

Climate Council Meeting Summary Notes – November 13, 2025

Attending:

Climate Council Members	Role	Organization
Sally Greene	Commissioner	BOCC
Kristie Mather	Board Member	Commission for the Environment
Robb English	Town Commissioner	Hillsborough Board of Commissioners
Wendy Kuhn	PRB Member	Hillsborough Parks and Recreation Board Representative
Karen Stine	Climate and Environmental Advisory Commission	Town of Carrboro
Melissa McCullough	Town Council	Chapel Hill Town Council
Riza Jenkins	School Board Vice Chair	CHCCS Board Member
Sarah Smylie	Board Member	Orange County School Board
Melanie Elliott	UNC Sustainability	UNC Sustainability Lead
Mart Bumgarner	Ag Agent	Orange County, NC Cooperative Extension
Staff	Role	Organization
John Richardson	Community and Sustainability Resilience Manager	Town of Chapel Hill
Brennan Bouma	Sustainability Program Analyst	Town of Chapel Hill
Stephanie Trueblood	Public Space and Sustainability Manager	Town of Hillsborough
Amy Armbruster	Chief Sustainability Officer	Town of Carrboro
Amy Eckberg	Sustainability Programs Manager	Orange County
Mel Gilles	Sustainability Projects Analyst	Orange County
Sebastian Provencio	Fellow	Town of Carrboro

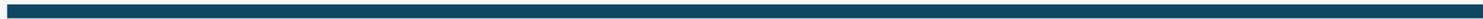
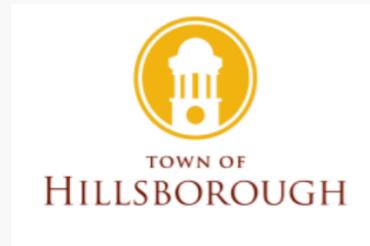
- Amy Eckberg welcomed the group and reviewed the agenda.
- **Amy Armbruster, Sebastian Provencio, Mel Gilles** and **John Richardson** presented an update on the heat action plan in development. (presentation attached).
- **John Richardson** provided an update to the planned Electrify program (presentation attached)
- **Amy Eckberg** provided an update about Orange County’s Community Climate Action grant program (presentation attached).
- **Melanie Elliot** provided a presentation about AI followed by a Council discussion about some of the impacts of AI on climate change and our communities. (presentation attached)

Our next Climate Council meeting will be held on **May 14, 2025** from 5-6:30pm.



Orange County

Heat Action Plan Updates



The Goal



The goal of the Heat Action Plan is to create a multi-jurisdictional plan that outlines the community's mitigation, preparedness, adaptation, and response to extreme heat. By working together, this plan aims to pull all stakeholders together and create a coordinated response throughout the entire community.



2025 Hot Takes

Groundwork

- Heat Cohort
- Heat Action Plan

Updates

Stakeholder Engagement

- Survey
- 3 Community Meetings
- 3 Heat Task Force Meetings

New Documents

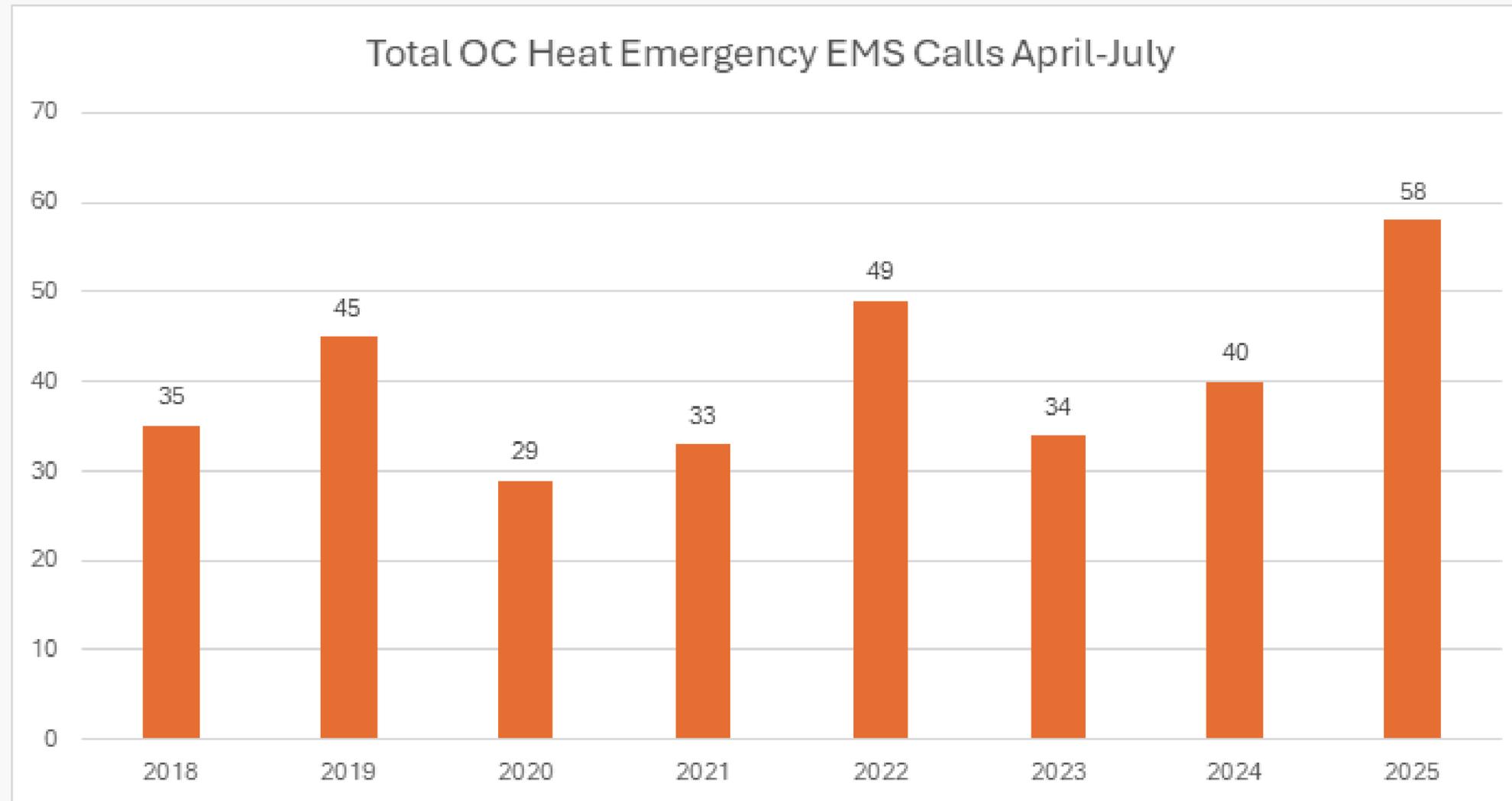
- Heat Action Plan
- Timeline
- Budget

Next Steps

- Final Draft Approved
- Educational Materials & Outreach
- OC Alerts Campaign

Why Heat Matters

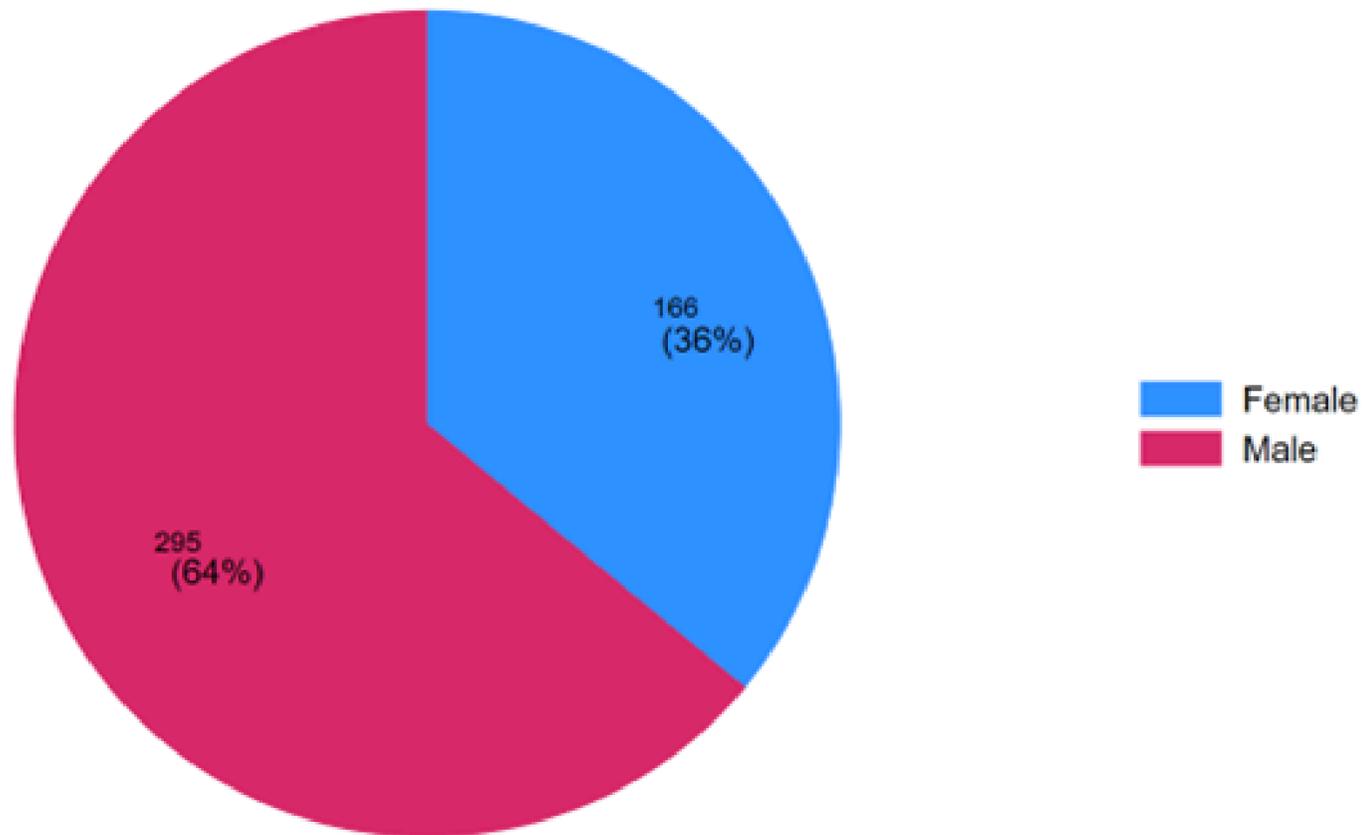
Rising Heat-Related Emergencies



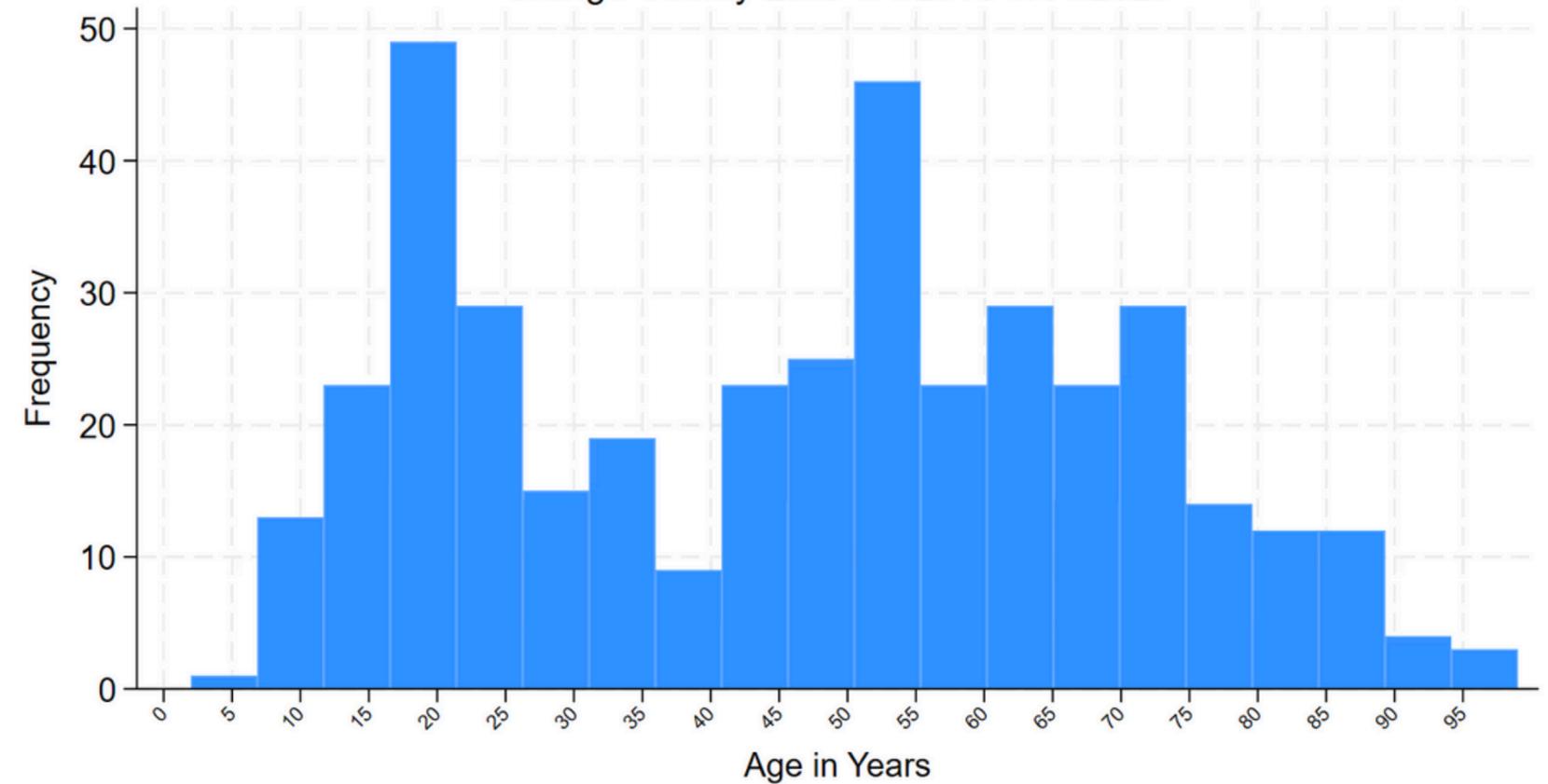
Why Heat Matters

Heat Affects Health Across Gender and Age

Heat Emergency Patient Gender
OCEMS, 01/01/2018-10/20/2025

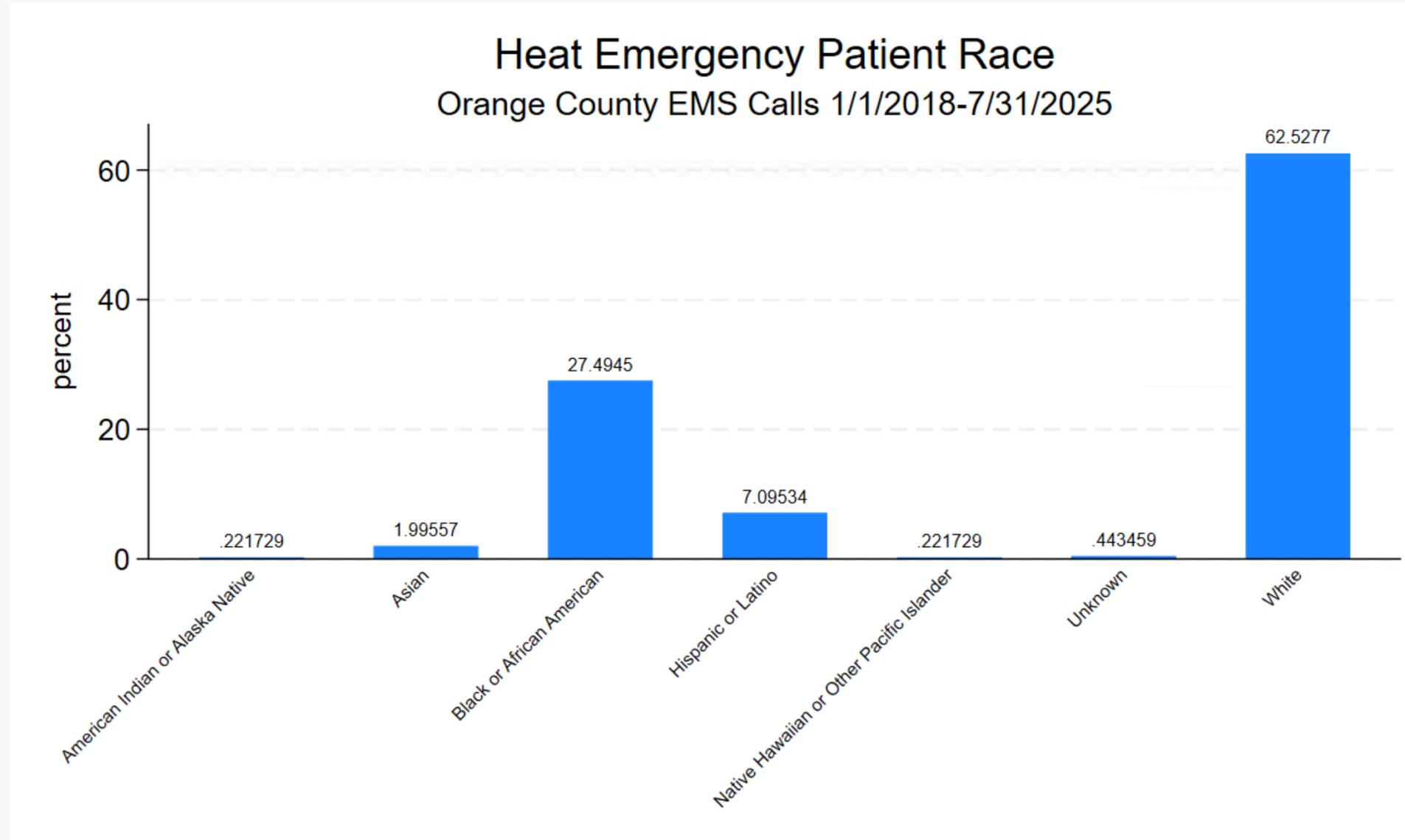


Heat Emergency Patient Age
Orange County EMS 1/1/2018-7/31/2025



Why Heat Matters

Disproportionate Impacts



3 Big Goals

- Outreach and education
- Enhanced emergency responses
- Cooling of homes and communities



The graphic features a central image of a thermometer against a bright, sunlit sky with clouds. The thermometer shows a red column rising to approximately 35°C (95°F). Below the image, the title "Heat Action Plan for Orange County" is written in white on a dark background. At the bottom, four logos are displayed: Orange County North Carolina, Town of Chapel Hill, Town of Carrboro - NC, and Town of Hillsborough.

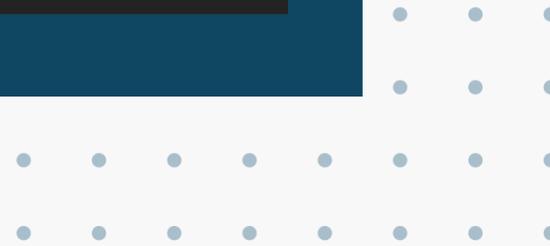
Heat Action Plan for Orange County

ORANGE COUNTY NORTH CAROLINA

TOWN OF CHAPEL HILL

TOWN OF CARRBORO - NC

TOWN OF HILLSBOROUGH



Survey Data Analysis

Figure 1: Greatest Needs by Organizations

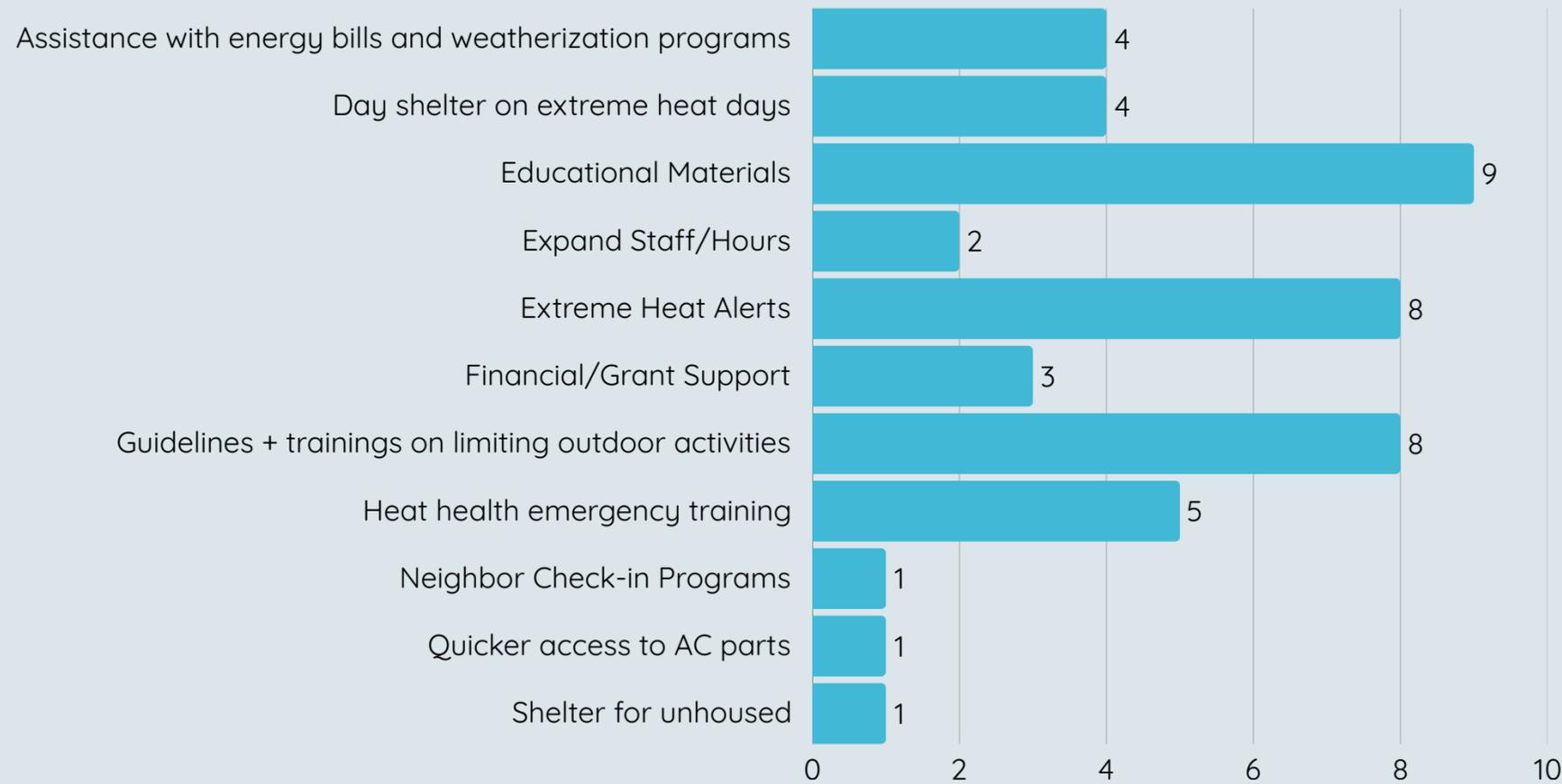
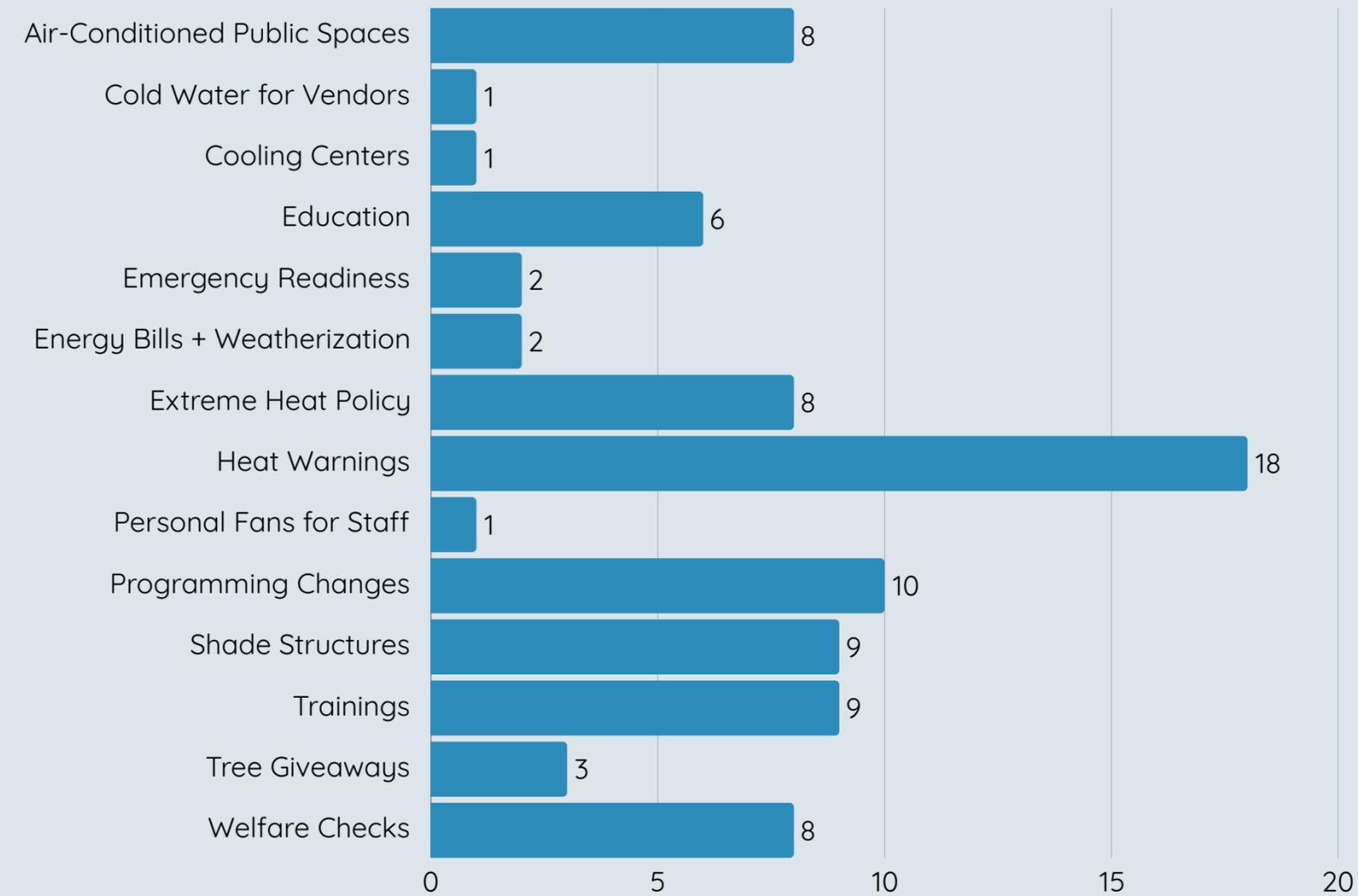


Figure 2: Current Actions Being Taken by Organizations



Survey Data Analysis

Figure 3: Frequent Challenges Faced by Organizations

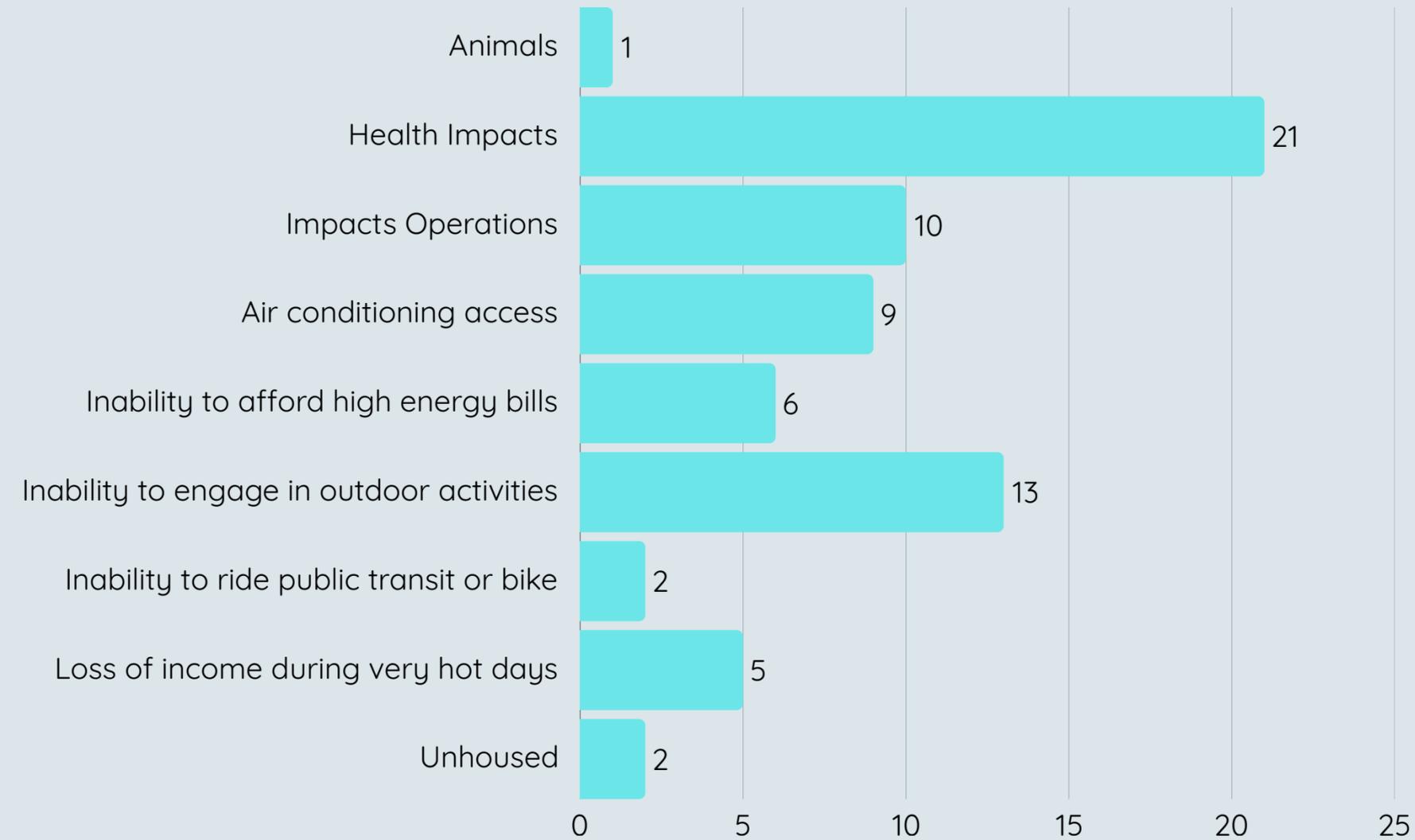
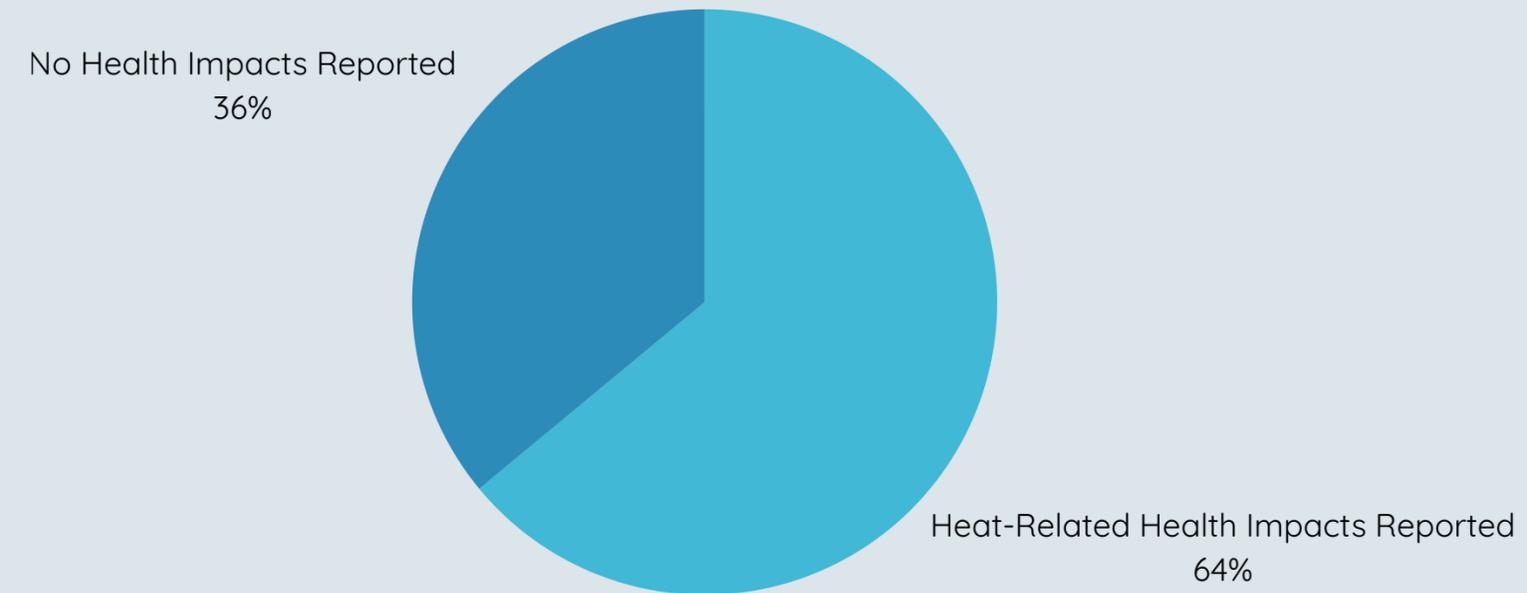


Figure 4: Organizations Reporting Health Impacts



Areas of Concern

Health & Safety Risks

- Rising cases of heat exhaustion and heat stroke among vulnerable populations (elderly, outdoor workers, unhoused residents)
- Limited access to air conditioning or cooling centers
- Increased strain on emergency services
- Reduced physical activity and mobility

Economic & Access Inequities

- Increased energy demand and costs
- Lost income
- Energy affordability gaps

Environmental & Community Impacts

- Crop stress and reduced harvest yields
- Pets and animals at risk
- Outdoor activity restrictions
- Localized infrastructure strain

The image displays two informational posters from Orange County, North Carolina, set against a yellow background. The top poster is titled "Who is most at risk for heat-related illness?" and features a sun icon and a warning sign. It lists six groups at risk: Older Adults (65+), Infants and Young Children, Pregnant People, People with Chronic Conditions, Outdoor Workers and Athletes, and People Without Air Conditioning. The bottom poster is titled "What should I do if I have to be active in the heat?" and features a sun icon and an illustration of a runner. It lists three instructions: Pace yourself, Head back if you start to feel sick, and If your heart pounds and leaves you gasping for breath, stop all activity. Both posters include the Orange County, North Carolina logo and the website orangecountync.gov/Heat, with a small credit line: "Original design courtesy of Pinal County, Arizona, Health Department".

Who is most at risk for heat-related illness?

- Older Adults (65+)
- Infants and Young Children
- Pregnant People
- People with Chronic Conditions
- Outdoor Workers and Athletes
- People Without Air Conditioning

ORANGE COUNTY NORTH CAROLINA orangecountync.gov/Heat
Original design courtesy of Pinal County, Arizona, Health Department

What should I do if I have to be active in the heat?

- Pace yourself.
- Head back if you start to feel sick.
- If your heart pounds and leaves you gasping for breath, **stop all activity.**

ORANGE COUNTY NORTH CAROLINA orangecountync.gov/Heat
Original design courtesy of Pinal County, Arizona, Health Department

Requests for Future Actions

Community Support & Protection

- Expand day shelters, shaded safe gathering/sleeping areas and bus stops
- Check-in programs for elderly
- Mutual aid and pet safety resources

Education, Training & Outreach

- Develop ongoing heat safety education campaigns
- Offer training on heat emergencies
- Integrate heat safety into public activities
- Distribute community awareness materials

Workforce & Health Systems Preparedness

- Implement extreme heat plans and PPE policies for outdoor staff and emergency responders
- Training for health professionals
- Expand hydration support and AC maintenance for public workers

BEAT THE HEAT!

EXTREME HEAT WATCH	HEAT ADVISORY	EXTREME HEAT WARNING
BE PREPARED!	USE CAUTION!	TAKE ACTION!
Dangerous Heat Possible in the Next 72 Hours	Dangerous Heat Expected in the Next 48 Hours	Extremely Dangerous Heat Expected in the Next 48 Hours
Heat Index (Feels Like Temperature) Greater Than 105° Possible	Heat Index (Feels Like Temperature) of 105-110°	Heat Index (Feels Like Temperature) Greater Than 110° Expected

Visit orangecountync.gov/Heat for Heat Safety Information!

Logos: Orange County Sheriff-Coroner, OC ALERTS, Orange County Sustainability, Orange County Partnership to End Homelessness, Orange County Health Department, Orange County North Carolina.

Next Steps



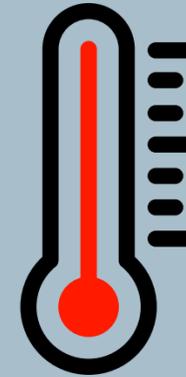
Finalizing the HAP

- Graphic design
- Final Comments on the Draft
- Ratification of HAP from Municipalities



Education and Outreach

- Outdoor workers, unhoused, youth, disabled, etc.
- Neighborhood Check In Program
- Distribution of home weatherization educational materials to residents



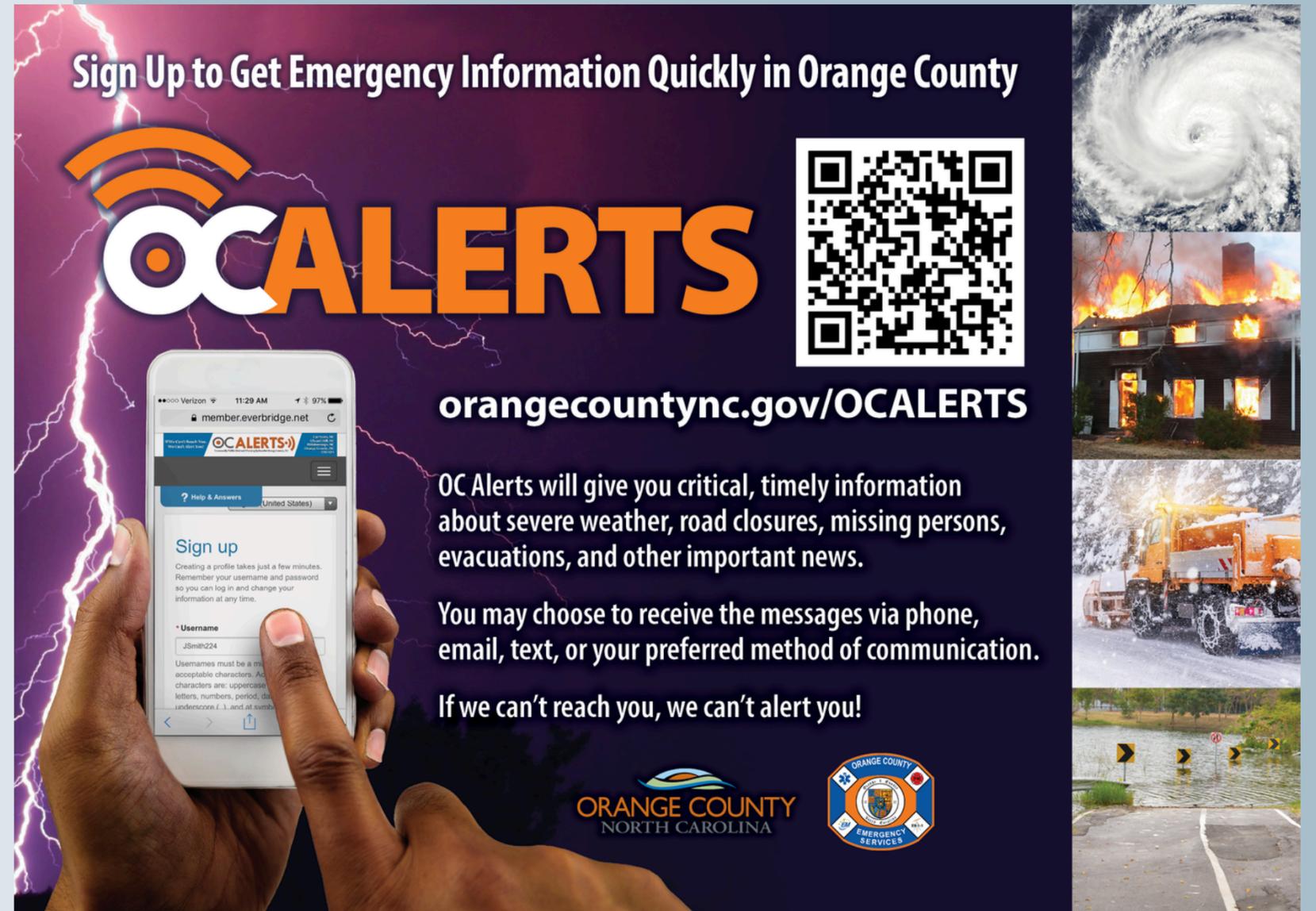
Beat The Heat Campaign

- Kick Off Meeting launches annually each spring
- Pledge
- Proclamation

OC Alerts: Stay Informed, Stay Safe

- What is an OC alert?
 - A free notification system that keeps OC residents informed during emergencies.
- Why it Matters?
 - Helps protect vulnerable populations
 - Supports quick communication during heat emergencies

Join the OC Alert network to help us reach everyone before the next heat wave!



Sign Up to Get Emergency Information Quickly in Orange County

OCALERTS



orangecountync.gov/OCALERTS

OC Alerts will give you critical, timely information about severe weather, road closures, missing persons, evacuations, and other important news.

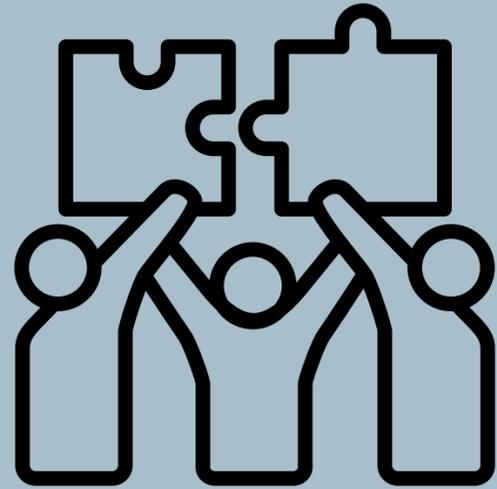
You may choose to receive the messages via phone, email, text, or your preferred method of communication.

If we can't reach you, we can't alert you!

ORANGE COUNTY
NORTH CAROLINA

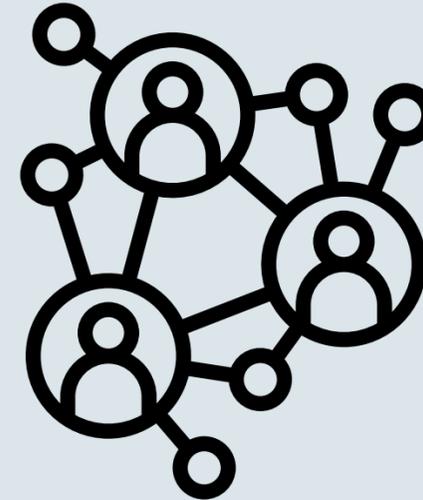


What YOU Can Do!



Contact us with HAP input or suggestions for outreach

Contact
mgilles@orangecountync.gov



Spread the word about the HAP, Beat the Heat Campaign, and OC alerts: share OCNCgov Facebook posts and promote orangecountync.gov/heat



Thank you

Amy Armbruster	Carrboro	Chief Sustainability Officer	aarmbruster@carrboronc.gov
Phil Cundiff	Hillsborough	Safety and Risk Manager	phil.cundiff@hillsboroughnc.gov
Mel Gilles	Orange County	Sustainability Projects Analyst	mgilles@orangecountync.gov
John Richardson	Chapel Hill	Community Sustainability Manager	jrichardson@townofchapelhill.org
Sebastian Provencio	Lead for NC	Fellow	sprovencio@carrboronc.gov
Sofia Le Moal	UNC	Intern	lemoal@unc.edu



Outreach and education to prepare and protect the public

Action 1: Public Heat Messaging	Description: Educate and inform the public about extreme heat risks and resources.
	Metrics: Educational materials developed and distributed. Social media analytics.
Action 2: Outdoor Worker Education	Description: Educate outdoor workers and employers of outdoor workers on heat safety.
	Metrics: Number of outdoor workers group meetings hosted. Number of attendees of workers group meetings.
Action 3: Home Cooling Education	Description: Promote home weatherization and energy efficiency strategies.
	Metrics: Educational materials developed and distributed. Social media analytics.
Action 4: Youth Heat Safety Education	Description: Distribute youth heat safety workbooks and educational materials.
	Metrics: Educational materials developed and distributed. Social media analytics.
Action 5: Cool Events Promotion	Description: Plan for and promote community events taking place in air-conditioned spaces.
	Metrics: 'Cool' events promoted. Social media analytics.

Enhanced emergency response mechanisms

Action 6: Extreme Heat Notification and Communications	Description: Run a Heat Alert System in Orange County
	Metrics: Number of OC alerts signups. Number of local partners registered in director and receiving notifications. Social media analytics on acute heat events communications.
Action 7: Cooling Centers	Description: Expand cooling center program.
	Metrics: Additional hot weather resources and cooling centers identified. Cooling center flyers and guides developed and distributed.
Action 8: Cooling Center Transportation	Description: Offer free transportation to cooling centers during acute heat events.
	Metrics: Number of Riders
Action 9: Integration of Extreme Heat into the Hazard Mitigation Plan	Description: Integrate extreme heat preparedness into the Eno Haw Regional Hazard Mitigation Plan.
	Metrics: Updated hazard mitigation plan.
Action 10: Neighbor Check-in	Description: Develop a neighbor check-in program.
	Metrics: Number of neighbor check-in volunteers engaged.
Action 11: Augmentation of Response Operations	Description: Augment first response resources to reduce heat stress on first responders.
	Metrics:
Action 12: Outdoor Activity Limitations	Description: Implement regulations and recommendations to limit outdoor activities.
	Metrics:

Cool homes and neighborhoods

Action 13: Tree Giveaways	Description: Increase the tree canopy in Orange County
	Metrics: Trees planted, canopy cover.
Action 14: Water and Shade Access	Description: Enhance cooling features, including publicly accessible shade structures, shaded bus stops, hydration stations, misting stations, and pools, as well as greenery in public spaces.
	Metrics: Shade structures added to bus stops. Hydration stations, misting stations and pools installed.
Action 15: Cool Pavements Implementation	Description: Pilot cool pavement implementation in Orange County.
	Metrics: Miles of cool pavement added
Action 16: Public Green Roofs and Cool Roofs	Description: Install green roofs and cool roofs on public buildings.
	Metrics: Cool roofs and green roofs installed.
Action 17: Assistance with Cooling Expenses and Home Weatherization	Description: Work with state and local partners to help low-income residents with cooling expenses and home weatherization.
	Metrics: Energy navigators utilized. Weatherization Assistance program utilized. Incentive programs utilized
Action 18: Resilience Hubs	Description: Develop plan to add solar and battery electric storage to critical community buildings to ensure the electricity stays on in an emergency.
	Metrics: Number of resilience hubs

Community Climate Action Grant (CCAG) Progress Report

In Numbers and Pictures
November 2025

Community Climate Action Grant Program

The **Community Climate Action Grant Program** is dedicated to accelerating climate change mitigation actions in Orange County.

We are looking for great project ideas that help reduce greenhouse gas emissions and make a positive impact in our community.

Who Can Apply?

- Public & Non-Profit Entities
- Small Businesses



ORANGE COUNTY
NORTH CAROLINA

For more information, visit www.orangecountync.gov/CCAG
Or contact Orange County Sustainability at Sustainability@orangecountync.gov

- BOCC Commissioner Marcoplos initiated grant program in 2019

Goal: to help advance community climate action

- Projects prioritized with social justice and racial equity benefits and GHG emissions reductions
- Open to public and non-profit groups and small businesses

Scoring Criteria - created by the BOCC

- 26-point scale
 - **Social Justice and Racial Equity (6pts)**
 - **GHG emissions reduced (4 pts)**
 - **Efficient use of Funds (4 pts)**
 - **Capacity of Applicant (3 pts)**
 - **Local Economic Development (3 pts)**
 - **Amount and Duration of Engagement (3 pts)**
 - **Time to complete (3 pts)**
- ****All applications are reviewed and scored by the Commission for the Environment and the Human Relations Commission***



Urban Sustainability Solutions

- **Building green infrastructure and resilience** in flood-prone and underserved communities
- **Creating hands-on apprenticeship pathways** for Orange County Schools students

Town of Chapel Hill Tree Planting

40 native trees planted in under resourced neighborhoods in Chapel Hill





Club Nova Garden Project

- Fresh produce
- Plant based meals
- Community garden



- Town of Chapel Hill Accessible Public Car Charging Station

Solar Projects:

- Drakeford Library
- Hillsborough United Methodist Church
- Habitat for Humanity
- OWASA



In Summary:

- **\$2,861,329** awarded
- **46 projects**
- **1,130** metric tons of GHG emissions reduced every year

Application Period:

- **June 1-August 2, 2026**
- <https://www.orangecountync.gov/2534/Community-Climate-Action-Grant-Program!>
- **New Grant Portal System for Applying!**

In What Ways Has the *CCAG* Made a Difference in Your Program or Organization?

Other local grant opportunities that advance climate action:

Carrboro's Green Neighborhoods Grant Program

Community Garden Grant

Agriculture Economic Development Grant

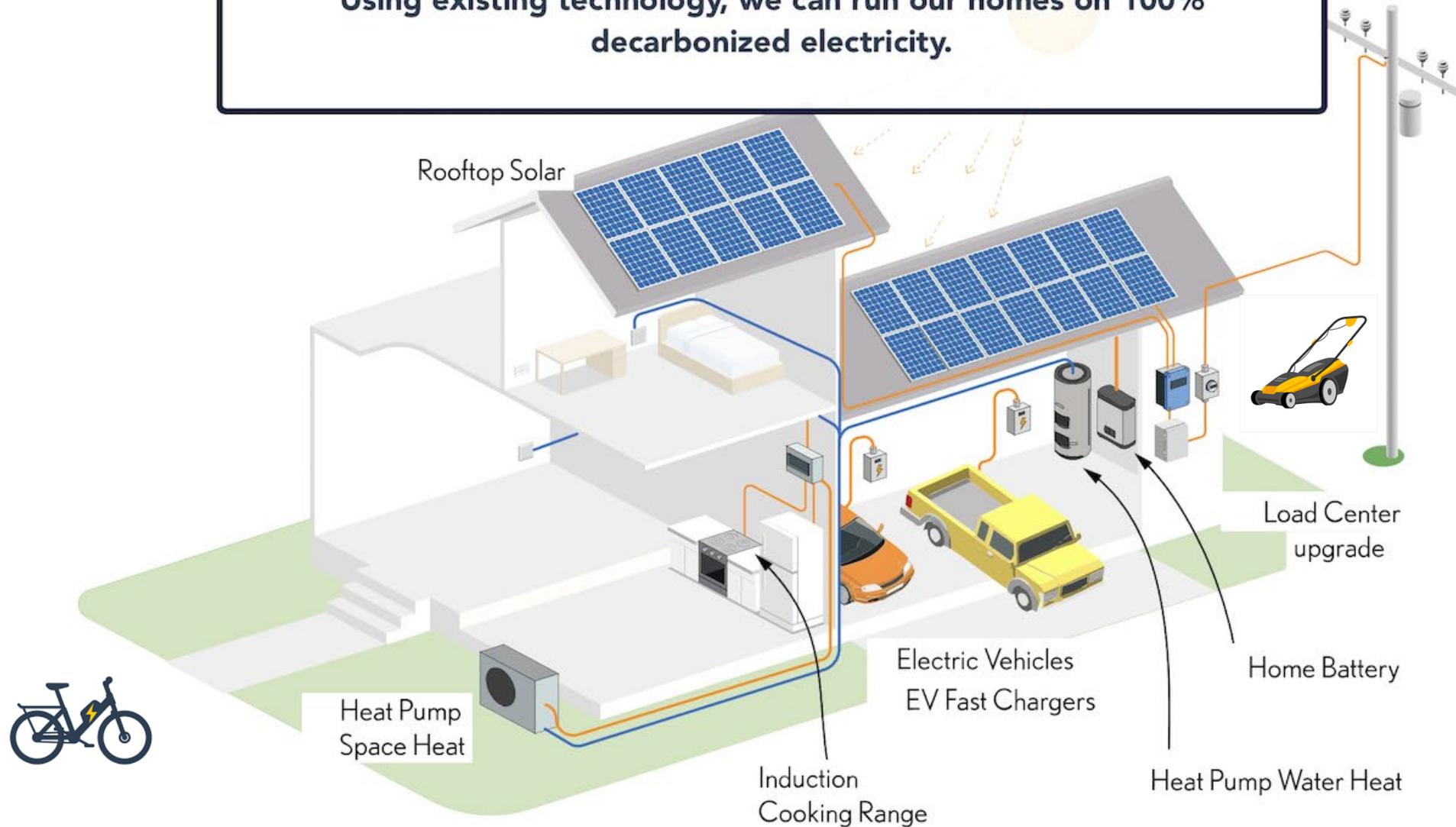
The Year of Electrification



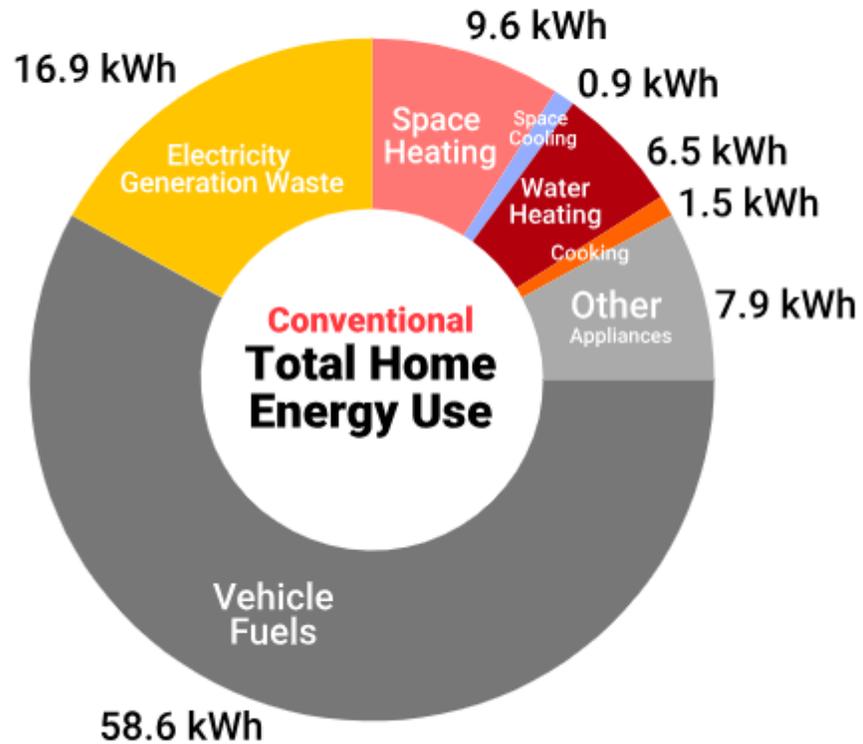
Recap

- We pivoted to heat action in 2025.
- For 2026, we're proposing ***The Year of Electrification.*** 
- Regional Program with Central Pines.

Using existing technology, we can run our homes on 100% decarbonized electricity.

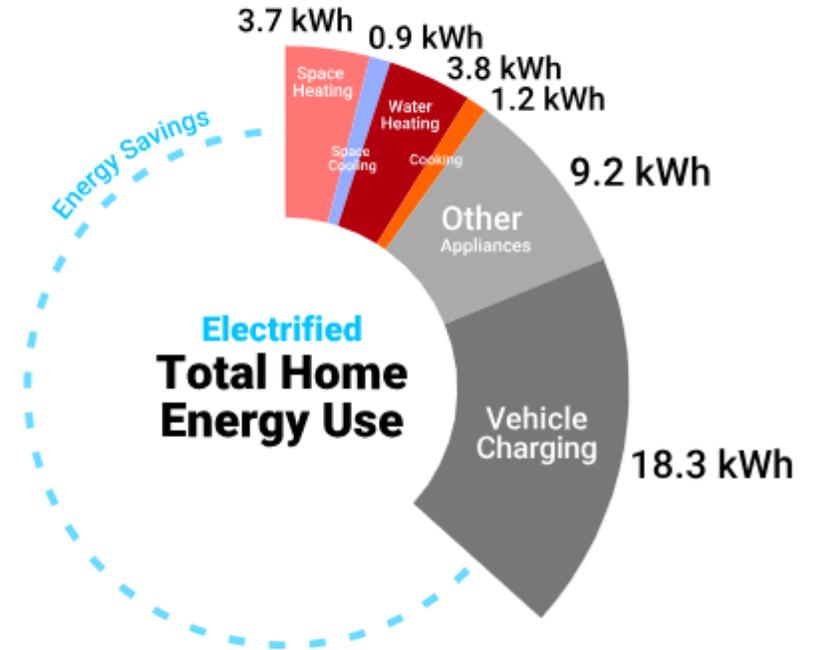


Conventional Energy Use



Uses energy model from the [Castles & Cars Technical Study](#).

Electrified Energy Use



Uses energy model from the [Castles & Cars Technical Study](#).

Navigator Model

The Navigator provides direct assistance to the homeowner to help maximize:

- Technology options
- Energy / utility savings
- Rebates
- Tax credits
- Carbon reduction

Other Connected Elements

- Promotion by local governments and Climate Council members
- ***Energy Saver North Carolina*** program
 - low-to-moderate income residents (150% AMI and below)
 - certified contractors
 - HOME and HEAR rebate programs
 - utility incentives
 - runs through 2031

Next Steps

- Launch regional electrify program by April of 2026.
- Talk about ***Year of Electrification*** communications at our May 2026 meeting.

Environmental Impacts Generative Artificial Intelligence

Melanie Elliott
University of North Carolina at Chapel Hill

November 2025

Create stunning presentations faster with AI

Go from idea to slides in seconds with AI and free templates for Google Slides, Canva, and PowerPoint.

Search a template



AI Presentation Maker

Create better presentations faster with AI



AI Lesson Plan Generator

Make grade-specific classroom lessons with AI



AI Quiz Maker

Generate ready-to-use quizzes with one click



AI Icebreaker Generator

Create fun classroom activities with AI

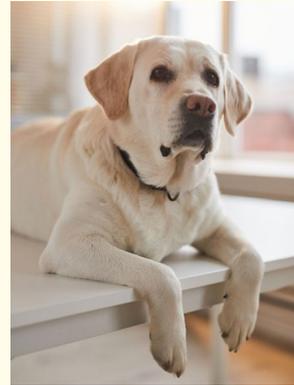
What is Artificial Intelligence?

AI refers to ability of a computer system to improve its pattern recognition based on feedback.

AI can be used for

- Medicine (cancer detection)
- Autonomous vehicles
- Virtual assistants (Siri, chatbots)
- Generative tasks (emails, recipes, images/videos)

AI “training” is when the model is given a data set with the correct answers.



CAT

NOT CAT



CAT



NOT CAT



CAT



A request made via
ChatGPT uses 10 times as
much electricity as a
Google Search.

A request made via ChatGPT uses 10 times as much electricity as a Google Search.

TRUE

Source:

Google's parent company, Alphabet

The request to find related pages/articles requires far fewer resources than a request to generate new media.



In July 2025, the president signed an executive order to accelerate federal permitting of data center infrastructure including land and transmission lines.

In July 2025, the president signed an executive order to accelerate federal permitting of data center infrastructure including land and transmission lines.

TRUE

Source: White House

As of 2024, the average data center land transaction is 224 acres
144% increase since 2022.

Data centers can require up to 500 acres.

Some companies purchase 1,000 acres or more for future growth
and expansion.

Impacts: resources, biodiversity, stormwater

As of 2024, data centers use 10% of Virginia's electricity.

As of 2024, data centers use 10% of Virginia's electricity.

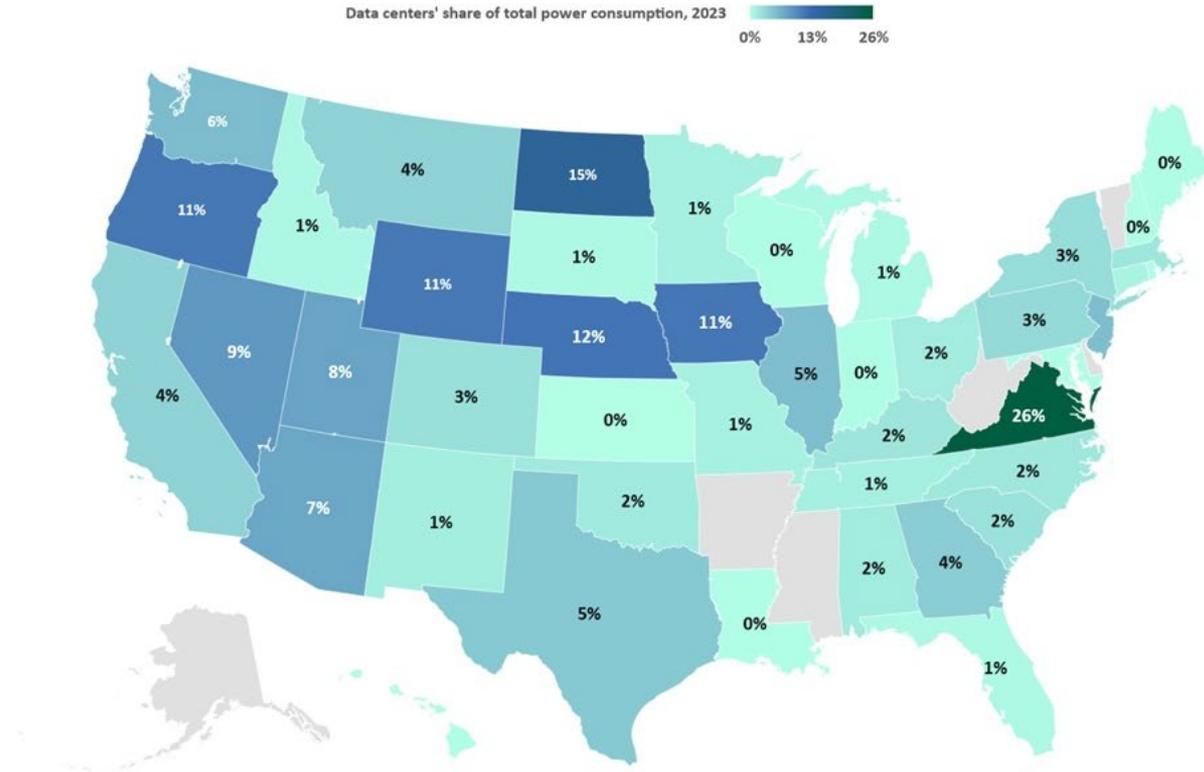
FALSE

Data centers use 26% of Virginia's electricity. 2% of NC's electricity is consumed by our data centers.

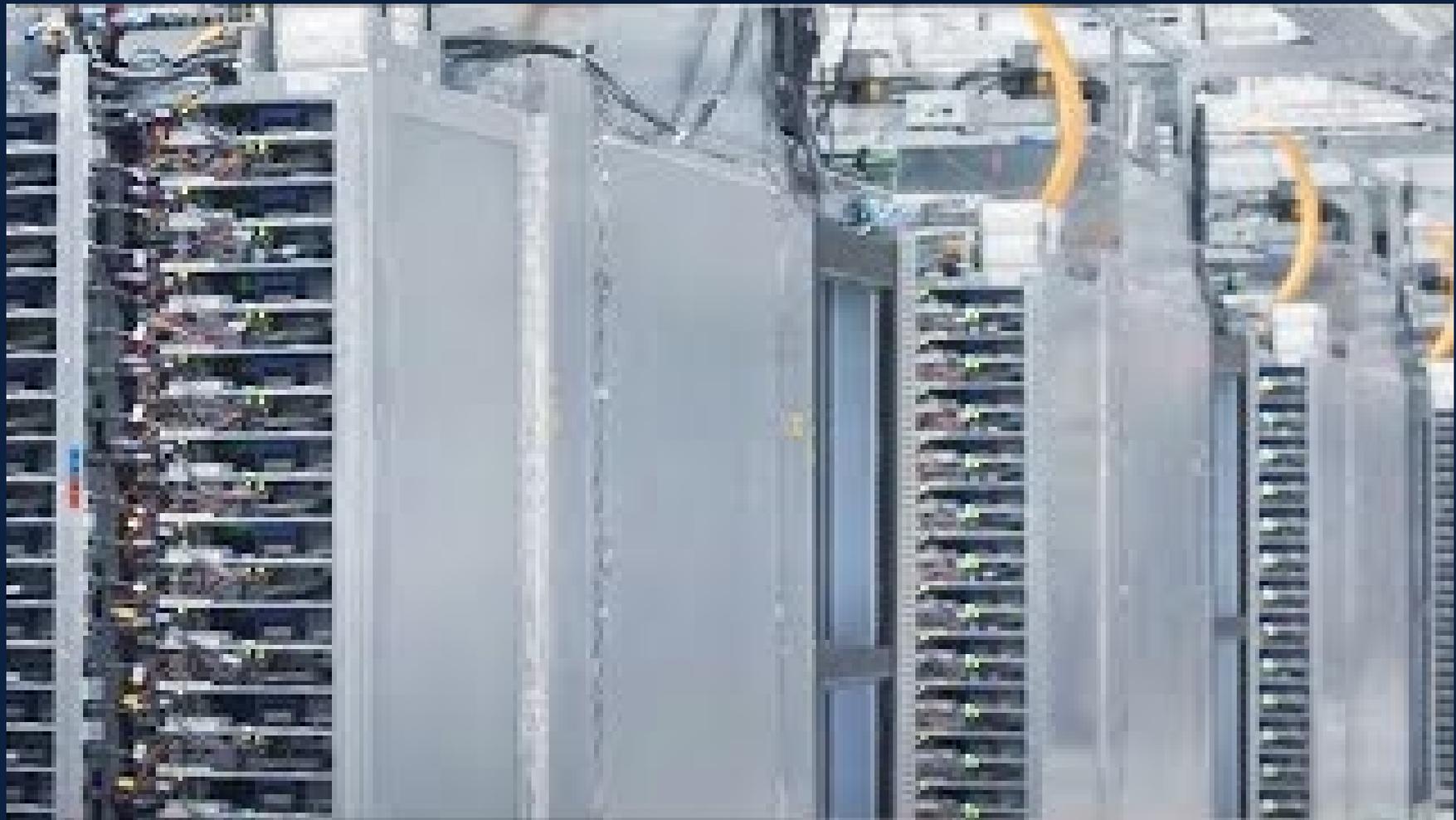
Source:

Electric Power Research Institute

Data centers' share of total power consumption



Note: There is no data available for states shaded in grey. Source: Electric Power Research Institute (EPRI), Apollo Chief Economist



Discuss with your group:

How do you foresee generative AI impacting your work in the future?

From a climate and sustainability viewpoint, how do you think generative AI will impact our community and region?