



Energy Programs Office

Climate Change Advisory Committee Meeting

June 25th, 2024

Josh Shapiro, Governor

Jessica Shirley, Acting Secretary

Agenda

- **Introduction**
- Approval of February Minutes
- Presentation/Discussion – 2024 Climate Impacts Assessment and Climate Action Plan
- Public Comment
- Break
- Presentation/Discussion –2024 GHG Inventory Report
- DEP Updates
- Next Meeting
- New Business

Agenda

- Introduction
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2024 Climate Impacts Assessment and Climate Action Plan

Public Comment (15 Min)

Break

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DRAFT

**2024 Pennsylvania
Greenhouse Gas Inventory
Report**

2024 PA GHG Inventory

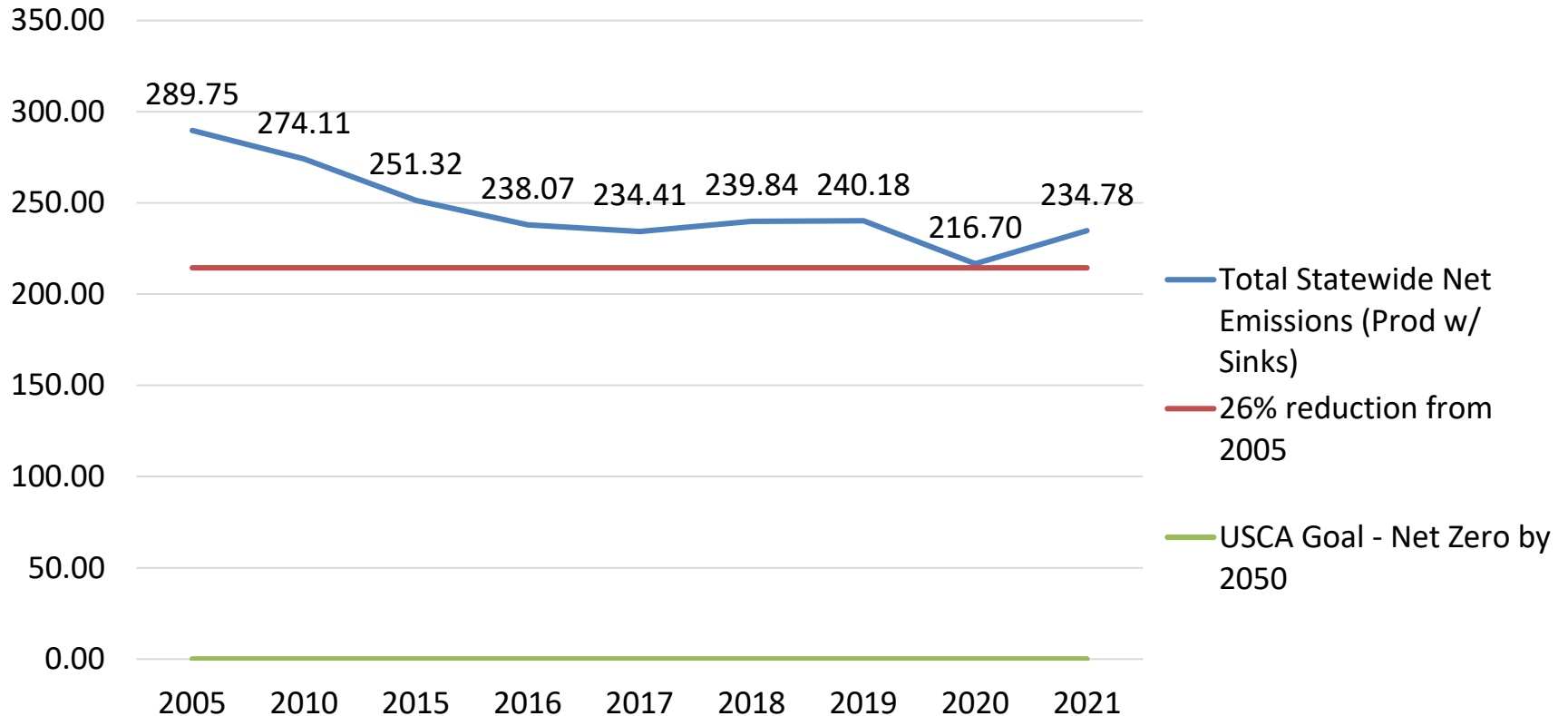
- State Inventory Tool (SIT)
 - Made available in February 2024
 - All modules updated with data through 2021
- Fuel consumption data for 2022 included from SEDS
- Additional sources included from EPA's U.S. Greenhouse Gas Emissions and Sinks

2024 PA GHG Inventory

- 2021 shows a net emissions increase from 2020, as anticipated with COVID-19 recovery.
- Emissions increased across most sectors, except agriculture and waste management.
- State emissions decreased 19.0 percent from the 2005 baseline.

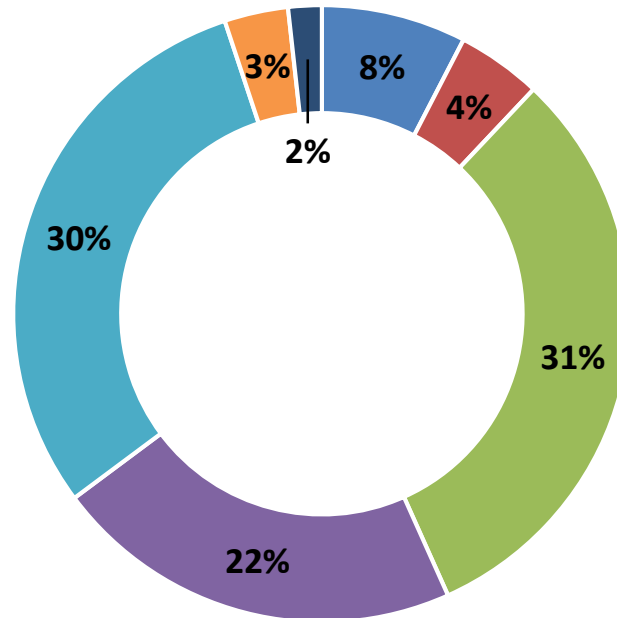
2024 PA GHG Inventory

Total Statewide Net Emissions (Sources w/ Sinks)(MMTCO₂e)



2024 PA GHG Inventory

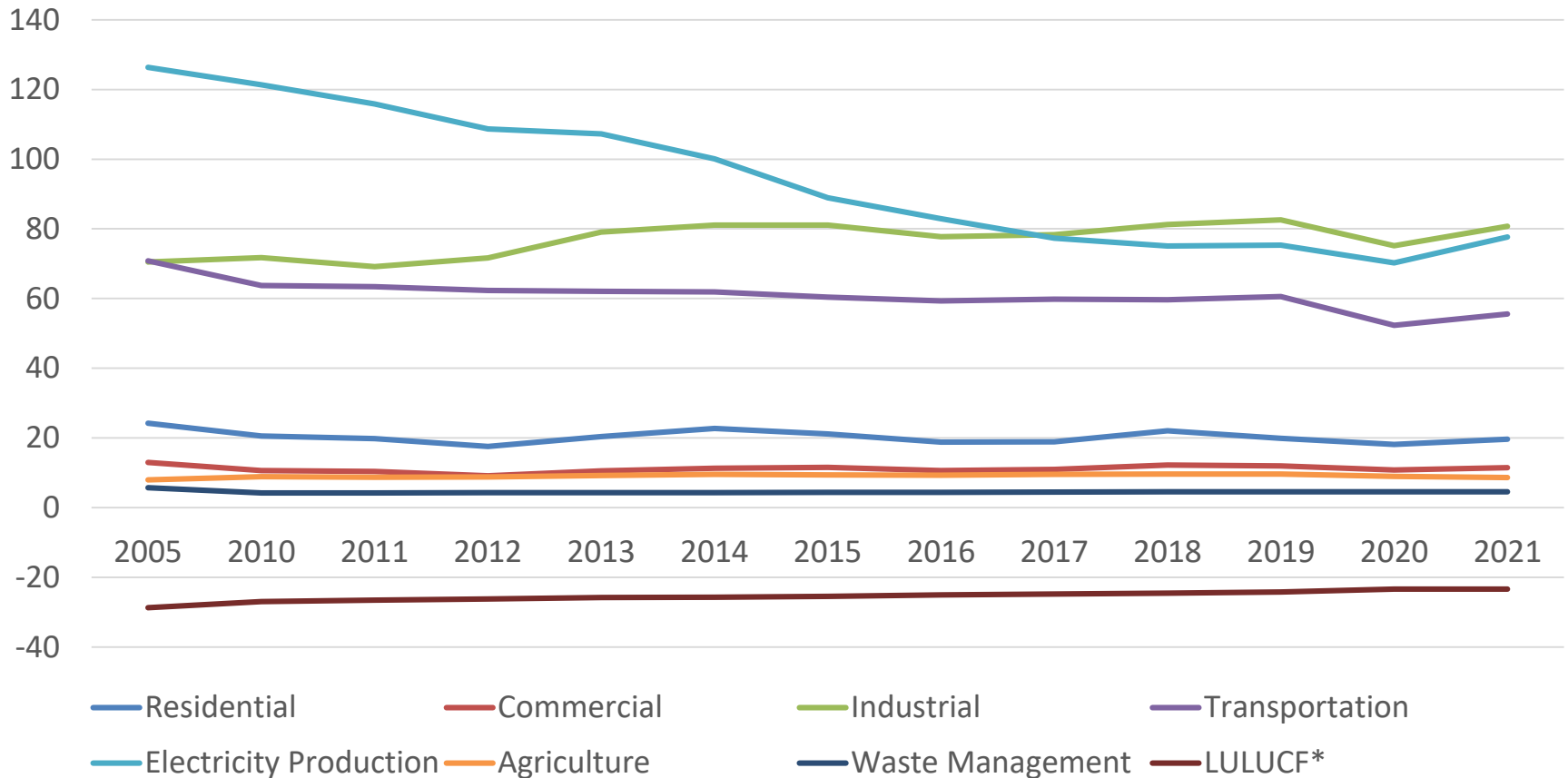
Pennsylvania 2021 GHG Emissions
% of Total by Sector



- Residential
- Commercial
- Industrial
- Transportation
- Electricity Production
- Agriculture
- Waste Management

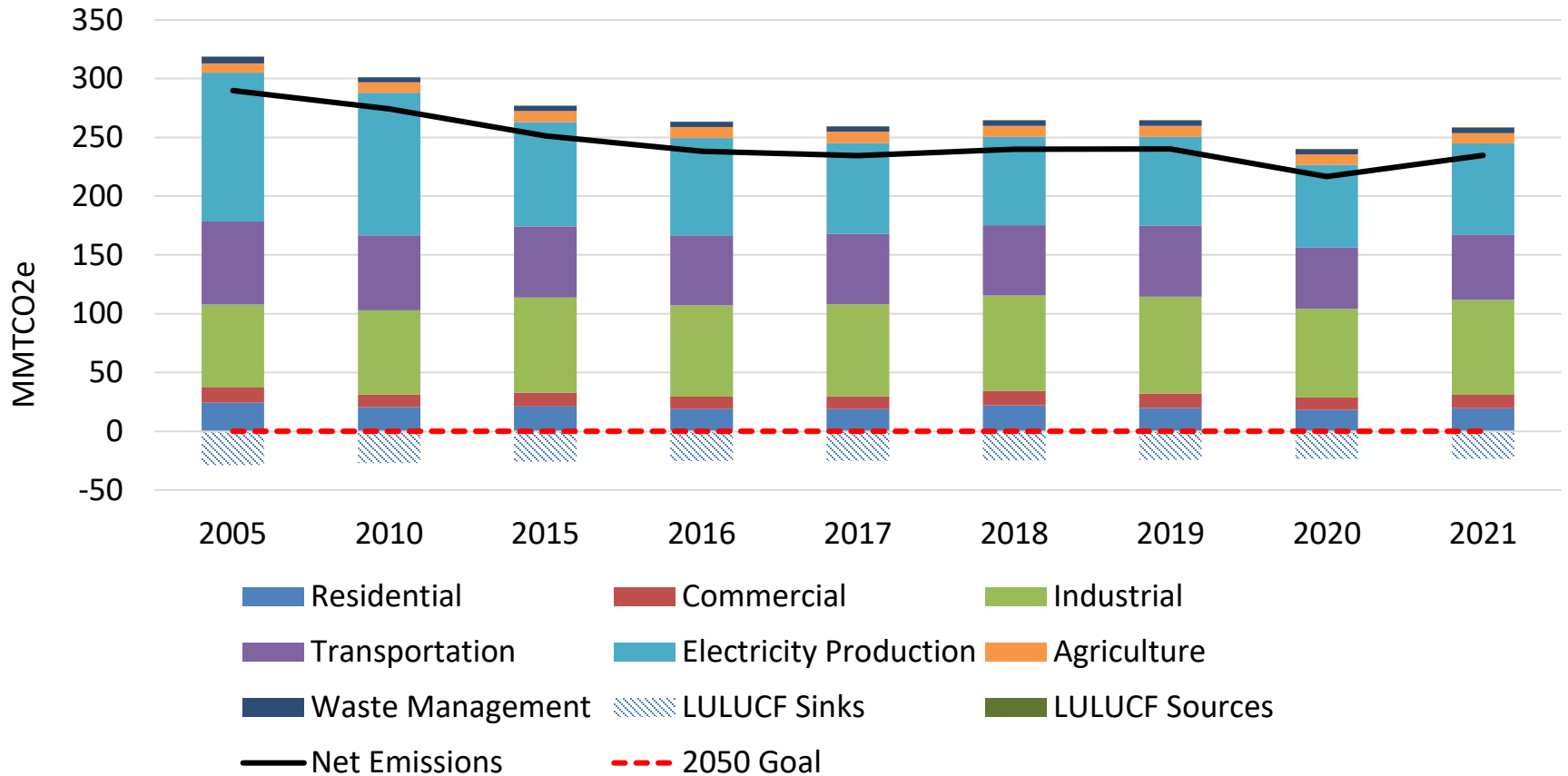
2024 PA GHG Inventory

GHG Emissions by Sector (MMT_{CO2e})



2024 PA GHG Inventory

GHG Emissions By Sector

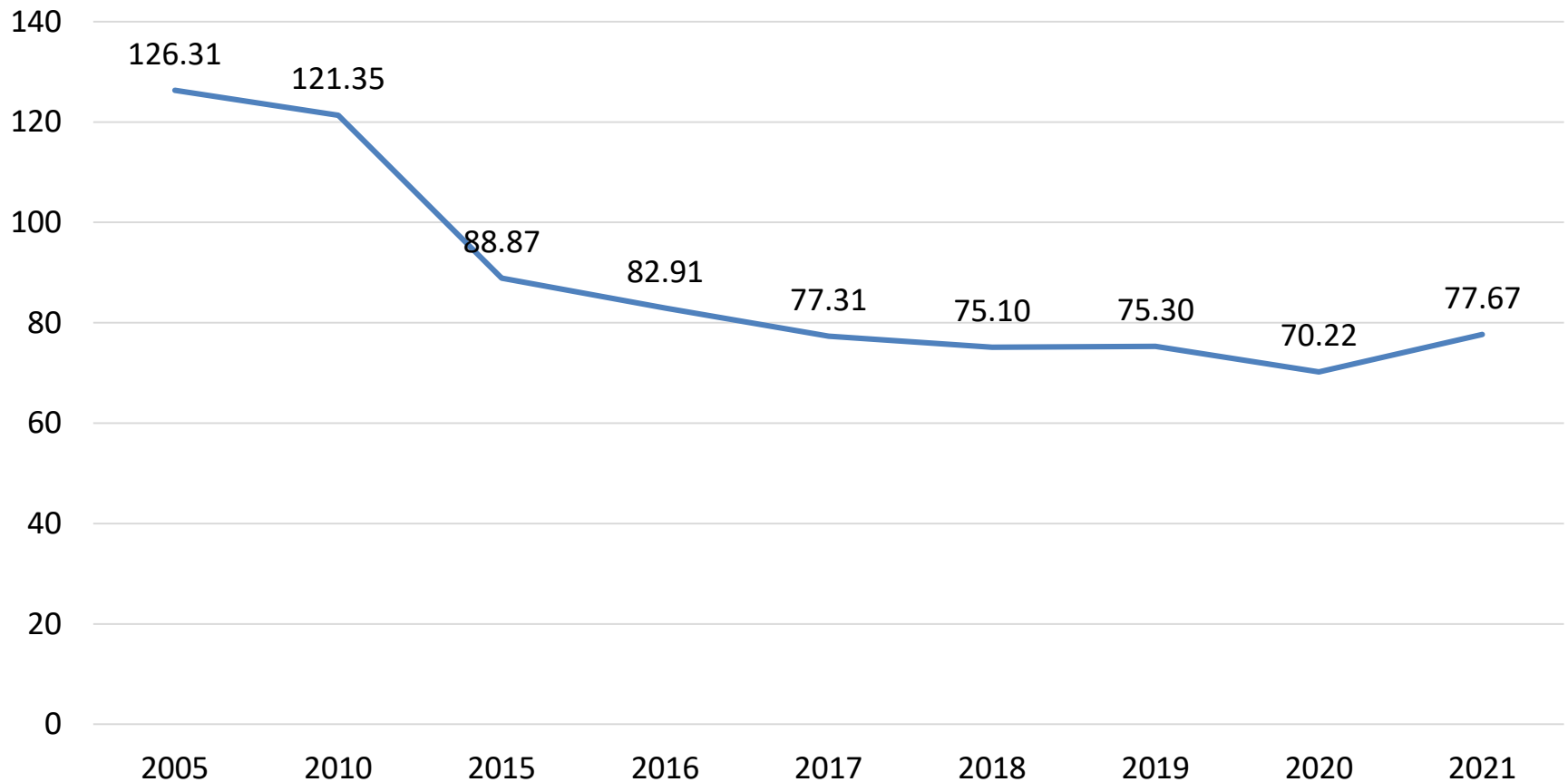


2024 PA GHG Inventory

	2021 Emissions	% Change from 2020	% Change from 2005
Residential	19.60	↑ 8.1%	↓ -19.2%
Commercial	11.46	↑ 6.5%	↓ -11.7%
Industrial	80.72	↑ 7.4%	↑ 14.5%
Transportation	55.55	↑ 6.2%	↓ -21.6%
Electricity Production	77.67	↑ 10.6%	↓ -38.5%
Agricultural	8.62	↓ -4.1%	↑ 8.7%
Waste Management	4.54	↓ -0.1%	↓ -20.3%
Forestry and Land Use Non-CO ₂ Emissions	0.26	↑ 37.5%	↑ 189.7%
Total Gross Emissions	258.42	↑ 7.5%	↓ -18.9%
Forestry and Land Use Net Carbon Flux	-23.64	↑ 0.2%	↓ -18.1%
Total Net Emissions	234.78	↑ 8.3%	↓ -19.0%

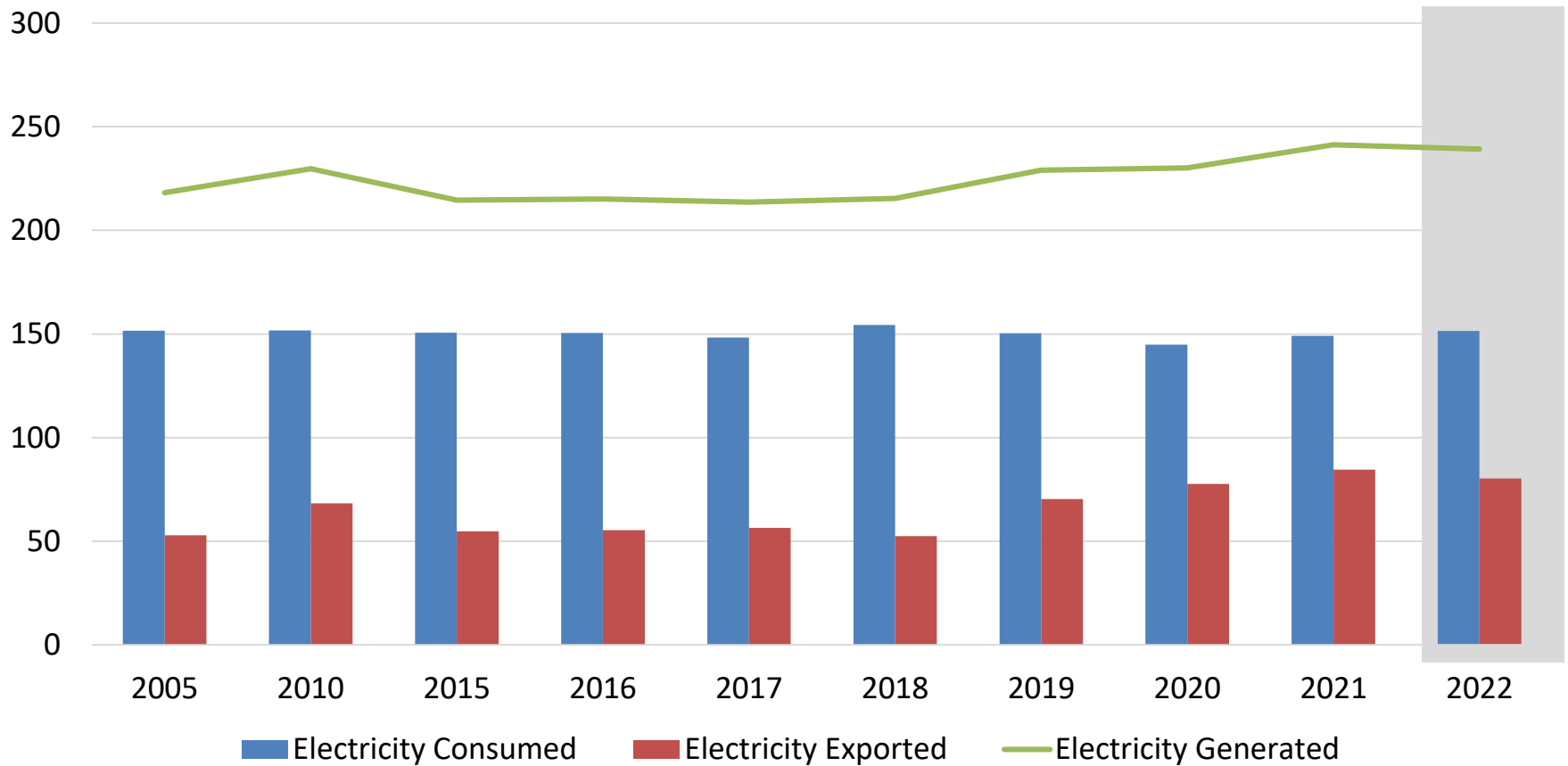
2024 PA GHG Inventory

GHG Emissions from Electricity Production (MMTCO₂e)



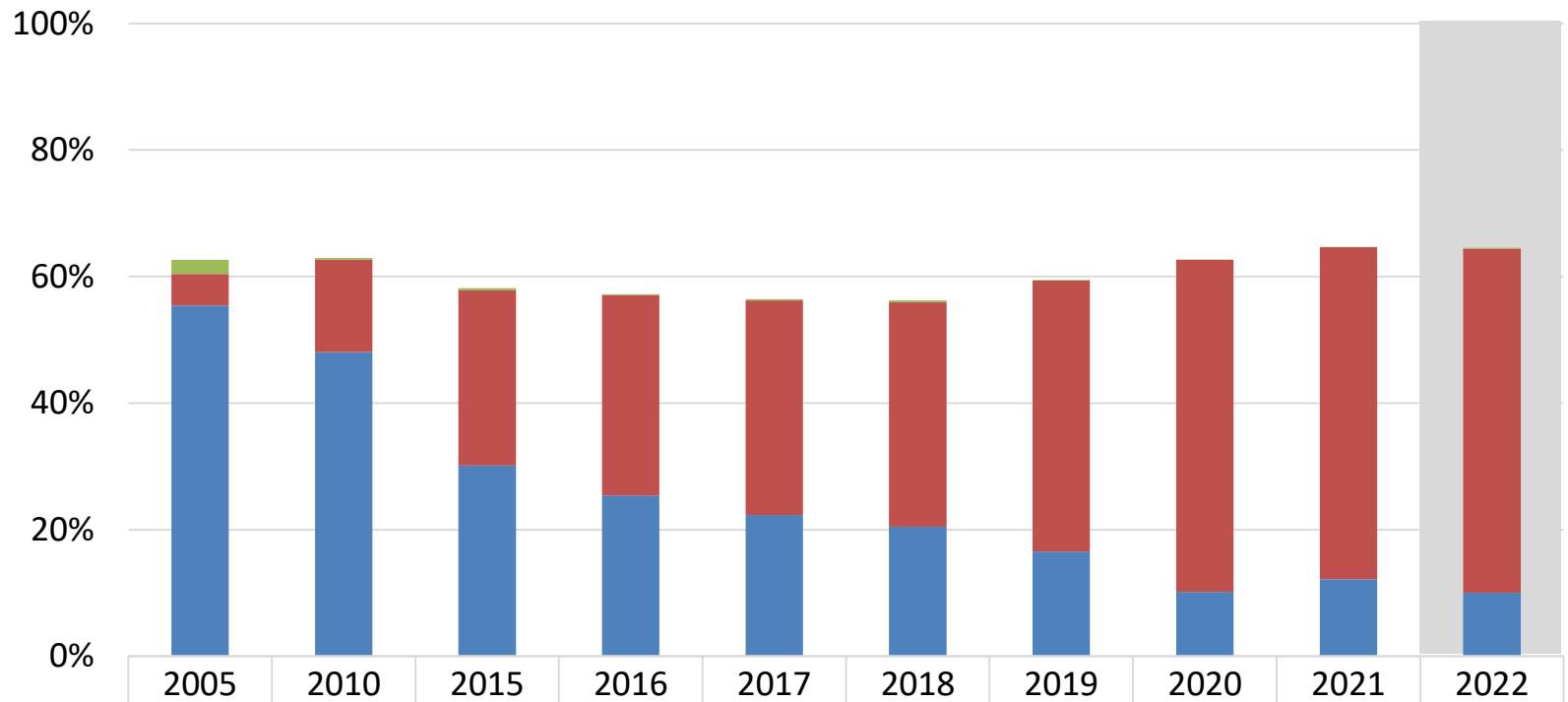
2024 PA GHG Inventory

Total Electricity Generated, Consumed, and Exported (TWh)



2024 PA GHG Inventory

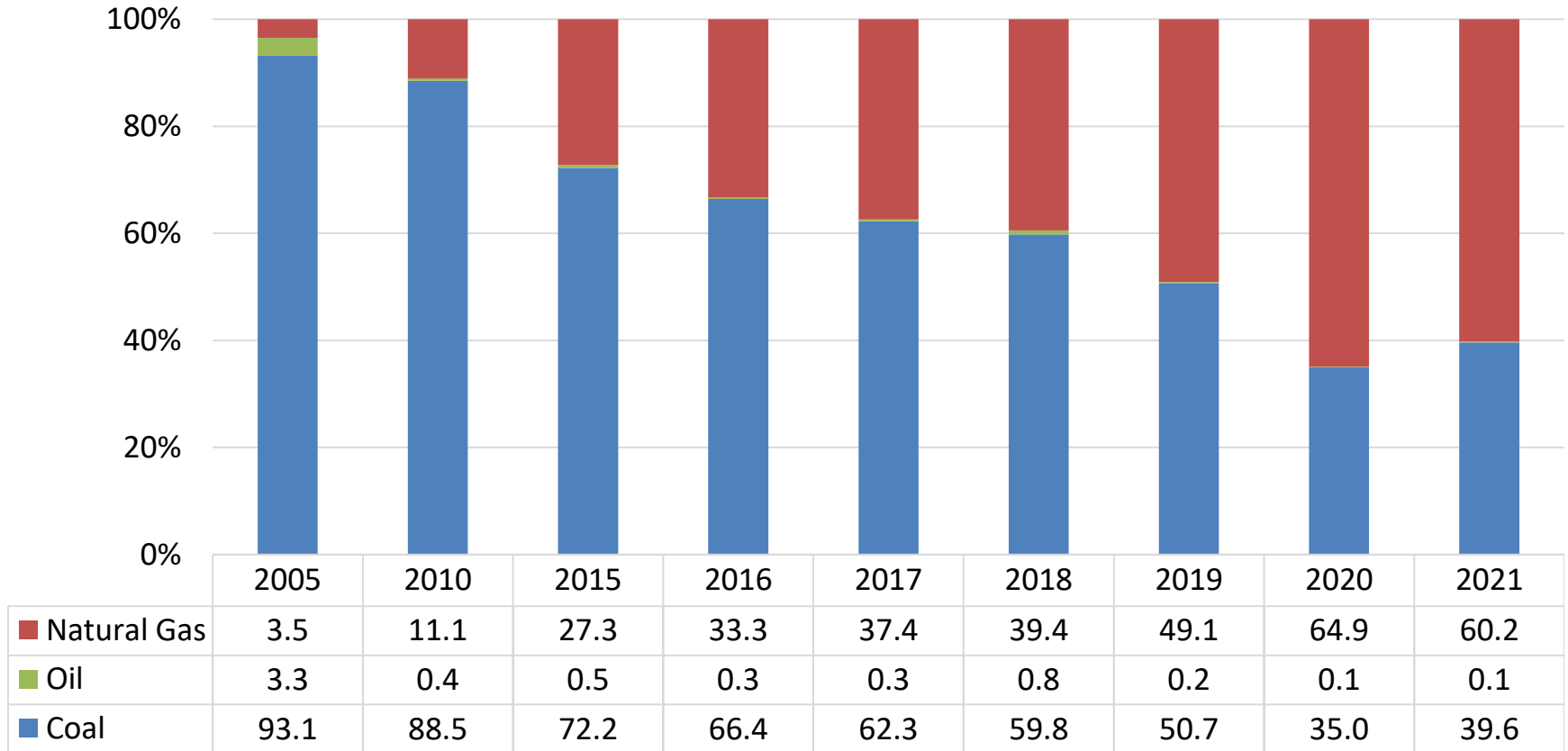
Percent Electricity Production By Fuel Type



	2005	2010	2015	2016	2017	2018	2019	2020	2021	2022
Oil	2.3%	0.2%	0.3%	0.2%	0.2%	0.3%	0.1%	0.0%	0.1%	0.1%
Natural Gas	5.0%	14.7%	27.7%	31.6%	33.9%	35.5%	42.8%	52.5%	52.5%	54.4%
Coal	55.5%	48.0%	30.1%	25.4%	22.3%	20.5%	16.6%	10.2%	12.1%	10.0%

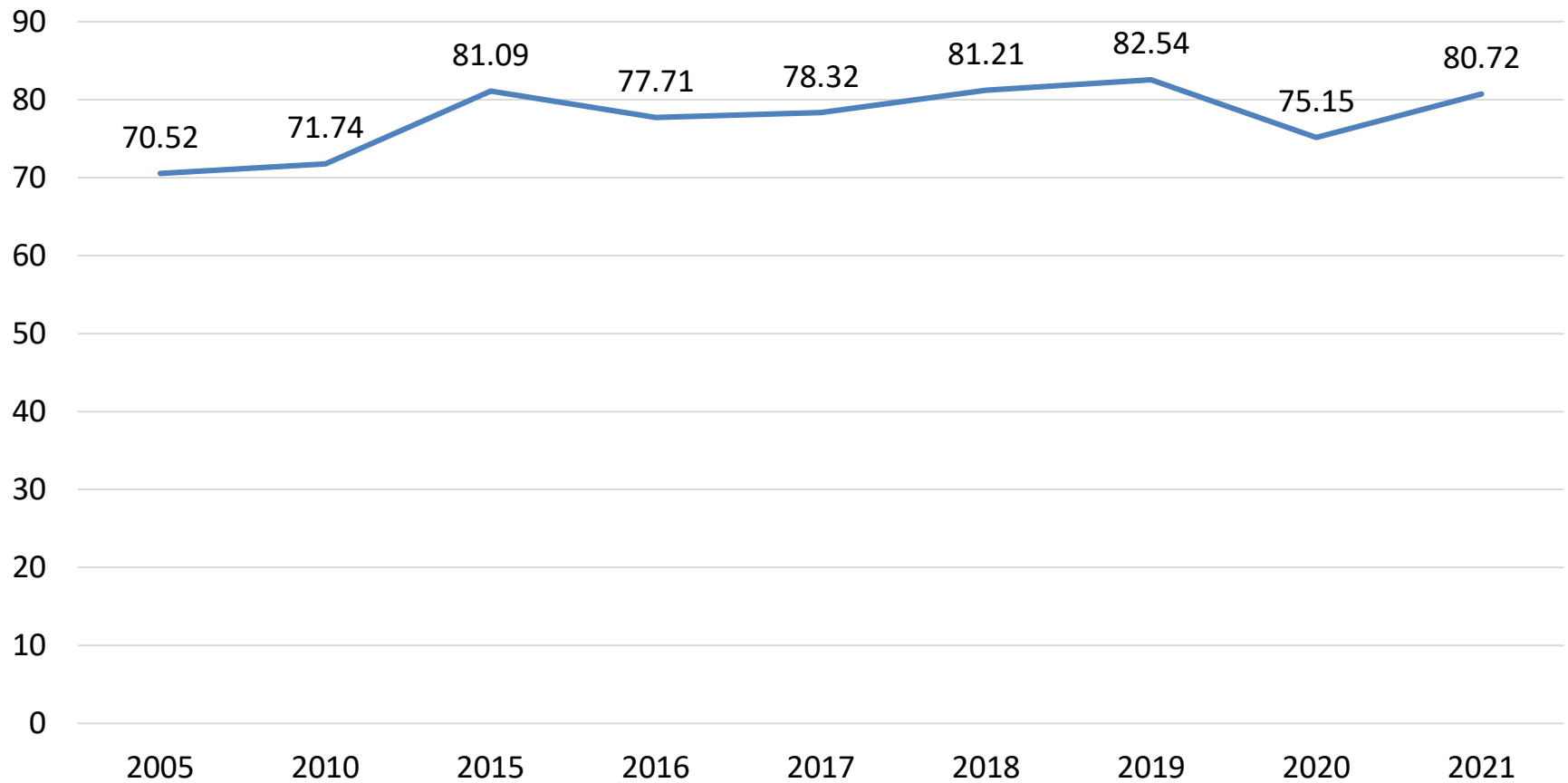
2024 PA GHG Inventory

GHG Emissions from Electricity Production Sector by Source
(% of Total)



2024 PA GHG Inventory

GHG Emissions from Industrial Sector (MMTCO₂e)



2024 PA GHG Inventory

GHG Emissions from Industrial Sector by Source (MMTCO₂e)

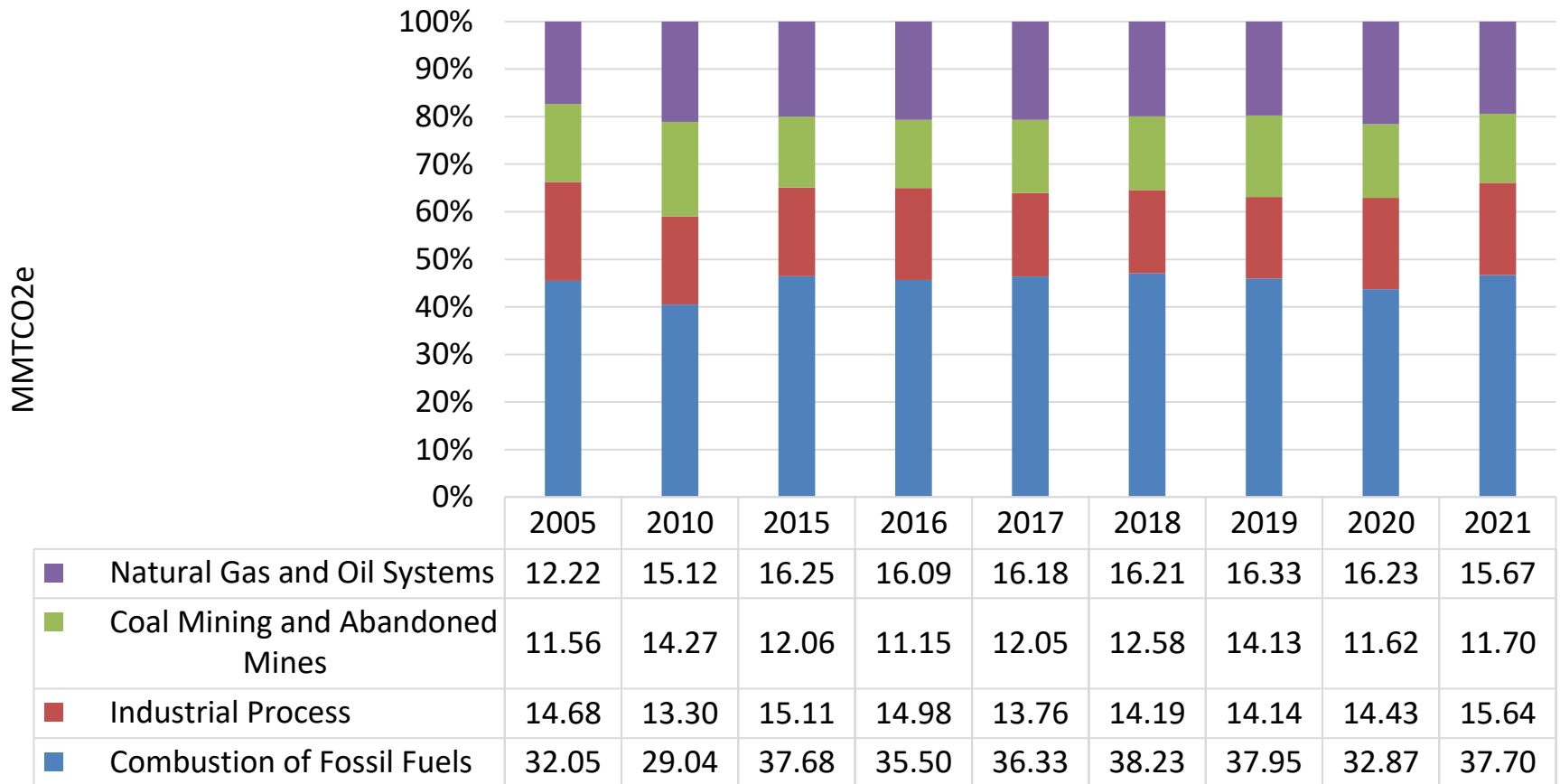
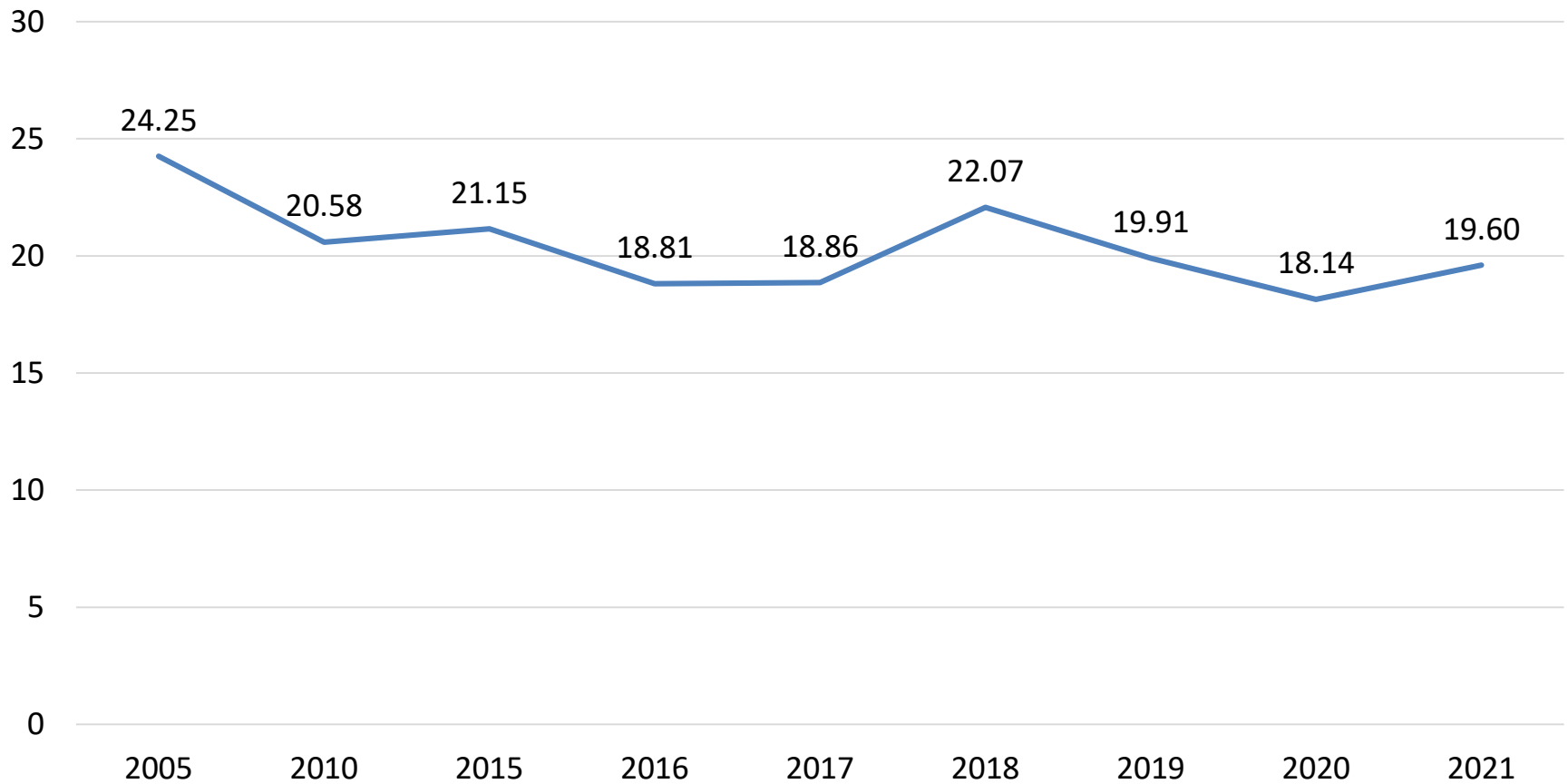


Table values presented in MMTCO₂e

2024 PA GHG Inventory

GHG Emissions from Residential Sector (MMTCO₂e)



2024 PA GHG Inventory

Residential Emissions by Fuel Type (MMTCO₂e)

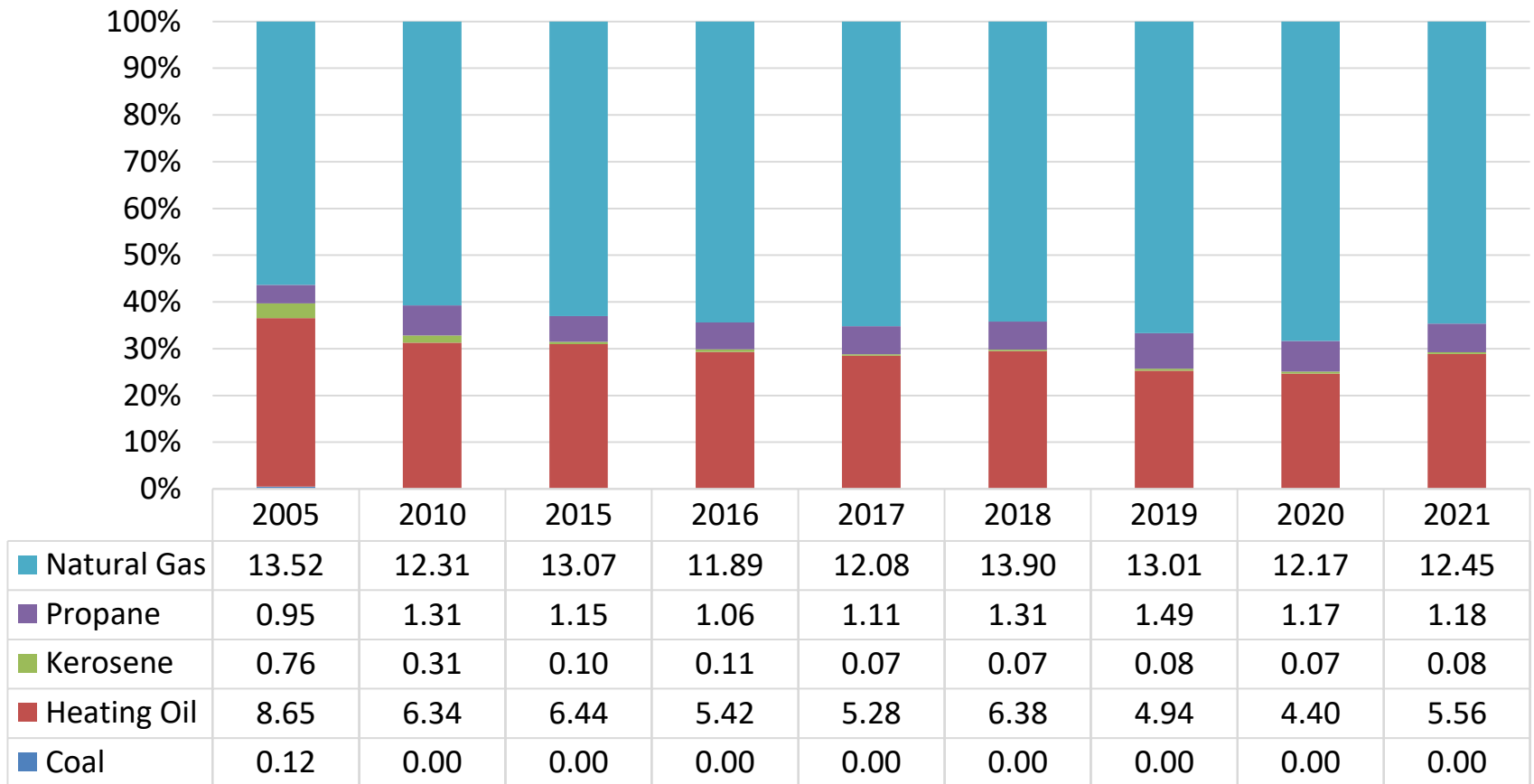
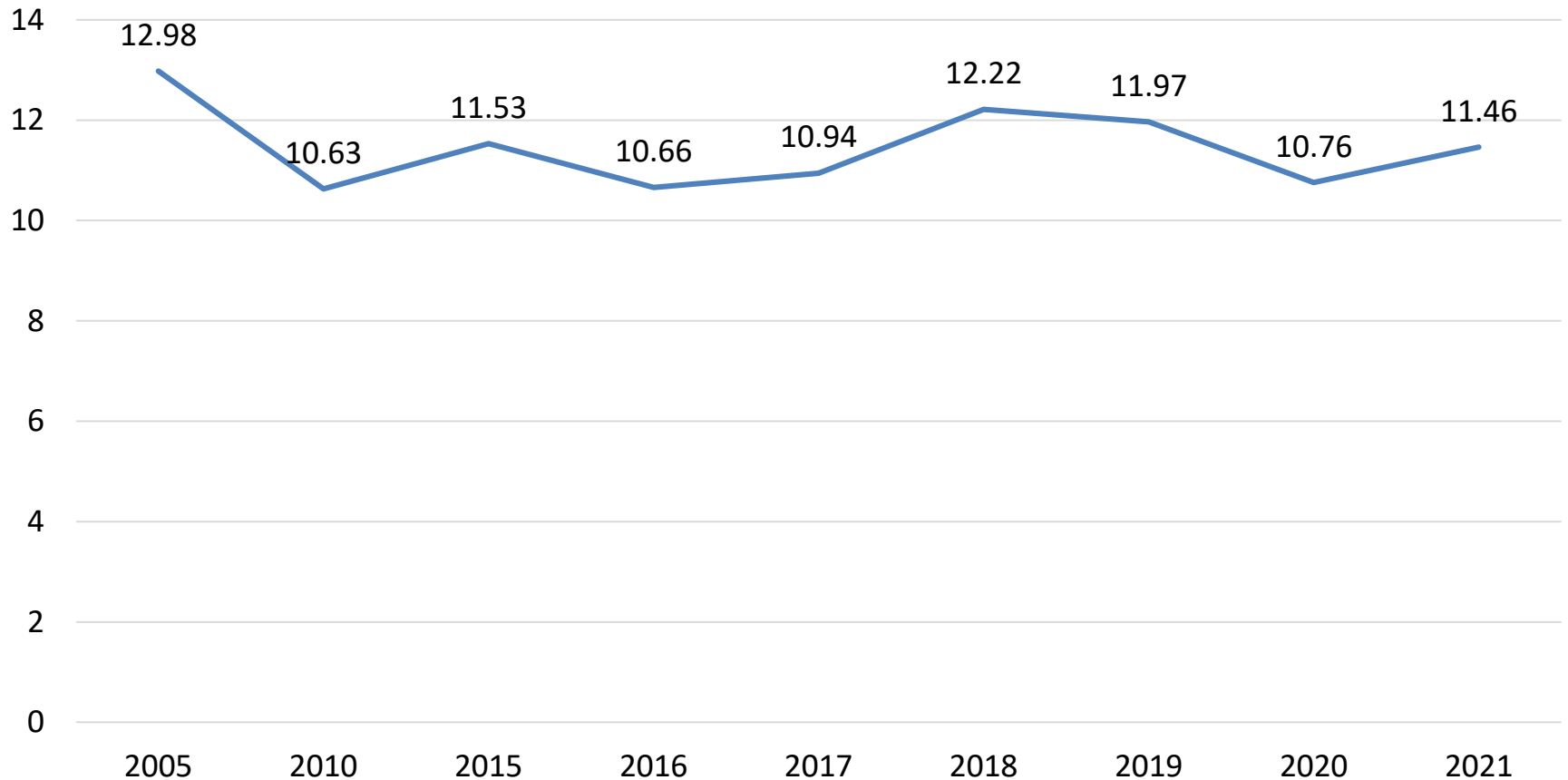


Table values presented in MMTCO₂e

2024 PA GHG Inventory

GHG Emissions from Commercial Sector (MMT_{CO2e})



2024 PA GHG Inventory

Commercial Emissions by Fuel Type (% of Total)

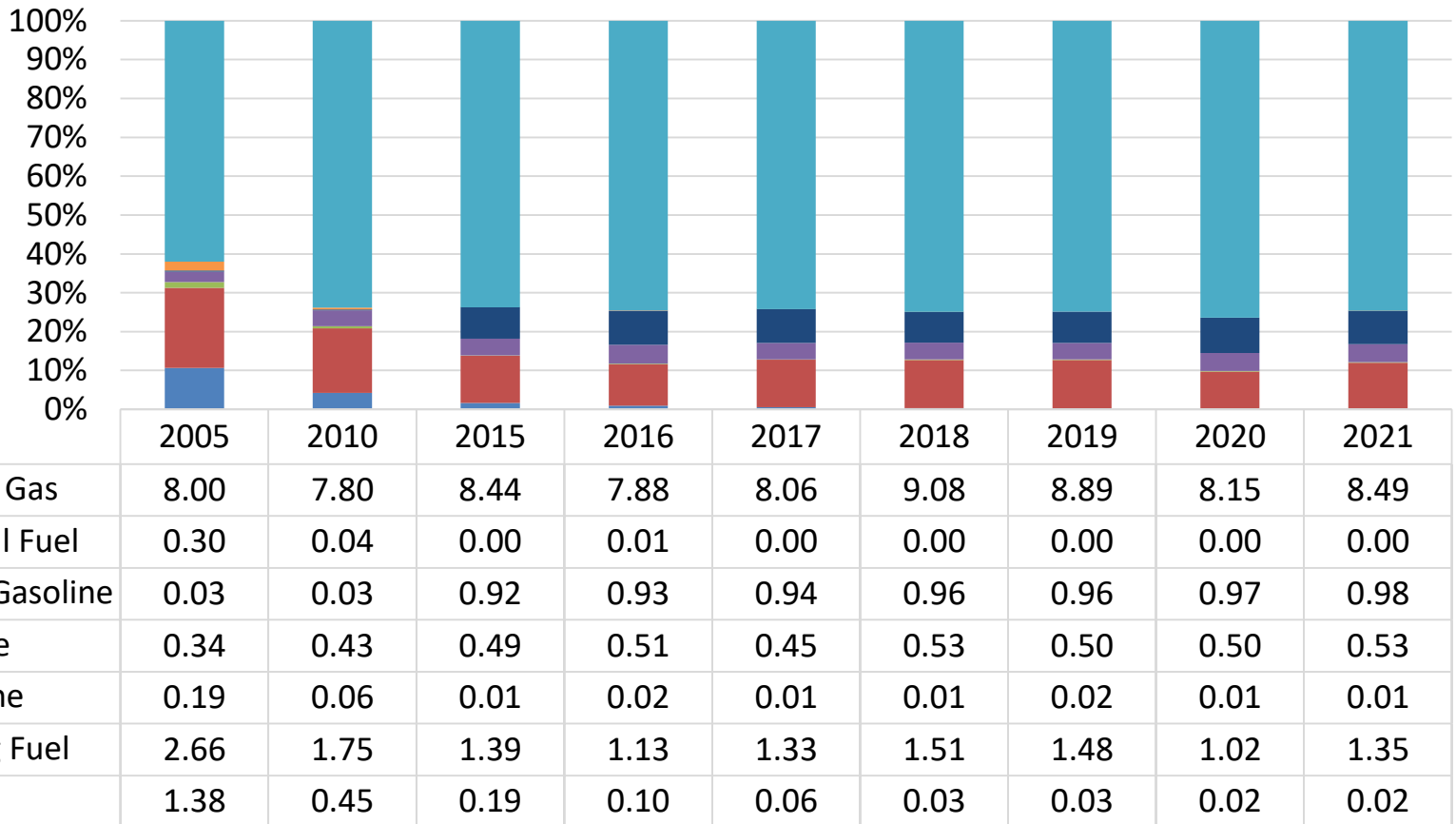
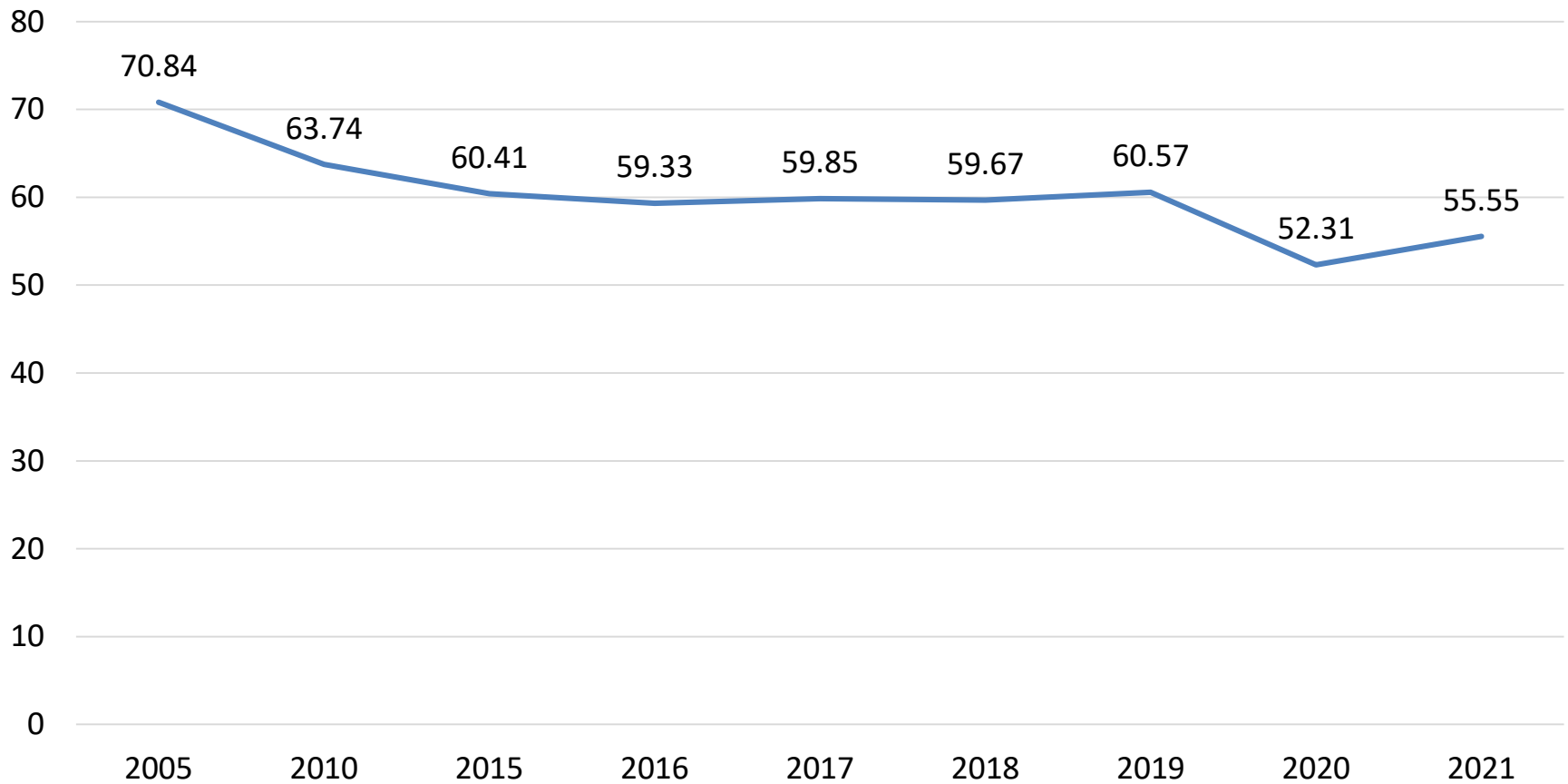


Table values presented in $MMTCO_2e$

2024 PA GHG Inventory

GHG Emissions from Transportation Sector (MMTCO₂e)



2024 PA GHG Inventory

Transportation Sector GHG Emissions by Fuel Type (MMT_{CO2e})

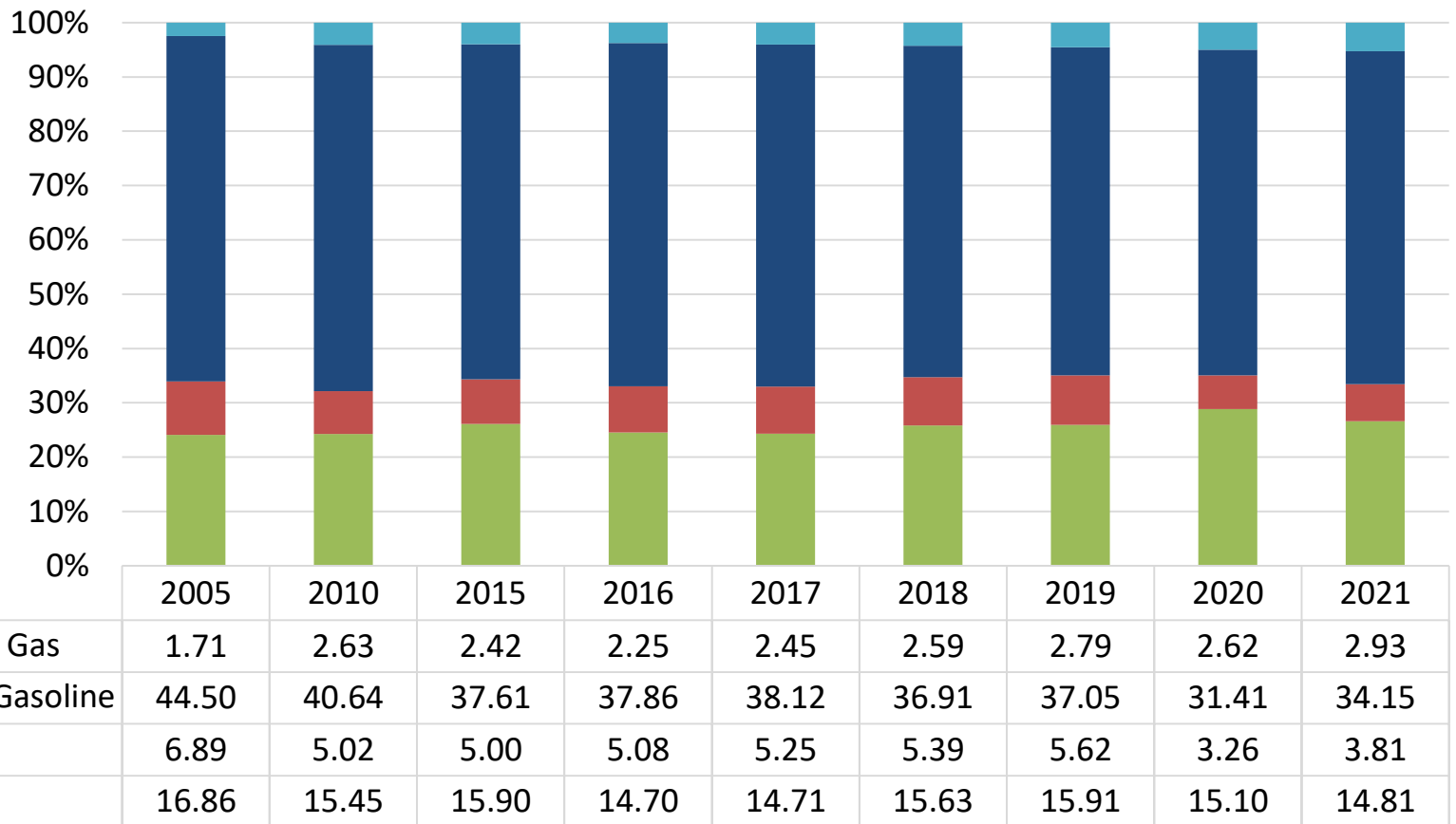
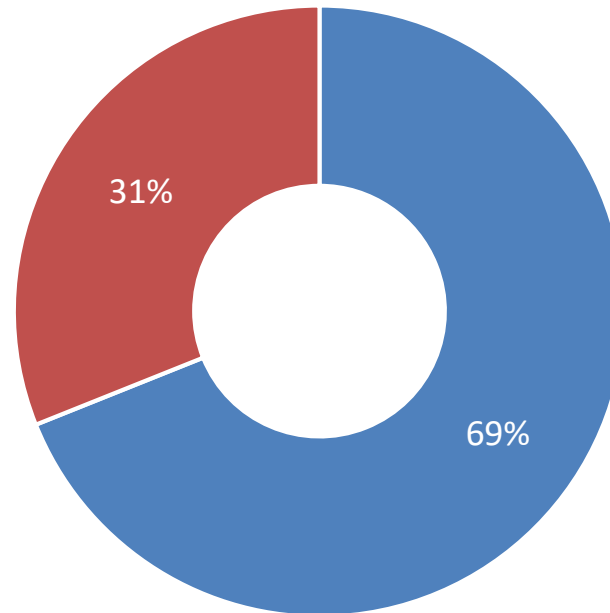


Table values presented in MMT_{CO2e}

2024 PA GHG Inventory

GHG Emissions from Waste Management Sector (Percent of Total)



■ Solid Waste ■ Wastewater

2024 PA GHG Inventory

GHG Emissions from Agricultural Sector by Source (MMTCO₂e)

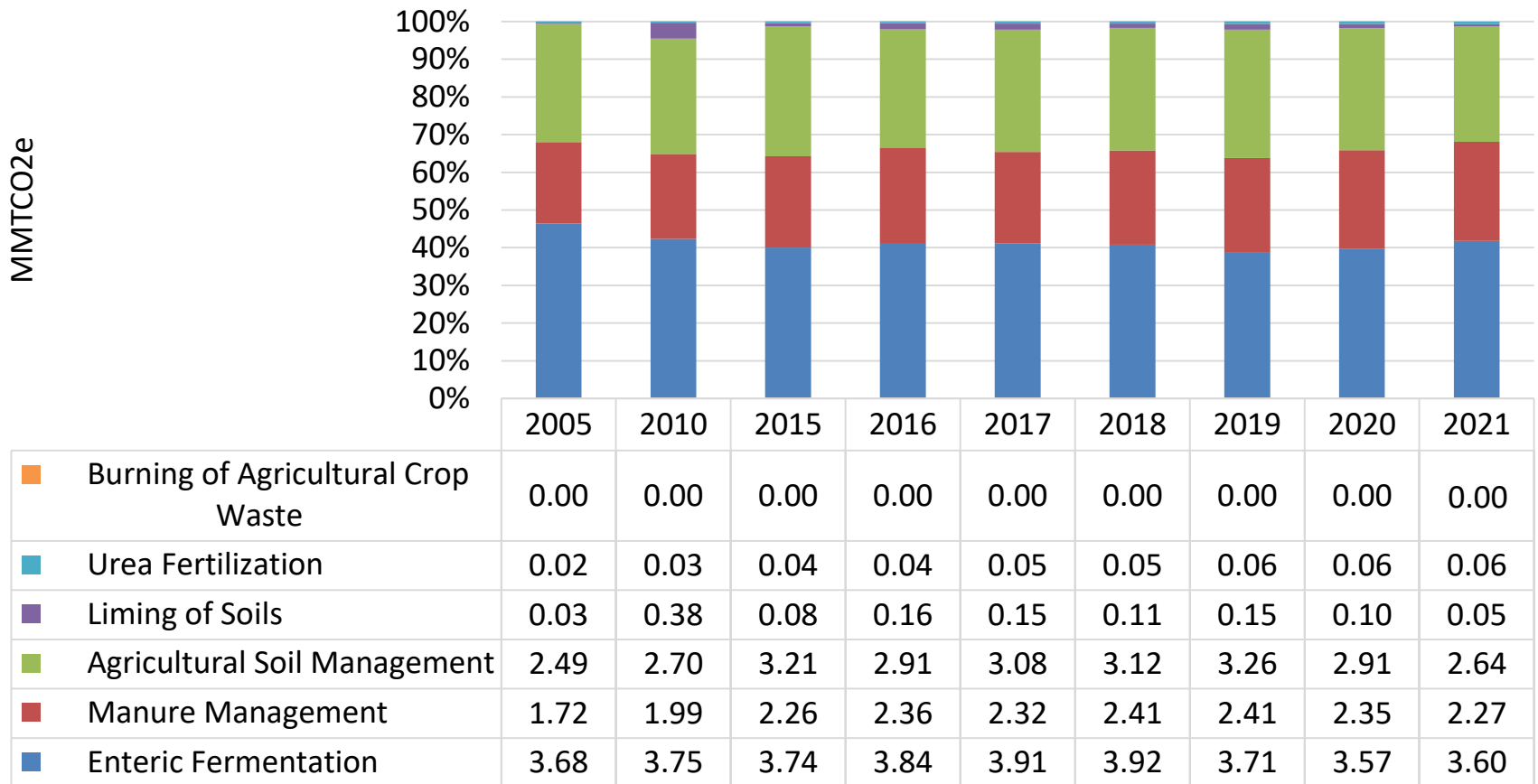
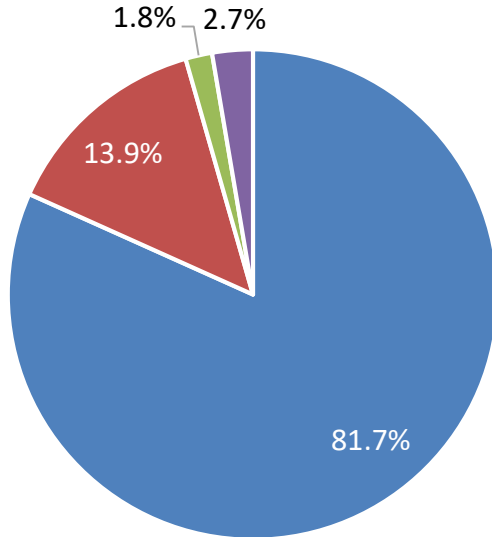


Table values presented in MMTCO₂e

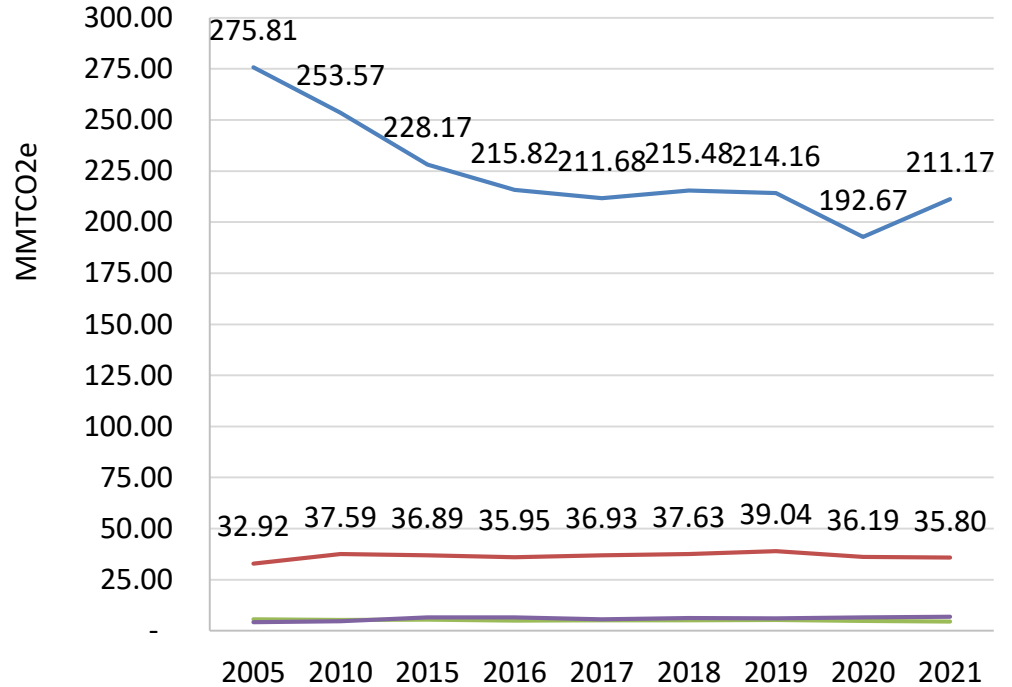
2024 PA GHG Inventory

GHG Emissions by Gas, 2021
(MMT_{CO2e})



- Gross CO2
- CH4
- N2O
- HFC, PFC, SF6 and NF3 Emissions

GHG Emissions by Gas, 2005-2021 (MMT_{CO2e})



- Gross CO2
- CH4
- N2O
- HFC, PFC, SF6 and NF3 Emissions

2024 PA GHG Inventory

Questions?

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Updates

Past Climate Outreach Efforts and Notable Events

- 3/23 - Watershed Congress
- 5/13 - Climate Solutions Symposium Accelerator
- 5/17 - APA PA Chapter All 4 One Workshop

Updates

- Building Codes – 2021 IECC Status
- IIJA/IRA funded programs
 - MORE
 - KEEP

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2024 Meeting Planning

Upcoming Meetings:

- ~~Tuesday, February 20th, 2024~~
- ~~Tuesday, April 23rd, 2024~~
- ~~Tuesday, June 25th, 2024~~
- **Tuesday, August 20th, 2024**
- Tuesday, October 22nd, 2024
- Tuesday, December 17th, 2024

Proposed Agenda

August 20, 2024

- Introduction
- Approval of June Minutes
- Officer Elections
- Public Comment
- Break
- **Presentation/Discussion – 2024 Climate Action Plan/CPRG**
- **Presentation/Discussion – PA Municipal Planning Authority**
- DEP Updates
- Review October Agenda
- New Business

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