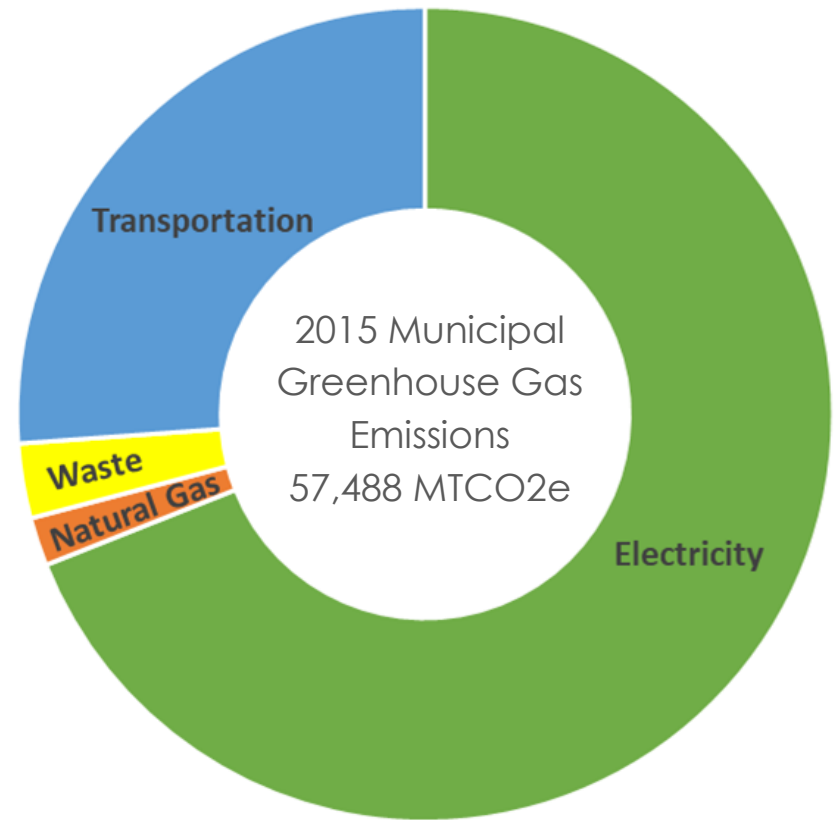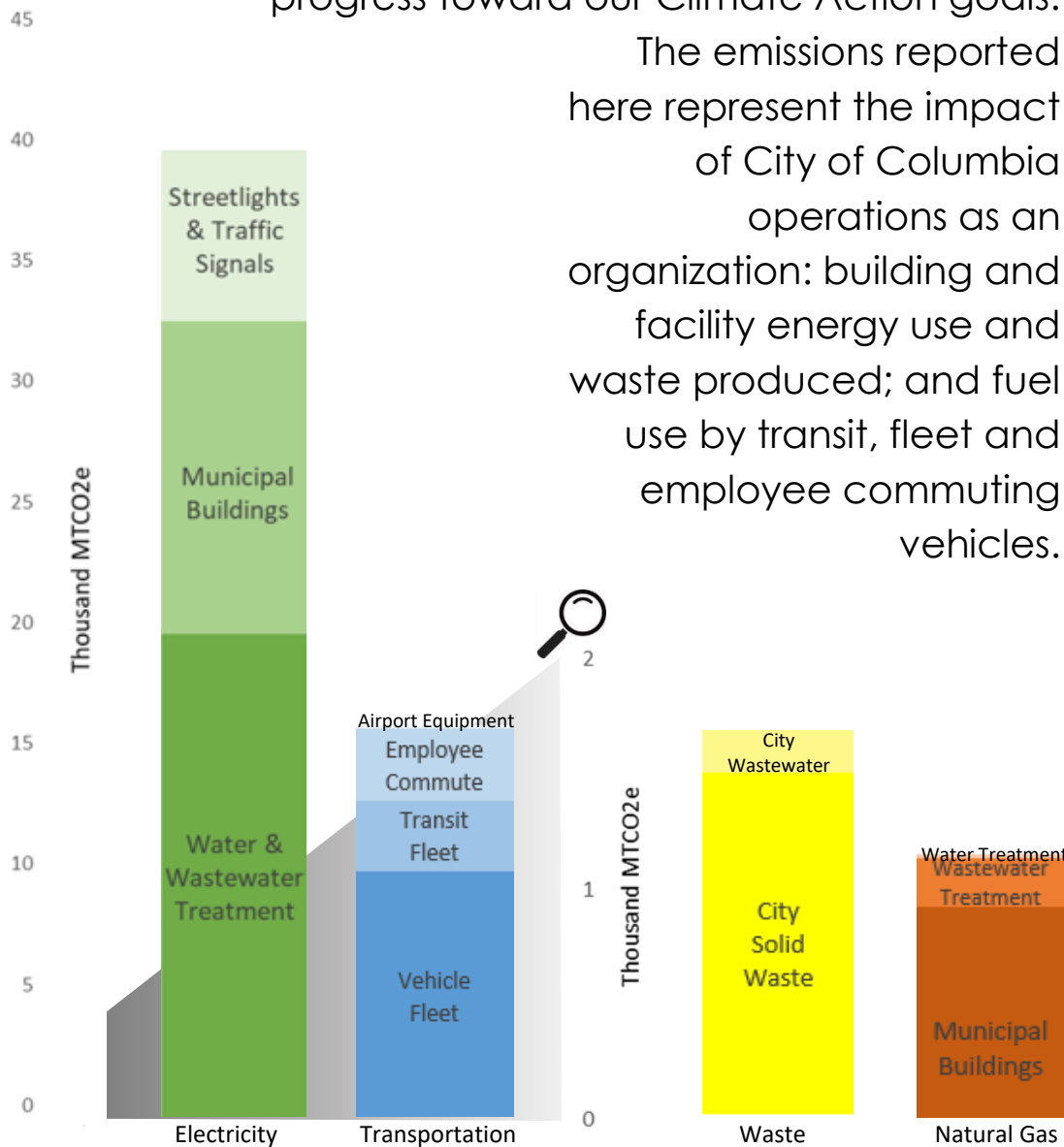# City of Columbia
2015 Municipal Emissions Report

2015 is the City's reference year for tracking progress toward our Climate Action goals. The emissions reported here represent the impact of City of Columbia operations as an organization: building and facility energy use and waste produced; and fuel use by transit, fleet and employee commuting vehicles.

2015 Municipal Greenhouse Gas Emissions 57,488 MTCO2e

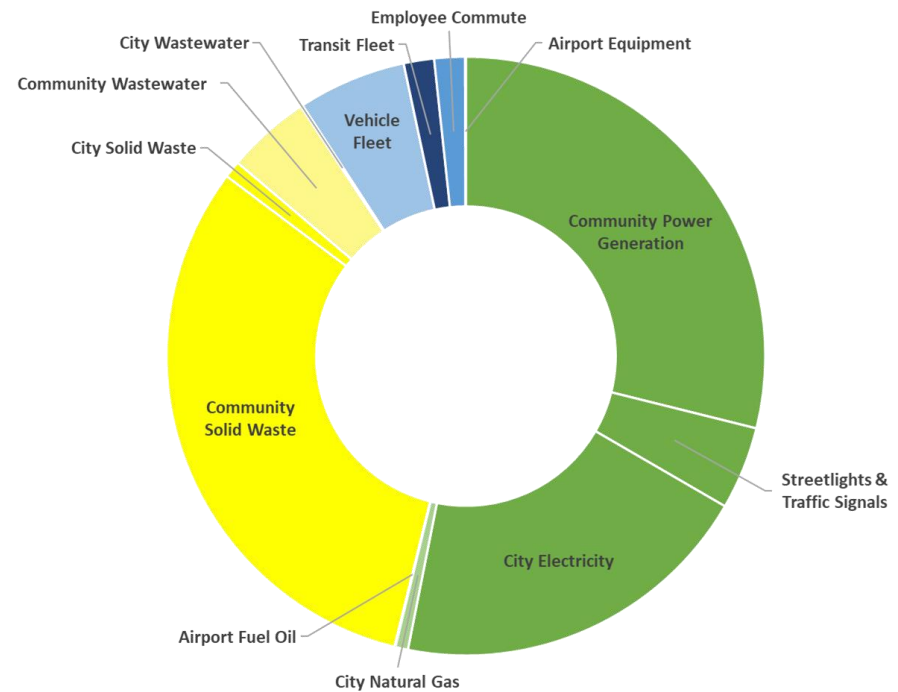Transportation

Waste

Natural Gas

Electricity

This report includes emissions associated with energy use and waste produced by municipal operations only. Community energy production and waste treatment process emissions account for an additional 105,891 MTCO2e.

Thousand MTCO2e

Streetlights & Traffic Signals

Municipal Buildings

Water & Wastewater Treatment

Electricity

Airport Equipment
Employee Commute
Transit Fleet
Vehicle Fleet

Transportation

Thousand MTCO2e

City Wastewater

City Solid Waste

Waste

Water Treatment
Wastewater Treatment

Municipal Buildings

Natural Gas

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2015 Municipal Emissions Including Community Power Generation & Community Waste Processing Emissions

GHG Emissions by Sector & Source

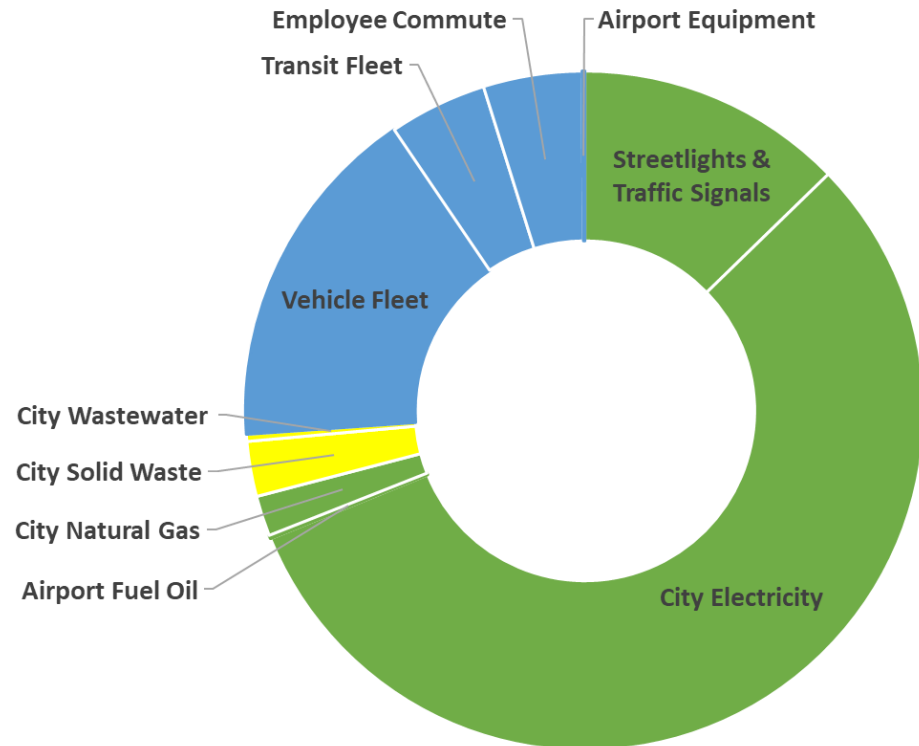| Total City of Columbia	MTCO2e
Energy	**87,972**
Community Power Generation	47,188
Streetlights & Traffic Signals	7,319
City Electricity	32,266
City Natural Gas	1,102
Airport Fuel Oil	96
Waste	**60,401**
Community Solid Waste (Landfill)	51,330
City Solid Waste	1,505
Community Wastewater	7,372
City Wastewater	194
Transportation	**15,006**
Vehicle Fleet	9,548
Transit Fleet	2,681
Employee Commute	2,701
Airport Equipment	76
TOTAL	**163,379**

Columbia, MO provides a full range of services to the community, including electricity, solid waste and wastewater treatment. These services contribute to the greenhouse gas emissions for Columbia as a community and a municipal organization. The above calculations include emissions from both municipal operations and community services provided. Emissions from the electricity generating assets controlled by the City of Columbia represent 47,188 MTCO2e (29%) of the 2015 municipal inventory. Similarly, community solid waste and wastewater emissions total 58,702 MTCO2e (36%) in the 2015 municipal inventory. Reporting total emissions from these municipally controlled waste and energy sources is important and will continue to inform broader process changes and our progress toward meeting reduction goals. In order to more directly report the impact of our daily operations on the municipal inventory, the analysis below removes emissions of non-municipal activities from the energy and waste sectors.

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2015 Emissions from Municipal Operations

GHG Emissions by Sector & Source

Municipal Operations	MTCO2e
Energy	**40,783**
City Electricity	32,266
City Natural Gas	1,102
Streetlights & Traffic Signals	7,319
Airport Fuel Oil	96
Waste	**1,699**
Facility Solid Waste	1,505
Facility Wastewater	194
Transportation	**15,006**
Vehicle Fleet	9,548
Transit Fleet	2,681
Employee Commute	2,701
Airport Equipment	76
TOTAL (excluding non-municipal process emissions)	**57,488**

The distribution of City of Columbia's operational emissions across sectors resembles that of the Community's sector emissions. 71% of emissions come from facility energy, 26% come from transportation and 3% come from waste process emissions. Electricity usage by City facilities and buildings accounts for 79% of energy emissions and 56% of all operations emissions. Streetlights and traffic signals account for 18% of energy emissions and 13% of all operations emissions. Facility use of natural gas and fuel oil (airport use only) make up the remaining 3% of energy emissions and represent 2% of total operational emissions.

Municipal waste emissions are made up of wastewater at 11% and solid waste at 89%. They are the fraction of total process emissions from the municipal landfill and wastewater treatment plant estimated to be from municipal wastewater and solid waste.

Transportation emissions are comprised of Columbia Regional Airport equipment, the City of Columbia's fleet and transit vehicles, and employee commuting activity. Fleet vehicle activities make up 64% of municipal transportation emissions and 17% of total operational emissions. Transit and employee commute activities each contribute 18% to transportation and 4% to total operational emissions.

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