

Net Zero Emissions by 2040

Setting a Science-Based Emissions Reduction Target for Louisville



OFFICE OF
**ADVANCED PLANNING
AND SUSTAINABILITY**

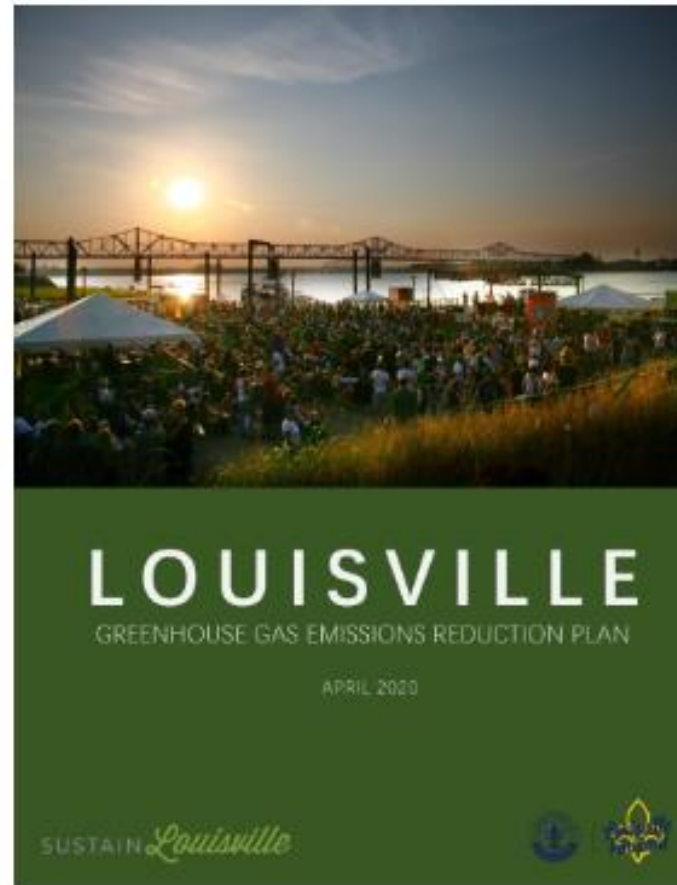
A Division of Develop Louisville

Sumedha Rao, LEED AP
Sustainability Coordinator

Louisville's Current Emissions Reduction Goals



Greenhouse Gas Emissions Inventory Report



Greenhouse Gas Emissions Reduction Plan

Current Target:

80% Reduction in GHG Emissions by 2050

2020 Greenhouse Gas Emissions Reduction Plan

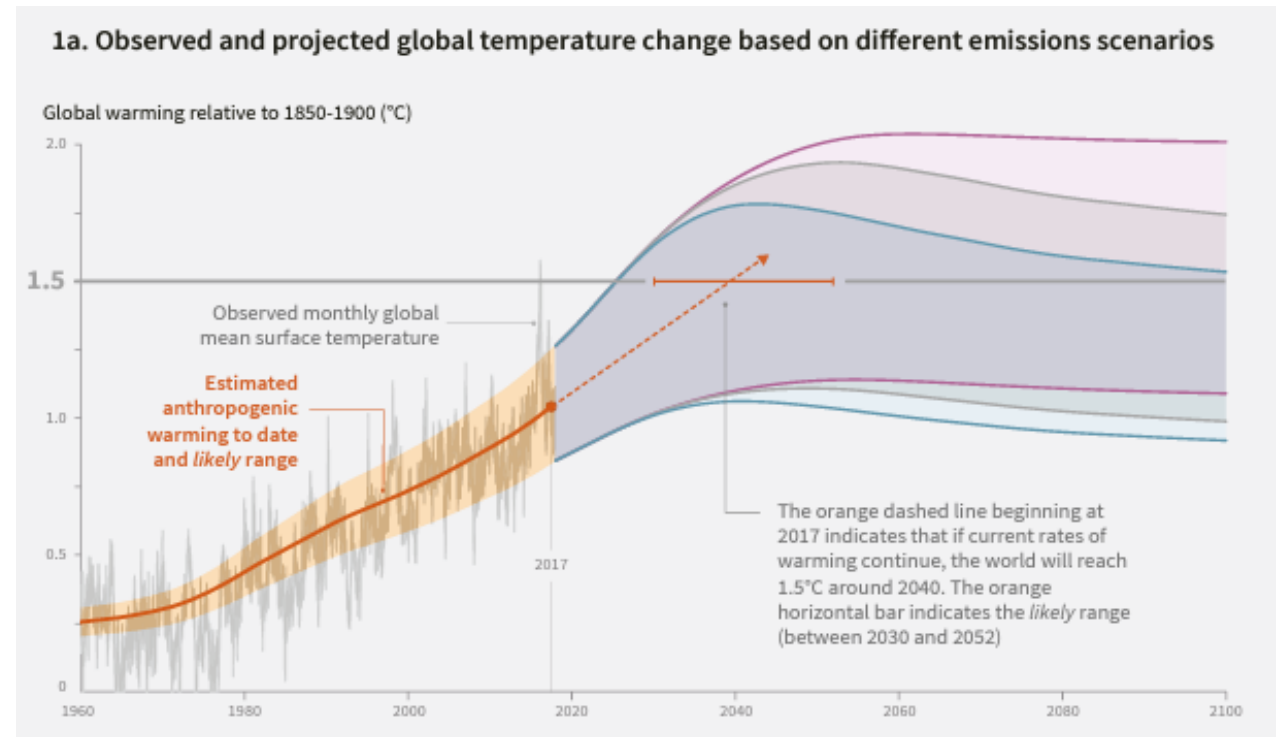
Setting a Science-Based Emissions Reduction Target (SBT)

LIMITING EMISSIONS TO 1.5 °C

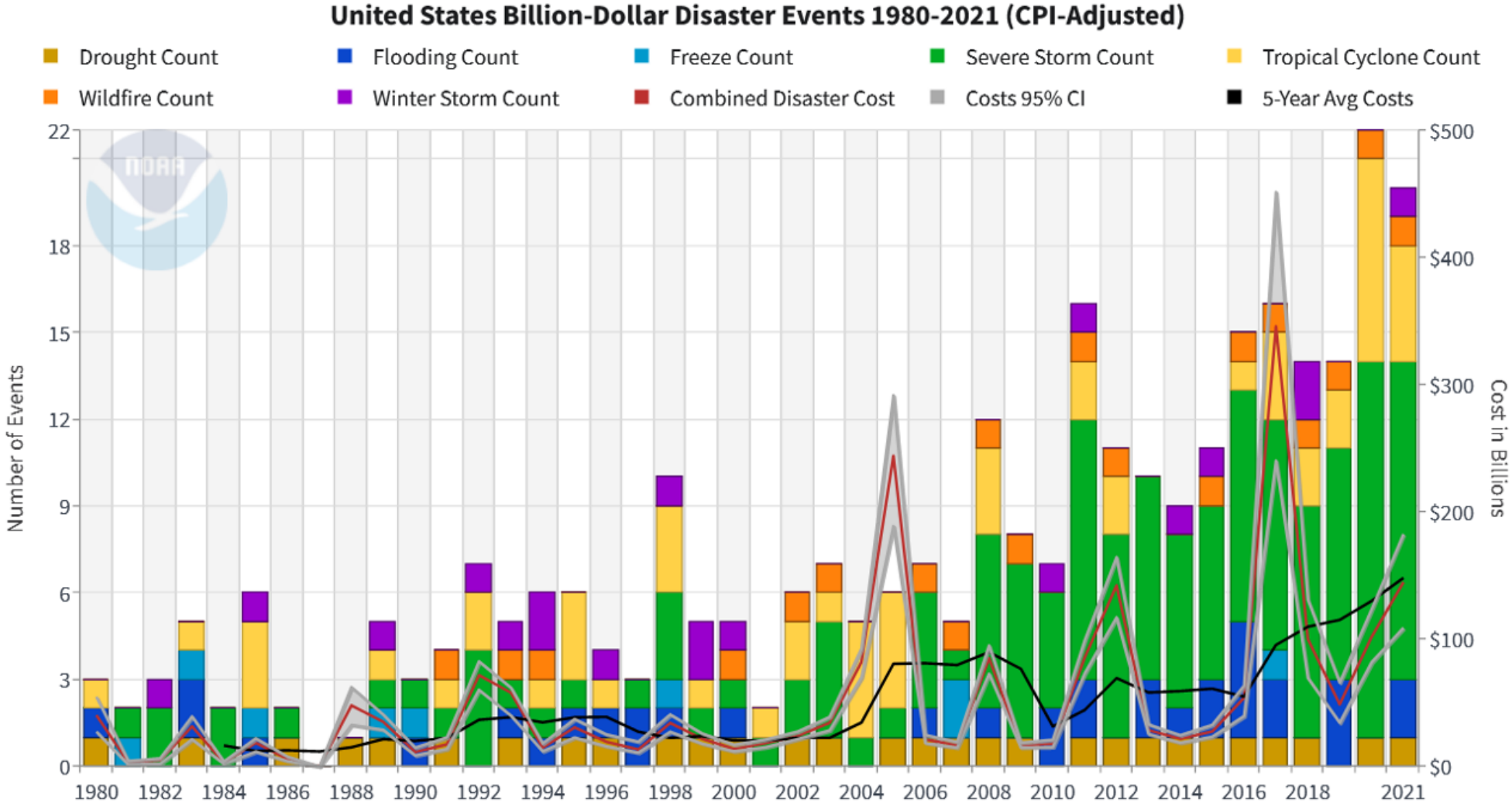
The IPCC's Special Report on Global Warming of 1.5 °C (IPCC SR1.5) showed that **exceeding 1.5 °C even temporarily will have catastrophic impacts.**

At the present rate of warming, global temperatures are **projected to reach 1.5°C around 2040.**

WWF

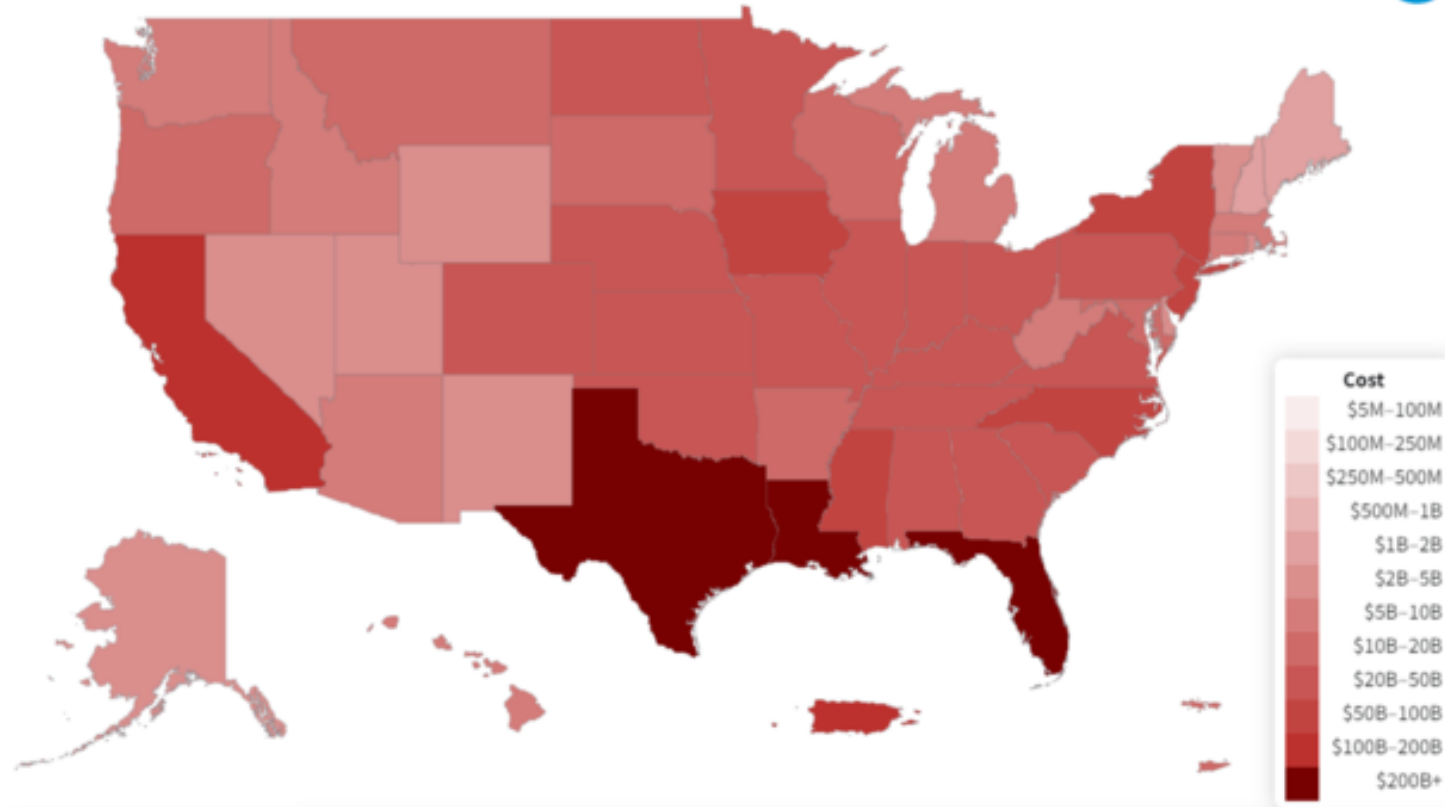


Billion Dollar Disasters are Becoming Increasingly Common



Central and Southeast U.S. See Higher Cumulative Impacts

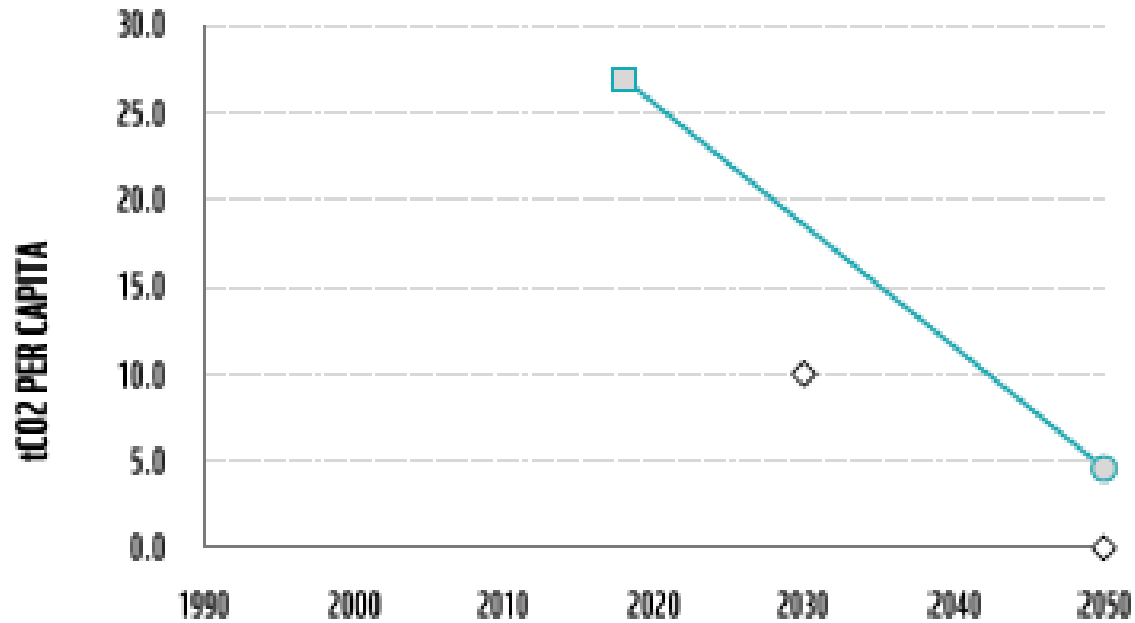
1980-2021* Billion-Dollar Weather and Climate Disaster Cost (CPI-Adjusted)



United States

Drought:	\$250B+	Flooding:	\$100B-200B	Freeze:	\$20B-50B	Severe Storm:	\$250B+
Tropical Cyclone:	\$1.1T+	Wildfire:	\$100B-200B	Winter Storm:	\$50B-100B	All Disasters:	\$2.1T+

Louisville's Current Emissions Reduction Goals



- 80% Reduction in GHG Emissions by 2050

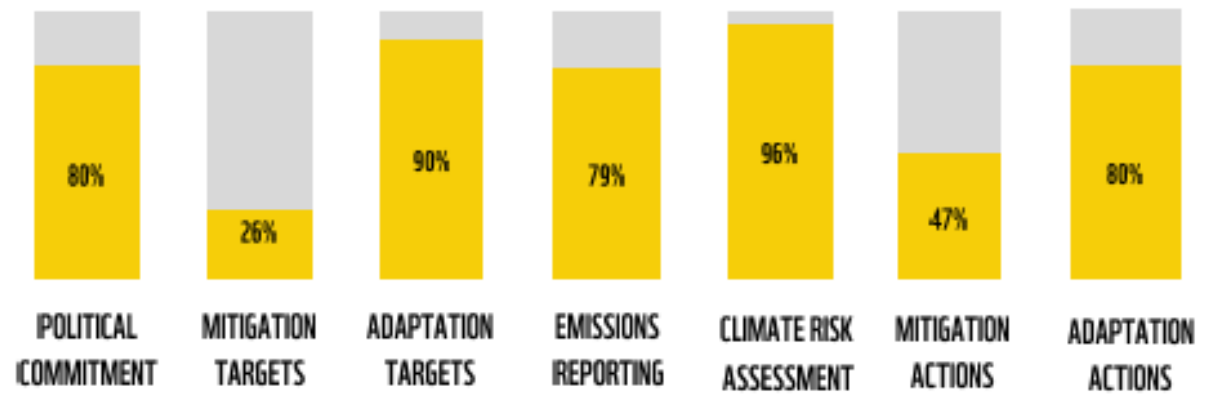
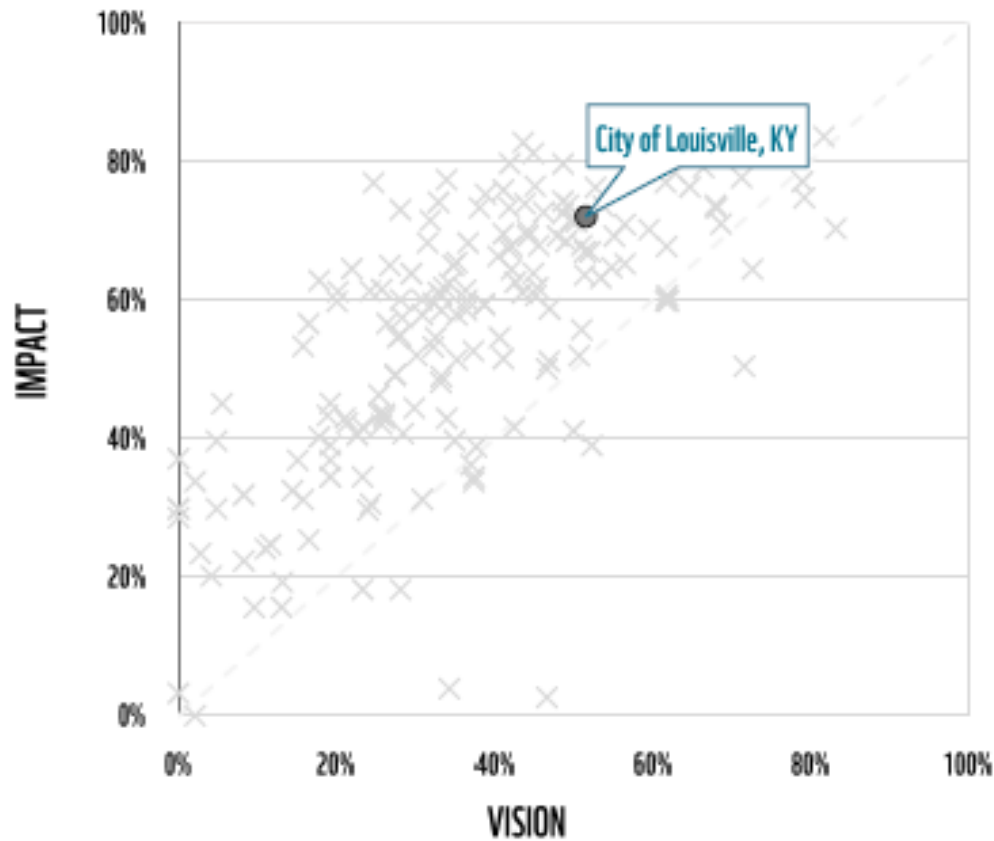
2020 Greenhouse Gas Emissions Reduction Plan

- 100% Clean Energy Community-wide by 2040.

2020 100% Clean Energy Resolution



Louisville's Current Emissions Reduction Goals



This graph shows your accumulated score expressed in percentages on seven weighted indexes, based on your reporting to the CDP database. You will find a full explanation of each index [here](#).

Louisville's Commitments



Pledge to reach (net)-zero in the 2040s or sooner, or by mid-century at the latest, in line with global efforts to limit warming to 1.5°Celsius.



50% GHG reduction by 2030 from 2016 baseline for Metro operations



Requires SBT – Louisville received feedback that our target is not aligned.

Aligning Louisville's Vision with SBTs

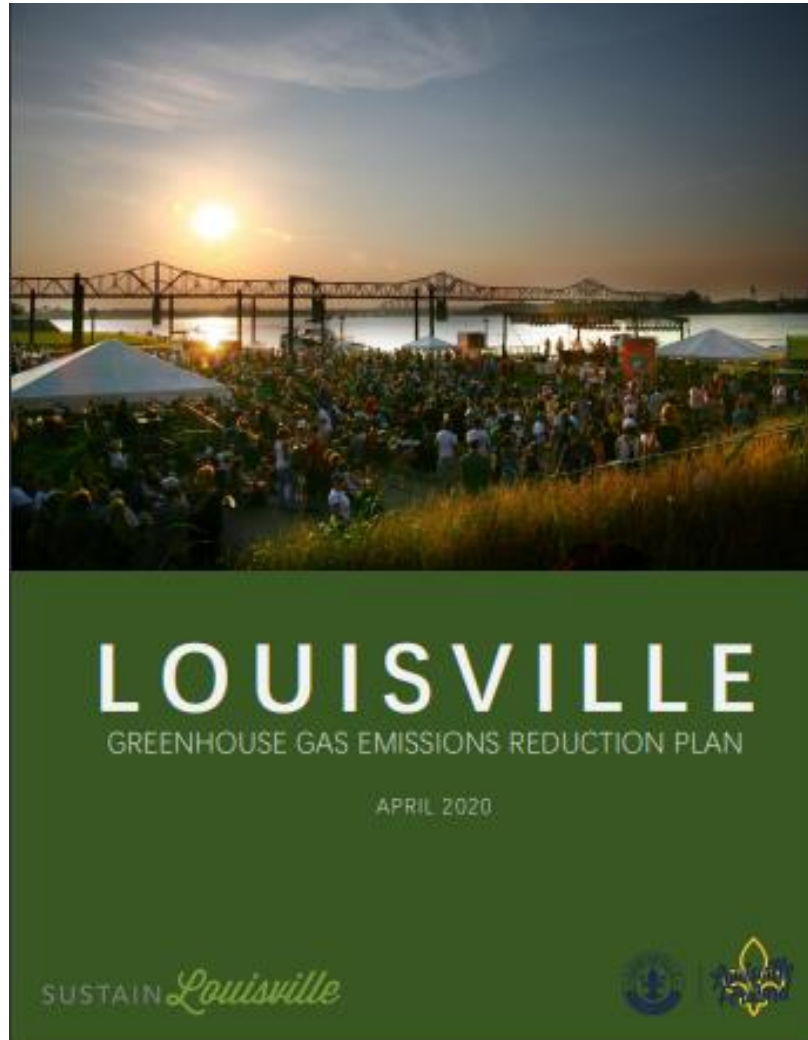
A Metro Council Resolution to codify our SBT of **community-wide net-zero emissions by 2040.**

- Align Louisville's climate goals with science-based targets in accordance with the IPCC's recommendation and the Paris Agreement.
- Fulfill our commitments under the C40 Cities Race to Zero and U.S. Department of Energy's Better Climate Challenge and maintain Louisville's position as CDP A List City and leader among peer cities working towards climate action.
- Provide Metro agencies, residents, and organizations with a tool to **advance environmental programs, improve infrastructure and health, and save costs.**

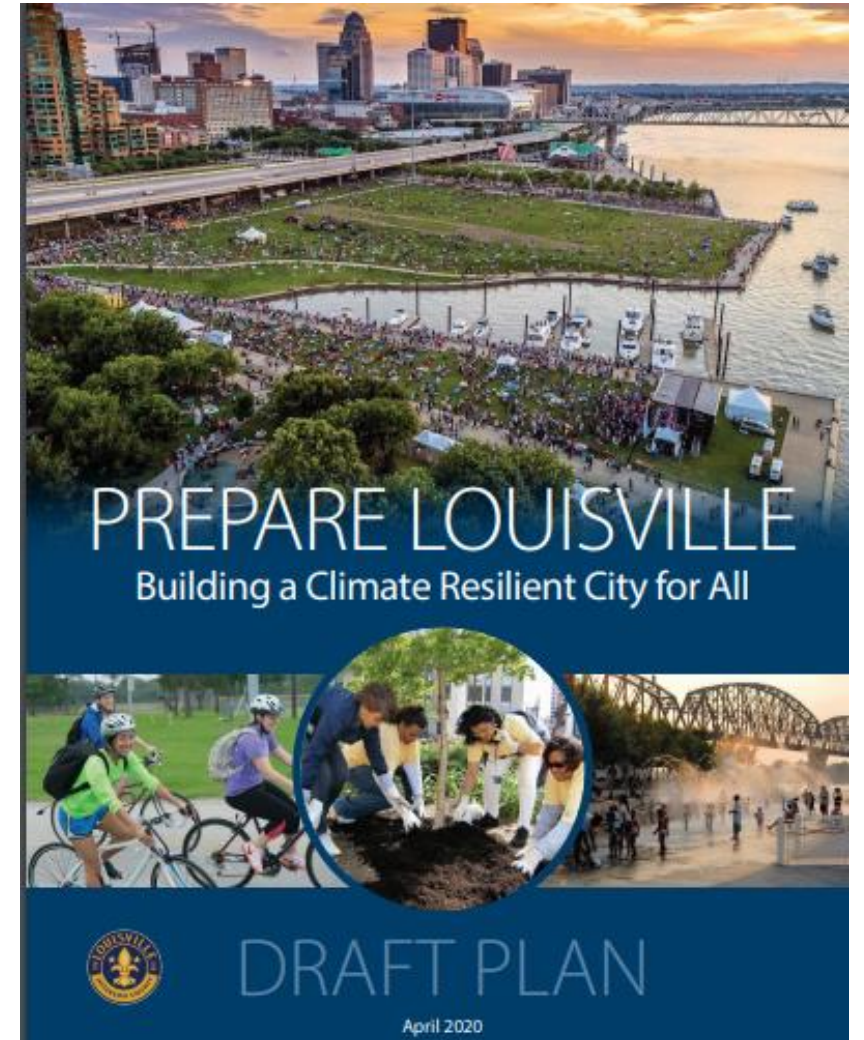


Progress is Already Underway!

- Sustain Louisville (2013)
- Greenhouse Gas (GHG) Inventory (2016)
- Plan 2040 (CHASE Principles) (2019)
- Resilient Louisville (2019)
- GHG Emissions Reduction Plan (2020)
- Climate Change Vulnerability Assessment (2020)
- Prepare Louisville (2020)
- **100% Clean Energy Resolution**

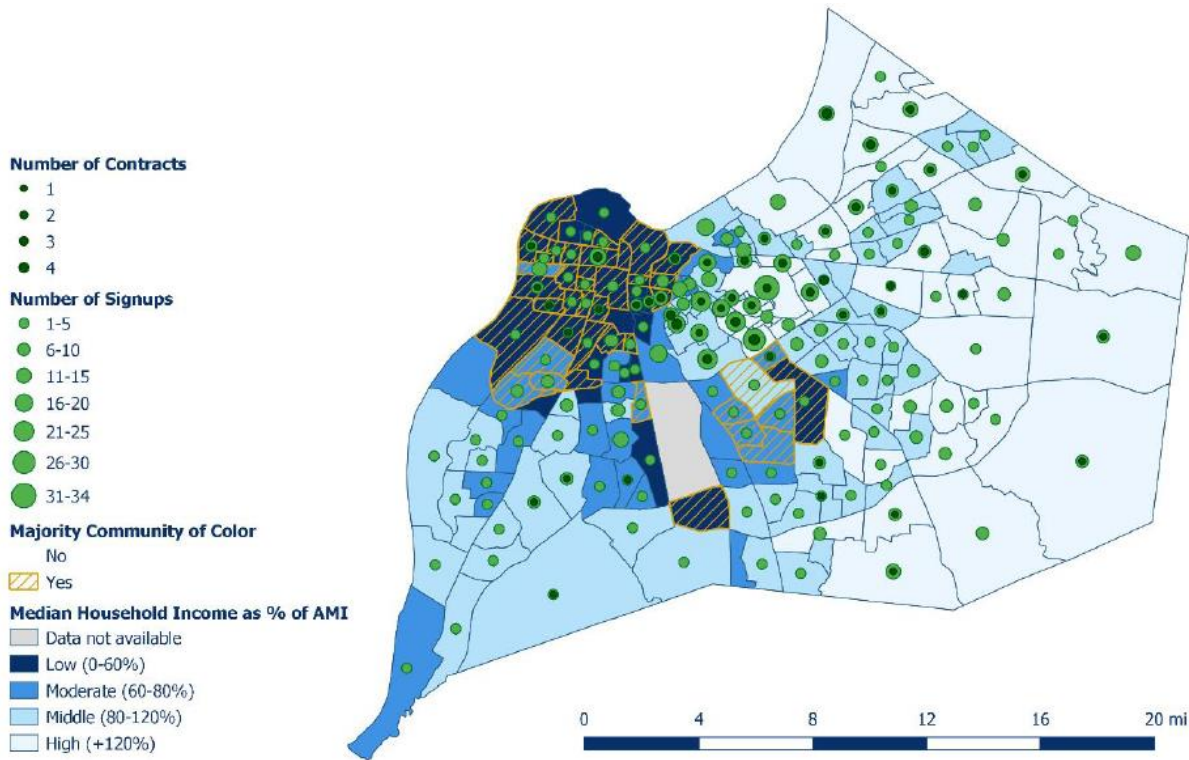


GHG Emissions Reduction Plan



Prepare Louisville

Progress is Already Underway!



- **Buildings:** \$1 million energy savings for Metro Government, Solar Over Louisville, Cool Roof Incentive Program, EPAD Program, Communities LEAP
- **Transport:** Vision Zero, Electric Vehicles
- **Waste:** Solid Waste reduction goal – 90% diversion by 2042
- **Natural Areas:** Urban Tree Canopy goal – 45% tree canopy by 2055
- **Products:** Partnership for a Green City – collective purchasing
- **Behavior:** Internal Green Team – behavior change for energy conservation, waste reduction, and efficient transportation

Progress is Already Underway!

Louisville mayor signs order to reach net-zero emissions by 2040



wfpl.org



1000+ Cities have signed the Cities Race to Zero

- Indianapolis
- South Bend
- Des Moines
- Durham
- Austin
- Houston
- Atlanta