CITY OF BLOOMINGTON
ECONOMIC AND SUSTAINABLE DEVELOPMENT

City of Bloomington 2022 Greenhouse Gas Inventory Frequently Asked Questions (FAQs)

1. **Are Bloomington's emissions going down? Are we on track to reach our community-wide emissions reductions targets?**
   To see the overall emissions trajectory, you can reference page 20 of the inventory report. While there are times we see increases in emissions, the overall trendline of Bloomington's emissions indicates that they are going down. This is a huge positive for the community, especially noting that the population of the City continues to increase.

   The City's near-term emissions reduction target is to decrease emissions 25% by 2030, with the 2018 inventory serving as the baseline. When we look at the numbers, the community-wide emissions in 2018 was 1,639,657 mt CO_2e, or 19.3 metric tons of CO_2e per capita. In 2022, the total community-wide emissions was 1,283,331 mt CO_2e. This represents roughly a 21% decrease in overall emissions. Assuming a population of 89,824 for 2022 (see question 2 for explanations of assumptions), this would also represent 14.2 metric tons of CO_2e per capita, a 26% per capita decrease since 2018.

2. **How reliable is the data used in the inventory? What assumptions had to be used?**
   With each inventory the City has completed the confidence level has increased, while the number of assumptions that have to be used decreases. However, there are still limitations and gaps that occur in the data collection processes that we do our best to account for. A complete list of the assumptions that were used, as well as an explanation for why they had to use assumptions and how they were accounted for can be found in the technical report, starting on page 25 of the inventory report.
   As a quick reference, we have listed below the main data points that used assumptions.

1. Stationary Energy
    a. City of Bloomington Utilities' share of electricity consumption is proportional to government for 2008 to 2016
    b. Government and unknown sectors transposed in data provided for 2019 to 2022
    c. The share of Monroe County gas consumed by Bloomington residents is proportional to the Bloomington share of the County population
    d. Calculated year-specific grid loss rate
    e. Leakage rate of 0.3% for all natural gas use
    f. Changes in fuel usage are proportional to changes in IU enrollment relative to 2017/2018 average (for 2008 to 2016) and relative to 2017 to 2021 average (for 2022)
2. Transportation
    a. Vehicle miles traveled (VMT) was proportional to fuel consumption between fixed and access routes for 2008 to 2018 (Public Transit)
    b. VMT was proportional to diesel use for 2008 to 2018 (Public Transit)
    c. Fuel/VMT variation was proportional to Bloomington Transit's for 2019 to 2022 (Public Transit)
    d. Bloomington VMT was proportional to Monroe County and commercial was proportional to total (2008-2015) (On-road Transportation)
    e. Public transit VMT is a subset of all commercial VMT (On-road Transportation)
    f. Changes in emissions are proportional to changes in population (2008 to 2022) (Off-road Transportation)
    g. 2020 to 2022 fuel use based on best fit to available data (Air Travel)
    h. 43.5% of air travel is Scope 1 and 52% is Scope 3 (based on 2018 GHG inventory) (Air Travel)
3. Solid Waste, Water, and Wastewater
    a. Bloomington is served by: Medora Sanitary Landfill, Sycamore Ridge Landfill, Ray's Resource Recovery and Transfer Station, 96th Street Transfer and Recycling, and Lawrence County SWMD Transfer Site (Solid Waste)
    b. The Bloomington share of waste is proportional to the share of the Monroe County population that resides in Bloomington (Solid Waste)
    c. Waste quantities per person are equal to 2011 to 2018 (for 2008 to 2010) and to 2011 to 2021 (for 2022) (Solid Waste)
    d. No composting occurred before 2016 (Composting)
    e. City composting in 2022 was the same as 2021 (Composting)

f. Utilities' share of electricity consumption is proportional to government for 2008 to 2016 (Utilities)
g. Changes in N2O emissions are proportional to changes in population (both relative to 2018) (Wastewater)

3. **How was this inventory conducted?**
   This inventory was completed in collaboration with Gnarly Tree Sustainability Institute (GTSI), using the Global Protocol for Community-Scale Greenhouse Gas Emission Inventories (GPC) standard. The City worked to gather all data for the inventory from Duke Energy (Electricity), CenterPoint (Natural Gas), Indiana University (Central Heating Plant & Fleet), Indiana Department of Transportation (Transportation), Indiana Department of Environmental Management (Waste), CoB Utilities (Water/Wastewater), and internal departments to gather community-wide and local government-wide data for 2019-2022. This data was then shared with GTSI, who conducted protocol-based calculations using reliable emissions factors to determine emissions associated with each data set.

   A detailed description of the methodology and calculations used during the inventory process can be found in the technical report, starting on page 25 of the report.

4. **What is the City doing to reduce its emissions?**
   The City of Bloomington completed its first standardized greenhouse gas inventory (bloomington.in.gov/sustainability/2018-greenhouse-gas-inventory) aligned with the Global Protocol for Community-Scale Greenhouse Gas Emission Inventories (GPC) standard in 2018, as a significant stride towards completing the recommended actions laid out in the City's 2018 Sustainability Action Plan (bloomington.in.gov/sustainability/action-plan). Since the 2018 inventory, the City has continued to strive towards upholding its commitment to sustainability with a number of initiatives, including passing the official Climate Action Plan (CAP) in 2021, and setting community-wide emissions reductions targets. As a member of the Global Covenant of Mayors, and as annual reporters to the Carbon Disclosure Project (CDP), the City continues to uphold its commitment to updating the community-wide inventory at a minimum every 4 years, ensuring accountability and transparency to climate action.

   With the 2018 inventory serving as our emissions baseline, the City committed in 2021 to reducing its emissions 25% by 2030, and reaching carbon neutrality by 2050. The City is happy to report that the overall trend of

community-wide emissions is on a downward trajectory, and continues to decrease despite increases in population.

The City has launched programs and supported a number of projects to achieve the goals laid out in the CAP. A few of the success metrics for these initiatives are highlighted below:

- **Bloomington Green Home Improvement Program:** BGHIP provides rebates and low-interest loans for residents investing in solar and energy efficiency upgrades for their homes. The City has provided over $20,000 in homeowner rebates since the programs launch in 2021.
- **Solar, Energy Efficiency, and Lighting Program:** SEEL provides grants for nonprofits and small businesses investing in energy efficiency or solar upgrades on their facilities. As of August 2023, this program has provided over $400,000 to more than 25 local organizations since its launch in 2021. By the end of 2024, it is anticipated the project will support over 50 energy efficiency projects and solar installations for 34participants.
- **Compost Up, Downtown Program:** This 2022 piloted program provided 3 months of free composting, as well as training on back of house composting and a comprehensive waste audit, for 16 local restaurants. The program helped divert 81,000 pounds of organic waste.
- **City-installed EV Charging Stations:** The City has installed over 20 publicly accessible EV charging stations
- **City-installed Solar:** In an effort to reduce electricity consumption from the grid, the City has installed 2.1 MW of solar on 32 City facilities
- **City Fleet and Equipment Electrification:** In an effort to reduce Scope 1 emissions from fuel combustion, the City has worked to electrify its fleet and equipment with over 60 pieces of gas-powered equipment replaced with electric-powered alternatives and the procurement of 11 hybrid/EV fleet vehicles. The City has also worked to complete its 2023 Fleet Electrification Assessment to determine the most effective roadmap to electrifying the rest of the City's fleet.

5. **What are Bloomington's largest sources of emissions?**
   Across sectors, stationary energy is responsible for the largest source of emissions, representing 76% of community-wide emissions. Within stationary energy, residential energy makes up roughly 27%. When looking

across sub-sectors community-wide, residential energy is the largest contributor to Bloomington's greenhouse gasses. This highlights the importance of residential engagement with climate action. Section 5 in the report (as noted in question 7 below) highlights ways in which Bloomington residents can consider reducing their impact.

6. **What can I do to help as a Bloomington resident?**
   As noted in the report, residential energy is the largest source of emissions in the community. This means there is a lot of opportunity for residents to engage in emissions reductions strategies. The City has highlighted resources for residents in Section 5 of the report on page 24. There are 3 main steps highlighted that residents can take to better understand how to get involved, all of which are included in greater detail in the report –
   1. Take Advantage of Local, State, and Federal Resources
   2. Understand Your Carbon Footprint
   3. Engage with City Programs and Engagement Opportunities