NORTH CAROLINA
Climate Pollution
REDUCTION GRANT

Engagement Session

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Participation Guidelines

- All attendees will be muted during the webinar.
- Attendees joining via the Webex Application should use the chat to submit questions. Questions will be addressed during the Q&A if not covered in the presentation.
- For those CALLING IN, to ask your question, you may raise your hand by:
  - Pressing *3 and pressing *3 again will lower your hand. We will request to unmute you and then you must press *6 to unmute or mute yourself.
- This webinar is being recorded and will be made available later.

Agenda

- Introductions
- Greenhouse Gases (GHG)101
- Fact checking
  - Energy Consumption
  - Benefits
- Climate Pollution Reduction Grant (CPRG)
  - Program Overview
  - Project Phases 1 + 2
- Project Phase 3
- Public Engagement and Outreach
- Timeline
- Data Gathering and Ideas
- Next Steps

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Poll – What do you know?

Poll Question 1.

What level of knowledge do you have about greenhouse gas emissions, where they come from, and how they impact our daily lives and our climate?

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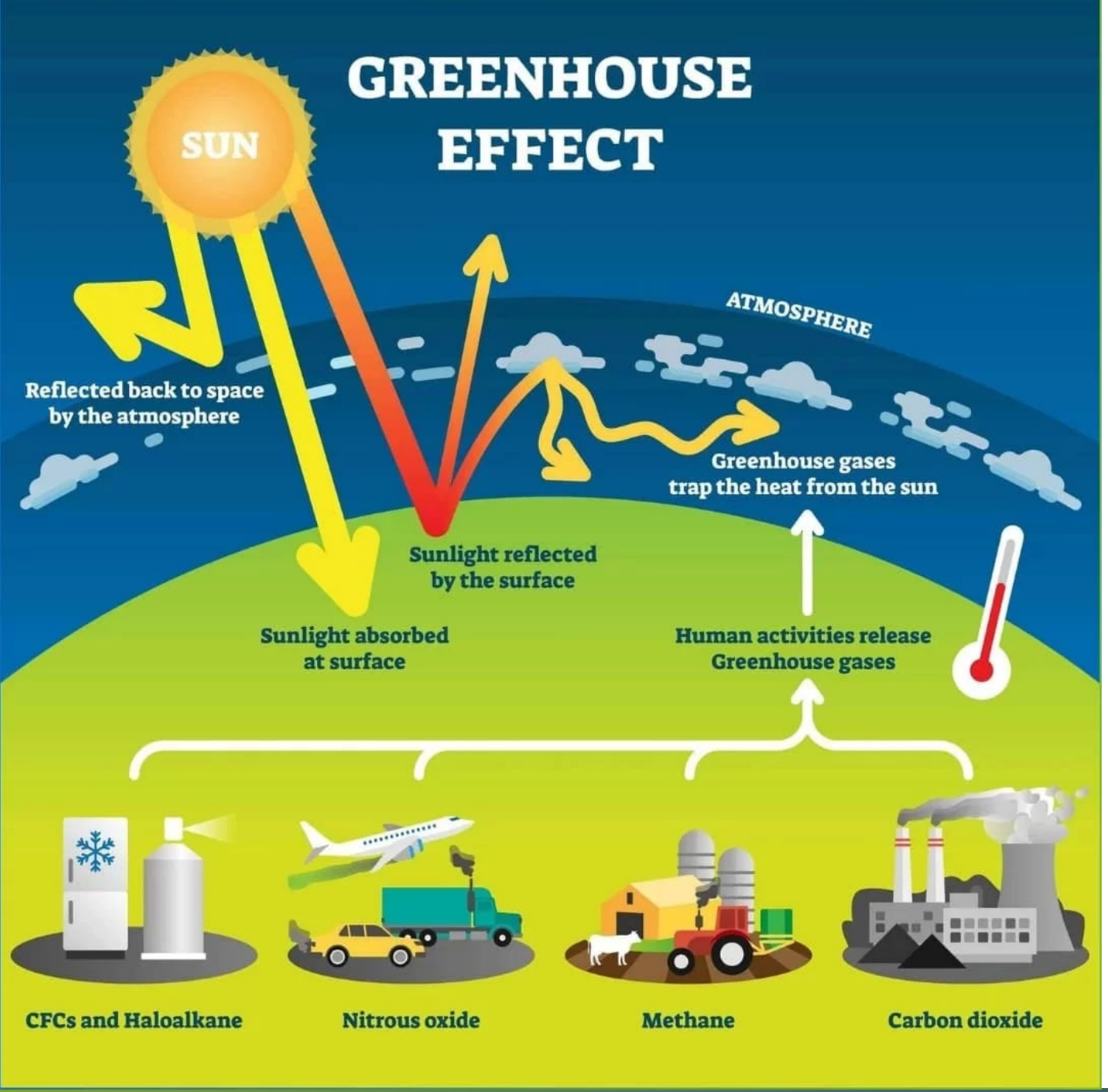

Greenhouse Gases 101

Greenhouse Gases (GHGs):

- Carbon Dioxide (79%)
- Methane (12%)
- Nitrous Oxide (4%)
- Chlorofluorocarbons (5%)

❖ GHGs are caused by combustion or burning items that contain carbon, nitrogen, or oxygen.

❖ Good | GHGs help reflect rays from the sun while trapping others, which helps regulate the temperature on Mother Earth.

❖ Bad | Excessive GHG releases, from human activities, result in disruptions in the climate; changing weather patterns and increasing extreme weather events like hurricanes, wildfires and flooding.

REF: https://www.cseguide.com/key-6-greenhouse-gases/

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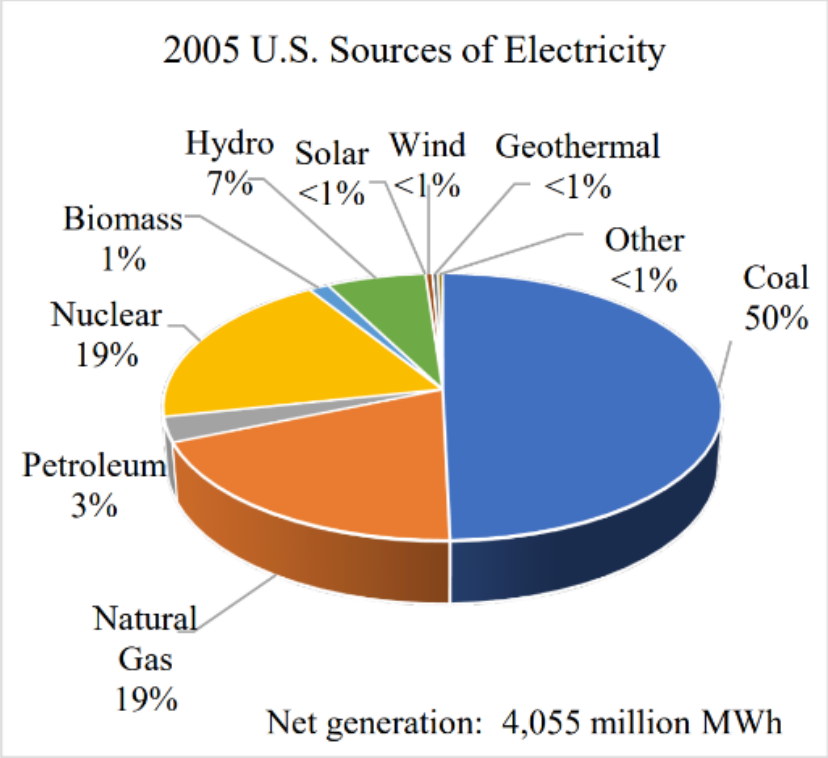
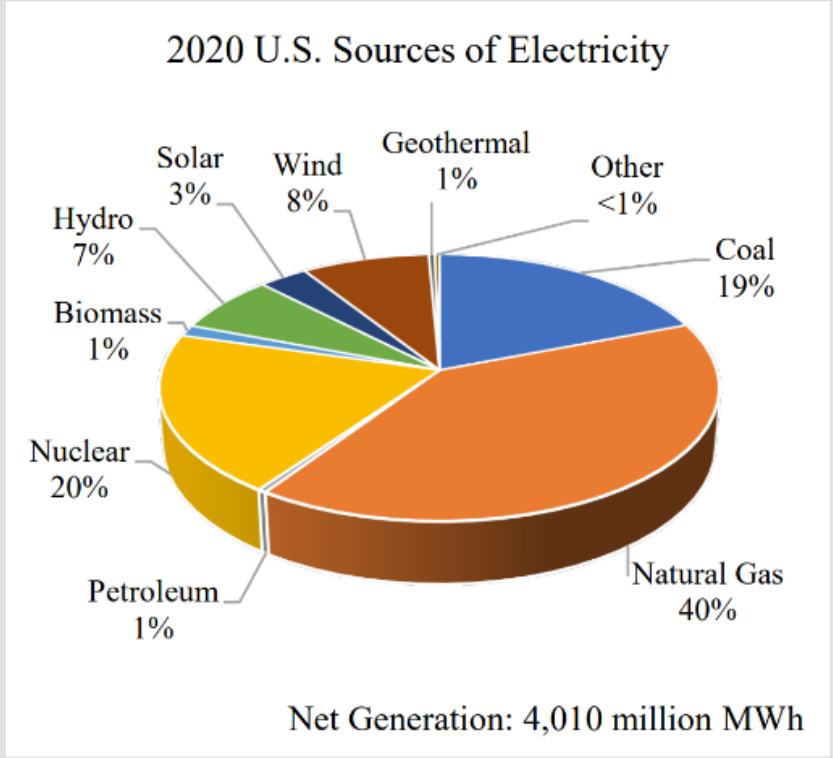
U.S. Energy Sources for Electricity





In the United States, most (about 74%) human-caused (anthropogenic) greenhouse gas (GHG) emissions come from burning fossil fuels—coal, natural gas, and petroleum—for energy use.

Economic growth (with short-term fluctuations in growth rate) and weather patterns that affect heating and cooling needs are the main factors that drive the amount of energy consumed.

The cheapest energy is that which is not used, so taking a cold shower in the dark uses less energy than taking a hot shower with all the lights on and blow drying your hair.

NC Greenhouse Gas Inventory report. www.ncair.org

Job Growth in NC 2023

ENERGY EFFICIENCY:

- 80,817 jobs = 3.5% growth

RENEWABLE GENERATION:

- 13,579 jobs = 7.7 % growth
- Solar accounts for 9,819 jobs

STORAGE AND GRID MODERNIZATION:

- 4,246 jobs = 10.1% growth

CLEAN VEHICLES:

- 9,522 jobs = 5.9% growth; 6 times faster than ICE

CLEAN FUELS:

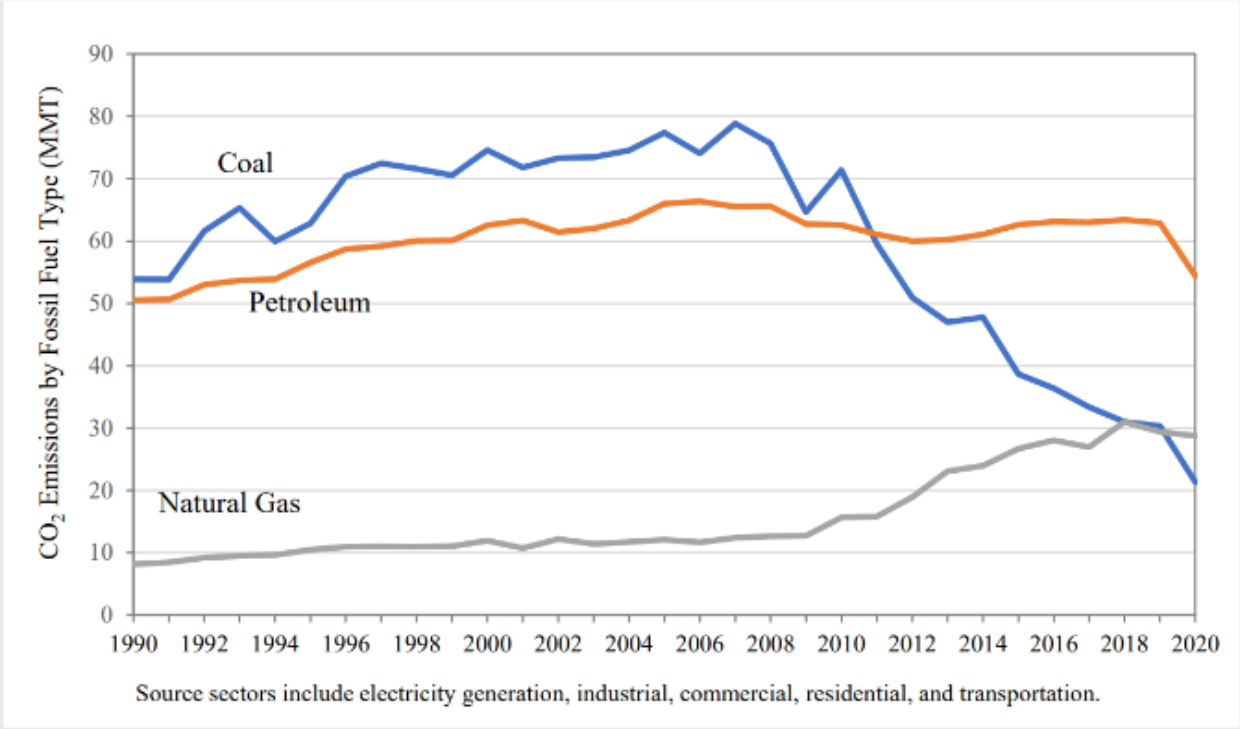
- 1,559 jobs = 2.6% growth

Top 10 States Clean Energy Jobs - 2023		
State	**Jobs**	**NC Jobs Subset**
1. California	544,604	
2. Texas	268,035	
3. Florida	175,572	
4. New York	173,731	
5. Illinois	128,871	
6. Michigan	127,690	
7. Massachusetts	123, 404	
8. Ohio	119,241	
9. North Carolina	**109,723**	
Construction		41,558
Professional Services		34,291
Manufacturing		18,431
Trade		6,834
Other Services		6,304
Utilities		1,155
Agriculture		1,150
10. Pennsylvania	100,704	

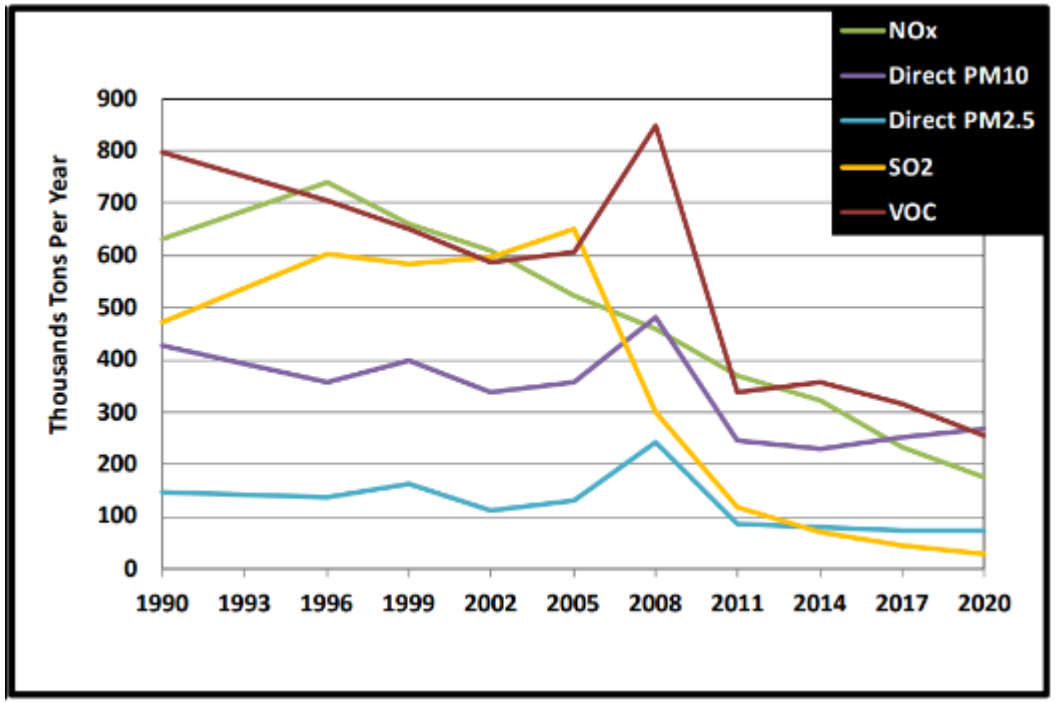
REF: NC Sustainable Energy Association. www.cleanjobsamerica.e2.org.

Reduced Air Pollution

NC CO_2 Emissions Trends in Fossil Fuel Combustion, 1990-2020



NC Criteria Air Pollutants from all Sectors, 1990-2020



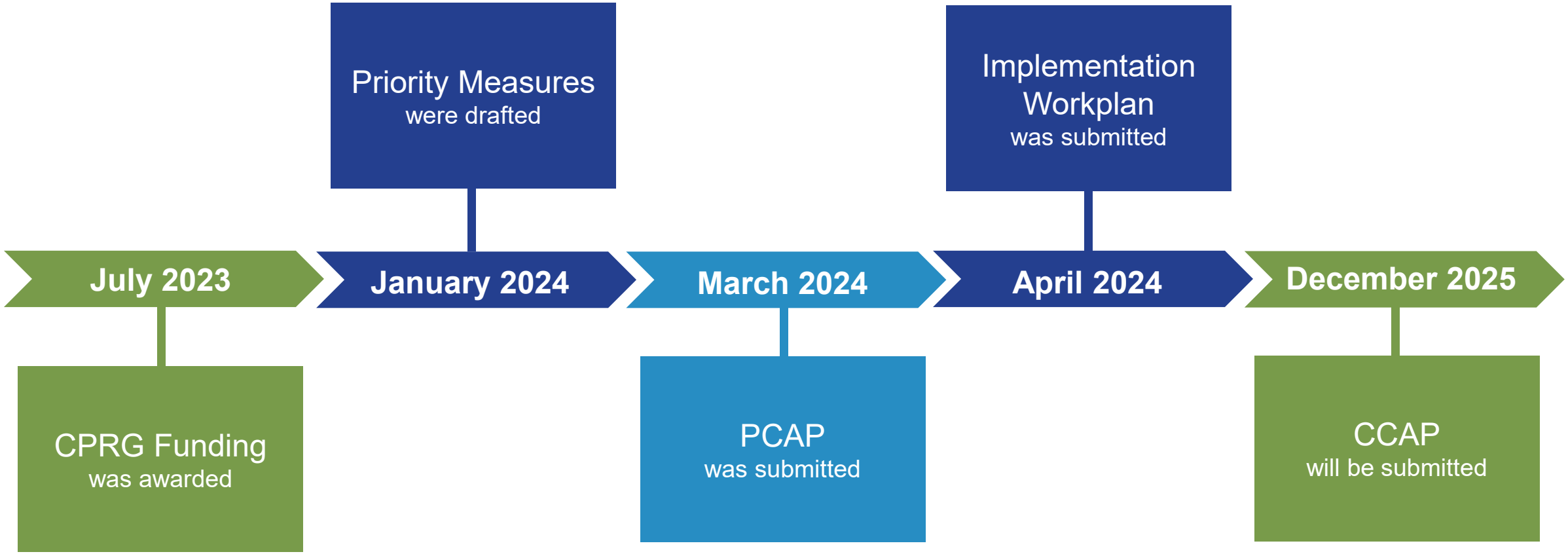
*A significant wildfire event occurred in 2008 that substantially increased PM, and VOC emissions.

NC Greenhouse Gas Inventory and NC Air Quality Trends reports. www.ncair.org

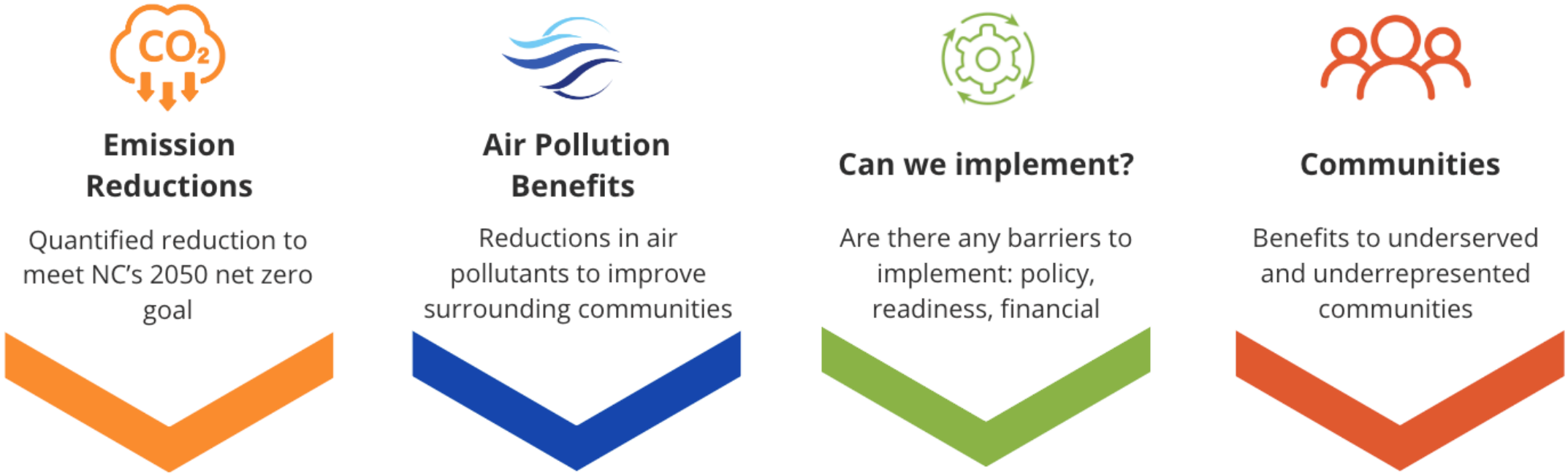
Climate Pollution Reduction Grant (CPRG) Program Overview

- Part of the federal Inflation Reduction Act
- Provides states, local governments, territories and tribes with funds
  - to develop and implement climate action plans
  - to reduce greenhouse gas emissions and other harmful air pollutants
- In 2023, North Carolina was awarded $3 million from the U.S. Environmental Protection Agency (EPA) for the planning phase of the CPRG.
- The North Carolina CPRG planning project is an interagency effort with the Department of Transportation, Department of Commerce, Department of Natural and Cultural Resources and DEQ serving as lead.
- There are 3 Phases in the CPRG project

CPRG Timeline and Deliverables

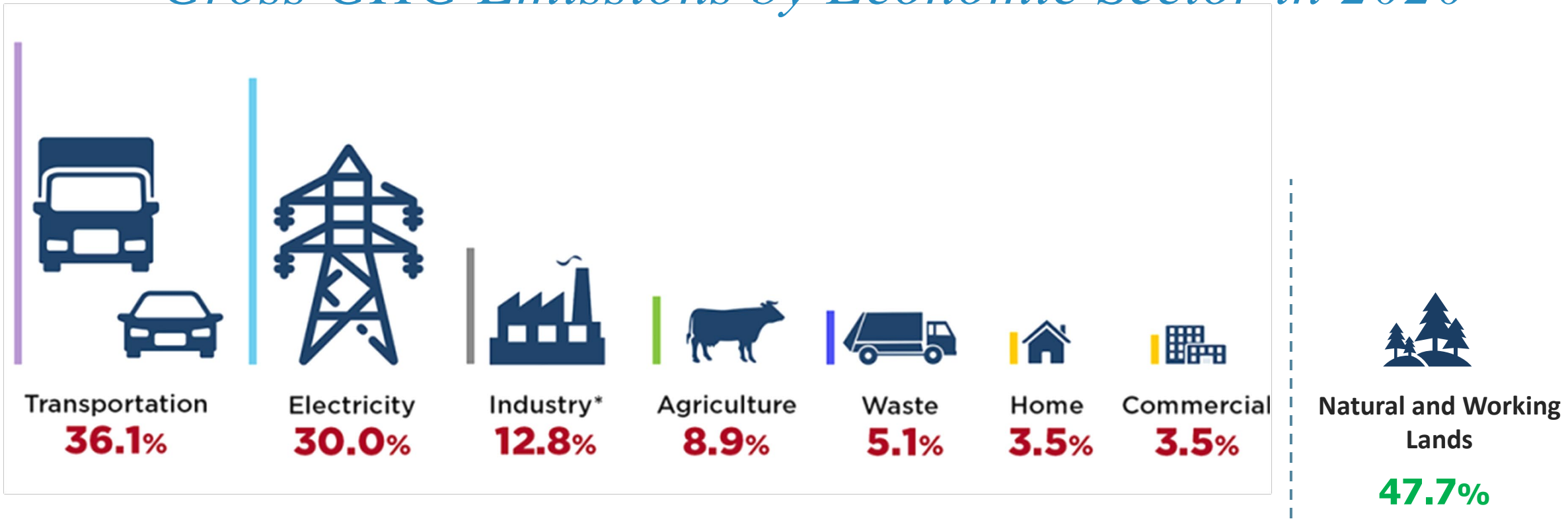


Determining Priority Measures and Actions



REF: https://www.deq.nc.gov/energy-climate/state-energy-office/inflation-reduction-act/climate-pollution-reduction-grant/climate-pollution-reduction-grant-cprg-draft-priority-measures#HowdidDEQidentifytheprioritymeasures-14170

Gross GHG Emissions by Economic Sector in 2020



Sources **Sinks**

NC Greenhouse Gas Inventory Published January 2024.
https://www.deq.nc.gov/energy-climate/climate-change/greenhouse-gas-inventory

Poll – How have you helped to reduce GHGs already?

Poll Question 2.

Are you taking any actions to help reduce greenhouse gas emissions? If so, please select all that apply.

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PCAP Sectors and Measures

Sector	Measure
Transportation	1. Increase the number of zero-emission and electric vehicles on the road through partnerships, technical assistance, financial incentives, and other mechanisms.
	2. Identify, install, and maintain a publicly accessible electric vehicle charging network accessible to all North Carolinians.
	3. Increase the number of zero-emission and electric vehicles in the state fleet, school buses, and transit buses.
	4. Pursue programs to increase efficiency and reduce GHG emissions at port/freight terminals.
	5. Pursue programs to improve the quality of life and reduce GHG emissions for all North Carolinians.
Electricity	6. Increase the amount of electricity generated by low and no carbon energy resources in NC.
	7. Implement measures to increase energy resiliency in NC communities.
Buildings	8. Reduce per square foot energy usage in buildings in NC.
	9. Decarbonize buildings in NC, through replacement of fossil fuel combustion sources and other greenhouse gas emissions.
Industry	10. Develop programs to support or incentivize implementation of energy efficiency and emissions reduction measures in NC industry
Waste	11. Reduce food waste to avoid improper management, reduce GHG emissions, and reduce food insecurity.
	12. Decarbonize waste collection to reduce GHG emissions associated with inefficient diesel fueled collection vehicles.
	13. Reduce landfill gas emissions through improved landfill operations to collect gas more efficiently.
Natural and Working Lands	14. Protect and restore high-carbon coastal habitats and peatlands.
	15. Protect, use, and develop agricultural and forest land.

REF: https://www.deq.nc.gov/north-carolina-priority-climate-action-plan-climate-pollution-reduction-grant/open

Comprehensive Climate Action Plan (CCAP) – Phase 3

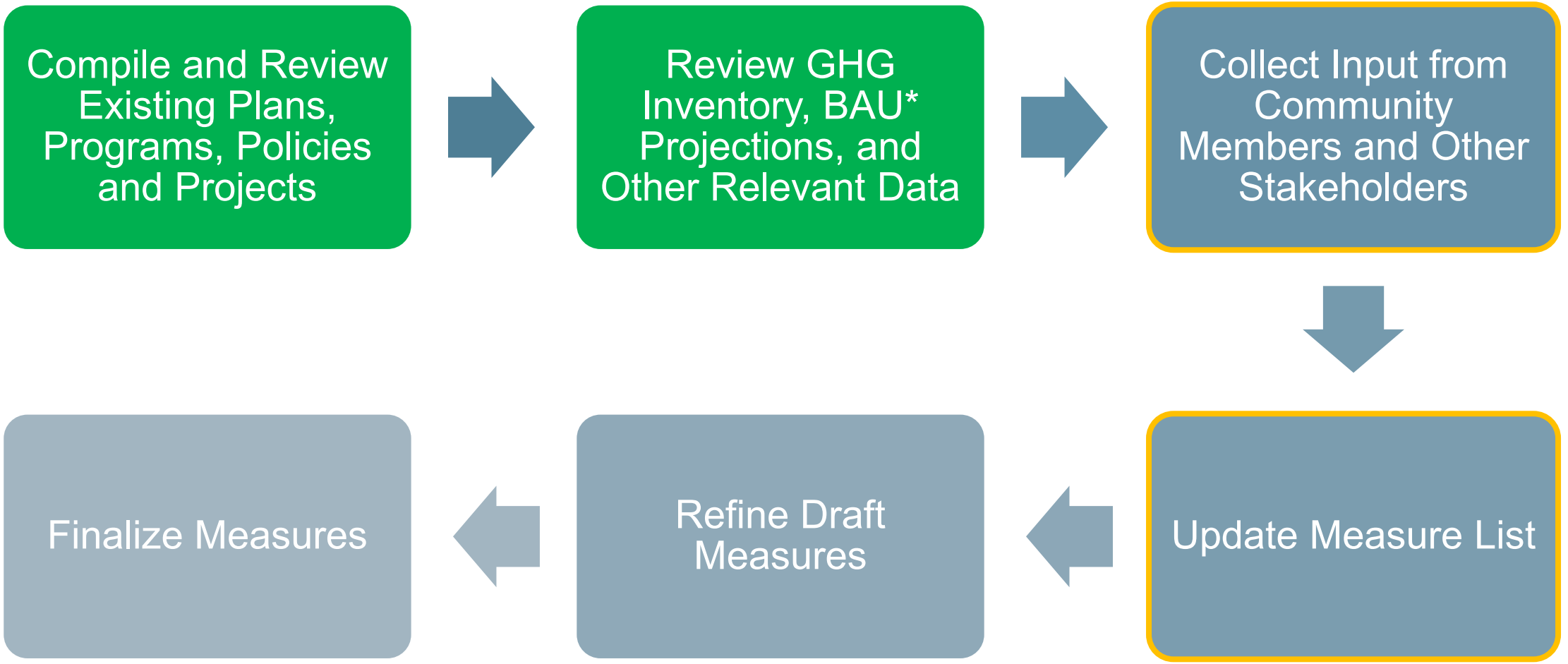
- Phase 3 is the Comprehensive Climate Action Plan (CCAP), which will establish near-term and long-term GHG emission reduction targets and identify GHG reduction measures to achieve these goals that are feasible, implementable and measurable.
- The CCAP is a narrative climate planning report that provides an overview of all GHG sources/sinks and sectors following industry standard protocols.
- The CCAP must also include benefits for communities experiencing high energy burdens who also have low incomes, limited access to resources, and disproportionate exposure to environmental or climate *burdens*.
- Categories of burden can include air quality, climate change, energy, environmental hazards, health, housing, legacy pollution, transportation, water and wastewater, and workforce development.

CCAP Development Actions

CCAP Sections	Actions to date
1. Define Plan Scope & Understand Landscape	COMPLETE defined in PCAP & Implementation Grant
2. Plan for and Initiate Outreach & Engagement	In progress.
3. Develop GHG Inventory	COMPLETE using January 2024 report
4. Develop Business-As-Usual Scenario*	COMPLETE using January 2024 report
5. Set Targets (e.g. 2030 and 2050)	COMPLETE using EO80 + EPA targets
6. Identify and Screen GHG Reduction measures	In progress. Updating with new projects and data
7. Assess GHG Reduction Measures	In progress.
8. Plan to Implement	Feasible, Implementable, Measurable
9. Draft, Finalize, Distribute, and Promote the Plan	Due to EPA Dec 1, 2025
10. Reporting on progress	Ongoing 2026 - 2027

BAU: Projections of GHG emissions (and sinks if feasible) in absence of CCAP measures. Developed for the 2020 GHG Inventory by NC Division of Air Quality.

Step 6. Measure Selection Process



*BAU = Business-as-usual

Economy-wide summary of GHG emissions

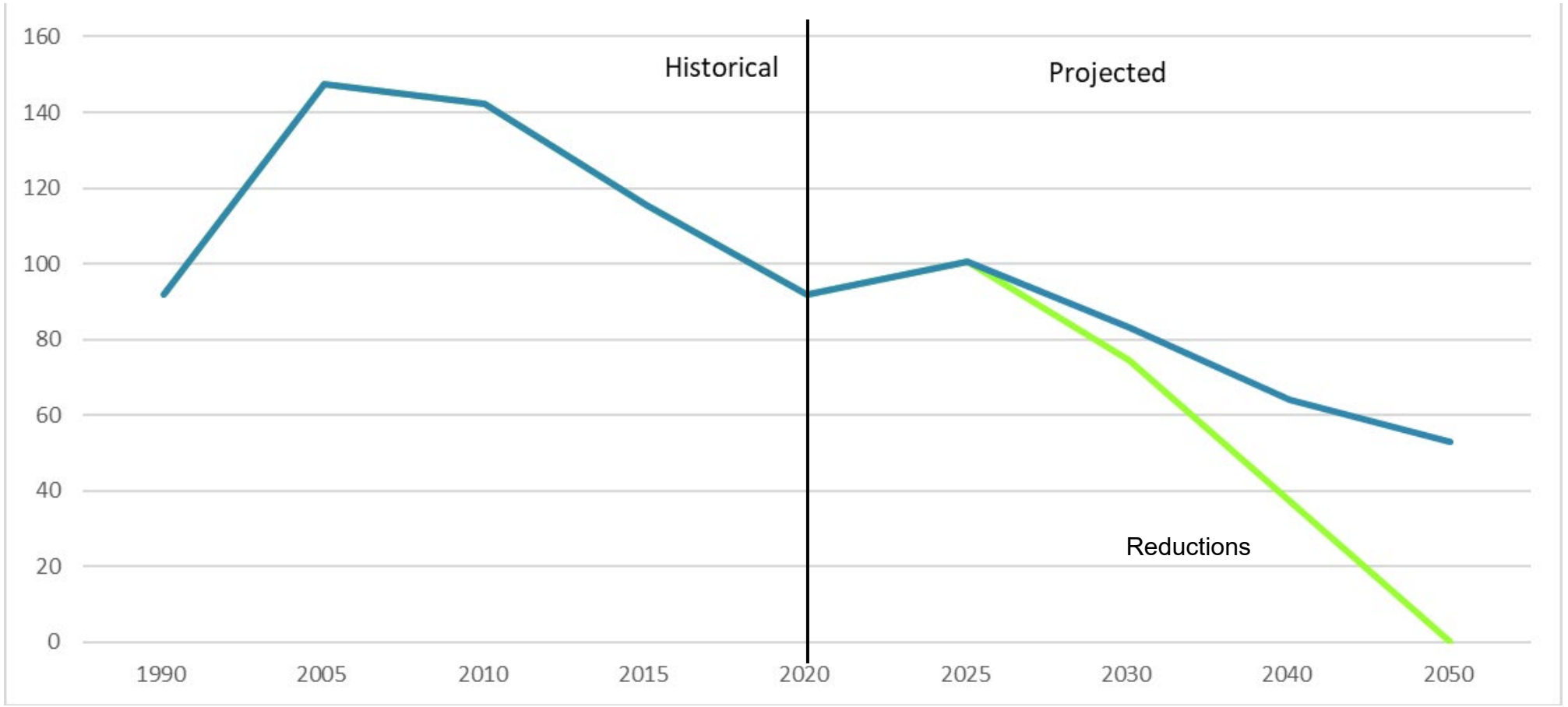


Illustration only

Public Engagement and Outreach

- Solicit your input, and to allow for your feedback about the CCAP
  - Do you know of plans for your community that will help the plan meet the goals described?
  - Do you have new ideas that will help us reach our targets either in the short-term or the long term?
- Your responses will help DEQ identify opportunities to collaborate on new or existing projects, strategies, and initiatives that will further GHG reduction goals.
- Share and discuss updates to energy plans, Executive Orders, major projects and strategies to reduce GHG emissions across the economic sectors.
  - Transportation
  - Electricity
  - Commercial and Residential Buildings
  - Waste Management
  - Natural and Working Lands
- Include partners in Metropolitan Statistical Areas
- Showcase State Energy Office programs

Benefits Analysis

Identification

Rely on geographic areas defined in PCAP

Census Tract IDs

Meaningful Engagement

Description of the engagement: how and with whom

To include feedback from communities

Benefits

Qualitative description of measures

- Improved health outcomes and access to services
- Job creation
- Decreased energy costs

EXAMPLE

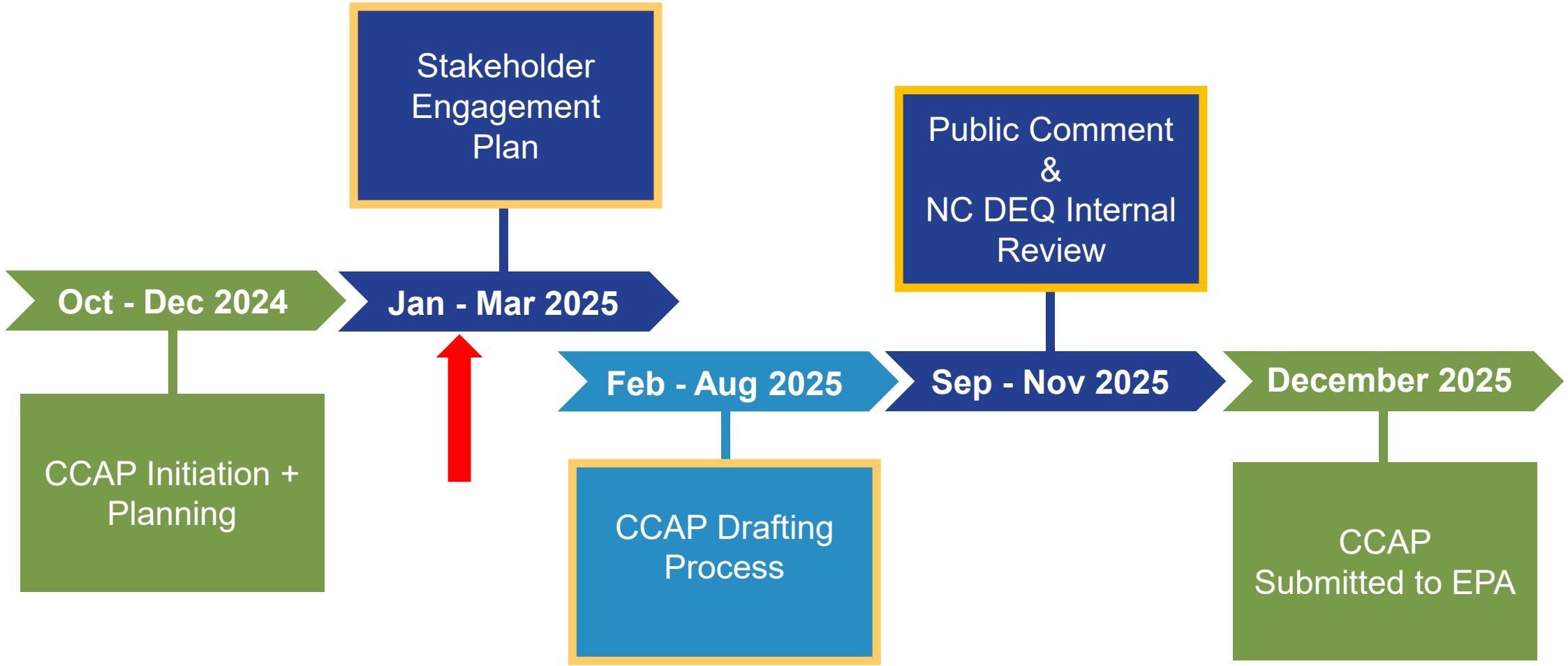
Sector	Measure	Improved public health outcomes	Job creation	Improved climate resilience	Improved access to services	Decreased energy costs
Buildings	Weatherization	X	X	X	X	X
	Energy Saver NC	X	X	X	X	X

Listening Sessions and Public Comment

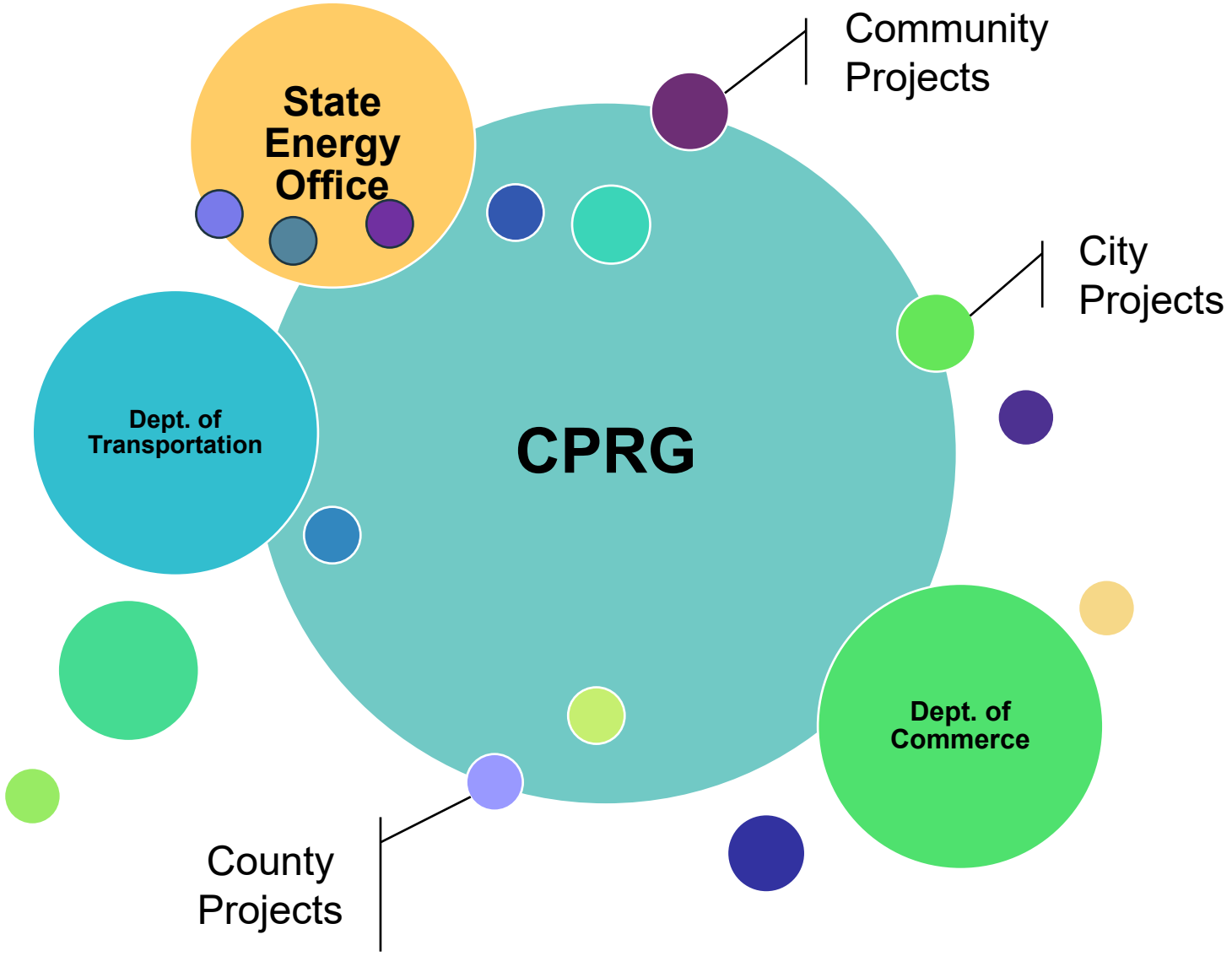
- **Phase 1:** Listening sessions (Feb. – March)
- Virtual meeting
    - Feb 25 | Kick-off
  - In-person meetings
    - Feb 27 | Pembroke
    - Mar 6 | Fayetteville
    - Mar 13 | Morganton
    - Mar 20 | Roanoke Rapids
    - Mar 27 | Wilmington
- Collaboration with Partners
  - Community groups, local government organizations, etc.

- **Phase 2:** Public Comment (August – *PROPOSED)*
  - Virtual meetings
    - Dates
  - In-person meetings
    - Locations and dates
      - Central NC
      - Western NC
      - Northeastern NC
      - Southeastern NC
- Collaboration with Partners

CCAP Planning Timeline and Deliverables



Data Gathering



Sector	Proposed Measure	Description
Buildings	Weatherization+ Assistance Program	Will fund home readiness repairs and improvements for low-income rural communities single- and multi-family housing currently on the state's WAP deferral lists.
	Utility Savings Initiative	Provides program management support to assess, identify, and oversee EE projects for state-owned facilities with a focus on projects that can provide benefits to low-income rural communities.
	Energy Saver NC	This initiative helps income-eligible homeowners and renters across the state cover the cost of energy efficiency and electrification upgrades with a focus on areas with high energy burden.
Industry	Industrial Electrification, Efficiency, and Process Emissions Reduction	Provides no cost energy assessments to small and medium industrial organizations across NC with the goal of identifying EE opportunities and helping organizations better understand and manage their utility costs.
	Industrial Decarbonization Loan Fund	Will allow businesses to take advantage of IRA tax credits that assist with the transition to clean energy technologies and GHG reductions.
Waste	Organic Waste Reduction	Examine the current state of food waste management in North Carolina, including existing diversion programs, infrastructure, and policies. Identify key stakeholders, including municipalities, waste management companies, and community organizations. Investigate best practices and innovative approaches from other states or countries that have successfully implemented food waste reduction measures.
	Waste Operations Electrification and Decarbonization	Promotes the conversion of existing municipal solid waste (MSW) and material recovery collection currently serviced with conventional diesel fueled trucks to an electric or other low-carbon fuels fleet (e.g., compressed natural gas or renewable natural gas).
	Landfill Gas Reductions	Will distribute funds to landfill operators to procure gas reduction solutions and the implementation of the gas reduction measures at landfills. Program W3 will prioritize landfills that are flaring gas as opposed to producing energy (where possible), do not have gas collection systems in place, or could install a collection system earlier in the landfill life.

Protect and Restore: Coastal habitats, floodplains and wetlands, urban trees, and agricultural and forestlands to sequester carbon

How? Some examples:

- Prioritize climate change and sea level rise in **coastal habitat restoration planning**
- Protect and restore forests and wetlands **within flood prone areas**

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Questions for YOU

- What work are you doing that may fit within this plan?
- Are there other projects out there?
- How often would you like to be involved in our process?
- Other public engagement opportunities?

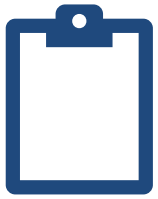
Poll – Feedback choices

Poll Question 3.

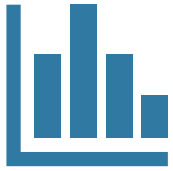
What is the best way for you to receive information about the Comprehensive Climate Action Plan? Please select all that apply.

Join at menti.com | use code **5477 8580**

Next Steps



Survey
(Feb – Mar)



Data collection & analysis
(Feb – June)

Engagement sessions
(Feb – Mar)

Public comment
(August)

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