



pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION



Energy Programs Office

Climate Change Advisory Committee Meeting

August 22, 2023

Josh Shapiro, Governor

Richard Negrin, Secretary

Agenda

- **Introduction**
- Approval of April Minutes
- Panel Discussion – Climate Pollution Reduction Grants
- Public Comment
- Break
- Presentation/Discussion – 2024 Climate Impacts Assessment and Climate Action Plan
- Presentation/Discussion – DRAFT PA 2023 Greenhouse Gas Inventory
- Updates
- Next Meeting
- New Business

Agenda

- Introduction
- **Approval of April Minutes**
- Panel Discussion – Climate Pollution Reduction Grants
- Public Comment
- Break
- Presentation/Discussion – 2024 Climate Impacts Assessment and Climate Action Plan
- Presentation/Discussion – DRAFT PA 2023 Greenhouse Gas Inventory
- Updates
- Next Meeting
- New Business

Panel Discussion: EPA Climate Pollution Reduction Grants

EPA Climate Pollution Reduction Grants

Panel:

- Lindsay Byron, PA DEP
- Becky Bradley, Lehigh Valley Planning Commission
- Andy Waple, Southwestern Pennsylvania Commission
- Karin Morris, Delaware Valley Regional Planning Commission

EPA Climate Pollution Reduction Grants

- PA DEP submitted Workplan and Budget to EPA on 4/24
- Funding received 6/27
- DEP will hire contractor(s) for development of deliverables:
 - A Comprehensive Stakeholder Outreach Plan and facilitation of stakeholder outreach
 - A Priority Climate Action Plan (PCAP), due March 1, 2024 (required)
 - A Comprehensive Climate Action Plan (CCAP), due 2 years from the date of award (required)
 - A status report, due at the close of the 4-year grant period (required)
- Pennsylvania's PCAP will focus on climate actions targeting the industrial sector, however, feedback received during our inclusive stakeholder outreach efforts will inform the PCAP's final focus.
- Pennsylvania's CCAP will take a commonwealth-wide and cross-sector approach to climate action planning.

EPA Climate Pollution Reduction Grants

PCAP, CCAP, Status Report Required Elements

Plan Element	Priority Climate Action Plan	Comprehensive Climate Action Plan	Status Report
GHG Inventory	Required	Required	Update Encouraged
GHG Emissions Projections	Not Required	Required	Update Encouraged
GHG Reduction Targets	Not Required	Required	Not Required
Quantified GHG Reduction Measures	Required (priority measures only)	Required (comprehensive)	Status and Updates Required
Benefits Analysis	Encouraged	Required	Required
Low Income/ Disadvantaged Communities Benefits Analysis	Required	Required	Required
Review of Authority to Implement	Required	Required	Update Required
Intersection with Other Funding Availability	Encouraged	Required	Required
Workforce Planning Analysis	Encouraged	Required	Required
Next Steps/Future Budget and Staffing Needs	Not Required	Not Required	Required

Public Comment (15 min)

Break

Agenda

- Introduction
- Approval of April Minutes
- Panel Discussion – Climate Pollution Reduction Grants
- Public Comment
- Break
- **Presentation/Discussion – 2024 Climate Impacts Assessment and Climate Action Plan**
- Presentation/Discussion – DRAFT PA 2023 Greenhouse Gas Inventory
- Updates
- Next Meeting
- New Business

PLACEHOLDER FOR ICF SLIDES

Agenda

- Introduction
- Approval of April Minutes
- Panel Discussion – Climate Pollution Reduction Grants
- Public Comment
- Break
- Presentation/Discussion – 2024 Climate Impacts Assessment and Climate Action Plan
- **Presentation/Discussion – DRAFT PA 2023 Greenhouse Gas Inventory**
- Updates
- Next Meeting
- New Business



pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION



Energy Programs Office

DRAFT 2023 Pennsylvania Greenhouse Gas Inventory Report (2020 Data Year)

GHG Emissions Inventory

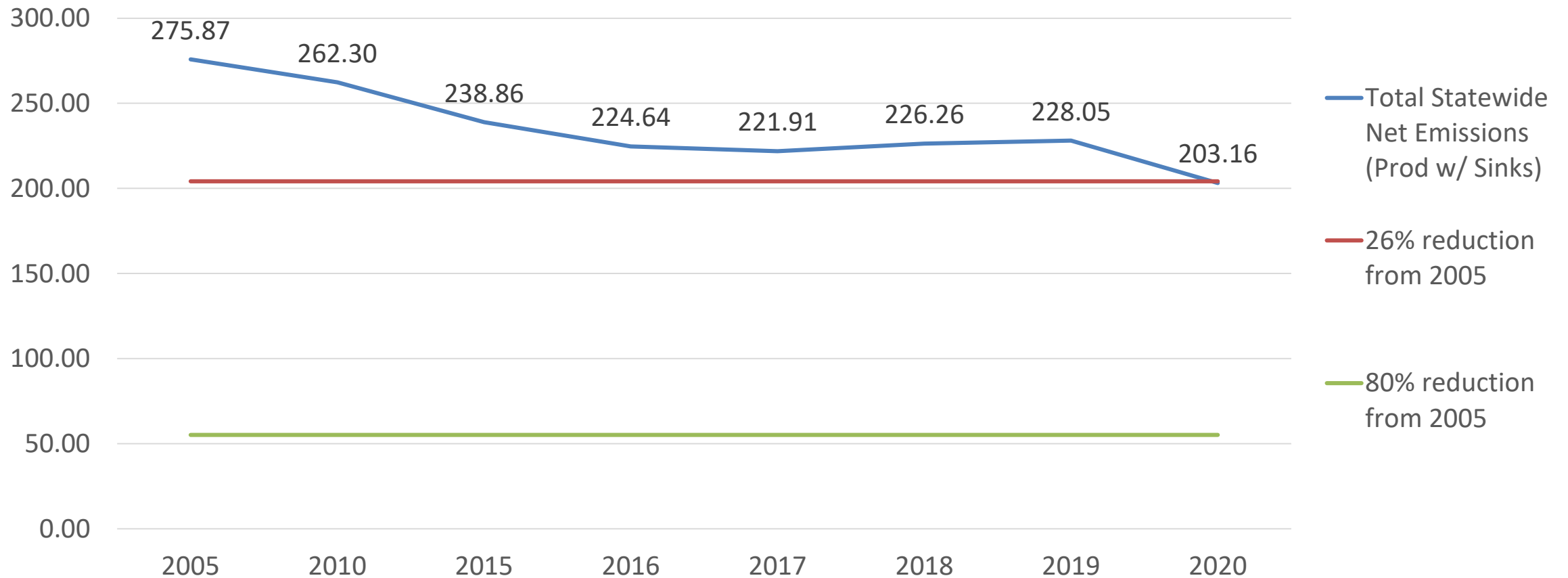
- State Inventory Tool (SIT)
 - Made available in March 2023
 - EPA updated all 11 modules with data through 2020
- Fuel consumption data for 2021 included from SEDS

GHG Emissions Inventory

- 2020 data shows a net emissions decrease from 2019.
- Emissions decreased across all sectors, except Waste Management.
- There was a small increase in CO2 sequestered in LULUCF sector in 2020 compared to 2019.
- Statewide net emissions decreased 26.4 percent from 2005 baseline. While this achieves the 2025 GHG emissions reduction goal, this reduction likely affected by impacts from the COVID-19 pandemic.

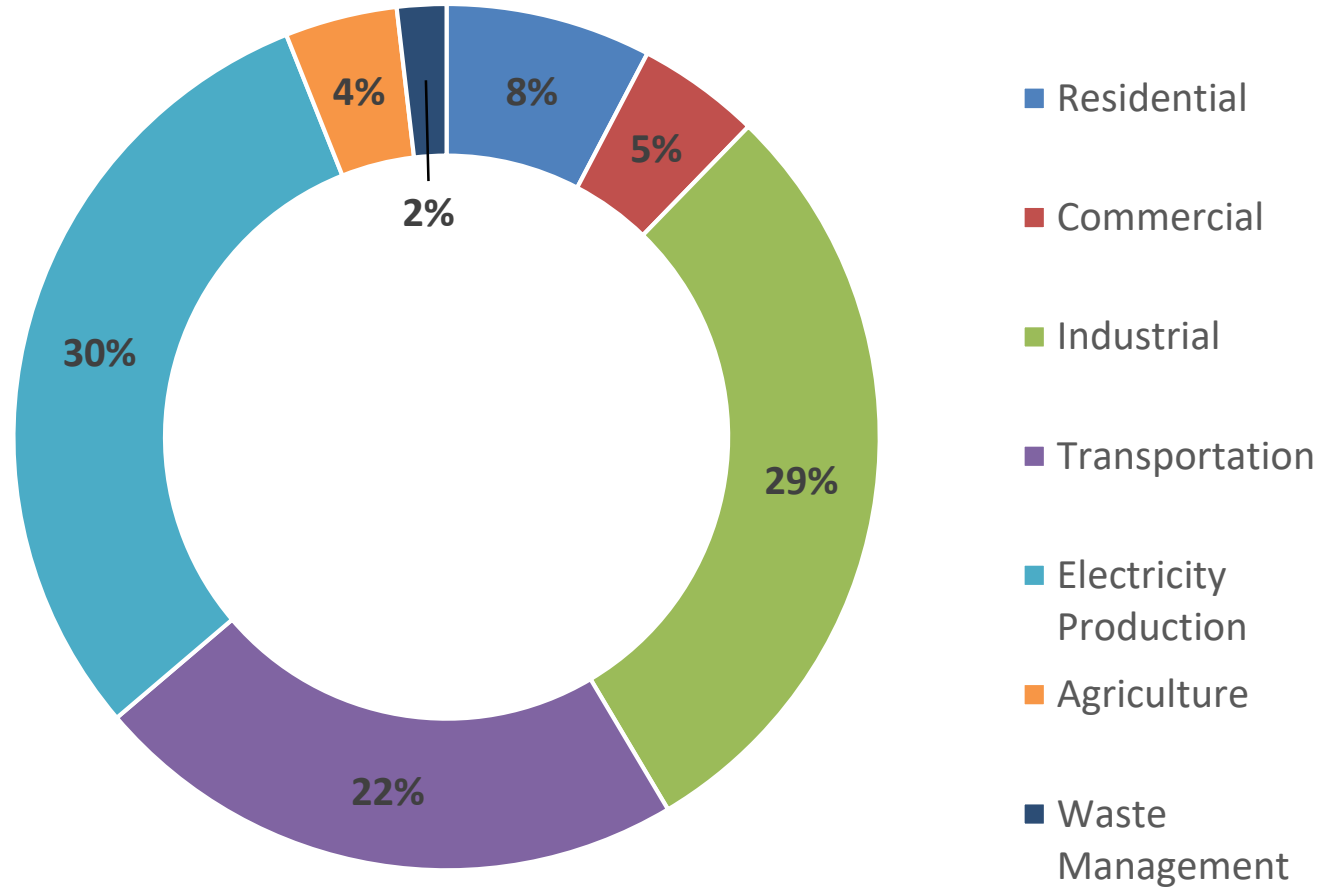
GHG Emissions Inventory

Total Statewide Net Emissions (Sources w/ Sinks)(MMT_{CO2e})



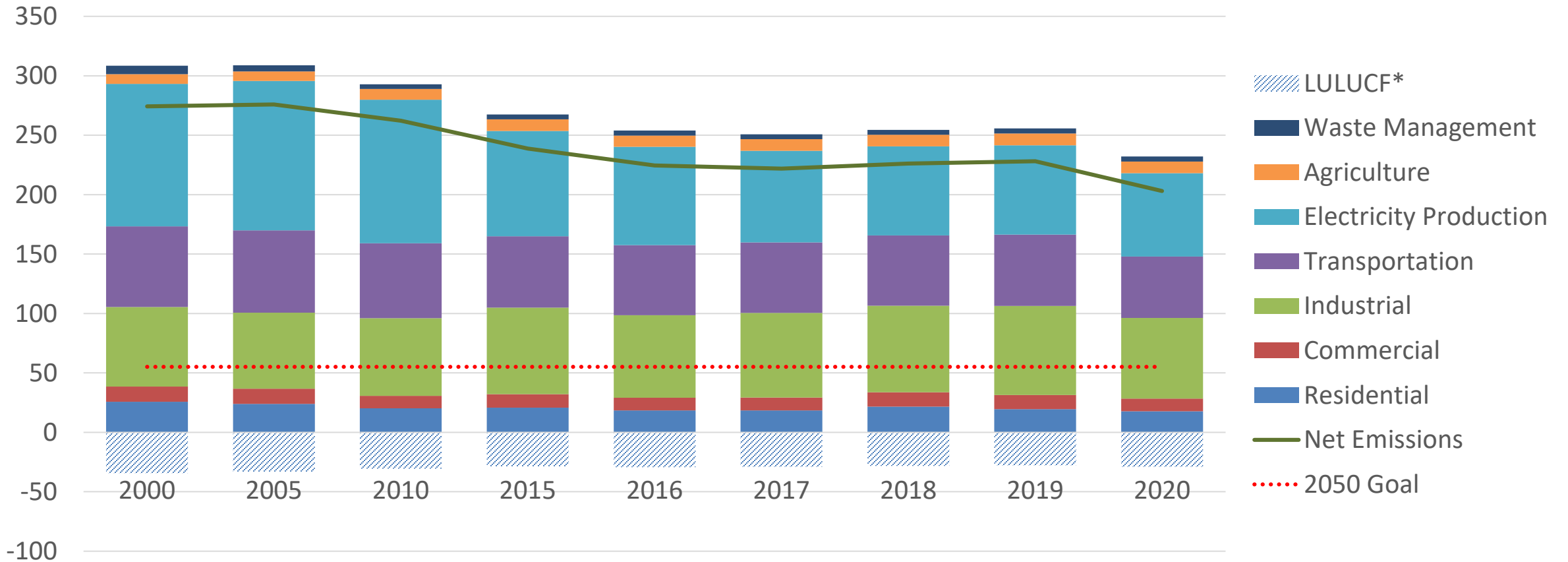
GHG Emissions Inventory

Pennsylvania 2020 GHG Emissions
% of Total by Sector



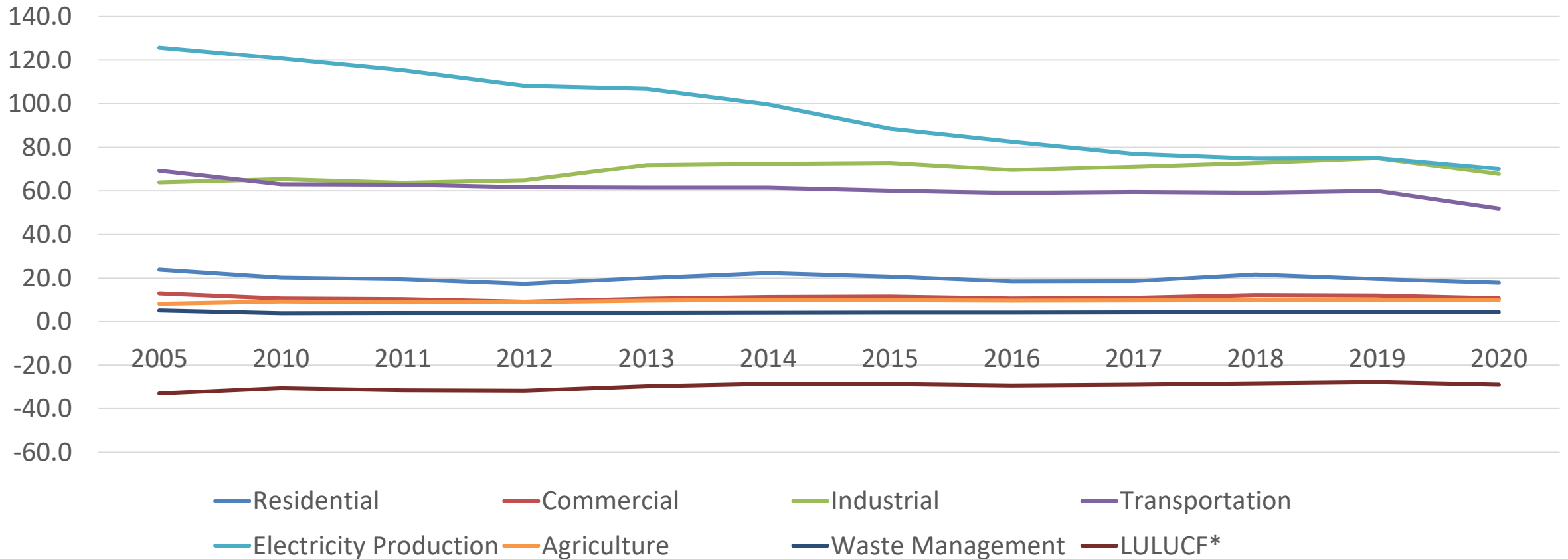
GHG Emissions Inventory

GHG Emissions by Sector (MMTCO₂e)



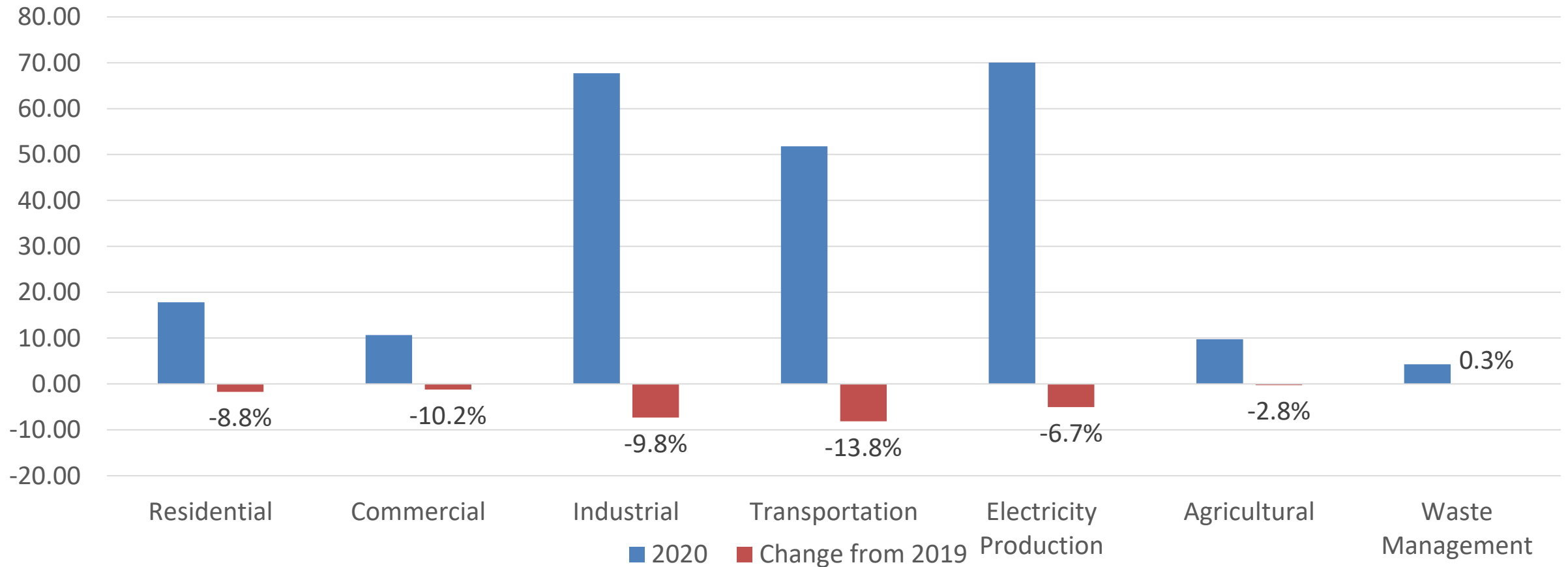
GHG Emissions Inventory

GHG Emissions by Sector (MMTCO₂e)



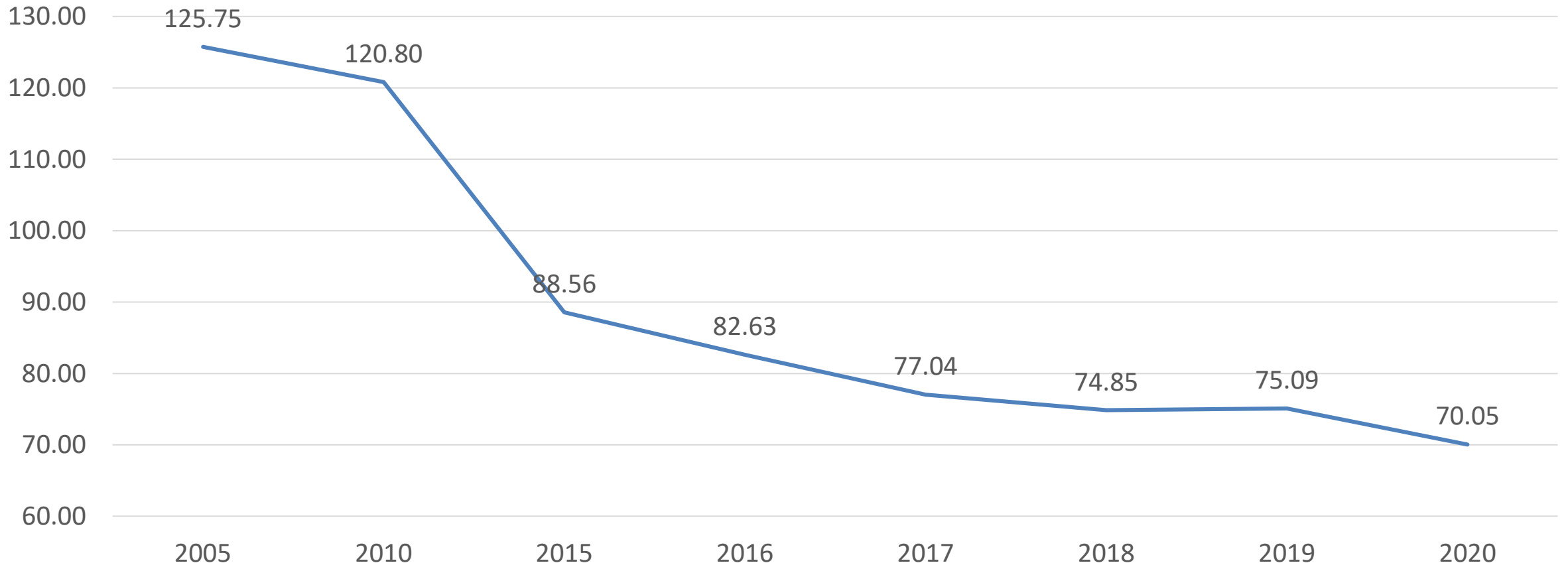
GHG Emissions Inventory

2020 GHG Emissions By Sector (MMTCO₂e)



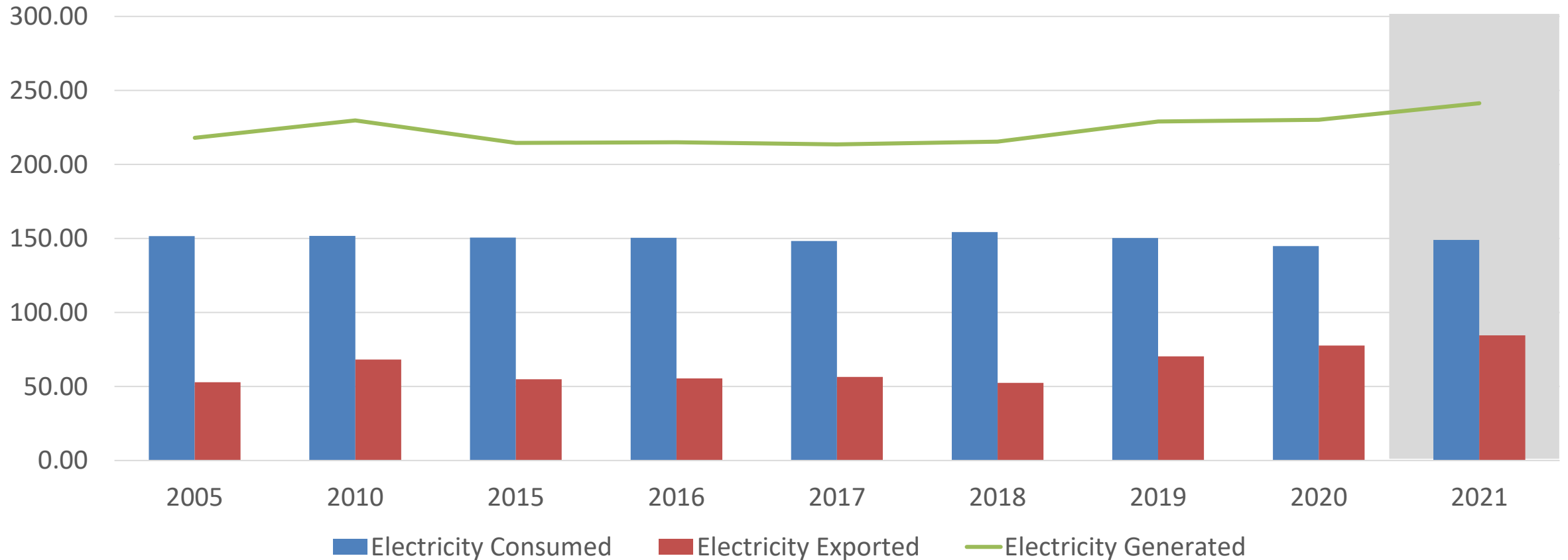
Electricity Production

GHG Emissions from Electricity Production (MMT_{CO2e})



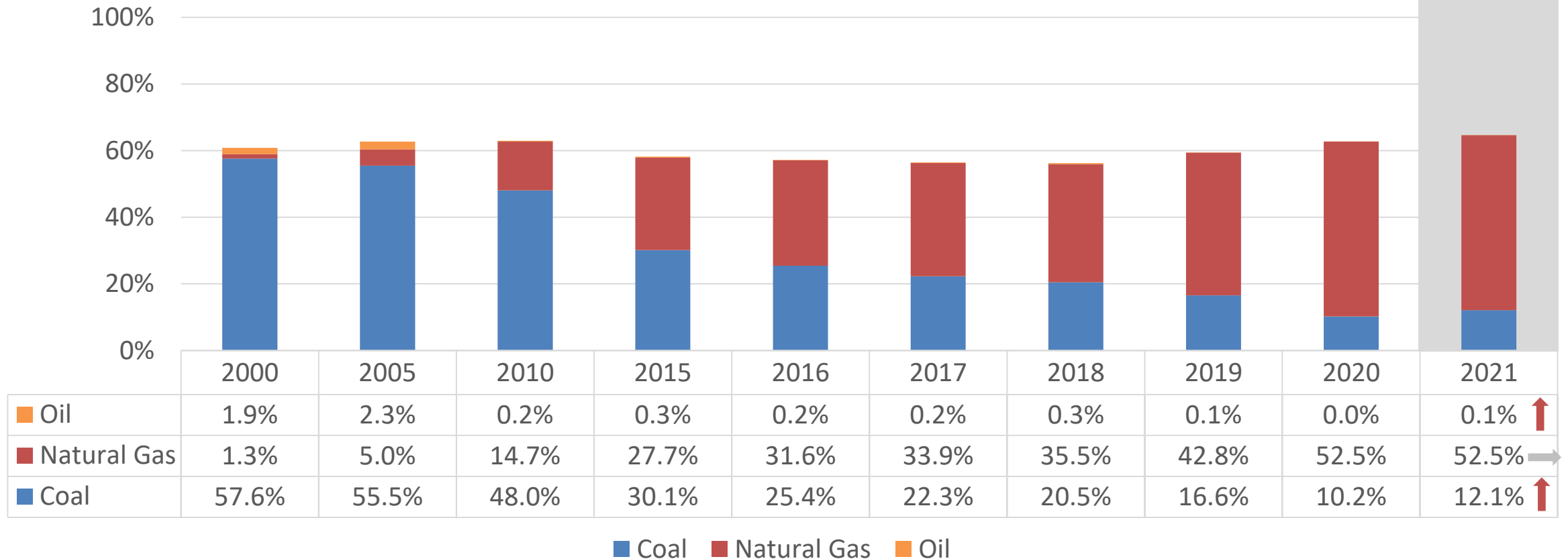
Electricity Production

Total Electricity Generated, Consumed, and Exported (TWh)



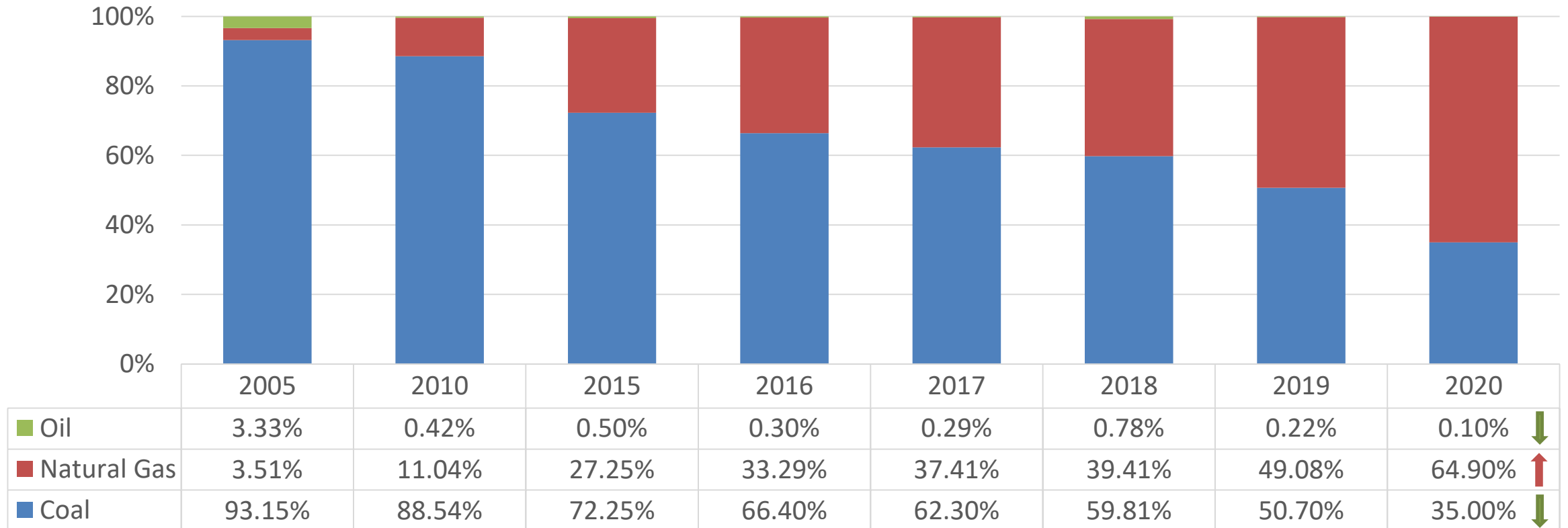
Electricity Production

Percent Electricity Production By Fuel Type



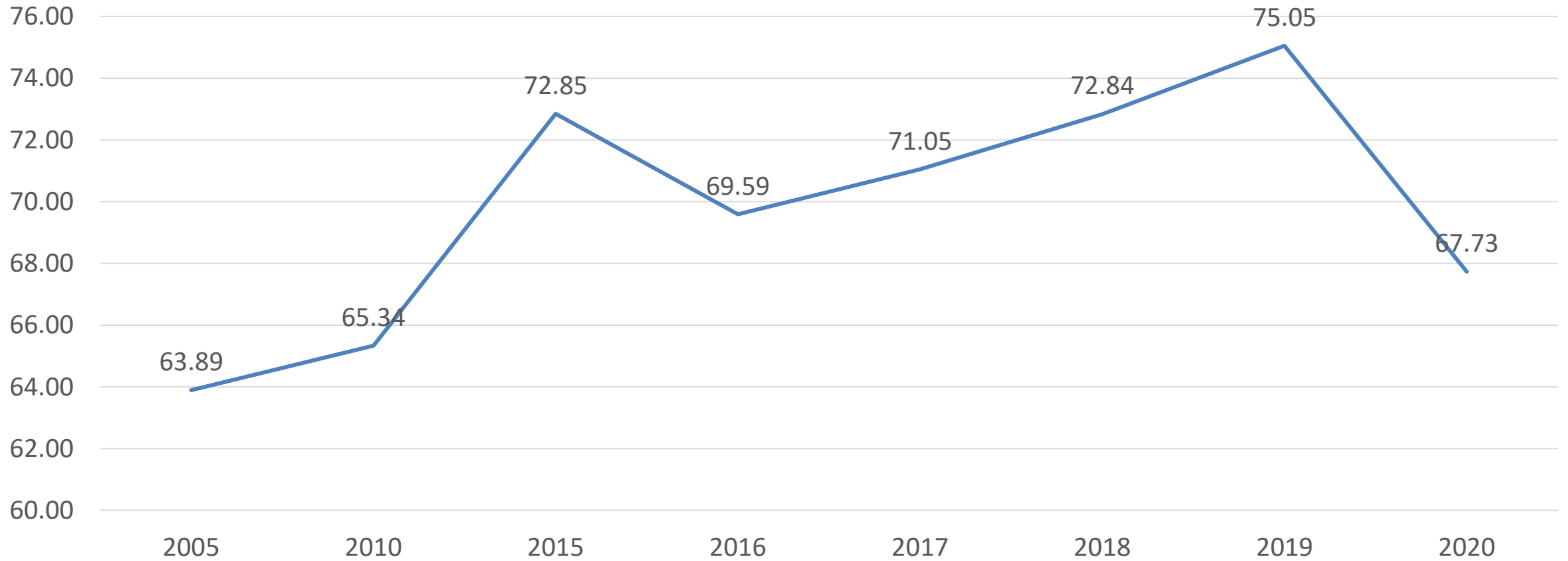
Electricity Production

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



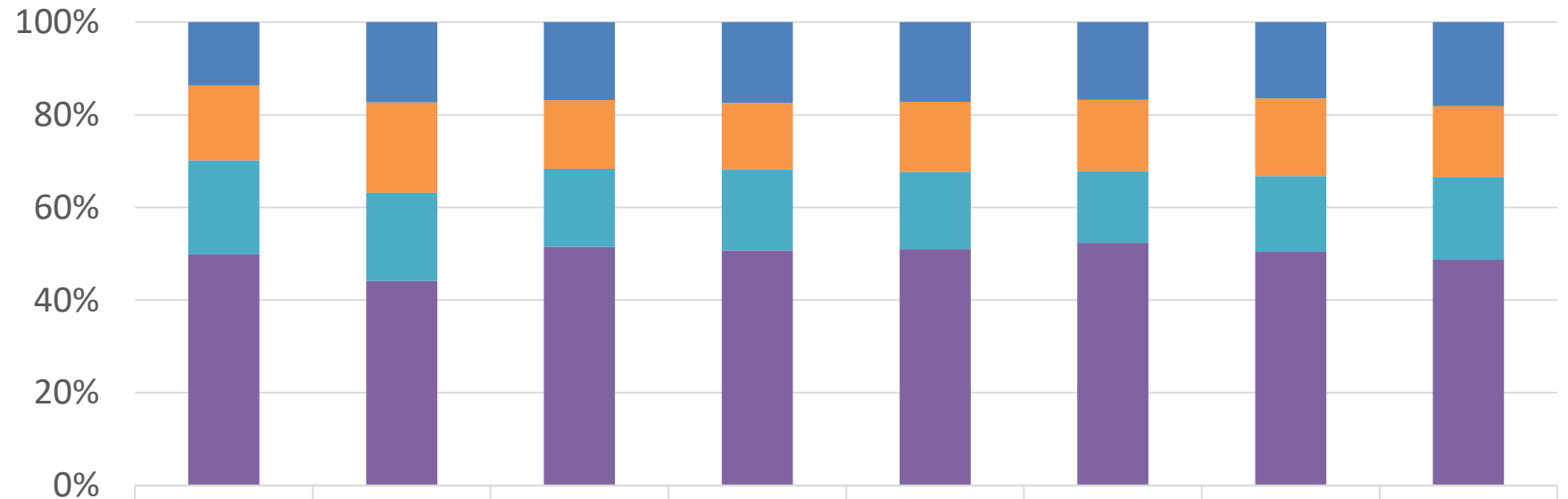
Industrial Sector

GHG Emissions from Industrial Sector (MMTCO₂e)



Industrial Sector

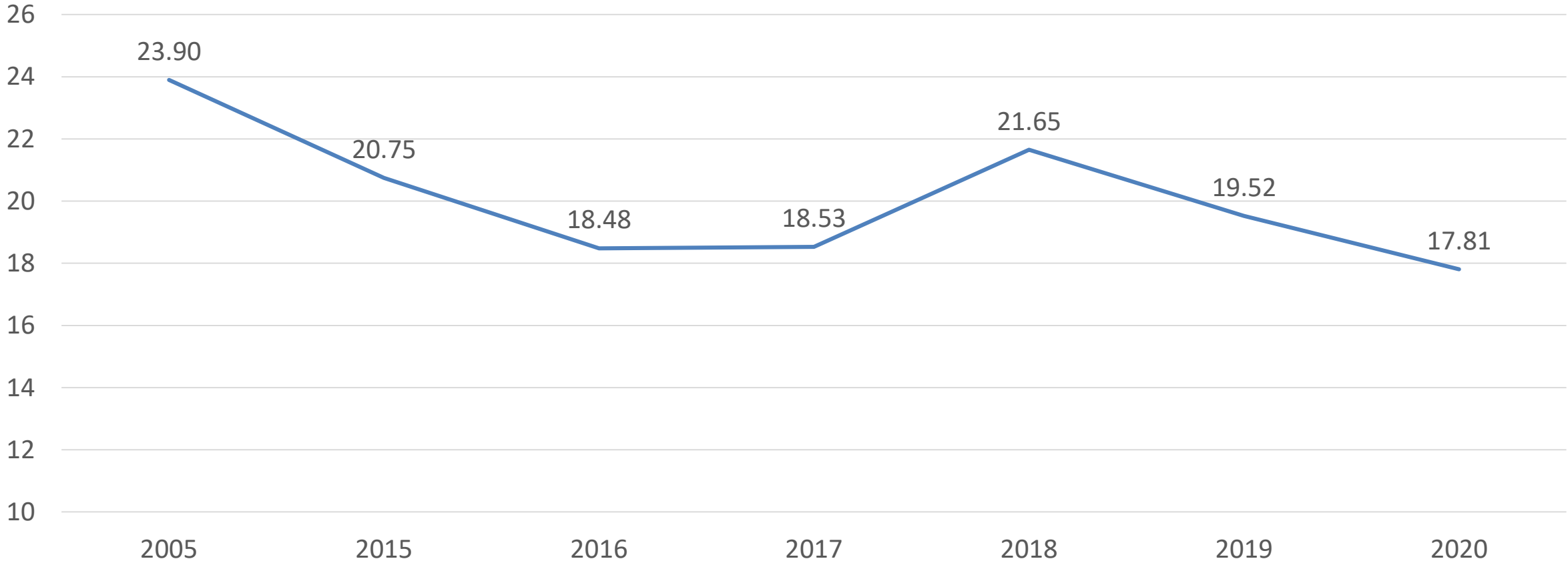
GHG Emissions from Industrial Sector by Source (% of Total)



	2005	2010	2015	2016	2017	2018	2019	2020
■ Natural Gas and Oil Systems	8.74	11.30	12.27	12.15	12.19	12.22	12.33	12.26 ↓
■ Coal Mining and Abandoned Mines	10.32	12.74	10.76	9.95	10.76	11.23	12.61	10.38 ↓
■ Industrial Process	12.98	12.44	12.32	12.16	11.86	11.27	12.27	12.12 ↓
■ Combustion of Fossil Fuels	31.85	28.85	37.50	35.33	36.24	38.12	37.84	32.97 ↓

Residential Sector

GHG Emissions from Residential Sector (MMT_{CO2e})



Residential Sector

Residential Emissions by Fuel Type (% of Total)

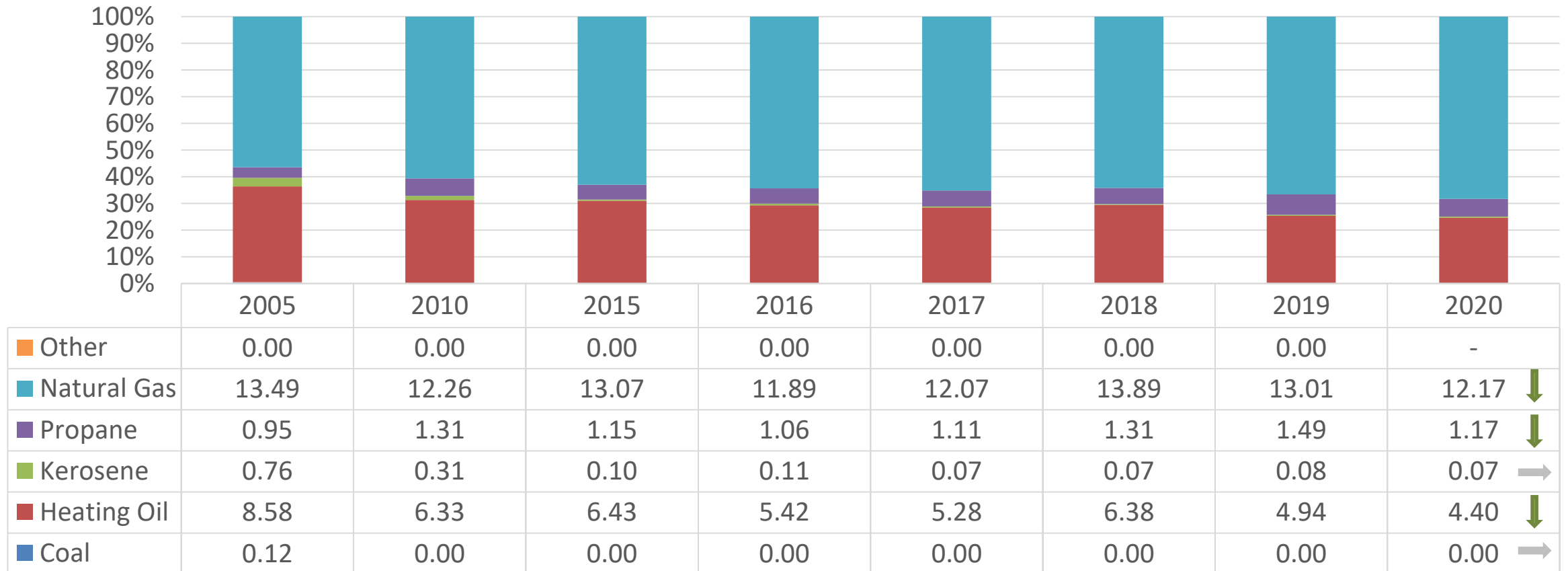
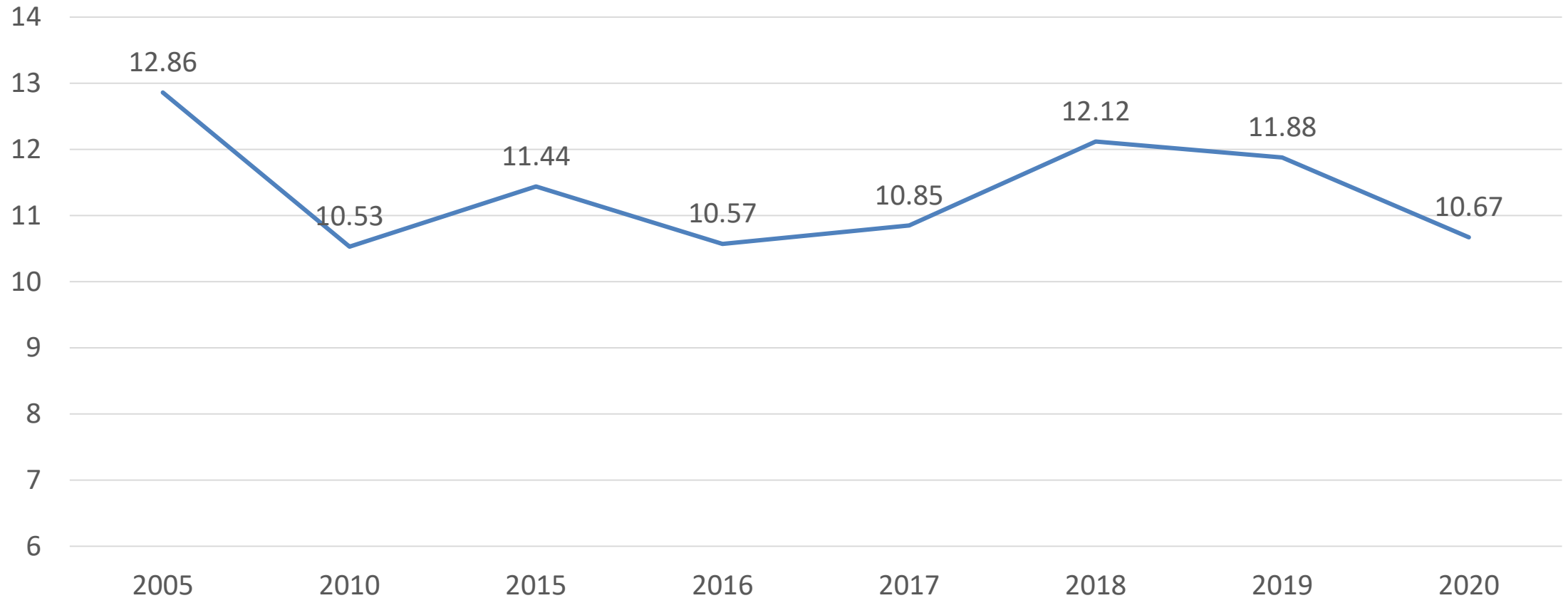


Table values presented in MMTCO₂e

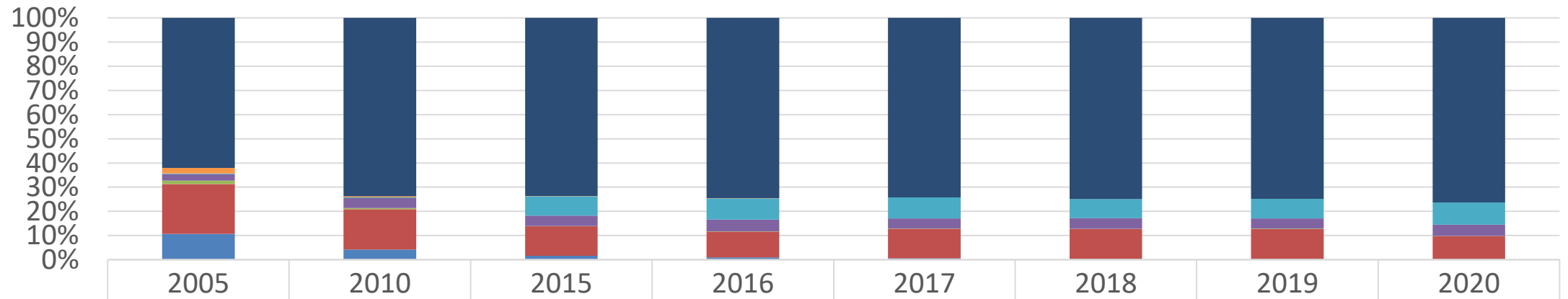
Commercial Sector

GHG Emissions from Commercial Sector (MMTCO₂e)



Commercial Sector

Commercial Emissions by Fuel Type (% of Total)

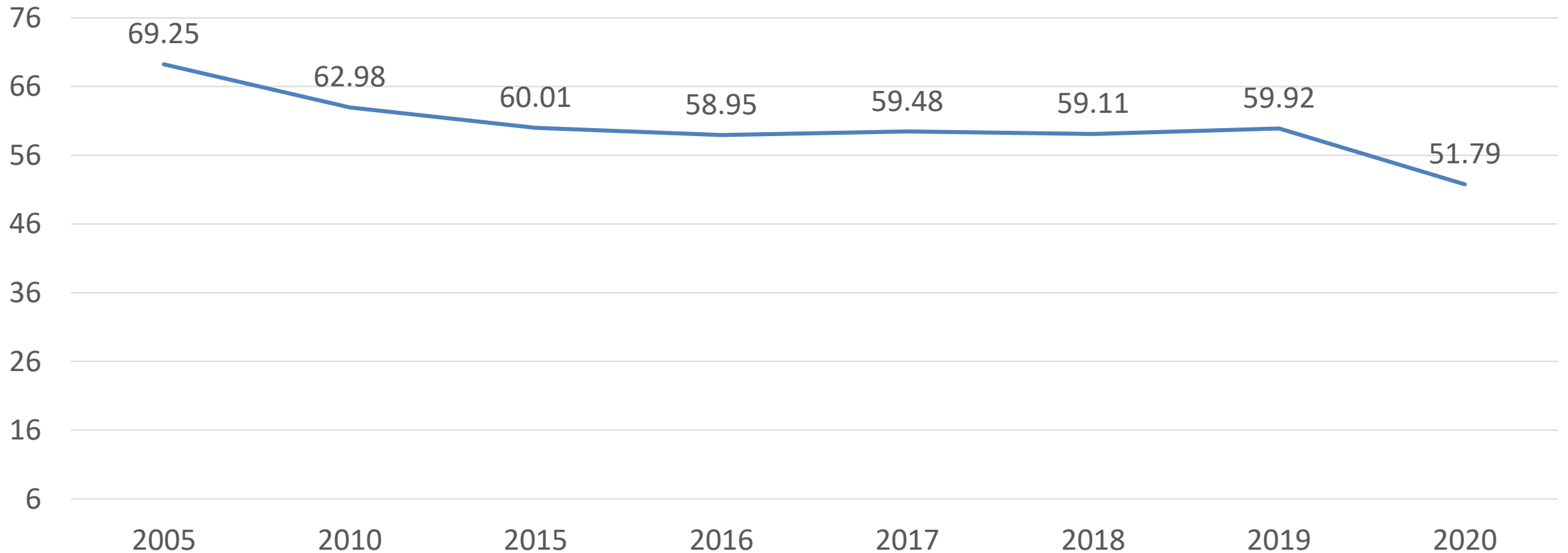


	2005	2010	2015	2016	2017	2018	2019	2020
■ Natural Gas	7.98	7.77	8.43	7.87	8.05	9.08	8.89	8.15 ↓
■ Residual Fuel	0.30	0.04	0.00	0.01	0.00	0.00	0.00	0.00 →
■ Motor Gasoline	0.03	0.03	0.92	0.93	0.94	0.96	0.96	0.97 →
■ Propane	0.35	0.43	0.49	0.51	0.45	0.53	0.50	0.50 →
■ Kerosene	0.19	0.06	0.01	0.02	0.01	0.01	0.02	0.01 →
■ Heating Fuel	2.64	1.75	1.39	1.13	1.33	1.51	1.48	1.02 ↓
■ Coal	1.38	0.45	0.19	0.10	0.06	0.04	0.03	0.02 →

Table values presented in MMTCO₂e

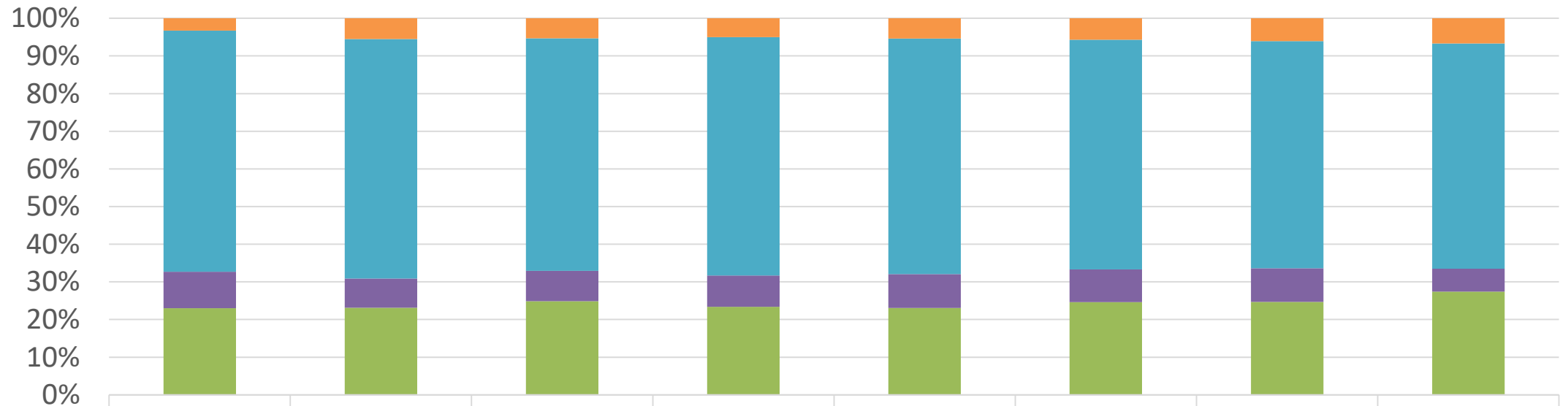
Transportation Sector

GHG Emissions from Transportation Sector (MMTCO₂e)



Transportation Sector

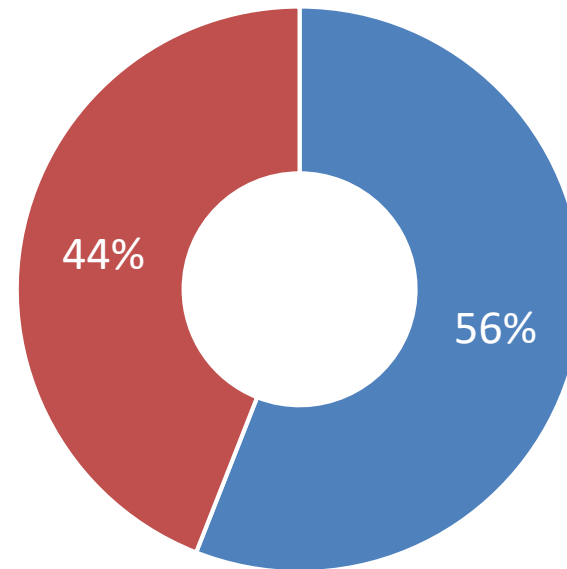
Transportation Emissions by Fuel Type (% of Total)



	2005	2010	2015	2016	2017	2018	2019	2020
■ Natural Gas	32,312	49,517	45,700	42,547	46,208	48,893	52,681	49,479 ↓
■ Motor Gasoline	628,121	571,588	532,669	535,957	539,177	522,404	524,467	444,536 ↓
■ Jet Fuel	95,404	69,561	69,271	70,357	77,639	74,608	77,595	44,795 ↓
■ Diesel	225,678	208,177	214,410	198,257	198,552	210,825	214,525	203,729 ↓

Waste Management Sector

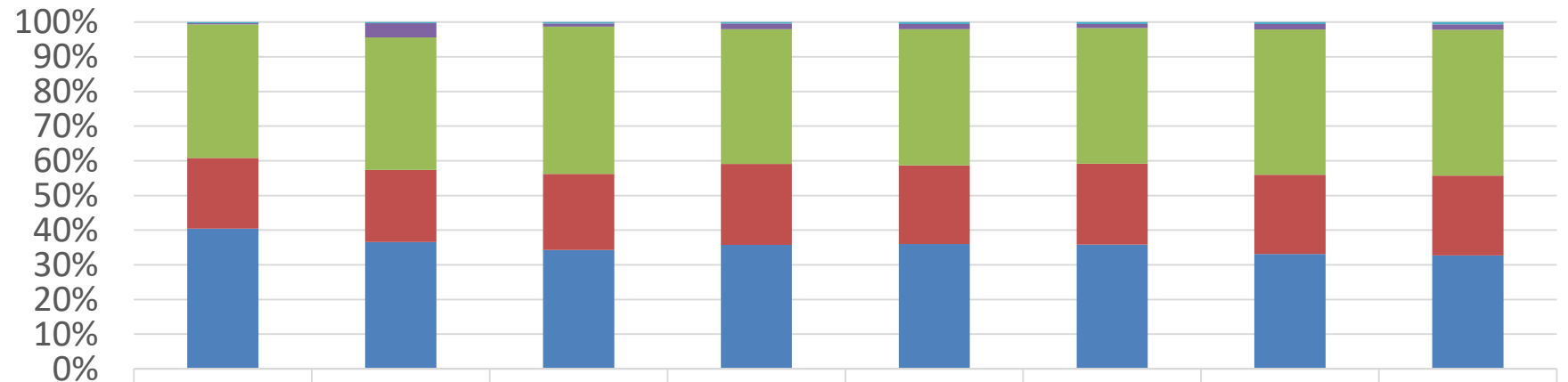
GHG Emissions from Waste Management Sector
(Percent of Total)



■ Solid Waste ■ Wastewater

Agricultural Sector

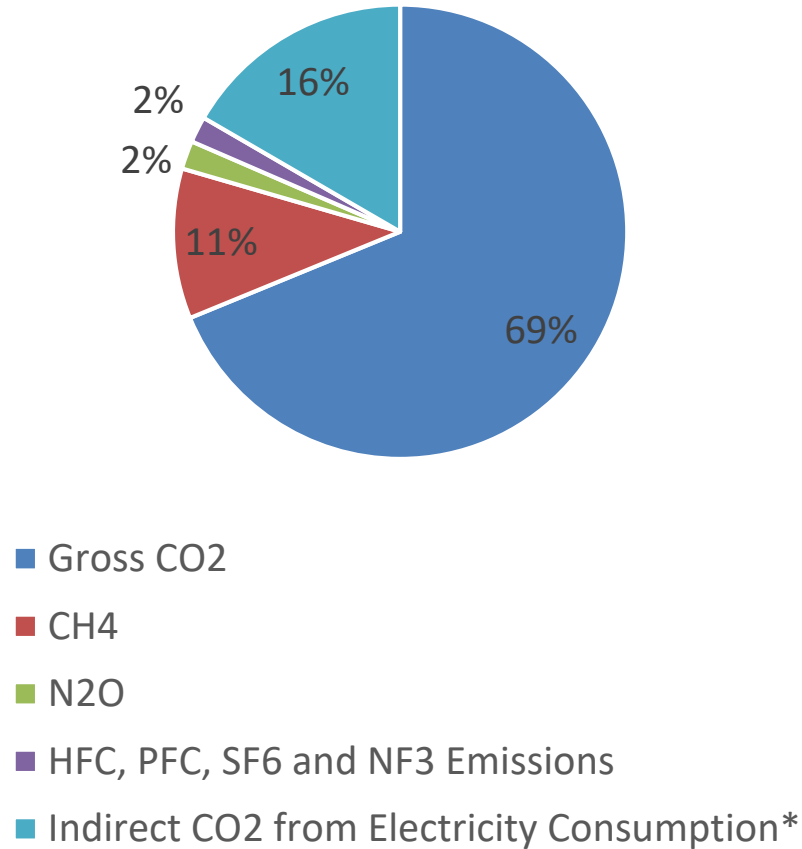
GHG Emissions from Agricultural Sector by Source (% of Total)



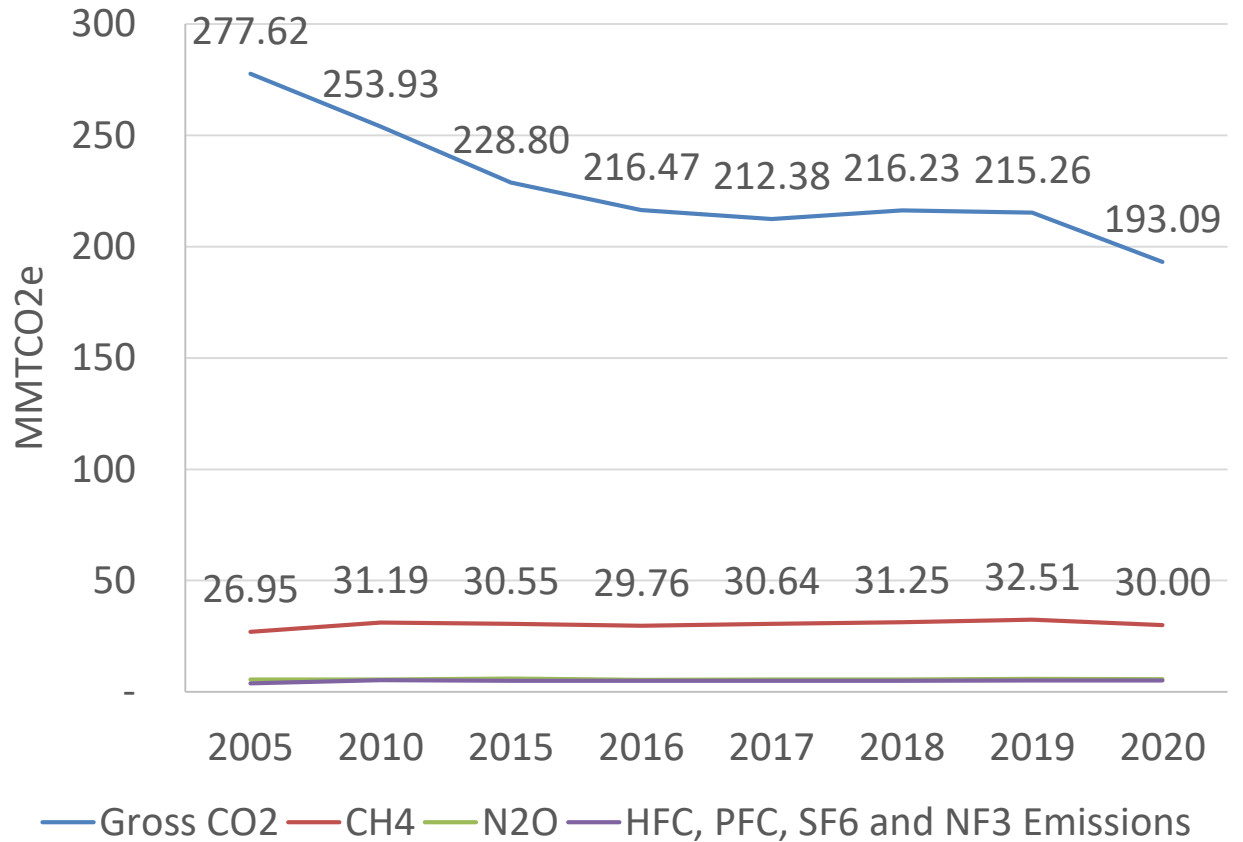
	2005	2010	2015	2016	2017	2018	2019	2020
Burning of Agricultural Crop Waste	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00 →
Urea Fertilization	0.02	0.03	0.04	0.04	0.05	0.05	0.06	0.06 →
Liming of Soils	0.03	0.38	0.08	0.16	0.15	0.11	0.15	0.15 ↓
Agricultural Soil Management	3.13	3.49	4.15	3.73	3.80	3.82	4.19	4.09 ↓
Manure Management	1.65	1.90	2.15	2.24	2.20	2.28	2.29	2.24 ↓
Enteric Fermentation	3.29	3.35	3.34	3.42	3.49	3.50	3.31	3.18 ↓

Summary by Gas

GHG Emissions by Gas, 2020 (MMT_{CO2e})



GHG Emissions by Gas, 2005-2020 (MMT_{CO2e})





pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION



Energy Programs Office

Questions?

Updates

- Update on Climate Action for Environmental Justice Communities project
- IJJA/IRA funded programs

Updates

Other Climate Outreach Efforts and Notable Events:

- State Museum of PA Webinar, 5/19
- Delaware County's 2nd Annual Sustainability Conference, 6/8
- Conveners Network: States Deployment Initiative CPRG Meeting, 6/26-6/28

Agenda

- Introduction
- Approval of April Minutes
- Panel Discussion – Climate Pollution Reduction Grants
- Public Comment
- Break
- Presentation/Discussion – 2024 Climate Impacts Assessment and Climate Action Plan
- Presentation/Discussion – DRAFT PA 2023 Greenhouse Gas Inventory
- Updates
- **Next Meeting**
- New Business

2023 Meeting Planning

Proposed Themes :

- ~~February 21~~
- ~~April 25~~
- ~~June 27 – Canceled~~
- ~~August 22~~
- **October 24**
- December 19

Next Meeting – Proposed Agenda

October 24, 2023:

- Introduction
- Approval of August Minutes
- **Presentation/Discussion – 2024 CIA & CAP Progress and Feedback Session**
- Public Comment
- Break
- **Presentation/Discussion – Act 129 Update**
- **Local government climate action – Carlisle Borough**
- **DEP Updates**
- **Review December meeting agenda**
- New Business

Agenda

- Introduction
- Approval of April Minutes
- Panel Discussion – Climate Pollution Reduction Grants
- Public Comment
- Break
- Presentation/Discussion – 2024 Climate Impacts Assessment and Climate Action Plan
- Presentation/Discussion – DRAFT PA 2023 Greenhouse Gas Inventory
- Updates
- Next Meeting
- **New Business**