



Energy Programs Office

# Climate Change Advisory Committee Meeting

June 25<sup>th</sup>, 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 –2023 GHG Inventory Report
- DEP Updates
- Next Meeting
- New Business

# Agenda

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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

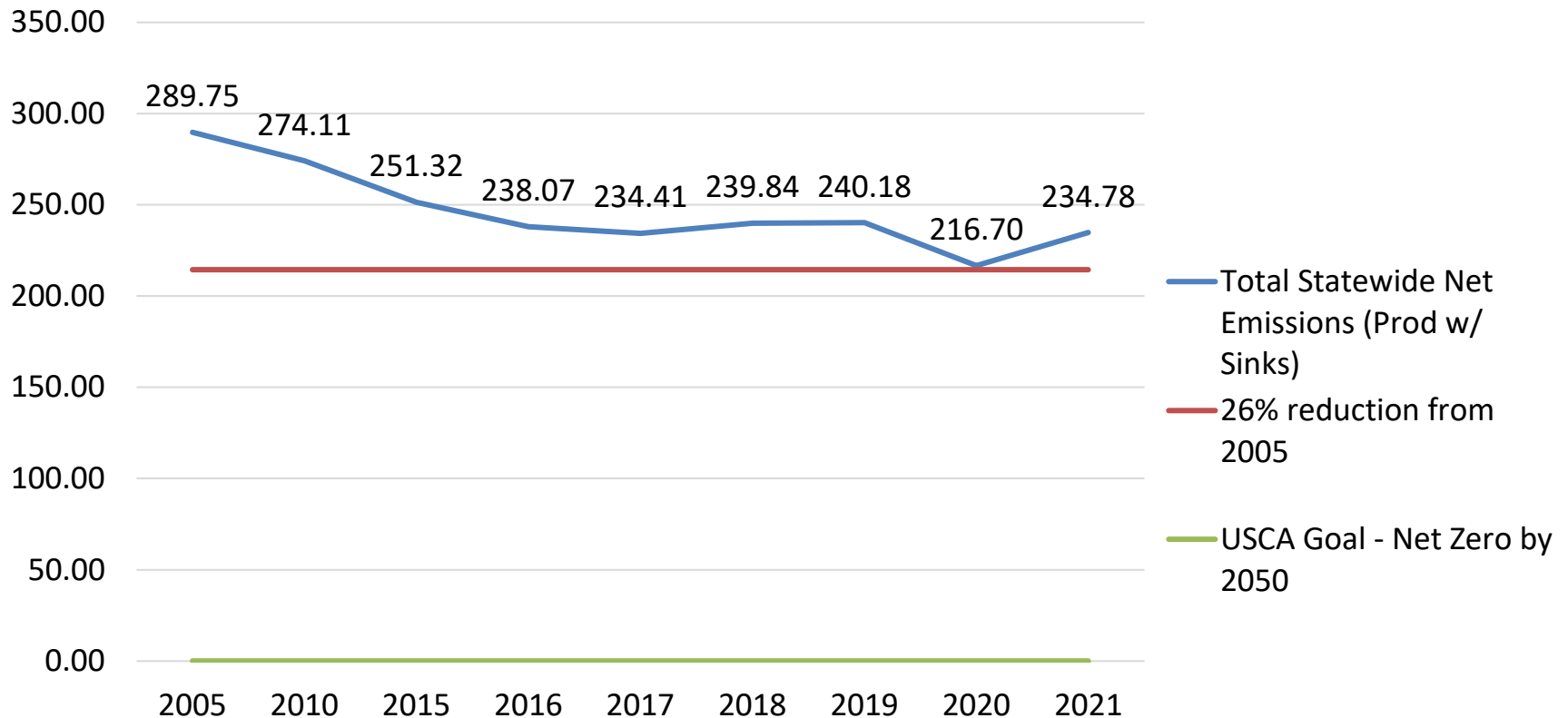
- State Inventory Tool (SIT)
  - Made available in February 2024
  - All modules updated with data through 2021
- Fuel consumption data for 2022 included from SEDS
- Additional sources included from EPA's U.S. Greenhouse Gas Emissions and Sinks

# 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.

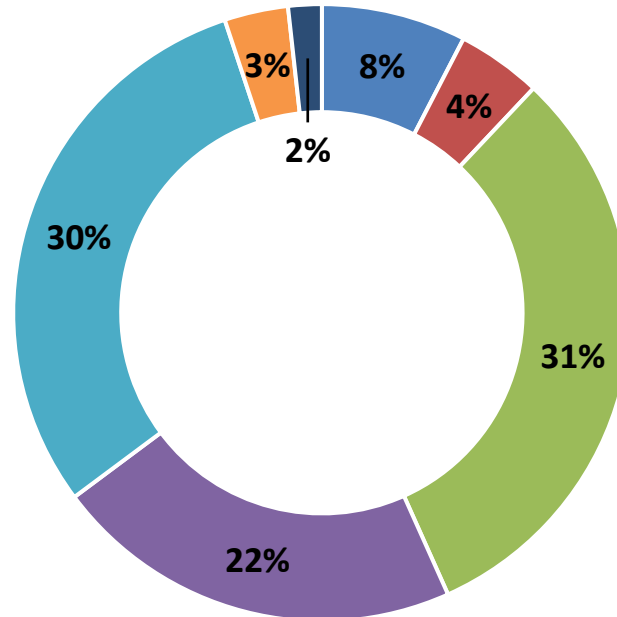
# 2024 PA GHG Inventory

Total Statewide Net Emissions (Sources w/ Sinks)(MMTCO<sub>2</sub>e)



# 2024 PA GHG Inventory

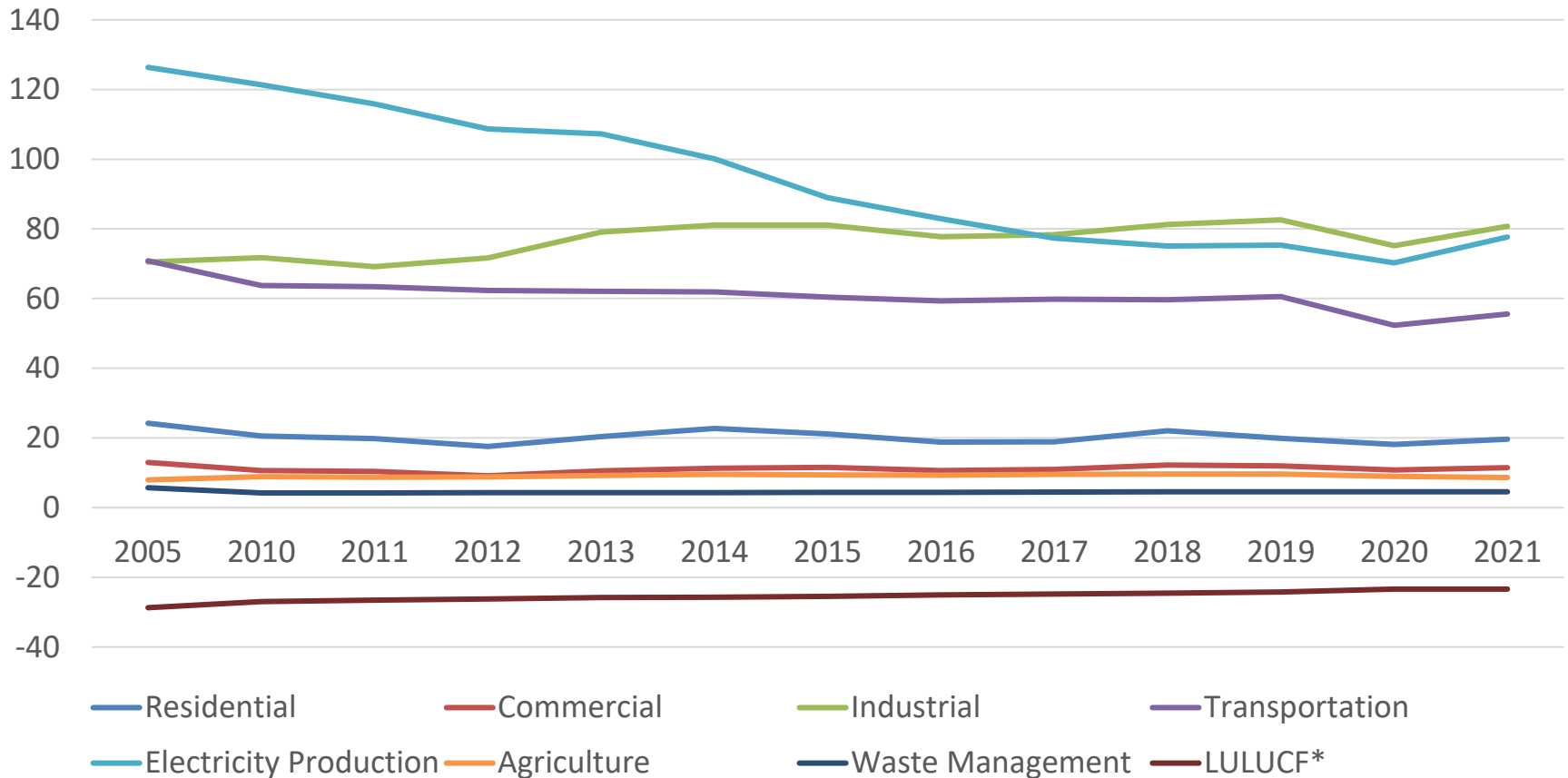
Pennsylvania 2021 GHG Emissions  
% of Total by Sector



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

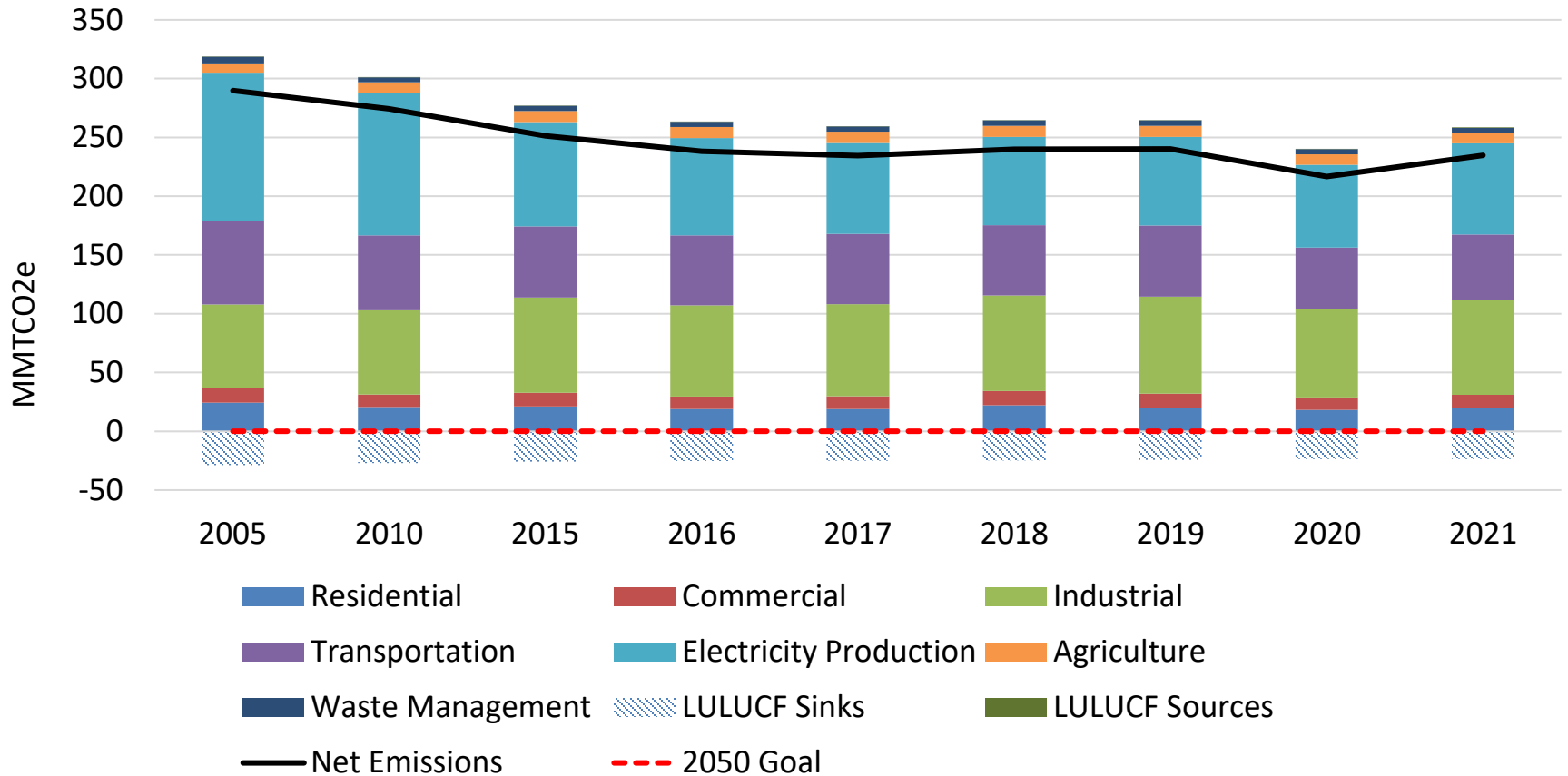
# 2024 PA GHG Inventory

GHG Emissions by Sector (MMT<sub>CO2e</sub>)



# 2024 PA GHG Inventory

## GHG Emissions By Sector

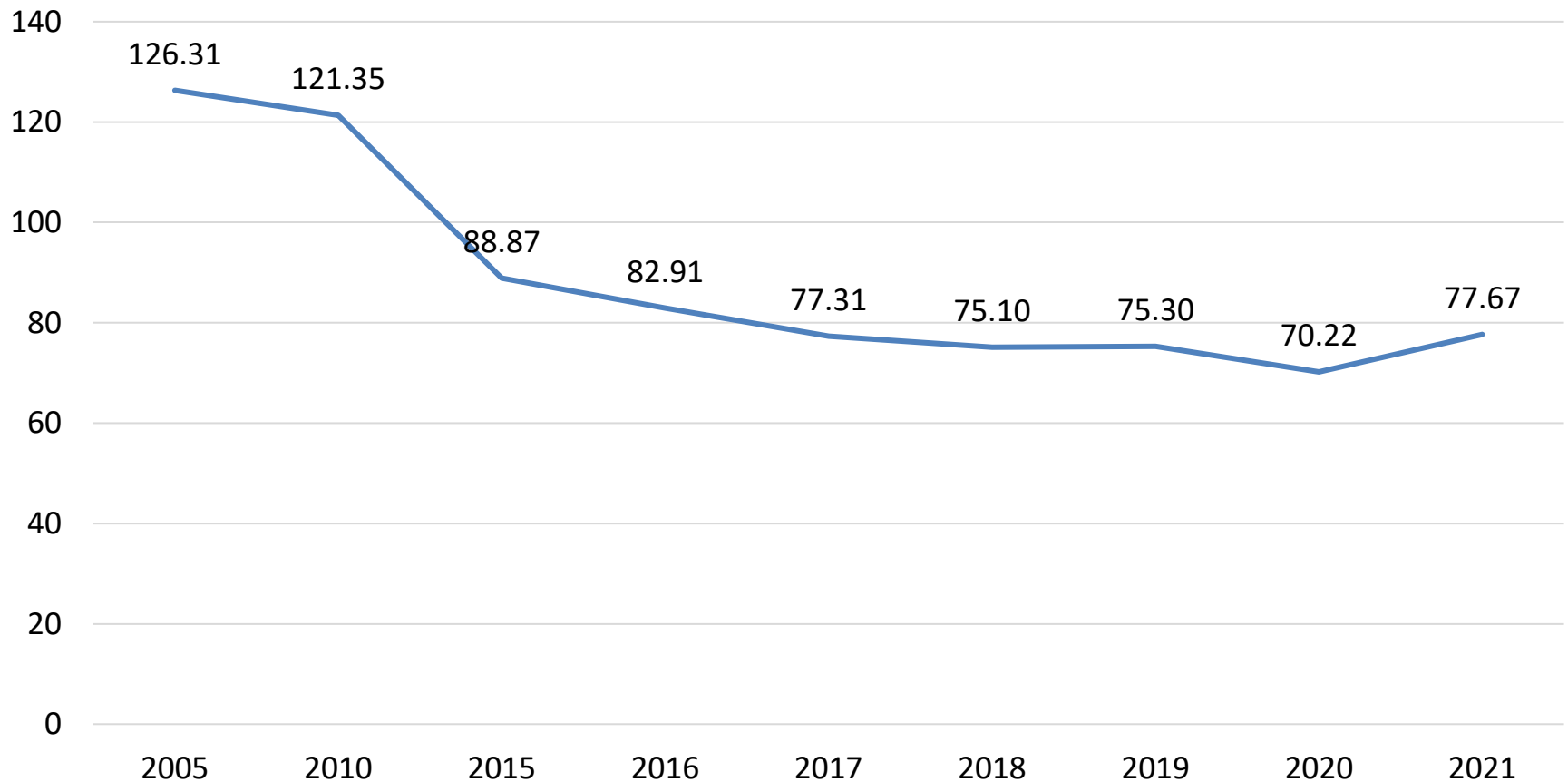


# 2024 PA GHG Inventory

	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 <sub>2</sub> Emissions	0.26	↑ 37.5%	↑ 189.7%
<b>Total Gross Emissions</b>	<b>258.42</b>	<b>↑ 7.5%</b>	<b>↓ -18.9%</b>
Forestry and Land Use Net Carbon Flux	-23.64	↑ 0.2%	↓ -18.1%
<b>Total Net Emissions</b>	<b>234.78</b>	<b>↑ 8.3%</b>	<b>↓ -19.0%</b>

# 2024 PA GHG Inventory

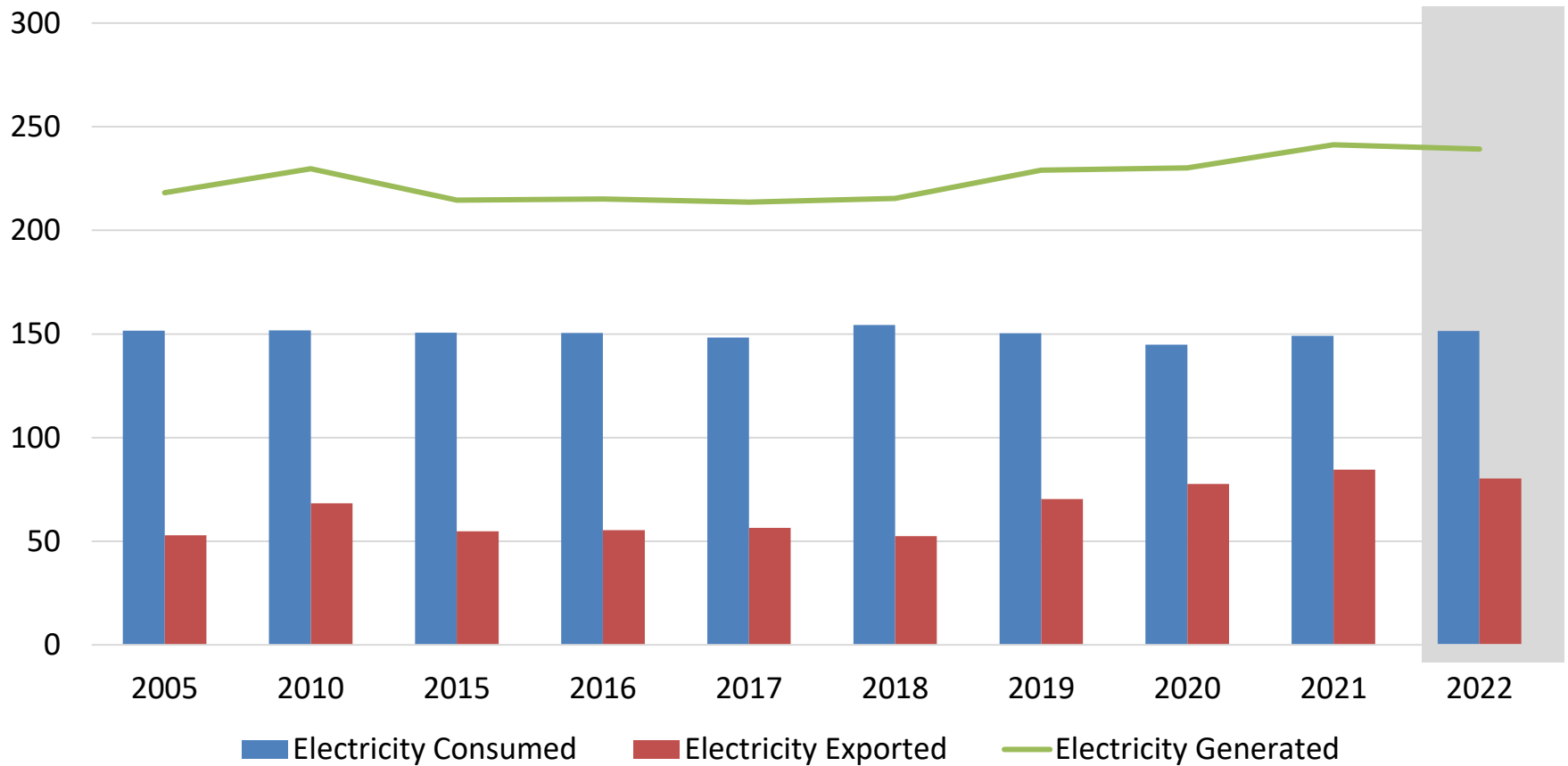
GHG Emissions from Electricity Production (MMTCO<sub>2</sub>e)





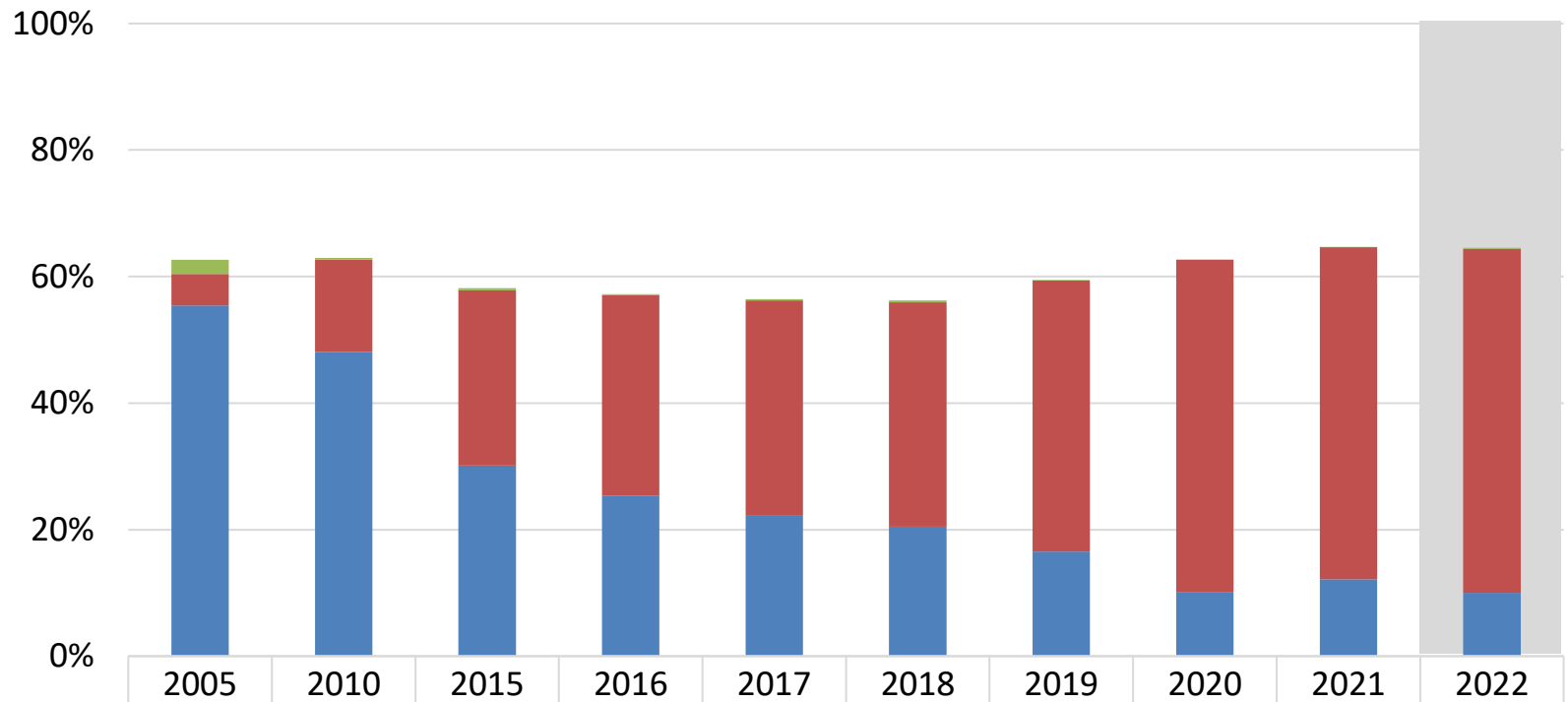
# 2024 PA GHG Inventory

Total Electricity Generated, Consumed, and Exported (TWh)



# 2024 PA GHG Inventory

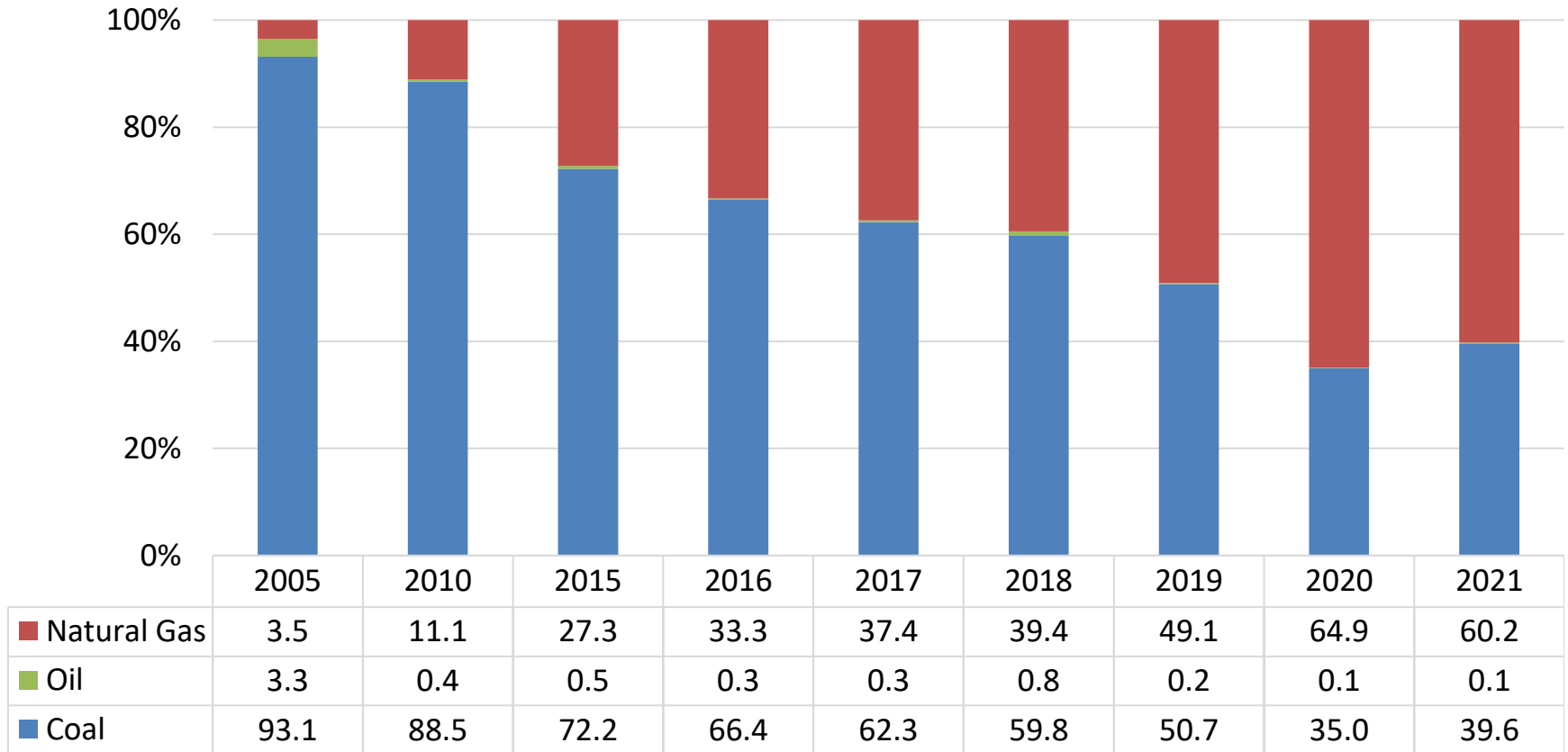
Percent Electricity Production By Fuel Type



	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%

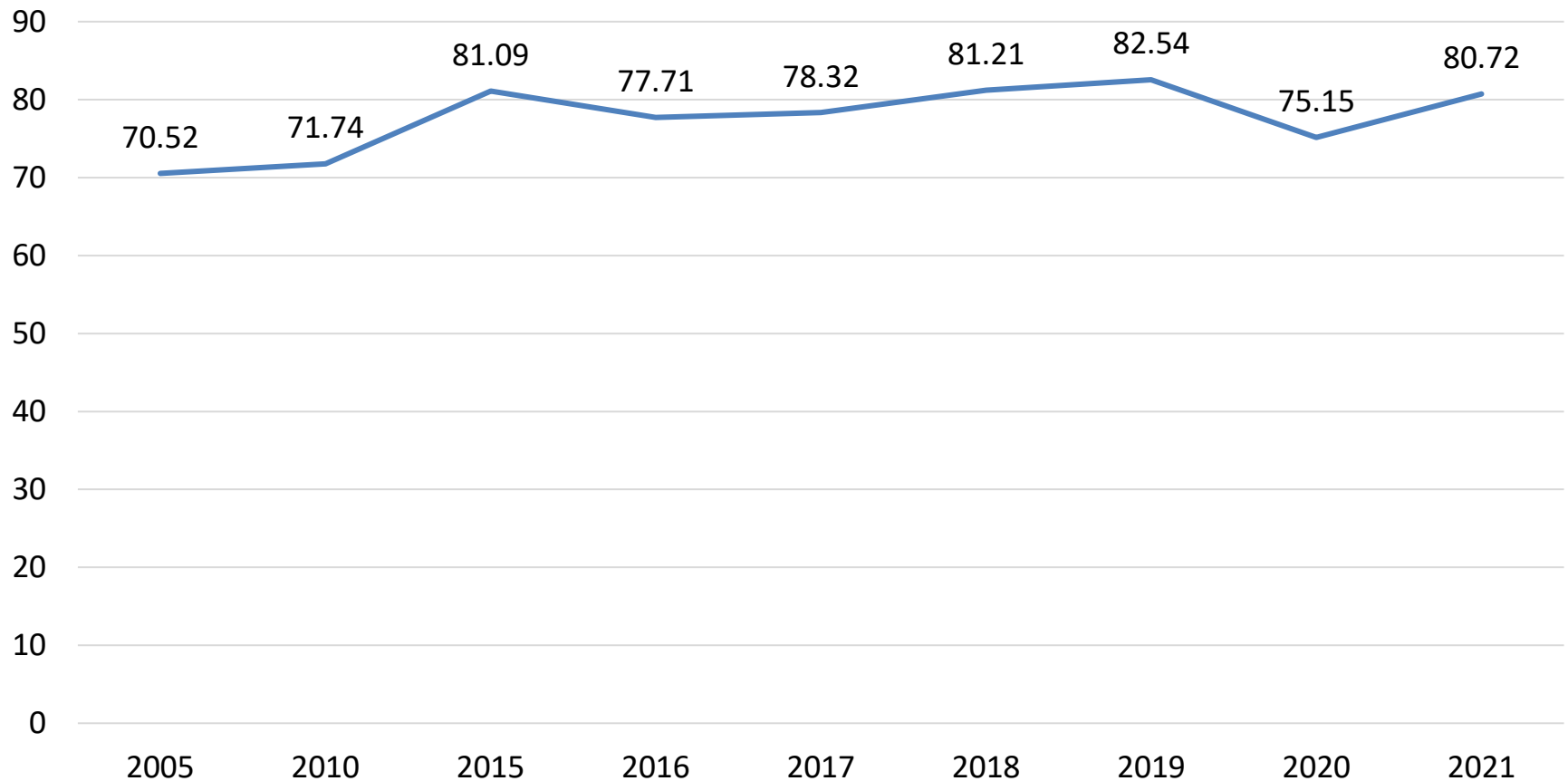
# 2024 PA GHG Inventory

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



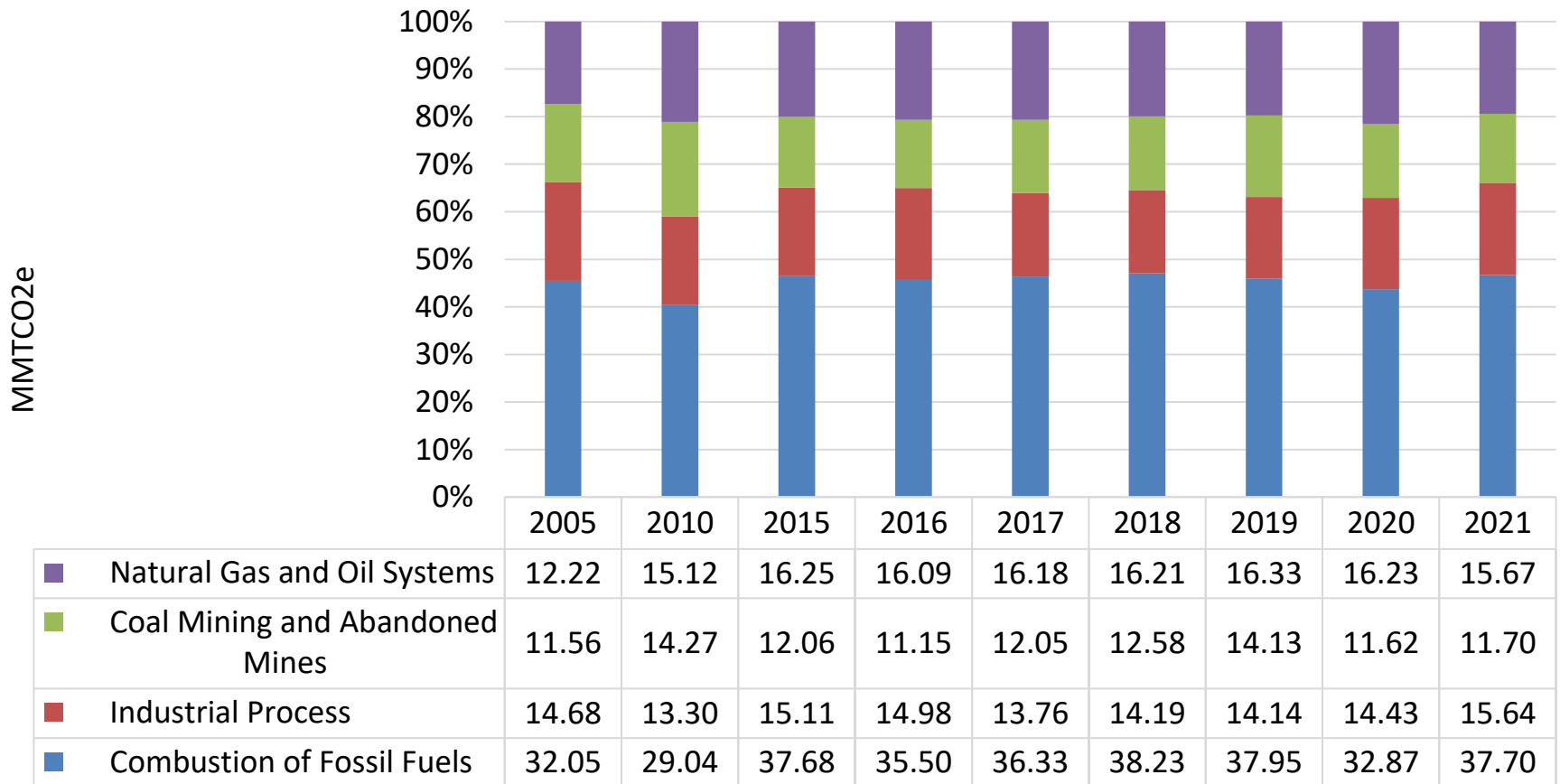
# 2024 PA GHG Inventory

GHG Emissions from Industrial Sector (MMTCO<sub>2</sub>e)



# 2024 PA GHG Inventory

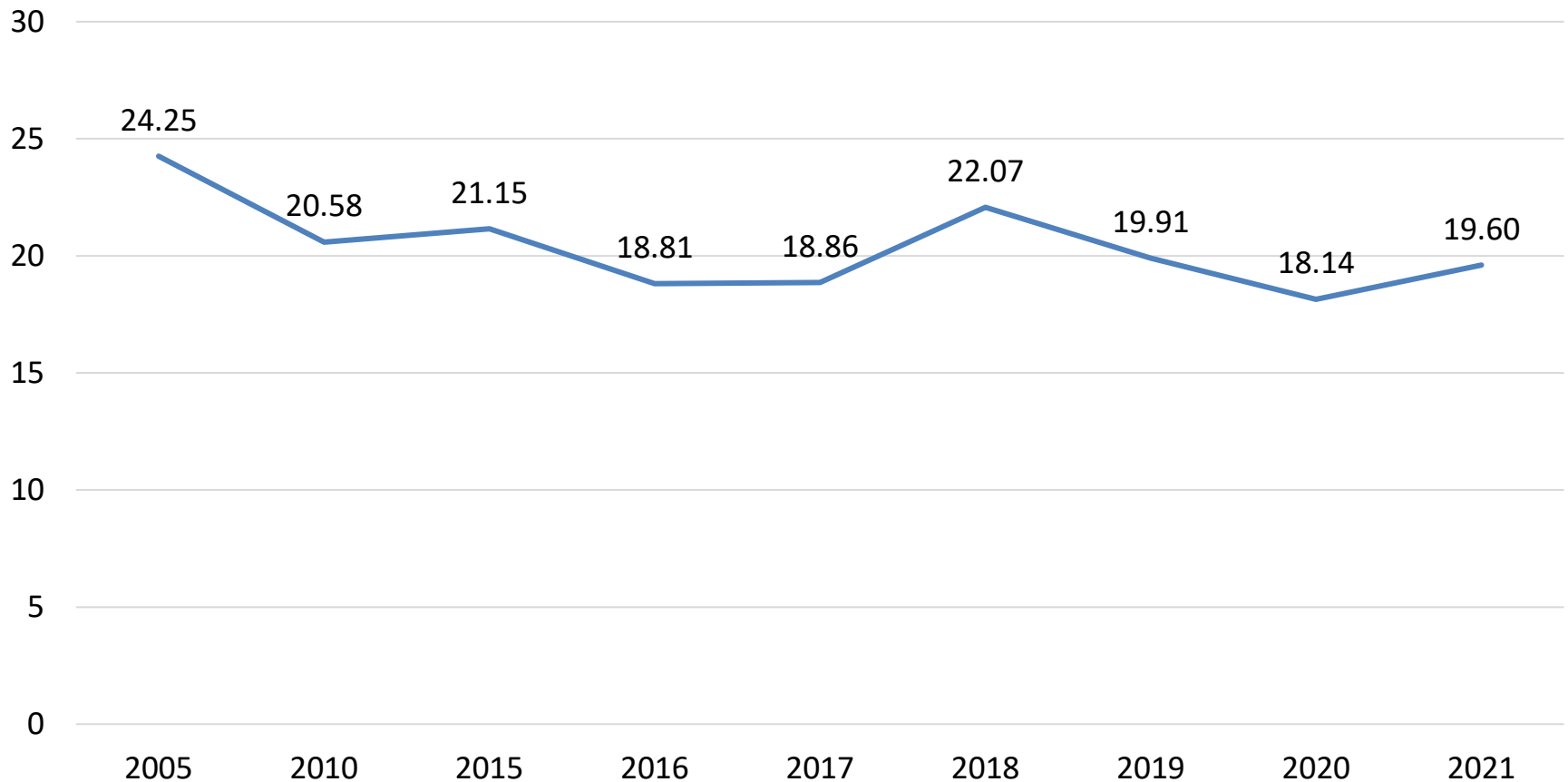
GHG Emissions from Industrial Sector by Source (MMTCO<sub>2</sub>e)



*Table values presented in MMTCO<sub>2</sub>e*

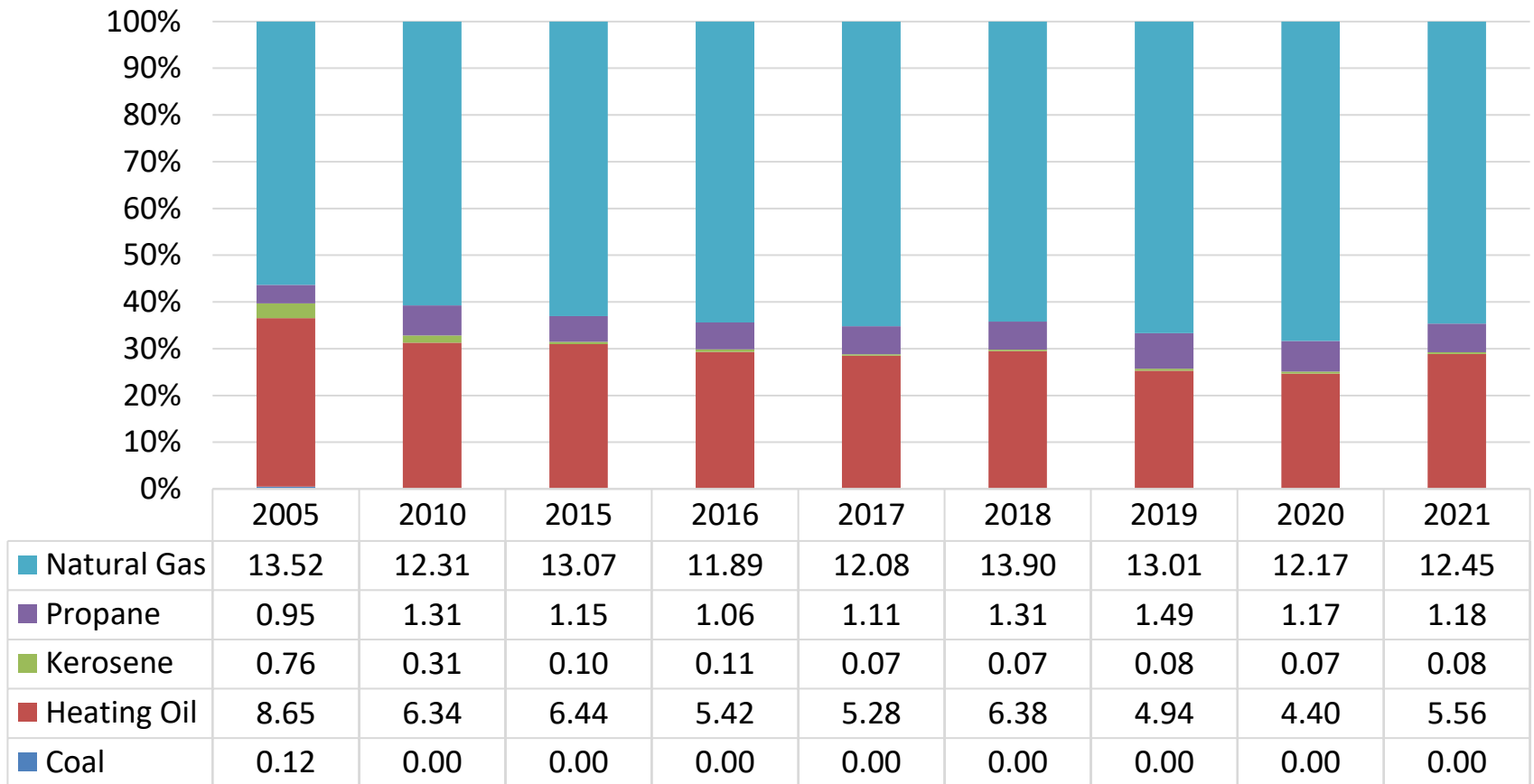
# 2024 PA GHG Inventory

GHG Emissions from Residential Sector (MMTCO<sub>2</sub>e)



# 2024 PA GHG Inventory

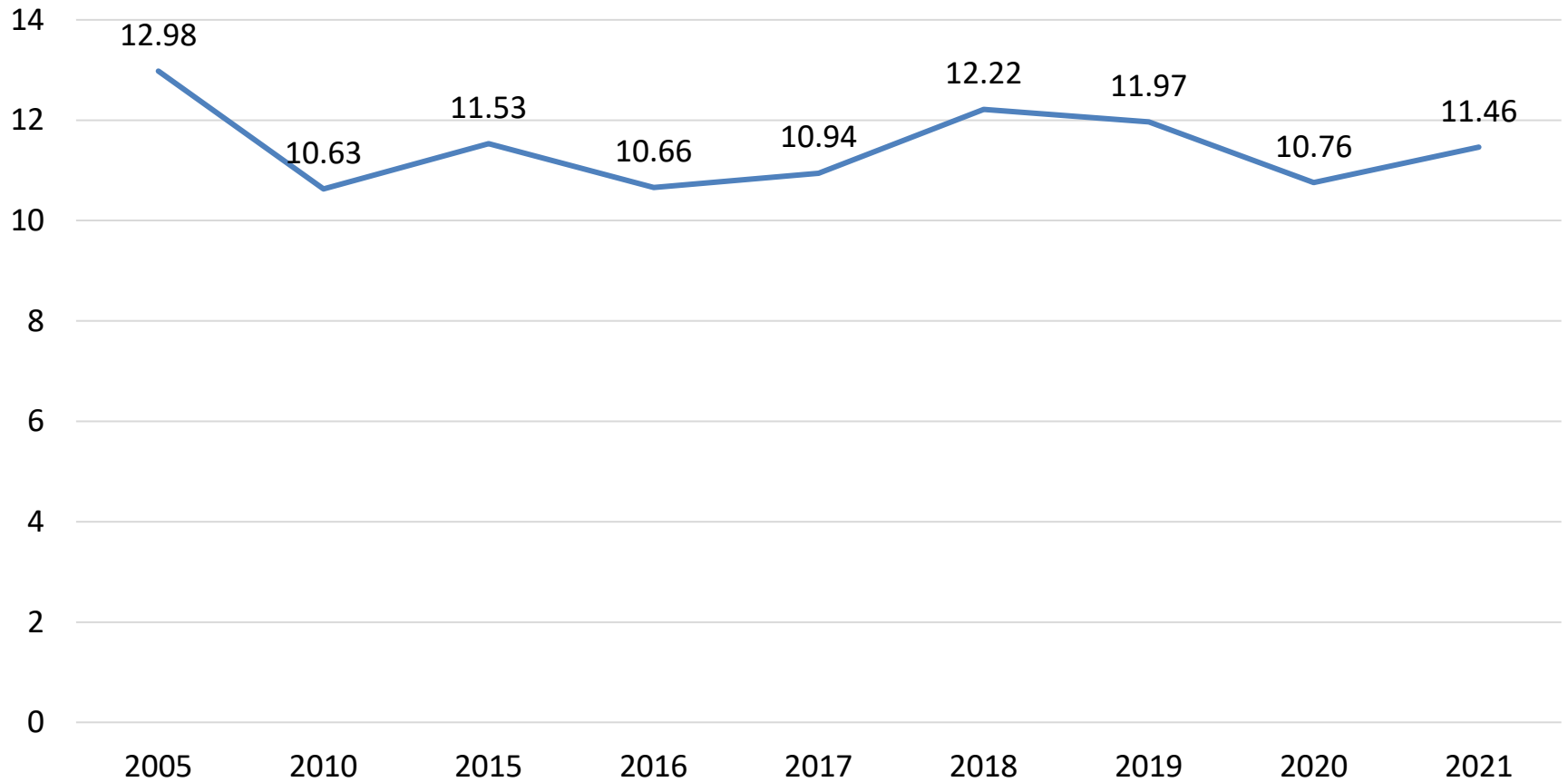
Residential Emissions by Fuel Type (MMTCO<sub>2</sub>e)



*Table values presented in MMTCO<sub>2</sub>e*

# 2024 PA GHG Inventory

GHG Emissions from Commercial Sector (MMT<sub>CO2e</sub>)





# 2024 PA GHG Inventory

Commercial Emissions by Fuel Type (% of Total)

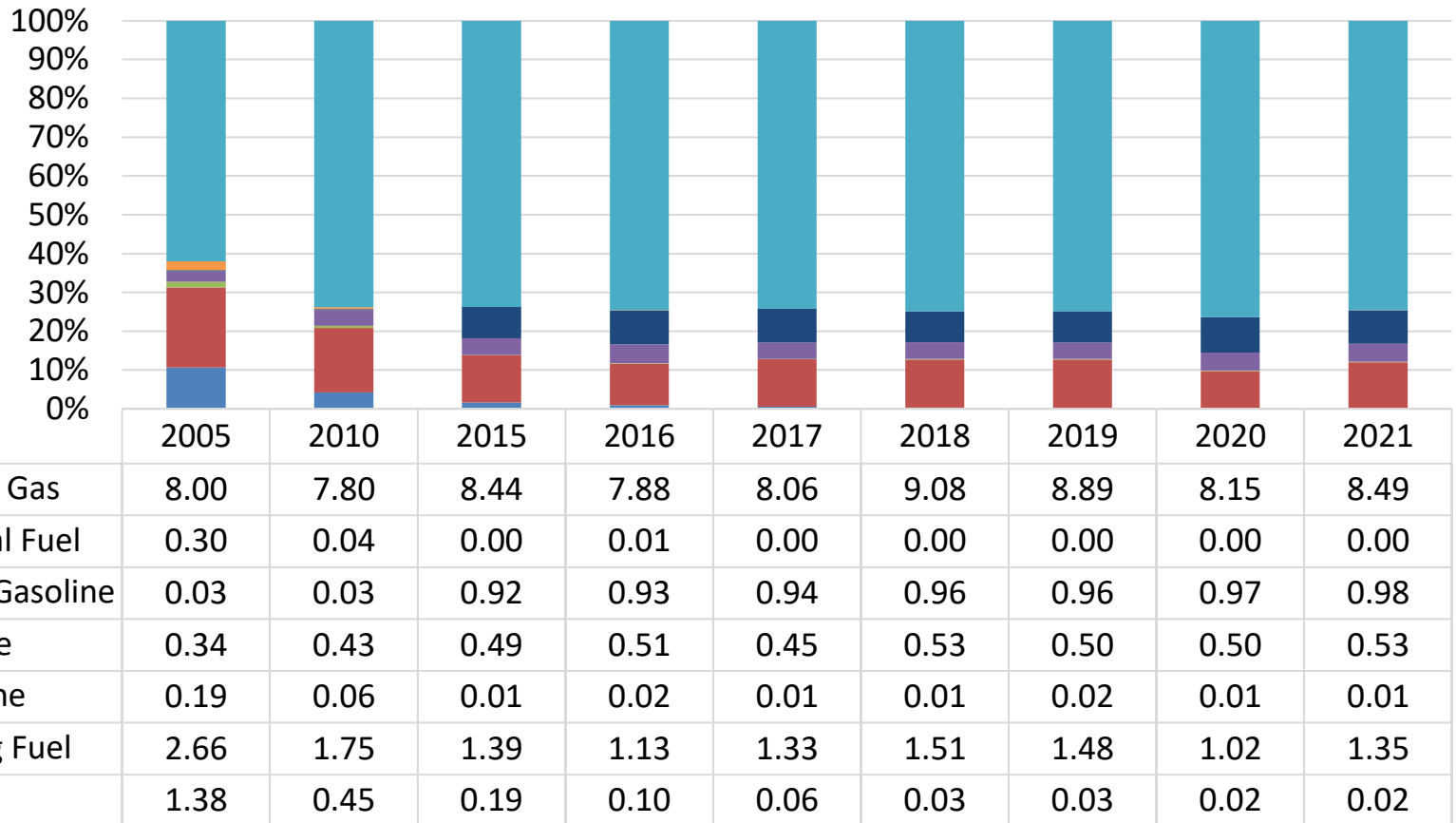
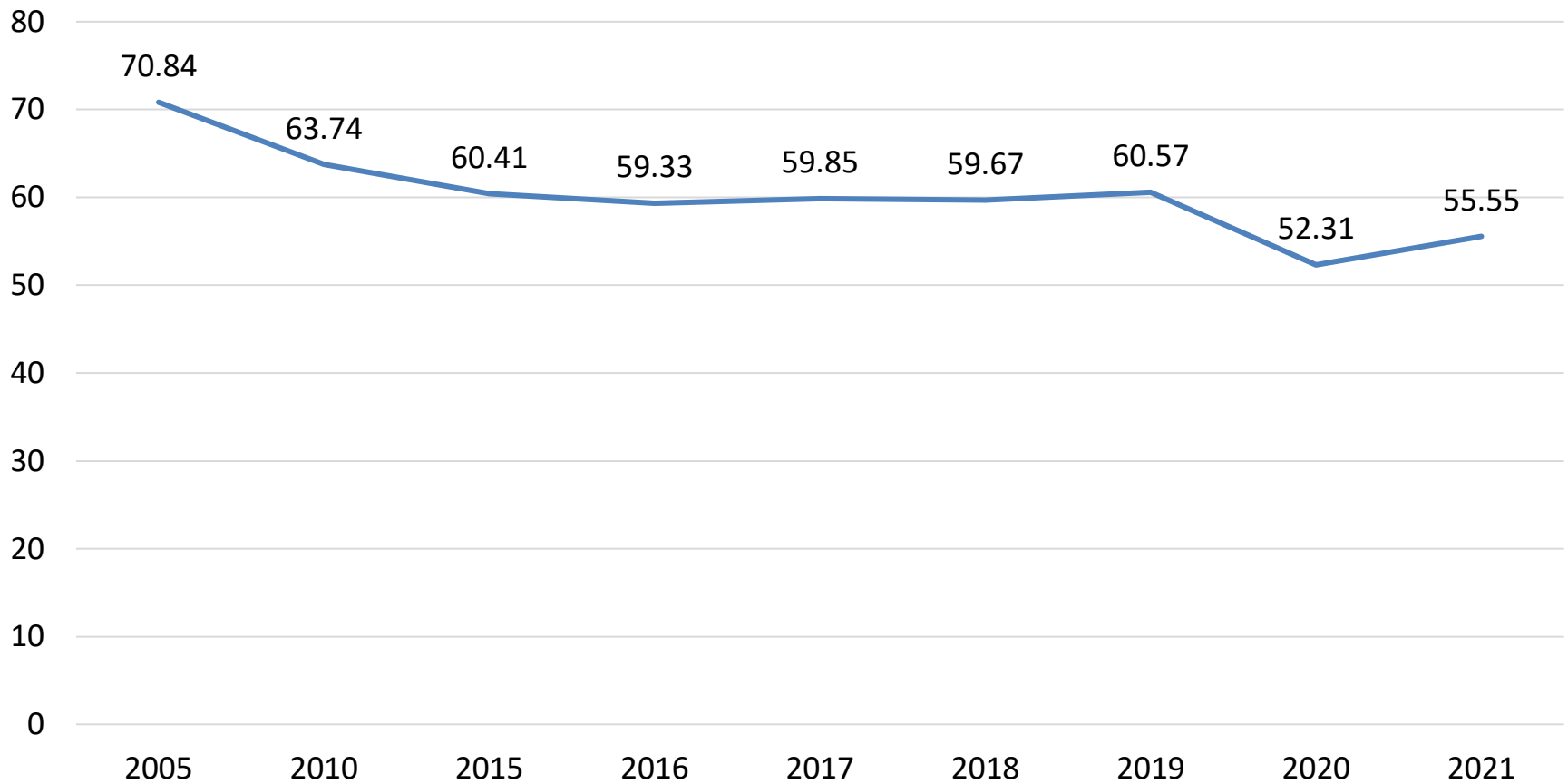


Table values presented in  $MMTCO_2e$

# 2024 PA GHG Inventory

GHG Emissions from Transportation Sector (MMTCO<sub>2</sub>e)



# 2024 PA GHG Inventory

Transportation Sector GHG Emissions by Fuel Type (MMT<sub>CO2e</sub>)

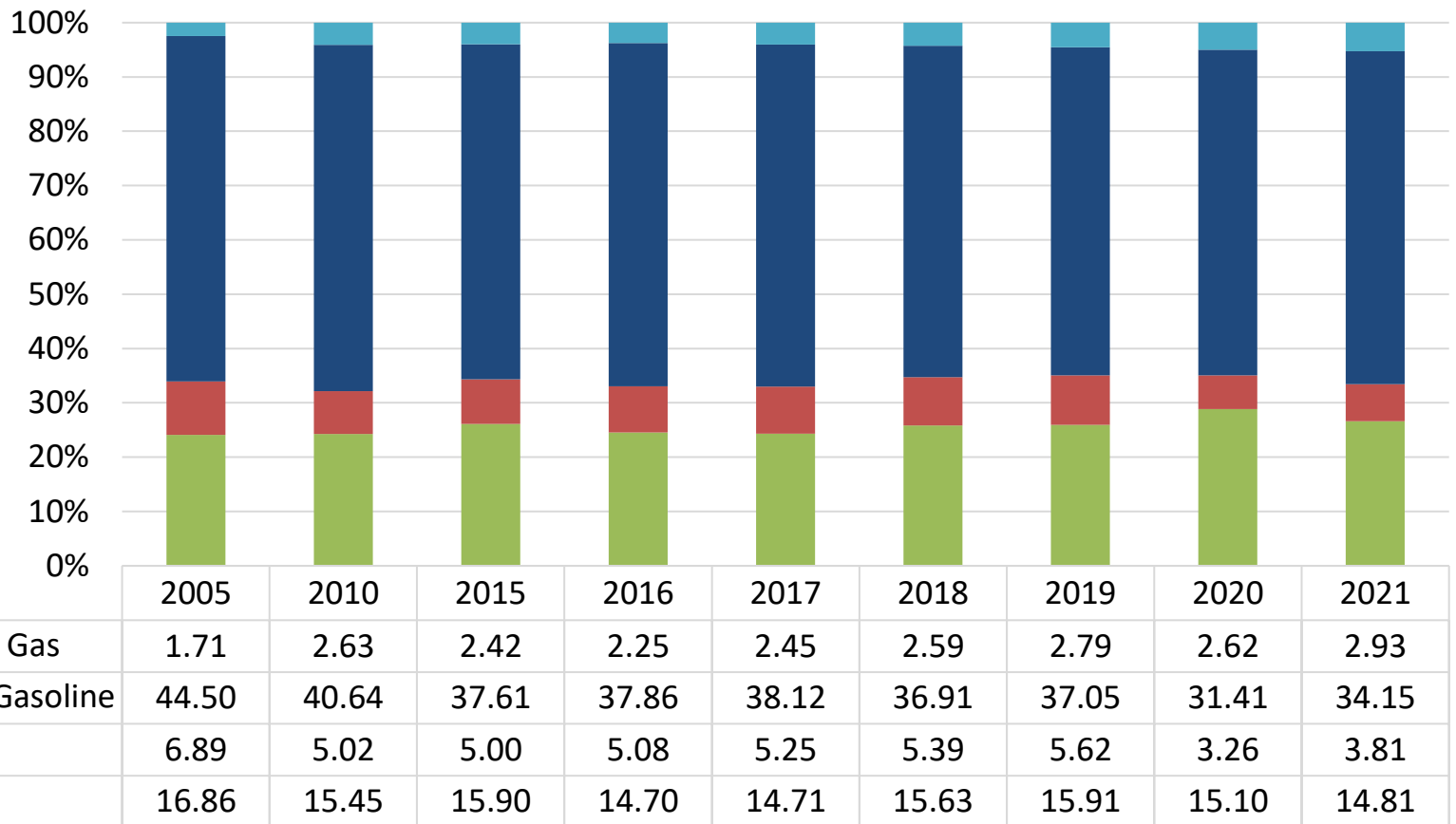
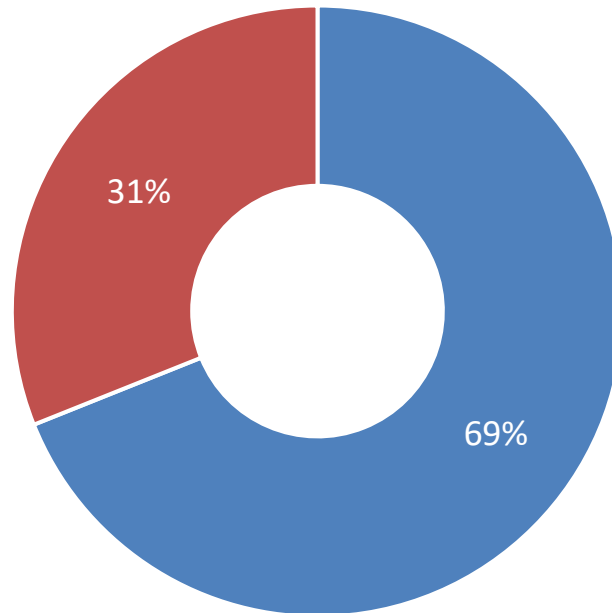


Table values presented in MMT<sub>CO2e</sub>

# 2024 PA GHG Inventory

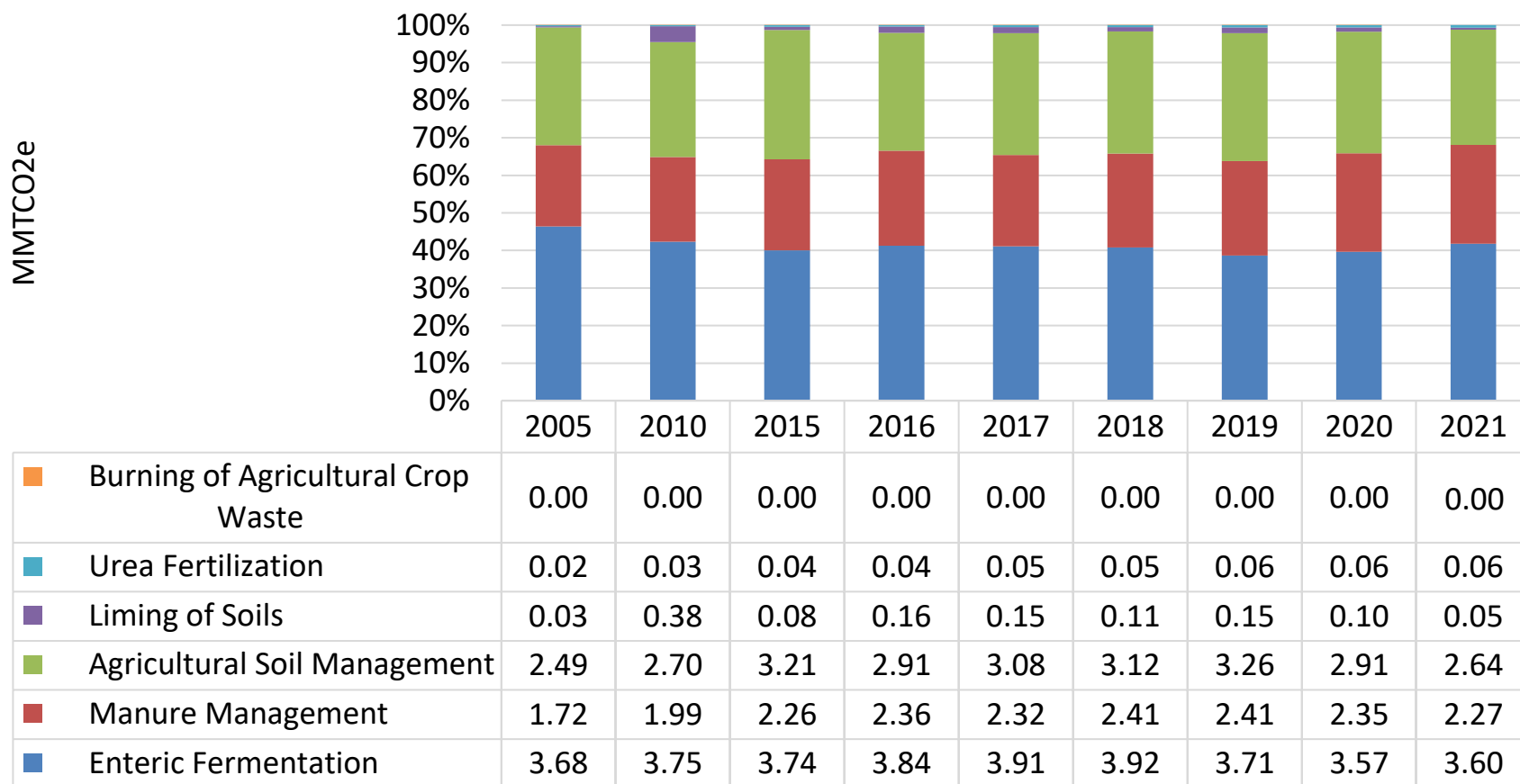
## GHG Emissions from Waste Management Sector (Percent of Total)



■ Solid Waste ■ Wastewater

# 2024 PA GHG Inventory

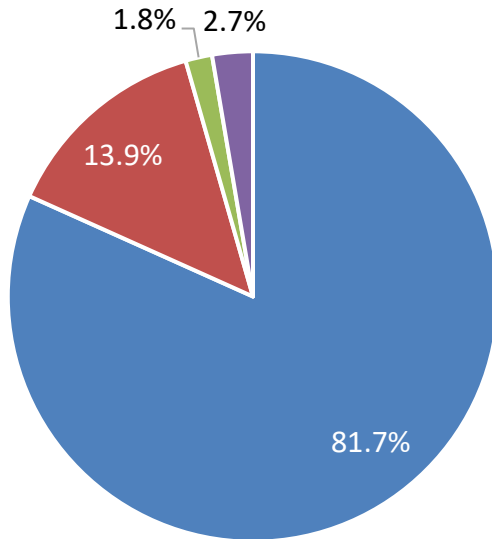
GHG Emissions from Agricultural Sector by Source (MMT<sub>CO2e</sub>)



*Table values presented in MMT<sub>CO2e</sub>*

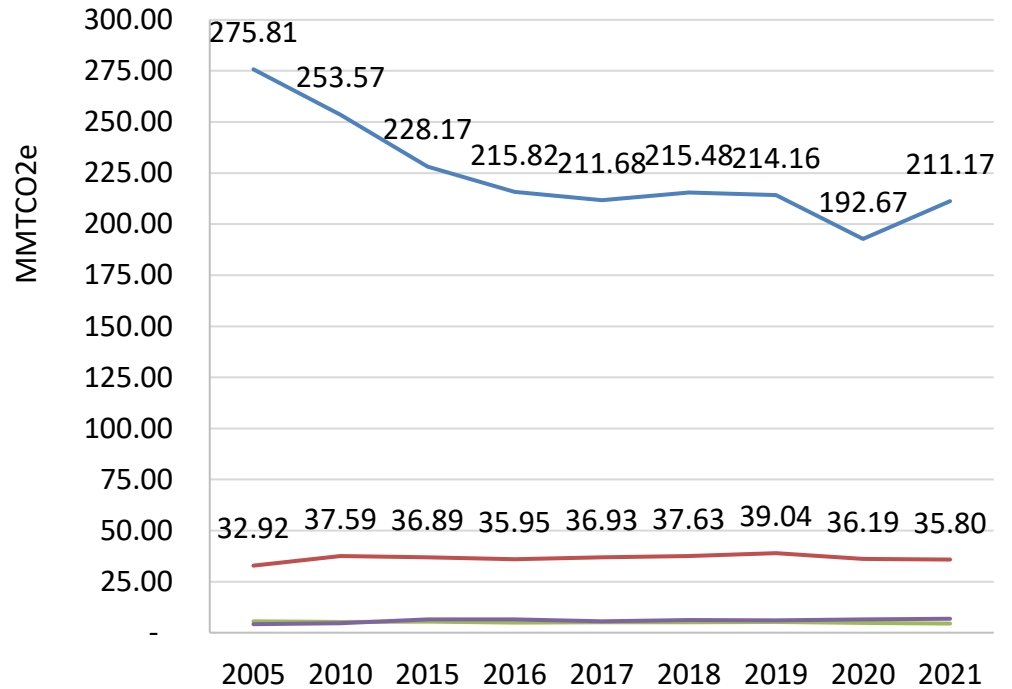
# 2024 PA GHG Inventory

GHG Emissions by Gas, 2021  
(MMT<sub>CO2e</sub>)



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

GHG Emissions by Gas, 2005-2021 (MMT<sub>CO2e</sub>)



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

# 2024 PA GHG Inventory

Questions?

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- Next Meeting
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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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