REGIONAL 2030 CLIMATE AND ENERGY ACTION PLAN

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COG Environmental Programs

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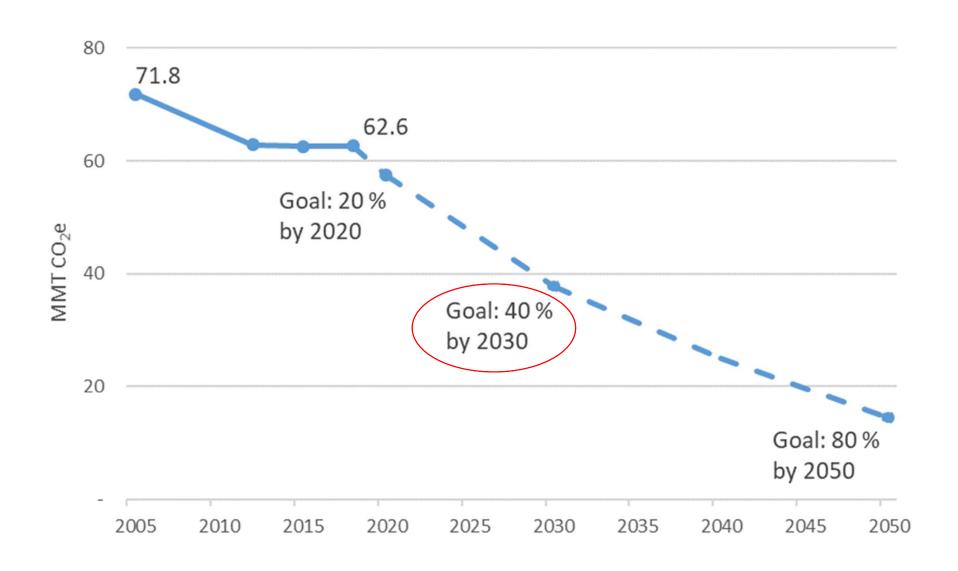


Timeline

Regional Climate Plan Updated Timeline	
June 2020	BEEAC and ACPAC weigh in on Plan's goals
	BEEAC Review of Plan's scenarios
July 2020	July 15 - BEEAC deadline for comment on technical elements
	 July 22 CEEPC review of 2018 inventory, scenarios, and weigh in on Plan's goals
August 2020	Climate plan presentation to COG Board
September 2020	 Present Draft Plan language and Climate Goals Resolution to ACPAC, BEEAC, CEEPC
	CEEPC would need to approve resolution to go to COG Board
October 2020	Climate Goals Resolution for COG Board adoption
November 2020	Plan put forward to CEEPC for adoption
December 2020	 Submit to GCoM; 1st US Region fully meeting GCoM global standards for climate planning



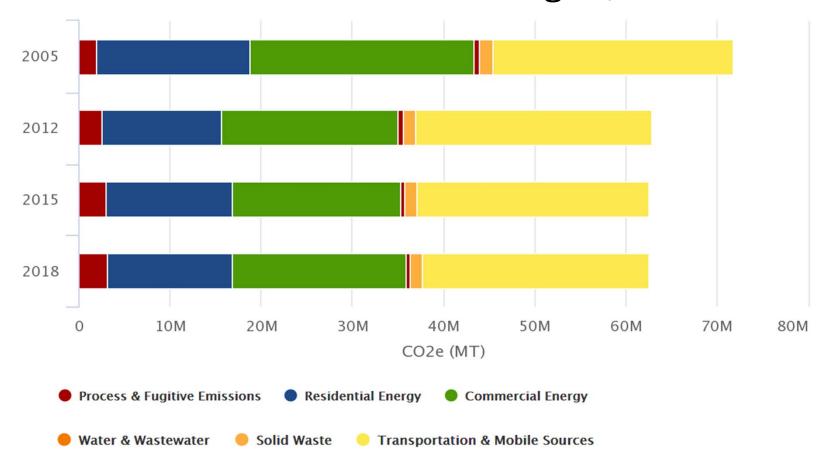
Regional GHG Trends





Regional GHGs by Activity/Source

13% Reduction in GHGs across region, 2005 - 2018



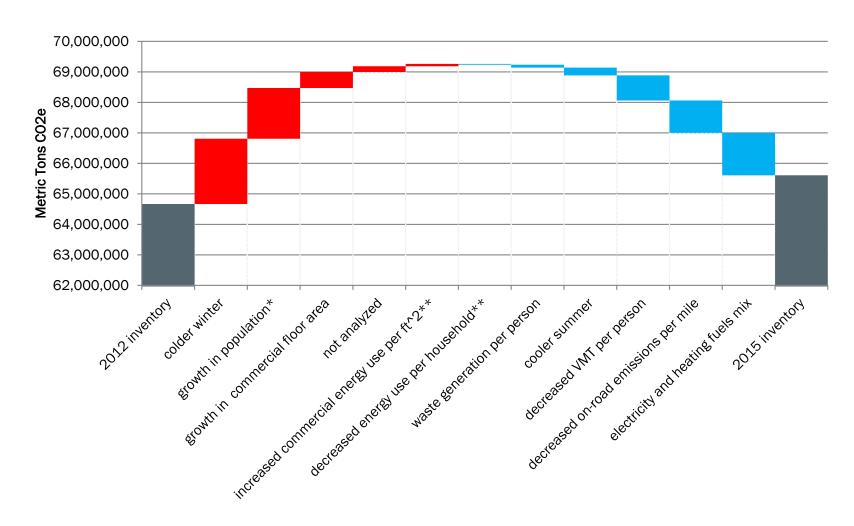
Source: ClearPath output

Note: ClearPath is an online greenhouse gas inventory tool. ClearPath is a product of ICLEI - Local Governments for Sustainability.



Drivers of Regional GHG Change

2012 to 2015 Metropolitan Washington





Regional Climate Goals

EXISTING

- 20% by 2020, below 2005 levels
- 80% by 2050

PROPOSED

Mitigation:

- 40%, 45% or 50% by 2030?
- Carbon neutrality by 2050

Resilience:

- Climate Ready Region by 2030
- Achieve Regional Resilience by 2050



IPCC on Global Warming

IPCC on limiting global warming to 1.5° C

- A number of climate change impacts could be avoided by limiting global warming to 1.5°C (such as more extreme weather, sea level rise and loss of ecosystems)
- Global net human-caused emissions of carbon dioxide (CO2) would need to fall by about 45% from 2010 levels by 2030, reaching 'net zero' around 2050.
- Requires "rapid and far-reaching" transitions in land, energy, industry, buildings, transport, and cities

Carbon neutrality =

 Carbon neutrality means having a balance between emitting carbon and absorbing carbon from the atmosphere in carbon sinks.



Regional Resilience Goals Description

By 2030, the region will be climate ready.

- Local climate risks have been assessed and climate planning is incorporated into *all* government plans.
- Climate risks are being communicated across governmental offices and to the public, with a particular emphasis on engaging potentially vulnerable populations.
- Climate planning is actively being incorporated into government operations.
- All communities are undertaking implementation strategies to mitigate risks.
- Establish the necessary plans, networks, funding, and other actions to ensure implementation of full resilience by 2050.



Regional Resilience Goals Description

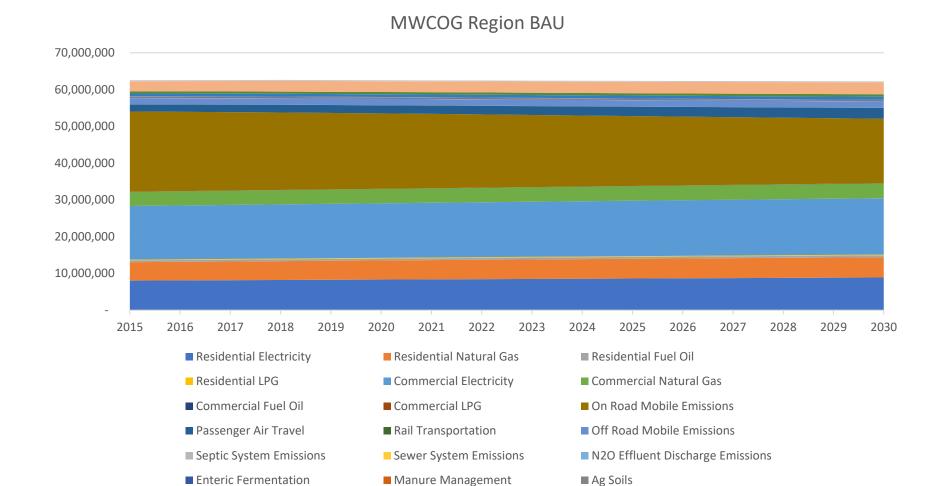
By 2050, the region is climate resilient.

The region has the ability to adapt and absorb against disturbances caused by current and future climate impacts and successfully maintain function.

- The region is a network of resilient and socially connected people, governments, and institutions that have constructed resilient communities. (resilient people = resilient communities)
- Measures have been implemented across the region to mitigate against current and future climate impacts.
 - All critical infrastructure and functions are climate resilient.
 - Resilient solutions to protect public health and safety, particularly of potentially vulnerable populations, have been deployed.
- The region is monitoring measures to address current and future climate risks and vulnerabilities.



Updated Business As Usual Projections



■ Combustion of Solid Waste

HFCs

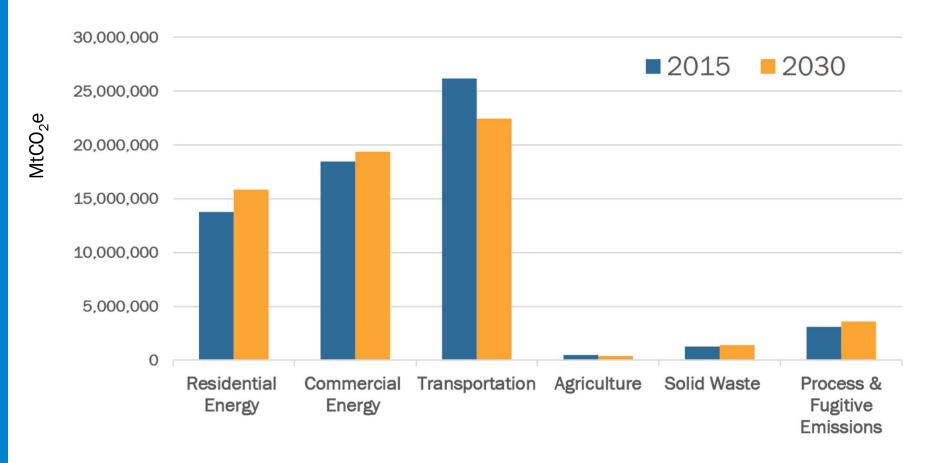


■ Landfill Waste Generation

■ Natural Gas Fugitive Emissions

Looking Forward - Business as Usual

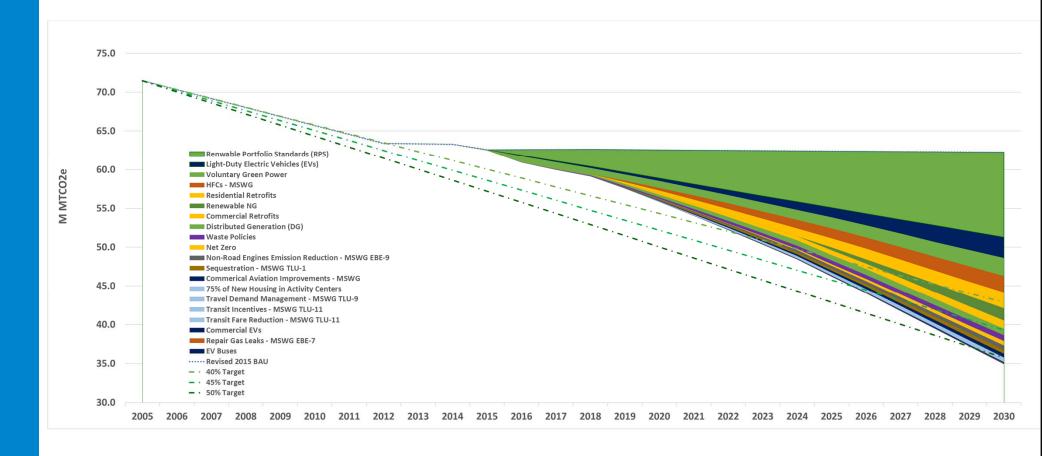
- Reflects growth in population, employment, transportation
- Accounts for "on-the-books" actions as of 2015





Scenarios

What Would It Take to Get to 40% - 50% by 2030





What Will it Take to Get to 50% by 2030

Updated Scenario Assumptions	
Renewable Portfolio Standards	 Current standards (DC 87%, MD 50%, NOVA 38% by 2030)
Distributed Generation	 > 200,000 additional systems (at current size); equivalent to 24% of single-family homes with solar
Green Power Purchases	Continued 10% annual growth
Electric Vehicles	NREL Electrification Futures Study high EV adoption rates
Future Housing	75% of new housing in Activity Centers or high capacity transit
Net Zero	Achievement of all new construction net zero energy by 2030.
Deep Retrofits	2% of residential and commercial deep retrofits annually
Zero Waste	80% diversion by 2030



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