GREENHOUSE GASES AND CLIMATE PROGRESS

Assessing Progress Toward Regional 2030 Climate Goals

Metropolitan Washington Council of Governments (COG)
Department of Environmental Programs
Climate, Energy, and Air Program

Built Environment and Energy Advisory Committee (BEEAC) Meeting
April 16, 2026

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Midcourse Review (MCR) Approach

- The objectives of the Midcourse Review are to assess the status of regional climate goals, key performance indicators, and implementation levels of key actions to provide direction-setting for regional action.
- The results of the Midcourse Review show if regional trends are headed in the right direction and identify where CEEPC may need to course-correct to stay on track toward regional 2030 goals.
- The Midcourse Review evaluates past to current trends of goals and key performance indicators to support CEEPC decision making and next step actions.

COG Board Goals and Priorities

For the Midcourse Review, progress is being reviewed for the COG Board goals and priorities related to climate and energy.

The COG Board adopted greenhouse gas (GHG) emission reduction goals to **reduce GHG emissions 20 percent below 2005 levels by 2020 and 50 percent below by 2030**.

- The COG Board also endorsed additional goals and priorities to guide the climate work of the region and its members:
  - In 2022, the COG Board identified **electric vehicle (EV) deployment** as a regional priority.
  - In 2023, the COG Board endorsed a goal of **250,000 solar rooftops** in the region by 2030.
  - In 2024, the COG Board endorsed a goal of maintaining a **minimum tree canopy coverage of 50 percent** across the metropolitan Washington region.

MCR Performance Indicators

Sector	Performance Indicator
Greenhouse Gases (GHG)	Greenhouse Gas Emissions Contribution Analysis (drivers of GHG change)
Clean Electricity (CE)	Carbon Intensity of the Grid Grid Connected Renewables
Zero Energy Buildings (ZEB)	Building Energy Consumption Green Buildings
Zero Emissions Vehicles (ZEV)	Electric Vehicle (EV) Ownership EV Charging Stations and Ports
Mode Shift and Travel Behavior (MSTB)	Vehicle Miles Travelled Transit Ridership
Zero Waste (ZW)	Waste Diversion Rate
Sequestration (SQ)	Tree Canopy Coverage

MCR Report Layout

ZERO WASTE

Progress Towards 2030

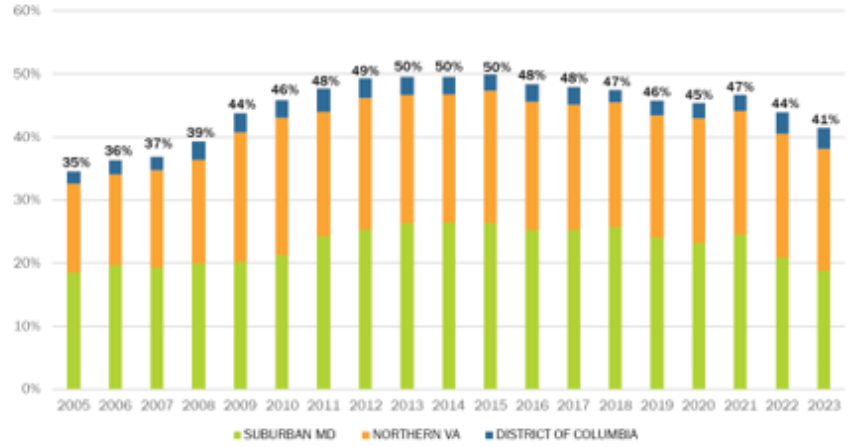
Zero Waste is a visionary goal that calls for society to use fewer resources as well as increase resource recovery, recycling, and composting. Zero waste strategies reduce emissions, save energy, and extend landfill capacity. Recent GHG strategy modeling assumed regional achievement of diverting 80 to 90 percent of all materials (including composting and recycling) from landfills and waste to energy (WTE) facilities. Expanding regional composting capacity, organics collection, and enforcement can support the region in meeting regional GHG emission reduction goals; however, the waste diversion rate is also impacted by the economy as well as industry and business trends.[xlvi]

PERFORMANCE INDICATOR

Waste Diversion

The regional waste diversion rate, one indicator to track progress towards zero waste, increased from approximately 35 percent in 2005 up to a high of 50 percent landing at 41 percent in 2023 (Figure 14).

Figure 14: Metropolitan Washington Recycling Rate Trends, 2005 - 2023



There are several potential reasons for an overall decrease in regional waste diversion rates over the last several years. Waste generation, in general, tends to follow economic growth, which had been down post pandemic. There can be lower the generation of certain recyclable materials from sectors like business during economic downturns. Also, business has historically generated a lot of recyclable paper. If economic activity is down and commercial office space is less occupied, a decrease in recyclable paper generated and collected can be expected. There are also the general industry trends of going more digital (not using paper in the office, not subscribing to paper news at home), the continued lightweighting of recyclable shipping/packaging materials—whether by making them thinner or by switching from heavier glass and steel to plastic.[xlvii]

SUPPORTING LOCAL POLICIES AND PROGRAMS

In order to move toward zero waste, first and foremost jurisdictions need to have foundational strategies in place to reduce solid waste. Ninety-five percent of COG member jurisdictions conduct waste education campaigns to promote behavioral changes that encourage waste reduction and diversion at the source. Additional waste reduction strategies include 75 percent of jurisdictions provide free recycling bins to residents, 60 percent have recycling requirements for businesses, 60 percent have recycling infrastructure in the community and at events, 45 percent have single-use plastic and polystyrene bans, 35 percent are investing in new waste collection systems that increase waste reduction and increase recycling, and 30 percent have a zero waste plan, policy or initiative.[xlviii]

To further move communities toward zero waste jurisdictions are enhancing organics collection and composting and supporting building a market for circularity. Examples of popular organics and composting initiatives include 70 percent of jurisdictions have food composting drop off sites, 55 percent offer residential curbside organics collection, and 40 percent have residential composting incentives. Examples of circularity initiatives in the region include repair and restoration services such as fix-it fairs, exchange and sharing opportunities such as tool sharing, and incentivizing second-hand products and upcycling.[xlix]

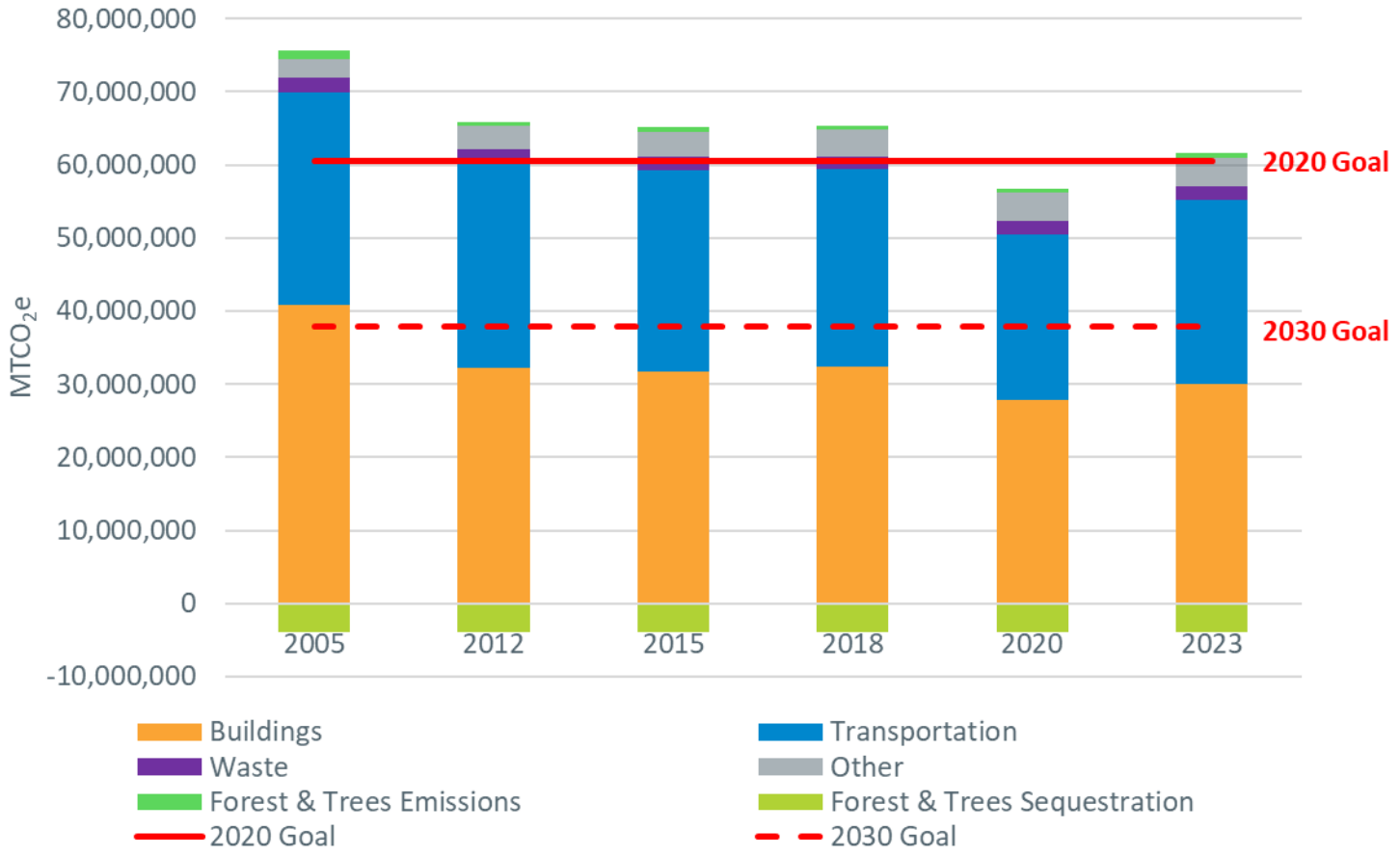
City of Laurel

Laurel has an app, Recycle Coach, that provides information about the City's trash and recycling program. Residents can access the schedule and events, learn about the accepted materials, set reminders to never miss the weekly collection day, receive instant updates, and can export calendar events to their own calendar application. The app lowers the barrier to entry when gaining knowledge and understanding about recycling (i.e. how to and what is allowed to be recycled). In addition, it keeps residents properly informed on any trash and recycling updates.[l]

Recycle Coach Marketing Screenshot (Source: City of Laurel)

Regional GHG Emission Reduction Results

Metropolitan Washington NET greenhouse gas emissions decreased by 20% from 2005 - 2023.



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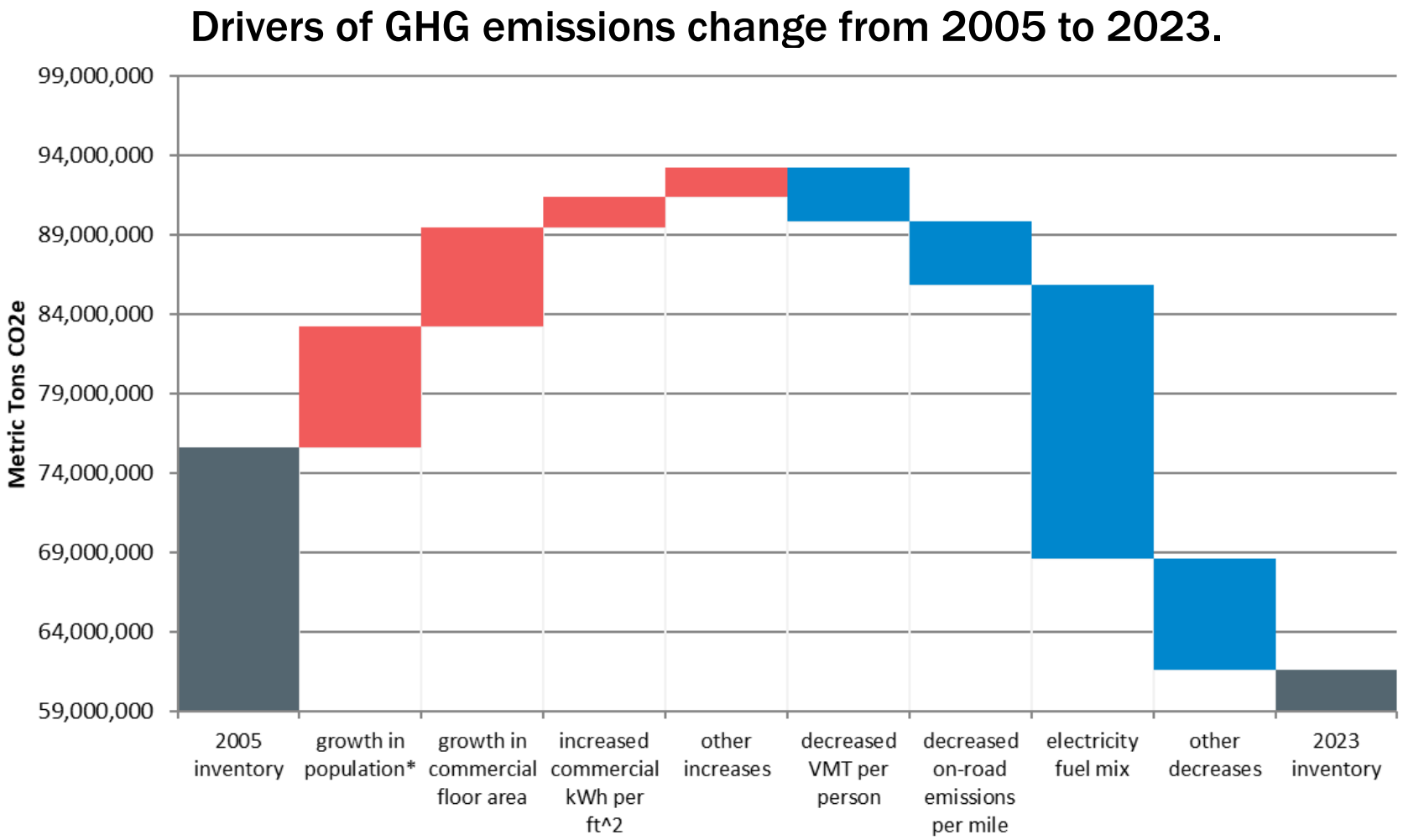
Contribution Analysis



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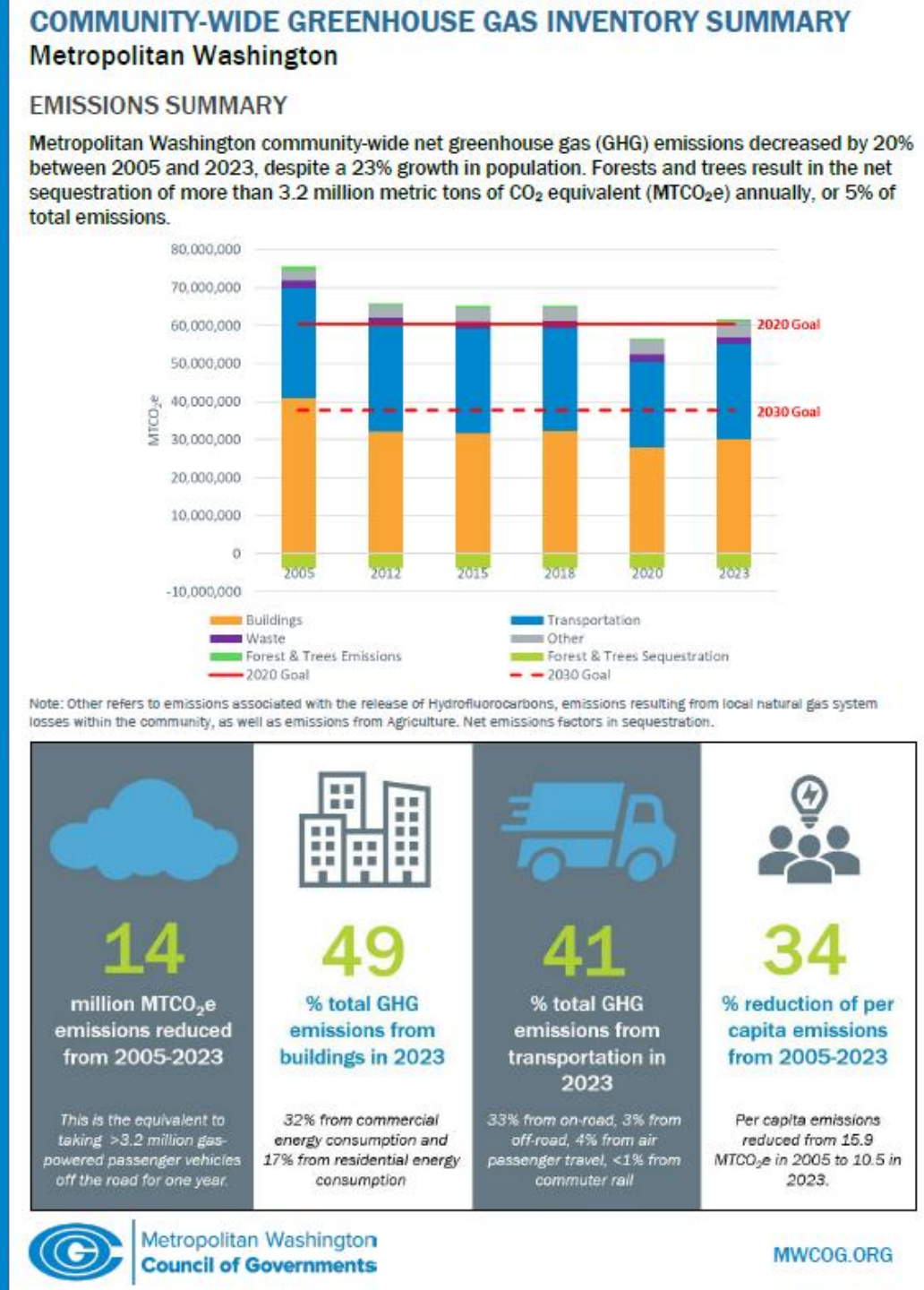


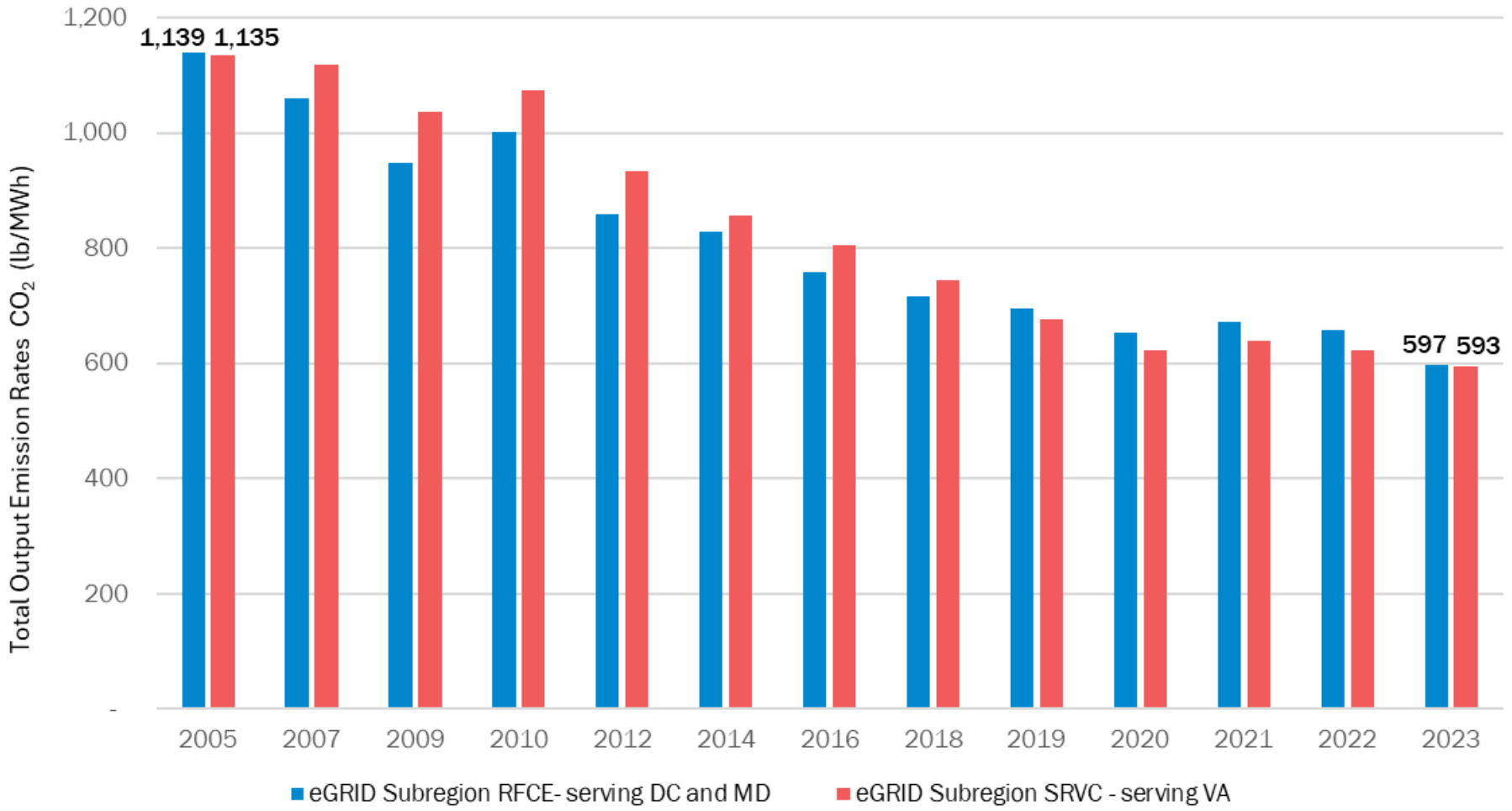
GHG Inventories

GHG inventories have been finalized for all 24 COG member jurisdictions, northern Virginia, and the COG region!

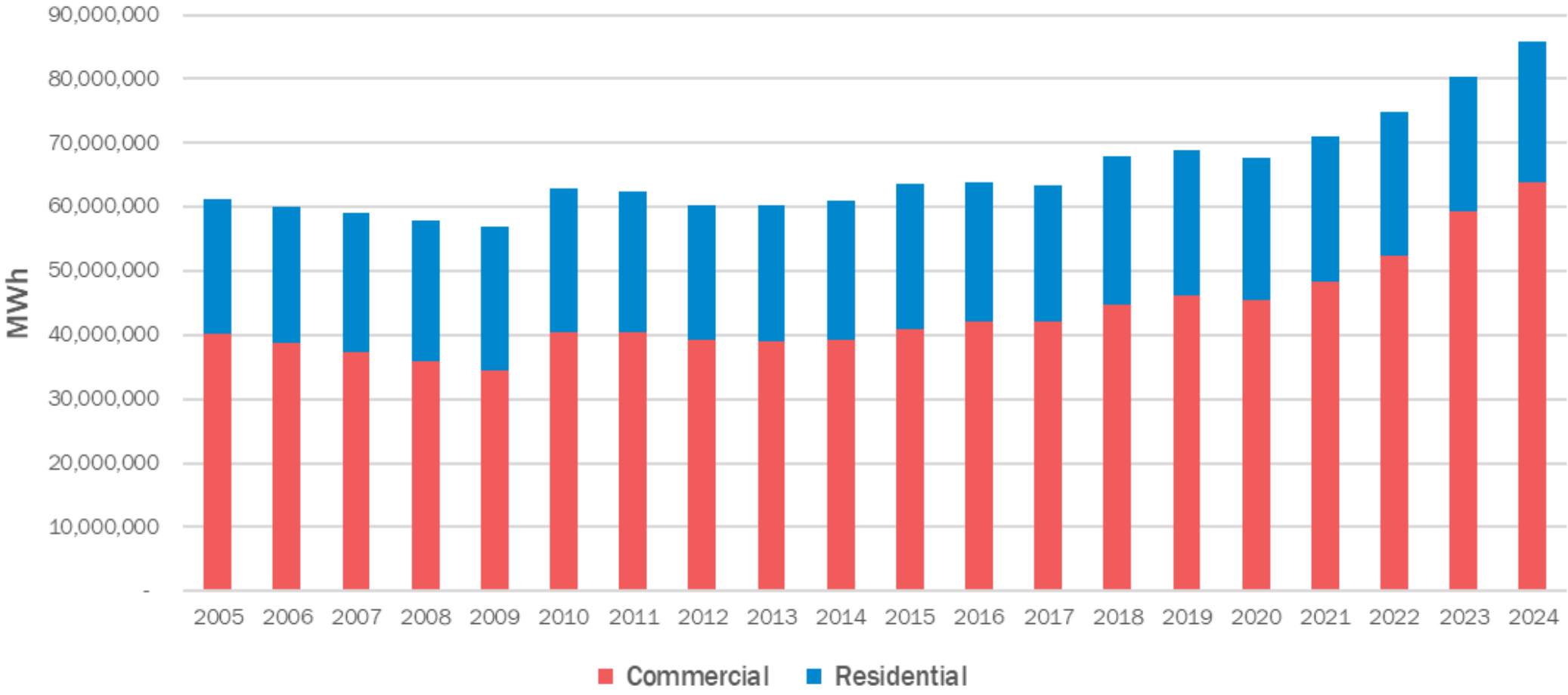
Final GHG Documents:

- GHG Fact Sheets
- GHG Data Summary Excel File
- Contribution Analysis Excel File
- GHG Methodology Report
- GHG Video

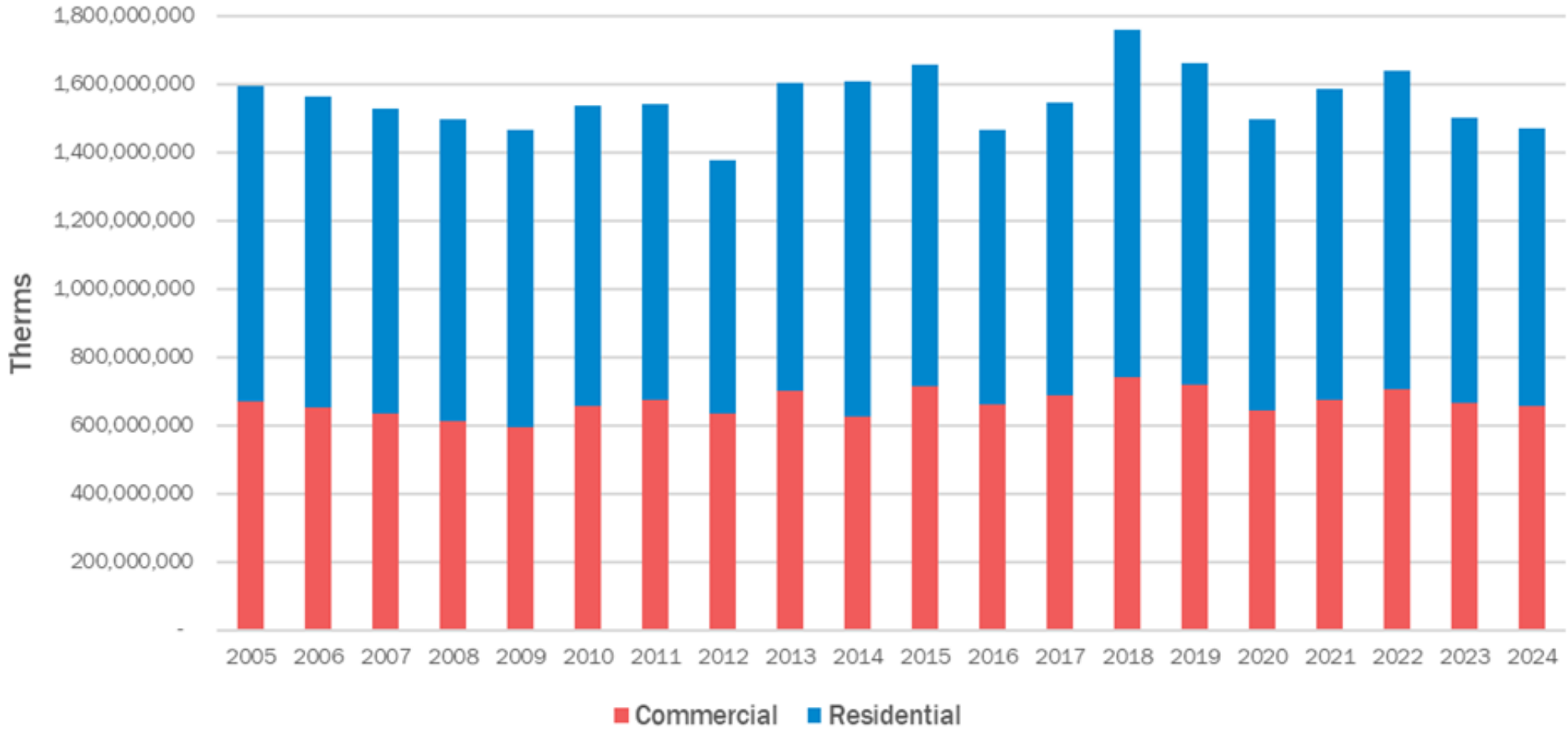
Regional Electric Grid



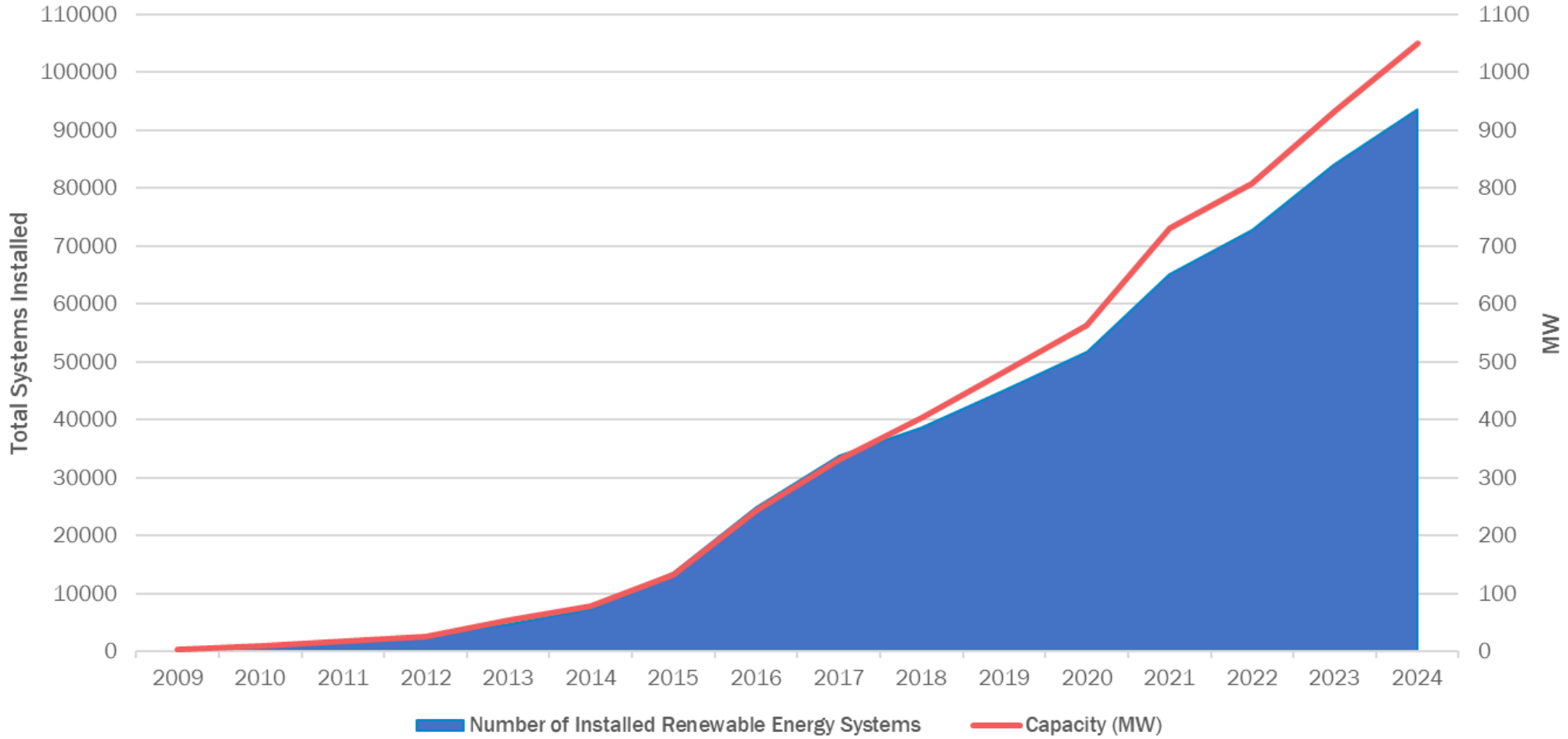
Electricity Trends



Natural Gas Trends



Grid-Connected Renewable Energy Systems



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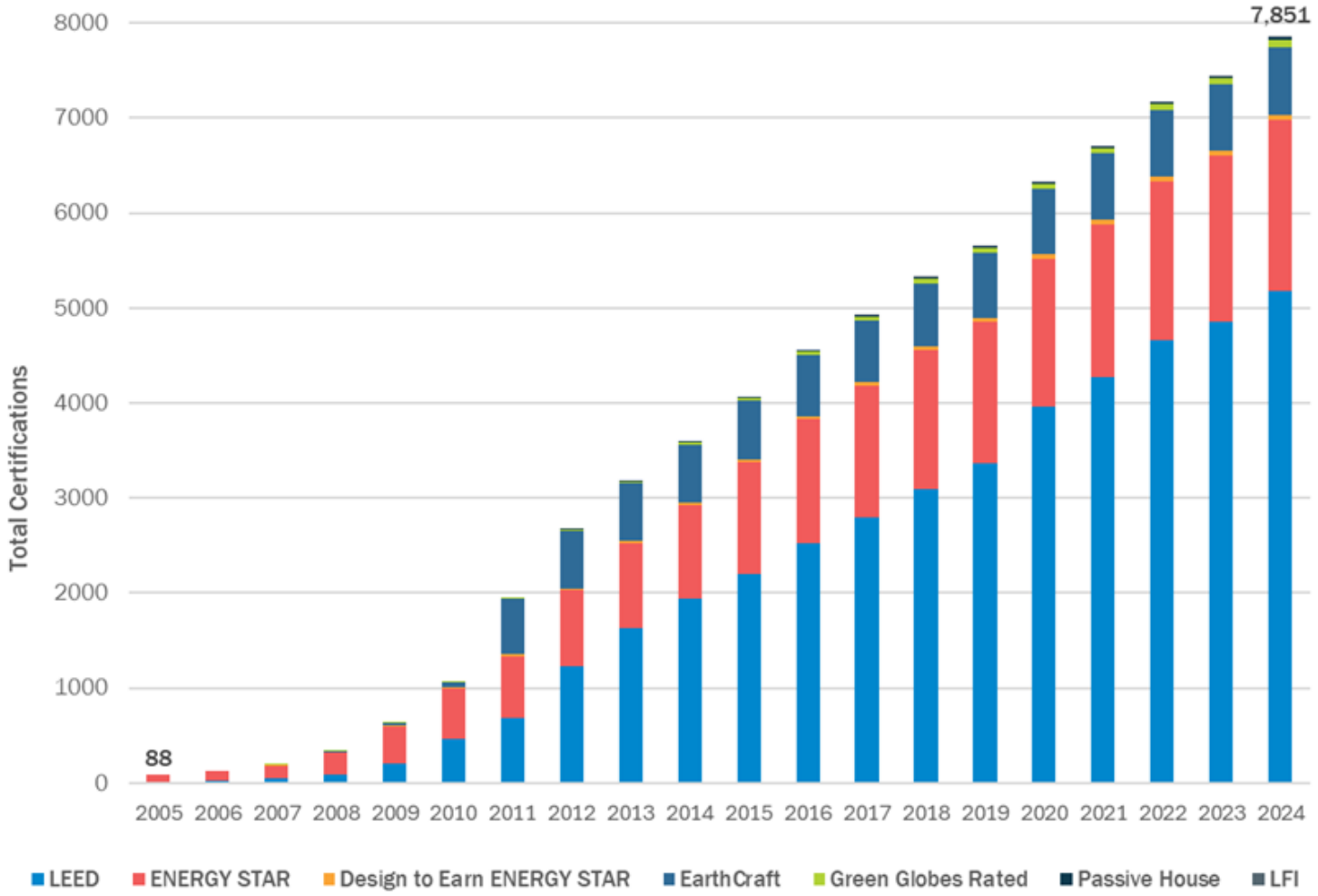
Green Building Trends – Regional Summary



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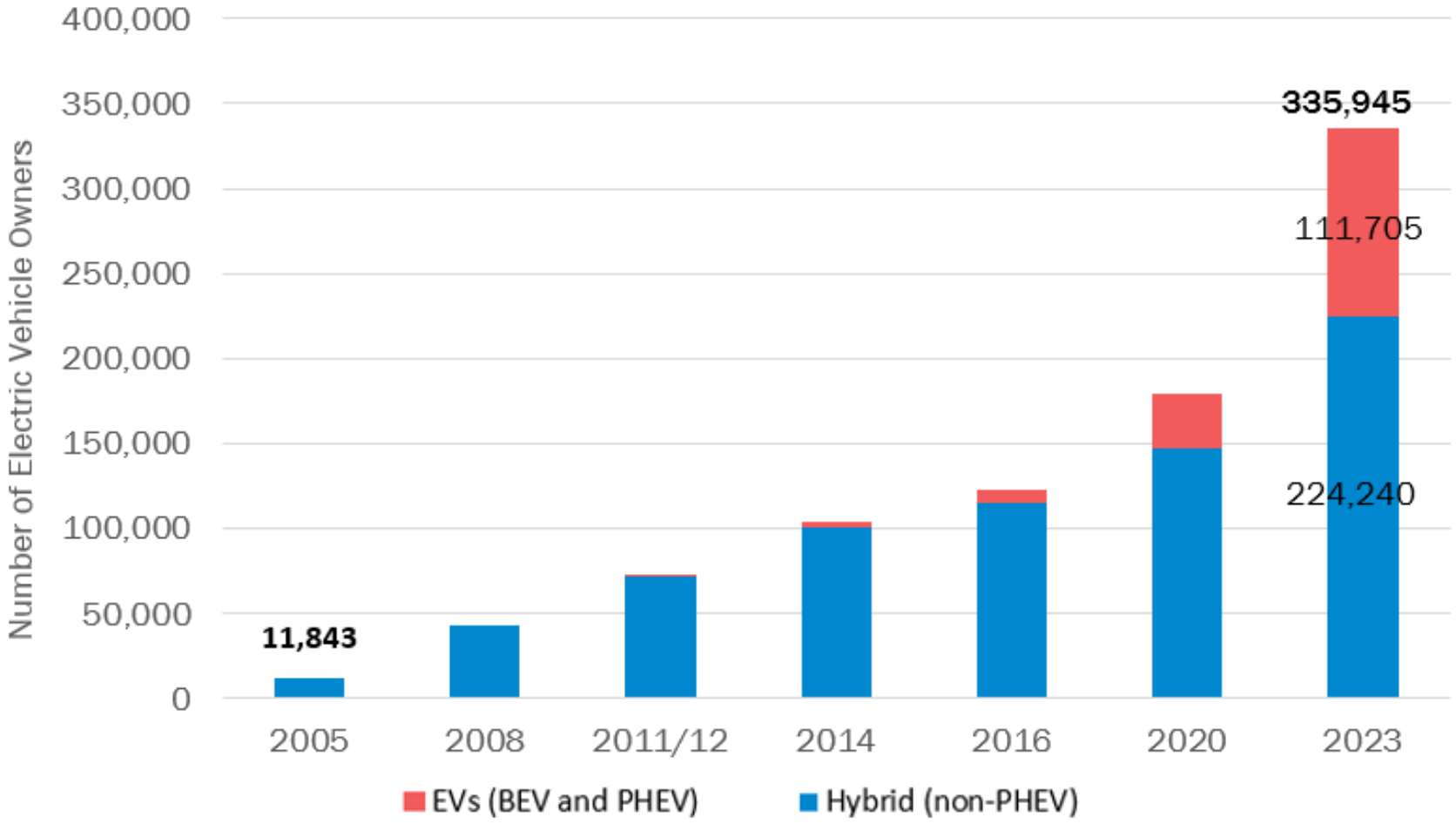
ZEV – Regional Total EV Ownership Trends



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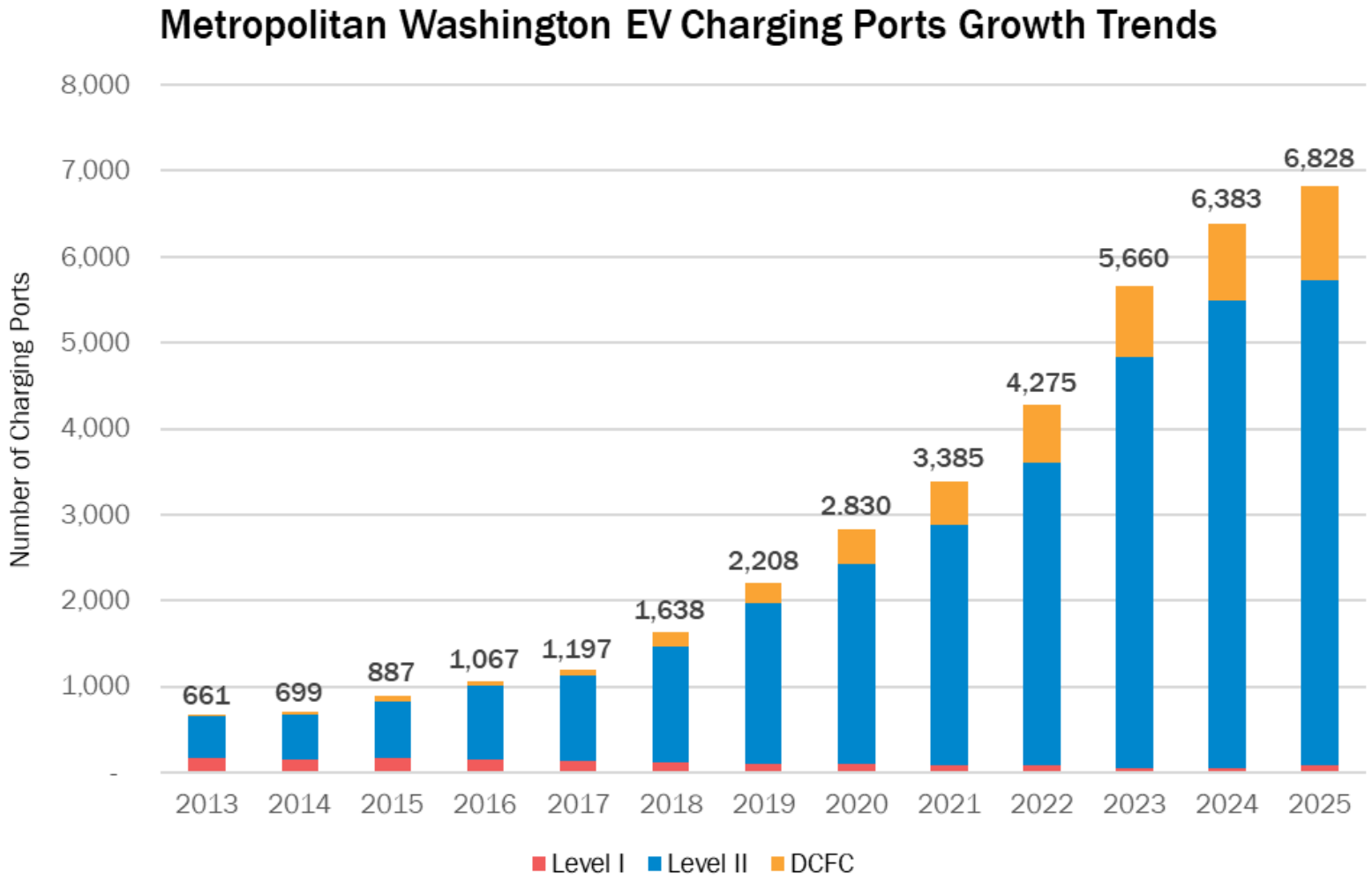
Source: State VIN data, assessed by COG/Transportation Planning Board (TPB) staff

ZEV – Regional Trends in EV Charging



Source: Alternative Fuel Data Center

Conclusions

Positives:

- 20% reduction in net GHG emissions since 2005
- Cleaner grid
- Solar development
- Green buildings
- Cleaner cars
- EV charging

Challenges:

- Continued exponential improvement in all positives
- High energy intensive industries, such as data centers
- Zero energy buildings
- COVID impacts on VMT and transit
- COVID impacts and industry shifts in waste diversion
- Tree canopy loss

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