

CLIMATE PLANNING MID-COURSE REVIEW

Assessing Progress Toward Regional 2030 Climate Goals

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Background and Purpose

- **COG Goals**

- Existing 2030 goal; Metropolitan Washington 2030 Climate and Energy Action Plan (2030 CEAP); Comprehensive Climate Action Plan (CCAP) development

- **ACPAC Memo on Goals**

- **CEEPC Considerations and Response**

- Conduct Mid-Course Review to assess progress toward meeting COG 2030 Climate and Energy Goals
- Use findings to help inform any possible considerations of establishing new goals and to assist with CCAP

- **Approach**

- Presenting today recommendations for how to conduct the review based off input from COG staff, CEEPC, and ACPAC
- Seek the BEEAC's input on details of the approach

Proposed Approach

Final Products:

- Regional Climate and Energy Progress Interactive Dashboard
- Mid-Course Review Report

Approach:

- Follow the 2030 Regional Climate and Energy Action Plan adopted in 2020
- Cross-check and align with Priority Climate Action Plan (PCAP) submitted to EPA in 2024
- Analyze 1-3 Performance Indicators for each Priority Climate Action Area
- Local jurisdiction questionnaire on Priority Collaborative Actions
- Review of local goals and actions to get the region to 2030 goals

ACTIONS TO REVIEW

- **Climate Action Area** = priority areas to identify performance indicators
- **Priority Collaborative Actions** could translate to local government questionnaire
- **BEEAC Input** – What are the priority areas for the Mid-Course Review?

2030 Plan Climate Mitigation Strategy

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
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

DRAFT Potential Performance Indicators

CLIMATE ACTION AREA	PERFORMANCE INDICATORS	DATA AVAILABILITY
Greenhouse Gases	<ul style="list-style-type: none"> Greenhouse Gas (GHG) Emissions Contribution Analysis (drivers of GHG change) 	<ul style="list-style-type: none"> 2005 - 2023 2005 - 2023
Clean Electricity	<ul style="list-style-type: none"> Carbon Intensity of the Grid Grid Connected Renewables 	<ul style="list-style-type: none"> 2005 - 2023 2009 - 2024
Zero Energy Buildings	<ul style="list-style-type: none"> Building Energy Consumption Green Buildings 	<ul style="list-style-type: none"> 2005, 2009 - 2024 2005 - 2024
Zero Emissions Vehicles	<ul style="list-style-type: none"> Electric Vehicle (EV) Ownership EV Charging Stations and Ports 	<ul style="list-style-type: none"> 2005 - 2023 2012 - 2024
Mode Shift and Travel Behavior	<ul style="list-style-type: none"> Vehicle Miles Travelled Transit Ridership Telework 	<ul style="list-style-type: none"> 2005 - 2023 2012 - 2021 2005 - 2022
Zero Waste	<ul style="list-style-type: none"> Recycling Rate 	<ul style="list-style-type: none"> 2005 - 2022
Sequestration	<ul style="list-style-type: none"> Tree Canopy Coverage 	<ul style="list-style-type: none"> 2015 - 2022

COG Draft Interactive Dashboard Example

Choose Jurisdiction(s) (Click to Select or Deselect)

Select All	Regional Total	District of Columbia	Charles County
Frederick County	Frederick City	Montgomery County	Prince George's County
City of Bowie	City of Alexandria	Arlington County	Fairfax County
City of Fairfax	City of Falls Church	Loudoun County	Prince William County

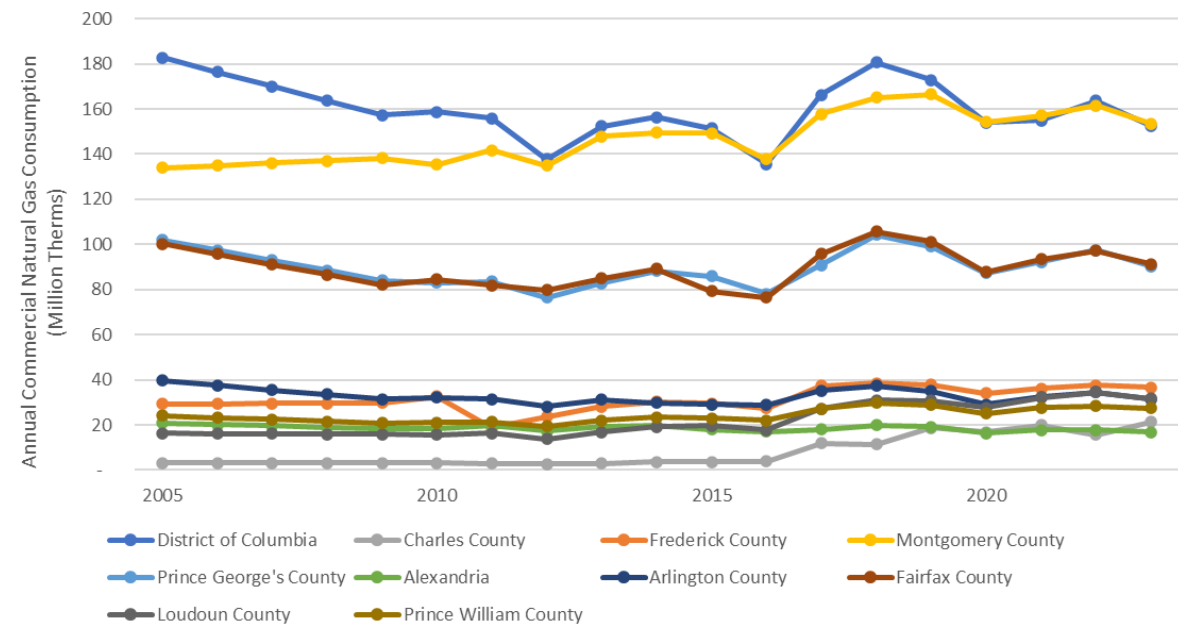
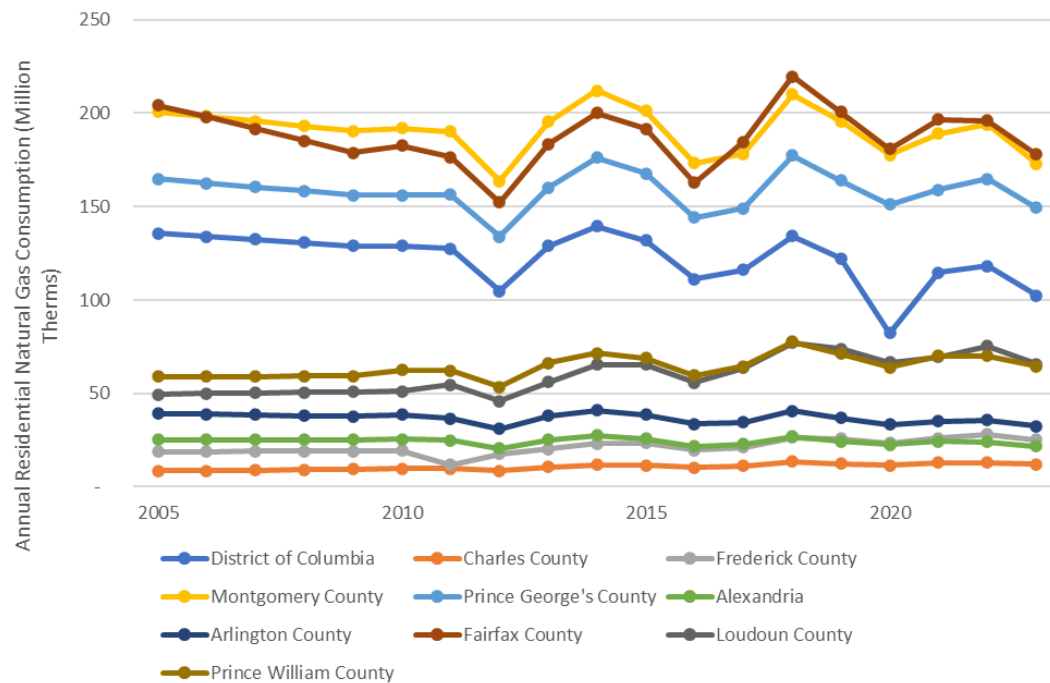
Choose a Performance Indicator (Click to Select or Deselect)

Greenhouse Gas	Renewables	Green Buildings	Energy Consumption	Electric Vehicles	EV Chargers	Recycling Rate
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COG Draft Interactive Dashboard Example (continued)

If the user's dashboard selections were the **District of Columbia** + the **Counties** and **Energy Consumption**, residential and commercial natural gas trends for counties would be an example of resulting graphs



Example Data Questions

Clean Electricity

1. What percentage of local government operations energy consumption comes from renewables (including onsite + off-site, such as PPAs)? ____
2. How many renewable energy systems are installed and operational at local government facilities? ____
3. How many battery storage systems are:
 - a) Paired with your renewable energy systems at government facilities? ____
 - b) Permitted in your community? ____
4. How many district energy/microgrid systems are operating at local government facilities and critical infrastructure? ____

Example Data Questions (continued)

Zero Energy Buildings

5. How many government facilities are net zero energy (including new construction and existing retrofitted buildings)? ____
6. How many deep energy retrofits have been completed at local government facilities? ____

Zero Energy Vehicles

7. How many light-duty EVs are currently in your local government fleet? ____
8. How many medium- and heavy-duty EVs are currently in your local government fleet? ____
9. How many EV charging ports are currently operating at local government facilities? ____
 - a) Number of private fleet ports: ____
 - b) Number of publicly available ports: ____

Example Multiple Choice Questions

Clean Electricity

10. Established residential or commercial new construction ordinances or incentives for solar? Select all that apply.

- a) Ordinance requiring solar for new construction
- b) Ordinance for solar-ready new construction (to enable solar installation at a later date)
- c) Incentives for solar on new construction
- d) Incentives for solar-ready new construction (to enable solar installation at a later date)
- e) Other: _____

Zero Energy Buildings

11. Does your jurisdiction have an energy benchmarking program? Select all that apply.

- a) Energy benchmarking and reporting are conducted for local government facilities
- b) Energy benchmarking and reporting are required for commercial buildings
- c) Energy benchmarking and reporting are encouraged/incentivized for commercial buildings
- d) Energy benchmarking program is under development
- e) Not Applicable

Example Multiple Choice Questions (continued)

Zero Emission Vehicles

12. Is your jurisdiction taking steps to accelerate electric vehicles (EV) and EV charger deployment in government operations? Select all that apply.
- a) Adopt a green fleet policy
 - b) Adopt an EV plan for public fleet(s)
 - c) Develop EV infrastructure strategy for EV infrastructure deployment at public facilities, garages, and refueling facilities
 - d) Implement innovative pilot initiatives to advance new technologies, including vehicle-to-grid, regenerative power, or solar-powered EV infrastructure.
 - e) Other: _____

Sequestration

13. Does your jurisdiction implement initiatives for tree planting on private property? Select all that apply?
- a) Established a local tree planting and preservation incentives or funding mechanisms
 - b) Established a tree mitigation banks or funds
 - c) Established an adopt-a-tree and memorial tree program(s)
 - d) Targeted tree planting on private land to reduce heat island in disadvantaged communities
 - e) Other: _____

ZERO WASTE

By 2030, curbside composting will need to be expanded significantly to support the region in diverting 80 - 90% of all materials (including composting and recycling) from landfills and waste to energy (WTE) facilities. [Insert additional text]

Recycling Rate

Zero Waste is a visionary goal that calls for society to use fewer resources as well as increase resource recovery, recycling, and composting. Zero waste strategies reduce emissions, [save](#) energy, and extend landfill capacity. The regional recycling rate, one indicator to track progress towards zero waste, has increased from approximately 33% in 2005 to x% in 2022. Expanding regional composting capacity and organics collection will be important to increasing the regional recycling rate. [Insert graph]

[Insert text and graphs summarizing local government policy and program results from the questionnaire.]

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Mt. Vernon Trail (Kevin Harber/Flickr)

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U and 14th (Mike Maguire/Flickr)

Callouts are a great way to bring important information to a readers' attention. To add, draw a text box (no fill, no outline), add text, then apply the "Callout Text-COG" style to the text. Or, simply copy/paste this ready-made callout for use throughout your document.

Progress Towards 2030

PERFORMANCE INDICATORS

Greenhouse Gas Emissions

The chart displays GHG emissions in MtCO₂e for the years 2005, 2012, and 2020. The y-axis ranges from -10,000,000 to 80,000,000 MtCO₂e. The bars are stacked with the following categories: Buildings (orange), Transportation (blue), Waste (purple), Forest & Trees Emissions (green), and Forest & Trees Removals (light green). A red line indicates the 2020 goal at approximately 58,000,000 MtCO₂e.

Category	2005	2012	2020
Buildings	40,000,000	32,000,000	28,000,000
Transportation	27,000,000	26,000,000	21,000,000
Waste	2,000,000	2,000,000	2,000,000
Forest & Trees Emissions	2,000,000	2,000,000	2,000,000
Forest & Trees Removals	-3,000,000	-3,000,000	-3,000,000
Total	68,000,000	61,000,000	54,000,000
2020 Goal			58,000,000

Contribution Analysis

SUPPORTING LOCAL POLICIES AND PROGRAMS

COG Member Example 1

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DRAFT Timeline

Task	2025 Midcourse Review Activities
Q1	<ul style="list-style-type: none">• CEEPC, BEEAC, and ACPAC input on local government questionnaire and performance indicators• Finalize and send out local government questionnaire• Performance indicator data collection
Q2	<ul style="list-style-type: none">• Collect and analyze local government questionnaire results• Develop example local BMPs to highlight in report• Continue performance indicator data collection and analysis
Q3	<ul style="list-style-type: none">• Continue performance indicator data collection and analysis• Local government goals and actions review• Presentation to CEEPC, BEEAC, and ACPAC on questionnaire and performance indicator results
Q4	<ul style="list-style-type: none">• Presentation to CEEPC, BEEAC and ACPAC on draft Midcourse Review Report

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The following slides contain a more complete list of questionnaire topics by action area, dashboard examples, and resources.



Supporting Local Action Questionnaire Topics

Greenhouse Gas

- **Plan to reduce GHG emissions** at government facilities?...community-wide?
- **Track GHG emissions** for government operations?...community wide?
- **Equitable planning practices** during development and implementation of climate plans?

Clean Electricity

- **Accelerate the development of renewables** at government facilities?...in the community?
- **Accelerate the deployment of battery storage** at government facilities?...in the community?
- **Accelerate development of microgrids** at government facilities?...in the community?
- **Power Purchase Agreements (PPAs)** for government facilities?
- **Accelerate development of large-scale off-site renewables?**
- **Community choice aggregation (CCA)** program?
- Earned a [SolSmart](#) designation?
- Earned [EPA Green Power Partner](#) or Community?

Supporting Local Action Questionnaire Topics (continued)

Zero Energy Buildings

- **Energy benchmarking** for government facilities?...in the community?
- **Deep building retrofits** at government facilities?...in the community?
- **Net zero energy building codes and policies** for government facilities?...in the community?

Zero Emission Vehicles

- **Expand light-duty EV deployment** in the government fleet?...in the community?
- **Expand medium- and heavy-duty EV deployment** in the government fleet?...in the community?
- **Deploy EV charging stations** at government facilities?...to facilitate deployment in the community?
- Working toward the [Charging Smart](#) designation?

Mode Shift and Travel Behavior

- Invest in infrastructure that increases **transit, carpooling, and non-motorized travel**?
- Bring **jobs and housing** closer together?
- Enhance **options for commuters**?
- Earned the [Bike Friendly](#) Community designation?

Supporting Local Action Questionnaire Topics (continued)

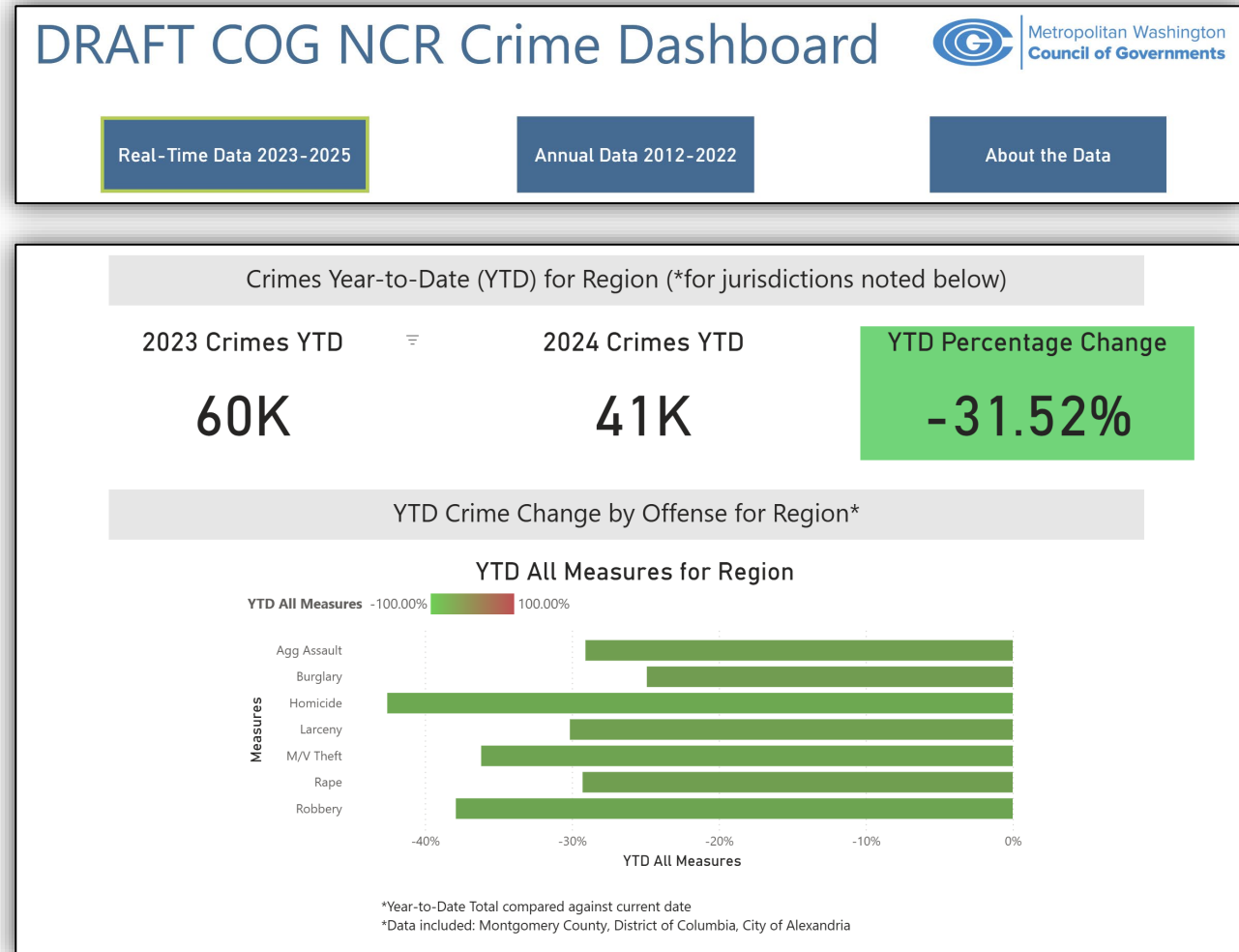
Zero Waste

- Implement a **curbside organics recycling program**?
- **Reduce solid waste generation** at government facilities?...in the community?
- Invest in composting infrastructure or waste collection systems infrastructure to enhance recycling?
- Local **single-use plastic and polystyrene bans**?
- Support **building a market for circularity**?
- Working toward a **zero waste goal** or [Zero Waste Community](#) Certification?

Sequestration

- Adopted **tree canopy/forest cover goal**?
- Strategically **plant new trees on publicly owned land**?
- **Enhance regulatory capacity to manage tree canopy and forest protection**?
- Offer or promote **incentives and financing mechanisms for tree planting and preservation on privately owned lands**?
- Designated a [Tree City USA](#)?

COG Draft Interactive Dashboard Example



COG Draft Interactive Dashboard Example

Select Jurisdiction(s) and Crime(s) Data per Month

Reset All Selections



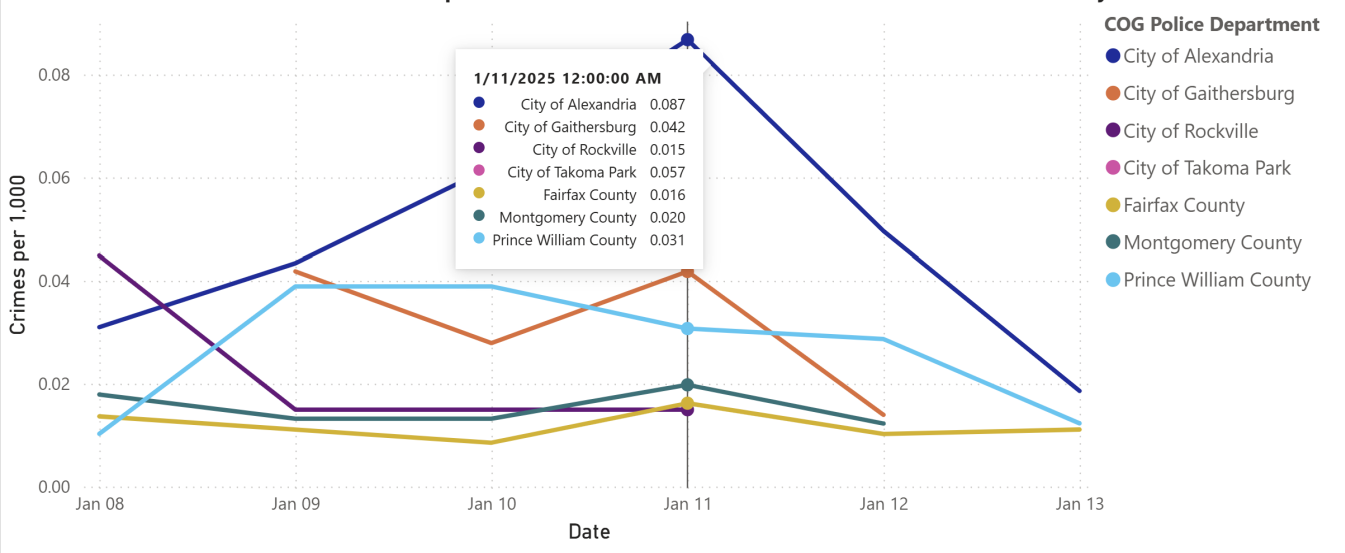
Choose Jurisdiction(s) (click to select or deselect)

Select all	City of Rockville	Loudoun County
Arlington County	City of Takoma Park	Montgomery County
City of Alexandria	District of Columbia	Prince George's County
City of Gaithersburg	Fairfax County	Prince William County

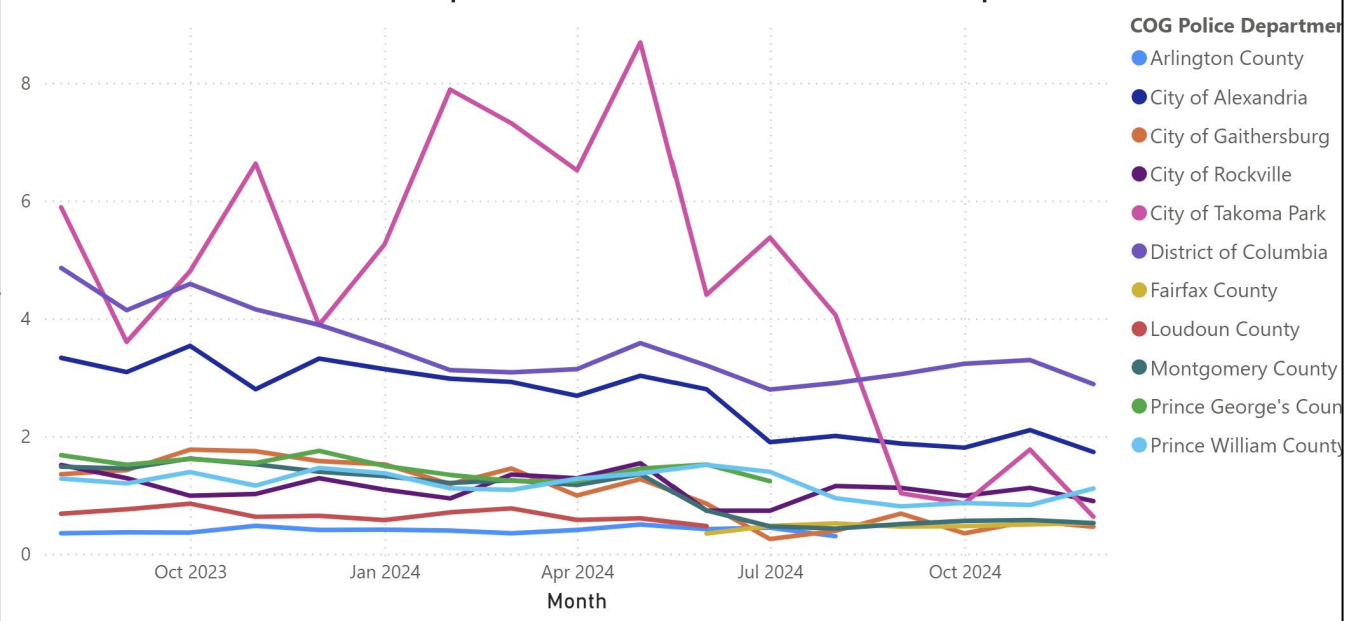
Choose a Crime Group

Agg Assault	Burglary	Homicide	Larceny	M/V Theft	Rape	Robbery	Total Offenses	Total Property Crimes	Total Violent Crimes
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Total Offenses per 1,000 Jurisdiction Residents Last 7 Days

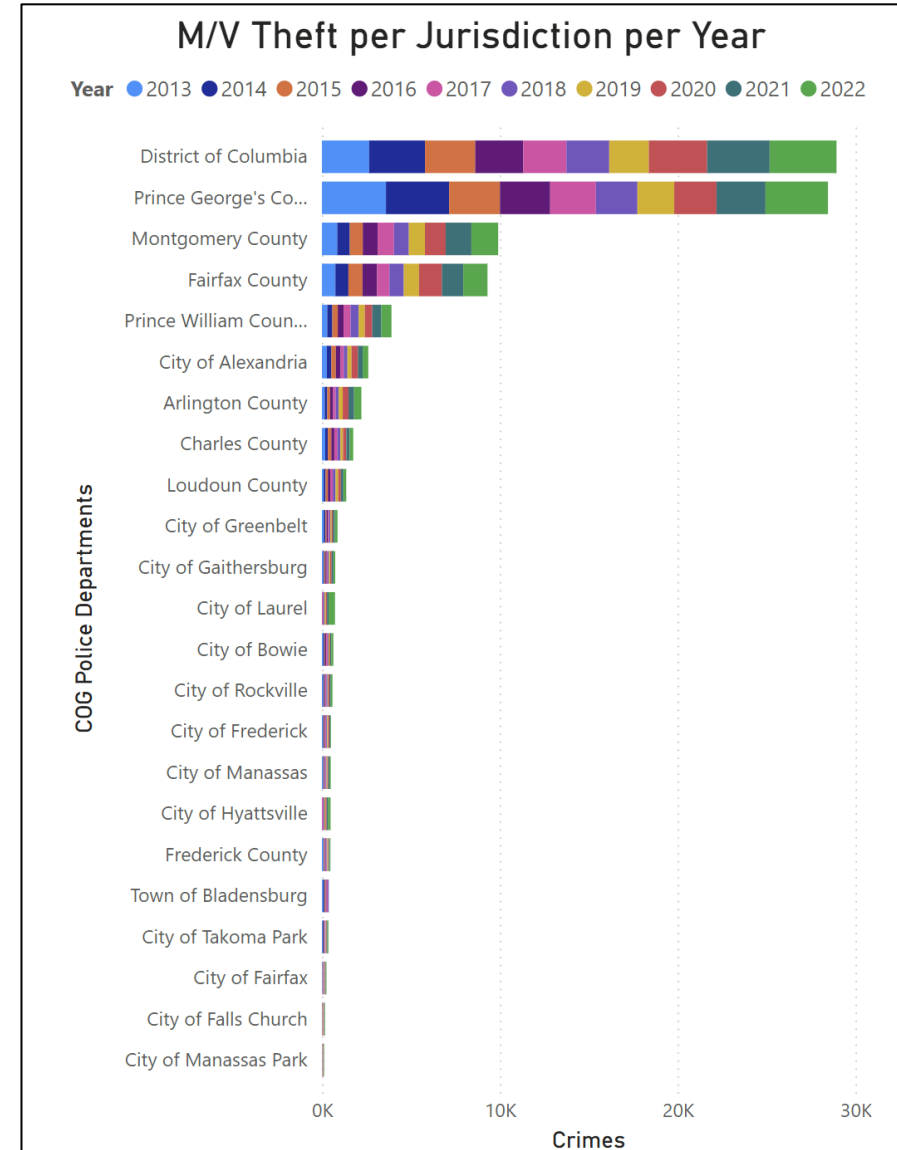


Total Offenses per 1,000 Jurisdiction Residents per Month

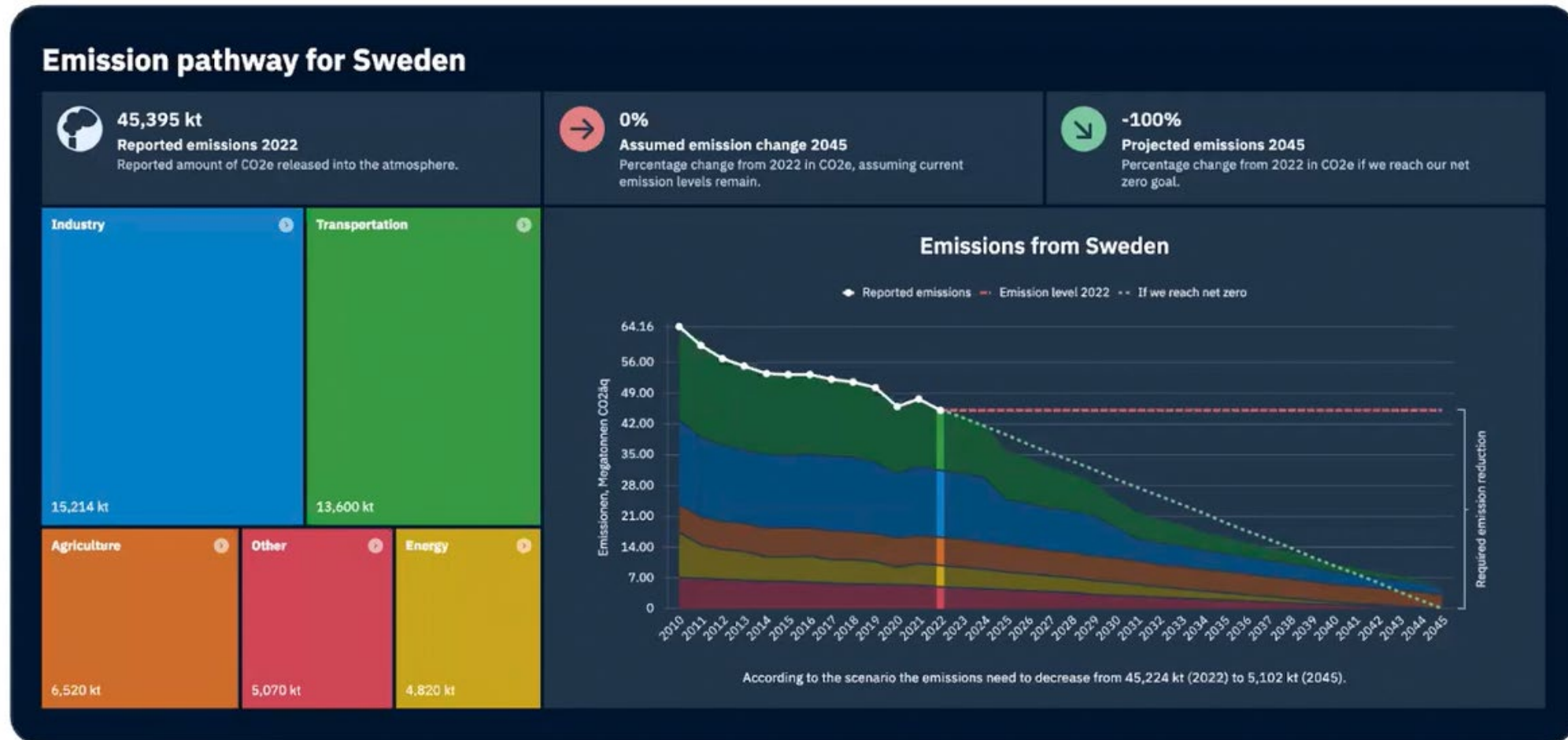


COG Draft Interactive Dashboard Example

M/V Theft Total Per Year										
COG Police Departments	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Arlington County	156	145	161	167	143	171	227	323	313	412
Charles County	187	148	194	167	181	160	151	187	187	198
City of Alexandria	277	253	254	268	178	202	233	359	268	315
City of Bowie	69	67	46	61	77	49	55	43	58	118
City of Fairfax	23	18	20	19	20	26	28	34	31	38
City of Falls Church	7	11	13	16	12	13	22	29	29	24
City of Frederick	61	38	52	48	43	51	53	70	54	38
City of Gaithersburg	73	56	67	71	52	69	72	87	98	103
City of Greenbelt	107	84	66	73	67	72	75	71	112	149
City of Hyattsville					78	60	61	68	90	129
City of Laurel					57	78	78	75	88	359
City of Manassas	61	30	34	47	48	41	44	52	63	75
City of Manassas Park	12	8	10	7	10	11	12	20	14	26
City of Rockville	61	55	34	49	53	62	39	68	78	95
City of Takoma Park	42	53	32	33	30	25	25	32	40	53
District of Columbia	2,653	3,141	2,827	2,700	2,425	2,407	2,228	3,275	3,515	3,761
Fairfax County	757	733	792	812	702	806	857	1,283	1,205	1,362
Frederick County	79	33	48	56	46	41	51	30	54	41
Loudoun County	100	107	128	136	142	153	151	149	140	163
Montgomery County	861	705	732	837	919	833	905	1,167	1,444	1,507
Prince George's County	3,601	3,553	2,856	2,822	2,575	2,331	2,070	2,375	2,754	3,513
Prince William County	300	285	307	325	396	454	341	423	509	571
Town of Bladensburg	72	82	62	48	71	52				
Total	9,559	9,605	8,735	8,762	8,325	8,167	7,778	10,220	11,144	13,050

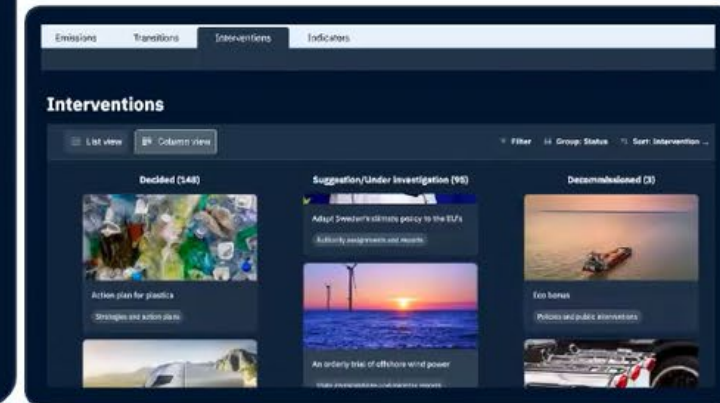
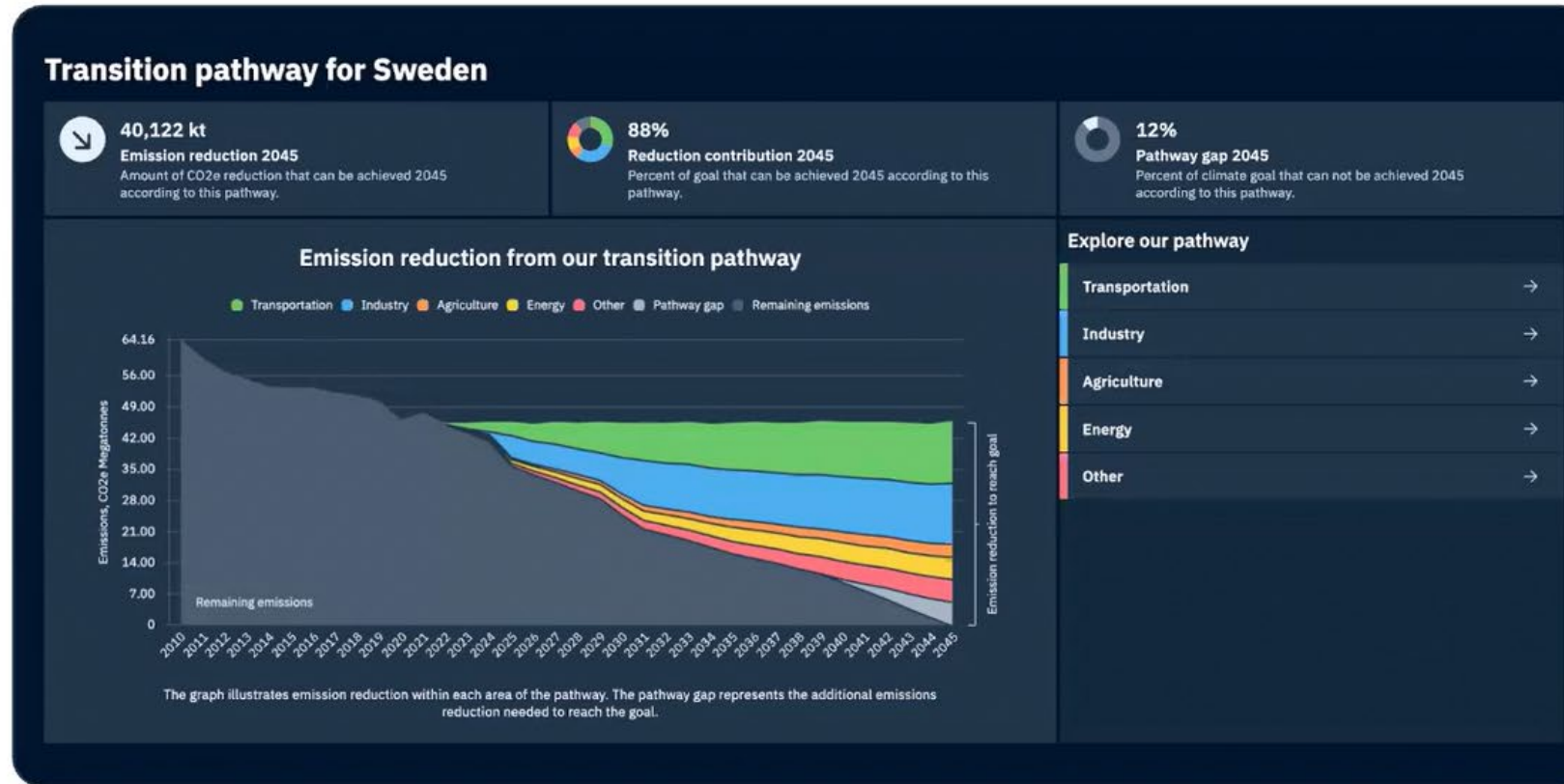


ICLEI/ClimateView Essential Dashboard



Source: ClearPath 2.0 Introduction Webinar

ICLEI/ClimateView Advanced Dashboard



Source: ClearPath 2.0 Introduction Webinar

Resources

- [Metropolitan Washington 2030 Climate and Energy Action Plan](#)
- EPA Climate Pollution Reduction Program (CPRG) [Metropolitan Statistical Area \(MSA\) Priority Climate Action Plan](#) (PCAP)
- COG [Annual Climate and Energy Progress Reports](#) 2010 – 2015
- Local and Regional [GHG Inventories](#)
- COG Static [Climate and Energy Progress Dashboard](#)
- ICLEI [ClearPath 2.0](#)