



# Greening Cincinnati: Building a sustainable, equitable, resilient city.





# CLIMATE CHANGE IN CINCINNATI

HEAT



PESTS



HEALTH



STORMS



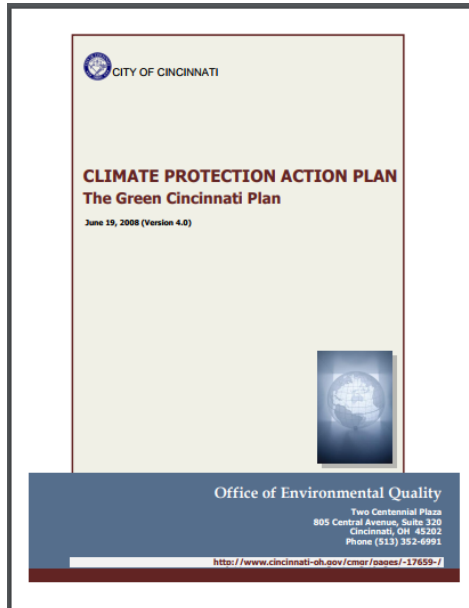
LANDSLIDES



SEWER BACKUPS



# 2018 GREEN CINCINNATI PLAN UPDATE



2008



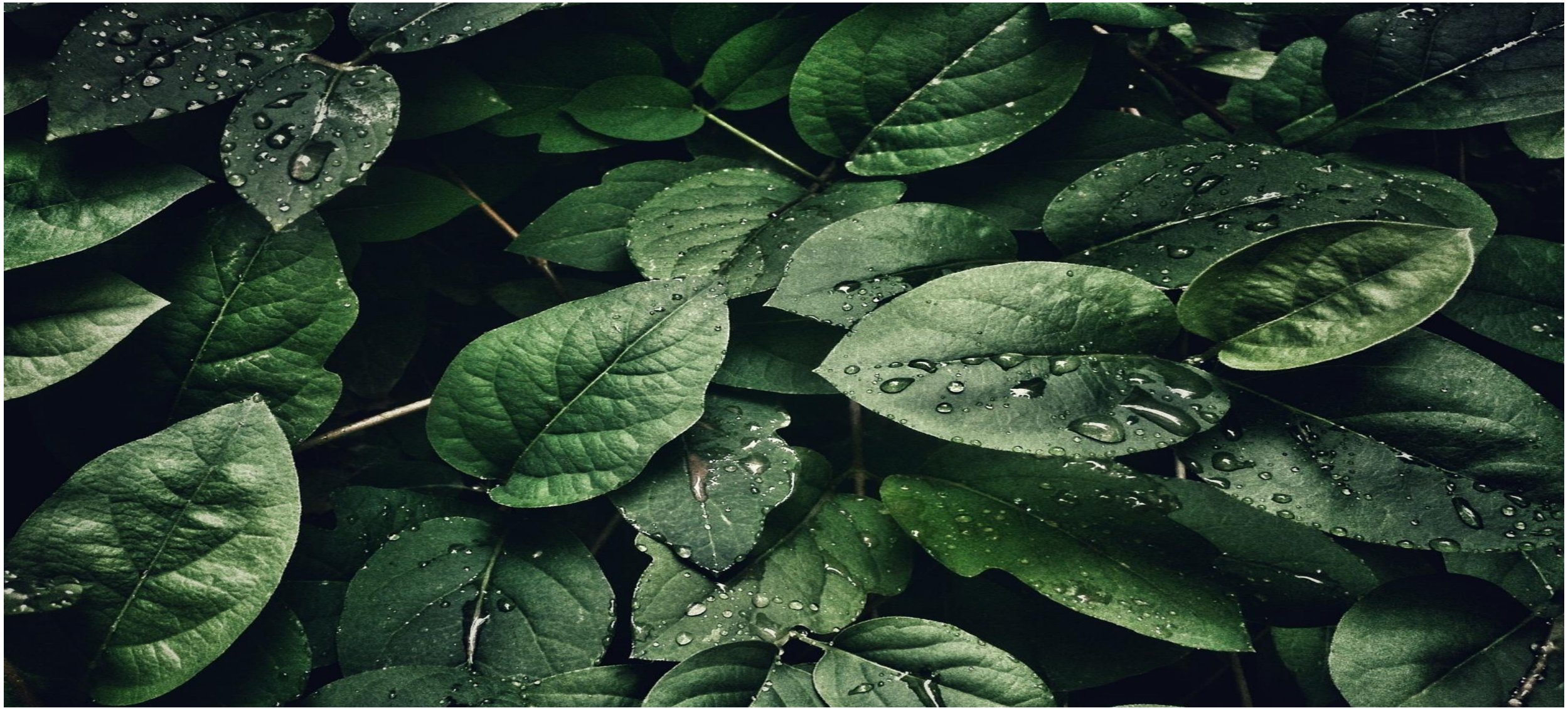
2013



2018

- **Mayor's motion July 2017 called for updated plan, including:**
  - **Carbon reduction goal: 80x50 – 80% emissions reductions by 2050**
  - **Renewable Energy: 100% by 2035**
  - **Steering Committee of organizational leaders to guide process**

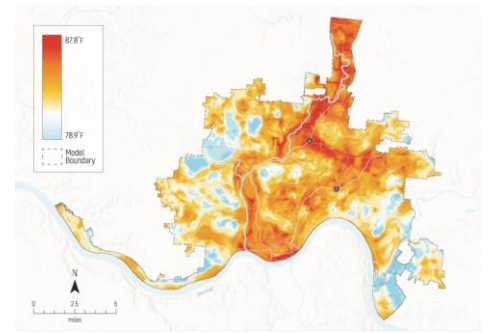




# 2018 Green Cincinnati Plan



# Community Vision





# GREEN CINCINNATI PLAN



| BUILT ENVIRONMENT



| EDUCATION & OUTREACH



| ENERGY



| FOOD



| NATURAL SYSTEMS



| RESILIENCE



| TRANSPORTATION



| WASTE

80 Strategies to reduce carbon emissions 80% by 2050.

Sustainability. Equity. Resilience.

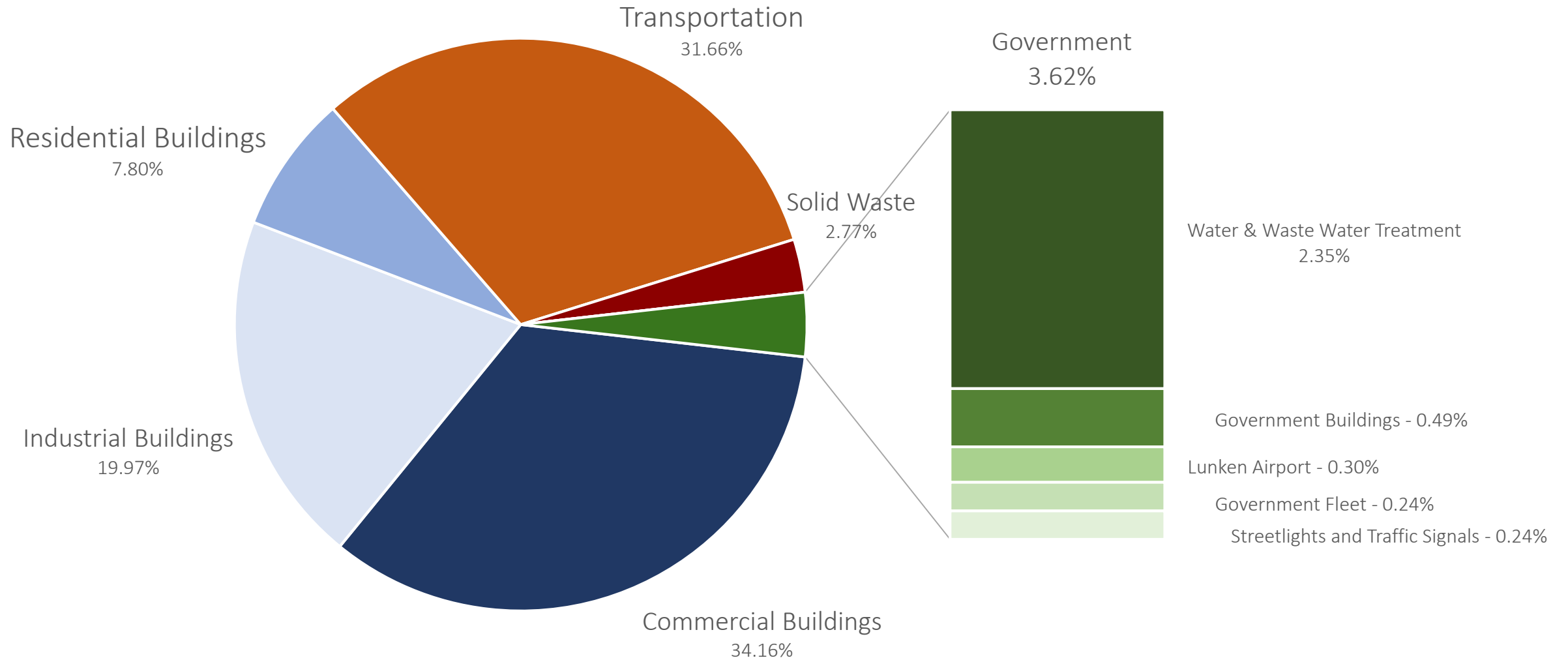




# Cincinnati Carbon Profile

# 7.6M

metric tons of carbon  
emitted in Cincinnati in 2015



# CINCINNATI'S CLIMATE CHANGE GOALS

As part of the Green Cincinnati Plan, we will....



Transition the city to  
100% renewable  
energy.



Improve energy  
efficiency of building  
stock.



Increase public transit,  
biking, and walking



Electrify transportation



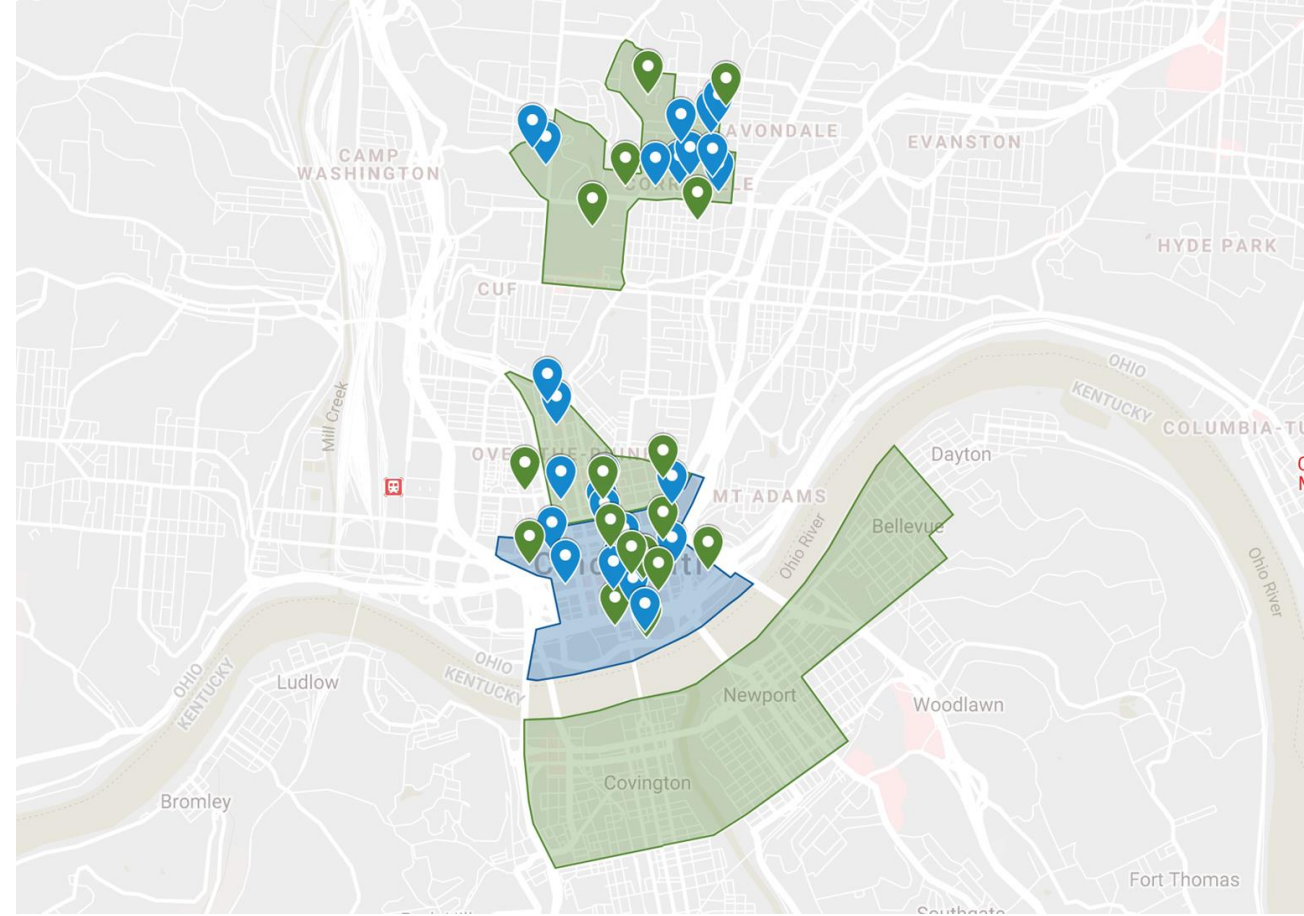
# 100% Green Energy for the City

- 100 Megawatt solar farm under construction (Power Purchase Agreement)
- Energy Aggregation Program - Green energy delivered to ~80,000 homes and biz
- ~10% savings from conventional utility rate
- Workforce development program to grow solar sector employment



# CINCINNATI 2030 DISTRICT<sup>®</sup>

- 300+ Buildings
- 28.1M Square Feet
- 30.4% Energy Reduction
- \$3.1M in Energy Savings







# WarmUp Cincy

Energy Efficiency for Low-Income Apartment Buildings

- 1 in 4 Cincinnatians live in energy burden
- Cincinnati ranked **8th for highest energy burden in 2016** for low-income residents and renters of the top 50 metro areas in the U.S.
- Approximately 400 households benefiting from WarmUp energy efficiency programs





# Transit Sales Tax

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\$100-150M generated annually to  
improve transit and infrastructure







# Transportation:

## Vehicle Electrification



**Charging ports** installed in Cincinnati



**Residents** educated on electric vehicles



**1,000 cars** registered in EV free parking program



**60 hybrid-electric vehicles** for police

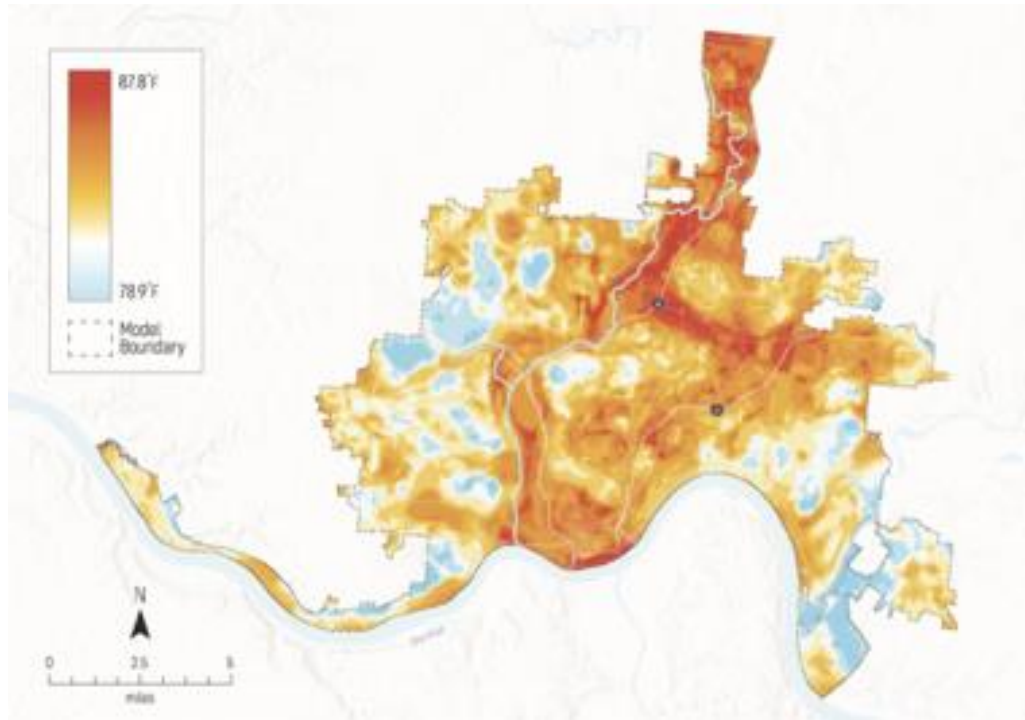


**20 all-electric vehicles** for city fleet

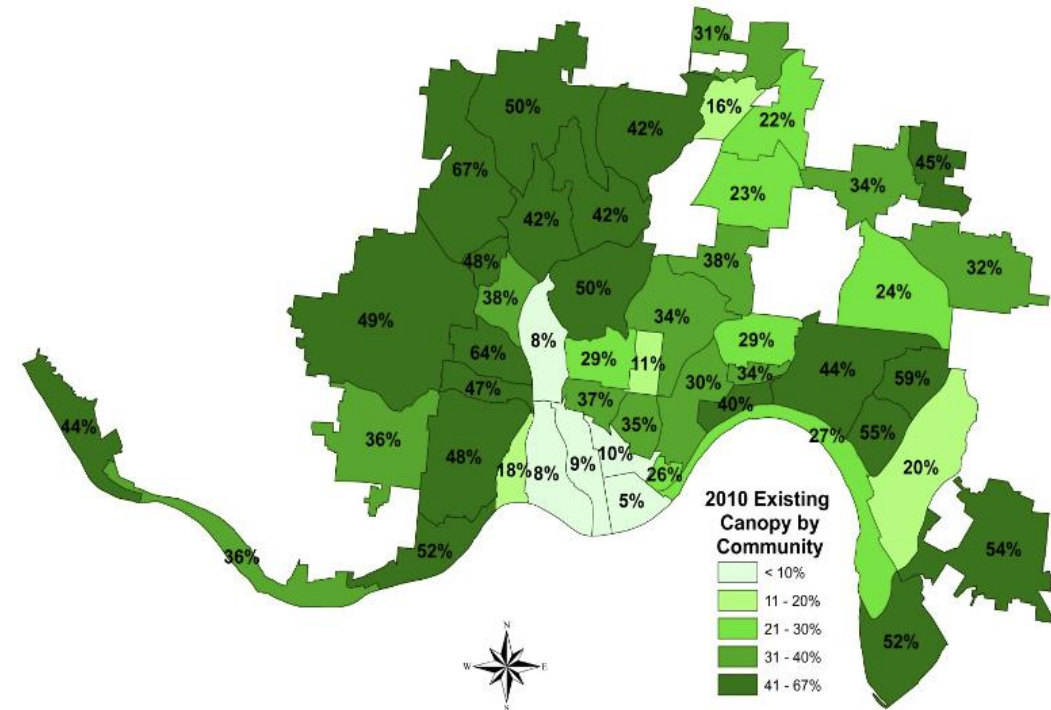
# Climate Equity Indications

Climate impacts do not hit everyone or every neighborhood equally

## Urban Heat Islands



## Urban Tree Canopy





# Climate Safe Neighborhoods

## Equitable Community Engagement

- 6-week workshops with citizens who are paid to offer their community expertise on climate change impacts in their neighborhood
- Build relationships and trust and a better understanding of how to work together
- Empower community to take advantage of government and community programs
- Inspire and train climate advocates





# GREEN CINCINNATI PLAN



| BUILT ENVIRONMENT



| EDUCATION & OUTREACH



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| NATURAL SYSTEMS



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| TRANSPORTATION



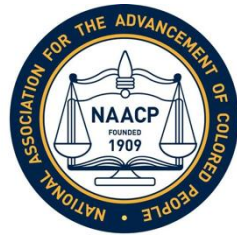
| WASTE

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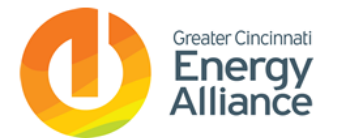
# PLAN IMPLEMENTATION



venture  
smarter



2030  
DISTRICTS®



# Resources

- Over \$4M in grant support to accelerate sustainability work

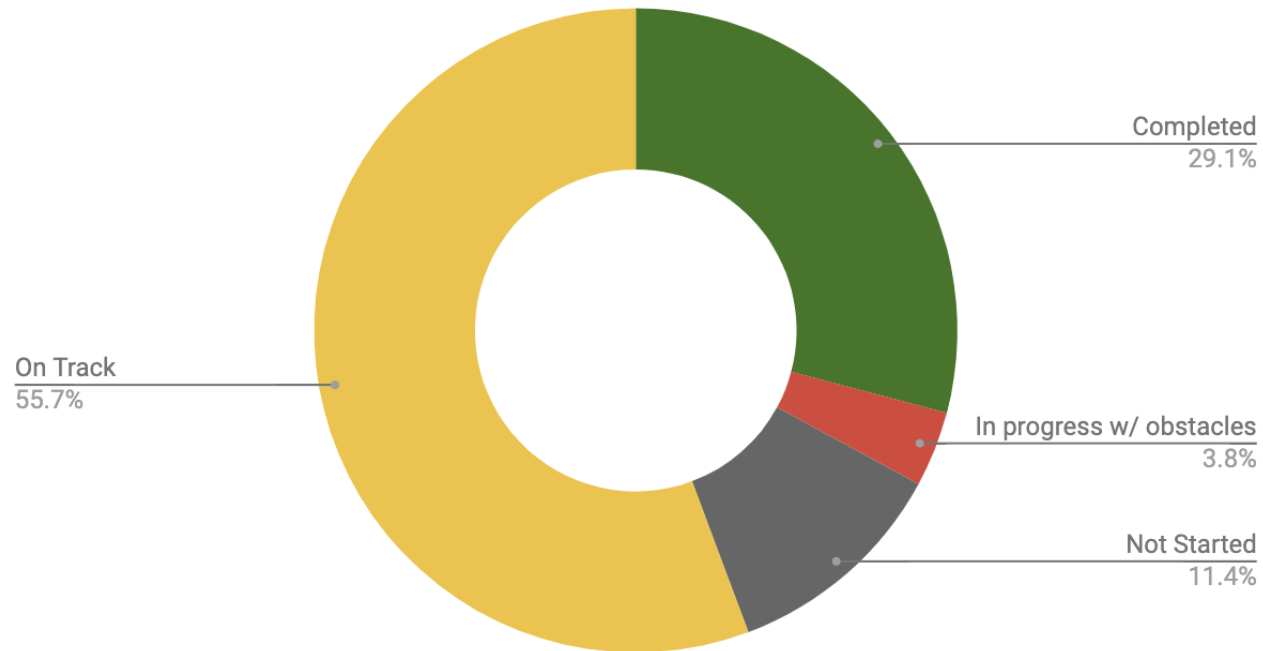




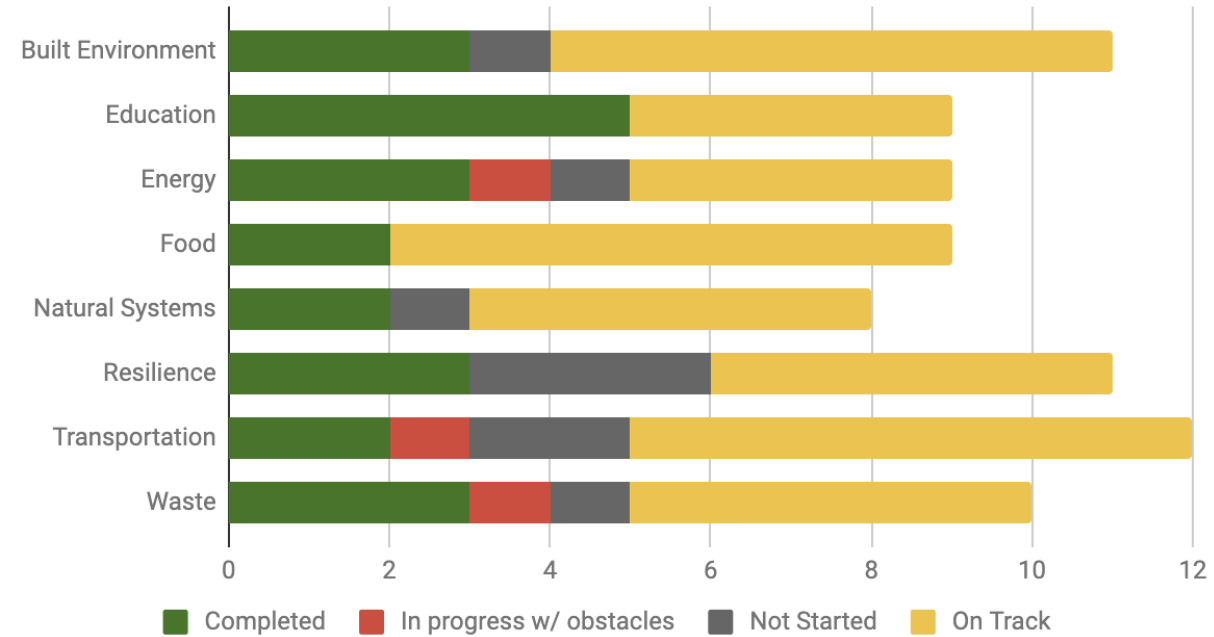


# Progress tracking

## Recommendation Progress

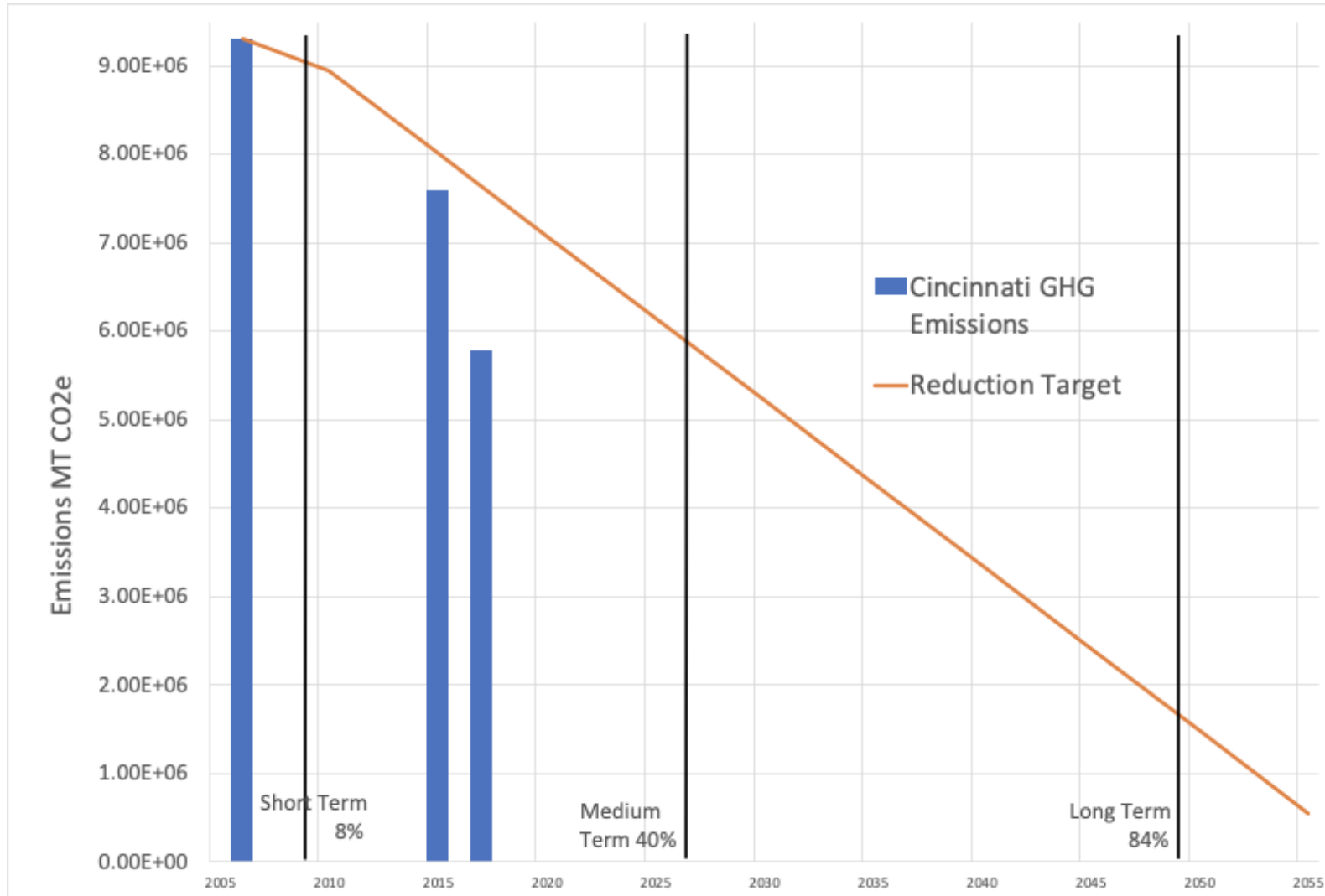


## Recommendation Progress by Chapter





# Cincinnati Carbon Emissions 2006-2017



**5.8 M**

mt CO<sub>2</sub>e  
Annual Emissions

**-37.8%**

emissions reduction  
since 2006

**19.3**

mt CO<sub>2</sub>e per  
Cincinnati resident yearly  
(4.8 mt is global average)





# What have we learned

## **Sticking Points**

- Headwinds from state legislation
- Market forces are evolving
- Some recommendations require council policy for activation

## **Keys to Success**

- Deep community engagement catalyzes collective impact
- Bold aspirational goals, with pragmatic next steps
- Strong executive leadership is critical for transformative change



# Looking Forward: GCP2023

| Plan Focus               | From  | To  |
|--------------------------|---|---|
| Purpose                  | The community envisioned roadmap for collective <b>action</b> to address climate change and prepare for the local impacts.  |   |
| Focus                    | Sustainability, resilience, and equity  |   |
| Primary Goal             | 80% emissions reduction by 2050   | 100% Carbon Neutrality by 2050  |
| Vision                   | Distributed incremental change  | Focused transformational change   |
| Equity Approach          | Equity Advisor, “Keys to equity”  | Paid Equity Advisory Board, Procedural, Distributional, & Structural equity   |
| Progress Measurement     | <ul style="list-style-type: none"> <li>• Qualitatively assessed</li> <li>• Manually managed with slight software support</li> <li>• Non-publicly viewable</li> <li>• Reported when requested</li> </ul> | <ul style="list-style-type: none"> <li>• Quantitatively assessed</li> <li>• Manually managed with extensive software enabled support</li> <li>• Interactive public reporting</li> </ul> |
| Funding                  | <ul style="list-style-type: none"> <li>• Limited City operational funding</li> <li>• Ad hoc grant support</li> </ul>  | <ul style="list-style-type: none"> <li>• Federal Infrastructure Funding</li> <li>• Dedicated operational funding</li> </ul>   |
| Communication to Council | Annual GCP reporting to Council   | Quarterly GCP reporting to Climate, Environmental, & Infrastructure Committee   |





# Looking Forward

- 2023 Green Cincinnati Plan Update
- \$1.2 Trillion Federal Clean Infrastructure Plan
- Transit Oriented Development Guidance
- Fleet Electric Vehicle and Facility electrification
- Electrification of City assets for the public
- Parks Tree Canopy Assessment – Climate Equity
- Next round of Climate Safe Neighborhoods