

# Local emissions summaries methodology

Data Field	Unit	Source	Notes
Land area	Acres	CMAP. 2015. Land Use Inventory, Total Acreage.	Additional information about 4-digit land use class codes is available at: <a href="https://datahub.cmap.illinois.gov/dataset/land-use-inventory-for-northeast-illinois-2013/resource/1a59097a-56c0-419c-a223-e9bf0da99d21">https://datahub.cmap.illinois.gov/dataset/land-use-inventory-for-northeast-illinois-2013/resource/1a59097a-56c0-419c-a223-e9bf0da99d21</a> .
Population	Number	U.S. Census Bureau. 2020 Census.	Total population in 2020.
Jobs	Number	U.S. Census Bureau. 2019. Longitudinal Employer Household Dynamics Program (LEHD).	Count of employment by workplace location (regardless of residence location) in 2019. Includes full- and part-time jobs.
Median household income	US Dollars	2015-2019 American Community Survey: Table B19013.	2015-2019 median income. Five-year estimate.
Households	Number	U.S. Census Bureau. 2020 Census.	Total households in 2020.
Share of single-family housing units	Percentage	U.S. Census Bureau. 2020. 2015-2019 American Community Survey: Table B25024	Calculated as single-family units (detached and attached) divided by total housing units. Five-year estimate.
Share of owner-occupied housing units	Percentage	U.S. Census Bureau. 2020. 2015-2019 American Community Survey: Tables B25002 and B25003.	Calculated as owner-occupied units divided by total occupied housing units. Five-year estimate.
Tree coverage	Percentage	Chicago Region Trees Initiative (CRTI). 2018 and 2010. Land cover summary. Available at: <a href="https://chicagorti.org/maps/municipal-canopy-summaries/">https://chicagorti.org/maps/municipal-canopy-summaries/</a> .  USGS. National Land Cover Database (NLCD) 2016 - Tree Canopy. Available at: <a href="https://www.mrlc.gov/data/nlcd-2016-usfs-tree-canopy-cover-conus">https://www.mrlc.gov/data/nlcd-2016-usfs-tree-canopy-cover-conus</a>	Percent of land area covered by tree canopy. Data for the region, counties, and all municipalities except those located in Will County are based on 2018 tree coverage. Data for municipalities located in Will County and for all community areas are based on 2010 data. For select municipalities that were not included in the CRTI study (Braceville, Coal City, Diamond, Godley), data are based on tree canopy estimates from USGS for 2016.
Impervious surfaces	Percentage	USGS. National Land Cover Database (NLCD) 2019 Percent Developed Imperviousness. Available at: <a href="https://www.mrlc.gov/data/nlcd-2019-percent-developed-imperviousness-conus">https://www.mrlc.gov/data/nlcd-2019-percent-developed-imperviousness-conus</a>	Percent of land area covered by impervious surfaces in 2019.

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Member of greenest region compact	Selection	Metropolitan Mayors Caucus. 2022. Greenest Region Compact Communities. Available at: <a href="https://mayorscaucus.org/wp-content/uploads/2022/03/GRC-Communities-03-11-22.pdf">https://mayorscaucus.org/wp-content/uploads/2022/03/GRC-Communities-03-11-22.pdf</a> .	Membership status as of March 11, 2022.
Residential electricity	MTCO <sub>2</sub> e	CMAP. 2019 Regional Greenhouse Gas Inventory.	Emissions from residential electricity consumption in 2019. Based on utility-provided electricity consumption. No adjustments were made to exclude electricity consumed to charge electric vehicles.
Non-residential electricity	MTCO <sub>2</sub> e	CMAP. 2019 Regional Greenhouse Gas Inventory.	Emissions from non-residential electricity consumption in 2019. Based on utility-provided electricity consumption. No adjustments were made to exclude electricity consumed to charge electric vehicles or railways.
Residential natural gas	MTCO <sub>2</sub> e	CMAP. 2019 Regional Greenhouse Gas Inventory.	Emissions from residential natural gas consumption in 2019. Based on utility-provided natural gas consumption.
Non-residential natural gas	MTCO <sub>2</sub> e	CMAP. 2019 Regional Greenhouse Gas Inventory.	Emissions from non-residential natural gas consumption in 2019. Based on utility-provided natural gas consumption. No adjustments were made to exclude natural gas consumed to run offroad equipment or CNG buses.
On-road transportation	MTCO <sub>2</sub> e	Replica (Spring 2019 Illinois model). GTFS data processed by CMAP, Oct 2019 (CTA) and March 2020 (Pace). CMAP. 2019 Regional Greenhouse Gas Inventory.	Emissions from on-road transportation in 2019. Results for municipalities (except Chicago) and community areas generated based on an induced activity approach. Results for the City of Chicago, counties and the region generated based on a geographic approach.
On-road commercial transportation	MTCO <sub>2</sub> e	Replica (Spring 2019 Illinois model). CMAP. 2019 Regional Greenhouse Gas Inventory.	Emissions from on-road commercial vehicles in 2019. Results for municipalities (except Chicago) and community areas generated based on an induced activity approach. Results for the City of Chicago, counties and the region generated based on a geographic approach.

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On-road passenger transportation	MTCO <sub>2</sub> e	Replica (Spring 2019 Illinois model). CMAP. 2019 Regional Greenhouse Gas Inventory.	Emissions from on-road passenger vehicles in 2019. Results for municipalities (except Chicago) and community areas generated based on an induced activity approach. Results for the City of Chicago, counties and the region generated based on a geographic approach.
On-road public transportation	MTCO <sub>2</sub> e	GTFS data processed by CMAP, Oct 2019 (CTA) and March 2020 (Pace). CMAP. 2019 Regional Greenhouse Gas Inventory.	Emissions from on-road public transit in 2019. Results for all geographies generated based on a geographic approach.
Waste sector	MTCO <sub>2</sub> e	CMAP. 2019 Regional Greenhouse Gas Inventory.	Emissions from waste and wastewater treatment in 2019.
Residential electricity	MTCO <sub>2</sub> e/person	CMAP. 2019 Regional Greenhouse Gas Inventory. U.S. Census Bureau. 2020 Census.	Calculated by dividing 2019 emissions by total population.
Non-residential electricity	MTCO <sub>2</sub> e/person	CMAP. 2019 Regional Greenhouse Gas Inventory. U.S. Census Bureau. 2020 Census.	Calculated by dividing 2019 emissions by total population.
Residential natural gas	MTCO <sub>2</sub> e/person	CMAP. 2019 Regional Greenhouse Gas Inventory. U.S. Census Bureau. 2020 Census.	Calculated by dividing 2019 emissions by total population.
Non-residential natural gas	MTCO <sub>2</sub> e/person	CMAP. 2019 Regional Greenhouse Gas Inventory. U.S. Census Bureau. 2020 Census.	Calculated by dividing 2019 emissions by total population.
On-road transportation	MTCO <sub>2</sub> e/person	Replica (Spring 2019 Illinois model). CMAP. 2019 Regional Greenhouse Gas Inventory. U.S. Census Bureau. 2020 Census.	Calculated by dividing 2019 emissions by total population.
Waste sector	MTCO <sub>2</sub> e/person	CMAP. 2019 Regional Greenhouse Gas Inventory. U.S. Census Bureau. 2020 Census.	Calculated by dividing 2019 emissions by total population.
Electric vehicles	Number	Illinois Secretary of State. Electric Vehicle Counts by County. December 2019. Available at: <a href="https://www.ilsos.gov/departments/vehicles/statistics/electric/2019/electric121519.pdf">https://www.ilsos.gov/departments/vehicles/statistics/electric/2019/electric121519.pdf</a> .	Based on postal code-level data. For postal codes that span across multiple municipalities or Chicago Community Areas, data were allocated to each community based on population.

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Data Field	Unit	Source	Notes
Electric vehicles (% of passenger vehicles)	Percentage	Illinois Secretary of State. Electric Vehicle Counts by County. December 2019. Available at: <a href="https://www.ilsos.gov/departments/vehicles/statistics/electric/2019/electric121519.pdf">https://www.ilsos.gov/departments/vehicles/statistics/electric/2019/electric121519.pdf</a> . Illinois Secretary of State. Passenger Vehicle Counts by County and Zip Code. April 2019.	Calculated by dividing total electric vehicles by total passenger vehicles. Based on postal code-level data. For postal codes that span across multiple municipalities or Chicago Community Areas, data were allocated to each community based on population.
Charging stations: level 2	Number	U.S. Department of Energy. 2021. Electric Vehicle Charging Station Locations. Available at: <a href="https://afdc.energy.gov/fuels/electricity_locations.html#/find/nearest?fuel=ELEC">https://afdc.energy.gov/fuels/electricity_locations.html#/find/nearest?fuel=ELEC</a> .	Filtered dataset to exclude all electric vehicle charging stations constructed after 2019.
Charging stations: DC fast	Number	U.S. Department of Energy. 2021. Electric Vehicle Charging Station Locations. Available at: <a href="https://afdc.energy.gov/fuels/electricity_locations.html#/find/nearest?fuel=ELEC">https://afdc.energy.gov/fuels/electricity_locations.html#/find/nearest?fuel=ELEC</a> .	Filtered dataset to exclude all electric vehicle charging stations constructed after 2019.
Charging stations: total	Number	U.S. Department of Energy. 2021. Electric Vehicle Charging Station Locations. Available at: <a href="https://afdc.energy.gov/fuels/electricity_locations.html#/find/nearest?fuel=ELEC">https://afdc.energy.gov/fuels/electricity_locations.html#/find/nearest?fuel=ELEC</a> .	Filtered dataset to exclude all electric vehicle charging stations constructed after 2019.
Share of residents with at least moderate walkability	Percentage	CMAP. 2015. Walkability Local Strategy Maps.	The CMAP Walkability Layer is based on several factors: the number of amenities within walking distance; population/employment density; bicycle/pedestrian crashes and fatalities; and physical characteristics (e.g., tree cover, block length). It does not currently account for the presence or absence of sidewalks. This data field reports the share of residents plus jobs whose home and workplace locations, respectively, are within each Walkability Layer category. Data are not currently available for all municipalities in the CMAP Region.

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Data Field	Unit	Source	Notes
Share of residents with at least moderate transit access	Percentage	CMAP. Transit Availability Index. October 2017. Available at: <a href="https://datahub.cmap.illinois.gov/dataset/access-to-transit-index/resource/3e47e3c5-1971-4785-98f2-bd7f331fd3e9">https://datahub.cmap.illinois.gov/dataset/access-to-transit-index/resource/3e47e3c5-1971-4785-98f2-bd7f331fd3e9</a> .	The CMAP Transit Availability Index is based on four factors: frequency of Transit service, proximity to Transit stops, activities reachable without a transfer, and pedestrian friendliness. This data field reports the share of residents plus jobs whose home and workplace locations, respectively, are within each Transit Availability Index category. Data are not currently available for all municipalities in the CMAP Region.
Mode share: drive alone	Percentage	U.S. Census Bureau. 2020. 2015-2019 American Community Survey. 5-Year Estimate. Tables B23001 and B08301.	Calculated as number of workers who drove alone divided by number of total workers.
Mode share: carpool	Percentage	U.S. Census Bureau. 2020. 2015-2019 American Community Survey. 5-Year Estimate. Tables B23001 and B08301.	Calculated as number of workers who carpooled divided by number of total workers.
Mode share: transit	Percentage	U.S. Census Bureau. 2020. 2015-2019 American Community Survey. 5-Year Estimate. Tables B23001 and B08301.	Calculated as number of workers who took transit divided by number of total workers.
Mode share: walk or bike	Percentage	U.S. Census Bureau. 2020. 2015-2019 American Community Survey. 5-Year Estimate. Tables B23001 and B08301.	Calculated as number of workers who walked or biked divided by number of total workers.
Mode share: other	Percentage	U.S. Census Bureau. 2020. 2015-2019 American Community Survey. 5-Year Estimate. Tables B23001 and B08301.	Calculated as number of workers who took another mode of transportation divided by number of total workers.
Residential vehicle miles traveled (VMT)	Annual VMT/ household	CMAP analysis of US Census Bureau (American Community Survey: Tables B25002 and B25046), HERE (ZIP+4 data), 2017 Illinois Environmental Protection Agency data (Odometer Readings), and Illinois Secretary of State data.	Data are not currently available for all municipalities in the CMAP Region.

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Vehicles per household	Vehicles/ household	Illinois Secretary of State. Passenger Vehicle Counts by County and Zip Code. April 2019. U.S. Census Bureau. 2020 Census.	Calculated by dividing total passenger vehicles in 2019 by total households in 2020. Vehicle totals based on postal code-level data. For postal codes that span across multiple municipalities or community areas, data were allocated to each community based on population.
Residential electricity	kWh	CMAP. 2019 Regional Greenhouse Gas Inventory.	Consumption total for 2019 based on data provided by ComEd and obtained from the U.S. Energy Information Administration. No adjustments were made to exclude electricity consumed to charge electric vehicles.
Non-residential electricity	kWh	CMAP. 2019 Regional Greenhouse Gas Inventory.	Consumption total for 2019 based on data provided by ComEd and obtained from the U.S. Energy Information Administration. No adjustments were made to exclude electricity consumed to charge electric vehicles or railways.
Residential natural gas	MMBtu	CMAP. 2019 Regional Greenhouse Gas Inventory.	Consumption total for 2019 based on data provided by Nicor Gas and People's Gas.
Non-residential natural gas	MMBtu	CMAP. 2019 Regional Greenhouse Gas Inventory.	Consumption total for 2019 based on data provided by Nicor Gas and People's Gas. No adjustments were made to exclude natural gas consumed to run offroad equipment or CNG buses.
Residential electricity	kWh/person	CMAP. 2019 Regional Greenhouse Gas Inventory. U.S. Census Bureau. 2020 Census.	Calculated by dividing 2019 consumption by total population.
Non-residential electricity	kWh/person	CMAP. 2019 Regional Greenhouse Gas Inventory. U.S. Census Bureau. 2020 Census.	Calculated by dividing 2019 consumption by total population.
Residential natural gas	MMBtu/person	CMAP. 2019 Regional Greenhouse Gas Inventory. U.S. Census Bureau. 2020 Census.	Calculated by dividing 2019 consumption by total population.
Non-residential natural gas	MMBtu/person	CMAP. 2019 Regional Greenhouse Gas Inventory. U.S. Census Bureau. 2020 Census.	Calculated by dividing 2019 consumption by total population.

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Residential electricity	kWh/household	CMAP. 2019 Regional Greenhouse Gas Inventory. U.S. Census Bureau. 2020 Census.	Calculated by dividing 2019 consumption by total households in 2020.
Residential natural gas	MMBtu/ household	CMAP. 2019 Regional Greenhouse Gas Inventory. U.S. Census Bureau. 2020 Census.	Calculated by dividing 2019 consumption by total households in 2020.
Solar potential	MW	Google. Project Sunroof data explorer. November 2018. Available at: <a href="https://sunroof.withgoogle.com/">https://sunroof.withgoogle.com/</a> .	Data are not currently available for all municipalities in the CMAP Region. For the community areas, census tract-level data were allocated to each community based on population.
SolSmart designation	Level	SolSmart. 2021. SolSmart Designee Map. Available at: <a href="https://solsmart.org/our-communities/designee-map/#">https://solsmart.org/our-communities/designee-map/#</a> .	SolSmart is only applicable to communities with a governing body.