

**DURHAM NEIGHBORHOOD COLLEGE 2023**

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# **County Sustainability Office Engineering and Environmental Services**

Presented by Tobin Freid

# County Sustainability Office Mission & Vision

The mission of the County Sustainability Office is to provide guidance, resources, and programs to County employees, businesses, and residents to protect and improve the environment in a just and equitable way.

Project Management



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Sustainability Manager



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Renewable Energy Project Manager



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Sustainability Specialist

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# Climate Change Planning


## Durham Greenhouse Gas Reduction Update 2022

### Background

Durham has been a longtime leader in addressing the challenge of climate change. In 2007, Durham was the first community in North Carolina to develop a Greenhouse Gas (GHG) Emissions Reduction Plan. This plan sets ambitious goals for reducing GHG emissions from government operations and the community by 2030.

Durham has maintained that early commitment to curbing climate change through operational efforts to reduce emissions as well as through public commitments. In 2018, the Board of County Commissioners reaffirmed the County's commitment to addressing climate change and planning for a just and equitable transition to 100% renewable energy. In 2022, the Board adopted the [Durham County Renewable Energy Plan](#) to implement this goal.

### What Is the Goal?

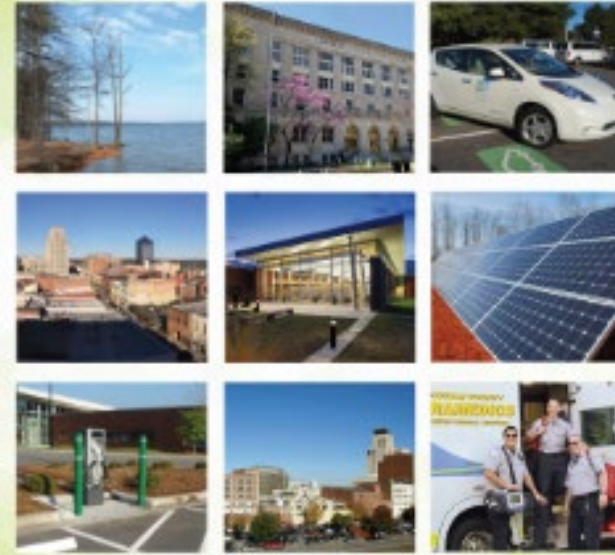
	Reduce local government GHG emissions by 50% by 2030	Reduce community GHG emissions by 30% by 2030
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### What Are Greenhouse Gas Emissions?

GHGs like carbon dioxide and methane trap heat in the atmosphere, warming the planet and causing cascading impacts on environmental systems. The largest source of GHG emissions from human activity in the US is from burning fossil fuels for electricity, heat, and transportation.

CO<sub>2</sub>e, or "carbon dioxide equivalent," is a standard unit for measuring GHG emissions.

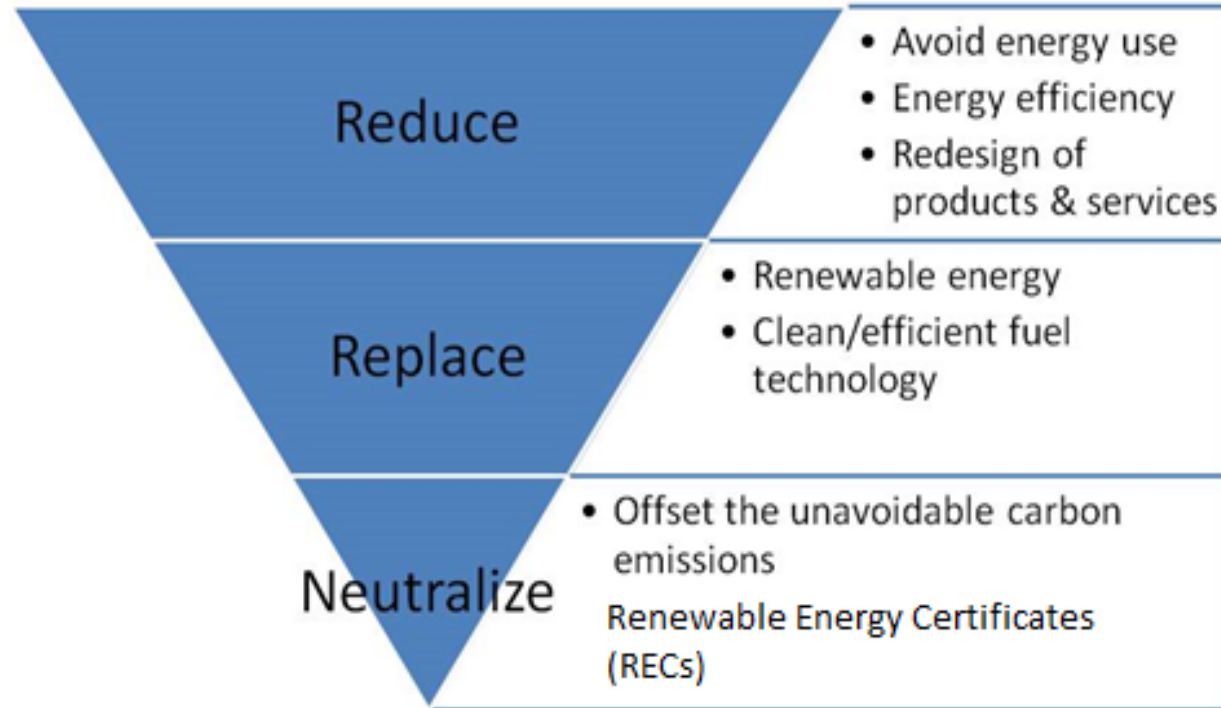
## RENEWABLE ENERGY PLAN



2022



# Carbon Hierarchy



[Southwest Environmental & Energy Management Groups](#) Carbon hierarchy

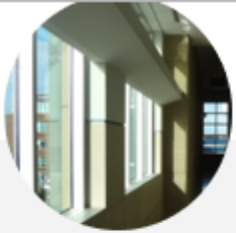


# County Operations



# Renewable Energy Plan Strategies

## Policy Alignment



### ENERGY EFFICIENCY

Target energy efficiency projects to reduce 20% of energy use



### ROOFTOP SOLAR LARGE SCALE SOLAR

Invest in on-site solar projects

Participate in Duke Energy's Green Source Advantage program

Sell-All (when available)



### ELECTRIC VEHICLES

Right-size the fleet

Transition to Electric Vehicles

Reduce VMT

Purchase renewable diesel (when available)



### BUILDING ELECTRIFICATION

Switch natural gas boilers and hot water to heat pumps at large facilities

Plan new facilities to reduce natural gas use



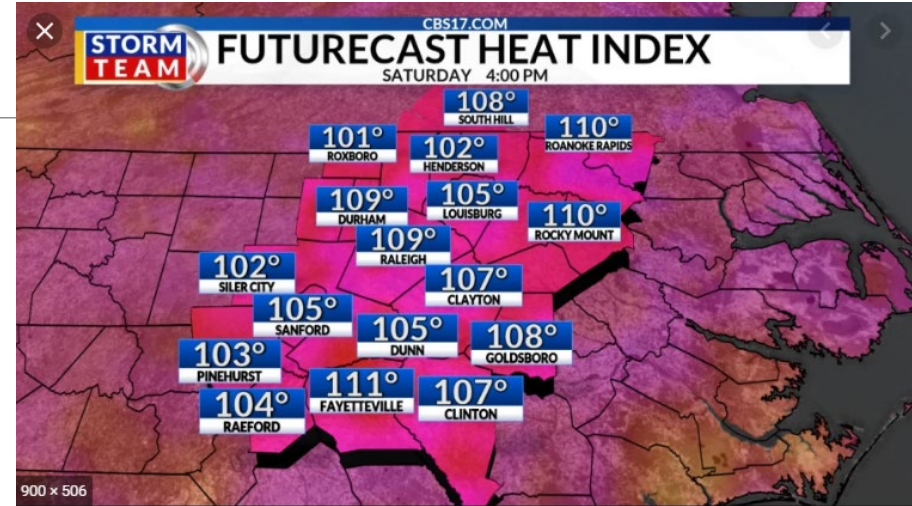
### RECS

Purchase minimal amount of renewable energy credits

## Statewide Engagement



# Resilience



# Solarize The Triangle

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\$205,000 for solar on low-income homes



CITY OF RALEIGH	TOWN OF MORRISVILLE	DURHAM COUNTY	TOWN OF HILLSBOROUGH
TOWN OF APEX	CITY OF DURHAM	ORANGE COUNTY	TOWN OF CARY
CHATHAM COUNTY	TOWN OF CHAPEL HILL	TOWN OF CARRBORO	TOWN OF HOLLY SPRINGS





# County Sustainability Office Frequently Asked Questions

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What can I or my neighborhood do to be more sustainable and reduce our greenhouse gas emissions?

Electric vehicles use electricity that is made from methane gas and coal so how can they be considered cleaner?

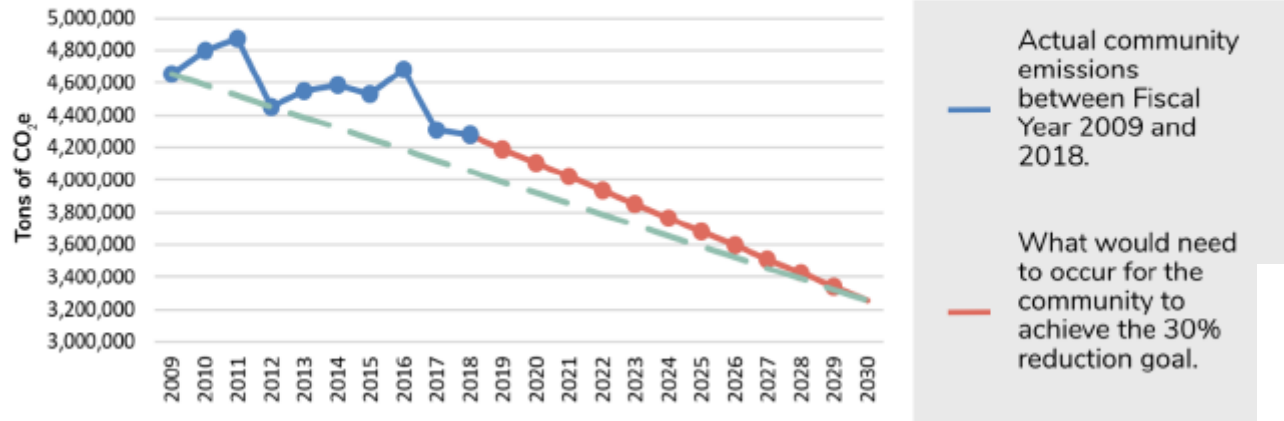
What can I recycle?

Is Durham making progress on our greenhouse gas goals?

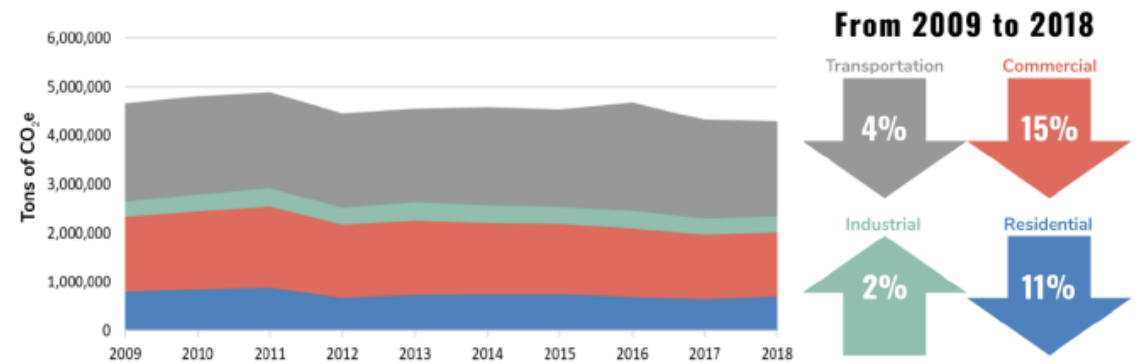


# Community Emissions

## Total GHG Emissions From The Durham Community



## Total Community GHG Emissions by Source



# County Sustainability Office Opportunities for Engagement

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- **Plant a tree with us this Fall/Winter.**
- **Volunteer with Keep Durham Beautiful or other local organizations.**
- **Talk with friends and neighbors about what you are doing.**
- **Environmental Affairs Board or other Boards and Commissions.**
- **Keep up with legislation and Public Utilities Commission through trusted sources.**



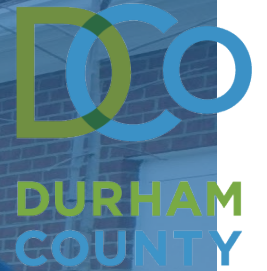
# County Sustainability Office Final Thoughts

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STAY CONNECTED

# County Sustainability Office



GreenerDurham.net



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