

RESOLUTION 19-11

**THE BLOOMINGTON YOUTH FOR ENVIRONMENTAL SUSTAINABILITY (Y.E.S.)
SOCIETY'S RESOLUTION FOR ENVIRONMENTAL RESPONSIBILITY AND
IMPROVEMENT**

- WHEREAS, in the last decade, Indiana residents have experienced record-breaking heat waves, cold spells, and floods, which have shut down roads, damaged homes and businesses, prolonged construction projects, and made farming increasingly difficult; and
- WHEREAS, the number of extremely hot days per year in southern Indiana is projected to rise to between thirty-eight and fifty-one by mid-century; these changes in Indiana's climate are projected to increase the amount of energy that Hoosier businesses need to cool commercial buildings by 20%; and
- WHEREAS, the National Oceanic and Atmospheric Administration (NOAA) found that the average temperature in Indiana has risen by 1.2 degrees Fahrenheit since 1895, and is expected to increase by 5 or more degrees by 2050; and
- WHEREAS, carbon emissions raise global temperatures by trapping solar energy in the atmosphere; and
- WHEREAS, combustion of fossil fuels can lead to increased amounts of air pollutants, such as nitrous oxides, sulfur oxides, volatile organic compounds, and particulate matter. This reduced air quality leads to increased risk of asthma attacks, high blood pressure, and heart disease, and it can exacerbate symptoms of mental illnesses such as anxiety and depression. Nitrogen oxides and volatile organic compounds lead to ground-level ozone production and smog; and
- WHEREAS, record setting highs for annual global mean temperatures have been recorded 12 times since 1979, with 2014, 2015, and 2016 each breaking the record; and
- WHEREAS, Indiana's frost free season, in which the temperature continuously stays above 32°F, has been extended by an average of nine days beyond what it was in 1895. By 2050, it is projected that the frost-free season will extend up to weeks beyond the 1915-2013 average. This will cause an increase in insect-borne diseases (such as those carried by mosquitoes, ticks, and parasites); and
- WHEREAS, Purdue University's Indiana Climate Change Assessment found that temperature increases decrease soil moisture retention, and extreme rain events cause soil erosion and nutrient runoff. These effects of climate change are a threat to important Indiana crops such as corn, wheat, and soybeans, as shown by the EPA findings that high temperature events have caused over \$1 billion in heat-related losses to the agriculture industry, especially farmers; and
- WHEREAS, increasing temperatures will increase the rate at which blue-green algae can grow. This type of algae is very common in Indiana lakes and streams and is known to have deleterious effects on human health, such as vomiting, nausea, fever, and skin irritation upon skin contact or inhalation, and in rare cases, life-threatening effects; and
- WHEREAS, increasing temperatures cause changes in habitats that encourage invasive species, and higher concentrations of carbon dioxide promote the growth of plants like poison ivy and ragweed; and

WHEREAS, the average Bloomington resident is burning over 20 metric tons of CO₂ per year; and

WHEREAS, grid-supplied electricity is the greatest source of CO₂ emissions in Bloomington, Indiana; and

WHEREAS, the Purdue Indiana Climate Change Impacts Assessment report estimated that the average annual precipitation in Indiana has increased 5.6 inches since 1895, with winters and springs experiencing heavier rain and snowfall, increasing the likelihood of flooding, and polluting water as sewer systems overflow, which can be shown through the fact that, due to annual precipitation increase, there have been around 60 sewer discharges per year in Indianapolis alone, sending 8 billion gallons of untreated sewage into the White River, worsening both water quality and crop productivity; and

WHEREAS, non-commercial vehicles in Bloomington emitted 96,061 metric tons of CO₂ and commercial vehicles in Bloomington emitted 20,730 metric tons of CO₂ in 2015 alone; and

WHEREAS, the members of the Bloomington Commission on Sustainability, the members of the Bloomington City Council, and Bloomington Mayor John Hamilton have consistently shown themselves to be advocates for and allies of the environment and public health.

NOW, THEREFORE, BE IT HEREBY RESOLVED BY THE COMMON COUNCIL OF THE CITY OF BLOOMINGTON, MONROE COUNTY, INDIANA, THAT:

SECTION 1. The City of Bloomington will encourage all new, commercial buildings and all new, city-owned buildings to be constructed with at least half of the roof being a green roof, a solar roof, a white roof, or a sand roof. A green roof would require the rooftop space to be covered in vegetation in an attempt to sequester carbon from the atmosphere and back into the plants and soil. A solar roof would require solar panels covering the rooftop space in order to generate electricity for the building and/or the city as a whole. A white roof or sand roof would require buildings to have their roofs painted completely white or covered in sand, which would increase the building's albedo and help in lowering the temperature in and around Bloomington. With increasing innovation, it is understood that if there is another technology that would increase the surface albedo of a building roof, it should also be accepted.

SECTION 2. The community of Bloomington will aim to reduce net emissions by 28% by 2025 (calculated from extrapolated data to represent emissions during 2005), as called for by the Paris Climate Accord, and 80% by 2050.

SECTION 3. The community of Bloomington will aim to cut by 15% the use of natural gas for space heating by the year 2025, either through space heating via renewable energy sources or by making efficiency improvements. In addition to this, the City of Bloomington will also increase the percentage of its energy that is renewable for the next ten calendar years by an average margin equal to or greater than 0.5% per year.

SECTION 4. As city park, facility, and trail drinking fountains are retired, the City of Bloomington will replace them with stations that include water bottle fillers. The City of Bloomington will consider non-freeze, refillable water bottle stations in future projects. In addition, the City of Bloomington will work with and encourage entities, such as the Monroe County Public Library and the Bloomington Public Transportation Corporation, to provide public water bottle refilling stations

to the public. This would decrease in CO₂ emissions by abstaining from the consumption of excess single-use plastics and unnecessary transport of water.

SECTION 5. By 2030 (contingent on funding), the City of Bloomington will provide increased walking and biking accessibility within the city limits, particularly to all public schools, in order to reduce the number of automobiles used daily by high school students and parents. The city could begin this process by adding trails off of the B-line that allow for safe and efficient travel and by installing more multi-use pathways, protected bike lanes, or other high-comfort bicycle infrastructure. The city will strive to achieve platinum bike certification standards awarded by the League of American Bicyclists.

SECTION 6. The City of Bloomington will seek to plant trees of equal diameter breast height for every tree that is removed from city-owned property, in order to remove carbon from the air and create a better, safer community. During this replacement process, the City of Bloomington will put an emphasis on biodiversity and using native Indiana plants and trees, giving preference to native species with a higher rate of carbon sequestration. In addition to this, the City of Bloomington will also work with local scientists, researchers, and community members to find new and innovative methods of carbon sequestration and reduction of heat island effect.

PASSED by the Common Council of the City of Bloomington, Monroe County, Indiana, upon this 12 day of June, 2019.



DAVE ROLLO, President
Bloomington Common Council

ATTEST:



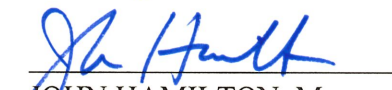
NICOLE BOLDEN, Clerk
City of Bloomington

PRESENTED by me to the Mayor of the City of Bloomington, Monroe County, Indiana, upon this 14th day of June, 2019.



NICOLE BOLDEN, Clerk
City of Bloomington

SIGNED and APPROVED by me upon this 17th day of June, 2019.


JOHN HAMILTON, Mayor
City of Bloomington

SYNOPSIS

This resolution is sponsored by Councilmember Rollo. The resolution is the product of Youth for Environmental Sustainability (Y.E.S.) and outlines ways to mitigate the effects of climate change by setting emission and natural gas use reduction goals, methods for reducing CO₂ emissions, and encouraging renewable sources of energy.