.07	0.5

Example LIDAC Benefits

Transportation

- Reductions in air pollution resulting from combustion in vehicles, reduced exposure to diesel particulate emissions, ozone, and noise.
- Improved health/reduced health care costs.
- Reduced noise pollution from highway adjacent communities.
- Reduce access and cost barriers to travel from home to job locations.
- Job opportunities and impacts related to low or zero emissions vehicles and infrastructure.

Land Use

- Reduce heat island impacts.
- Increased quality of life/additional access to recreation.

Example LIDAC Benefits

Buildings and Clean Energy

- Reduced energy costs/burden from energy efficiency measures and from the installation of solar PV panels.
- Improvements in indoor air quality and local air quality from reduced fossil energy use in power plants and in buildings.
- Improved health/reduced health care costs.
- Resilience improvements for homes and businesses

Waste

- Improved food security and access.
- Reduced air pollution from landfills in adjacent communities.

Cross-cutting Enabling Actions

- Public education and engagement
- Build the clean energy workforce
- Centralize resources to accelerate MSA-wide actions
- Clean energy financing

Reminders for PCAP Review

- Does the PCAP reflect all your priorities?
 - Do you have any suggested additions or edits on the PCAP measure content?
 - Any other changes?
-
- Use the Word version and the comment function and track changes
 - Submit to Alissa Boggs and Deb Harris NLT February 7, 2024

Discussion

PCAP Finalization

January 29, 2024, Joint Steering Committee and Technical Committee Meetings

February 7, 2024, Committees feedback on PCAP due to COG

March 1, 2024 or prior, Submit PCAP to EPA

By JANUARY 30 Complete the LIDAC Survey or share
with colleagues

<https://survey.alchemer.com/s3/7676015/CPRG-LIDAC-Questionnaire>

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