ThriveTogether Steering Committee

Climate Pollution Reduction Grant For the Cincinnati MSA

ThriveTogether

A Sustainability Playbook for Greater Cincinnati

February 7, 2024

Introductions

Plan Deliverables and Schedule

Plan Implementation

Priority Climate Action Plan
(due 3/1/24)

- Preliminary GHG Inventory
- Preliminary List of GHG Reduction Measures
- LI/DC Benefit Analysis
- Review of Authority to Implement

Comprehensive Climate Action Plan
(due Summer 2025)

- Full GHG Inventory
- Quantified List of GHG Reduction Measures
- LI/DC Benefit Analysis
- Review of Authority to Implement
- GHG Emission Projections
- Intersection with Other Funding
- GHG Reduction Targets
- Full Community Benefits Analysis

Summary Report
(due Summer 2027)

- Status of GHG Reduction Measures
- Updated LI/DC Benefit Analysis
- Updated Review of Authority to Implement
- Review of Intersection with other Funding
- Updated Community Benefits Analysis
- Workforce Planning Analysis
- Next Steps

Schedule of Steering Committee Meetings

December 2023	Introductions, Community Engagement
February 2024	Priority Plan
August 2024	GHG Reduction Targets
February 2025	Comprehensive Plan
September 2025	Plan Implementation
September 2026	Update of Benefits Analysis, Workforce Analysis, and Implementation Status
April 2027	Summary Report

Equity and Engagement Subcommittee Report

Subcommittee Purpose

Ensure ThriveTogether engagement is equitable, transparent, and accountable, and centers underserved and disproportionately impacted communities such as our region's BIPOC (Black, Indigenous, People of Color), disabled, immigrants and refugees, linguistically-isolated, low-wealth, rural, senior, youth populations.

Subcommittee Goals

Understand Our Communities

- Meet communities where they are

Build Trust

- Leverage partnerships with trusted community leaders and organizations

Advance Equity and Justice

- Attend to all forms: recognition, procedural, distributional, restorative, transformative

Engage With Care

- Foster accessible approaches that move communities along the engagement ladder

Evaluate Success

- Develop metrics and benchmarking approaches

Subcommittee Strategies

Understand Our Communities

- Ex. host listening sessions and complete surveys

Build Trust

- Ex. engage existing formal and informal networks early on

Advance Equity and Justice

- Ex. create Equity and Justice Framework

Engage With Care

- Ex. host events with bilingual, sign language, and transcription services

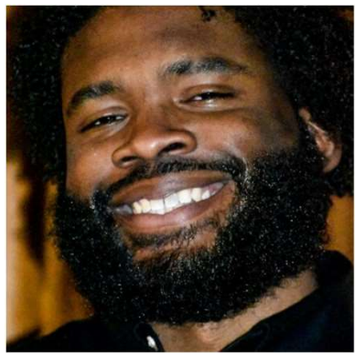
Evaluate Success

- Ex. co-create metrics of success with frontline communities

Equity and Engagement Subcommittee Report

Subcommittee Logistics

Co-chairs: Rico Blackman and Reena Murphy



Meeting Frequency: Quarterly, with ad-hoc as needed

If you would like to join the Subcommittee, please use the QR code to the left

Join EE Subcommittee

Subcommittee Next Steps

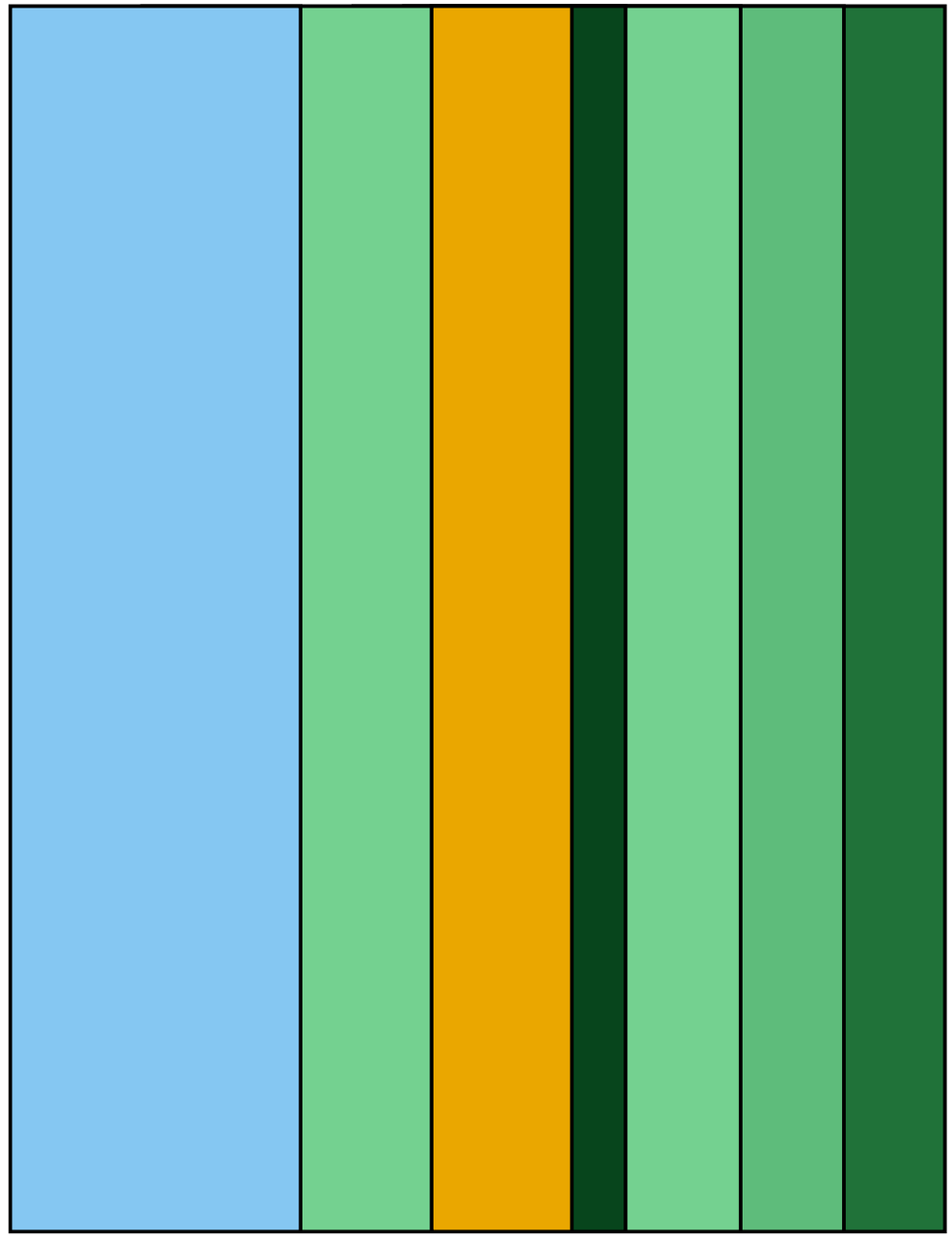
March 15: Draft Equitable Engagement Plan for Steering Committee review

April (date TBD): Second Subcommittee Meeting

April (Earth Week): announce Comprehensive Plan Engagement Process

Preliminary Outcomes

OKI CPRG GHG Inventory



OKI CPRG GHG Inventory	**02 February 2024**
Preliminary Outcomes	Prepared by UNPREDICTABLEcity

Today's Agenda

1. Methodology
2. Regional Results Review
3. Areas to be Developed

Methodology

Overview

Generally, state level data are downscaled to the county and census tract levels based on additional data to produce an estimate of energy consumption. Local data provided by the utilities are integrated whenever possible to improve estimates. Energy data are then multiplied by standard emission rates to produce the inventory.

Residential
Commercial
Industrial
Transportation

State Level Energy Data
US EIA

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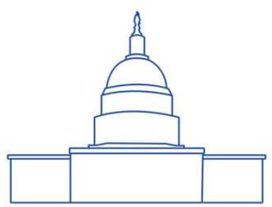
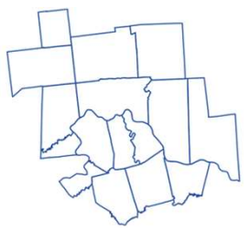


Federal Data
Census
US EIA
US EPA
US BTS
FEMA

X

Local Data
Duke
Municipal Utilities



Emission Factors
US EPA AR5

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Emissions Estimates

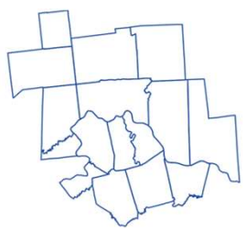
Methodology

Overview
Waste emissions are taken directly from US EPA's Greenhouse Gas Reporting Program. Wastewater emissions are developed by taking treatment plant information provided by OKI, estimating water service by county, and using US EPA's Local Greenhouse Gas Inventory Tool to estimate emissions.

Waste

Emissions Directly from US EPA GHGRP

Wastewater



Local Data
OKI
Google Earth

LGGIT
US EPA

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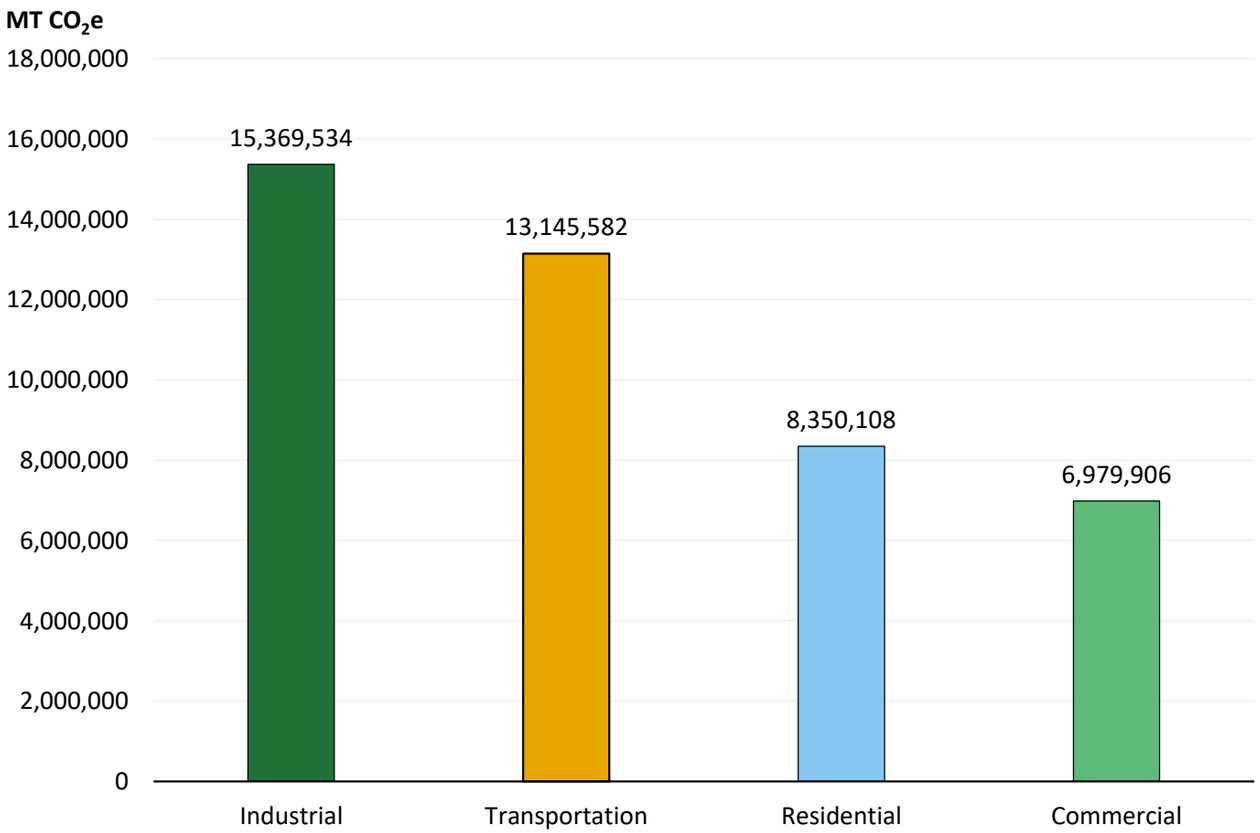
Emissions Estimates

OKI Region

2022 Emissions by Sector



Overview

2022 emissions for the region total **43.8 million metric tons** of carbon dioxide equivalents (MT CO_2e). This equates to roughly **19.5 MT CO_2e per capita** for the region. As a reference, in 2021 the average per capita emissions for the entire US is 19.1 MT CO_2e (although this varies widely by state).

As a percent of total:

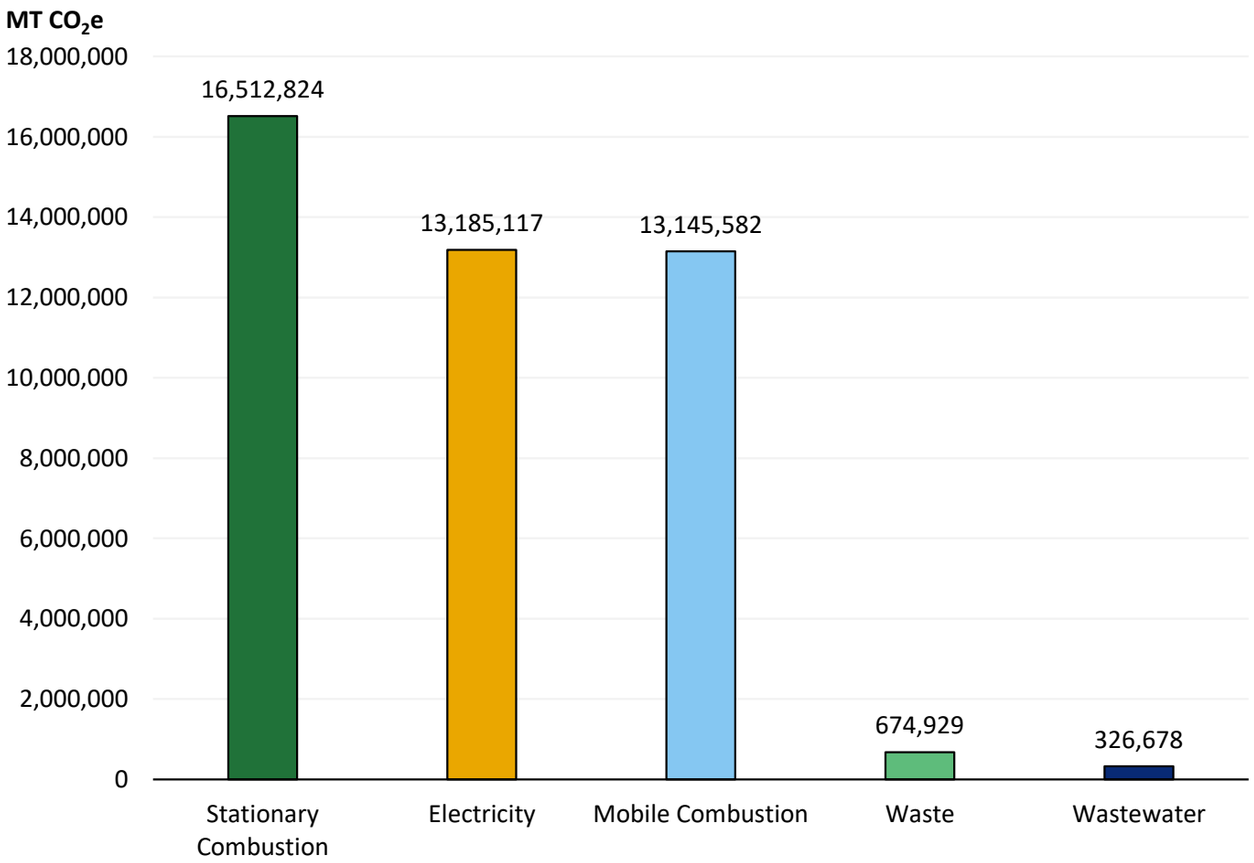
- Industrial = 35%
- Transportation = 30%
- Residential = 19%
- Commercial = 16%

Points of Note

The transportation sector includes emissions from residential, commercial, and industrial sector activities. The commercial sector includes waste and wastewater treatment. Process emissions from the agricultural sector have not been included yet. These values are considered gross emissions and do not include any offsets or carbon credit mechanisms.

OKI Region

2022 Emissions by Analysis Sector



Overview

The Analysis Sectors are categories used by the US EPA. In the OKI region, emissions are largely driven by fuel burned on site.

As a percent of total:

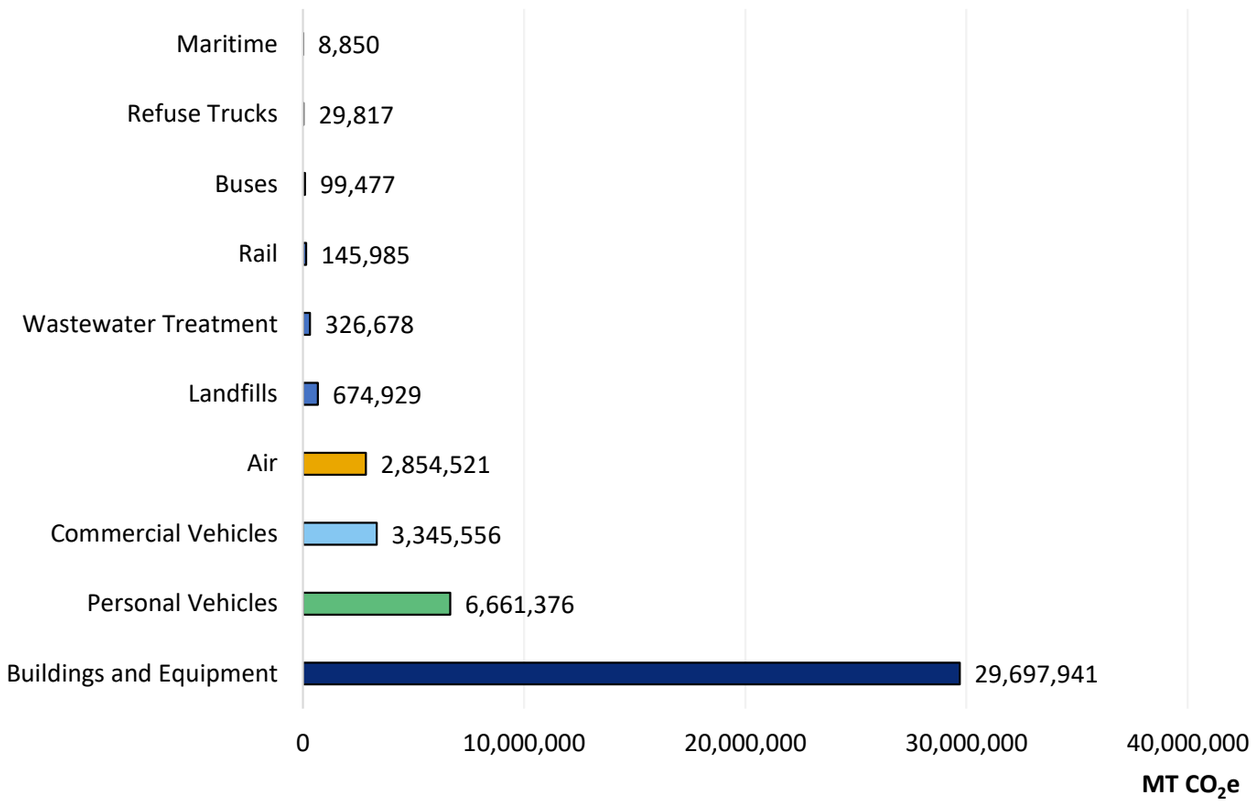
- Stationary Combustion = 38%
- Electricity = 30%
- Mobile Combustion = 30%
- Waste = 2%
- Wastewater = 1%

Points of Note

“Electricity” includes a grid-level line loss rate of 4.5%. Fugitive emissions, such as from natural gas, have not been included. These values are considered gross emissions and do not include any offsets or carbon credit mechanisms.

OKI Region

Emissions by Sub-Category



Overview

Buildings and equipment are the largest source of emissions based on their subcategory, primarily driven by electricity and natural gas consumption. “Air” includes in-boundary emissions (scope 1), as well as out-of-boundary (scope 3) emissions that occur from flights originating from or arriving at airports in the region.

As a percent of total:

- Buildings and Equipment = 68%
- Personal Vehicles = 15%
- Commercial Vehicles = 8%
- Air = 7%
- Landfills = 2%
- Wastewater Treatment = 1%
- Rail = 0.3%
- Buses = 0.2%
- Refuse Trucks = 0.07%
- Maritime = 0.02%

OKI Region

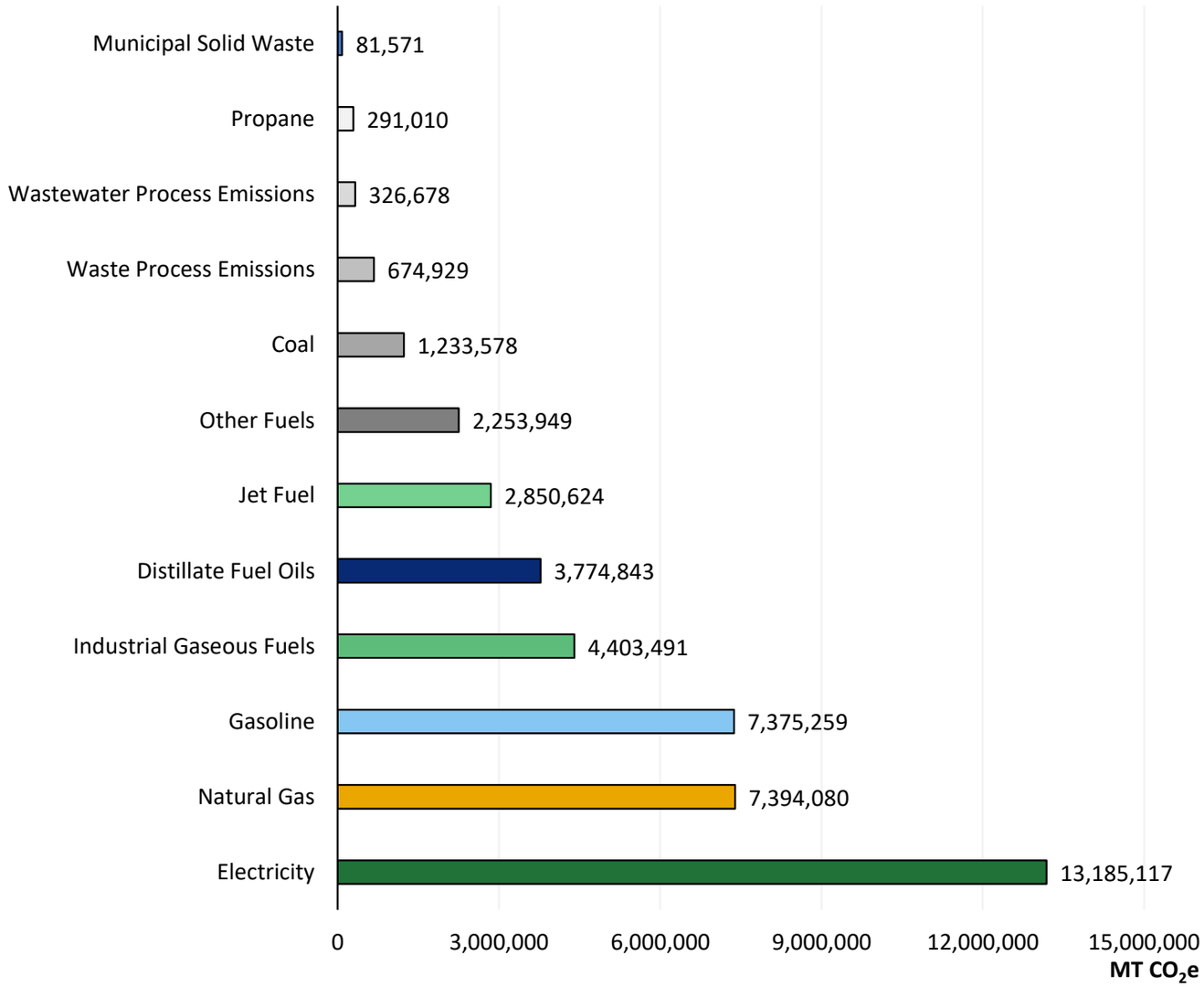
Emissions by Source/Fuel

Overview

Fuels used in buildings and transportation are the main contributors to the region's emissions. "Other Fuels" is primarily composed of various industrial fuels.

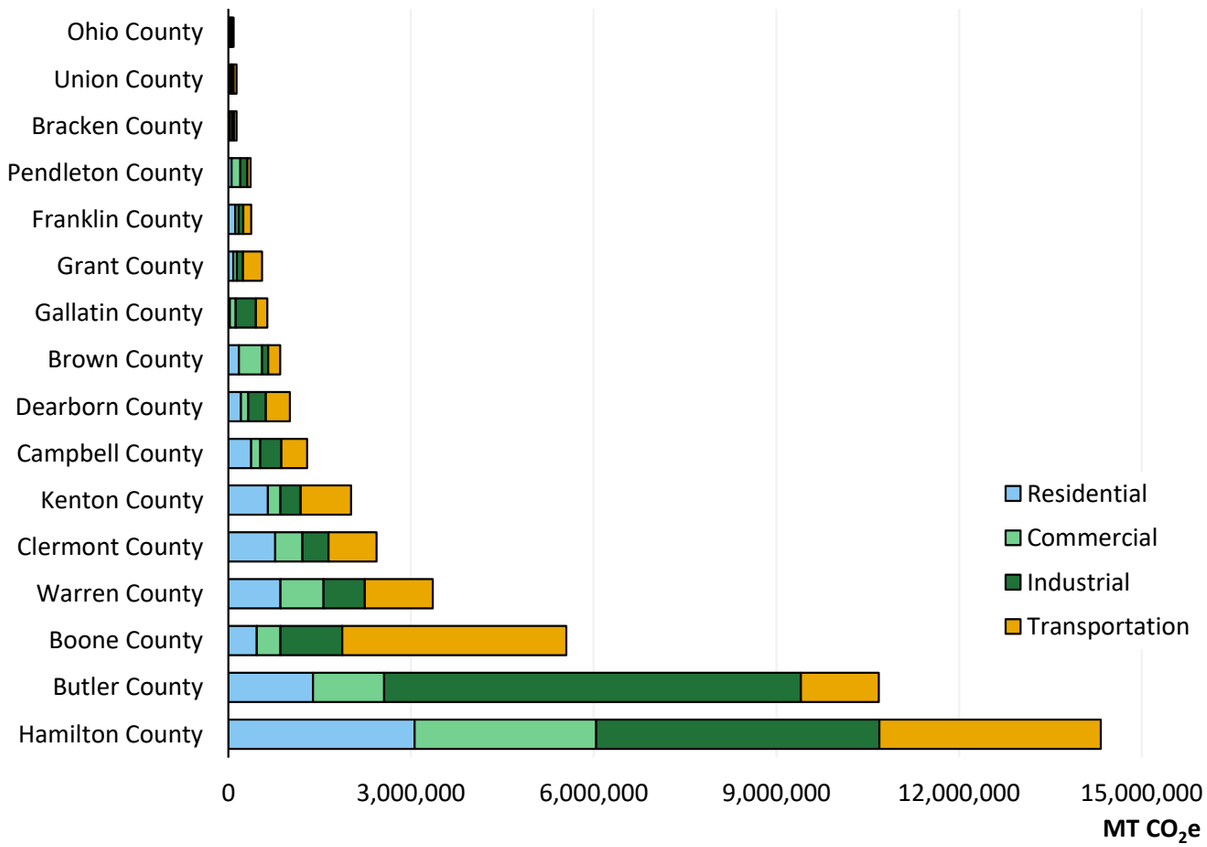
As a percent of total:

- Electricity = 30%
- Natural Gas = 17%
- Gasoline = 17%
- Industrial Gaseous Fuels = 10%
- Distillate Fuel Oils = 9%
- Jet Fuel = 7%
- Other Fuels = 5%
- Coal = 3%
- Waste Process Emissions = 2%
- Wastewater Process Emissions = 1%
- Propane = 0.7%
- Municipal Solid Waste (as fuel) = 0.2%



OKI Region

2022 Emissions by County and Sector



Overview

70% of the region's emissions are produced in 3 counties. The table below presents the percentage that each county contributes to the sector total, and for overall emissions.

	Commercial	Industrial	Residential	Transportation	County Total
Hamilton County	43%	30%	37%	28%	33%
Butler County	17%	45%	17%	10%	24%
Boone County	6%	7%	6%	28%	13%
Warren County	10%	4%	10%	8%	8%
Clermont County	6%	3%	9%	6%	6%
Kenton County	3%	2%	8%	6%	5%
Campbell County	2%	2%	5%	3%	3%
Dearborn County	2%	2%	2%	3%	2%
Brown County	5%	1%	2%	2%	2%
Gallatin County	1%	2%	0%	1%	1%
Grant County	1%	1%	1%	2%	1%
Franklin County	1%	1%	1%	1%	1%
Pendleton County	2%	1%	1%	0%	1%
Bracken County	1%	0%	0%	0%	0%
Union County	0%	0%	0%	0%	0%
Ohio County	0%	0%	0%	0%	0%
OKI Total	100%	100%	100%	100%	**100%**

Areas to be Developed

Tree Canopy
Carbon sequestration by the tree canopy will be estimated using iTREE and local land use data. (Will decrease emissions)

Agricultural Emissions
Emissions from the agricultural sector will be estimated using the National Agricultural Census and state-level emissions and fertilizer data provided by US EPA. (Will increase emissions)

Additional Waste and Wastewater Information
More accurate data may be pursued and included for waste and wastewater operations. (Potential impact unknown)

Fugitive Emissions
Leaks in the transport and use of gaseous fuels are typically assumed to be 0.5% of total consumption. These values may be added into the analysis. (Will increase emissions)

Additional Transportation Information
The MOVES model may be used to refine estimates in order to better align values with other regional activities (such as transportation planning). (Potential impact unknown)

RECS and Other Credit Mechanisms
The impact of behind-the-meter solar (residential, commercial) is already accounted for within the analysis. However, the impact of power purchase agreements (PPAs) and solar projects that retain and retire renewable energy credits (RECs), can be included in the analysis. This will “credit” total emissions on a net-basis. (Will decrease emissions)

Group Discussion

Does anything you've seen surprise you?

Group Discussion

What are your takeaways?

Has this changed your thoughts on where the Region's priorities should be regarding GHG?

IMPLEMENTATION MEASUES

Group Exercise #1

What areas or projects are not being addressed?

What constituency groups are not benefitting?

IMPLEMENTATION MEASUES

Group Exercise #2

Which projects are "Transformational" for the region?

Which projects can be significantly implemented by 2030?

EPA CPRG Implementation Grant Scoring Rubric

• Description of Measures	20 pts
• Demonstration of Need	10 pts
• Transformative Impact	15 pts
• Impact of GHG Reduced	60 pts
• Environmental Results	30 pts
• LI/DC Benefits	35 pts
• Job Quality	5 pts
• Programmatic Capability	30 pts
• Budget	45 pts
Total	250 pts

- Can be implemented by 2029
- Can be implemented by OKI or eligible sub-awardees
- Transformative for the region

What is “Transformative”?

- Pioneering, replicable, and scalable policies or programs to increase the deployment of existing GHG emission reduction technologies or mitigation approaches;

- GHG emission reductions from hard-to-abate sectors where GHG emission reduction measures are not widely adopted; or,

- Market transformations that accelerate the deployment and market adoption of emerging GHG emission reduction technologies or practices.

IMPLEMENTATION MEASUES

Group Exercise #2

Which projects are "Transformational" for the region?

Which projects can be significantly implemented by 2030?