

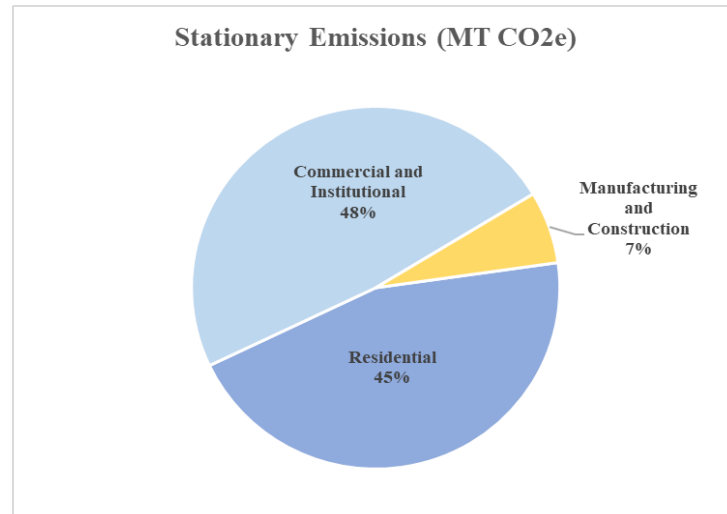
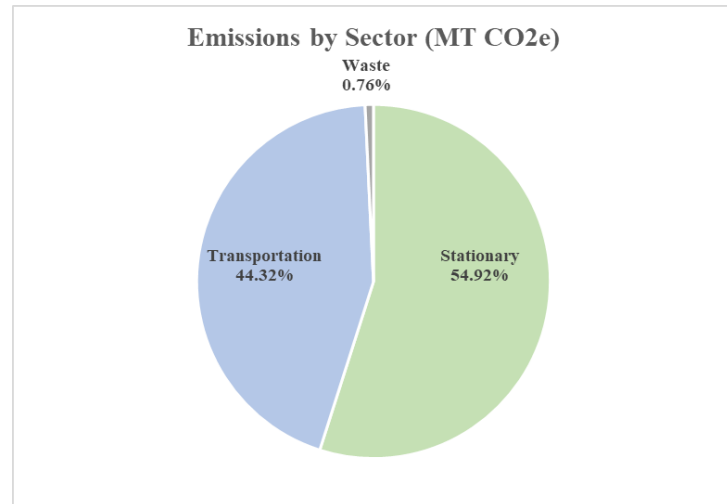
Kent, Ohio 2022 Greenhouse Gas Inventory Executive Summary

KERAMIDA collaborated with the City of Kent to produce a BASIC greenhouse gas (GHG) inventory for the calendar year 2022 using the City Inventory Reporting and Information System (CIRIS). The Greenhouse Gas Protocol for Communities (GPC) was utilized for guidance. Three overarching sectors (Stationary Energy, Transportation and Waste) were further broken down into sub-sectors. The breakdown of emissions into Scope 1 (direct), Scope 2 (indirect - electricity usage), and Scope 3 (other indirect emissions) enhances the depth of understanding¹. This comprehensive analysis not only aligns with sustainability objectives but also equips the City of Kent with a strategic foundation for informed decision-making and future environmental initiatives².

Results

GHG Emissions Source (by sector and sub-sector)	Total GHG Emissions (MT CO ₂ e)			
	Scope 1	Scope 2	Scope 3	Total
STATIONARY ENERGY				
Residential buildings	55,344	51,534	NE	106,878
Commercial and institutional buildings and facilities	52,381	62,169	NE	114,550
Manufacturing industries and construction	8,808	6,421	NE	15,229
Energy industries	5,827	NO	NE	5,827
Energy generation supplied to the grid	15,827			
Agriculture, forestry and fishing activities	Not Occurring			
Non-specified sources	Not Occurring			
Fugitive emissions from mining, processing, storage, and transportation of coal	Not Occurring			
Fugitive emissions from oil and natural gas systems	Not Occurring			
Subtotal (MT CO₂e)	122,360	120,123		242,484
TRANSPORTATION				
On-road transportation	195,460	177	NE	195,637
Railways	Not Occurring			
Waterborne navigation	Not Occurring			
Aviation	Not Occurring			
Off-road transportation	33	ND	NE	33
Subtotal (MT CO₂e)	195,493	177		195,670
WASTE				
Solid Waste	NO		145	145
Biological Waste	2,661		69	2,729
Incinerated Waste	Not Occurring			
Wastewater	493		NO	493
Subtotal (MT CO₂e)	3,153		213	3,366
TOTAL (MT CO₂e)	321,006	120,300	213	441,520

Abbreviations: No Data (ND), Not Applicable (NA), Not Occurring (NO)

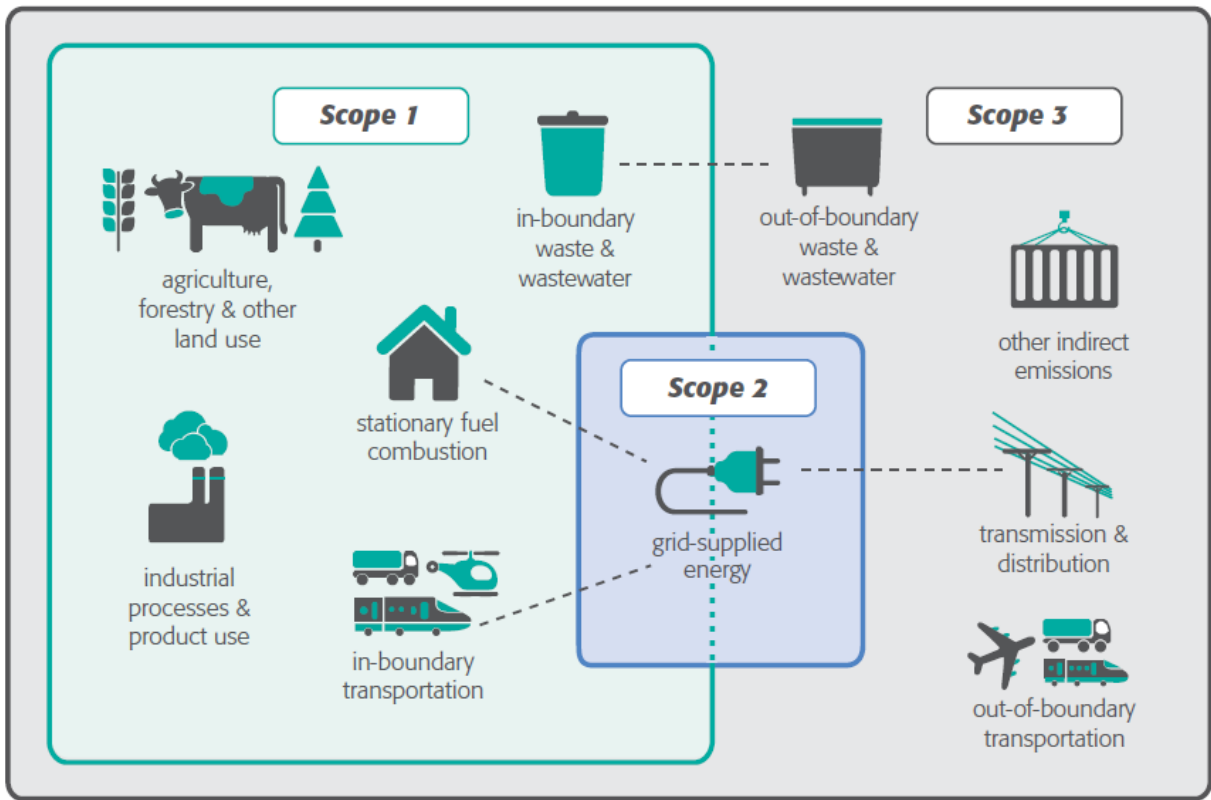


¹ Please refer to Appendix A for a graphic explanation of scopes.

² Please refer to Appendix B for a comparison of previous inventory (2016).

Data Sources	
Stationary	City of Kent, Dominion, Kent State University, U.S. Census Bureau, Energy Infrastructure Administration (EIA)
Transportation	Ohio BMV, Ohio DOT, Drive Ohio, PARTA, City of Kent
Waste	Kent State University, Republic Services, City of Kent

Appendix A: Scope Explanation (GPC)



Appendix B: City of Kent GHG Comparison

Sector	2016 GHG Emissions (MT CO ₂ e)	2022 GHG Emissions (MT CO ₂ e)
Commercial Energy	143,240	135,606 *
Residential Energy	106,575	106,878
Transportation	87,636	195,670
Solid Waste	22,671	2,874
Wastewater	11,090	493
Agriculture	4,936	Not Calculated **
TOTAL	376,148	441,521

*Inclusive of commercial and institutional buildings and facilities, manufacturing industries and construction, and energy industries.

**A BASIC level inventory was completed under the GPC Protocol which excludes Agriculture, Forestry and Other Land Use, and Industrial Processes and Product Use. These two sectors are only required under a BASIC+ level inventory.