#### METROPOLITAN WASHINGTON 2030 CLIMATE & ENERGY ACTION PLAN

Dan Sze, Climate, Energy, and Environment Policy Committee Chair Steve Walz, Department of Environmental Programs Director

COG Board of Directors March 11, 2020



## **COG's Climate Action History**

- 2007: R31-07 created the COG Climate Change Initiative
- 2008: Resolution R60-08 adopted the National Capital Region Climate Change Report
- 2009: Resolution 18-09 established the Climate, Energy and Environment Policy Committee
- 2010: Greenhouse gas emission reduction targets incorporated into Region Forward
- 2010: CEEPC adopted the first regional Climate and Energy Action Plan for 2010-2012.
- 2013-2016 and 2017-2020: Updated Action Plans adopted
- 2020-2030: Action Plan now under development



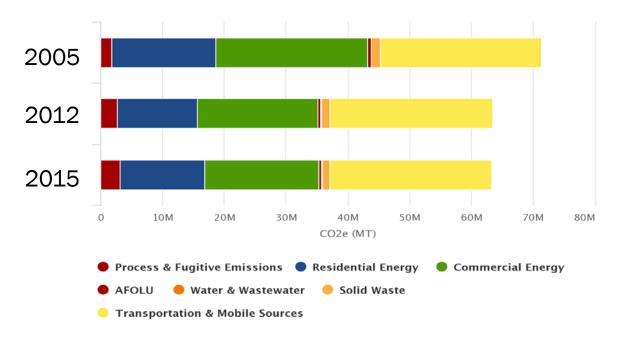
# COG's Greenhouse Gas Emission Reduction Targets

- 2008 National Capital Region Climate Change Report GHG emission reduction targets
  - By 2012, reduce Business As Usual emissions by 10% roughly equivalent to 2005 baseline
  - By 2020, reduce greenhouse gas emissions by 20% below 2005 baseline
  - By 2050, reduce greenhouse gas emissions by 80% below 2005 baseline
- Based on Intergovernmental Panel on Climate Change recommendations to stabilize projected global temperature rise



# Regional Greenhouse Gas Emission Inventory

- Measures Progress toward Regional targets
  - 51% Built environment
  - 42% Transportation
  - 7% Mixed activities





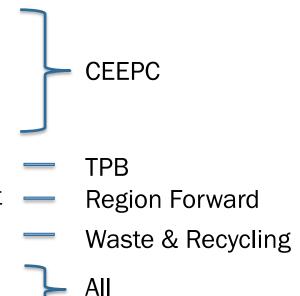
## Climate Planning Guiding Principles

- 1. Collective action
- 2. Effective partnerships
- 3. Lead by example
- 4. Integration
- 5. Flexibility
- 6. Transparency
- 7. Innovation
- 8. Community leadership
- 9. Inclusive engagement
- 10. Advocacy
- 11. Urgency



## 2020 Climate and Energy Action Plan

- 1. Reduce GHG emissions
- 2. Reduce energy consumption
- 3. Increase share of renewables
- 4. Build regional resilience
- 5. Advance sustainable regional mobility
- 6. Increase sustainable urban development
- 7. Move towards zero waste
- 8. Protect equity and health
- 9. Grow the regional economy





## **Looking Forward: 2030 Action Plan**

- 2030 interim greenhouse gas emission reduction goal
- Global Covenant of Mayors For Climate & Energy (GCoM)
  - 9,200 cities/counties worldwide; 162 in US
  - Expanded regional focus; four Metro-Scale Climate Leaders in US
- Why GCoM?
  - Common reporting framework
  - Revised Business as Usual projections
  - GHG emissions inventory independent review
  - Mitigation targets and low-carbon scenarios
  - Climate Risk and Vulnerability Assessment
  - Mitigation and adaptation actions
  - Technical assistance



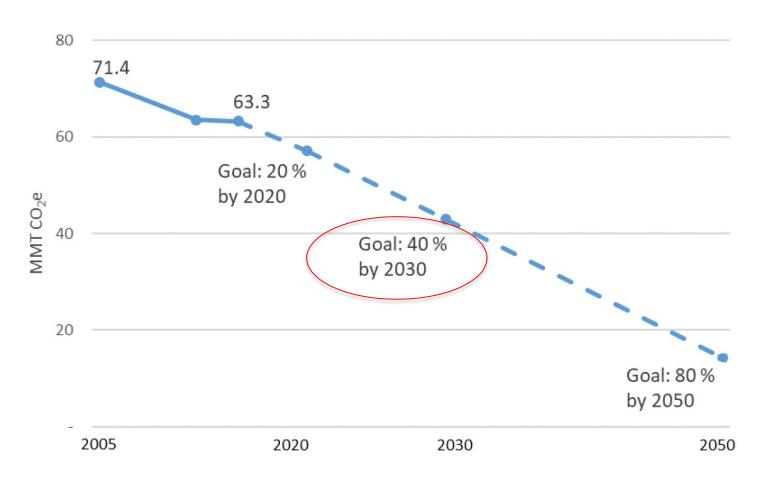


## **Looking Forward: 2030 Action Plan**

- November 2019
  - GHG inventory review
  - Mitigation strategies
  - Climate Risk and Vulnerability Assessment
- February 2020
  - COG Board Resolution Transportation & Climate Initiative
- March 2020
  - Assess 2030 GHG emission reduction goal
  - Review Business as Usual projections
  - Prioritize mitigation strategies
  - Finalize Climate Risk and Vulnerability Assessment
  - Assess adaptation/resiliency strategies
- September 2020
  - Recommend to COG Board 2030 regional GHG emission reduction goal & Action Plan



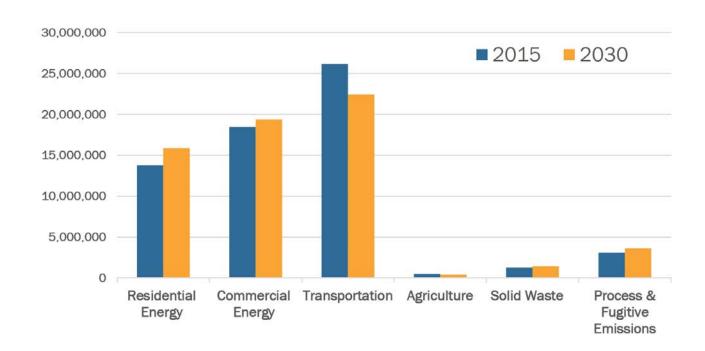
# Looking Forward: 2030 Regional GHG Emission Reduction Target





## **Looking Forward – Business as Usual**

- Total GHG emissions would start to increase again
- Reflects growth in population, employment, transportation
- Accounts for "on-the-books" actions as of 2015





## **Looking Forward: Technical Potential**

- Assessed the technical potential to reach a 40% target
- Found reaching the target is technical feasible
- Requires wide-spread application of actions
- Areas of Opportunity
  - 1. Deep building retrofits; net zero-buildings
  - 2. Renewable electricity
  - 3. Electric-based transportation
  - 4. Travel demand management
  - 5. HFC refrigerant replacements



# Looking Forward: Climate Risk and Vulnerability Assessment

#### Climate Hazards

Hazard	Probability	Consequence	Risk
Extreme Heat Days	3	3	9
Drought	2	3	6
Flooding (Flash and Riverine)	3	3	9
Lightning/Thunderstorm	3	2	6
Extreme Winter Conditions	2	3	6
Coastal Flooding	3	2	6

#### **Adaptive Capacity**

Factor	Degree of Challenge	
Access to Basic Services	Moderate	
Access to Healthcare	Moderate	
Public Health	Moderate	
Housing	Moderate	
Poverty	Moderate	
Economic Health	Low	
<b>Environmental Conditions</b>	Moderate	
Infrastructure Conditions / Maintenance	High	
Community Engagement	Moderate	



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