

Committee: T&E

Committee Review: N/A

Staff: Keith Levchenko, Senior Legislative Analyst

Purpose: Receive briefing and have discussion – no vote expected

Keywords: #ClimateChange and Climate Action Plan

AGENDA ITEM #7

September 21, 2021

Discussion

SUBJECT

Briefing/Discussion: Montgomery County Climate Action Plan (CAP)

EXPECTED ATTENDEES

- Adriana Hochberg – Climate Change Officer, Office of the County Executive
- Adam Ortiz, Director of the Department of Environmental Protection (DEP)
- Patty Bubar, Deputy Director of DEP
- Stan Edwards, Chief of the Energy, Climate, & Compliance Division, DEP
- Lindsey Shaw, Manager of Energy and Sustainability Programs, DEP
- Doug Weisburger, Senior Planning Specialist, DEP
- Mara Parker, Grants Coordinator, Office of Emergency Management and Homeland Security (OEMHS)
- Michael Boldosser, Emergency Management Specialist, OEMHS
- Kristina Laboy, Acting Chief, Planning Division, OEMHS
- Sande Brecher, Chief of the Commuter Services Section, Department of Transportation

Consultants from AECOM:

- Ida Namur, Vice President, Director of Operations, Energy, AECOM
- Vanessa Goh, Sustainability Planner, AECOM
- Emily Dhingra, Coastal Team Lead, AECOM

BACKGROUND

- Executive Branch staff and representatives from the County's CAP consultant (AECOM) will provide a briefing to the County Council on the CAP recommendations and the status of the County's climate planning and implementation work going forward. **Presentation slides are attached on ©1-15.**
- The County's [Climate Action Plan \(CAP\)](#) was publicly released by the County Executive this past June. A Public Comment Draft had been released in late 2020. The T&E Committee received a [briefing](#) on the Draft CAP on February 22, 2021

Scope

- As noted in the Executive Summary of the Climate Action Plan (CAP), the CAP is:

"Montgomery County's strategic plan to cut greenhouse gas (GHG) emissions 80% by 2027 and 100% by 2035 compared to 2005 levels. The CAP also details the effects of a changing climate on

Montgomery County and includes strategies to reduce climate-related risk to the County's residents, businesses, and the built and natural environment."

- Actions are prioritized within and across several key areas including: Clean Energy, Buildings, Transportation, Carbon Sequestration, Climate Adaptation, Governance, and Public Engagements/Partnerships/Education.
- In addition to the emissions reduction and adaptation/mitigation impacts of the actions reviewed, the CAP also considers potential co-benefits (including public health, environmental stewardship, and racial equity and social justice impacts) in considering the prioritization of actions.

Council Resolution

- The County has been active for many years in studying the County's greenhouse gas emissions, developing goals and strategies, and implementing numerous initiatives. The current planning effort stems from the December 2017, Council approval of [Council Resolution 18-974, "Emergency Climate Mobilization."](#) This resolution supported an ambitious goal of reducing greenhouse gas emissions by 80 percent by 2027 and 100 percent by 2035, as well as to initiate "large scale efforts to remove excess carbon from the atmosphere."

Climate Technical Workgroups

- The CAP development process began in the Summer of 2019 with the creation of five technical workgroups (consisting of both governmental and non-governmental members) providing a broad range of expertise. These groups looked at:
 - Clean Energy
 - Buildings (represents 51% of greenhouse gas emissions in 2015)
 - Transportation (41% of greenhouse gas emissions in 2015)
 - Adaptation and Sequestration
 - Public Engagement
- These workgroups were tasked with developing recommendations to be further evaluated and prioritized by a consultant with the goal of creating a Draft Climate Action Plan (CAP) by the end of 2020. The [workgroup recommendations](#) (850 in total) were rolled out at a Town Hall meeting on February 27, 2020.

Climate Action Plan (CAP) Development

- The next phase of work involved consultant review of the workgroup recommendations and development of the Climate Action Plan (CAP). In April 2020, the County executed a consultant contract with [AECOM](#). The County Executive released a draft of the CAP in late 2020 for public comment and finalized and released the CAP in June 2021.

Implementation

- The County's [FY22 Climate Workplan](#) notes current activities across County Government related to climate work with Operating and Capital budget resources. Additional staffing and consultant support is also supported. Overall, 75 of the 86 priority actions are moving forward during FY22 (see ©5 and ©11).

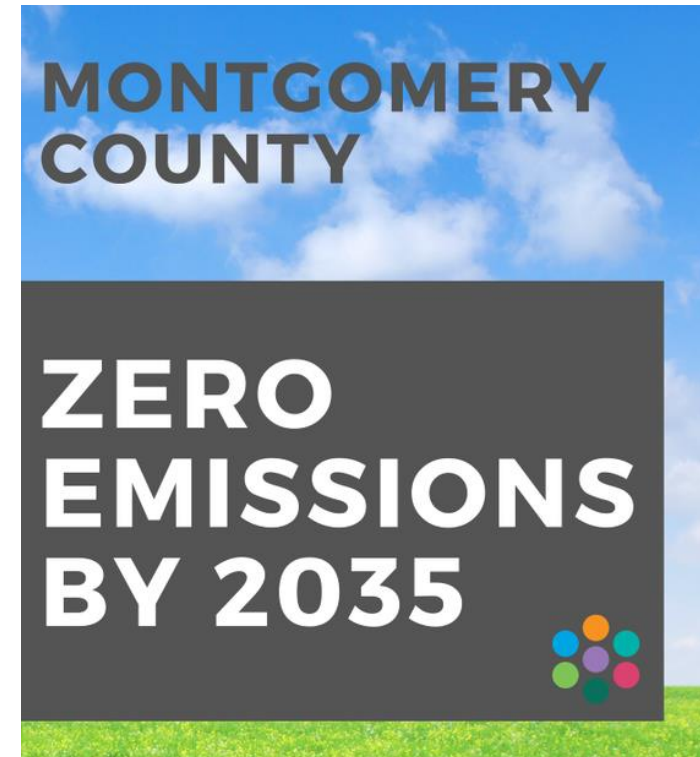
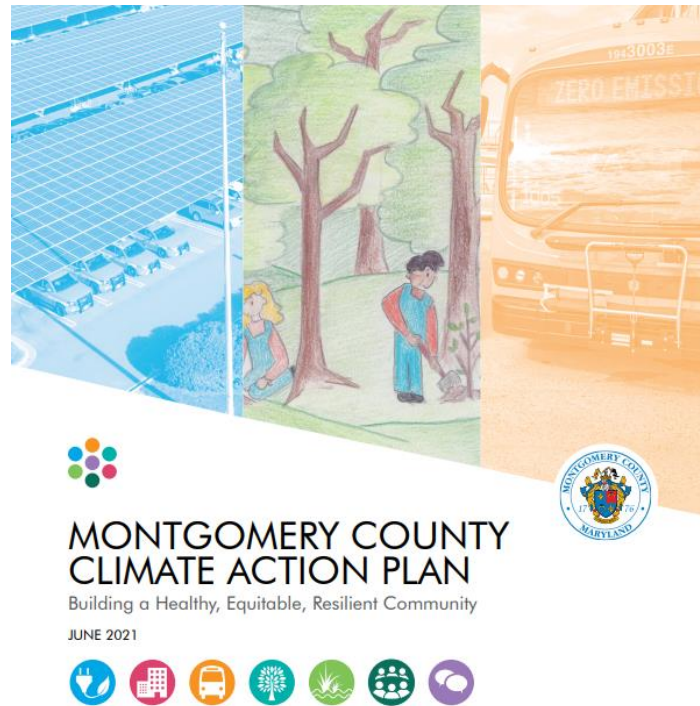
- Last spring, the Executive transmitted Building Energy Performance Standards (BEPS) legislation as well as a regulation to implement the 2018 International Green Construction Code.
- Also, Community Choice Energy for Montgomery County (the highest scoring action for emissions reduction) was authorized by the General Assembly last year and is currently under review by a Public Service Commission workgroup.

This report contains:

Presentation Slides: Climate Action in Montgomery County - September 21, 2021

©1-15

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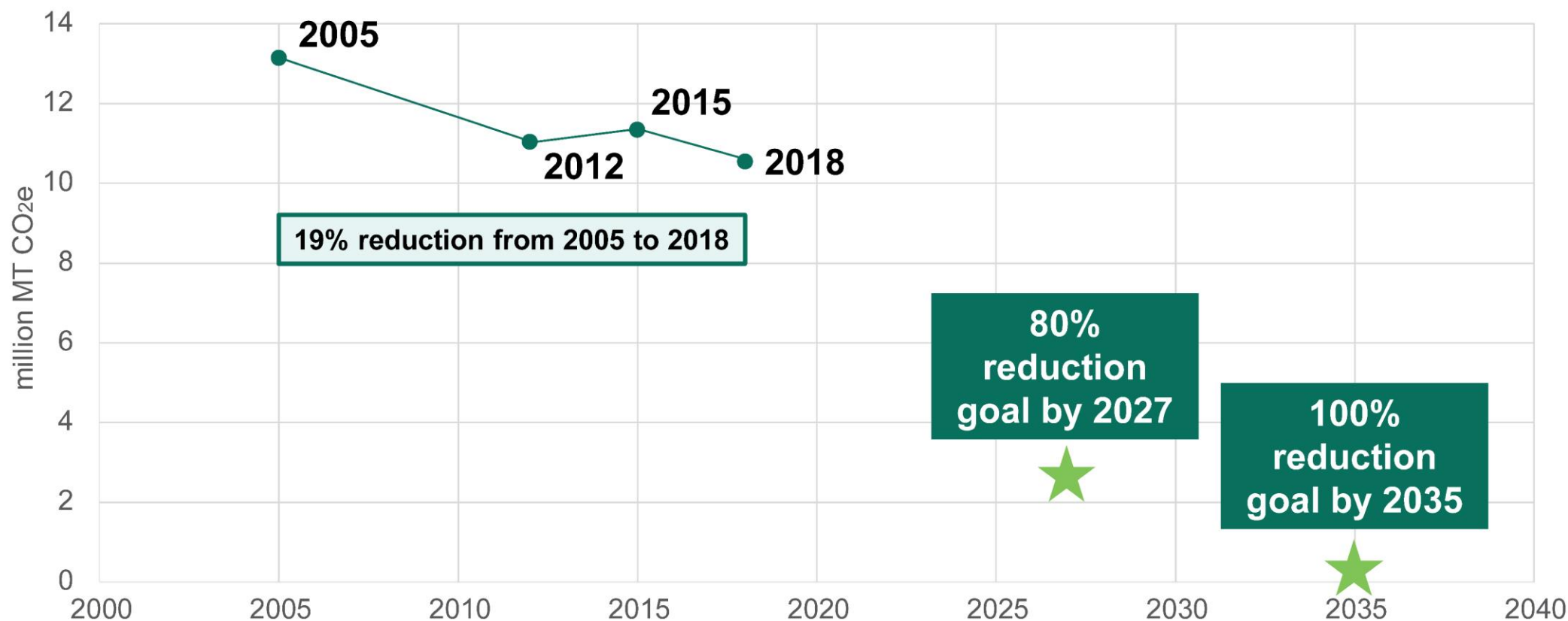
Climate Action in Montgomery County

PRESENTATION FOR MONTGOMERY COUNTY COUNCIL – SEPTEMBER 21, 2021

“We must summon truth, courage, and solutions. This trifecta can move us forward, through the aching uncertainty.”

--Ayana Elizabeth Johnson and Katharine K. Wilkinson, *All We Can Save*

County GHG Emissions Progress and Goals



Source: Metropolitan Washington Council of Governments (MWCOC) Montgomery County GHG Inventory



The Climate Action Plan lays out a Path to Meet the Zero GHG Emissions Goal by 2035

1. Reduce Emissions in the Energy, Buildings, and Transportation Sectors
2. Center Racial Equity and Social Justice
3. Address Residual Emissions and Carbon Sequestration
4. Reduce Risks from Climate Hazards (Resilience & Adaptation)
5. Identify Resources to Pay for Climate Action
6. Enhance Climate Governance
7. Engage the Community as Partners in Climate Action
8. Take the Next Steps

Two companion reports

CLIMATE ACTION PLAN (CAP)

- Strategic plan to achieve County climate goals by 2035
- 86 actions across 7 sectors
- Identifies GHG reduction actions
- Identifies localized climate hazards & actions to increase resilience and adapt to a changing climate
- Identifies equity-enhancing measures to address racial equity and social justice implications of climate action

FY22 CLIMATE WORK PLAN

- Annual implementation plan
- Enables flexibility in CAP implementation
- Identifies legislative & regulatory agenda for the coming year
- Aligns staff and funding resources
- **75 of 86 CAP actions are moving forward in FY22**

MontgomeryCountyMD.gov/Climate

Localized Climate Hazards

- Downscaled climate projections for 2035, 2050, and 2100
- Key Takeaways:
 - ↑ risk of moderate, severe & extreme drought
 - ↑ number of high heat days
 - ↑ extreme precipitation & precipitation totals
 - ↑ high winds

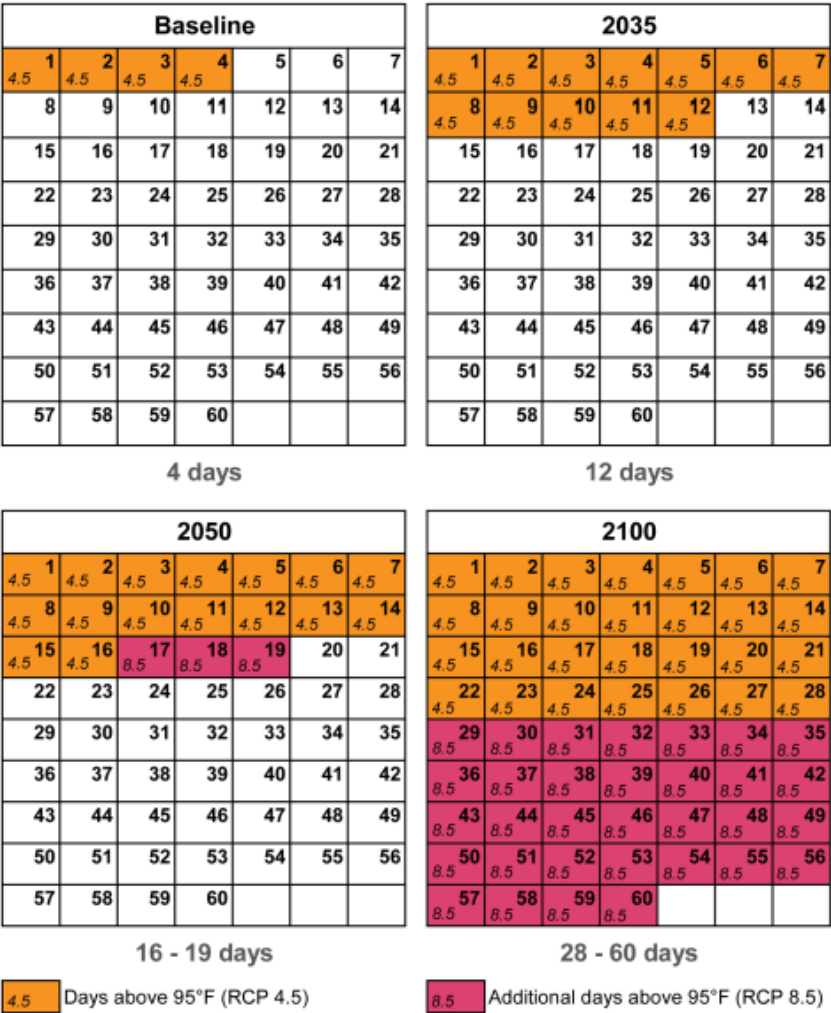


Figure 14: Projected average number of days above 95°F in Montgomery County for GHG Representative Concentration Pathway (RCP) 4.5 and 8.5

Centering Racial Equity & Social Justice in the CAP

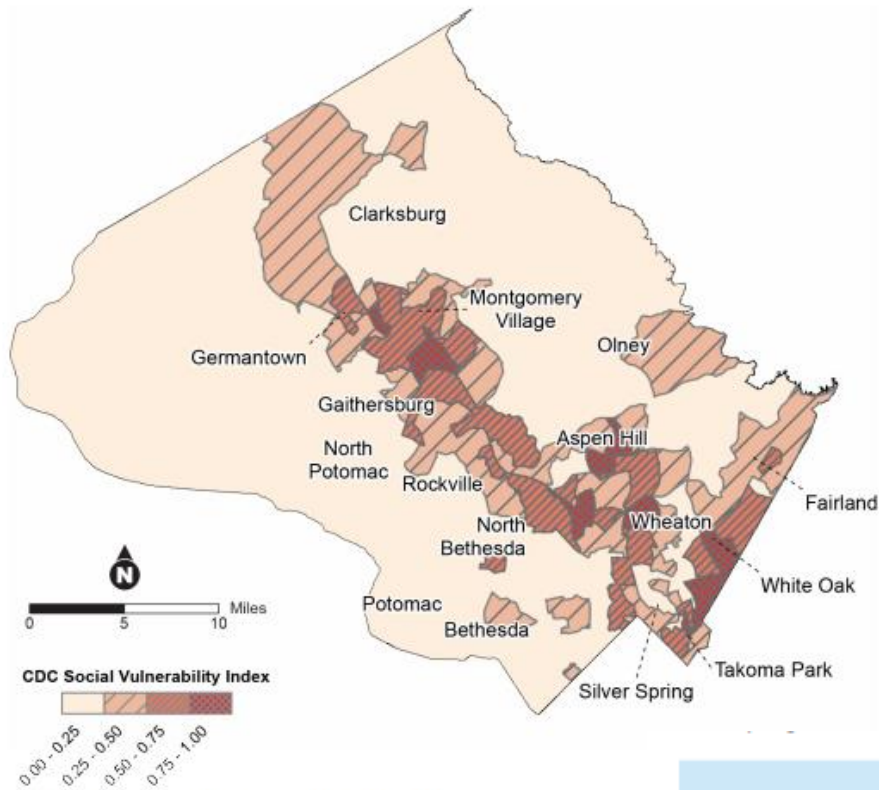


Figure 20: Social vulnerability in Montgomery County

EQUITY-ENHANCING MEASURES

- Balance the costs and percent of renewables in the electricity mix. If there is a premium associated with offering a higher level of renewable electricity, the County will need to consider ways to offset the cost premium for low-income residents.
- Develop and promote an awareness campaign on how to access the CCE program and its associated benefits. Ensure the awareness campaign is developed in multiple languages.

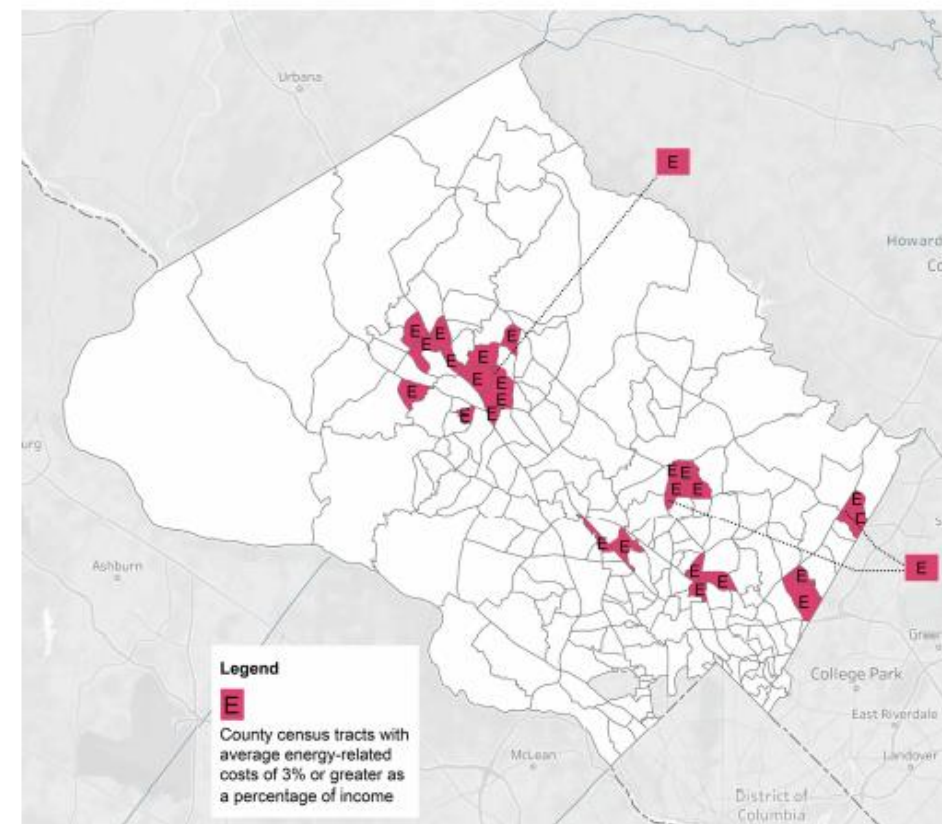


Figure 5: Montgomery County census tracts with median energy burden of 3% or greater as a percentage of income⁴²

- Identifies communities that are likely to have less ability to adapt to the impacts of climate change
- Equity-enhancing measures included within each action description – See CCE example (left)

GHG Reduction Actions

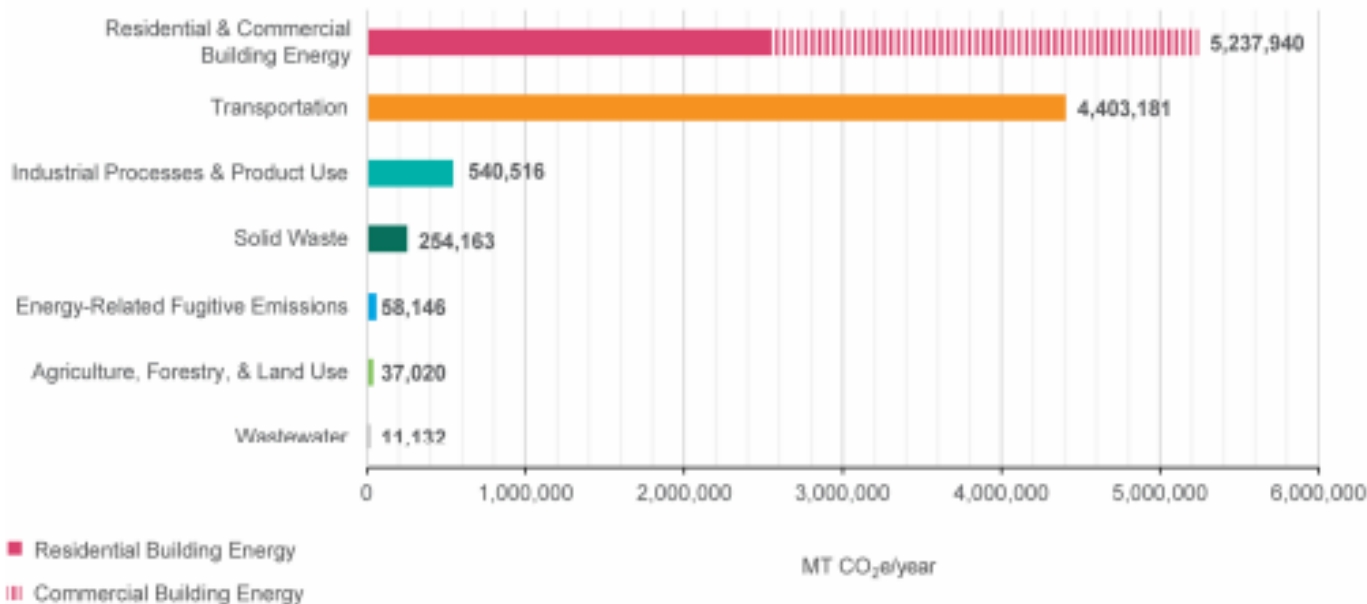


Figure 25: Montgomery County 2018 GHG inventory

- Significant shifts needed in the way we generate and use energy– how we heat and cool our homes, businesses and public buildings; how we fuel vehicles; and our consumption patterns
- 25 GHG Reduction actions centered in **Buildings, Transportation, and Clean Energy**. Examples:
 - Community Choice Energy
 - Expand Solar Installations
 - Building Energy Performance Standards
 - Net Zero Building Codes
 - Incentivize Building Electrification/Disincentivize Gas
 - Private Vehicle Electrification Incentives & Disincentives
 - Expand Public Transit, Active Transportation, & Shared Micromobility Network
 - Zero Emissions Buses & Fleet

Climate Adaptation & Sequestration Actions

- The Plan identifies 6 **nature-based carbon sequestration** actions, including:
 - Retaining and increasing forests
 - Retaining and increasing tree canopy
 - Regenerative agriculture
 - Increasing carbon in soils through improved agricultural practices
- The 20 **climate adaptation** actions include:
 - Water infrastructure resilience & water supply protection
 - Resilience hubs
 - Updating green streetscape and green infrastructure standards
 - On-site water reuse
 - Update floodplain maps

Governance, Public Engagement and Personal Actions

- **16 Climate Governance** Actions, incl.:

- Climate Change Academy
- Incorporating climate competencies into MCG job descriptions
- Incorporate climate considerations into the budgeting processes
- Develop climate financing strategies
- Develop climate equity metrics
- Consolidate County climate data
- Conduct climate vulnerability detailed assessments

- **19 Public Engagement** Actions, incl.:

- Forming a climate change communications coalition
- Establishing a community justice academy
- Establishing statewide climate coalition of local governments
- The CAP calls for both system-level changes and **personal actions**, including:
 - Actions to lower carbon footprint
 - Actions to reduce home electricity usage
 - Actions to lower electricity use in businesses
 - Actions to increase climate resilience

Key actions are already underway

- **Building Energy Performance Standards** – bill transmitted to Council April 2021
- **2018 International Green Construction Code** – Executive regulations transmitted to Council March 2021
- **Transportation Demand Management** – Executive regulations undergoing public comment period
- **Community Choice Energy** authorized by General Assembly; Public Service Commission regulatory workgroup kicked-off Sept. 2021
- **Additional legislation** being drafted, incl. authorizing Green Bank resilience activity, Commercial Property Assessed Clean Energy expansion, gas-powered leaf blower ban
- See [FY22 Work Plan](#) for full list of near-term actions, incl. EV bus procurement, microgrid installation, sustainable economic development analysis, climate budgeting & more



Key Takeaways

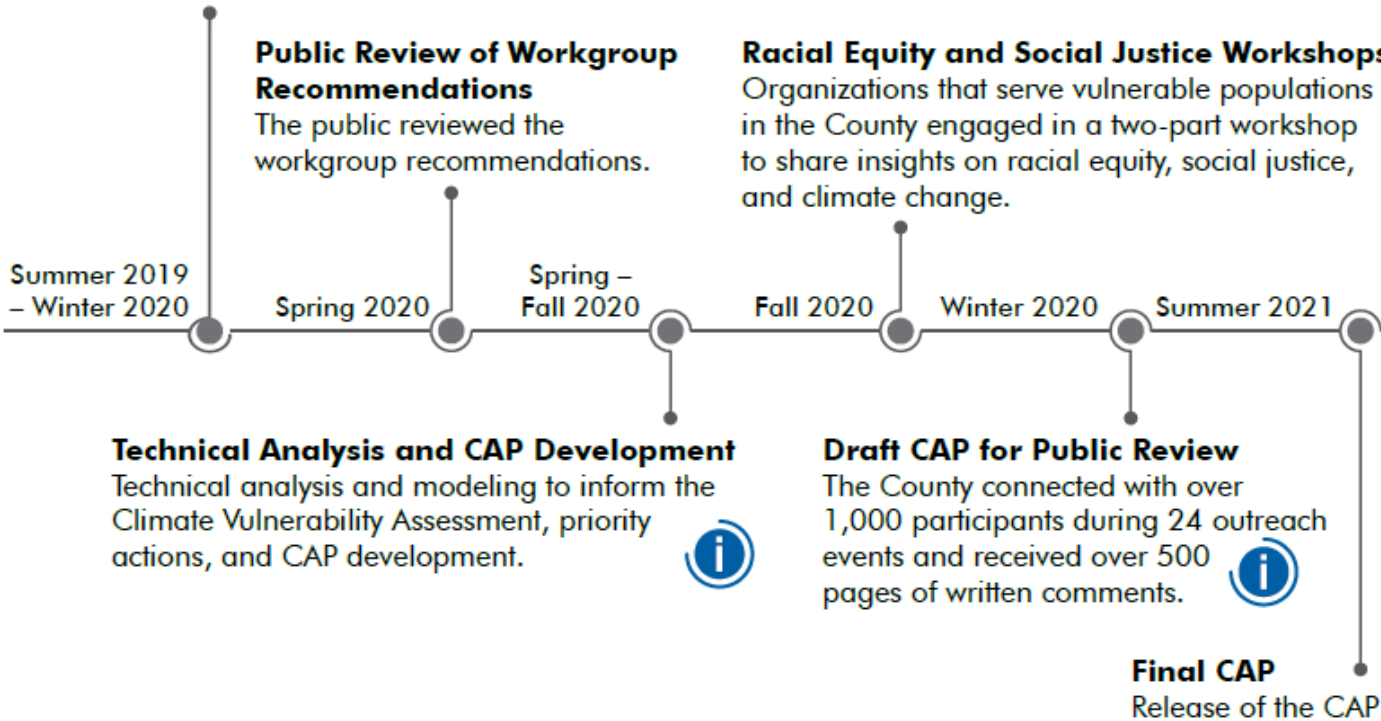
- Significant effort, including budget and staff, is necessary to meet the County's climate goals.
- Public and private resources must be leveraged to implement solutions.
- The climate action implementation phase must center racial equity and social justice considerations in order to ensure equitable outcomes
- Different/new governance and community engagement approaches are necessary to be more inclusive of all voices.
- Climate action is already underway, including legislation & regulations pending before Council

APPENDIX

Climate Planning Process

Climate Workgroup Efforts

The County formed six technical climate workgroups—made up of County volunteers with area-specific expertise—focused on buildings, clean energy, transportation, climate adaption, carbon sequestration, and public engagement and education.



- 176 Technical Climate Workgroup Members
- 30 Workgroup Meetings
- 2 Racial Equity and Social Justice Workshops
- 130 Community Conversations with Resilience Ambassadors

| ORGANIZATIONS PARTICIPATING IN THE CLIMATE PLANNING PROCESS: | |
|--|--|
| 22 Environmental Conservation and Climate Groups | 20 Business |
| 9 Education Groups | 10 Civil Rights and Religious Groups |
| 7 Federal Agencies (Unofficial Presence) and International Organizations | 8 County Advisory Groups |
| 4 Utilities | 7 Adaptation, Resilience and Energy Associations |
| 4 Municipalities and Municipal Advisory Groups | 5 Budget, Finance, and Philanthropic Groups |
| 2 Public Health Groups | 3 Chambers of Commerce |
| 1 Buildings Group | 2 Transportation Groups |
| | 1 Environmental Justice Group |

Key changes made from Draft to Final

- **Edits made to all chapters, incl.:**

- Major updates to Executive Summary
- Context/details added to sector Intros
- Details added on structure of annual work plan

- **Edits made to 82 of 86 CAP actions**

- **New content includes:**

- What the CAP does vs. doesn't address
- Regional climate collaboration
- COVID & climate
- MCG org structure for climate
- Climate migration
- Green Bank
- Food security & carbon sequestration

- **New content (cont'd):**

- Salvaged wood & carbon sequestration
- Definitions for carbon-free; ZEVs
- Challenges of developing carbon-free grid
- Clarity on the possible sequencing of Clean Energy & Buildings actions
- Limiting major new road construction
- Preference for natural grass vs. synthetic turf

- **Other changes of note include:**

- Action on resilience ambassadors & racial equity task force deleted; these concepts included in new community justice academy action
- Removed specific dates for reaching electrification and net-zero code requirements
- Rephrased “banning natural gas” language due to preemption → “Disincentivize and/or eliminate”

To view public comments sorted by theme, and how the CAP addresses the comments:

<https://www.montgomerycountymd.gov/green/Resources/Files/climate/climate-action-plan-public-comment-themes.pdf>