

ITEM 8 – Action
October 21, 2020

Interim 2030 Regional Greenhouse Gas Reduction Goal

Action: Adopt Resolution R8-2021 to endorse the 2030 regional greenhouse gas reduction goal.

Background: Staff will brief the Board on the climate change planning activities and the new interim 2030 regional greenhouse gas (GHG) reduction goal that was adopted by the COG Board on October 14, 2020. This new goal will serve as an interim milestone between the region’s 2020 and 2050 goals that were adopted by the COG Board in 2008 and subsequently endorsed by the TPB. The TPB will be asked to consider endorsing the 2030 goal.

TPB R8-2021
October 21, 2020

NATIONAL CAPITAL REGION TRANSPORTATION PLANNING BOARD
777 North Capitol Street, N.E.
Washington, D.C. 20002

**RESOLUTION ON THE METROPOLITAN WASHINGTON COUNCIL OF
GOVERNMENTS' REGIONAL MULTI-SECTOR INTERIM GOALS FOR REDUCING
GREENHOUSE GASES**

WHEREAS, the National Capital Region Transportation Planning Board (TPB), the metropolitan planning organization (MPO) for the National Capital Region (Region), has the responsibility under the provisions of Fixing America's Surface Transportation (FAST) Act to carry out continuing, cooperative and comprehensive transportation planning for the Region; and

WHEREAS, the TPB is committed to preserving and enhancing the Region's environment through transportation plans focused on reducing congestion and emphasizing projects and programs that move more people and goods efficiently and reduce reliance on single-occupant vehicles; and

WHEREAS, the TPB is associated with the Metropolitan Washington Council of Governments (COG) and works closely with COG's Board of Directors ("COG Board") and its regional policy advisory committees, including the Climate, Energy and Environment Policy Committee (CEEPC), and the Region Forward Coalition, as well as the Metropolitan Washington Air Quality Committee (MWAQC) on matters of regional multi-sectoral planning; and

WHEREAS, in November 2008, the COG Board, through resolution R60-08, adopted the National Capital Region Climate Change Report that included voluntary goals to reduce greenhouse gases by 10 percent below business as usual projections by 2012, by 20 percent below 2005 levels by year 2020, and by 80 percent below 2005 levels by year 2050; and

WHEREAS, TPB recognizes achieving reductions in criteria pollutants and greenhouse gas emissions as a priority and has been reporting projected on-road greenhouse gas emissions in the Region's Long-Range Transportation Plan Performance Report since 2010; and

WHEREAS, TPB's "What Would it Take?" scenario analysis in 2010 quantified the effects of transportation sector specific actions for reducing greenhouse gas emissions; and

WHEREAS, in December 2014, the TPB, through Resolution R10-2015, affirmed the Region's greenhouse gas reduction goals adopted by the COG Board (COG Resolution R60-08) in November 2008, and undertook the Multi-Sector Working Group study jointly with COG and MWAQC; and

WHEREAS, COG's Multi-Sector Working Group study, completed in 2017, identified implementable and stretch local, regional, and state actions to reduce greenhouse gas emissions in all four sectors (Energy, Transportation, Land Use, Built Environment); and

WHEREAS, the Region has been able to reduce criteria pollutants such as ozone and fine particulate matter, and greenhouse gas emissions since 2010 due to federal, state, and local actions across sectors, including transportation and land use, even while accommodating considerable growth in population and employment; and

WHEREAS, while the Region did meet its greenhouse gas reduction goal for 2012, most recent data indicate that the Region is likely to miss its greenhouse gas reduction targets for 2020 and that achieving its 2050 goal will be challenging; and

WHEREAS, in 2019, the Intergovernmental Panel on Climate Change (IPCC) updated its guidance to recognize that the world is already experiencing the impacts of global warming and identified 2030 as one of the earliest target years, and noting that to avoid most severe climate impacts, greenhouse gas emissions must be significantly reduced as expeditiously as possible; and

WHEREAS, a global alliance for city climate leadership, from six continents and 138 countries built upon the commitment of over 10,000 cities and local governments, called the Global Covenant of Mayors for Climate and Energy (GCoM), has endorsed IPCC's report and provided its members a framework of global best practices for climate planning; and

WHEREAS, COG and its members were recognized by the Global Covenant of Mayors for Climate and Energy in 2019 as a U.S. Metro-Scale Climate Leader with CEEPC as a GCoM Signatory; and

WHEREAS, CEEPC, making use of the GCoM framework and its technical assistance, has completed a detailed study of greenhouse gas emissions in the Region and the strategies available to reduce these emissions and recommended COG adopt greenhouse gas reduction goals for 2030 as an interim year target towards attaining the Region's 2050 greenhouse gas reduction goals; and

WHEREAS, TPB recognizes that the transportation sector will have to be an active partner with the other sectors in the Region's efforts to reduce greenhouse gas emissions and meet the Region's greenhouse gas reduction goals; and

NOW THEREFORE BE IT RESOLVED THAT THE NATIONAL CAPITAL REGION TRANSPORTATION PLANNING BOARD:

1. Affirms the Region's interim climate mitigation goal of 50 percent greenhouse gas emission reductions below 2005 levels by 2030, adopted by the COG Board on October 14, 2020 (COG Resolution R45-2020); and
2. Affirms the Region's climate resilience goals of becoming a Climate Ready Region and making significant progress to be a Climate Resilient Region by 2030, adopted by the COG Board on October 14, 2020 (COG Resolution R45-2020); and
3. Affirms the need to incorporate equity principles and expand education on climate change into CEEPC and COG members' actions to reach the climate mitigation and resiliency goals, adopted by the COG Board on October 14, 2020 (COG Resolution R45-2020).



MEMORANDUM

TO: Transportation Planning Board
FROM: Erin Morrow, TPB Transportation Engineer
SUBJECT: Interim 2030 Regional Greenhouse Gas Reduction Goal
DATE: October 15, 2020

At its October 14 meeting, the Metropolitan Washington Council of Governments (COG) Board adopted an interim 2030 regional greenhouse gas (GHG) reduction goal to reduce GHG emissions by 50% below 2005 levels by 2030 (COG Resolution R45-2020¹). The 2030 goal is an addition to the regional GHG reduction goals that were set out in the *National Capital Region Climate Change Report* and adopted by the COG Board in November 2008:

- 2012: 10 percent below the business as usual emissions projection, which was equivalent to returning to 2005 emissions levels
- 2020: 20 percent below 2005 emissions levels
- 2050: 80 percent below 2005 emissions levels

The TPB will be asked on October 21 to adopt Resolution R8-2021 to endorse the interim 2030 regional GHG reduction goal. The TPB previously incorporated the regional GHG reduction goals in the “What Would it Take?” Scenario Study, which was completed in 2010. In 2014, the TPB affirmed the regional GHG reduction goals (TPB Resolution R10-2015).

The interim 2030 GHG reduction goal was recommended by COG’s Climate, Energy and Environment Policy Committee (CEEP) during development of the *Metropolitan Washington 2030 Climate and Energy Action Plan* (referred to as Action Plan). CEEP considered that a 30-year gap between the current emissions reduction targets in 2020 and 2050 may be too long, and that a shorter time-based goal should be set for measuring progress over time. The Action Plan is still under development, and TPB staff are collaborating with COG’s Department of Environmental Programs (DEP) staff on that effort. A draft of the Action Plan, which includes information on the 2030 scenario modeled to support the interim goal and an overview presentation, is available on the meeting page for the September 23, 2020 CEEP meeting:

<https://www.mwcog.org/events/2020/9/23/climate-energy-and-environment-policy-committee-ceep/>

¹ COG R45-2020: Resolution Endorsing Regional Climate Mitigation and Resiliency Goals
<https://www.mwcog.org/documents/2020/10/14/certified-resolution-r45-2020--endorsing-regional-climate-mitigation-and-resiliency-goals/>

BACKGROUND

In November 2008, the COG Board adopted regional greenhouse gas (GHG) reduction goals, which were set out in the *National Capital Region Climate Change Report*:

- 2012: 10 percent below the business as usual emissions projection, which was equivalent to returning to 2005 emissions levels
- 2020: 20 percent below 2005 emissions levels
- 2050: 80 percent below 2005 emissions levels

The Climate, Energy and Environment Policy Committee (CEEPC) was established by the COG Board in 2009 and is tasked with implementing the *National Capital Region Climate Change Report*. Since its inception, CEEPC adopted a series of short-term Regional Climate and Energy Action Plans, with each plan building off the last, to guide and support action toward meeting the region's GHG emissions reduction goals.

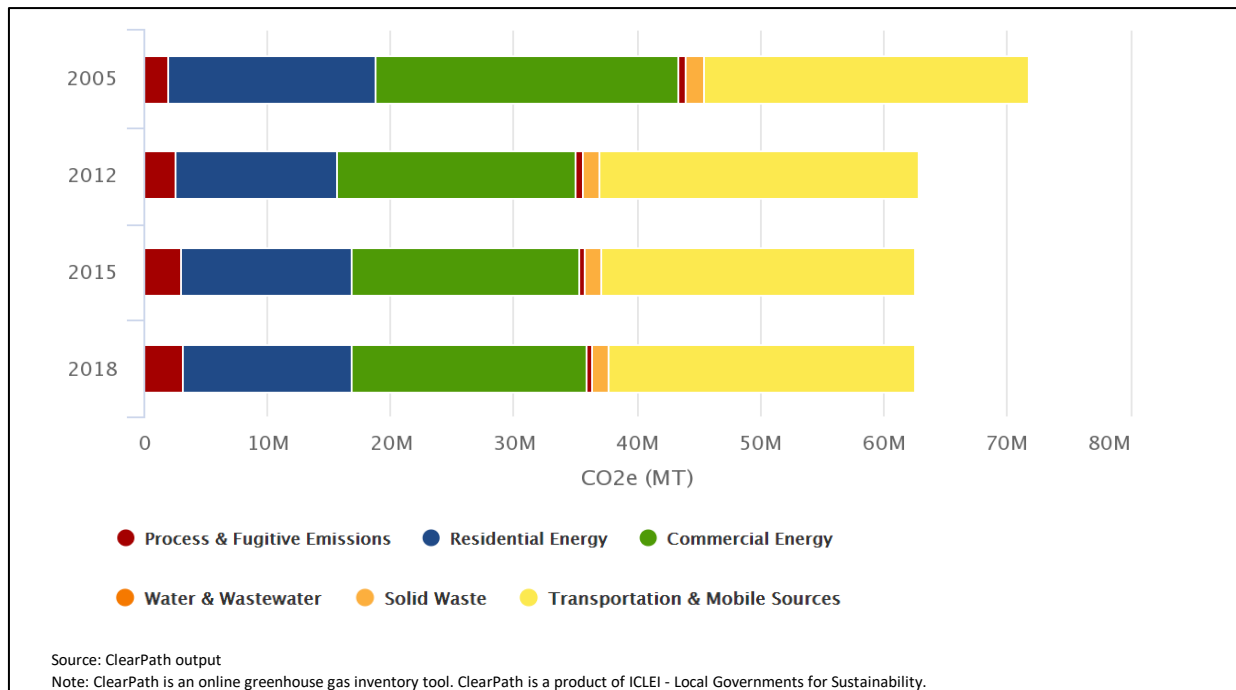
As a part of the development of the 2030 Climate and Energy Action Plan, the Committee considered that a 30-year gap between the current emissions reduction targets in 2020 and 2050 may be too long, and that a shorter time-based goal should be set for measuring progress over time. CEEPC recommended COG adopt a 2030 regional GHG emissions reduction goal that regional greenhouse gas emissions be 50 percent below 2005 emission levels by 2030. The COG Board adopted this goal at its October 14, 2020 meeting (COG Resolution R45-2020). The COG Board also adopted CEEPC's recommendation that the region be a Climate Ready Region by 2030, with substantial investments made in resiliency actions. Finally, the COG Board is reinforcing the need to incorporate equity principles and expand education on climate change into CEEPC and COG members' actions to reach the climate mitigation and resiliency goals and directing CEEPC to conduct a mid-point evaluation of the progress towards these goals and make recommendations for any new actions needed.

In 2014, TPB and the Metropolitan Washington Air Quality Committee (MWAQC) affirmed the regional GHG reduction goals as part of the resolution committing resources to COG's Multi-Sector Working Group (MSWG) study (TPB Resolution R10-2015).

GHG EMISSIONS IN THE NATIONAL CAPITAL REGION

COG's greenhouse gas inventories have documented the region's progress to date toward the above goals. The most recent inventory (Figure 1) showed that 2018 GHG emissions were 13 percent below 2005 levels, which leaves a significant gap to achieve the region's 20 percent reduction by 2020 goal.

Figure 1: COG's 2018 GHG Emissions Inventory²



In response to the 2019 call by the Intergovernmental Panel on Climate Change (IPCC) for expeditious action to avoid the most severe climate impacts, with 2030 as the earliest target year, and to assist this region with an interim year milestone as it works towards its 2050 GHG reduction goal, CEEPC considered a range of 2030 goals, between 40 and 50 percent below the 2005 baseline emissions levels. CEEPC reviewed the latest science from the IPCC calling for at least a 45 percent reduction in emissions by 2030, recently updated goals and climate emergency designations from localities across the region, and a technical analysis of what actions could lead to reaching a 50 percent by 2030 goal.

Based on this detailed review, CEEPC recommended to the COG Board that the region set the 50 percent reduction by 2030 goal, which is also consistent with goals recently adopted by or being considered by multiple COG member localities. Expedited and concerted actions will be needed throughout the region to achieve such a future goal.

GLOBAL COVENANT OF MAYORS FOR CLIMATE AND ENERGY

In September 2019, COG was selected as a Regional and Metro Scale Climate Leader by the Global Covenant of Mayors for Climate and Energy (GCoM). GCoM provides a framework of global best practices for climate planning and is providing COG with technical assistance. COG and its members are following the GCoM framework for the development of the 2030 Action Plan. CEEPC’s proposed greenhouse gas emissions reduction goal and Action Plan are consistent with the GCoM framework.

² Metropolitan Washington 2030 Climate and Energy Action Plan – Draft. Washington, D.C.: Metropolitan Washington Council of Governments. September 2020.

THE 2030 CLIMATE AND ENERGY ACTION PLAN

CEEPC is developing a 2030 Climate and Energy Action Plan to build off of the 2017-2020 Climate and Energy Action Plan. This will be the fourth in a series of Action Plans in the region. The Action Plan will set out updated actions for COG members and others to implement to reach the greenhouse gas emissions reduction goals while focusing on equity and the impacts of climate change on equity emphasis areas in the region.

COG’s DEP staff have completed analysis of the technical potential to meet 50 percent GHG reductions by 2030. A summary of the key assumptions is provided in Table 1.³

Table 1: Technical Analysis – Measures to Meet 50 Percent Greenhouse Gas Emissions Reduction by 2030

GHG Emission Reduction Activity	Assumptions
Renewable Portfolio Standards	Current standards (DC 87%, MD 50%, Northern VA 38% by 2030)
Other Renewables	> 200,000 additional solar systems, equivalent to 24% of single-family homes
	Continued 10% annual growth of green power purchases
	>16% of gas supply from renewable natural gas
Building Policies and Programs	All new construction net zero energy by 2030
	2% of residential and commercial existing buildings get deep retrofits annually
Zero Emission Vehicle Deployment	EV adoption rates of >20% light duty cars, >9% light duty trucks, >4% medium/heavy duty trucks, and >30% transit buses.
Transportation Policies and Programs	75% new housing in Activity Centers with high capacity transit.
	Continued transit improvements and transportation demand management to reduce VMT
Zero Waste Policies and Programs	80% diversion by 2030

CEEPC is developing a variety of built environment recommendations for the Action Plan such as, providing incentives and regulations to grow construction of net-zero energy buildings, providing for community choice aggregation of electricity purchases from renewable sources, and implementing micro-grids using clean energy sources.

Examples of transportation-related recommendations being considered include providing electric vehicle charging infrastructure in buildings and public spaces as well as increasing purchases of electric vehicles for government operations, public transit, and for the public through community cooperative purchases.

³ Ibid.

The transportation actions could be supported through the Transportation Climate Initiative (TCI). TCI is developing a “cap and invest” strategy, similar to the Regional Greenhouse Gas Initiative (RGGI) for the power sector, which would allow member states to have a credit system for GHG emissions from transportation fossil fuels while allowing trading among permit holders that would raise revenues to invest in clean transportation programs. The COG Board, at its February 12, 2020 meeting, endorsed the Transportation and Climate Initiative’s “cap and invest” program and the continued participating of the states and District of Columbia in developing the Model Rule for the program (COG Resolution R10-2020).

For the 2030 Action Plan, in addition to the 2030 resilience goals adopted at the October 14, 2020 meeting (COG Resolution R45-2020), CEEPC is also considering resilience goal of achieving regional climate resilience by 2050. This would require ongoing, significant investments at local, regional and state levels in flood control, urban heat island management, emergency response and other climate resiliency actions.

INTERIM 2030 GREENHOUSE GAS REDUCTION GOAL

Erin Morrow
TPB Transportation Engineer

Transportation Planning Board
October 21, 2020

New Greenhouse Gas Reduction Goals

- TPB is being asked to consider resolution R8-2021, which affirms the key elements contained in COG Board Resolution R45-2020 endorsing regional climate mitigation and resiliency goals, approved on October 14, 2020:
 - Affirms the 2030 interim regional greenhouse gas reduction goal of 50% below 2005 levels by 2030
 - Affirms the Region's climate resilience goals of becoming a Climate Ready Region and making significant progress to be a Climate Resilient Region by 2030
 - Affirms the need to incorporate equity principles and expand education on climate change into CEEPC and COG members' actions to reach the climate mitigation and resiliency goals

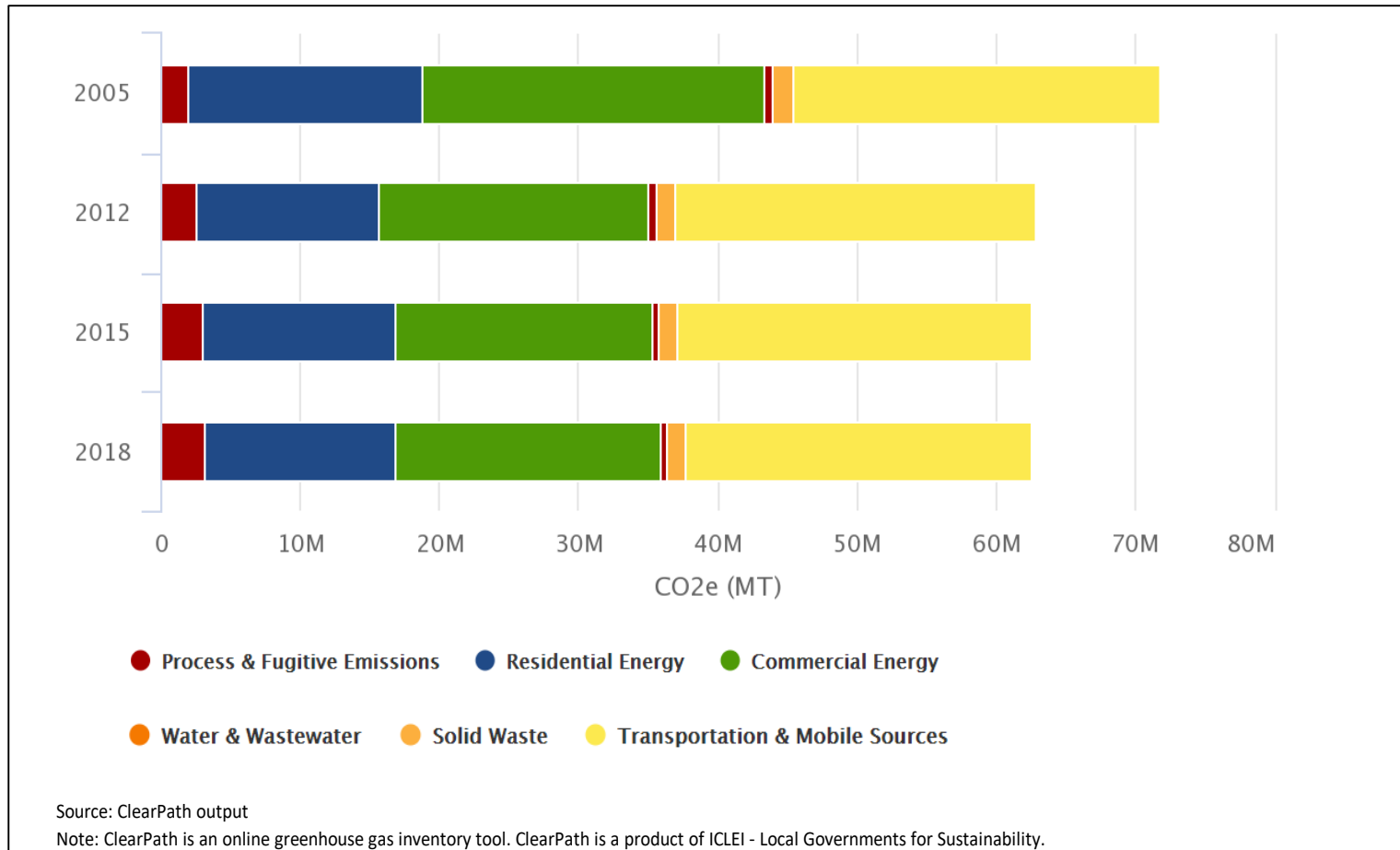


Current Regional Greenhouse Gas Reduction Goals

- In November 2008, the COG Board adopted regional greenhouse gas (GHG) goals:
 - 2012: 10 percent below the business as usual emissions projection, which was equivalent to returning to 2005 emissions levels
 - 2020: 20 percent below 2005 emissions levels
 - 2050: 80 percent below 2005 emissions levels
- TPB has affirmed (R10-2015) the current regional GHG reduction goals
- TPB has examined strategies within the transportation sector that would reduce GHG emissions (2010 “What Would it Take?” Scenario Study and 2017 “Multi-Sector Working Group” study)



Regional Greenhouse Gas Reductions



Source: MWCOG, Metropolitan Washington Community-Wide Greenhouse Gas Emissions Inventory Summary, July 17, 2018.



Basis for New Greenhouse Gas Reduction Goals

- The interim goal was recommended by COG's Climate, Energy and Environment Policy Committee (CEEPC)
 - Considered a range of 2030 goals, between 40 and 50 percent below the 2005 emissions levels
 - Reviewed the latest science from the Intergovernmental Panel on Climate Change calling for at least a 45 percent reduction in emissions by 2030
 - Confirmed consistency with goals recently adopted by or being considered by multiple COG member localities
 - Conducted modeling to support recommendation of 50% below 2005 emissions levels by 2030
 - Utilized framework for global best practices as developed by Global Covenant of Mayors for Climate and Energy (GCoM)
- CEEPC is developing 2030 Action Plan document listing the strategies with the greatest potential



Strategies Analyzed for 50% Reduction Goals

GHG Emission Reduction Activity	Assumptions
Renewable Portfolio Standards	Current standards (DC 87%, MD 50%, Northern VA 38% by 2030)
Other Renewables	> 200,000 additional solar systems, equivalent to 24% of single-family homes
	Continued 10% annual growth of green power purchases
	>16% of gas supply from renewable natural gas
Building Policies and Programs	All new construction net zero energy by 2030
	2% of residential and commercial existing buildings get deep retrofits annually
Zero Emission Vehicle Deployment	EV adoption rates of >20% light duty cars, >9% light duty trucks, >4% medium/heavy duty trucks, and >30% transit buses
Transportation Policies and Programs	75% new housing in Activity Centers with high capacity transit
	Continued transit improvements and transportation demand management to reduce VMT
Zero Waste Policies and Programs	80% diversion by 2030

TPB staff are working with staff in COG's Department of Environmental Programs (DEP) to draft transportation section of 2030 Action Plan



TPB Resolution on New Regional Greenhouse Gas Reduction Goals

- R8-2021:
 - Affirms the 2030 interim regional greenhouse gas reduction goal of 50% below 2005 levels by 2030
 - Affirms the Region's climate resilience goals of becoming a Climate Ready Region and making significant progress to be a Climate Resilient Region by 2030
 - Affirms the need to incorporate equity principles and expand education on climate change into CEEPC and COG members' actions to reach the climate mitigation and resiliency goals
- Consistent with COG Board Resolution R45-2020, adopted on October 14, 2020



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National Capital Region
Transportation Planning Board

**METROPOLITAN WASHINGTON COUNCIL OF GOVERNMENTS
777 NORTH CAPITOL STREET, NE
WASHINGTON, DC 20002**

RESOLUTION ENDORSING REGIONAL CLIMATE MITIGATION AND RESILIENCY GOALS

WHEREAS, in 2019, the Intergovernmental Panel on Climate Change updated its guidance to recognize that the world is already experiencing the impacts of global warming and to avoid most severe climate impacts greenhouse gas emissions must be reduced by at least 45 percent from 2010 levels by 2030 and to carbon neutrality by 2050; and

WHEREAS, metropolitan Washington is already experiencing the impacts of a changing climate, including increases in temperature and sea-level rise; and

WHEREAS, COG's Region Forward Vision includes a sustainability goal that calls for a significant decrease in greenhouse gas emissions, with substantial reductions from the built environment and transportation sector; and

WHEREAS, the Board of Directors in Resolution R60-08 adopted the *National Capital Region Climate Change Report* and its recommendations in 2008, including goals to reduce greenhouse gas emissions by 10 percent below business as usual by 2012, 20 percent below the region's 2005 baseline by 2020, and 80 percent below the 2005 baseline by 2050; and

WHEREAS, the Board of Directors in Resolution R18-09 established the Climate, Energy and Environment Policy Committee (CEEPC) in 2009 to collaboratively work toward the report's goals; and

WHEREAS, COG and its members were recognized by the Global Covenant of Mayors for Climate and Energy (GCoM) in 2019 as a U.S. Metro-Scale Climate Leader and CEEPC became a GCoM Signatory committing to follow global best practices in climate planning; and

WHEREAS, CEEPC has reviewed the updated IPCC guidance and GCoM protocols and recommends COG establish an interim 2030 climate mitigation goal of 50 percent greenhouse gas reduction below 2005 and climate resilience goals of becoming a Climate Ready Region by 2030 and fully Resilient Region by 2050; and

WHEREAS, CEEPC recognizes that strong actions are still needed by the federal and state governments, in addition to local governments to avoid the most severe climate impacts and is developing a 2030 Climate and Energy Action Plan to include recommended actions to meet the region's climate mitigation and resiliency goals; and

WHEREAS, CEEPC recognizes that educating the public about the risks from climate change and the value of emission reduction and resiliency efforts is a critical action in addition to direct actions to reduce greenhouse gas emissions and increase resiliency; and

WHEREAS, the Board of Directors in Resolution R26-2020 affirmed that equity will be woven into COG's programs and priorities.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF DIRECTORS OF THE METROPOLITAN WASHINGTON COUNCIL OF GOVERNMENTS THAT:

- 1) The board endorses an interim climate mitigation goal of 50 percent greenhouse gas emission reductions below 2005 levels by 2030; and
- 2) The board endorses climate resilience goals of becoming a Climate Ready Region and making significant progress to be a Climate Resilient Region by 2030; and
- 3) The board reinforces the need to incorporate equity principles and expand education on climate change into CEEPC and COG members' actions to reach the climate mitigation and resiliency goals, and
- 4) Directs CEEPC to report back a mid-point evaluation of the progress towards these goals and make recommendations for any new actions needed.

**I HEREBY CERTIFY THAT the foregoing resolutions were adopted by the COG Board of Directors
October 14, 2020
Janele Partman
COG Communications Specialist**