

CARBON NEUTRAL 2050

SOUTH BEND'S

CLIMATE ACTION PLAN

OCTOBER 2019

Prepared by:



CONTENTS

- FROM THE MAYOR’S DESK3
- ACKNOWLEDGEMENTS.....4
- EXECUTIVE SUMMARY5
- GUIDING PRINCIPLES7
- CLIMATE MITIGATION & RESILIENCE PLANNING8
 - CLIMATE IMPACTS IN SOUTH BEND.....8
 - BENEFITS OF CLIMATE MITIGATION.....10
 - WHY NOW?11
 - WHY WE’LL SUCCEED.....12
- EMISSIONS INVENTORY & REPORT12
 - OVERALL12
 - ENERGY.....13
 - TRANSPORTATION.....13
 - MUNICIPAL OPERATIONS14
- EMISSION REDUCTION GOALS & ACTION AREAS14
 - TRANSPORTATION.....16
 - ENERGY.....25
 - OTHER AREAS OF POTENTIAL ACTION32
- FUTURE PERFORMANCE EVALUATION32
- APPENDIX34
 - PLANNING PROCESS34
 - INVENTORY AND METHODOLOGY.....34
 - STAKEHOLDER ENGAGEMENT.....34
 - COUNCIL CLIMATE RESOLUTION (APRIL 2019)345

FROM THE MAYOR'S DESK

Climate change has evolved over decades from a theory to a reality to a true emergency. South Bend has seen this evolution up close. In recent years, climate change has affected our public infrastructure, our economy, and our neighborhood quality of life. As temperatures fluctuate and precipitation worsens, we will have to face increasing expenses, new health dangers, and ever more challenges for the most vulnerable of our neighbors.



The timeline for action, and the impacts South Bend will face if we do not act, are dictated by science, but the solutions are defined by the character of our community. As big as this crisis is, South Bend’s ideas and aspirations are big enough to meet it. We aspire to make South Bend a net-zero emissions city by 2050, and will work aggressively toward immediate and mid-term targets. We will need to take meaningful action on where our electricity comes from, how our buildings use energy, and how we move around our city.

As we rise up to meet this challenge, there is some good news. Taking action on climate both helps reduce our risk and provides significant benefits across our community. From reducing a small business’s utility bills to updating drafty homes and creating jobs in clean energy sectors, climate action will improve economic outcomes. Equity and justice will grow as emissions shrink with strategies that expand transportation options, improve local air quality, and bring renewable energy to neighborhoods that need investment.

South Bend’s Carbon Neutral 2050 Plan sets a series of ambitious goals to reduce carbon emissions from local sources and lays out a high-level plan to address them. This climate action plan focuses on strategies that will provide the most substantial emissions cuts, will be feasible to implement in the near term, and will maximize benefits to residents and businesses. The plan will be a living document, updated at regular intervals to reflect the fast pace of change and keep us focused on our priorities.

We will need everyone – every worker and resident and student, every business and institution and school – to support these ambitious goals and bring these strategies to bear. Together, we must continue to work tirelessly to create a South Bend where our children and grandchildren can thrive. Let our actions today be the basis for the stories we tell, about this moment when our community worked together, took bold action, and met the greatest challenge of our time.

Pete Buttigieg, Mayor
South Bend, Indiana

ACKNOWLEDGEMENTS

The South Bend, Indiana *Carbon Neutral 2050* plan was prepared by Delta Institute for the City of South Bend, in partnership with South Bend Sustainability Office.

The project team would like to recognize the support and contributions made by various officials, city departments, local organizations, and individuals in developing the Climate Action Plan. Summaries of input from the Plan’s community and stakeholder input sessions can be found in the Appendix.

City Staff and Elected Officials

Green Ribbon Commissioners

Community Leaders

Mayor Pete Buttigieg

Krista Bailey, Co-Chair

Jessica Brookshire

Therese Dorau, Sustainability Director

Allison Mihalich, Co-Chair

Gary Gilot

Jo Broden, Chair - Health and Public Safety Committee, Common Council

Mike Keen, Selection Committee

Lori Hamman

Jake Teshka, Chair - Utilities Committee, Common Council

Roger DePoy

Paul Kempf

South Bend Common Council

Michael Dunham

Kate Lee

Office of the Clerk

Kieran Fahey

Marty Mechtenberg

Dan Buckenmeyer

Steve Francis

Rose Meissner

Chuck Bulot

Amy Hill

Murray Miller

Tim Corcoran

Julia McKenna

Neil Miller

Chris Dressel

Tim Powers

Rachel Tomas Morgan

Eric Horvath

Leah Thill

Paul Phair

Jitin Kain

Phil Sakimoto

Matthew Moyers

Kathy Schuth

Denise Linn Riedl

Rachel Smith

John Voorde

James Turnwald

Greg Vollmer

Willow Wetherall

Danielle Wood

EXECUTIVE SUMMARY

Climate change is a global issue that will have local impacts across the United States, including in Indiana. Mitigation, which includes actions that reduce the release of greenhouse gas (GHGs) emissions, is essential to limiting impacts of climate change.

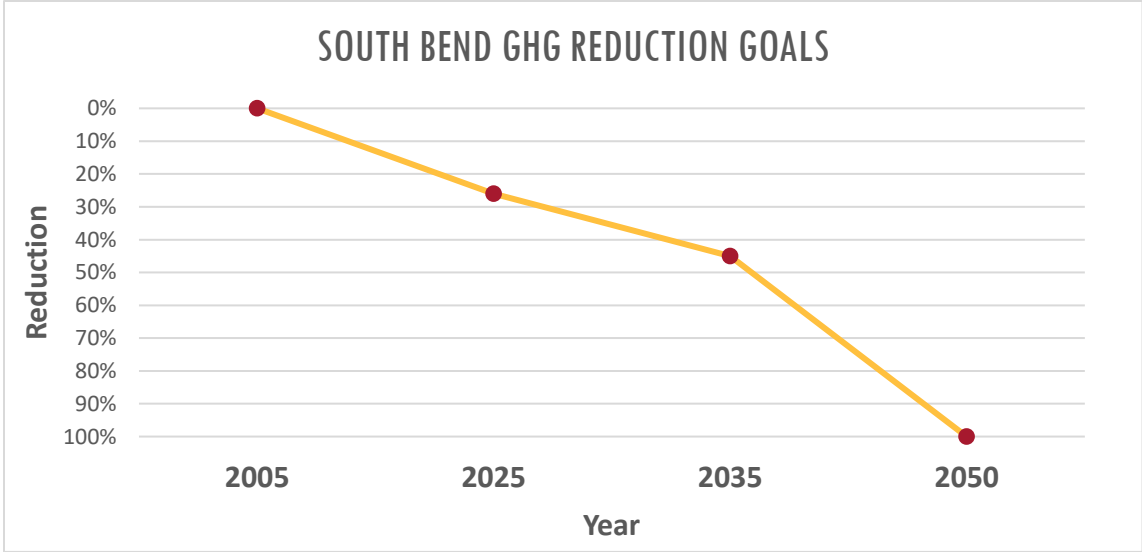
Carbon Neutral 2050, a climate action plan, is intended to 1) contextualize the need for greenhouse gas emission mitigation in South Bend, 2) provide an overview of the City’s current emissions inventory, and 3) identify high-priority strategies and actions for short, medium, and long-term reductions across each sector of the community.

Recommended actions in this Climate Action Plan are targeted to help the City of South Bend achieve high-impact GHG emission reductions over three time horizons, each relative to the 2005 baseline.* These should be adopted and communicated as the City’s official GHG reduction goals.

NOW: Reduce GHG emissions **26% by 2025**

NEXT: Reduce GHG emissions **45% by 2035**

FUTURE: Reduce GHG emissions **100% by 2050**



The chart above illustrates the trajectory towards a target of 100% greenhouse gas reduction by 2050. Based on the range of local stakeholder input and a review of South Bend’s need and capacity to achieve this reduction goal, the course of emissions reduction targeted in this plan is as follows:

- **NOW - Short Term:** This goal aligns with national reduction targets set by the United States by the Paris Agreement. Cities across the country have adopted the United States’ agreed-upon contribution to the Paris Agreement as their near-term reduction target. To achieve this 26% reduction in the first five years of concerted action, this plan leverages the most readily available

* The City is in process of backcasting an estimated 2005 greenhouse gas footprint to serve as a baseline.

policies and actions and takes advantage of the resources and capacity that South Bend already possesses, to implement immediate reduction opportunities.

- **NEXT - Medium Term:** Between 2025 and 2035, the pace of reduction may slow, as medium- and longer-term actions will begin to be implemented. This implementation requires systemic changes to achieve an overall reduction of 45% and set the course for a sharper reduction after 2035. Meeting this goal will require significant time, resources, program development, and policy change before yielding returns.
- **FUTURE - Long Term:** A dramatic period of reduction will occur between 2035 and 2050. To achieve the ambitious goal of carbon neutrality, we will continue to drive systems change but also must rely on adoption of new technologies and innovative programs that are not available today.

This projection requires certain assumptions and cannot reflect changes that develop over time, or the interaction between those changes, which are difficult to forecast. For example, greater investment would result in a greater reduction, but South Bend is also part of larger region where actions beyond the City's control may impact GHG emissions reductions. Additionally, changes in climate conditions, the economy, technology, and stakeholder priorities will naturally impact the City's progress toward GHG emissions reduction. Thus, the range of possible reduction grows wider as the projections are further in the future.

The South Bend community embraces a forward-looking attitude toward technology, innovation and inclusion. Specifically, many South Bend residents believe that as more information is available and as there are more advances in technology, that they will have more opportunity to reduce GHG emissions. Among local stakeholders there are also differences of opinion on how aggressively to pursue GHG emission reduction goals, amidst South Bend's numerous priorities.

In South Bend, as in most municipalities, **transportation and energy use** represent the largest sources of GHG emissions. While the significance of transportation and energy emissions is common across municipalities, actually achieving reductions requires context-sensitive solutions specific to South Bend.

With **transportation** representing nearly a third of South Bend's greenhouse gas emissions, there exists a significant opportunity to reduce greenhouse gas in the transportation section through the following strategies:

- Reducing vehicle miles traveled (VMT) and reducing single occupancy vehicle (SOV) trips; and
- Transitioning to cleaner, more efficient fuels.

Energy use in buildings represents nearly two-thirds of South Bend's greenhouse gas emissions, so this source represents the largest opportunity for greenhouse as reduction in the city. Avenues for achieving these reductions include:

- Increasing energy efficiency across residential, industrial, and commercial sectors; and
- Transitioning to renewable energy sources.

This plan is formulated to ensure that the recommended actions that support these strategies for GHG emissions reduction include projections of timeframe, impact, cost, co-benefits, as well as likely stakeholders, and the role of South Bend's municipal government.

GUIDING PRINCIPLES

Our Climate Action Plan has been developed with the following guiding principles:

Equity-Centered

The impacts of climate change are often disproportionately burdensome on low income and minority populations. Additionally, strategies for mitigating the impacts of climate change can sometimes be unaffordable, regressive, or not beneficial to these more vulnerable communities. This Plan has focused on producing equity-centered mitigation outcomes.

Quantifiable

A plan that can be measured is a plan that can be managed. For South Bend to meaningfully benchmark its progress towards mitigation between now and 2050, clear targets and metrics have been developed as a key component of the Plan.

Context-Sensitive

Each community and region present their own unique blend of assets, challenges, opportunities, and weaknesses, for it will be those existing organizations, structures, processes, and systems in that will be drivers or barriers toward implementation of any mitigation strategies. While useful climate strategies can be pulled from around the globe, this Plan prioritizes solutions that most clearly fit South Bend's context: its institutions, demographics, natural environment, regional economy, and existing infrastructure.

Practical, Achievable and Affordable

Oftentimes, the highest-impact strategies are not the most feasible. Considering the importance that this plan be actionable for the city, strategies were prioritized based on how achievable they were for the community, municipality, and other agencies, and whether they proved to be too expensive or at the cost of other priorities, like quality of life, access, and economic opportunity.

Incentive-Oriented

Driving change adoption typically requires a mixture of incentives and regulations. Incentives (like grants, loans, and credits) drive change financially. Regulations and policies (like ordinances and permitting requirements) drive change through the legal process. While regulations may not cost a municipality much to implement, they can prove to be onerous and expensive to property owners and developers, which can yield a negative fiscal impact. Given South Bend's status as a rebounding post-industrial city, concerns existed that overly increasing regulations could weaken promising economic growth. Therefore, greater emphasis has been placed on incentive-based strategies.

Partnership-Driven

As with any plan, successful implementation will require numerous points of collaboration between municipal government, area-wide agencies, institutions, the private sector, and non-profits, and through its proscribed strategies, this plan treats such partnerships as fundamental.

CLIMATE MITIGATION & RESILIENCE PLANNING

Climate change is an ongoing issue, the negative impacts of which are already, and will continue to be, felt by South Bend residents.

The South Bend Carbon Neutral 2050 plan provides actionable climate change mitigation strategies to reduce the release of greenhouse gases. These strategies provide the City of South Bend with opportunities for environmental and public health improvements, as well as economic benefits. Adaptation or resilience plans, which typically follow Climate Action Plans like this one, provide strategies for addressing the current and future impacts of climate change within a municipality.¹

Mitigation & Adaptation

Mitigation: Actions that reduce the release of greenhouse gas emissions in order to limit climate change (e.g. sustainable transportation, clean energy generation, and energy efficiency).

Adaptation: Actions that help communities or individuals adjust to the impacts of climate change (e.g. retrofitting infrastructure for severe weather events, flood protection, and disaster management).

CLIMATE IMPACTS IN SOUTH BEND

Climate change is a global issue that will have local impacts across the United States, including in Indiana. The *Indiana Climate Change Impacts Assessment*, completed in 2018 by a collaborative of Indiana-based experts, provides state-specific observations and projections for temperature increases, weather events, and the subsequent impacts for Indiana residents, visualized in Figure 1.²

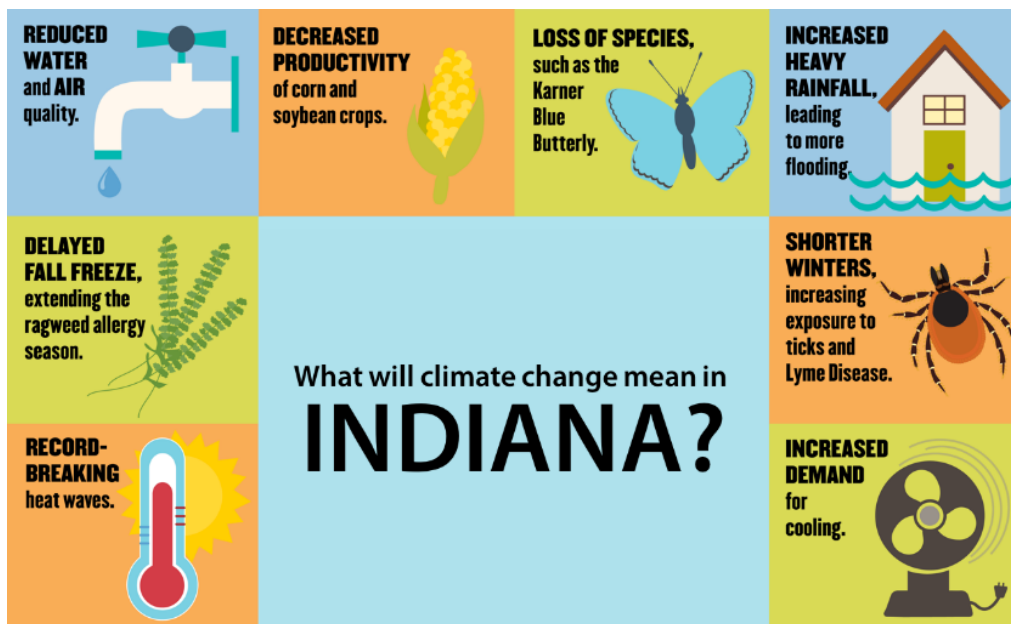


Figure 1: Indiana Climate Change Impacts

In addition to the major impact categories detailed below, negative impacts of climate change in Indiana include stress and wear on public infrastructure with increased severity of weather events, decreased water quality in the St. Joseph River with increased probability of flooding and sewer outflow, and public health concerns as warmer winters allow for mosquitoes, ticks, and other disease carrying pests to thrive.³

Agriculture will be impacted via longer agricultural growing seasons, with conditions ripe for undesirable invasive species to flourish. Extreme heat and increased severity and frequency of floods can also cause diminished soil health and other problems for Indiana’s farmers.⁴

Increasing Temperatures

Indiana has already observed a rising average temperature over the past century, and it is projected to increase significantly more in the coming years. The amount of days that exceed 95°F in South Bend is expected to increase by 5-15.⁵ As the average temperature rises, the likelihood of extreme heat days also increases, which has already been observed, and can be particularly dangerous for vulnerable populations like children or the elderly, and those without air conditioning.⁶

Extreme Weather Events

Average annual rainfall has also increased across Indiana. Since 1959, average annual rainfall in the state has been increasing at a rate of 1.33 inches per decade. By mid-century, annual precipitation in South Bend is expected to increase by over four inches and temperatures are expected to increase by 4.7°F.⁷ Days with heavy rainfall events (top 2% of rainfall rates in a year) are expected to increase by 1.2. As Indiana continues to warm, more precipitation will fall in the form of rain, as opposed to snow, which can increase the risk of flooding in the winter and spring.⁸



Figure 2: 2018 Flooding along Northside Boulevard in South Bend – Robert Franklin, South Bend Tribune

In a span of two years, South Bend witnessed a “1,000-year flood” in 2016 followed by a “500-year flood” in 2018 that caused severe damage to the City and surrounding areas.⁹ The “500-year flood” in February 2018, which saw the St. Joseph River crest at a record-high 12.7 feet,¹⁰ displaced residents, damaged thousands of homes, and partially closed the wastewater treatment plant. South Bend is currently estimated to have suffered \$2.1 million of flood damage to City assets, including pedestrian trails, embankments, roads (Figure 2),¹¹ and the water filtration system’s North Pumping Station.¹²

BENEFITS OF CLIMATE MITIGATION

Climate mitigation and adaptation strategies, which address the direct causes and impacts of climate change, often positively impact other areas. Cost savings from reduced energy and fuel usage benefits residents and businesses. Decreased fuel use reduces air pollution and improves local air quality. Transportation alternatives encourage an active lifestyle can improve health outcomes for South Bend residents¹³ in addition to expanding access and mobility to traditionally underserved populations. Innovation driven by the search for climate solutions creates more economic opportunity for existing businesses and local entrepreneurs. Co-benefits often re-enforce each other – for example, Quality of Place and Increased Transportation Access have been shown to support economic growth. Actions were selected for this plan in part based on maximizing these co-benefits. Areas of benefit are summarized below:



Public Health: Strategies that result in improvements to air quality (particularly for areas or populations suffering environmental injustice), increased opportunities for exercise (like running and biking, or walking to school), and increased access to critical goods and services that advance healthy living (like supermarkets and medical facilities).



Cost Savings: Strategies that result in immediate or long-term financial savings for residents, utility customers, businesses, and property owners. Savings can be from reduced energy consumption lowering energy bills, or rebates, incentives, or tax credits for installing energy efficiency or renewable energy equipment. Savings can also come from reductions in monthly transportation costs. Less fuel needs to be purchased if transit, biking, or walking can be used instead. With more travel options, some may opt to get rid of their car altogether. For large companies, addressing climate change means reducing waste in their processes and supply chain, saving on business expenses, while also decreasing risks and compliance costs.



Economic Growth: Strategies that support regional economic development, growth in Gross Domestic Product (GDP), workforce development, and job creation. This can include: substantial infrastructure investments that either enable a company’s operations or connect residents to jobs, development of a regional economic cluster that serves to attract talent from outside and export goods and services, or programs that increase the capacity and expertise of the local labor pool.



Quality of Place: Strategies that improve the physical, aesthetic, and civic character of a place and help residents feel engaged in their communities. These strategies can include the development and enhancement of parks and green space, public art, downtown beautification programs, street festivals, etc.



Increased Transportation Access: Strategies that expand and strengthen transportation options beyond car ownership, including bus and rail transit, bicycle, walking, wheelchairs, etc. Universal access principles, which focus on building spaces and places that encourage the movement of all people (including the physically impaired) is a central to this benefit.



Increased Equity: Strategies that address racial, cultural, economic, social, and physical disparities. Overlapping other co-benefits, these include strategies that address environmental justice concerns, discrimination, income inequality, impairments to access, etc.



Increased Engagement: Strategies that facilitate and encourage local businesses and residents to connect and participate with community and civic programs and initiatives.

WHY NOW?

Trusted organizations, including the United Nations Intergovernmental Panel on Climate Change (UN IPCC), have expressed urgency in addressing climate change. Globally, the UN IPCC has assessed that preventing a 1.5-degree Celsius increase in temperature, which would exponentially increase negative climate change effects, requires a 45% reduction of worldwide carbon emissions by 2030.¹⁴ Through local climate mitigation efforts, South Bend is contributing to this global effort.

South Bend has demonstrated climate leadership for over a decade. In 2008, Mayor Stephen Luecke signed the U.S. Mayors Climate Protection Agreement. In 2009, Mayor Luecke convened the Green Ribbon Commission, which led to the foundation of the Municipal Energy Office in 2010. Mayor Pete Buttigieg reconvened the Green Ribbon Commission in 2014 and expanded the Energy Office’s role, creating South Bend’s Office of Sustainability. The South Bend Common Council passed the Cleaner Energy Resolution in 2016, committing to reducing the City’s use of coal power and increasing investment in renewable options,¹⁵ and in 2018 Mayor Buttigieg joined the state’s “Repower Indiana” letter, calling for utilities to supply 100% clean energy. Most recently, Mayor Buttigieg confirmed South Bend’s commitment to the Paris Agreement on Climate by signing the “We’re Still In” letter in 2017 and committed to the Global Covenant of Mayors for Climate and Energy the following year.¹⁶ The Global Covenant, comprised of over 9,000 cities across 132 countries, seeks to collectively reduce 1.3 billion tons of annual CO₂ emissions by 2030.¹⁷

In April 2019, the South Bend Common Council passed a resolution on climate change and climate action. This resolution (see appendix) acknowledges established climate science and the observed and projected impacts of climate change on Indiana and South Bend. The resolution outlines the City’s leadership in climate issues and outlines next steps for addressing climate change, including development of this climate action plan.¹⁸

South Bend is a medium-sized, post-industrial Midwestern city that has stabilized its population decline of the last 50 years, but ultimately sits in a small metropolitan region that is not experiencing as high a rate of growth as the state of Indiana, overall (Figure 3).^{19,20}

POPULATION AND GDP STATE, REGION, AND CITY – 2010-2017

	2010	2017	% GROWTH
State of Indiana GDP (millions)*	\$295,133	\$320,084	8.45%
State of Indiana Population	6,483,802	6,660,082	2.72%
South Bend – Mishawaka Regional GDP (millions)*	\$11,480	\$12,231	6.54%
South Bend – Mishawaka Regional population	319,224	321,447	0.70%
City of South Bend Population	101,168	101,860	0.68%

**adjusted for inflation (2012 dollars)*

Figure 3

Regional GDP growth is a measure of economic productivity. This growth presents both positive and negative implications for addressing climate change. While GDP growth can represent an increase in economic opportunity locally, as well as availability of financial resources for addressing climate change, increased economic activity historically gives rise to an increase in emissions: more factories operating, more commuters that can afford to own and travel in single occupancy vehicles, etc. Additionally, if sustainable land use principles are not emphasized throughout South Bend and the region, growth can sometimes produce unsustainable development patterns, like suburban sprawl, which directly increase transportation emissions. As the City and region continue to grow and change, GDP growth and associated impacts on emissions should be monitored.

WHY WE’LL SUCCEED

South Bend is well-positioned to achieve GHG emissions reductions. The City has several advantages including zoning and building ordinances that are responsive to sustainable development and green business practices, strong transportation infrastructure, and proximity to several world-class higher education institutions.²¹

Additionally, South Bend can build upon its long-term commitment to environmental sustainability as evidenced by the Office of Sustainability, Green Ribbon Commission, and support from the Common Council, including a commitment to adopting climate actions.²² Where some communities may be just beginning to establish environmental task forces, South Bend has nearly ten years of formal activity. In addition to government support, several of South Bend’s largest businesses and anchor institutions support climate action to protect South Bend from negative impacts of climate change. Lastly, South Bend can work with neighboring communities and regional agencies to tackle issues collaboratively and holistically.

EMISSIONS INVENTORY & REPORT

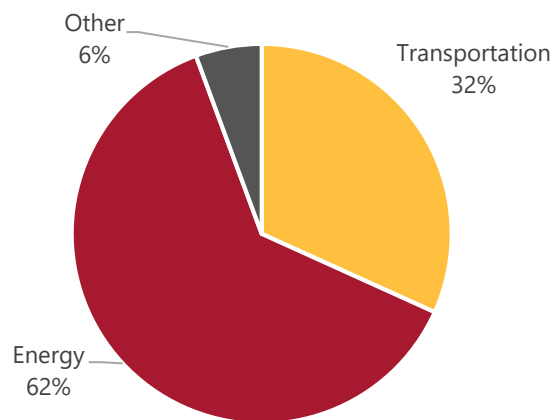
In order to determine the most effective strategies for reducing greenhouse gas emissions, the City of South Bend collected data on emissions-producing activity for both municipal operations and the larger South Bend community. South Bend completed its first comprehensive community-wide GHG emissions inventory using 2017 data, and a municipal operations inventory using 2015 data. Energy use and transportation were the largest contributors to the community inventory, following national trends. While needing to reduce GHG emissions from transportation and energy is common across different municipalities, actually achieving reductions requires context-sensitive solutions in each municipality. The data herein reflects 2017 community data, validated in 2019 for inclusion in this plan.

OVERALL

In 2017, the South Bend community was responsible for over 1.2 million metric tons of greenhouse gas emissions (CO₂e). Municipal operations account for 3% of the city-wide total.²³

Energy and transportation are the largest sources of community emissions, comprising 63% and 32% of emissions, respectively. The remaining 6% come from a variety of activities including solid waste disposal and water and wastewater systems.

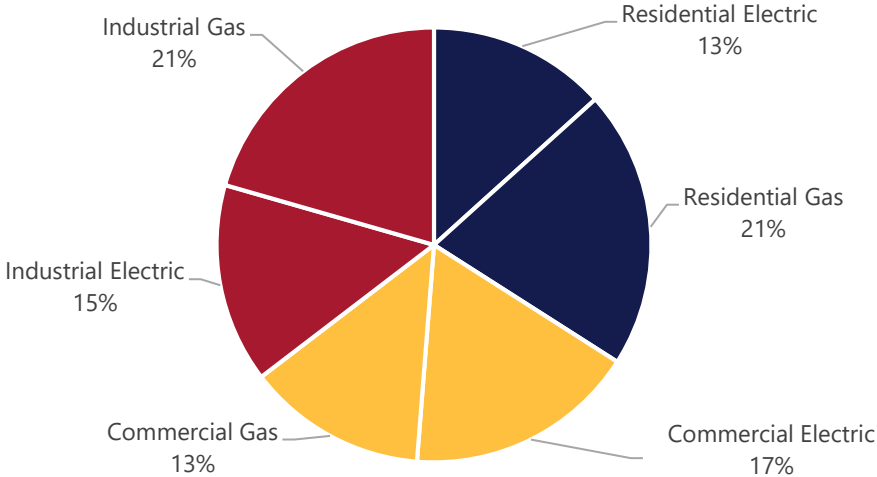
COMMUNITY GHG EMISSIONS



ENERGY

Energy accounts for 62% of community emissions, split almost evenly between residential, commercial and industrial energy. Additionally, emissions from gas and electricity for each sector are split fairly evenly. The residential and industrial sectors have slightly higher emissions from gas, and the commercial sector has slightly higher emissions from electricity.²⁴

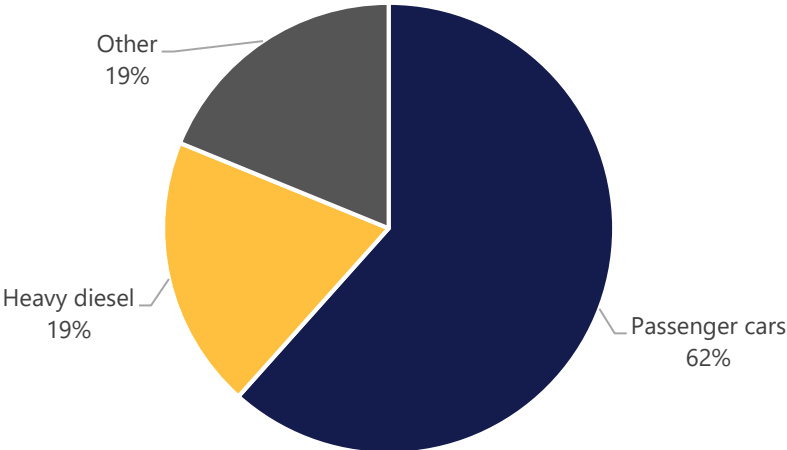
SOUTH BEND COMMUNITY GHG EMISSIONS: ENERGY



TRANSPORTATION

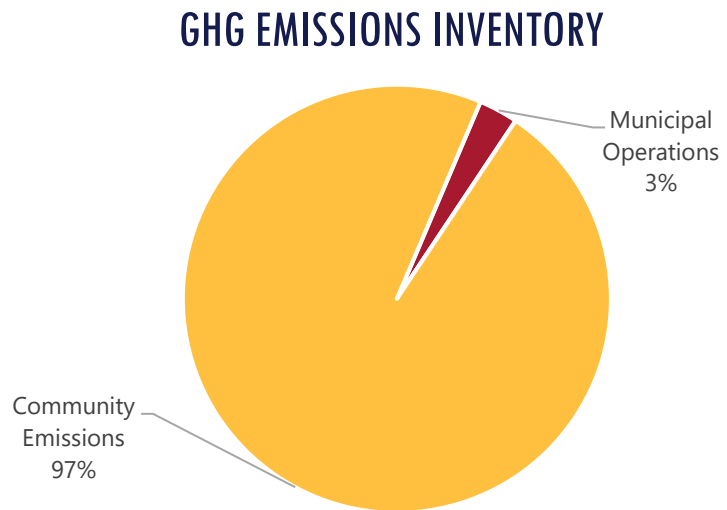
Transportation accounts for 32% of community emissions. Of that 32%, passenger vehicles account for almost two-thirds of emissions and heavy diesel transit accounts for 19%. Rail, road construction, and aviation related emissions, among others, are captured in the "Other" category.²⁵

SOUTH BEND COMMUNITY GHG EMISSIONS: TRANSPORTATION



Municipal Operations

Municipal operations account for 3% of the City's overall emissions. The top sources of greenhouse gases within municipal operations include Buildings and Facilities, Vehicle Fleet, and Street Lights and Traffic Signals.



EMISSION REDUCTION GOALS & ACTION AREAS

The City of South Bend's Climate Action Plan is a holistic plan that identifies greenhouse gas reduction opportunities throughout the community.

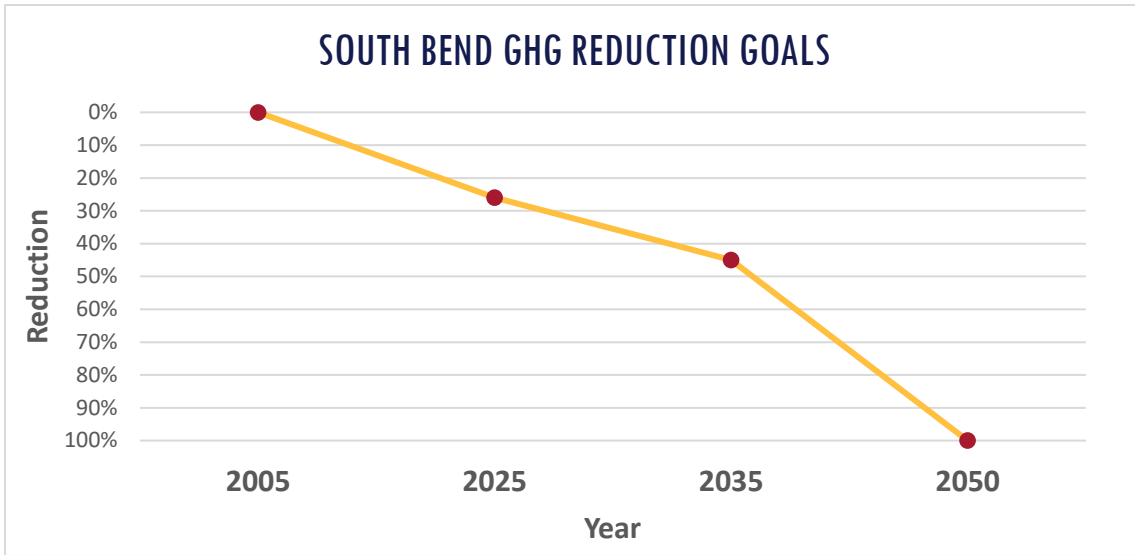
Recommended actions in this Climate Action Plan are targeted to help the City of South Bend achieve high-impact GHG emission reductions over three time horizons, each relative to the 2005 baseline.* These should be adopted and communicated as the City's official GHG reduction goals.

NOW: Reduce GHG emissions **26% by 2025**

NEXT: Reduce GHG emissions **45% by 2035**

FUTURE: Reduce GHG emissions **100% by 2050**

* The City is in process of backcasting an estimated 2005 greenhouse gas footprint to serve as a baseline.



The chart above illustrates the trajectory towards a target of 100% greenhouse gas reduction by 2050. Based on the range of local stakeholder input and a review of South Bend’s need and capacity to achieve this reduction goal, the course of emissions reduction targeted in this plan is as follows:

- **NOW - Short Term:** This goal aligns with national reduction targets set by the United States by the Paris Agreement. Cities across the country have adopted the United States’ agreed-upon contribution to the Paris Agreement as their near-term reduction target. To achieve this 26% reduction in the first five years of concerted action, this plan leverages the most readily available policies and actions and takes advantage of the resources and capacity that South Bend already possesses, to implement immediate reduction opportunities.
- **NEXT - Medium Term:** Between 2025 and 2035, the pace of reduction may slow, as medium- and longer-term actions will begin to be implemented. This implementation requires systemic changes to achieve an overall reduction of 45% and set the course for a sharper reduction after 2035. Meeting this goal will require significant time, resources, program development, and policy change.
- **FUTURE - Long Term:** A dramatic period of reduction will occur between 2035 and 2050. To achieve the ambitious goal of carbon neutrality, we will continue to drive systems change but also must rely on adoption of new technologies and innovative programs that are not available today.

In South Bend, as in most municipalities, **transportation and energy use** represent the largest sources of GHG emissions. While the significance of transportation and energy emissions is common across municipalities, actually achieving reductions requires context-sensitive solutions specific to South Bend.

All emissions reduction actions listed in this section have been assessed through lenses of **Timeframe for Implementation** (*Short, Medium, Long*), **Impact** (*Low, Medium, High*), and **Cost of Implementation** (*\$, \$\$, \$\$\$*). They are represented by the following icons:

Timeframe: S | M | L
Impact: LOW | MED | HIGH
Cost: \$ | \$\$ | \$\$\$

TRANSPORTATION

With transportation responsible for nearly a third of South Bend’s greenhouse gas emissions, the following two strategies present significant opportunity to reduce greenhouse gases in the transportation section:










- Goal 1.** Reducing vehicle miles traveled (VMT) and reducing single occupancy vehicle (SOV) trips
- Goal 2.** Transitioning to cleaner, more efficient fuels.

Given the disparate nature of vehicle trips and emissions, system-wide reductions must be driven by the actions of many different stakeholders, including public agencies, private companies, and private systems. This presents an obvious level of complexity. Additionally, reductions must be advanced through a multi-faceted series of improvements: to vehicle technology, to alternative modes of transportation, and through more compact land use patterns.

That said, while system-wide reductions to transportation emissions are long-term in nature and complex to execute, there are many feasible actions that the City of South Bend and its affiliated public agencies can take in the near and mid-term to drive transportation-related emissions reductions. These include improvements to their existing fleet, and through local incentives and regulations, and through diverse partnerships with public agencies and private organizations.

GOAL 1. REDUCE BOTH VEHICLE MILES TRAVELED (VMT) AND SINGLE OCCUPANCY VEHICLE (SOV) TRIPS

ACTION T1.1 - Promote and strengthen public transit

SCALE: **SI**  **\$\$\$** CO-BENEFITS:        









Bus and paratransit services provided by Transpo are already a standard method for replacing and reducing car trips. As with many transit agencies, Transpo experiences capacity constraints around service, staff, and resources. The same barriers exist for growing ridership in South Bend that many transit agencies experience throughout the country; length of headways, scattered nature of origin-destination, lack of revenue sources, and comparatively low gas prices, parking hassles, and traffic levels. Despite these challenges, the impact transit can make on reducing VMT and SOV trips is significant. Increasing frequency and quality of service, and tailoring coverage areas to existing and emerging origin-destination patterns, will empower transit to play a major role in reducing transportation emissions.

What South Bend City Government Can Do:

- Lobby the Indiana state legislature for increases to transit funding.
- Advocate for a greater emphasis on transit within the project selection criteria of MACOG’s Transportation Improvement Program
- Update the City’s capital improvements plan to prioritize transit investments
- Broker relationships between major employers and educational institutions and Transpo, to provide employer-assisted transit programs
- Educate community organizations and residents on the value and opportunities around transit, through advocacy and events
- Partner directly with Transpo, on planning and economic development efforts, to ensure that plans and projects factor in transit

Additional Responsible Parties: Transpo, MACOG, State of Indiana, South Bend Regional Chamber, Local Businesses and Anchor Institutions

ACTION T1.2 - Promote and improve bike share and alternative mobility program options

SCALE:   \$\$\$ CO-BENEFITS:       

Bike share and electric scooter programs are low cost, highly flexible systems for replacing short car trips, and are a transportation mode that produces zero to little emissions. These programs have emerged in numerous cities over the last decade. Although they can come with operational challenges (such as safety), they can be effective at reducing the need for single occupancy vehicles when their coverage areas are properly tailored to origin-destination patterns and when their integration into a system is in such a manner that it does not weaken transit services.

What South Bend City Government Can Do:

- Broker relationships with bike and scooter share providers, and properly regulate these programs and their infrastructure under the goals and policies of the City’s Bike South Bend Plan
- Consider public investments in bike programs, through MACOG’s Transportation Improvement Program and the City’s capital improvements plan
- Broker relationships between major employers, educational institutions and program providers, to provide employer assisted bike share programs
- Partner with providers, in educate community organizations and residents on the value and opportunities around these programs, through advocacy and events

Additional Responsible Parties: Program Providers, MACOG, South Bend Regional Chamber, Local Businesses

ACTION T1.3 - Promote and advance biking and walking in the community through education and community partnerships

SCALE:   \$ CO-BENEFITS:       










Community-led initiatives and partnerships that educate residents about biking and walking are critical to advancing the adoption of these modes as a standard form of transportation in the city. The comfort and affinity residents have for biking, in particular, can grow significantly when provided with programs such as community riding events and workshops around safety, maintenance, and basic operation.

What South Bend City Government Can Do:

- Partner with advocacy groups, schools, recreation centers, anchor institutions and businesses to promote events and programming on biking, walking, and non-motorized transportation.

Additional Responsible Parties: Bike Michiana Coalition, South Bend Community School Corporation, MACOG, Community Recreation Centers (YMCA, etc.), Local Businesses, Community Organizations

ACTION T1.4 - Reduce the length and frequency of vehicle trips through land development policies and economic development strategies

SCALE:   \$\$\$ CO-BENEFITS:       

By promoting dense, walkable development around transit hubs and corridors, and co-location opportunities for businesses, South Bend will have successfully reduced the length of the average trip



amongst city residents, as well as the dependence on car ownership, since shorter trip distances can more easily be undertaken by alternative transportation modes, like walking, biking, and transit.

What South Bend City Government Can Do:

- Update municipal development codes to promote density, compact development, transit-oriented development, and bicycle infrastructure, and reduce minimum parking requirements
- Utilize municipal incentives, like tax increment financing, tax abatement, etc. to help fund and finance development projects that promote transit, walking, and biking over automobile trips
- Educate property developers on smart growth policies and transit-oriented development
- Educate the business and development community on the advantages of shared office and commercial spaces.

Additional Responsible Parties: Local Developers, Transpo, MACOG, South Bend Regional Chamber, South Bend Region Economic Development

ACTION T1.5 - Prioritize infrastructure investments that advance regional access to transit and active transportation options within existing urbanized areas

SCALE:  CO-BENEFITS: 

Regional transportation patterns are heavily dictated by how federal, state, local transportation funding is programmed. Cities and regions that direct these dollars towards complete streets improvements (like sidewalks, bike infrastructure, transit service and infrastructure, universal access) and for pavement and lighting enhancements in denser areas can significantly advance transit-oriented development and shifts toward transit, biking, and walking amongst residents.

What South Bend City Government Can Do:

- Update the City’s capital improvements plan to prioritize investments that benefit transit and alternative transportation modes.
- Develop an internal Complete Streets Checklist and Implementation Plan, focused on coordinating efforts between relevant departments and agencies, to ensure that the City’s prospective complete street projects are planned and implemented effectively
- Advocate for a greater emphasis on transit, non-motorized transportation, and compact development within the project selection criteria of MACOG’s Transportation Improvement Program

Additional Responsible Parties: Transpo, MACOG, INDOT, NICTD

ACTION T1.6 - Promote carpool and vanpool services

SCALE:  CO-BENEFITS: 



Carpool and vanpool services (sometimes operated by transit agencies or private companies) can offer commuters the opportunity to complete daily trips with limited-to-no travel in a single occupancy vehicle. Often providing service beyond a transit agency’s coverage area, they can complement or stand in-lieu of transit ridership.

What South Bend City Government Can Do:

- Educate businesses on carpooling programs and provide them with incentives to institute and maintain these programs, and promote them with their employees
- Advocate for a greater emphasis on vanpooling and paratransit services within the project selection criteria of MACOG’s Transportation Improvement Program

Additional Responsible Parties: Transpo, South Bend Regional Chamber, Local Businesses

ACTION T1.7 - Promote and strengthen passenger rail services for regional travel

SCALE:  CO-BENEFITS: 

For regional trips above 30 miles in length, passenger rail services like NICTD and Amtrak significantly reduce VMT. Given South Bend’s proximity and connection to Chicago, the regional rail hub of the Midwest, as well as its Amtrak connection to eastern cities like New York and Boston, both Amtrak and NICTD have the capacity to serve as alternatives to regional flights and car trips to reduce transportation emissions.



What South Bend City Government Can Do:

- Lobby the Indiana State legislature and US Congress for increases to passenger rail funding.
- Consider public investments to station infrastructure, through MACOG’s Transportation Improvement Program and the City’s capital improvements plan
- Work with rail providers and the community, to remove railroad-street at-grade crossings
- In partnership with major employers, educational institutions and economic development entities, market rail connectivity as a regional asset to drive business and population growth
- Utilize municipal incentives and codes, like tax increment financing, tax abatement, etc. to drive transit-oriented development around railroad stations, or work with railroad agencies to relocate stations closer to planned areas of dense development.

Additional Responsible Parties: MACOG, NICTD, Amtrak

GOAL 2: TRANSITION TO CLEANER, MORE EFFICIENT VEHICLE FUELS AND TECHNOLOGY IN PASSENGER AND COMMERCIAL VEHICLES

ACTION T2.1 - Undertake and promote diesel engine retrofits throughout municipal and commercial fleets

SCALE:  CO-BENEFITS: 



Whether managed in municipal fleets or private freight companies, trucks with older diesel engines are heavy contributors to emissions and air pollution. Programs to retrofit truck fleets with modern clean air technologies (e.g., diesel oxidation catalysts, diesel particulate filters, NOx catalysts, selective catalytic reduction, exhaust gas recirculation, and CNG conversions) will positively impact air quality.

What South Bend City Government Can Do:

- Oversee the retrofitting of diesel engines in the existing municipal, transit, and school fleets
- Educate businesses and provide them with incentives for diesel engine retrofits in their fleets

Additional Responsible Parties: Transpo, South Bend Community School Corporation, South Bend Regional Chamber, South Bend Region Economic Development, MACOG, INDOT, IDEM

ACTION T2.2 - Remove older vehicles with poor fuel efficiency from the community, and replace them with alternative fuel vehicles, like hybrid and electric vehicles

SCALE:  CO-BENEFITS: 


Whether electric, hybrid, or the conventional internal combustion engine, newer vehicles are typically more fuel efficient and often use cleaner fuel than their older cousins. Replacing older vehicles with newer ones in a community will reduce local emissions and air pollution.

What South Bend City Government Can Do:

- Incorporate electric and hybrid vehicles into municipal, transit, and school fleets
- Plan and implement electric vehicle charging infrastructure throughout the city
- Adopt municipal development codes that incentivize and expedite electric vehicle charging infrastructure by developers and property owners
- Develop an incentive program for residents and businesses, focused on implementing vehicle charging infrastructure on private property or initiate vehicle swaps with local dealerships
- Educate businesses, institutions, and residents on the emissions impact of vehicle replacement

Additional Responsible Parties: Transpo, South Bend Community School Corporation, Green Ribbon Committee, MACOG, INDOT, IDEM

ACTION T2.3 - Advocate for increased state vehicle emissions testing requirements in St. Joseph County

SCALE:  CO-BENEFITS: 

Outside of Lake and Porter counties, motor vehicles must only get tested upon a new vehicle registration. There is no regulatory mechanism in place to ensure the ongoing compliance of motor vehicles with emission standards later in the vehicle’s life cycle. Older vehicles with dated, worn out technology are most likely to fall out of compliance, demonstrating a need for more routine testing.

What South Bend City Government Can Do:

- Lobby the Indiana state legislature for regulatory changes.

Additional Responsible Parties: Indiana State Legislature, IDEM, INDOT

ACTION T2.4 - Promote anti-idling technology locally

SCALE:  CO-BENEFITS: 

Focused on reducing or eliminating emissions when an engine is active but the vehicle is not in motion, anti-idling technology includes strategies focused on reducing engine activity and switching to reserved sources of energy when idle. These include auxiliary power units, generator sets, battery air conditioning

systems, electrified parking spaces, truck stop electrification, fuel operated heaters (direct fired heaters), and thermal storage systems.

What South Bend City Government Can Do:

- Retrofit municipal, transit, and school fleets to include anti-idling technology, and implement infrastructure improvements like electrified parking spaces
- Educate businesses and residents and provide them with incentives for anti-idling technology

Additional Responsible Parties: Transpo, South Bend Community School Corporation, South Bend Regional Chamber, South Bend Region Economic Development, INDOT, IDEM

ACTION T2.5 - Promote upgrades to vehicles that reduce road friction and wind resistance

SCALE:  CO-BENEFITS: 


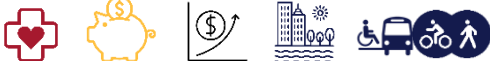
Retrofits to a vehicle’s shape, form, or geometry can also improve fuel efficiency by reducing friction and resistance during movement, through techniques like aerodynamic devices and low rolling resistance tires.

What South Bend City Government Can Do:

- Educate businesses and provide them with incentives for reducing road friction and resistance

Additional Responsible Parties: Transpo, South Bend Community School Corporation, South Bend Regional Chamber, South Bend Region Economic Development, INDOT, IDEM

ACTION T2.6 – Identify how adoption of autonomous vehicle technology can drive fuel efficiency and emissions reductions

SCALE:  CO-BENEFITS: 

Irrespective of the timeline and scope of adoption, autonomous vehicles are certain to play a role in South Bend’s transportation network within this century. Comprehensive planning is critical for ensuring that this technology results in reductions to greenhouse gas emissions, instead of the increases that many experts are projecting.

What South Bend City Government Can Do:

- Undertake a planning process to prepare for both public and private autonomous vehicle operations, by assessing its benefits and impacts, and developing strategies and policies to help manage and regulate this technology on a local level.

Additional Responsible Parties: MACOG, INDOT

	Action	Additional Stakeholders	Municipal Role	Timeframe/ Impact	Co-Benefits	Cost
GOAL T1. Reduce vehicle miles traveled (VMT) and single occupancy vehicle (SOV) trips						
T1.1	Promote and strengthen public transit	Transpo, MACOG, State of Indiana, Chamber, Local Businesses & Institutions	Planning Advocacy Promotion	Short, Ongoing High Impact	Cost Savings Public Health Economic Growth Quality of Place Increased Transportation Access Increased Equity	\$\$\$
T1.2	Promote and improve bike share and alternative mobility program options	Program Providers, MACOG, South Bend Chamber of Commerce, Local Businesses	Funding Program Management Promotion Partnership Building	Short, Ongoing Medium Impact	Cost Savings Public Health Economic Growth Quality of Place Increased Transportation Access	\$\$
T1.3	Promote and advance biking and walking in the community through education and community partnerships	Bike Michiana Coalition, South Bend Community School Corporation, MACOG, Community Recreation Centers (YMCA, etc.), Local Businesses, Community Organizations	Promotion Partnership Building	Short, Ongoing Medium Impact	Cost Savings Public Health Quality of Place Increased Transportation Access Increased Equity Increased Engagement	\$
T1.4	Reduce the length and frequency of vehicle trips through land development policies	Local Developers, Transpo, MACOG, South Bend Chamber of Commerce, South Bend Region Economic Development	Planning Funding Program Management Regulation Promotion	Medium, Ongoing High Impact	Public Health Economic Growth Quality of Place Increased Transportation Access	\$

T1.5	Prioritize infrastructure investments that advance regional access to transit and active transportation options within existing urbanized areas	Transpo, MACOG, INDOT, NICTD	Planning Funding Program Management Advocacy	Medium, Ongoing High Impact	Cost Savings Public Health Economic Growth Quality of Place Increased Transportation Access Increased Equity	\$\$\$
T1.6	Promote carpool and vanpool services	Transpo, South Bend Chamber of Commerce, Local Businesses	Advocacy Promotion	Medium, Ongoing Medium Impact	Cost Savings Public Health Quality of Place Increased Transportation Access Increased Equity	\$\$
T1.7	Promote and strengthen passenger rail services for regional travel	MACOG, NICTD, Amtrak	Funding Program Management Advocacy Promotion	Medium, Ongoing Medium Impact	Economic Growth Quality of Place Increased Transportation Access	\$\$\$
GOAL T2. Transition to cleaner, more efficient vehicle fuels and technology						
T2.1	Undertake and promote diesel engine retrofits throughout municipal and commercial fleets	Transpo, South Bend Community School Corporation, South Bend Chamber of Commerce, South Bend Region Economic Development, MACOG, INDOT, IDEM	Funding Program Management Promotion	Medium, Ongoing High Impact	Public Health Quality of Place Increased Equity	\$\$
T2.2	Remove older vehicles with poor fuel efficiency from the community, and replace them with alternative fuel vehicles, like hybrid and electric vehicles	Transpo, South Bend Community School Corporation, Green Ribbon Committee, MACOG, INDOT, IDEM	Funding Program Management	Medium, Ongoing Medium Impact	Cost Savings Public Health Economic Growth Increased Equity	\$\$\$
T2.3	Advocate for increased state vehicle emissions testing requirements in St. Joseph County	Indiana State Legislature, IDEM, INDOT	Advocacy Regulation	Medium, Ongoing Medium Impact	Public Health Increased Equity	\$

T2.4	Promote anti-idling technology locally	Transpo, South Bend Community School Corporation, South Bend Chamber of Commerce, South Bend Region Economic Development, INDOT, IDEM	Promotion	Medium, Ongoing Medium Impact	Cost Savings Public Health	\$
T2.5	Promote upgrades to vehicles that reduce road friction and wind resistance	Transpo, South Bend Community School Corporation, South Bend Chamber of Commerce, South Bend Region Economic Development, INDOT, IDEM	Promotion	Medium, Ongoing Low Impact	Cost Savings	\$
T2.6	Identify how adoption of autonomous vehicle technology can drive fuel efficiency and emissions reductions	MACOG, INDOT	Planning	Long High Impact	Cost Savings Public Health Economic Growth Quality of Place Increased Transportation Access	\$

ENERGY






With energy use in buildings representing nearly two-thirds of South Bend’s greenhouse gas emissions, this area represents the largest opportunity for greenhouse as reduction in the city. Two primary goals for achieving these reductions include:

- Goal 1.** Increasing energy efficiency across residential, industrial, and commercial sectors; and
- Goal 2.** Transitioning to renewable energy sources.

Partnerships with utilities like Indiana Michigan Power and the Northern Indiana Public Service Company (NIPSCO) will be critical for driving these reductions, and as with transportation, the City of South Bend has a distinct ability to use its publicly-owned buildings, financial resources, regulatory power, and procurement processes to demonstrate the value of implementation for constituents.

GOAL E1. INCREASE ENERGY EFFICIENCY ACROSS RESIDENTIAL, INDUSTRIAL, AND COMMERCIAL SECTORS

ACTION E1.1 - Expand energy efficiency audits for buildings across multiple sectors

SCALE:   \$ CO-BENEFITS:   


Energy efficiency in buildings starts with a clear and comprehensive appraisal of a property’s current energy usage, whether for homes, apartments, businesses, or factories. Energy efficiency assessments are the basis for both energy benchmarking and for identifying opportunities for savings from weatherization, system replacement, process improvement, fuel switching, or other measures.

What South Bend City Government Can Do:

- Partner with local utilities to provide and maintain free energy auditing services for property owners and managers, either through their own staffing or a third-party provider
- Connect property owners with auditing services at trigger events in the municipal licensing and permitting processes

Additional Responsible Parties: Indiana Michigan Power, NIPSCO, South Bend Regional Chamber, Homeowner Associations, Property Management Firms

ACTION E1.2 - Enact an energy benchmarking ordinance for larger buildings

SCALE:   \$ CO-BENEFITS:  

As of 2019, 30 cities across the US have adopted some form of an energy benchmarking ordinance. Whether it be simply a reporting-based policy, or paired with actual performance requirements, benchmarking ordinances are an effective way to encourage active energy management by property owners. Typically, the largest buildings account for an outsized portion of the energy usage, and since they are typically professionally-managed and income-focused, they have a greater capacity and motivation to improve performance than an individual residential homeowner. Benchmarking ordinances are typically focused on energy awareness via data collection and reporting, versus instituting new standards for compliance.

What South Bend City Government Can Do:

- Adopt an energy benchmarking ordinance
- Educate property owners and managers on energy benchmarking, its benefits, and how to successfully undertake it

Additional Responsible Parties: Property Management Firms, Real Estate Associations, South Bend Regional Chamber, Indiana Michigan Power, NIPSCO

ACTION E1.3 - Expand South Bend’s regional energy efficiency workforce

SCALE:  \$ CO-BENEFITS: 



For South Bend’s buildings to achieve a maximum level of energy efficiency, an increase in the number of appropriately-skilled local contractors and consultants is urgently needed. In regions of the country similar to South Bend, this form of workforce development has been most successful when existing contractors and tradespeople in related fields are supported in expanding their skillset. Energy efficiency training can also target disadvantaged segments of the workforce, like the re-entry population. A key challenge to overcome is the seasonality of energy efficiency work - planning is necessary to ensure that this sector represents a truly viable opportunity for trainees.

What South Bend City Government Can Do:

- Partner with workforce development and economic development professionals, trade organizations, and certification programs on conducting energy efficiency training workshops
- Prioritize training workshop graduates for potential municipal energy efficiency projects

Additional Responsible Parties: Workforce Development Entities, South Bend Regional Chamber, Indiana Michigan Power, NIPSCO, South Bend Region Economic Development

ACTION E1.4 - Update building codes, to increase energy efficiency requirements on new construction and major renovation projects

SCALE:  \$\$ CO-BENEFITS: 

Municipal building codes are a primary method for managing and maintaining the quality and safety of built structures throughout the city. Additionally, building codes set energy efficiency standards and requirements. Compliance with these standards is necessary for securing municipal permits for renovation, construction, and occupancy. Codes can drive improvements to energy efficiency as the electrification of building systems, net-zero energy requirements for new construction buildings, and mandatory increases in energy savings after changes in occupancy or ownership. Importantly, since state regulations significantly govern what municipalities can and cannot include in their municipal codes, coordination with the State of Indiana will be critical for integrating more stringent energy efficiency standards into these codes.

What South Bend City Government Can Do:

- Adopt building code ordinances that require increased energy efficiency requirements on new construction and major renovation projects, but are sensitive to the capacity of the local development and property management communities
- Lobby for more progressive state building regulations that support raise the minimum standards for energy efficiency requirements in municipal codes

Additional Responsible Parties: Property Management Firms, South Bend Regional Chamber, Indiana Michigan Power, NIPSCO, State of Indiana

ACTION E1.5 - Develop municipal incentive programs that support adoption of energy efficiency improvements in buildings

SCALE:  CO-BENEFITS: 

Municipalities have often partnered with local utilities or lending institutions to fund energy efficiency incentive programs for residential, commercial, and industrial property owners. Typically paired with free energy efficiency audits, incentives can result in improvements to a building or unit’s heating, cooling, ventilation, insulation, appliance, and lighting systems by offering low-cost financing, rebates, or municipal, state or federal tax credits.





What South Bend City Government Can Do:

- Develop new municipal programs and incentives, in partnership with utilities and lenders, to drive energy efficiency audits and adoption of energy efficiency improvements by property owners.
- Develop new municipal incentives (like PACE), or use existing ones, like tax increment financing and tax abatement, to help fund and finance development projects that incorporate energy efficiency elements.
- Promote programs with the local development community.

Additional Responsible Parties: Local Banks and Lenders, Indiana Michigan Power, NIPSCO, South Bend Regional Chamber, Homeowner Associations

GOAL E2. TRANSITION TO RENEWABLE ENERGY SOURCES

ACTION E2.1 - Advocate for the conversion to renewable energy sources by local energy utilities

SCALE:  CO-BENEFITS:   

As the entities required by Indiana law to generation and distribute electricity, utilities have tremendous influence on greenhouse gas emissions on a regional scale. To declining hard costs of renewable energy sources over the past decade, many large utilities are moving beyond simply providing green tariffs or passively allowing customer-installed renewable energy, and instead have begun to switch to renewables and cleaner fuels as their primary source of power. As the economics for conversion leads utilities further in their transition from fossil fuels like coal to renewable sources like solar and wind power, the City of South Bend can demonstrate leadership by advocating for this change.



What South Bend City Government Can Do:

- Lobby Indiana Michigan Power and NIPSCO for policy changes around conversion to renewable energy sources by large-scale utilities.

Additional Responsible Parties: Indiana Michigan Power, NIPSCO, Indiana Utility Regulatory Commission

ACTION E2.2 - Advocate for increased state incentives to support adoption of renewable energy sources

SCALE:   \$

CO-BENEFITS:  

Across the country, state-based incentives like tax credits, rebates, loan programs and renewable energy credits have been critical mechanisms for driving early adoption and integration of renewable energy sources in every sector. While Indiana does provide property tax exemptions and require net metering, and some utilities offer feed-in tariffs and special net metering rates, these opportunities are limited. The size and number of awards and credits delivered through these incentive programs could be significantly increased to match levels offered in other states, which would help drive adoption renewable energy sources by homeowners, businesses and institutions.

What South Bend City Government Can Do:

- Lobby Indiana state legislature to broaden incentive programs for renewable energy sources.

Additional Responsible Parties: State of Indiana

ACTION E2.3 - Develop municipal incentive programs that support adoption of renewable energy sources

SCALE:   \$\$

CO-BENEFITS:    

Municipalities can develop their own incentive programs that support a transition to renewable energy. One example is the Property Assessed Clean Energy (PACE) program for commercial buildings. PACE allows a municipality (or a third-party partner) to provide property owners incentivized financing for the up-front cost of energy improvements on a property, with the owner paying the costs back over time through a voluntary property tax assessment. Other traditional incentives like tax increment financing and tax abatement could also be utilized to fund development projects that incorporate renewable energy.



What South Bend City Government Can Do:

- Develop new municipal incentives (like PACE), or use existing ones, like tax increment financing and tax abatement, to help fund and finance development projects that incorporate renewable energy.
- Promote programs with the local development community.

Additional Responsible Parties: Local Developers, Indiana Michigan Power, NIPSCO, South Bend Regional Chamber, Neighborhood Associations

ACTION E2.4 - Oversee the adoption of renewable energy sources into municipal buildings

SCALE:   \$\$

CO-BENEFITS:  






As one of the largest landowners in the city, South Bend city government has a significant opportunity to adopt renewable energy technology (like rooftop solar panels) across its buildings and facilities. Since public buildings are highly visible and accessible to constituents, the city's adoption of renewable energy strategies would serve as a leading example for residents and businesses in the community.

What South Bend City Government Can Do:

- Conduct a feasibility assessment and develop a capital plan for integration of renewable energy sources into municipal buildings

Additional Responsible Parties: Indiana Michigan Power, NIPSCO

ACTION E2.5 – Continue to update and maintain municipal permitting and procurement guidelines that facilitate the adoption of renewable energy sources

SCALE:   \$ CO-BENEFITS:   





Whether permitting guidelines for private development or procurement guidelines and construction standards for public projects, existing requirements that pre-date renewable energy technology may prove inadvertently onerous and can add to the time and cost of a developer building a wind farm, a homeowner adding a solar array, or a contractor’s bid for a city renewable energy installation. Through the City’s participation in SolSmart, some permitting processes have been streamlined for solar energy systems. As technology continues to advance, and business and labor markets continue to evolve and change, continuing to update the City’s guidelines for both internal and private projects will ensure that the process does not become a barrier to adoption.

What South Bend City Government Can Do:

- Continue to update its building permit guidelines to include and consider new renewable energy generation technology
- Update its procurement guidelines to reflect the evolving capacity and structure of renewable energy contractors.

Additional Responsible Parties: Indiana Michigan Power, NIPSCO

ACTION E2.6 – Integrate renewable energy generation with the City’s land use planning and redevelopment activities

SCALE:   \$\$ CO-BENEFITS:  

Some renewable energy generation can require significant amounts of land. The largest solar arrays can occupy hundreds of acres, and wind farms or new compressed natural gas lines oftentimes require large easements to establish a necessary buffer from areas of density and development. In turn, readying a community for renewable energy generation oftentimes requires an assessment of existing land uses, to determine compatibility, as well as the establishment of planned zones for strategies like solar arrays, wind farms, and CNG lines. In turn, planning for renewable energy districts must be integrated into the City’s ongoing comprehensive planning process, and land acquisition activities that are undertaken by the South Bend Redevelopment Commission.

What South Bend City Government Can Do:

- Develop a city-wide plan to identify planned zones for solar and wind farm installations.
- Develop a land acquisition strategy, in partnership with development groups and local utilities, for facilitating the creation of planned renewable energy generation zones.

Additional Responsible Parties: South Bend Redevelopment Commission, MACOG, Indiana Michigan Power, NIPSCO, Renewable Energy Developers

Action	Additional Stakeholders	Municipal Role	Timeframe/ Impact	Co-Benefits	Cost	
GOAL E1. Increase energy efficiency across residential, industrial, and commercial sectors						
E1.1	Expand energy efficiency audits for buildings across multiple sectors	Indiana Michigan Power, NIPSCO, South Bend Chamber of Commerce, Homeowner Associations, Property Management Firms	Funding Program Management Promotion Partnership Building	Short, Ongoing Medium Impact	Cost Savings Economic Growth Increased Engagement	\$
E1.2	Enact an energy benchmarking ordinance for larger buildings	Property Management Firms, Real Estate Groups, South Bend Chamber of Commerce, Indiana Michigan Power, NIPSCO	Regulation Promotion	Short, Ongoing Medium Impact	Cost Savings Increased Engagement	\$
E1.3	Expand South Bend's regional energy efficiency workforce	Workforce Development Entities, South Bend Chamber of Commerce, Indiana Michigan Power, NIPSCO, South Bend Region Economic Development	Program Management Promotion Partnership Building	Short Medium Impact	Economic Growth Increased Engagement	\$
E1.4	Update building codes, to increase energy efficiency requirements on new construction and major renovation projects	Property Management Firms, South Bend Chamber of Commerce, Indiana Michigan Power, NIPSCO, State of Indiana	Regulation Advocacy	Medium, Ongoing High Impact	Cost Savings Increased Engagement	\$\$
E1.5	Develop municipal incentive programs that support adoption of energy efficiency improvements in commercial and industrial buildings	Local Banks and Lenders, Indiana Michigan Power, NIPSCO, South Bend Chamber of Commerce, Homeowner Associations	Promotion	Medium, Ongoing Medium Impact	Cost Savings	\$\$

GOAL E2. Transition to renewable energy sources

E2.1	Advocate for the conversion to renewable energy sources by local energy utilities	Indiana Michigan Power, NIPSCO, Indiana Utility Regulatory Commission	Advocacy Promotion	Short, Ongoing High Impact	Public Health Economic Growth Quality of Place	\$
E2.2	Advocate for increased state incentives to support adoption of renewable energy sources	State of Indiana	Advocacy	Short, Ongoing Medium Impact	Economic Growth Increased Engagement	\$
E2.3	Develop municipal incentive programs that support adoption of renewable energy sources	Local Developers, Indiana Michigan Power, NIPSCO, South Bend Chamber of Commerce, Neighborhood Associations	Funding Program Management Promotion	Short, Ongoing Medium Impact	Cost Savings Economic Growth Quality of Place Increased Engagement	\$\$
E2.4	Oversee the adoption of renewable energy sources into municipal buildings	Indiana Michigan Power, NIPSCO	Planning	Medium, Ongoing Medium Impact	Cost Savings Increased Engagement	\$\$
E2.5	Continue to update and maintain municipal permitting and procurement guidelines that facilitate the adoption of renewable energy sources	Indiana Michigan Power, NIPSCO	Regulation	Medium, Ongoing Medium Impact	Cost Savings Economic Growth Increased Engagement	\$
E2.6	Integrate renewable energy generation with municipal land use and zoning policy	South Bend Redevelopment Commission, MACOG, Indiana Michigan Power, NIPSCO Renewable Energy Developers	Planning	Medium, Ongoing Medium Impact	Economic Growth Quality of Place	\$\$

OTHER AREAS OF POTENTIAL ACTION

Though not primary generators in South Bend’s emissions inventory, 5.6% of emissions are attributed to additional categories including water treatment and waste. Exciting, new energy efficient technologies are transforming how waste is managed and that may have tremendous opportunities for emissions reduction. Just as the internet has had profound impacts over the past thirty years, automated vehicles, artificial intelligence and other innovations may bring about advances that we cannot even conceive of now. Furthermore, South Bend is positioned well to be a leader in innovation thanks to its nearby universities and developments like Innovation Park, which exists to cultivate marketable innovations in an inspiring environment and assist entrepreneurs bringing to products to market.

FUTURE PERFORMANCE EVALUATION

The City of South Bend Common Council has prioritized iterative goal setting and progress tracking for GHG emissions reductions. The City of South Bend Sustainability Office will provide annual progress reports on the Climate Action Plan, and the municipal and community GHG emissions inventories will both be updated every three years.²⁶ Action Plans can also be updated as implementation occurs and new resources become available. Reporting can draw from the below list of potential metrics, based on the quality of the available data and the priorities of the audiences.

Category	Metric	Action
Community-Wide	Percent change in community GHG, relative to baseline year	-
	Percent change in municipal government GHG, relative to baseline year	-
	Percent change in electricity or natural gas use (kWh/therms) per capita, versus baseline year	-
	Percent change in population from baseline year	-
	Percent change in city sales tax from baseline year	-
Transportation	Ridership totals on bus transit	T1.1
	Number of trips made by bus transit	T1.1
	Vehicle miles traveled by bus transit	T1.1
	Miles covered by public transit bus routes	T1.1&T1.5
	Vehicle miles traveled by automobiles, tri-annually	T1.1-T1.7
	Percent population who commute by bike	T1.2-T1.4
	Number of trips made by walking	T1.2-T1.4
	Number of trips made by biking	T1.2-T1.4
	Percentage of population living within ¼ mile of transit	T1.4
	Number and percentage of building permits issued within ¼ mile of transit	T1.4-T1.5
	Miles of bike lanes	T1.5
	Miles of sidewalks	T1.5
	Dollars spent on sidewalks and bike lanes in city’s capital improvements plan	T1.5
	Dollars spent on sidewalks and bike lanes in MACOG’s Transportation Improvement Program (TIP)	T1.5
Vehicle miles traveled by carpool and vanpool services	T1.6	

	Number of boardings and alightings on NICTD and Amtrak trains in South Bend	T1.7
	Percentage of city-owned fleet converted to electric or CNG vehicles	T2.1
	Percent municipal buses and fleet operating on electric and CNG power	T2.1
	Number of electric and hybrid vehicles registered in South Bend	T2.1
	Number of public charging stations located in South Bend	T2.1
	Number of diesel emissions reduction measures for municipal and commercial fleets since baseline year	T2.2
	Average (mode) age of vehicles registered in South Bend	T2.2
	Number of vehicles tested in St. Joseph County	T2.3
Energy	Total energy consumed in applicable units	E1
	Number of energy efficiency audits conducted annually	E1.1
	Percent of city's total building square footage that received an energy efficiency audit within the last 5 years	E1.1
	Number of residential and commercial buildings with energy efficiency designations	E1.1-E1.5
	Total square footage, number, type, and energy-use intensity of buildings parting in a municipal benchmarking program	E1.2
	Number of contractors with professional energy efficiency certifications, like "BPI certified energy auditor", "AEE certified energy practitioner," etc.	E1.3
	Total amount of municipal and state incentives awarded for energy efficiency projects	E1.5
	Cumulative and annual kWh distributed solar installed	E2
	Number, size and output of onsite renewable energy installations in South Bend	E2
	Total megawatt hours (MWh) offset by renewable energy tariffs in South Bend	E2
	Percentage of utility provider's energy generation portfolio that is derived from renewable energy sources	E2.1
	Number of South Bend customers participating in renewable energy tariff programs	E2.2-E2.3
	Total amount of municipal and state incentives awarded for renewable energy projects	E2.2-E2.3
	Percent renewable energy in municipal electricity portfolio	E2.4
	Acreage of land zoned for renewable energy generation	E2.6

APPENDIX

PLANNING PROCESS

Delta Institute followed a traditional plan approach wherein Delta reviewed the existing conditions utilizing documents previously created by the City of South Bend and conducting a careful analysis of the City's emissions inventory. After studying the City's existing conditions, Delta engaged with internal and external stakeholders. That engagement informed the creation of the GHG reduction targets for which Delta Institute identified top strategies for pursuing those targets.

INVENTORY AND METHODOLOGY

Delta reviewed the 2016 City emission inventory that reported 42,225 mT CO₂e (Scope 1 and 2) as well as the 2018 community-wide inventory which identified annual emissions of 1,294,599 mT CO₂e (Scope 1, 2, and 3). Delta reviewed the data collection processes and reviewed data entry for any potential discrepancies. Delta reviewed all energy and emissions variables and factors to ensure solid calculations. The data was input into ICLEI ClearPath. ClearPath™ is the leading online software platform for completing greenhouse gas inventories, forecasts, climate action plans, and monitoring at the community-wide or government-operations scale.

STAKEHOLDER ENGAGEMENT

Delta Institute engaged stakeholders for the Climate Action Plan through two strategies:

- Interviews with internal City of South Bend stakeholders for local context
- Focus groups for targeted community feedback

LOCAL CONTEXT INTERVIEWS

Summary

Every community has specific local conditions that are fundamental to review in order to create a plan that is relevant and useful. Between May 30th and June 30th, Delta Institute met with ten South Bend representatives ranging from elected officials to municipal staff and the staff of regional agencies that work with South Bend. Those interviews confirmed community values, hopes for the future and a willingness to collaborate in new ways while also raising important considerations for greenhouse gas reduction strategies.

To frame interviews, Delta staff briefed South Bend representatives providing key findings from Delta's review of how the South Bend government, residents and businesses impact climate. Similar to many American cities, South Bend's emissions largely stem from transportation and energy use. South Bend representatives were already knowledgeable about climate and how their City works and enthusiastically shared their ideas.

Key Observations

- South Bend needs a South Bend style plan and solution. Specifically, the plan should be actionable, realistic and meaningful. It should be mindful of South Bend's context as a Midwestern city striving to build a thriving economy.
- Operationally, South Bend has already addressed several foundational barriers to sustainability through zoning, permitting and design. Leveraging existing economic development tools to encourage sustainable practices in the private sector is an untapped opportunity.
- South Bend wants to improve quality of life for residents with improvements to housing stock and access to economic opportunity. Similarly, there is a desire to make South Bend conducive to employers, too.
- Some South Bend staff want more information and knowledge about both climate and technologies.
- South Bend staff hope GHG reduction strategies can create opportunities and support both new and existing initiatives.
- South Bend staff believe key factors for selecting GHG strategies include cost, impact, achievability and creating opportunities for residents.

TARGETED COMMUNITY FEEDBACK

In June 2019, Delta Institute conducted a series of focus groups in South Bend. These focus groups were used to collect targeted community feedback to inform South Bend's climate action strategies, which are focused on reducing greenhouse gas (GHG) emissions. Community input is used to help determine ways to reduce GHG emissions in South Bend and create a framework for prioritizing and selecting strategies.

The focus groups were structured to begin with a brief presentation outlining the goals, historical context, and process for South Bend's climate action plan and inventory information highlighting where the City's GHG emissions are primarily generated. Participants were then asked to share their general feedback, as well as specific concerns, opportunities, and recommendations for reducing GHG emissions in South Bend.

FOCUS GROUP SUMMARIES

Green Ribbon Commission

The first focus group was comprised of ten South Bend residents, all affiliated with the Green Ribbon Commission. The South Bend Green Ribbon Commission was established in 2009 and was instrumental in the creation of both the Municipal Energy Office in 2010 and the Office of Sustainability in 2014. The group highlighted the need for a major cultural shift in South Bend, making the implications of climate change relatable to all residents and providing hope and motivation for transformative change. This group hoped to see education for residents, contractors, and students on GHG emission reductions and innovative City-led programs to encourage commercial and industrial sustainability initiatives. They also expressed a desire for aggressive, inspirational goals, as opposed to incremental ones.

General / Overflow Focus Group

An alternate focus group time was set up in the evening to allow for flexibility for any participants unable to attend other groups. One participant, affiliated with the Green Ribbon Commission, attended this session. This participant identified economic development as a major driver for the City and expressed desire to attract innovative businesses and solutions. They also stated concerns about potential overregulation, a lack of trained contractors, and a high percentage of renters - making residential improvements difficult to incentivize. Highlighted advantages and opportunities for South Bend included the proximity of several higher education institutions and attractive location.

Commercial / Industrial

Stakeholders within this focus group represented commercial and industrial businesses, real estate development, organized labor, and city employees. Individuals discussed the need for efficient transportation for the city's workforce and identified the complexities of establishing long term remedies to reduce single occupancy vehicles. Participants suggested the need for a broader transportation vision for trades workers that could include a mix of employer supported mobility solutions and collaborating with other cities such as Elkhart, IN.

Energy conversations highlighted the practicality of energy efficiency; however, stakeholders agreed that while it would be important to increase local contractors' skills and abilities to install new technologies that might be energy efficient or generate renewable energy, it was more important to target the architects, owners and vendors that could drive the market. This group was keen on articulating the role of educating and informing decision makers within the buildings sector. The group articulated programs and pathways for continuing education, for a more skilled workforce, while sharing the realities of how those resources are being accessed and their success/popularity.

Neighborhood Development

Participants from universities, nonprofit organizations, neighborhoods, city departments and agencies shared their insights regarding GHG reduction strategies. Attendees received an overview of the community's GHG emissions profile, which provided context for the focus group's conversation. Attendees spoke candidly about housing stock, low-income communities, communities of color and risks associated with climate change that vulnerable groups experience. The conversation highlighted transportation conflicts such as the absence of emissions testing Indiana that results in older, less efficient and higher emitting cars remaining in service. Many echoed similar sentiments of other focus groups with regards to prioritizing energy and emissions education. Individuals advocated for the Climate Plan to have strategies that translate into tangible pathways for the following areas of concern; home quality improvements, attracting and retaining contractors, tackling public health issues/interconnected issues and improving conditions for the city's poorest population.

SUMMARY OF FINDINGS

Concerns

- Lack of proficient energy efficiency contractors and lack of efficiency education for contractors
- Large low-income population - making sure residential strategies are inclusive of all residents
- Insufficient public transportation, regional commuting. Driving is the easiest form of transportation
- Competition with surrounding municipalities for businesses and talent

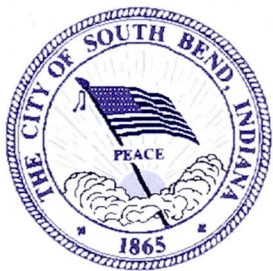
Opportunities

- Proximity to several high-caliber higher educational institutions with innovative programs
- Partnership with workforce development efforts to train contractors and ensure that workers in fossil fuel related industries are not left behind
- Colocation and development corridors to reduce passenger vehicle miles
- Partner with existing entities (e.g. neighborhood associations, unions, Green & Healthy Homes, youth groups, higher education institutions) to strengthen efforts

Recommendations

- Education for residents, contractors, and students/youth
- Action oriented strategies that are inclusive
- Coordinate emissions reduction strategies with economic development incentives
- Encourage the City of South Bend to lead by example with actions to reduce GHG emissions

-
- ¹ Global Covenant of Mayors. <https://www.globalcovenantofmayors.org>.
 - ² Purdue University. Indiana's past & future climate change: A report from the Indiana Climate Change Impacts Assessment. 2018. <https://ag.purdue.edu/indianaclimate/indiana-climate-report/>
 - ³ Purdue University. Indiana's past & future climate change: A report from the Indiana Climate Change Impacts Assessment. 2018. <https://ag.purdue.edu/indianaclimate/indiana-climate-report/>
 - ⁴ Semmler, Ed. South Bend Tribune. Purdue study says farmers need to prepare for climate change. 2018. https://www.southbendtribune.com/news/business/purdue-study-says-farmers-need-to-prepare-for-climate-change/article_0137be8c-7e5a-59b3-9987-74e3da720225.html
 - ⁵ Purdue Climate Change Research Center, Indiana Climate Change Impacts Assessment: Finding Useful Information for the Transportation Sector (2016). https://mygeohub.org/resources/1175/download/IN_CCIA_Transporation.pdf.
 - ⁶ Purdue University. Indiana's past & future climate change: A report from the Indiana Climate Change Impacts Assessment. 2018. <https://ag.purdue.edu/indianaclimate/indiana-climate-report/>
 - ⁷ Purdue Climate Change Research Center, Indiana Climate Change Impacts Assessment: Finding Useful Information for the Transportation Sector (2016). https://mygeohub.org/resources/1175/download/IN_CCIA_Transporation.pdf.
 - ⁸ Purdue University. Indiana's past & future climate change: A report from the Indiana Climate Change Impacts Assessment. 2018. <https://ag.purdue.edu/indianaclimate/indiana-climate-report/>
 - ⁹ Parrot, Jeff, Joe Dits and Mary Beth Spalding. South Bend Tribune. A year after historic South Bend area floods, damage remains, preventative measures planned. 2019. https://www.southbendtribune.com/news/local/a-year-after-historic-south-bend-area-floods-damage-remains/article_38db74dd-b1df-5062-ad7b-6acb91694ef7.html
 - ¹⁰ Wastewater treatment plant gauge
 - ¹¹ https://www.southbendtribune.com/multimedia/photos/photos-historic-flooding-in-michiana/collection_1131f994-1760-11e8-a893-dfa81fc0b049.html#11
 - ¹² Parrot, Jeff, Joe Dits and Mary Beth Spalding. South Bend Tribune. A year after historic South Bend area floods, damage remains, preventative measures planned. 2019. https://www.southbendtribune.com/news/local/a-year-after-historic-south-bend-area-floods-damage-remains/article_38db74dd-b1df-5062-ad7b-6acb91694ef7.html
 - ¹³ United Nations Economic Commission for Europe Sustainable Development Brief. The co-benefits of climate change mitigation. 2016. http://www.unece.org/fileadmin/DAM/Sustainable_Development_No.2_Final_Draft_OK_2.pdf
 - ¹⁴ The Intergovernmental Panel on Climate Change. Special report: Global warming of 1.5 degrees Celsius. <https://www.ipcc.ch/sr15/>
 - ¹⁵ Sierra Club. South Bend council votes unanimously for clean energy transition. 2016. <https://content.sierraclub.org/press-releases/2016/09/south-bend-council-votes-unanimously-clean-energy-transition>.
 - ¹⁶ City of South Bend Common Council Resolution 19-33, 2019
 - ¹⁷ Global Covenant of Mayors. About Us. <https://www.globalcovenantofmayors.org/about/>.
 - ¹⁸ City of South Bend Common Council Resolution 19-33, 2019
 - ¹⁹ American Fact Finder, US Census
 - ²⁰ <https://www.bea.gov/data/gdp/gdp-metropolitan-area>
 - ²¹ 2019 Stakeholder feedback interviews - Delta Institute
 - ²² City of South Bend Common Council Resolution 19-33, 2019
 - ²³ City of South Bend 2019 CDP inventory submission
 - ²⁴ City of South Bend 2019 CDP inventory submission
 - ²⁵ City of South Bend 2019 CDP inventory submission



City of South Bend Common Council

441 County-City Building • 227 W. Jefferson Blvd
South Bend, Indiana 46601

(574) 235-9321
Fax (574) 235-9173
TDD (574) 235-5567
<http://www.southbend.in.gov>

Tim Scott
President

Karen White
Vice-President

John Voorde
Chairperson, Committee
of the Whole

Tim Scott
First District

Regina Williams-Preston
Second District

Sharon L. McBride
Third District

Jo M. Broden
Fourth District

Jake Teshka
Fifth District

Oliver Davis
Sixth District

Gavin Ferlic
At Large

John Voorde
At Large

Karen White
At Large

April 17, 2019

Dear Members of the South Bend Common Council:

For your consideration at our next Council Meeting on Monday, April 22, 2019 which coincides with the celebration of Earth Day globally, I am kindly asking your support for this resolution on climate change and climate action.

Please note that the resolution is extraordinary in its length and, befitting its importance for our community, it also will be the only item requiring our consideration and vote on our agenda for our upcoming meeting. Regarding the length of the document, it is, indeed intentional for these three reasons:

- (1) to be educational as to the science of climate change, the impacts, and the global call to action to reduce carbon emissions;
- (2) to recognize the City of South Bend for its various efforts relative to these issues;
- (3) to provide insight into the process that brought us to this point, and to thereby, model pathways that might be instructive and undertaken by other Indiana cities, communities in the Midwest, or across the nation.

As the resolution sets us collectively as a City and community on a robust forward path of creating a climate action plan with aggressive, but achievable greenhouse gas reduction goals, our actions will support the development of a livable, sustainable City with a high quality of life, and improve our resilience in face of climate change.

Finally, this resolution has been a truly collaborative effort. Several individuals, organizations and academic institutions have been dedicated partners, including (but not limited to): Dr. Phil Sakimoto, Dr. Laura Dassow Walls, students from the University of Notre Dame's *Sustainability Principles and Practices* class of 2017, Tai Verbrugge, Jackie Brebeck, Julia McKenna, Velshonna Luckey, The Robinson Community Learning Center Climate Change Club, Josh Crudup, Tyler Newsome, Jim Poyser, Dr. Alan Hamlet, Grace Coman, Matthew Peterson, Dr. Rachel Novik, Maddie McGuire, Todd Johnson, Climate Champions, former South Bend Council Member Randy Kelly, Graham Sparks, Kareemah Fowler, Ellie Navarro, Jennifer Coffman, Bianca Tirado, Good Shepard Montessori (with special thanks to Dan Driscoll and in memory of Felicia Driscoll), the University of Notre Dame, the Green

Filed in Clerk's Office

APR 17 2019

KAREEMAH FOWLER
CITY CLERK, SOUTH BEND, IN



City of South Bend Common Council

441 County-City Building • 227 W. Jefferson Blvd
South Bend, Indiana 46601

(574) 235-9321
Fax (574) 235-9173
TDD (574) 235-5567
<http://www.southbendin.gov>

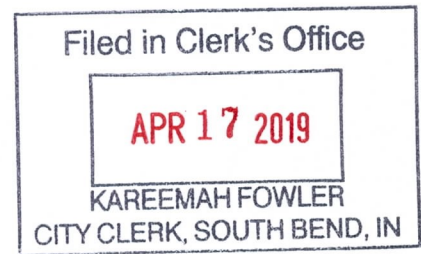
Ribbon Commission, Mayor Pete Buttigieg, Director of Public Works Eric Horvath and the Office of Sustainability Director Therese Dorau. We are indebted as a community for your leadership.

Sincerely,

Jo M. Broden
South Bend Common Council
District 4
Chair, Public Health & Safety

Jake Teshka
South Bend Common Council
District 5
Chair, Utilities

Karen L. White, Vice President
South Bend Common Council
At-Large Member
Chair, Personnel & Finance



BILL NO. 19-33
RESOLUTION NO. _____

A RESOLUTION OF THE SOUTH BEND COMMON COUNCIL CONCERNING CLIMATE RECOVERY AND OUR COMMITMENT TO DEVELOP A CLIMATE ACTION PLAN AIMED AT GREENHOUSE GAS REDUCTIONS FOR THE CITY OF SOUTH BEND AND TO SUPPORT OTHER CLIMATE RELATED INITIATIVES.

WHEREAS, scientific consensus concludes that it is extremely likely that the dominant cause of ongoing climate change is the emission of heat-trapping gases by human actions, primarily from the combustion of fossil fuels; and the more carbon dioxide in our atmosphere, the warmer our planet gets. Per the National Oceanic and Atmospheric Administration (NOAA), carbon has not been this highly concentrated in the atmosphere in the past 800,000 years; in fact, according to NOAA, the last five years, 2014-2018, are the warmest years ever recorded¹; and

WHEREAS, in 1988, NASA's Dr. James Hansen testified before Congress on the impending perils of climate change, and the Intergovernmental Panel on Climate Change (IPCC) was established by the United Nations and the World Meteorological Association, and has since released five climate assessments with each affirming: the planet is getting warmer and humans are causing it through our carbon emissions, and unless we reduce emissions, there are serious environmental consequences in our future. Both the 1997 Kyoto Protocol² and the 2015 Paris³ Agreement challenged nations to reduce greenhouse emissions and thereby, limit climate change, and the 2019 IPCC report just released in January advocates for policies aimed at temperature targets under one point five (1.5) degrees Celsius, and further acknowledged that the impact of even a one point five (1.5) degrees Celsius rise will pose drastic impact on the Earth's ecosystems and inhabitants⁴; and

WHEREAS, climate change already poses risks at the global, state, and local level, impacts evidenced around the world are: changes in precipitation (intensification of both drought and storm effects), ocean acidification, coral reef degradation, loss of species, threats to marine life and biodiversity, rising sea levels threatening food supplies and livelihoods, and forced emigration of coastal populations. In addition, extreme weather events, temperatures, and air pollutants can acutely impact human health. The elderly, young, homeless, and people with chronic diseases, or respiratory illnesses (such as asthma) are particularly sensitive to extreme temperatures contributing to increase hospital visits, health care costs, and mortality. Another

¹ <https://www.nationalgeographic.com/environment/2019/02/2018-fourth-warmest-year-ever-noaa-nasa-reports/>

² UNFCCC (1997) Kyoto Protocol to the United Nations Framework Convention on Climate Change adopted at COP3 in Kyoto, Japan on 11 December 1997

³ <https://unfccc.int/resource/bigpicture/#content-the-paris-agreement>

⁴ <https://www.ipcc.ch/>

health effect of climate change is the spread of disease such as Lyme and the Zika Virus which are transmitted by ticks and mosquitoes that thrive in hot, humid environments⁵; and

WHEREAS, Indiana and South Bend will certainly share in some of these impacts, already documented or projected effects include, but are not limited to: record breaking heat waves and high humidity (with accompanying increased demand for cooling), reduced water and air quality, decreased agricultural productivity (e.g., of corn and soybean crops); increased heavy rainfall leading to more flooding, shorter winters and delayed fall freeze (e.g., extending the ragweed allergy season), increased invasive species; loss of plant, fish and wildlife habitats⁶; and

WHEREAS, these and other impacts will not be equally distributed; communities that already face socioeconomic and health inequities, whether around the world or here in our community, will be most severely impacted, including youth, senior, people of color, and low-income populations; and

WHEREAS, City services, infrastructure, our local economy, the natural environment, public health, and our homes and businesses are endangered by climate change; and Cities have a primary duty and responsibility to ensure the public health, safety, and welfare of its residents – both now and in future generations; and

WHEREAS, Cities are uniquely empowered to take proactive, resolute, and prompt measures to directly influence activities that have climate impacts, such as energy use in homes and buildings, transportation, and by promoting sustainable development; and

WHEREAS, this Council, in February of this year at two joint committee hearings of our Health and Public Safety and our Utilities Committees, were presented with clear and compelling science, public testimony, letters, and petitions by local youth of all ages and other community members, to take immediate, real, and lasting legislative actions to reduce emissions of greenhouse gases and thus reduce global warming and contribute to the recovery of our planet; and

WHEREAS, Climate action provides opportunities for South Bend to improve our air quality, mobility, public health, social equity, energy independence and energy security, and the quality of our natural environment; it also can serve to attract jobs and economic development opportunity and increase long-term competitiveness. Action on climate change supports the development of a livable, sustainable City with a strong economy and high quality of life. Action can also improve resilience in face of climate change and other challenges; and

WHEREAS, South Bend has pursued various climate action with Mayor Stephen Luecke having signed the U.S. Mayors Climate Protection Agreement in 2008, convened the Green Ribbon Commission in 2009, and founded the Municipal Energy Office in 2010. In 2014, Mayor Pete Buttigieg created the Office of Sustainability and reconvened the Green Ribbon Commission, an advisory-body of local climate and sustainability experts. The South Bend Common Council, in

⁵ <http://docs.southbendin.gov/WebLink/Browse.aspx?dbid=0&startid=279856&row=1&cr=1>

⁶ Purdue Climate Change Research Center's 2019 Indiana Climate Change Impacts Assessment; <https://ag.purdue.edu/indianaclimate/>

2016, unanimously passed the Cleaner Energy Resolution, and then, in 2018 signed on with Mayor Buttigieg to a “Repower Indiana” letter calling for 100% clean energy use by our utility supplier. In 2017, Mayor Pete Buttigieg signed the “We’re Still In” letter, joining Climate Mayors world-wide affirming a commitment to the Paris Agreement on Climate, despite the United States’ formal withdrawal from the talks; and

WHEREAS, this and previous Councils have also supported other energy efficiency and renewable energy initiatives in the municipal budget, including but not limited to energy and water-efficient facilities, alternative fuel vehicles, reducing waste and paper use, and robust community education and engagement endeavors. The City of South Bend actively influences sustainable behaviors in our community, encouraging biking and walking, supporting mass transit, yard waste and recycling opportunities, and advocating for clean and affordable energy; and

WHEREAS, by way of executive authority in April of 2018, Mayor Pete Buttigieg committed to the Global Covenant of Mayors for Climate and Energy, and effectively joined South Bend to 9,296 cities representing 814 million people in a pledge to implement policies and to undertake measures to (i) reduce/limit greenhouse emissions, (ii) prepare for the impacts of climate change, (iii) increase access to sustainable energy, and (iv) track progress of these policies and measures in meeting or exceeding the Paris Agreement objectives⁷; and

WHEREAS, in keeping with our pledge, our City has already measured and reported both our community and government operation levels of greenhouse gases, we are next poised under this global framework on climate action to set a greenhouse gas reduction goal and create a climate action plan encompassing not only the City of South Bend’s operations, but our community as a whole as defined by the geographic limits of our City; and

THEREFORE, BE IT RESOLVED the South Bend Common Council hereby supports the City Administration’s current Q2/Q3 2019 initiative to develop a climate action plan that: specifies climate actions most impactful in South Bend, identifies ambitious but achievable greenhouse gas reduction goals customized to South Bend, includes both immediate internal actions and longer-term programs and policies, and outlines appropriate timelines for implementing the specific climate actions and achieving the greenhouse gas reductions; and

THEREFORE, BE IT RESOLVED, the South Bend Common Council requests this plan be completed by the Fall of 2019, and the administration’s planning process include appropriate stakeholder feedback, consider Council and administration priorities, including but not limited to opportunities for climate action to increase social equity, maximizing benefits and minimizing impacts on individuals and businesses; and consideration of any action through the lens of the “triple bottom line.” This approach posits we can slow the pace of climate change in ways that save money, build a better quality of life for our residents, and drive economic growth.

THEREFORE, BE IT RESOLVED, and to this end of triple net returns, the South Bend Common Council will look to support the administration’s current and future internal policies,

⁷ <https://www.globalcovenantofmayors.org>

and community-focused measures to reduce greenhouse emissions. Accordingly, Council will respond to administration proposals; act to adopt proposed plans, goals, targets and measures as appropriate, including the consideration of a local ordinance or ordinances by the end of 2019; and to ensure adequate funding and staffing for adopted operational climate and community priorities.

THEREFORE, BE IT RESOLVED, the South Bend Common Council also sets, henceforth, that the administration create an iterative process of setting goals, tracking progress, and reporting. Specifically, Council and the community will be provided annual progress reports on the climate action plan well in advance of the budget planning process. Both the municipal greenhouse gas inventory and the community greenhouse inventory will be updated every 3 years, and the climate action plan updated on a 3-year cycle.

THEREFORE, BE IT RESOLVED, Council will seek opportunities to demonstrate climate leadership in Indiana, throughout the Midwest, and in our own community. It will also support the work of the Office of Sustainability and the Administration in doing the same, including collaboration with other governmental entities and agencies, assisting in engaging community stakeholders, and through public-private partnerships. These relationships and activities will be essential to the design, funding, implementation and attainment of our community's climate action plan goals.

THEREFORE, BE IT RESOLVED, that this Council commits itself today, and strongly urges future members of the South Bend Common Council, our Mayor's office, and our citizenry to remain engaged in and committed to climate action. Working together, we can confront what has been considered one of the greatest challenges of our time in proactive and strategic ways that benefit our community, our county, and our world.

Approved this 22nd day of April 2019

Tim Scott, 1st District Council Member

Oliver J. Davis, 6th District Council Member

Regina Williams- Preston, 2nd District Council Member

John Voorde, At Large Council Member

Sharon L. McBride, 3rd District Council Member

Gavin Ferlic, At Large Council Member

Jo M. Broden, 4th District Council Member

Karen L. White, At Large Council Member

Jake Teshka, 5th District Council Member

Robert J. Palmer, Council Attorney

These:

Approved this 22nd Day of April 2019

Kareemah N. Fowler, City Clerk

Pete Buttigieg, Mayor of South Bend, Indiana