



pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Energy Programs Office



Climate Change Advisory Committee Meeting

June 30, 2020

Tom Wolf, Governor

Patrick McDonnell, Secretary

Agenda

- Introduction
- Public Comment (15 minutes)
- Local Gov't Climate Action Plan Presentation – (15 min presentation, 10 min discussion)
- GreenGov Presentation by Mark Hand (20 minute presentation, 10 minute discussion)
- Presentation on DRAFT 2017 GHG Inventory by DEP (20 minute presentation, 10 minute discussion)
- Old and New Business (15 minutes)
- Next Steps/Next meeting (8/25/2020)

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Introduction

- Approval of April 30, 2020 minutes

Introduction

- Status of 2021 Impacts Assessment/CAP contracting

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DRAFT 2020 Pennsylvania Greenhouse Gas Emission Inventory

Climate Change Advisory Committee
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GHG Emission Inventory

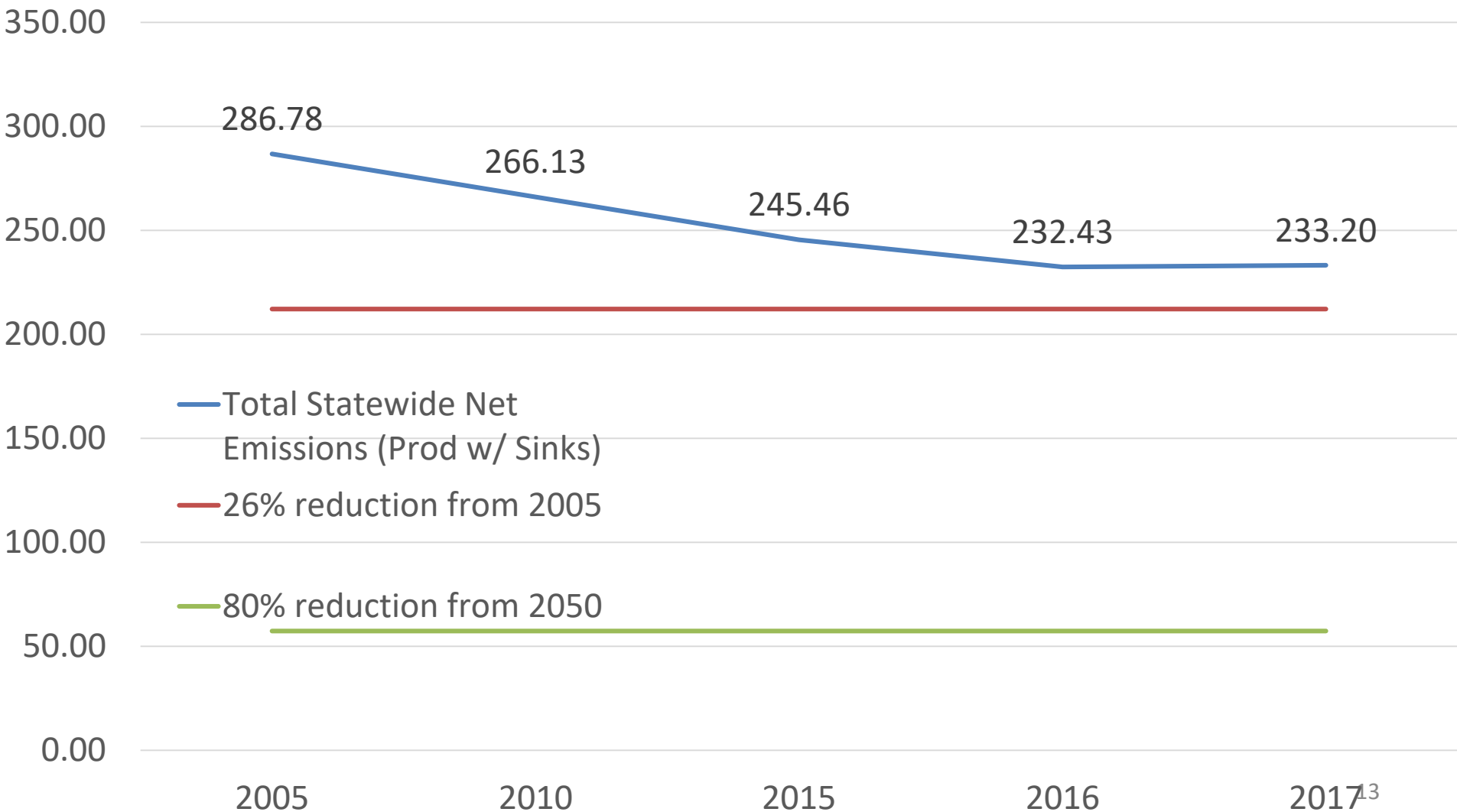
- State Inventory Tool:
 - Made available in November 2019.
 - Updated all 11 modules with data through 2017.

Emission Inventory

- The 2020 GHG Inventory (2017 data) shows a continued trend of overall decreased emissions from 2005.
- Net emissions increased in 2017 from 2016.
- The biggest decrease since 2016 came from the electricity production sector, with a decrease of 5.34 MMTCO₂e.
- This decrease is counteracted by increases in the transportation (3.55 MMTCO₂e) and industrial (2.48 MMTCO₂e) sectors.

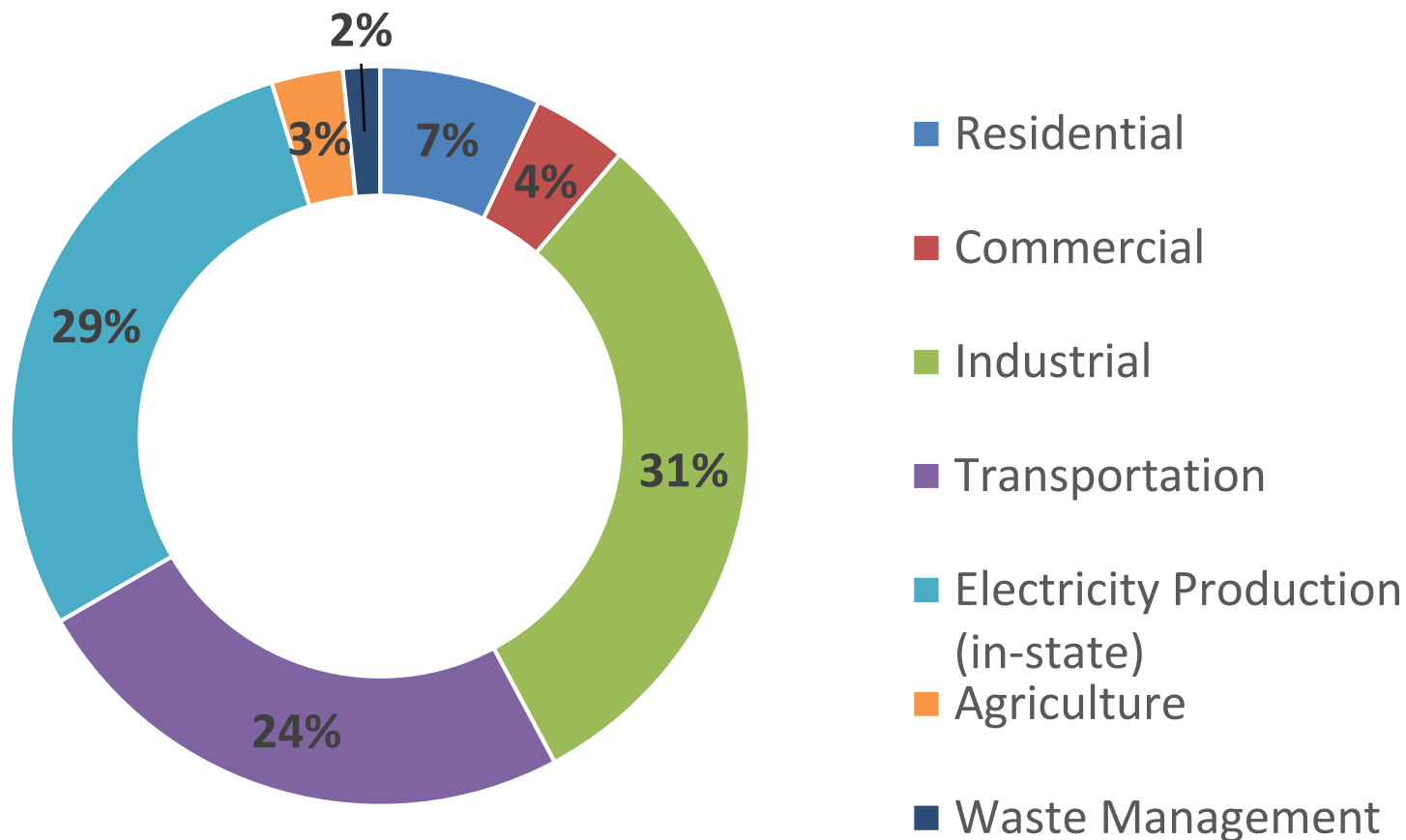
GHG Inventory Results

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



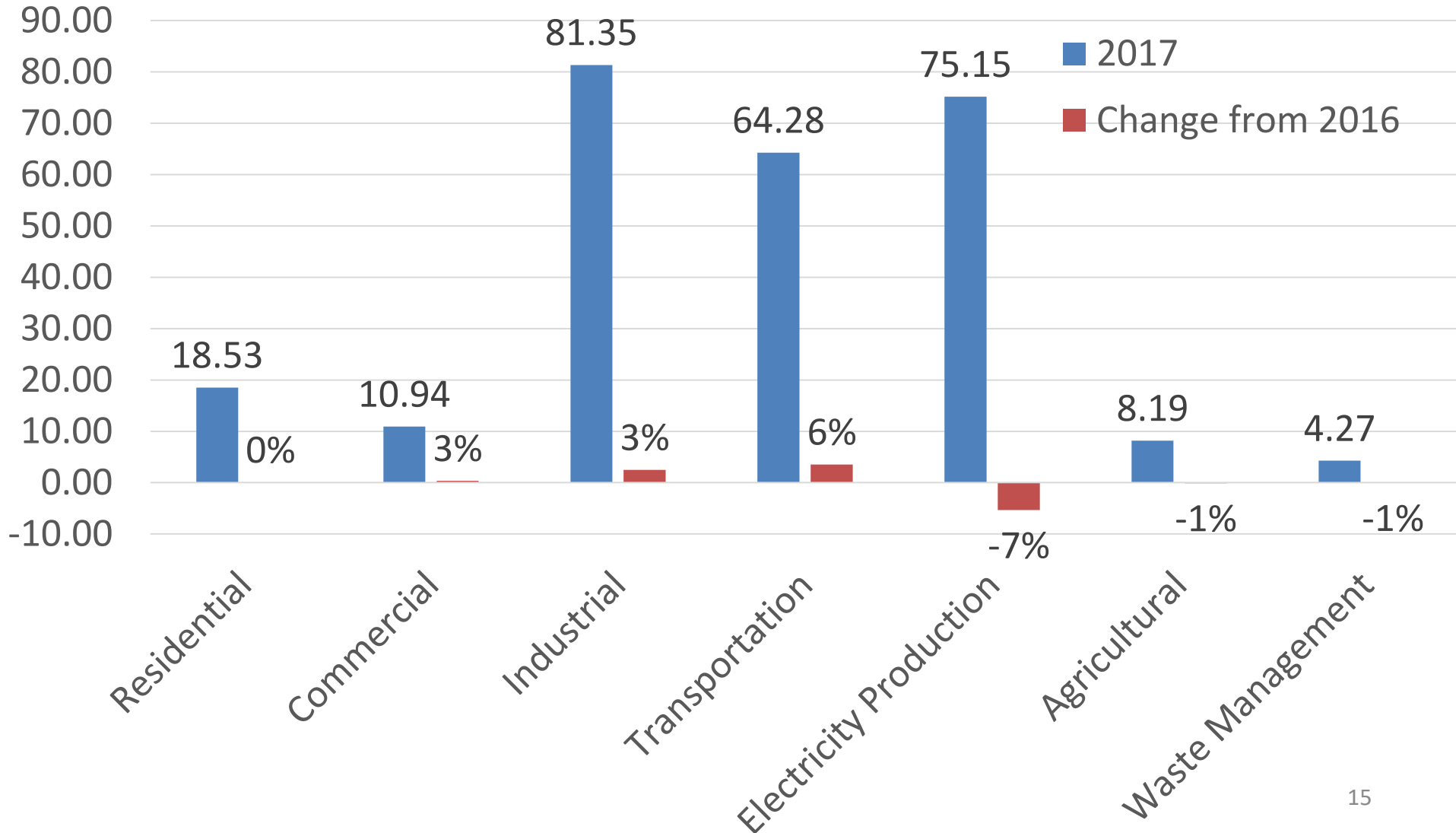
GHG Inventory Results

Pennsylvania 2017 GHG Emissions



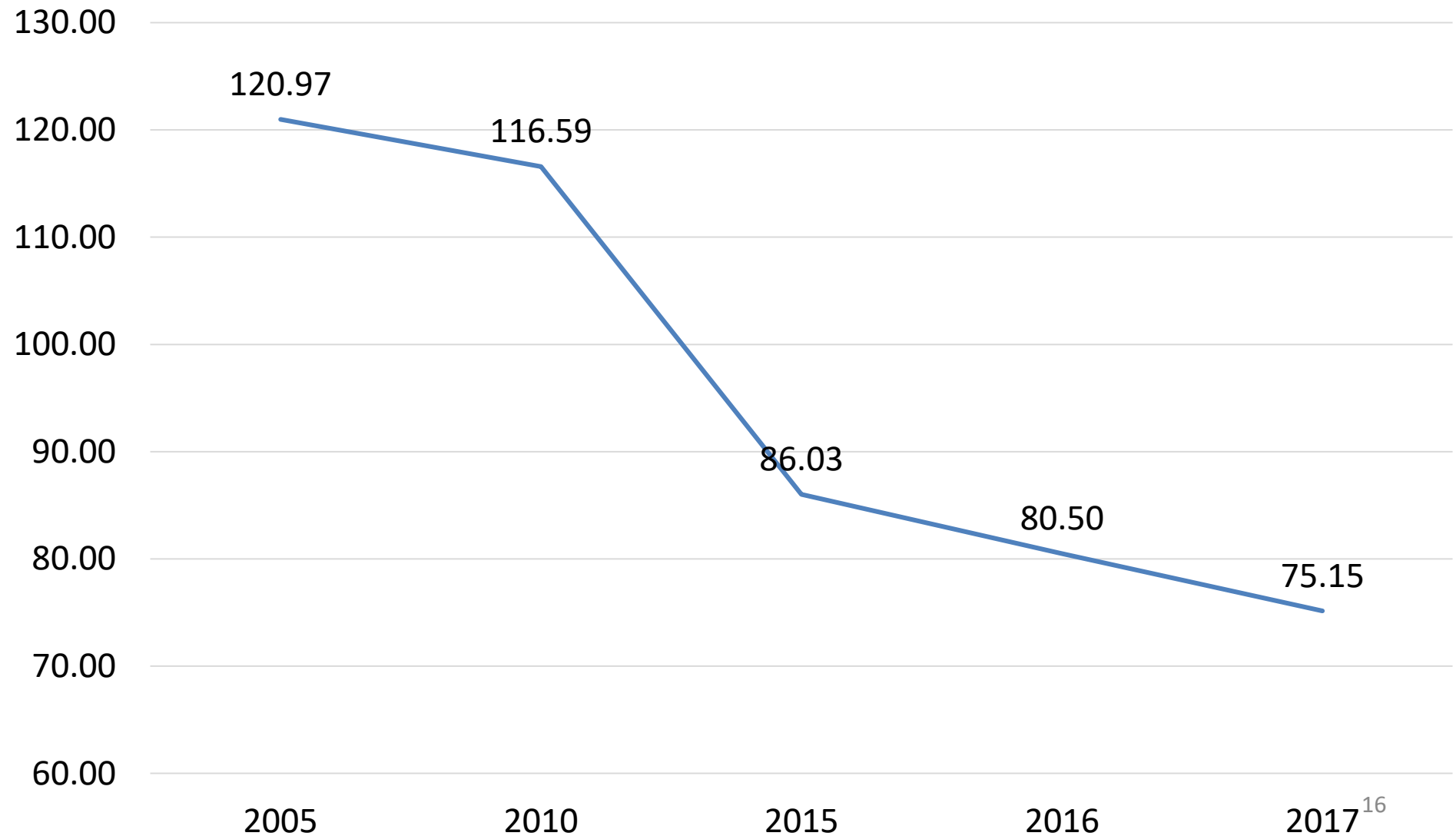
Results By Sector

2017 GHG Emissions By Sector (MMTCO₂e)



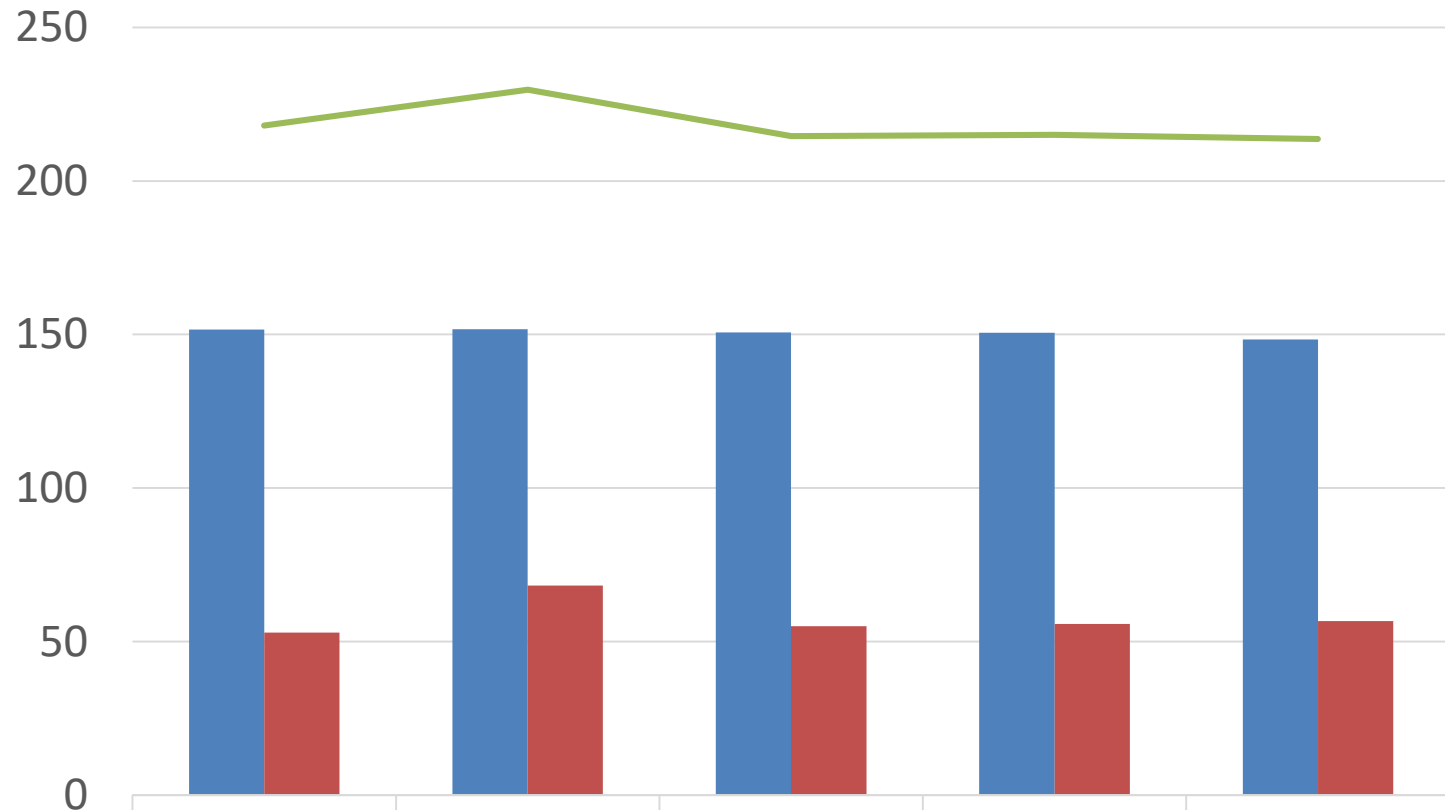
Electricity Production

GHG Emissions from Electricity Production (MMT_{CO2e})



Electricity Production

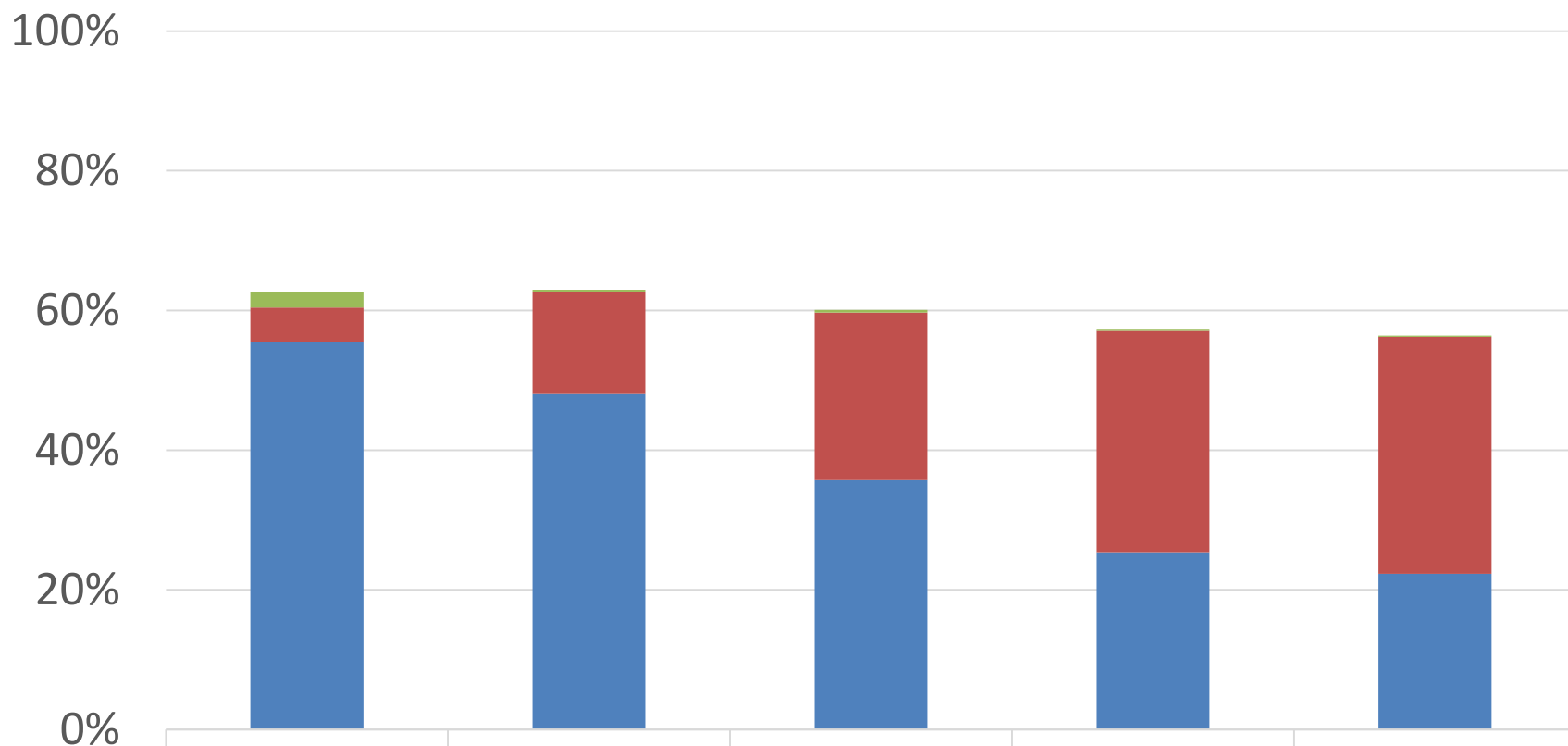
Total Electricity Generated, Consumed, and Exported (TWh)



	2005	2010	2015	2016	2017
Electricity Consumed	151.56	151.75	150.67	150.53	148.33
Electricity Exported	52.86	68.25	54.93	55.74	56.61
Electricity Generated	218.09	229.75	214.57	215.07	213.64

Electricity Production Emissions

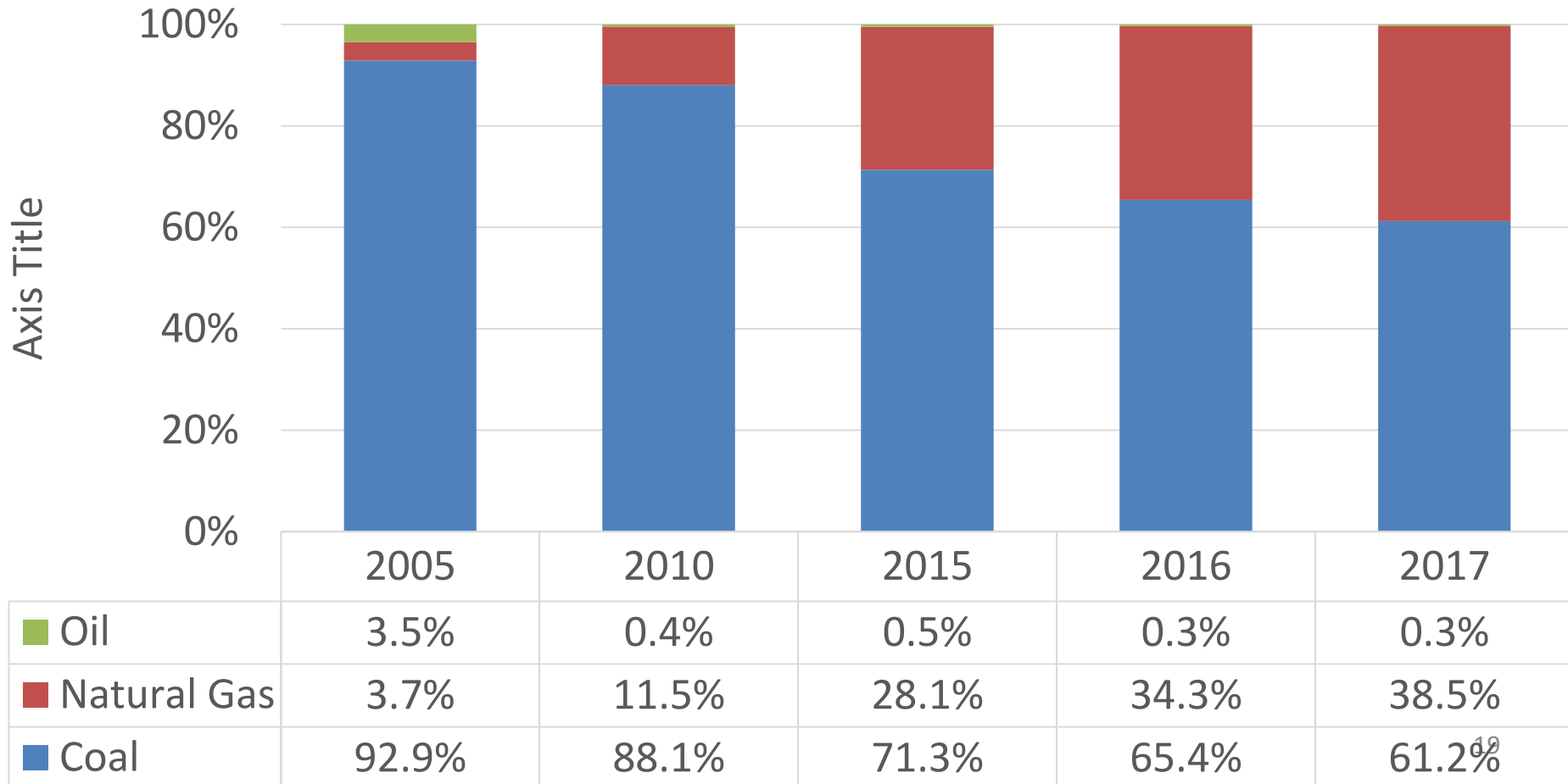
Percent Electricity Production By Fuel Type



Oil	2.3%	0.3%	0.4%	0.2%	0.2%
Natural Gas	5.0%	14.7%	24.0%	31.6%	33.9%
Coal	55.5%	48.0%	35.7%	25.4%	22.3%

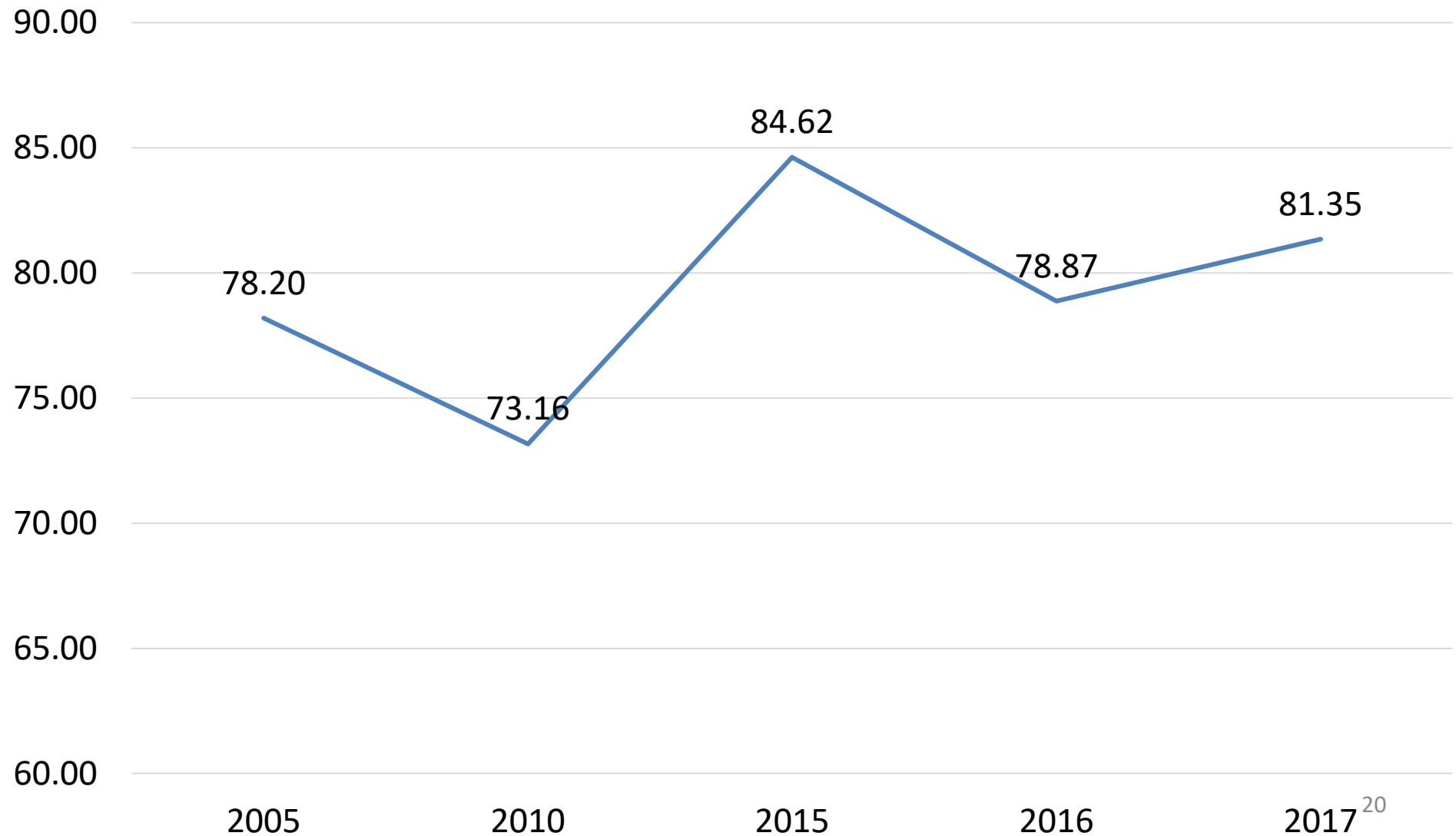
Electricity Production Emissions

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



Industrial Sector Emissions

GHG Emissions from Industrial Sector (MMT_{CO2e})



Industrial Sector Emissions

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

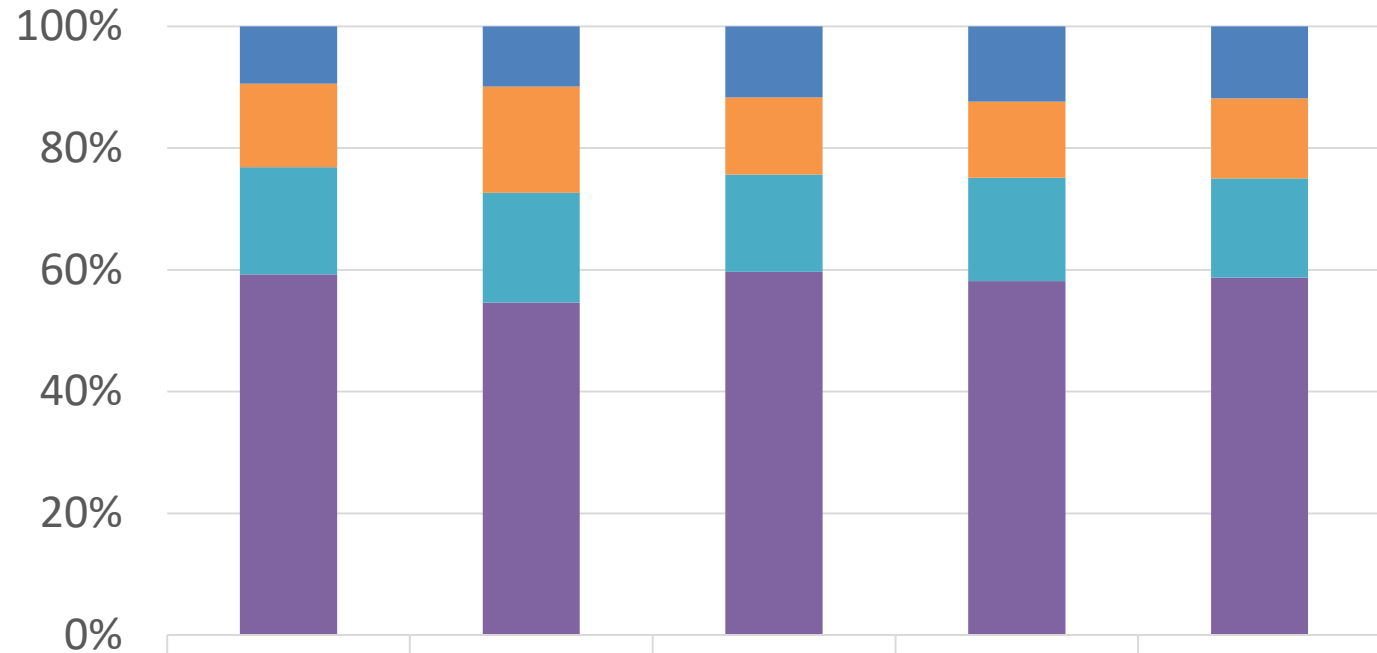
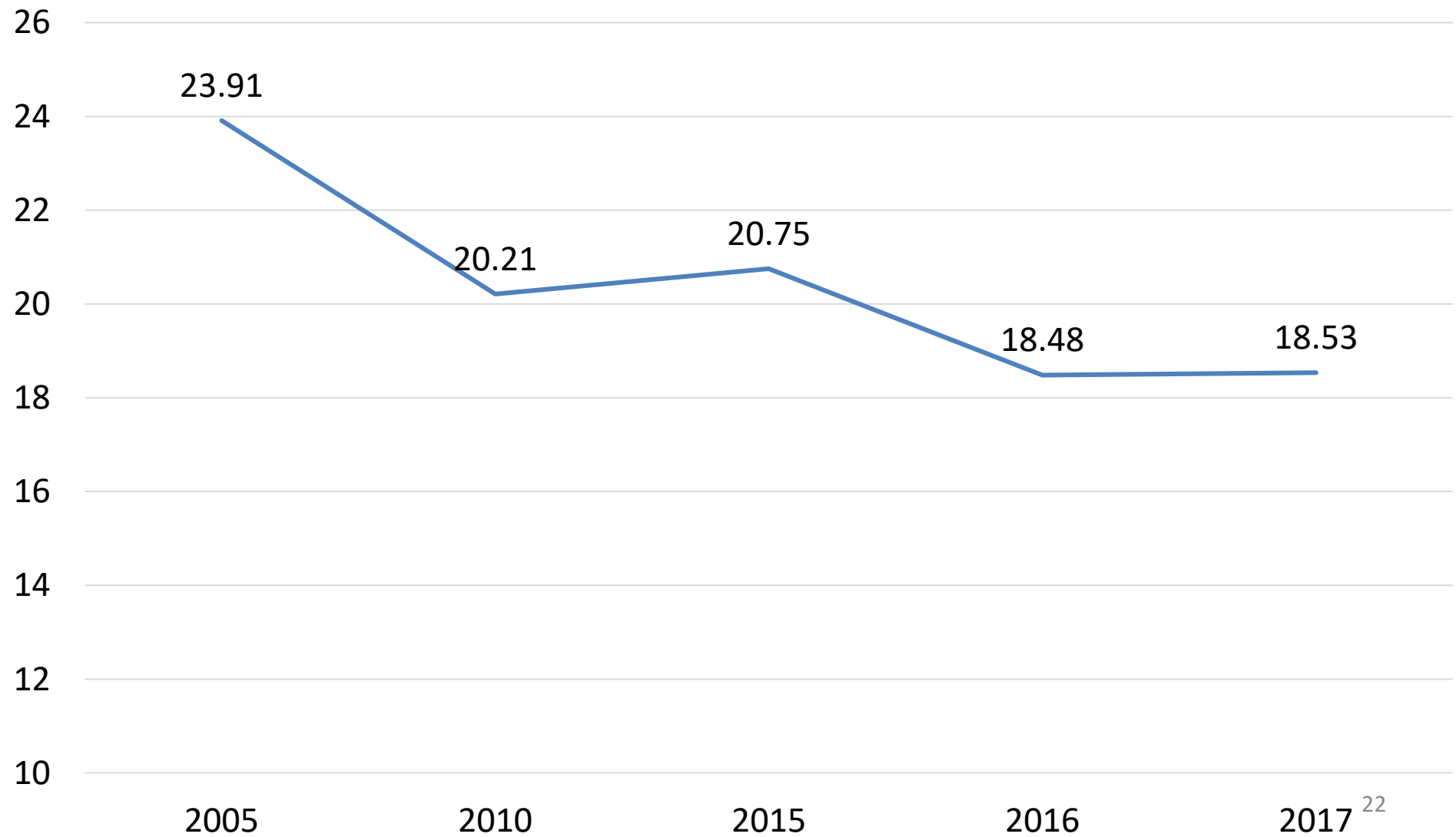


Table values in
MMTCO₂e

	2005	2010	2015	2016	2017
■ Natural Gas and Oil Systems	7.38	7.23	9.89	9.74	9.65
■ Coal Mining and Abandoned Mines	10.71	12.80	10.70	9.88	10.68
■ Industrial Process	13.78	13.16	13.54	13.39	13.24
■ Combustion of Fossil Fuels	46.33	39.97	50.49	45.86	47.78

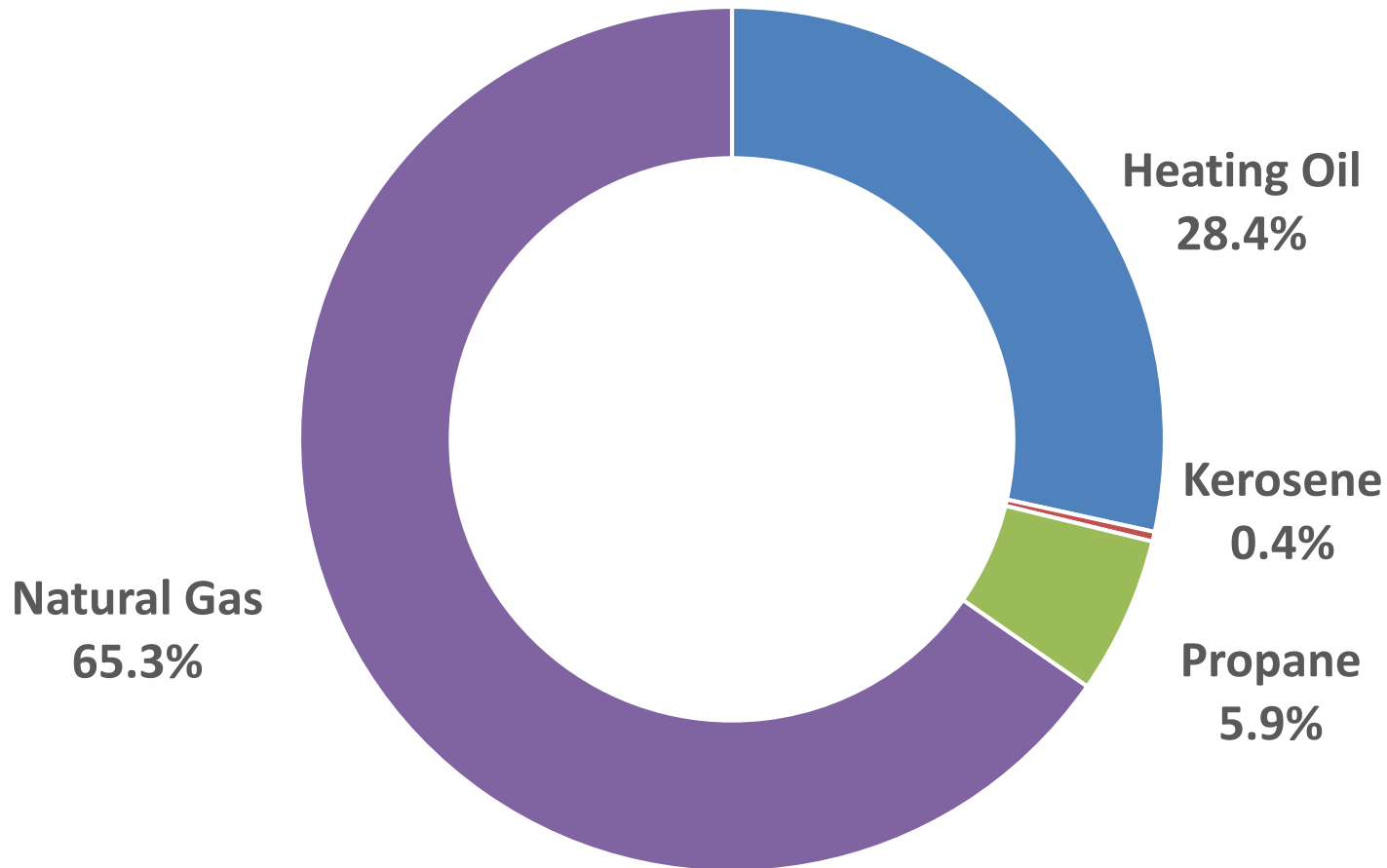
Residential Sector

GHG Emissions from Residential Sector (MMTCO₂e)



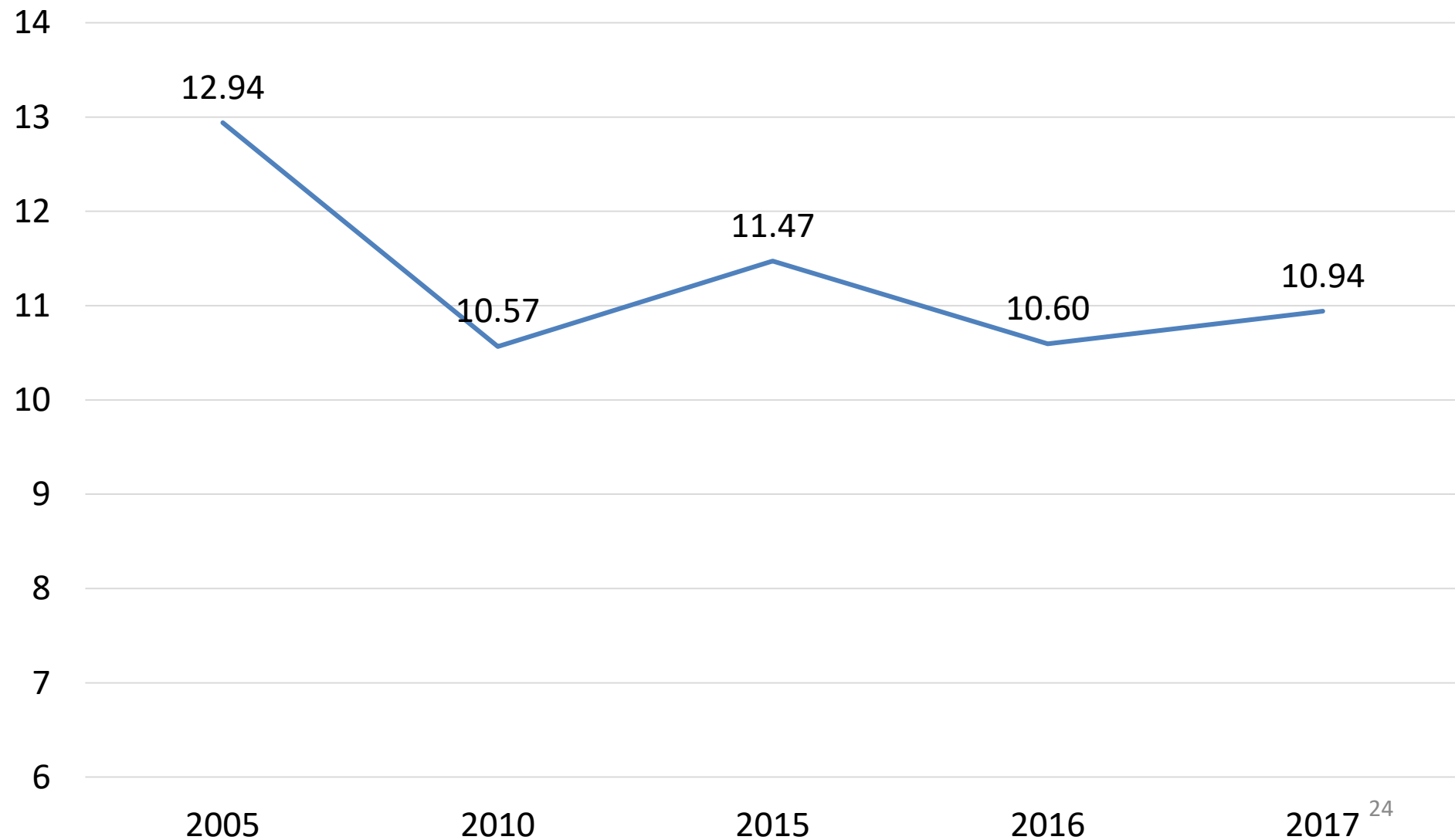
Residential Sector

2017 Residential Emissions by Fuel Type (% of Total)



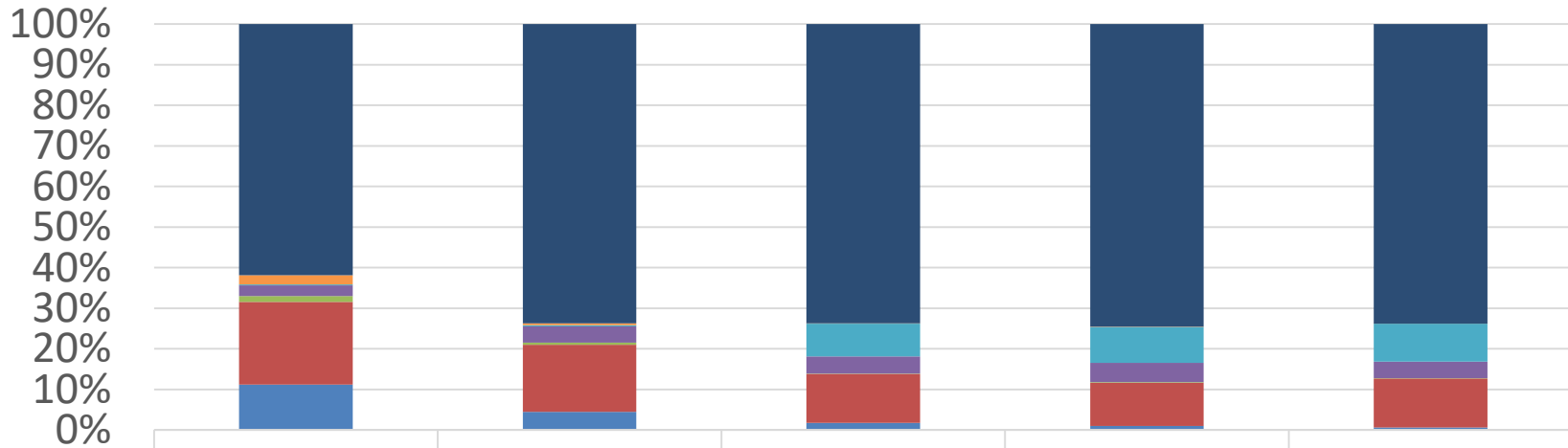
Commercial Sector

GHG Emissions from Commercial Sector (MMT_{CO2e})



Commercial Sector

Commercial Emissions by Fuel Type (% of Total)

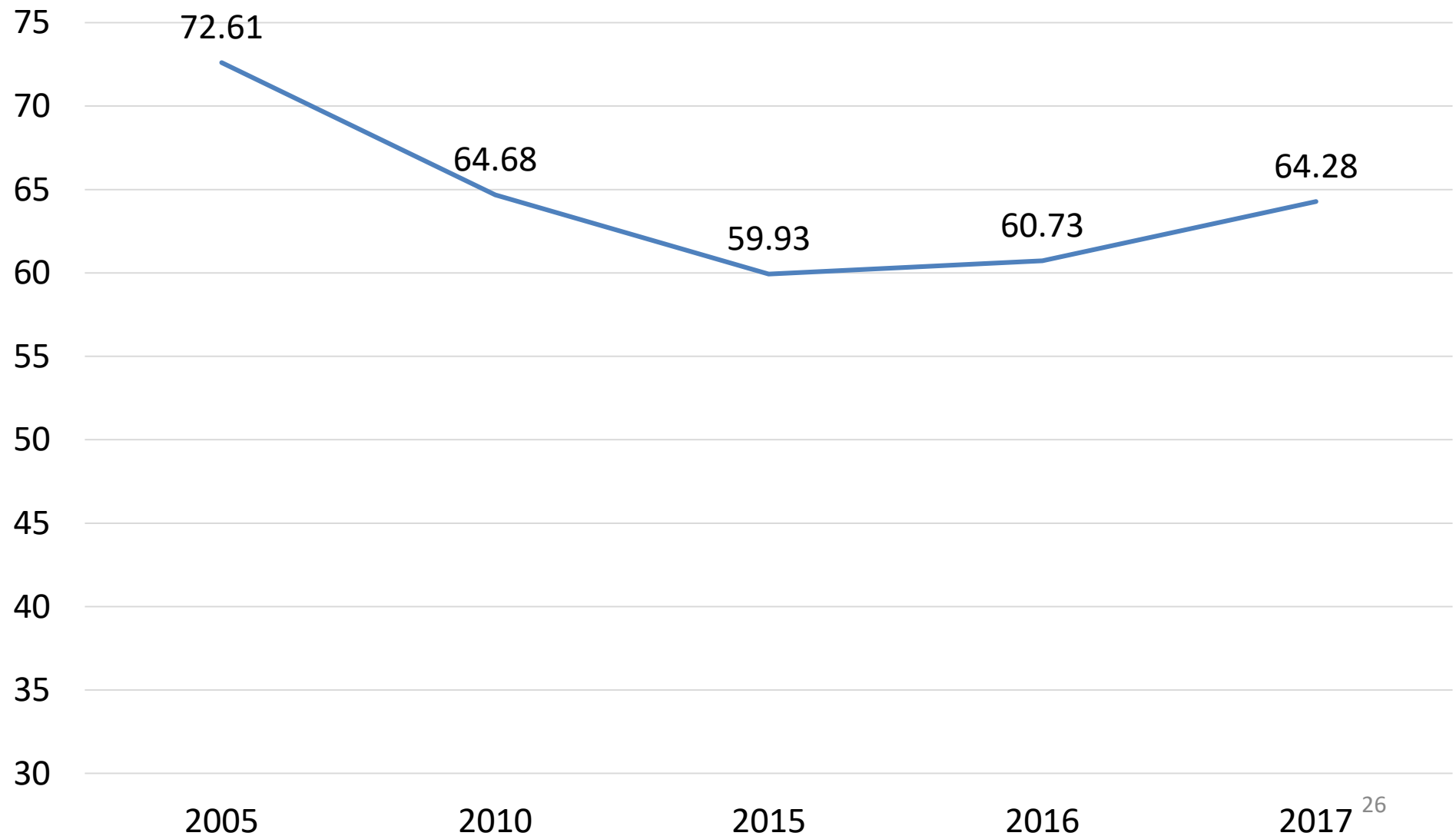


	2005	2010	2015	2016	2017
■ Natural Gas	8.00	7.79	8.46	7.90	8.08
■ Residual Fuel	0.30	0.04	0.00	0.01	0.00
■ Motor Gasoline	0.03	0.03	0.93	0.94	1.02
■ Propane	0.34	0.42	0.48	0.50	0.45
■ Kerosene	0.19	0.06	0.01	0.02	0.01
■ Heating Fuel	2.64	1.75	1.39	1.13	1.32
■ Coal	1.44	0.47	0.20	0.10	0.06

Table values in MMTCO₂e

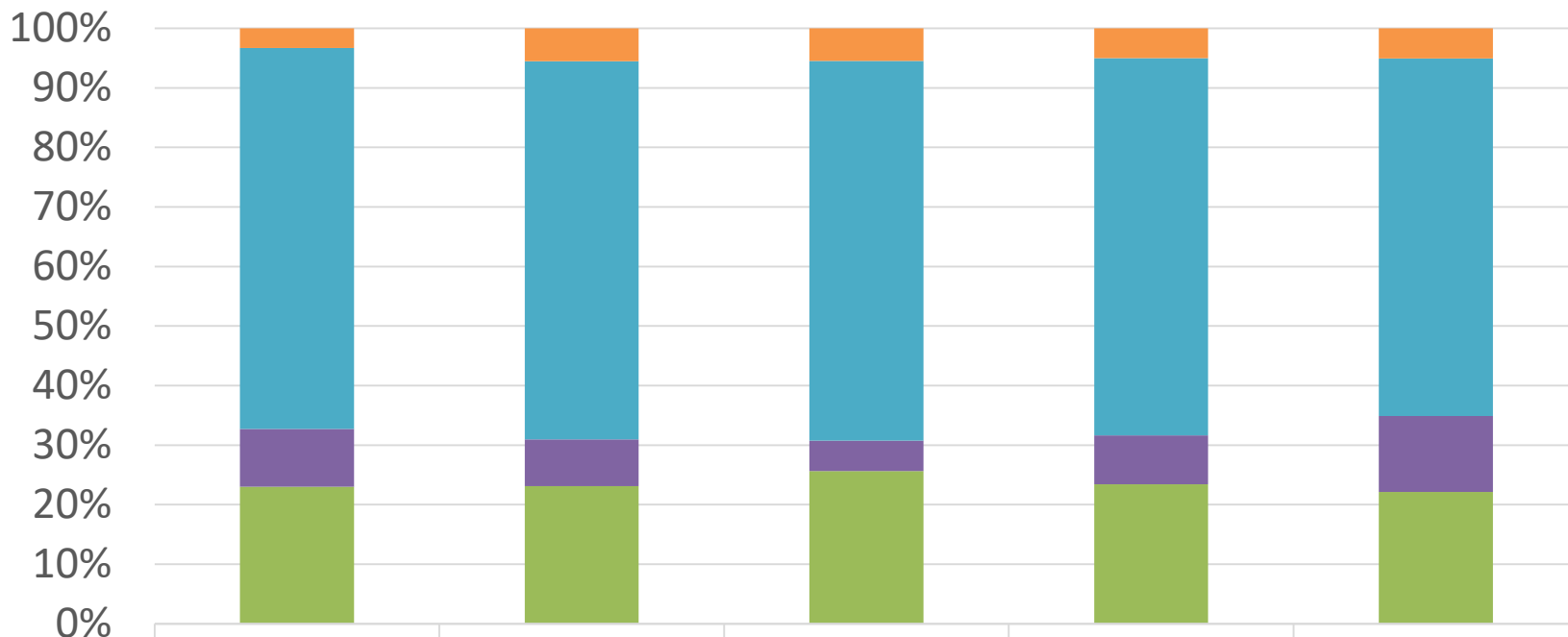
Transportation Sector

GHG Emissions from Transportation Sector (MMT_{CO2e})



Transportation Sector

Transportation Emissions by Fuel Type (% of Total)

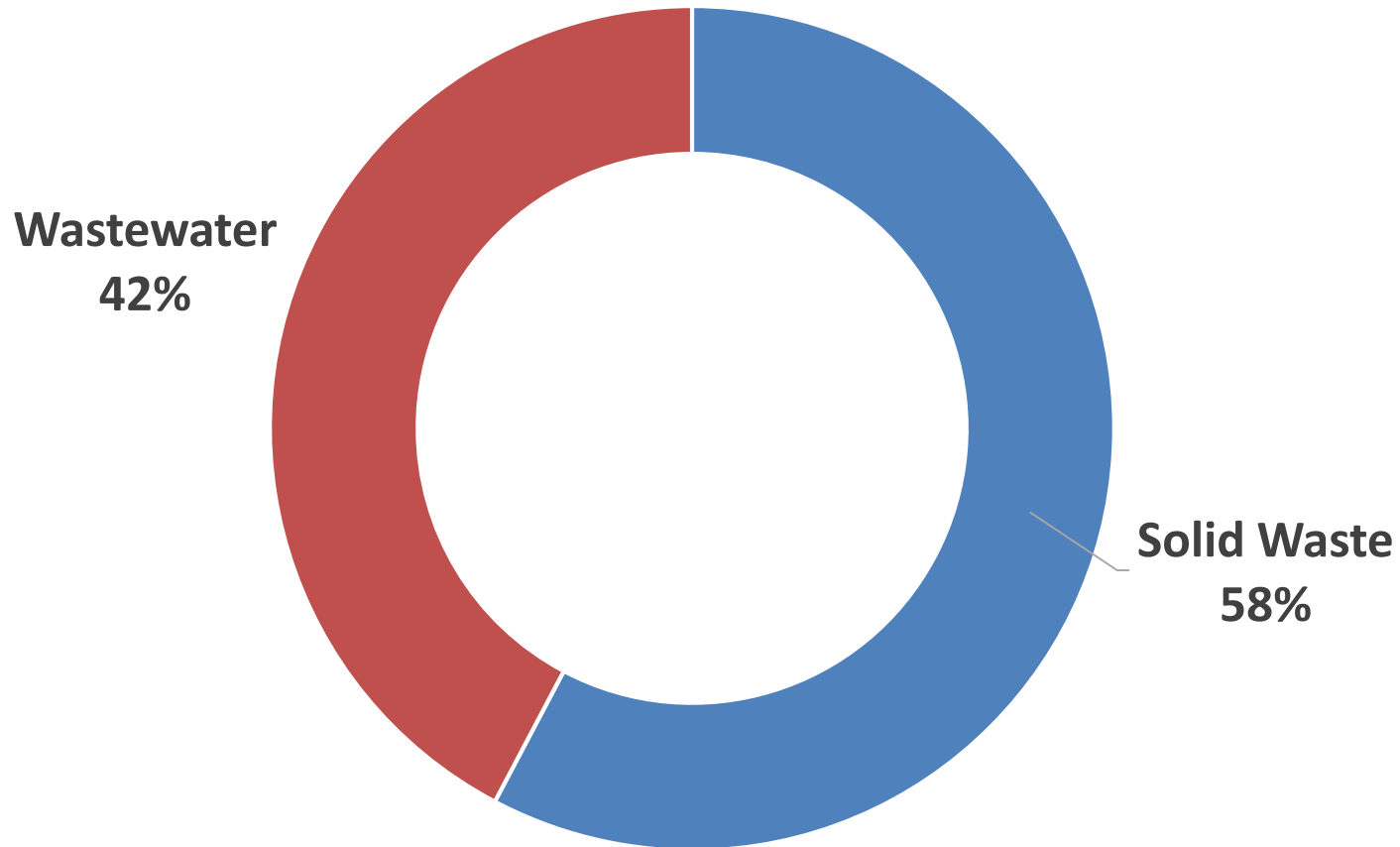


	2005	2010	2015	2016	2017
■ Natural Gas	32,312	49,517	45,700	42,547	45,229
■ Motor Gasoline	628,121	571,588	532,669	535,957	539,117
■ Jet Fuel	95,404	70,572	42,599	69,246	114,692
■ Diesel	225,678	208,177	214,410	198,257	198,552

Table values in BBtu

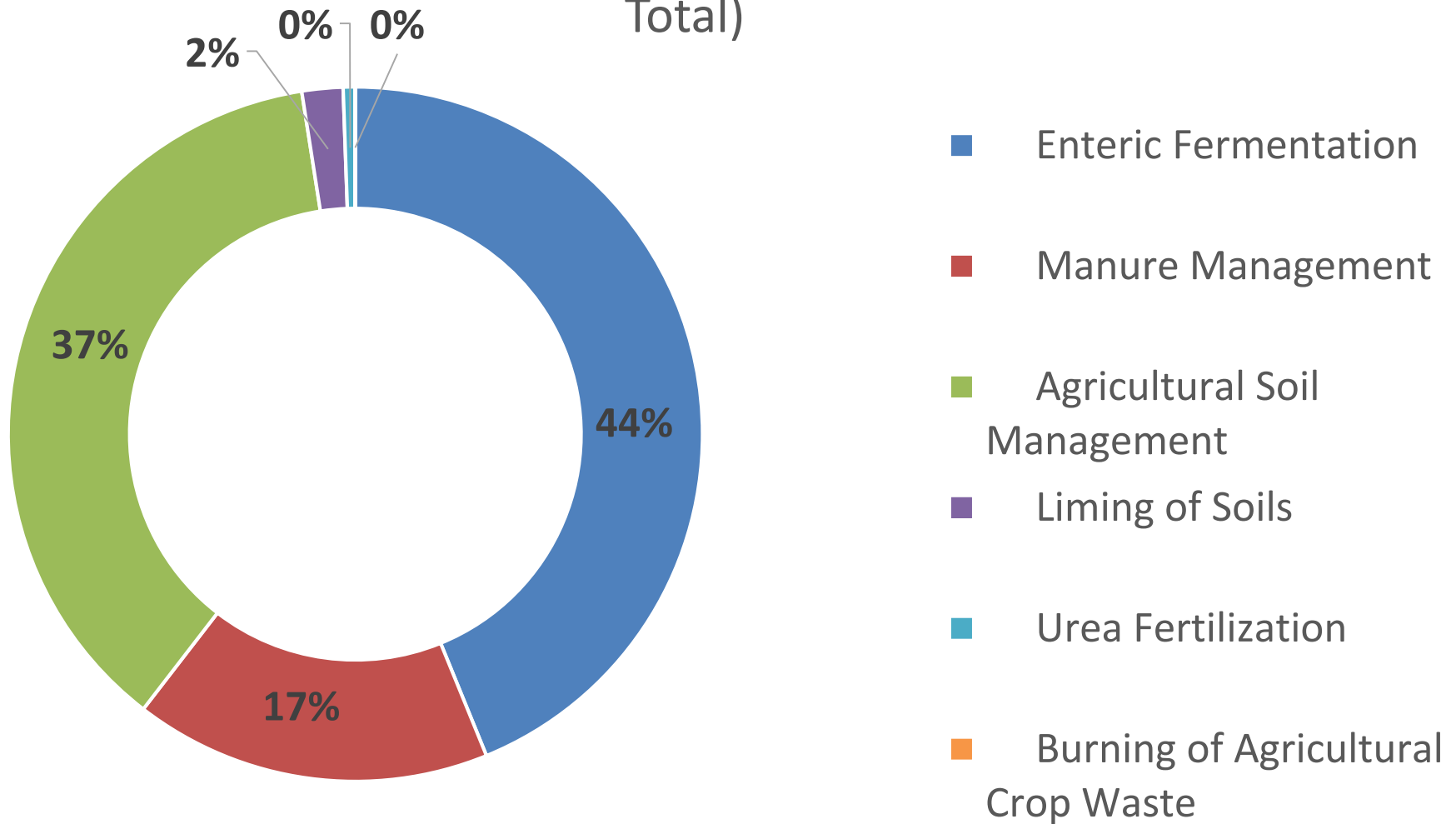
Waste Management Sector

GHG Emissions from Waste Management Sector
(MMTCO₂e)



Agriculture Sector

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





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Energy Programs Office

Thank you!

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Environmental Group Manager

Energy Programs Office

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DEP Climate Change Website: www.dep.pa.gov/climate

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