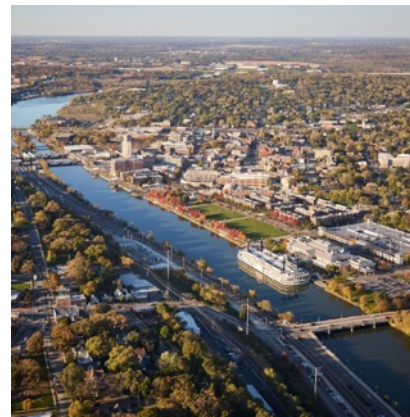




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Regional GHG emissions inventory

Jared Patton
Senior Planner
CMAP



Background

ON TO 2050

- Intensify climate mitigation efforts
- 80 percent reduction by 2050

CMAP's 3rd GHG emissions inventory

- 2010, 2015, and 2019





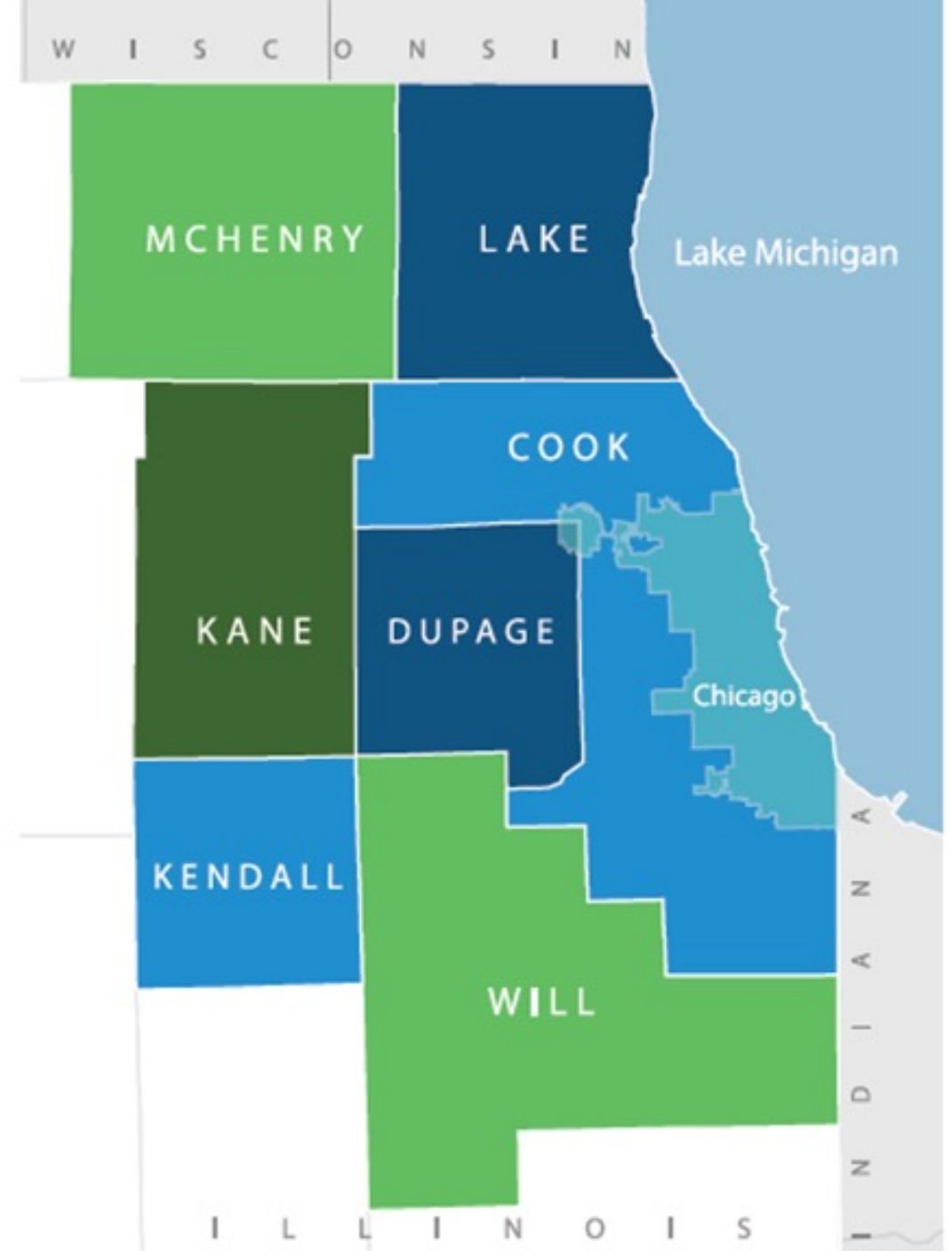
Background

Emissions from:

- Transportation
- Stationary energy
- Waste and wastewater

Full inventories for counties/Chicago

Emissions summaries for munis/CAs

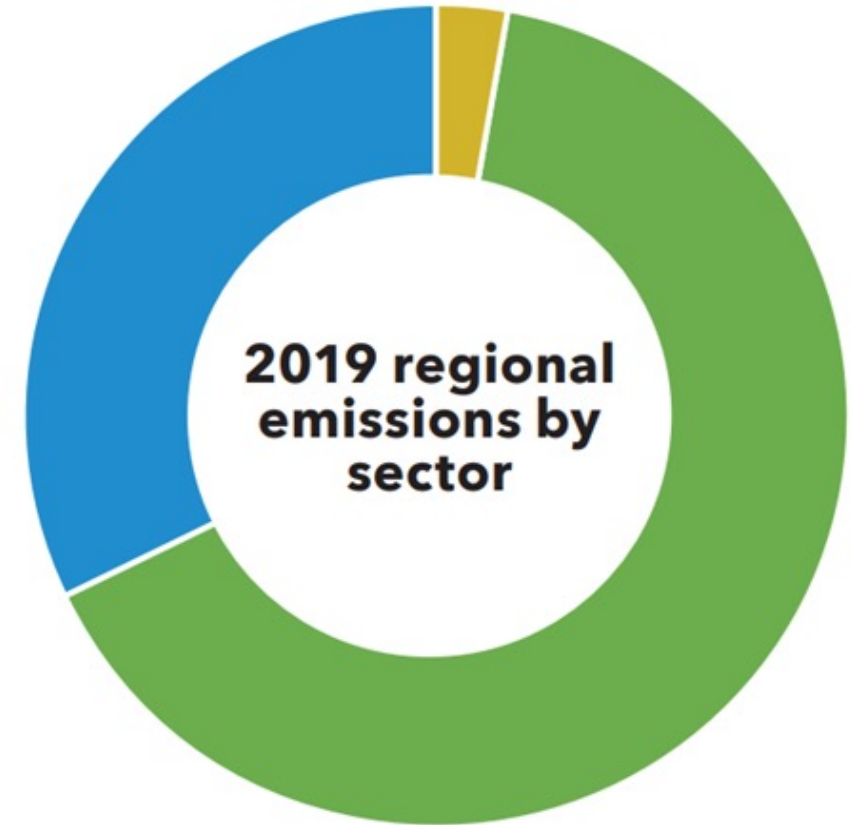





Results

112 MMTCO₂e

9 percent reduction since 2010

2 percent reduction since 2015



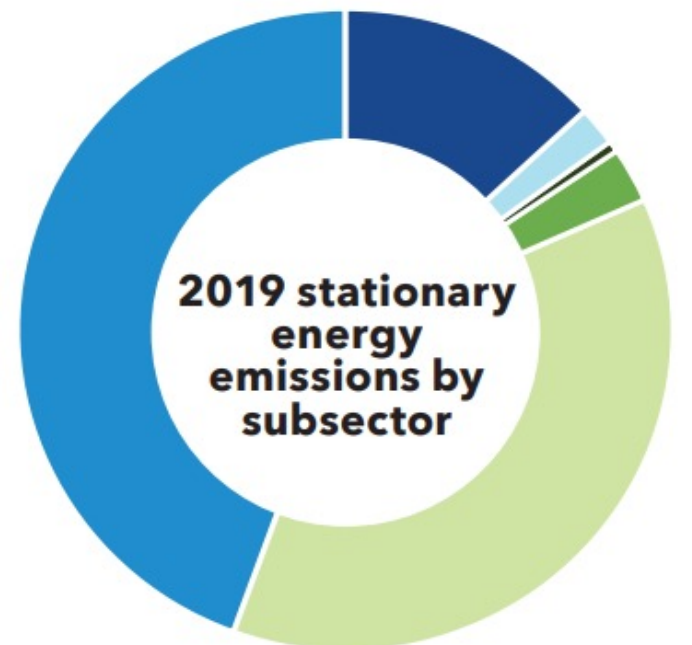
-  Stationary energy 65%
-  Transportation 32%
-  Waste 3%

Results

65 percent of all emissions

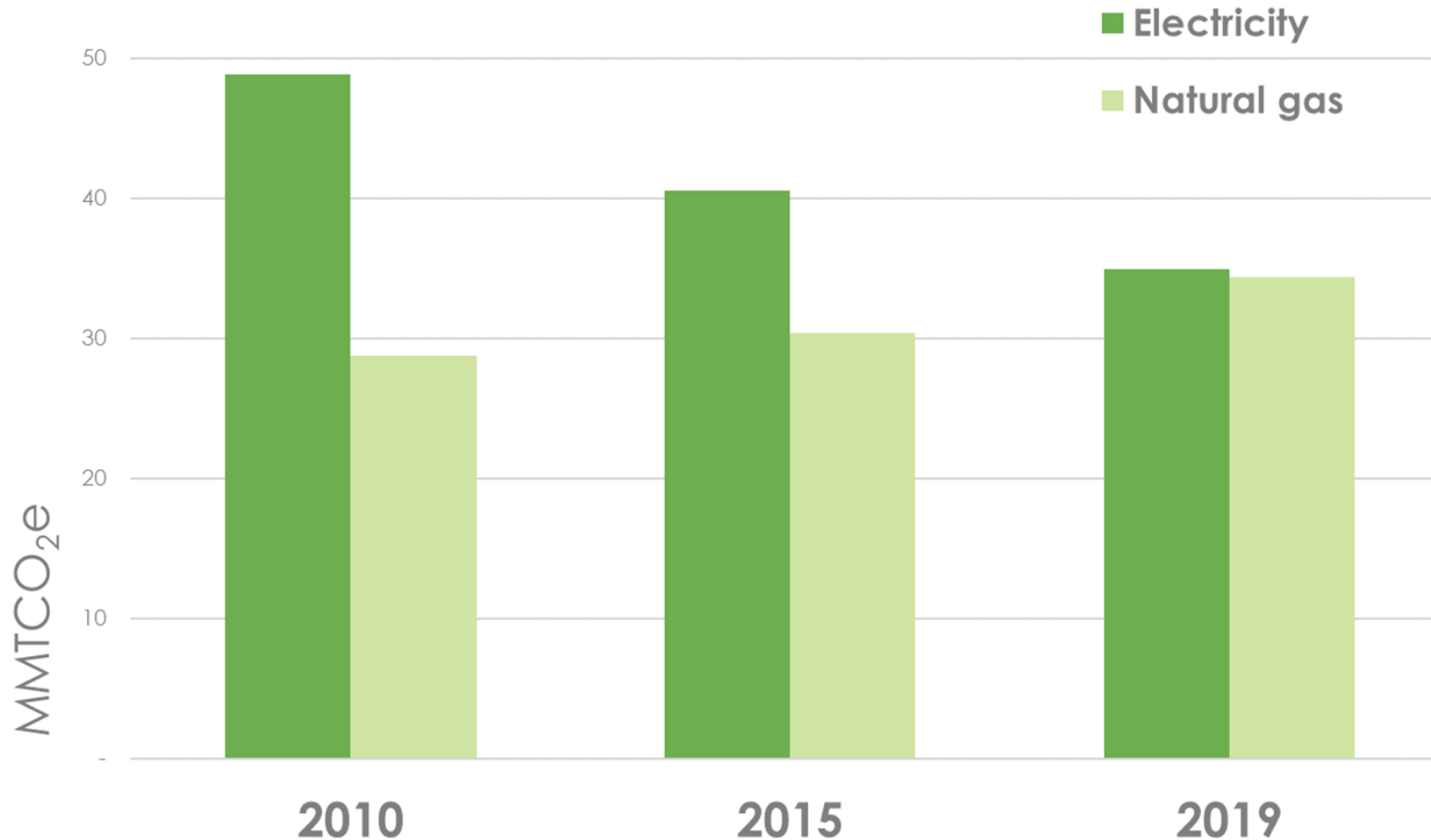
11 percent reduction since 2010

Significant progress in electricity



- Residential buildings 37%
- Commercial and industrial buildings and facilities 44%
- Manufacturing industries and construction 13%
- Energy industries 2%
- Wastewater treatment 0.5%
- Fugitive emissions from oil and natural gas 3%

Emissions from electricity and natural gas

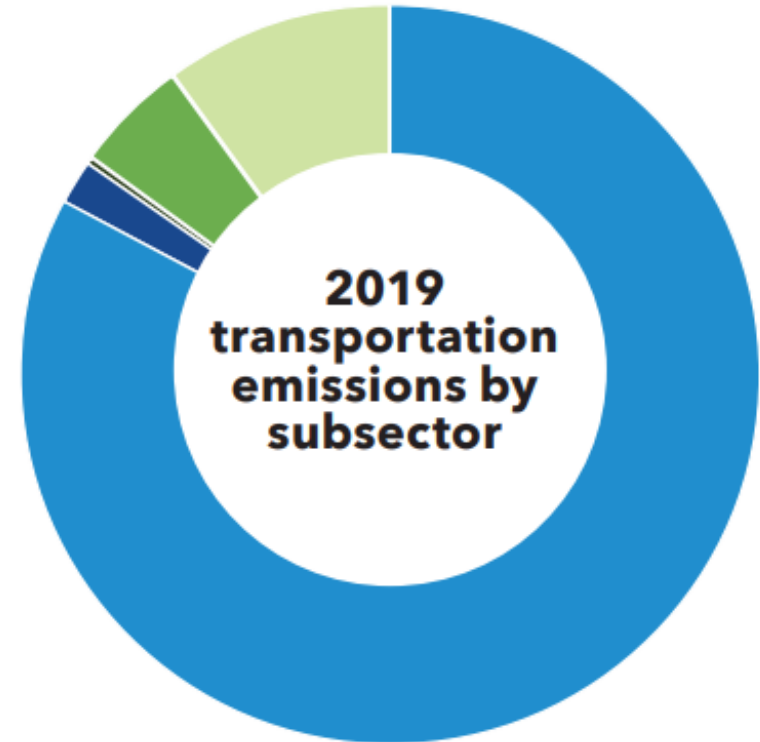


Transportation

32 percent of all emissions

2 percent **increase** since 2010

- Mostly due to more driving
- Post pandemic trends may make this worse



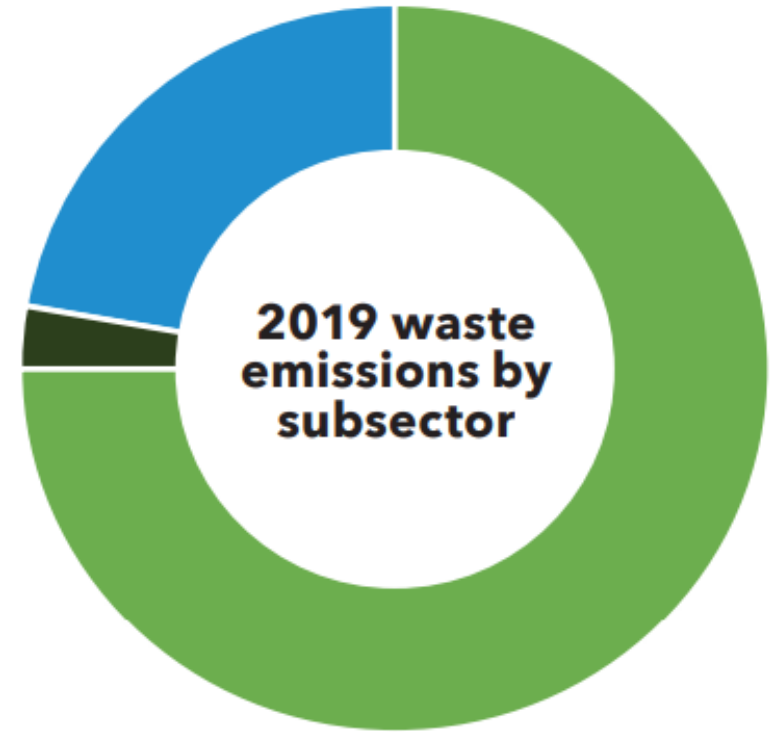
- On-road 83%
- Railways 2%
- Water navigation 0.1%
- Aviation 5%
- Off-road 10%

Waste

3 percent of all emissions

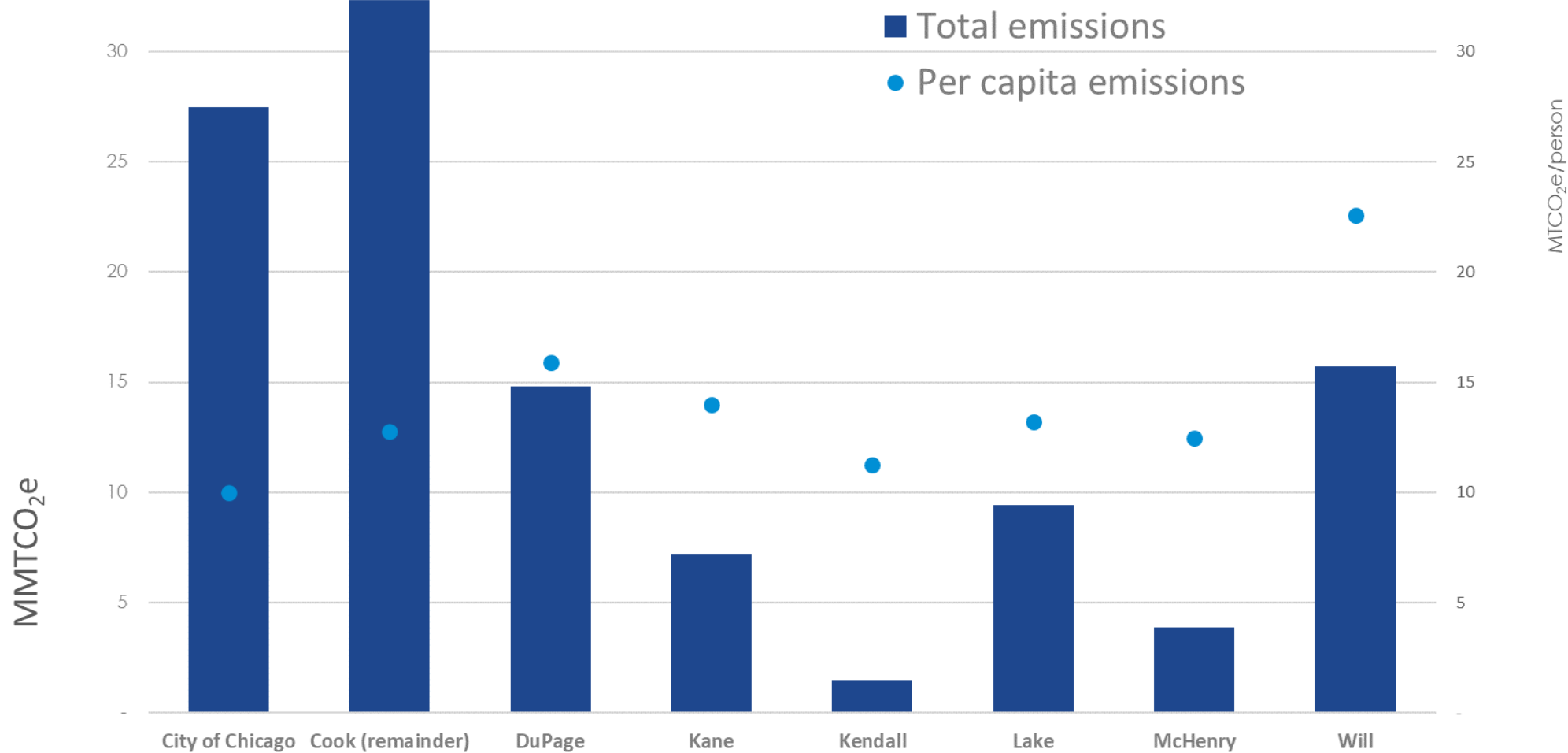
Steady reductions over time

- Methane capture
- Wastewater plant improvements
- Increased composting

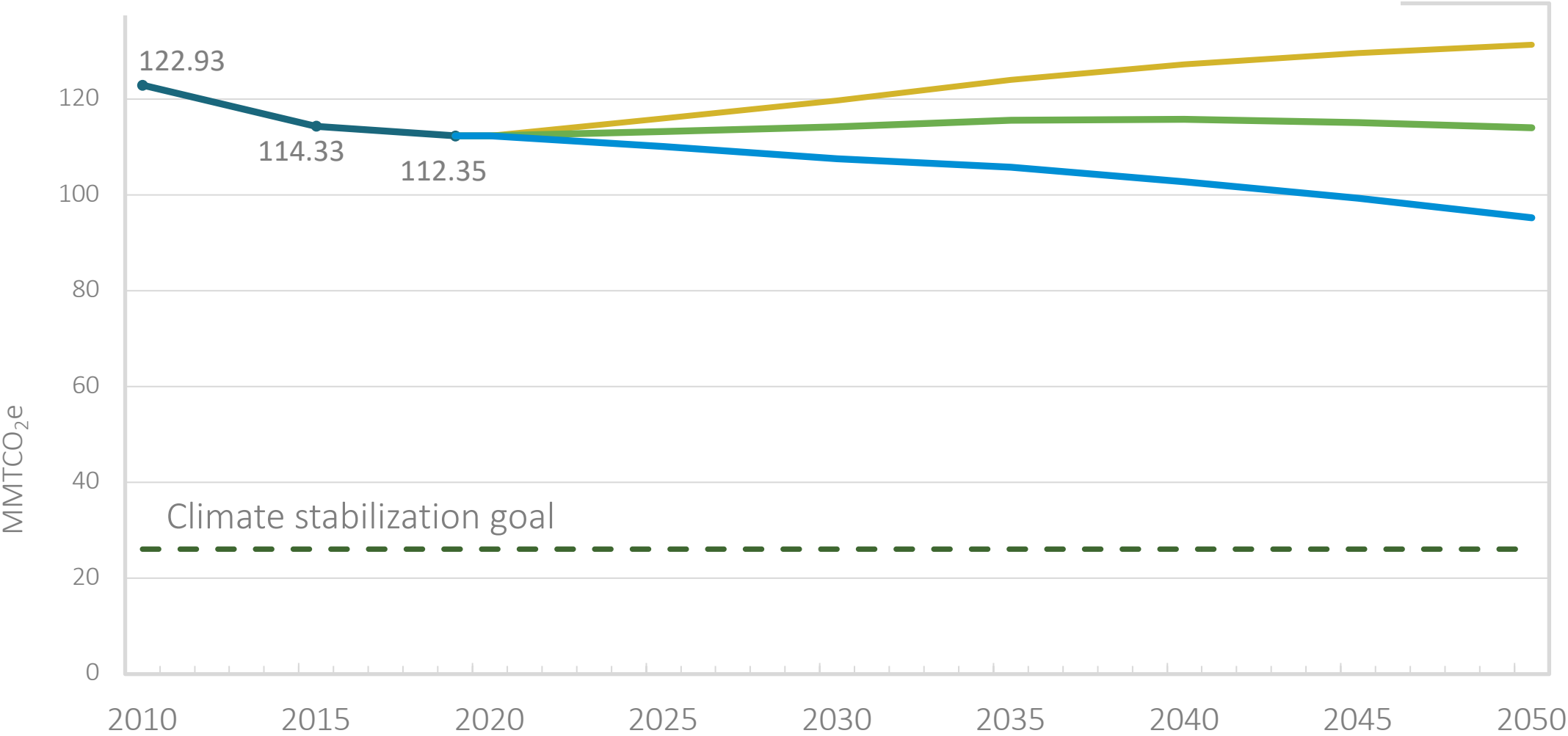


- Disposal of solid waste generated in the region 75%
- Biological treatment of waste generated in the region 3%
- Wastewater generated in the region 22%

Emissions by jurisdiction



Emissions by jurisdiction



Key takeaways

9 percent reduction since 2010

- Not enough to meet our target

Transportation emissions are still increasing

Natural gas emissions are flat





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Local emissions summaries





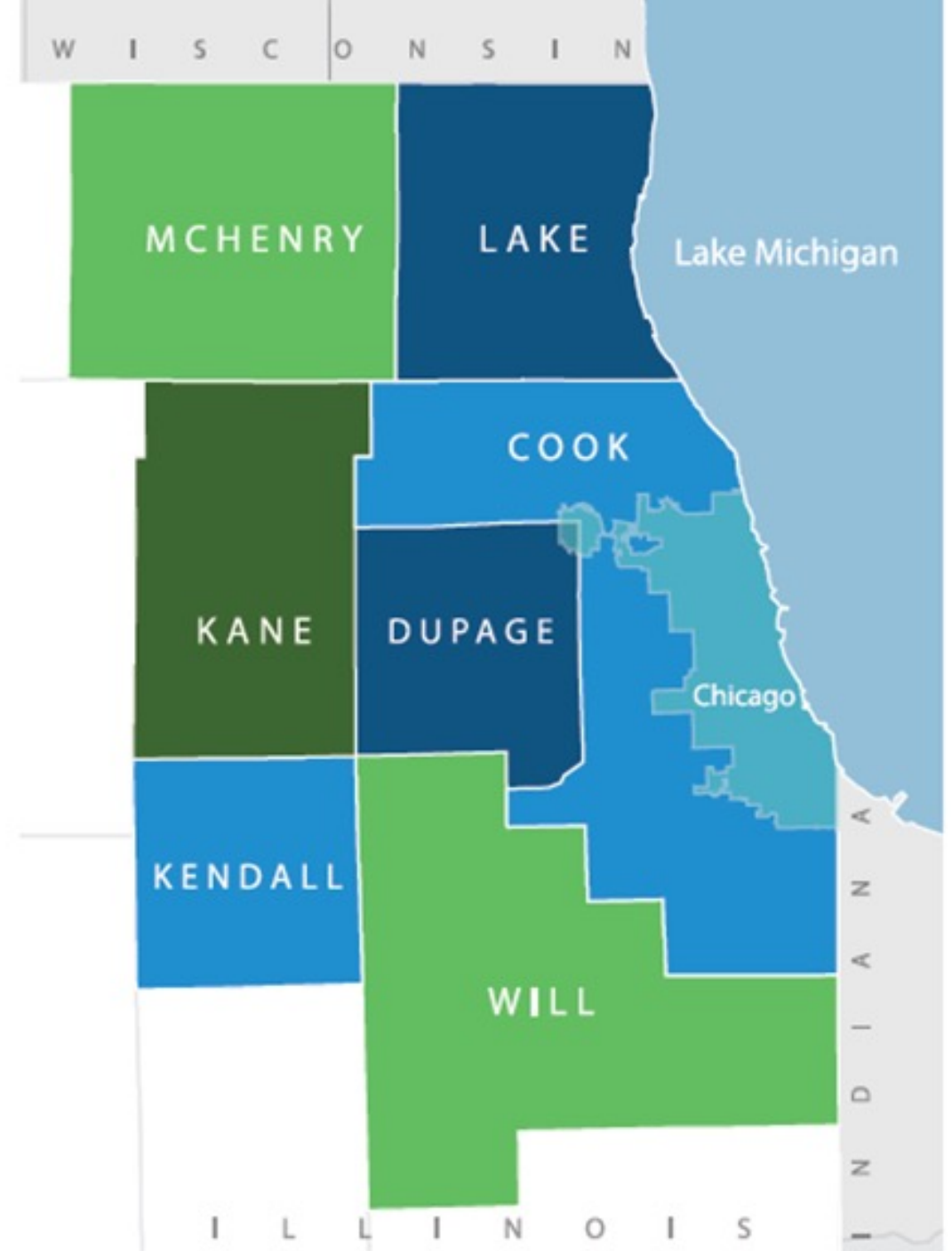
Background

A new companion to the regional inventory

Include most major emissions sources

Also include contributing factors

- EV registrations, energy consumption, tree canopy, etc.



Gurnee

2019 municipal emissions summary

This local emissions summary was developed as part of the 2019 greenhouse gas emissions inventory for northeastern Illinois. The summary is not an exhaustive inventory but captures greenhouse gas emissions from most major sources. It is intended to help decision makers understand key emissions sources and provide communities with the information needed to begin developing emissions reduction plans. For more details on the methods and data sources used to prepare the summary, please refer to the [local emissions summaries methodology](#).

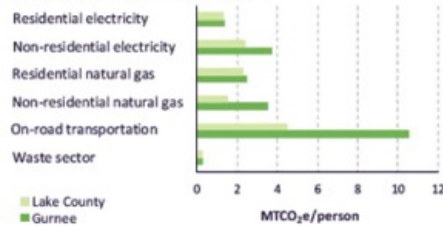
Emissions summary

2019 emissions summary (MTCO₂e)

Residential electricity	41,603
Non-residential electricity	114,886
Residential natural gas	76,234
Non-residential natural gas	108,763
On-road transportation	324,778
Waste sector	9,365

MTCO₂e = metric tons of carbon dioxide equivalent

2019 per capita emissions



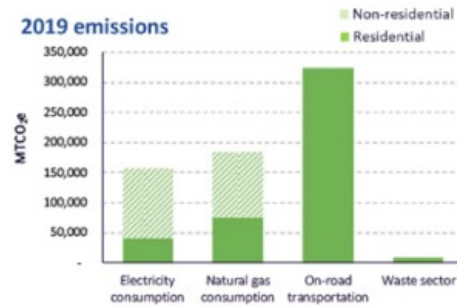
June 2022 release

Community characteristics

Population	30,706
Jobs (full- and part-time)	19,584
Median household income	\$96,104
Share of owner-occupied housing units	69%
Land area (acres)	8,655
Tree coverage*	9%
Impervious surfaces*	41%
Greenest region compact member	Yes

*percent of land area

2019 emissions



On-road transportation emissions breakout



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Energy characteristics



2019 energy consumption

Residential electricity (kWh)	106,938,101
Non-residential electricity (kWh)	295,312,596
Residential natural gas (MMBtu)	1,435,270
Non-residential natural gas (MMBtu)	2,047,709

kWh = kilowatt hours; MMBtu = million British thermal unit

Renewable energy information

Solar potential (megawatts)	229
SolSmart designation	NA

Data not available for all municipalities

2019 per capita energy consumption

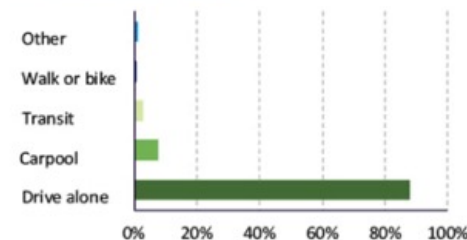
	Gurnee	Lake County	CMAP Region
Residential electricity (kWh/person)	3,483	3,387	2,844
Non-residential electricity (kWh/person)	9,617	6,258	7,279
Residential natural gas (MMBtu/person)	47	44	38
Non-residential natural gas (MMBtu/person)	67	29	38

kWh = kilowatt hours; MMBtu = million British thermal unit

Transportation characteristics



Mode of travel to work



Electric vehicle information

Electric vehicles	75
Charging stations: level 2	0
Charging stations: DC fast	0
Charging stations: total	0

2019 municipal emissions summary | Gurnee

Transportation details

	Gurnee	Lake County	CMAP Region
Vehicles per household	2.4	2.6	2.0
Electric vehicles (% of passenger vehicles)	0.2%	0.4%	0.2%
Share of residents with at least moderate walkability	7%	33%	64%
Share of residents with at least moderate transit access	63%	48%	74%
Residential vehicle miles traveled (per household)	25,225	22,231	17,165

Data are not available for all municipalities

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Using the summaries

Share with residents and officials

Prioritize climate actions

Reference in grant applications

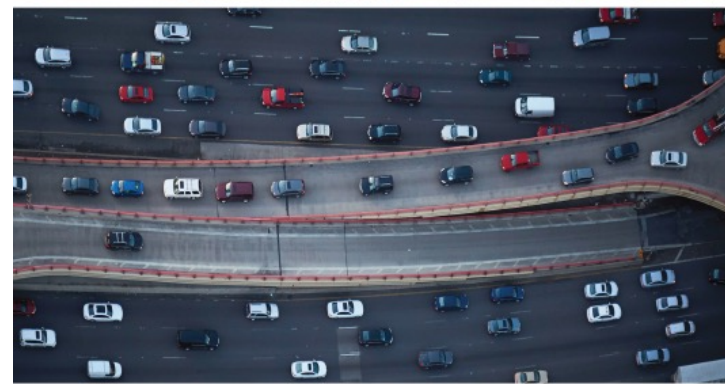
Track progress*



Publication details

All resources available...soon

- Summary report
- Emissions summaries
 - 284 municipalities
 - 77 Chicago community areas
 - 7 counties
- All emissions data and calculations
- Methodology report



Regional greenhouse gas inventory

Updated with 2019 data





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Agency for Planning

Jared Patton

(312) 386-8623

jpatton@cmap.illinois.gov

[@cmapillinois](https://twitter.com/cmapillinois) |    

