Three Components of our CAP

1. GHG Inventory & Forecast

2. GHG Target

3. GHG Reduction Strategies

GHG Inventory Sectors

Mobile Combustion (Transportation): Emissions from the combustion of gasoline, diesel and other fuels by on-road and off-road vehicles (including aircraft and marine vessels) traveling within Humboldt County

Livestock: Methane and nitrous oxide emissions from the digestive process of livestock animals (beef cattle, dairy cows and sheep) within Humboldt County. Also includes emissions from manure treatment and handling.

Electricity: Emissions associated with consumption of electricity within Humboldt County. In 2015, PG&E purchased electricity for Humboldt County customers, so electricity consumption is converted to emissions using information PG&E's 2015 energy portfolio.

GHG Inventory Sectors

Stationary Combustion: Emissions from the combustion of natural gas, propane and wood. This sector primarily captures emissions from heating systems and appliances powered by natural gas and propane.

Industrial Point Sources: Emissions generated directly from industrial processes within Humboldt County. Industrial facilities considered include lumber mills, asphalt plants and other goods and materials manufacturing.

Solid Waste: Emissions from Cummings Road Landfill, as well as emissions from the decomposition of solid waste generated within Humboldt County sent to landfills outside County boundaries. Cummings Road Landfill, located near Eureka, had stopped accepting waste in 2015 but was still generating emissions.

GHG Inventory Sectors

Wastewater Treatment: Emissions from the treatment and handling of wastewater within the County. Includes emissions from processes in wastewater treatment plants and fugitive emissions from septic tanks. Does not include electricity consumed by wastewater treatment plants—this is captured in the Electricity Consumption sector.

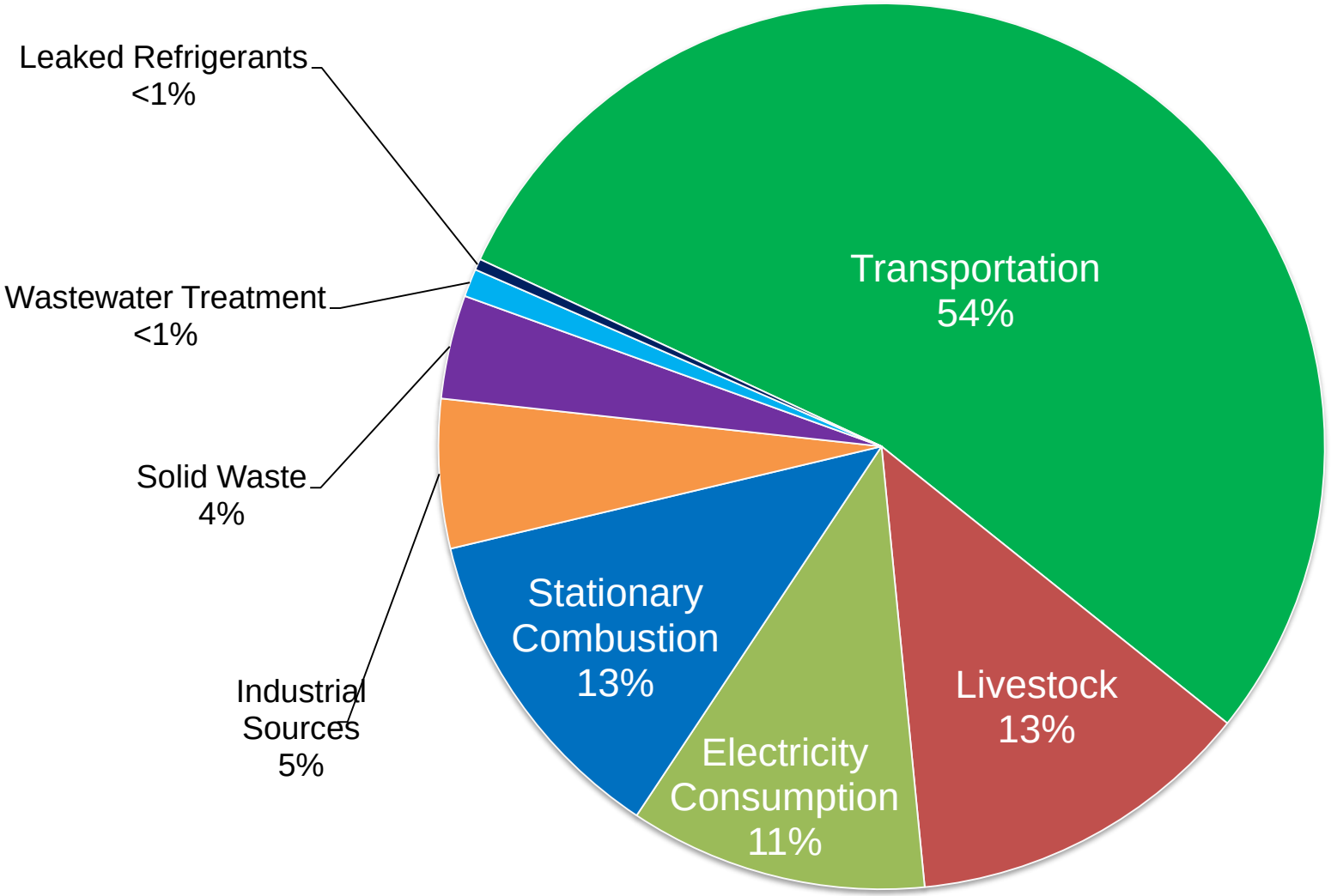
Leaked Refrigerants: Leaked gases from fire suppressants, HVAC, transport units, supermarkets and other refrigerant systems.

Unit of Measurement

The largest contributor to climate change is CO2, and it is also the most recognized GHG. However, the inventory also includes emissions of other GHGs: methane (CH4), nitrous oxide (N2O) and refrigerant gases. Compared to CO2, these GHGs are emitted in lower quantities locally. Still, they are important to include in our analysis due to their potency in relation to the greenhouse gas effect.

To allow for comparison of different GHGs, climate action plans use a measurement known as **carbon dioxide equivalent (CO2e).** The standard unit for greenhouse gases in an inventory is Metric Tons (MT) CO2e. The CO2e measurement translates amounts of other GHGs into an equivalent amount of CO2. In the case of methane, 1 MT of CH4 is converted to 28 MT CO2e, because one unit of CH4 traps 28 times more heat than one unit of CO2.

2015 GHG Inventory: **County-Wide**



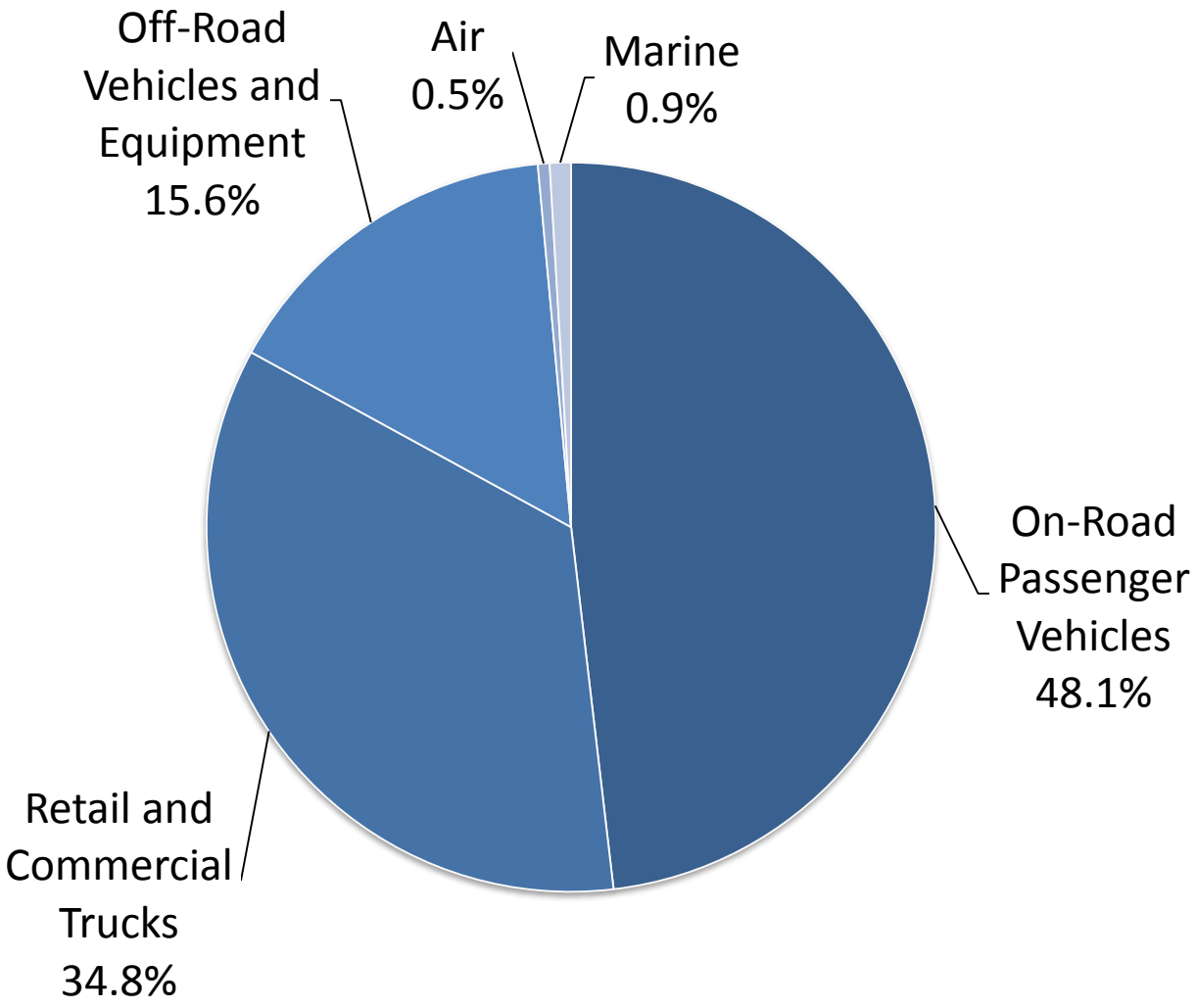
2015 Inventory: **County-Wide**

Emissions Totals

Local Emissions	Quantity of Emissions (Metric Tons of CO2e)
Activity: Electricity Consumption	81,040
Source: Stationary Combustion of Fuels	64,803
Source: Industrial Point Sources	23,626
Source: Mobile Combustion	416,887
Activity: Solid Waste Generation	11,614
Source: Cummings Road Land Fill	27,079
Source: Wastewater Treatment	3,000
Source: Leaked Refrigerants	1,541
Source: Livestock	192,920
TOTAL	**822,509**

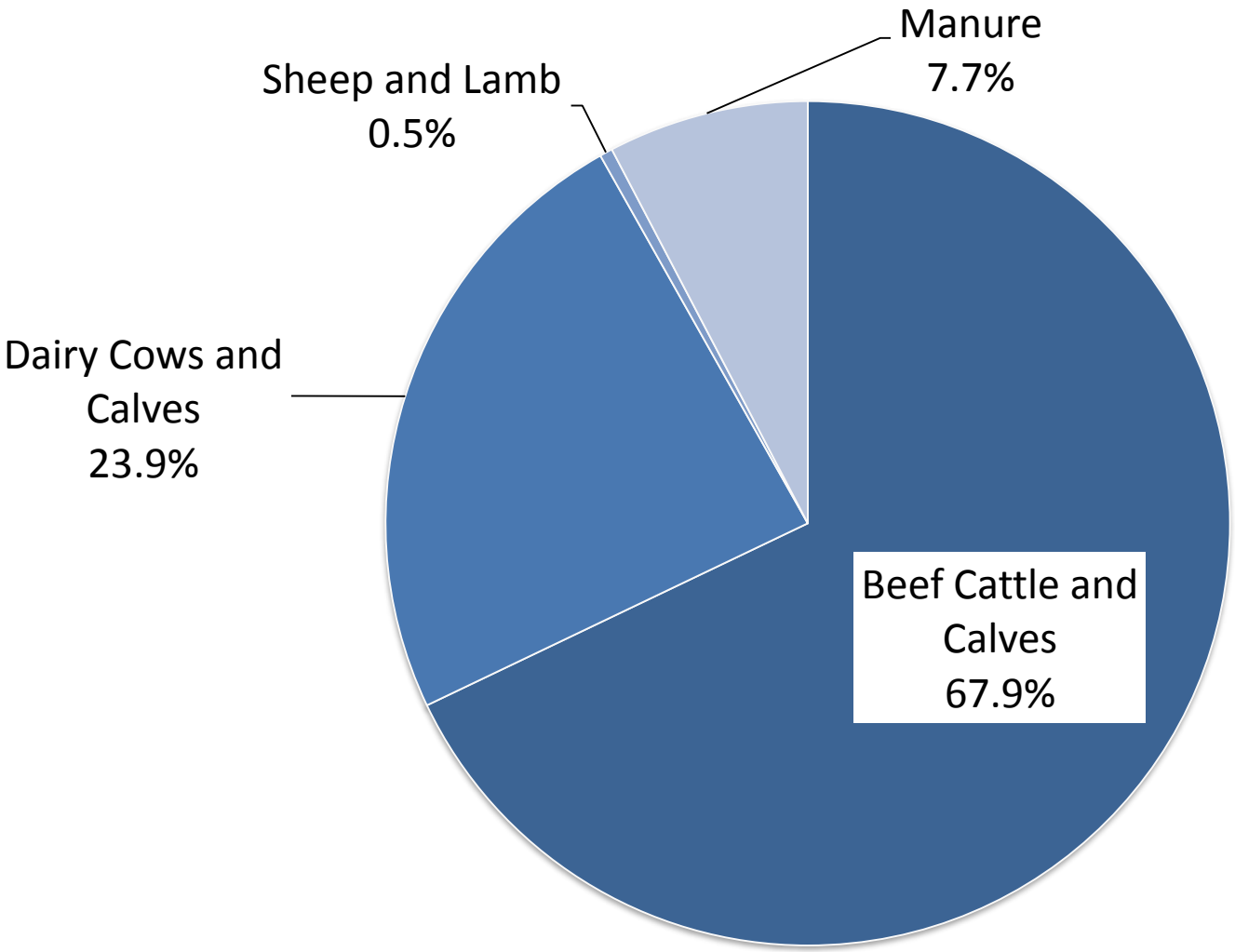
2015 Inventory: **County-Wide**

Transportation Emissions by Vehicle Type



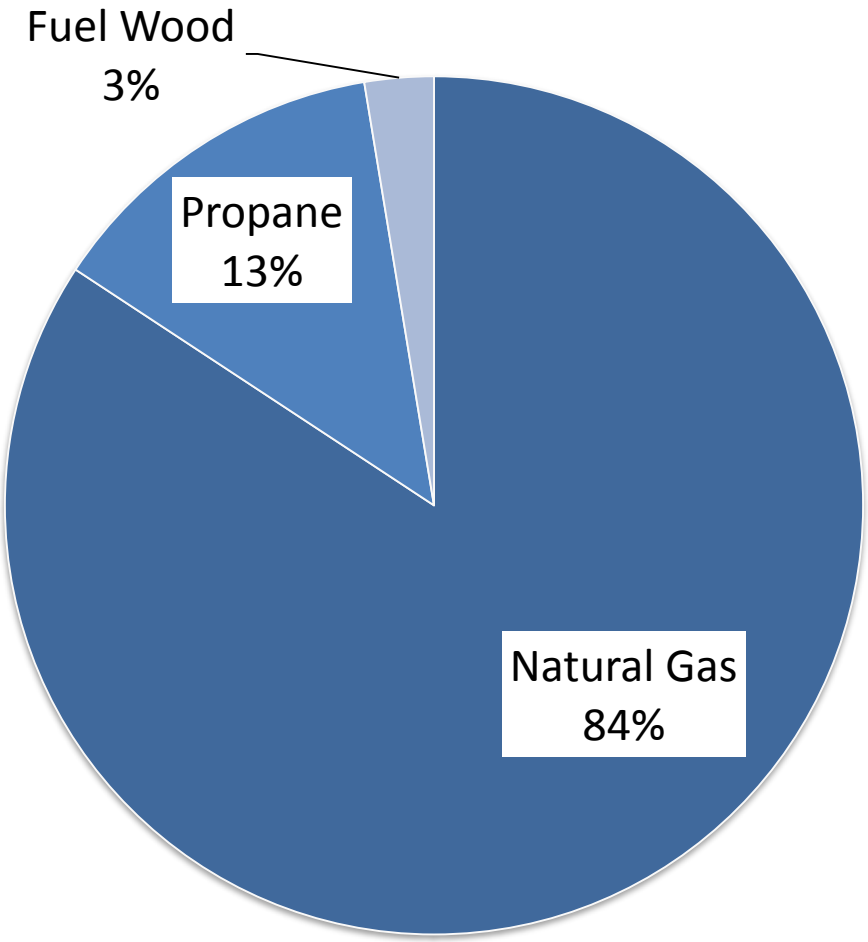
2015 Inventory: **County-Wide**

Livestock Emissions by Source



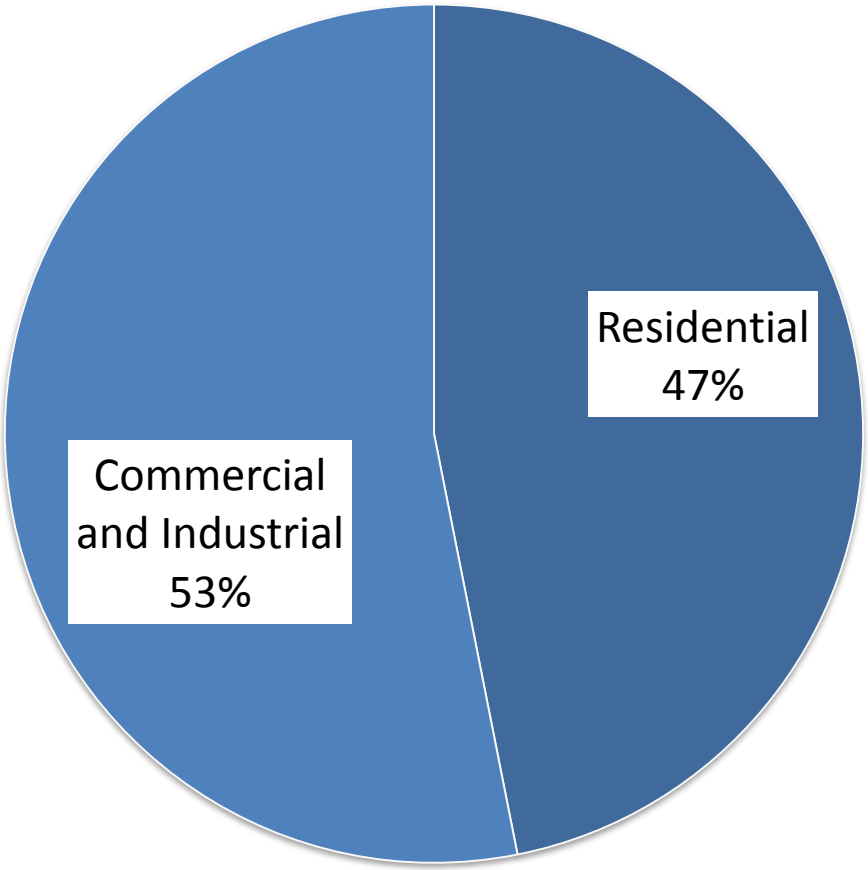
2015 Inventory: **County-Wide**

Stationary Combustion Emissions by Fuel Type



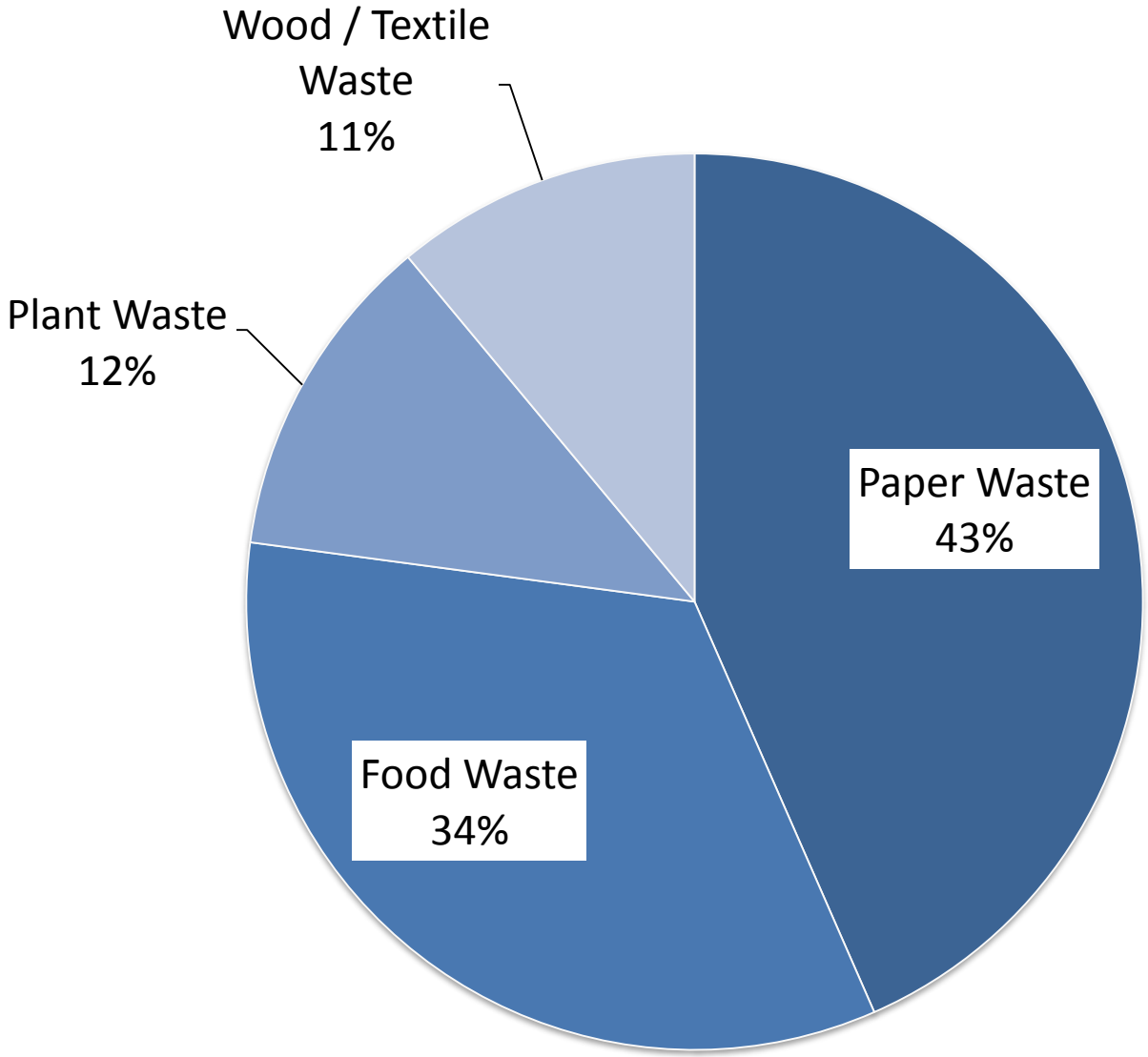
2015 Inventory: **County-Wide**

Electricity Emissions by Customer Type



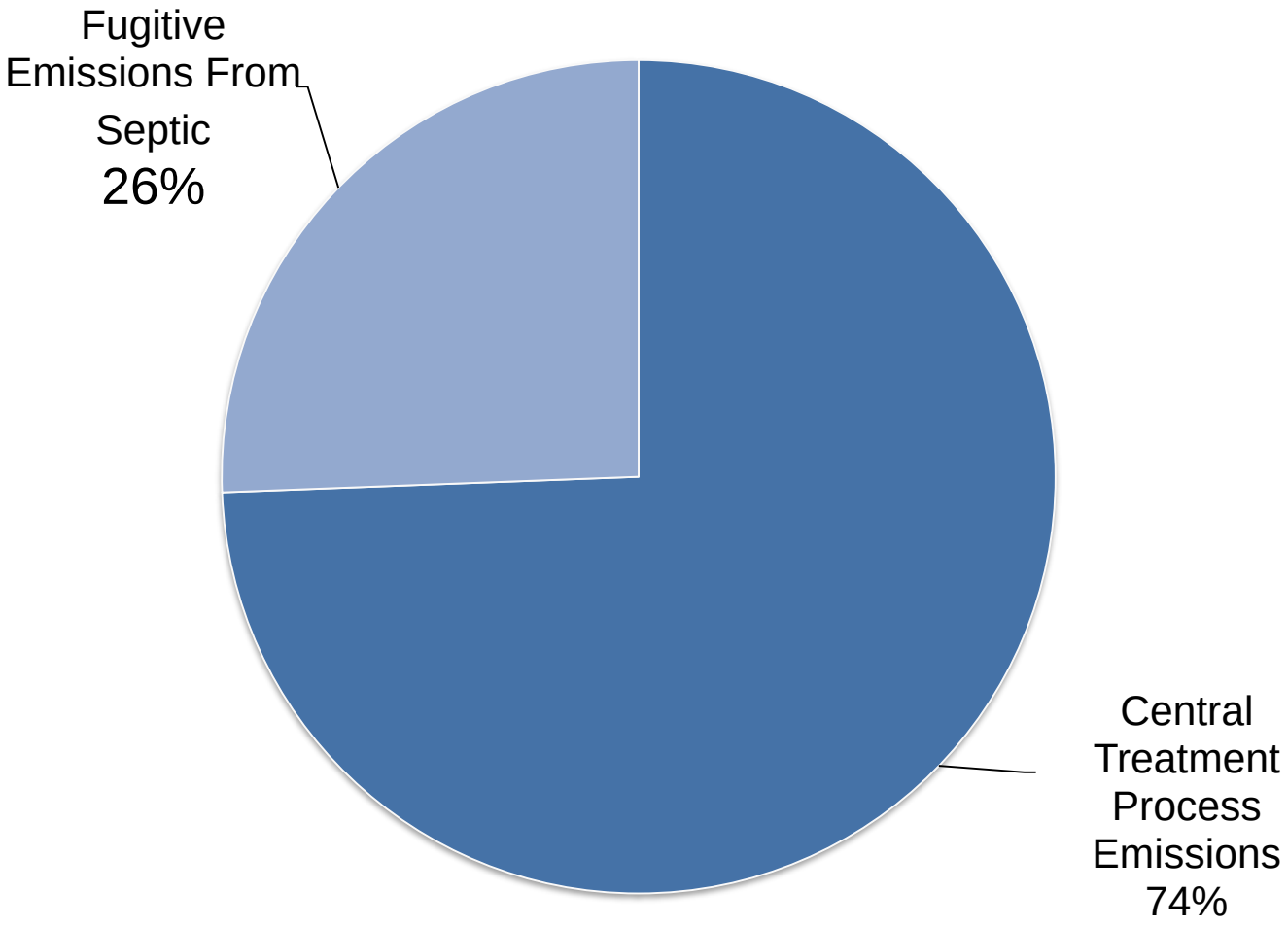
2015 Inventory: **County-Wide**

Waste Generated by Type

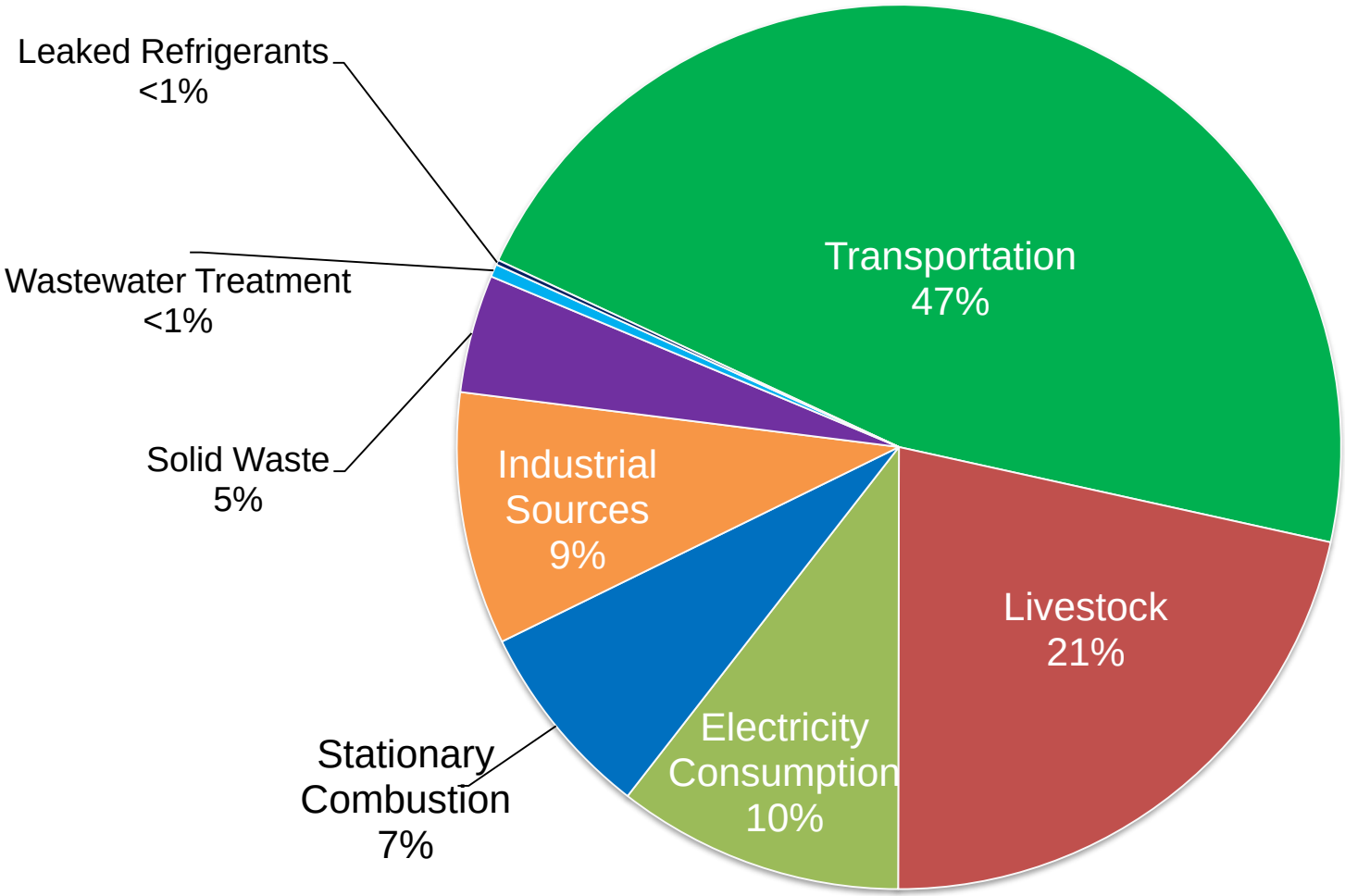


2015 Inventory: **County-Wide**

Wastewater Emissions by Source



2015 Inventory: **Unincorporated Areas**



2015 Inventory: **Unincorporated Areas**

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TOTAL	**822,509**

State GHG Targets

2020: 20% below 1990 levels of emissions (AB 32)

2030: 40% below 1990 levels (SB 32)

2050: 80% below 1990 levels (SB 32)

Humboldt County CAP GHG Targets

2030: 40% below 1990 levels

2040: 60% below 1990 levels

Humboldt County CAP GHG Targets

2030: 40% below 1990 levels

2040: 60% below 1990 levels

GHG Forecast Terms

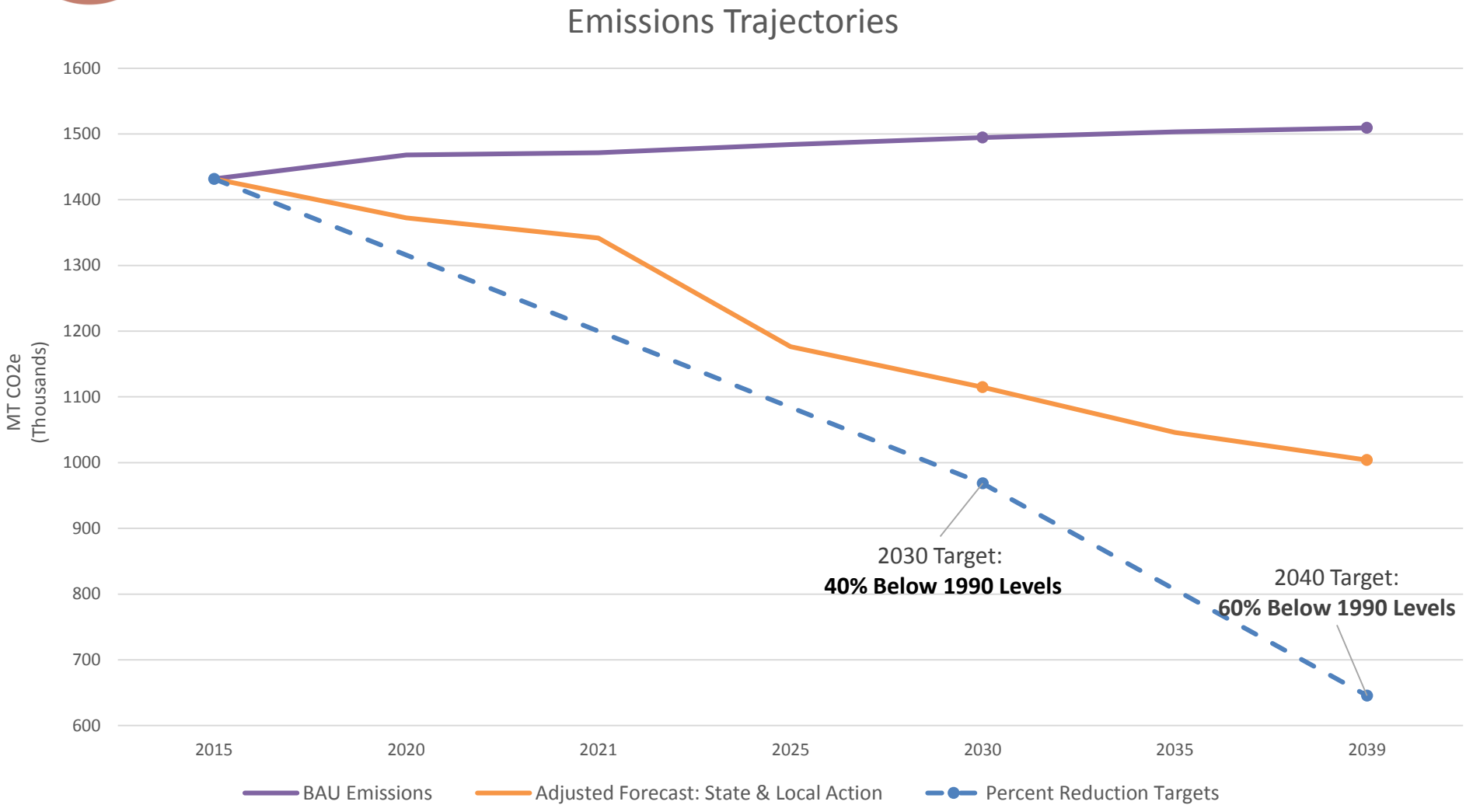
BAU (Business-As-Usual) Emissions: The baseline emissions forecast scenario. The BAU forecast assumes no new GHG reduction efforts or regulations. Growth projections for population, jobs and VMT are applied to 2015 emissions in the BAU forecast.

Adjusted Forecast: The BAU forecast with future state and local actions incorporated.

State Actions: Adopted statewide targets to reach 50% renewable electricity by 20215; improved vehicle efficiency standards

Local Actions: Adopted RCEA goal to source 100% of Humboldt County's electricity from renewable sources by 2025

GHG Forecast



Presentation prepared by Humboldt County Planning & Building Department

Inventories conducted by Redwood Coast Energy Authority

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