

# Carbon Neutral 2050:

South Bend's Climate Action Plan



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delta institute 

# WE ARE STILL IN

WE ARE **3,832** LEADERS STRONG

REPRESENTING

**158.6 MILLION**

 PEOPLE

ACROSS

**50** 

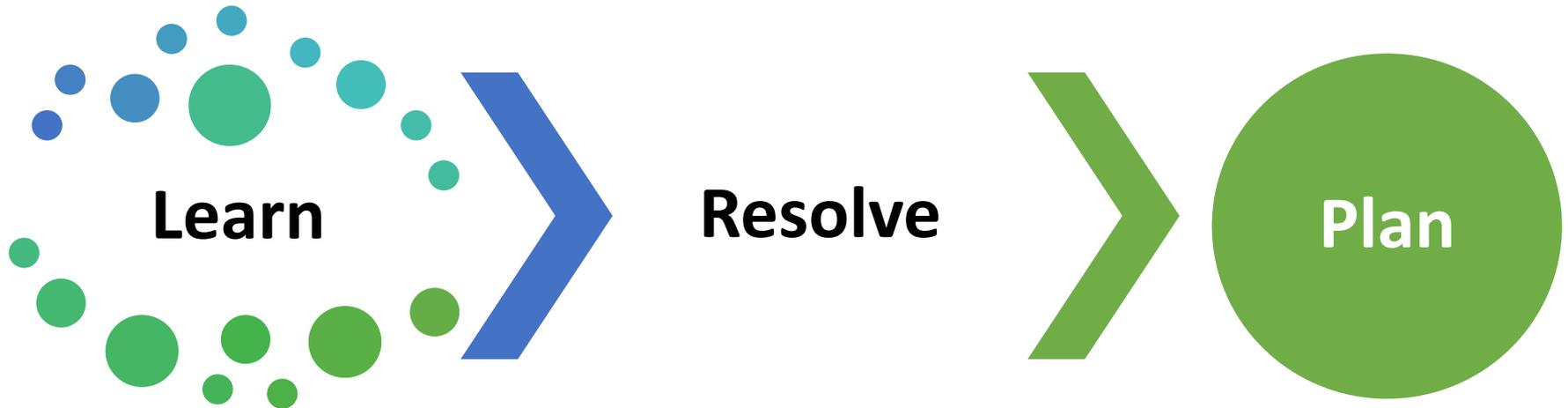
STATES

TOTALING \$\$\$

**9.46 TRILLION**

\$\$\$\$ IN GDP

# Background



Two council  
committee meetings  
*Feb 2019*

Council Resolution  
*Apr 2019*  
RFP for Consultant  
*May 2019*

Research and  
develop plan  
*May-Oct 2019*



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# Learn: Climate Change Briefings to Council

## Issues - Feb. 18

1. Climate Change Science
2. South Bend-specific Impacts
3. Greenhouse Gas Inventory Results

## Solutions - Feb. 27

4. Sustainability Office Actions
5. Partner Actions (MACOG/ND)
6. Future Climate Action



Dozens of public comments submitted



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# Resolve: Resolution & Consultant

## Resolution, Apr. 22 – Earth Day

- Summarize climate science consensus
- Recognize South Bend-specific impacts and opportunities
- Agree on necessity of local climate action
- Call for Council to provide leadership
- Request Administration undertake planning process

## Request for Proposals

Selection committee of staff, council, and community members



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# Plan: Research & Develop Plan

## Community-scale strategies to reduce emissions

- Work with experienced consultant
- Based on community GHG inventory
- Local context + tested strategies = cost-effective planning process
- Does not include *adaptation*

## Deliverables

- Mid-range and long-range GHG reduction targets
- Three to five near-term strategies



# Climate Action Plan Overview

## Plan Goals:

- Demonstrate the need for GHG emission mitigation in South Bend
- Provide an overview of current city-wide GHG emissions
- Identify high-priority strategies and actions for short, medium, and long term reductions

### ***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).



# Planning Process: Overview

- GHG Inventory
- Review of Existing Plans + Conditions
- Stakeholder Engagement
- Research + Analysis
- Strategy Development
- Goal Setting
- Finalization of Actions



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# Planning Process: Stakeholder Engagement

- Local Context Interviews
  - Elected Officials
  - Municipal Staff
  - Regional Agency Staff
- Focus Groups for Targeted Community Feedback
  - Green Ribbon Commission
  - Commercial / Industrial
  - Neighborhood Development



# Planning Process: Guiding Principles

- Equity-Centered
- Quantifiable
- Context-Sensitive
- Practical, Achievable, and Affordable
- Incentive-Oriented
- Partnership-Driven



# Co-Benefits of GHG Mitigation



Public Health



Cost Savings



Economic Growth



Quality of Place



Increased Transportation Access



Increased Equity

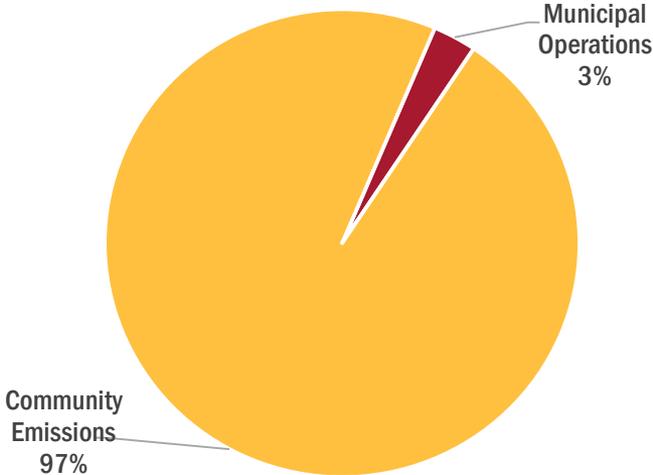


Increased Engagement

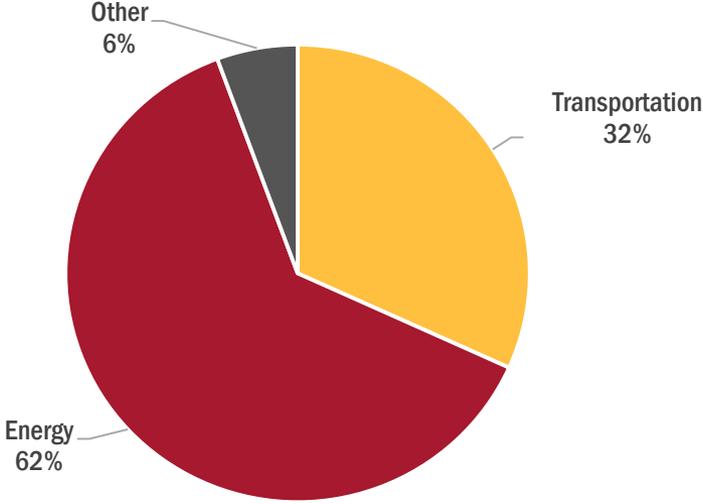


# Current Conditions: 2017 South Bend GHG Inventory

### SOUTH BEND GHG EMISSIONS INVENTORY

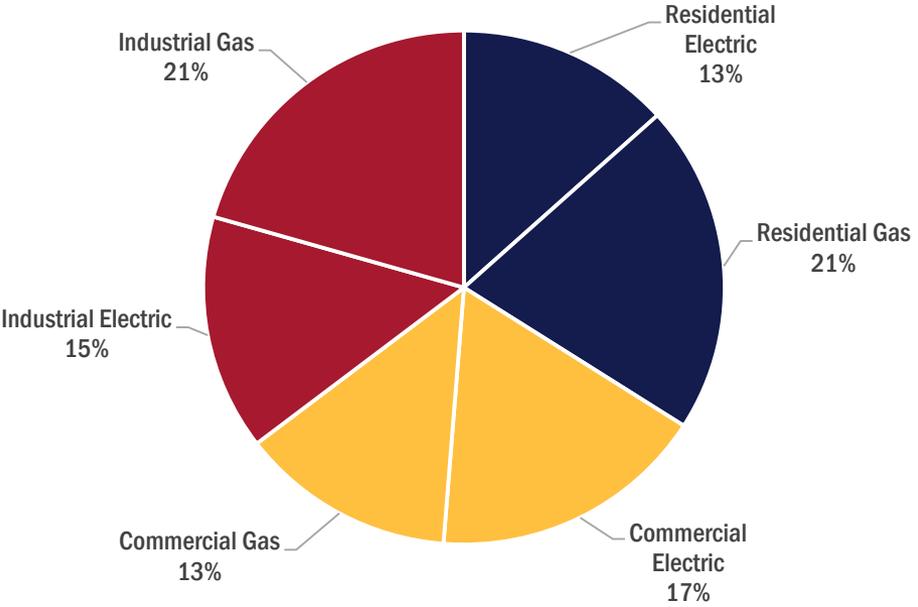


### SOUTH BEND COMMUNITY GHG EMISSIONS

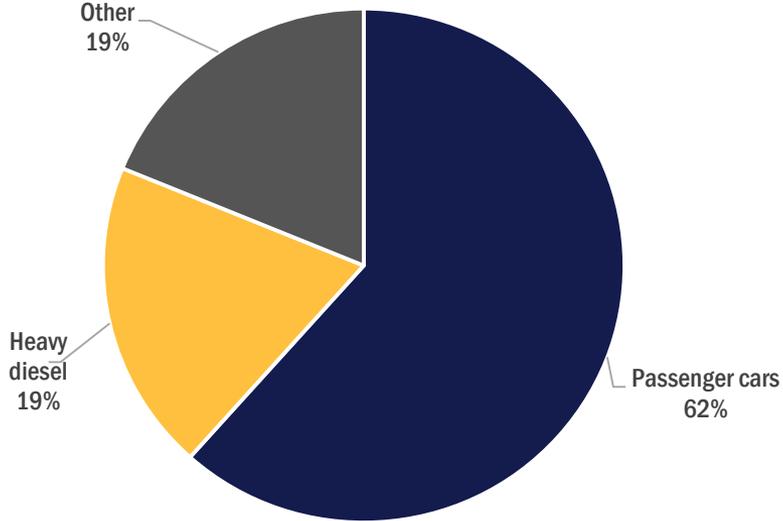


# Current Conditions: 2017 South Bend GHG Inventory

### SOUTH BEND COMMUNITY GHG EMISSIONS: ENERGY



### SOUTH BEND COMMUNITY GHG EMISSIONS: TRANSPORTATION



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# Goal & Action Development

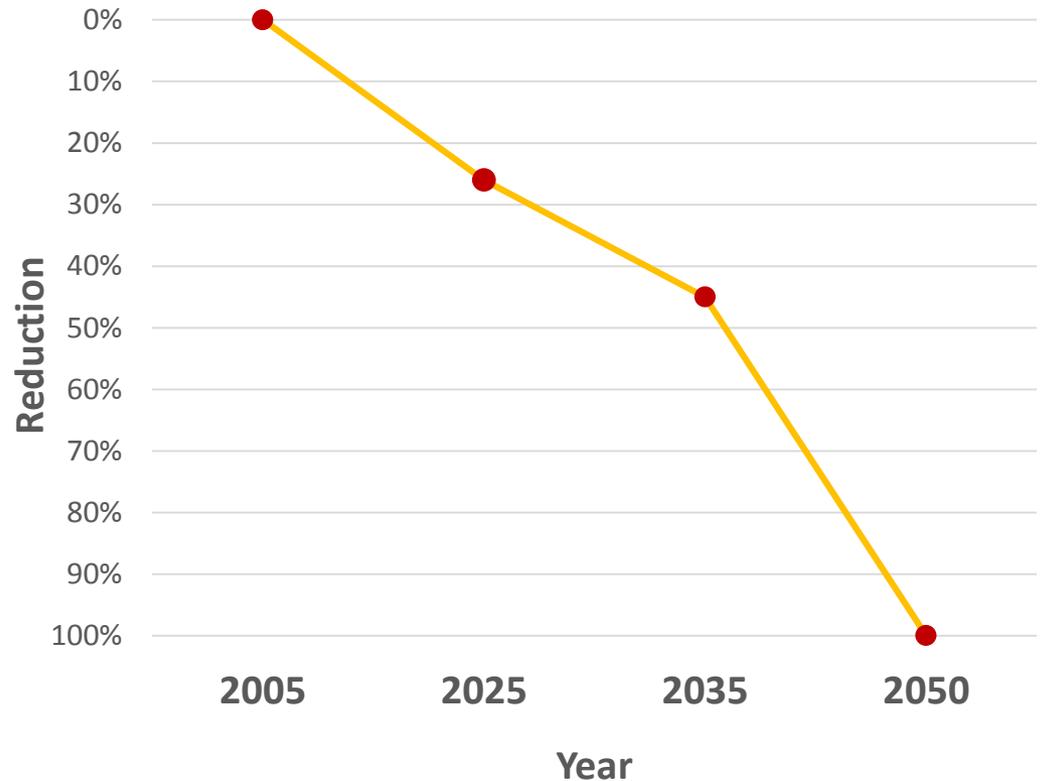


# GHG Reduction Goals

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

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

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



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# Transportation

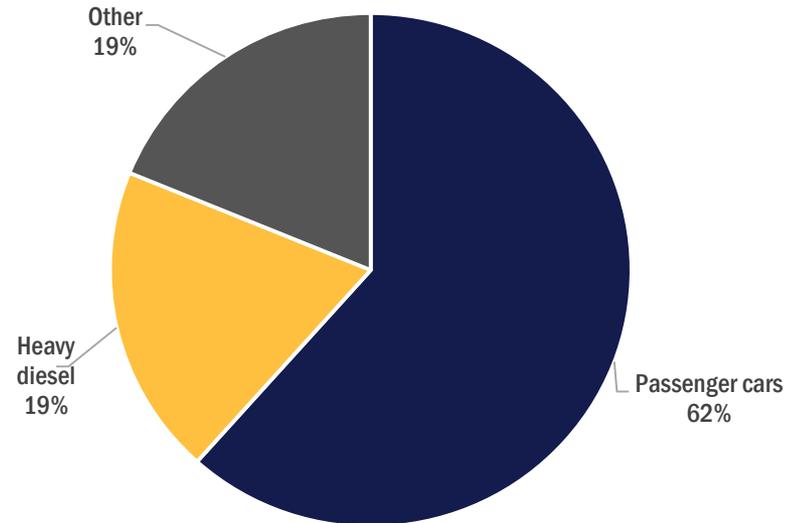
## GOAL T1:

Reduce vehicle miles traveled (VMT) and single occupancy vehicle (SOV) trips

## GOAL T2:

Transition to cleaner, more efficient fuels and technology

## SOUTH BEND COMMUNITY GHG EMISSIONS: TRANSPORTATION



# Transportation: Goal 1

	Action	Additional Stakeholders	Municipal Role	Timeframe/ Impact	Co-Benefits	Cost
1.1	Promote and strengthen public transit	Transpo, MACOG, State of Indiana, SBR 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	\$\$\$
1.2	Promote and improve bike share and alternative mobility program options	Program Providers, MACOG, SBR Chamber, Local Businesses	Funding Program Mgmt Promotion Partnership Building	Short, Ongoing Medium Impact	Cost Savings, Public Health Economic Growth, Quality of Place, Increased Transportation Access	\$\$
1.3	Promote and advance biking and walking through education and community partnerships	Bike Michiana Coalition, School Corporation, MACOG, Community Recreation Centers (YMCA, etc.), Local Businesses, Community Orgs	Promotion Partnership Building	Short, Ongoing Medium Impact	Cost Savings, Public Health Quality of Place Increased Transportation Access Increased Equity Increased Engagement	\$
1.4	Reduce the length and frequency of vehicle trips through land use and economic development	Local Developers, Transpo, MACOG, SBR Chamber, Economic Development	Planning Funding Program Mgmt Regulation Promotion	Medium, Ongoing High Impact	Public Health, Economic Growth Quality of Place Increased Transportation Access	\$
1.5	Prioritize infrastructure investments that advance regional access to transit and active transportation options	Transpo, MACOG, INDOT, NICTD	Planning Funding Program Mgmt Advocacy	Medium, Ongoing High Impact	Cost Savings, Public Health Economic Growth, Quality of Place Increased Transportation Access Increased Equity	\$\$\$
1.6	Promote carpool and vanpool services	Transpo, SBR Chamber, Local Businesses	Advocacy Promotion	Medium, Ongoing Medium Impact	Cost Savings, Public Health Quality of Place Increased Transportation Access Increased Equity	\$\$
1.7	Promote and strengthen passenger rail services for regional travel	MACOG, NICTD, Amtrak	Funding Program Mgmt Advocacy Promotion	Medium, Ongoing Medium Impact	Economic Growth, Quality of Place Increased Transportation Access	\$\$\$

# Transportation

## Example Action (T1.4)

Reduce the length and frequency of vehicle trips through land development policies and economic development strategies

Scale: **M**   

## Co-benefits:



### **Case Study: Cleveland, OH**

*“In the wake of the 2008 economic downturn, Cleveland, along with other former industrial US cities, faced severe financial difficulties...Cleveland managed to transform a modest \$50 million investment in bus rapid transit into \$5.8 billion in new transit-oriented development. By **putting bus rapid transit (BRT) along a strategic corridor and concentrating government redevelopment efforts there**, Cleveland managed to leverage \$114.54 dollars of new investment for every dollar it invested into the BRT system, **adding jobs and revitalizing the city center.**”*

*Institute for Transportation & Development Policy. [More Development for your Transit Dollar](#). 2013. [[Link](#)]*



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# Transportation: Goal 2

	Action	Additional Stakeholders	Municipal Role	Timeframe/ Impact	Co-Benefits	Cost
2.1	Undertake and promote diesel engine retrofits in municipal and commercial fleets	Transpo, School Corporation, SBR Chamber, South Bend Region Economic Development, MACOG, INDOT, IDEM	Funding Program Mgmt Promotion	Medium, Ongoing High Impact	Public Health, Quality of Place Increased Equity	\$\$
2.2	Incentivize community members to retire older vehicles and replace them with alternative fuel vehicles	Transpo, School Corporation, MACOG, INDOT, IDEM	Funding Program Mgmt	Medium, Ongoing Medium Impact	Cost Savings, Public Health Economic Growth Increased Equity	\$\$\$
2.3	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	\$
2.4	Promote anti-idling technology locally	Transpo, School Corporation, SBR Chamber, South Bend Region Economic Development, INDOT, IDEM	Promotion	Medium, Ongoing Medium Impact	Cost Savings Public Health	\$
2.5	Promote upgrades to vehicles that reduce road friction and wind resistance	Transpo, School Corporation, SBR Chamber, South Bend Region Economic Development, INDOT, IDEM	Promotion	Medium, Ongoing Low Impact	Cost Savings	\$
2.6	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	\$



# Transportation

## Example Action (T2.1)

Undertake and promote diesel engine retrofits in municipal and commercial fleets

Scale: **M**  **HIGH**  **\$\$**

Co-benefits:   

*Case Study: Northern Indiana Green Fleet Program*



[\[Link\]](#)



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# Energy

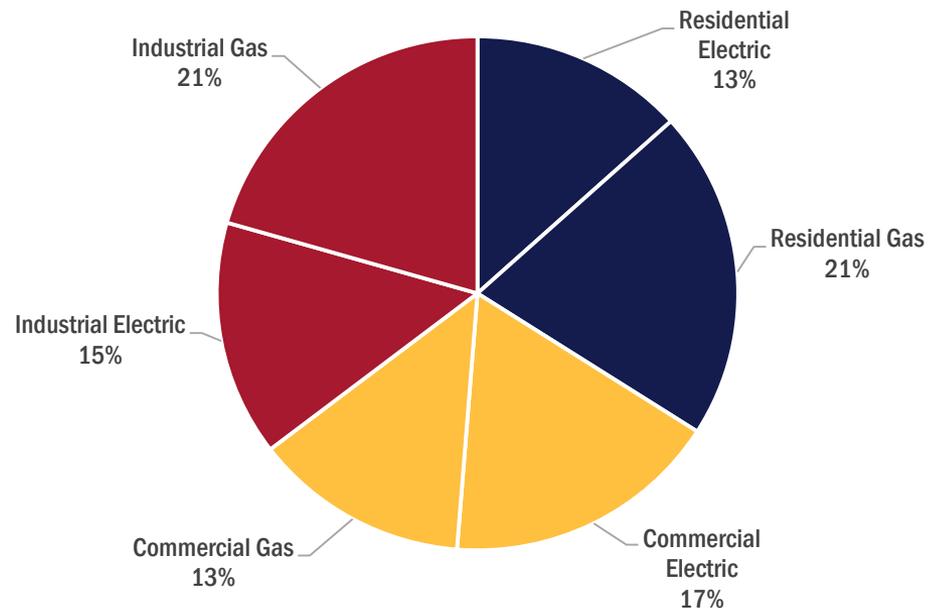
## GOAL E1:

Increase energy efficiency across residential, industrial, and commercial sectors

## GOAL E2:

Transition to renewable energy sources

## SOUTH BEND COMMUNITY GHG EMISSIONS: ENERGY



# Energy: Goal 1

	Action	Additional Stakeholders	Municipal Role	Timeframe/ Impact	Co-Benefits	Cost
1.1	Expand energy efficiency audits for buildings	I&M, NIPSCO, SBR Chamber, Homeowner Associations, Property Management Firms	Funding Program Mgmt Promotion Partnership Building	Short, Ongoing Medium Impact	Cost Savings Economic Growth Increased Engagement	\$
1.2	Enact an energy benchmarking ordinance for larger buildings	Property Management Firms, Real Estate Groups, SBR Chamber, I&M, , NIPSCO	Regulation Promotion	Short, Ongoing Medium Impact	Cost Savings Increased Engagement	\$
1.3	Expand South Bend's regional energy efficiency workforce	Workforce Development Entities, SBR Chamber, I&M, NIPSCO, South Bend Region Economic Development	Program Mgmt Promotion Partnership Building	Short Medium Impact	Economic Growth Increased Engagement	\$
1.4	Update building codes to increase energy efficiency requirements	Property Management Firms, SBR Chamber, I&M, NIPSCO, State of Indiana	Regulation Advocacy	Medium, Ongoing High Impact	Cost Savings Increased Engagement	\$\$
1.5	Develop local incentives for energy efficiency	Local Banks and Lenders, I&M, NIPSCO, SBR Chamber, Homeowner Associations	Promotion	Medium, Ongoing Medium Impact	Cost Savings	\$\$



# Energy

## Example Action (E1.2)

Enact an energy benchmarking ordinance for larger buildings

Scale:   

Co-benefits:  

### **Case Study: Des Moines, IA**

*“Across the country in large cities, buildings often account for the majority of energy use and carbon pollution. In effort to create a more energy-aware community and reduce energy waste, the Des Moines City Council passed on June 3, 2019, the Energy and Water Benchmarking Ordinance **requiring building owners of buildings 25,000 sq. ft or larger to benchmark their energy and water usage.***

*City of Des Moines. [Building Benchmarking](#).2019. [\[Link\]](#)*



# Energy: Goal 2

	Action	Additional Stakeholders	Municipal Role	Timeframe/ Impact	Co-Benefits	Cost
2.1	Advocate for the conversion to renewable energy sources by local energy utilities	I&M, NIPSCO, Indiana Utility Regulatory Commission	Advocacy Promotion	Short, Ongoing High Impact	Public Health Economic Growth Quality of Place	\$
2.2	Advocate for increased state incentives for renewable energy	State of Indiana	Advocacy	Short, Ongoing Medium Impact	Economic Growth Increased Engagement	\$
2.3	Develop municipal incentives for renewable energy	Local Developers, I&M, NIPSCO, SBR Chamber, Neighborhood Associations	Funding Program Mgmt Promotion	Short, Ongoing Medium Impact	Cost Savings Economic Growth Quality of Place Increased Engagement	\$\$
2.4	Ensure incorporation of renewable energy into municipal operations	I&M, NIPSCO	Planning	Medium, Ongoing Medium Impact	Cost Savings Increased Engagement	\$\$
2.5	Update and maintain permitting and procurement guidelines that facilitate renewable energy	I&M, NIPSCO	Regulation	Medium, Ongoing Medium Impact	Cost Savings Economic Growth Increased Engagement	\$
2.6	Integrate renewable energy into land use and zoning policy	SBR Chamber, MACOG, I&M, NIPSCO, Renewable Energy Developers	Planning	Medium, Ongoing Medium Impact	Economic Growth Quality of Place	\$\$



# Energy

## Example Action (E2.3)

Develop municipal incentives that support adoption of renewable energy

Scale:   

## Co-benefits:



### **Case Study: Milwaukee, WI**

*“Milwaukee Shines, the City of Milwaukee's solar program, works **to expand solar energy use through a comprehensive, citywide approach.**”*

*The City, in partnership with Summit Credit Union, **offers low-interest loans to homeowners for solar electric or hot water systems.***

City of Milwaukee. [Milwaukee Shines.](#) [\[Link\]](#)

Clean Energy Authority. [Milwaukee Shines Solar Financing.](#) [\[Link\]](#)

# Future Performance Evaluation

- Inventory Updates
- Metrics based on existing datasets
  - Community-wide
  - Transportation
  - Energy
- Action Updates



# Next Steps: Putting the Climate Action Plan to Use

## Council & Administration Launch

- Council Action
- Sustainability Office consulting project

## Climate Action Plan Phase I

- Recommended strategies (3-5)
- GHG reduction goals
- **Council Adoption**

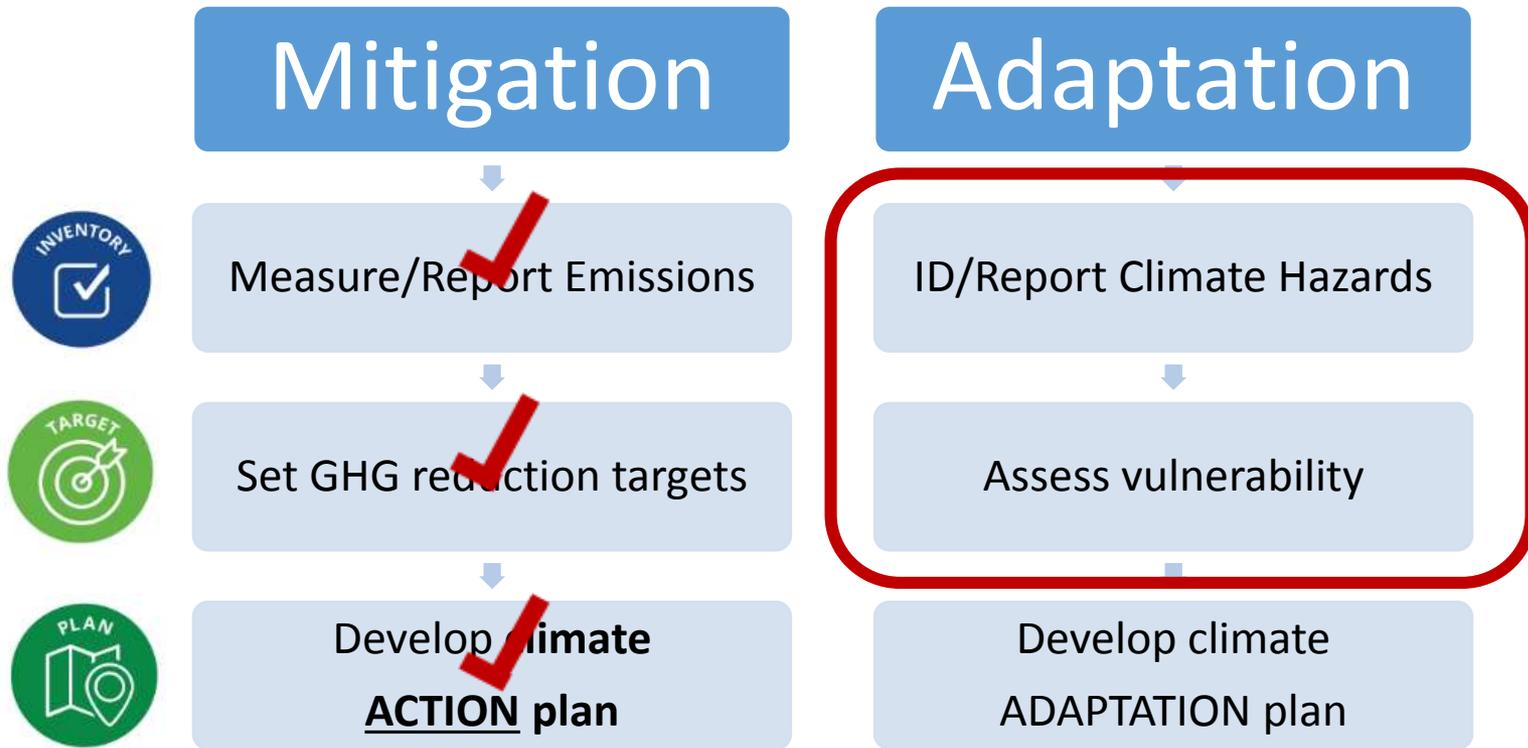
## Climate Action Plan Phase II

- Work Plans (2 in 2020)
- Partners, timeline, funding
- Technical/expert input
- Community, council, and stakeholder input

**Implement**



# Next Steps: Global Covenant



# Council Questions + Public Comment



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