

# RSAC Meeting 4

## Implementation Planning + Low-carbon Scenario

25 October 2023

**SSG**



# Agenda

**Welcome** - Arielle + Erica, SSG

**Agenda Review** - Erica

- Feedback results from RSAC Meeting 19 September

**Implementation Framework** - Jared, CIVIX

- Funding
- Feasibility
- County Capacity
- Community Priorities

**Low-carbon Pathway**

- Review of draft low-carbon pathway wedge diagram and overview of actions.

**Outreach Community Engagement**

**Update** - Thetyka

**Closing** - Erica + Team

# Review of Feedback from Meeting 3

5 responses

	Strongly agree	Agree	Disagree	Strongly disagree
I feel that I better understand Charleston County's approach to climate action planning.	0%	100%	0%	0%
I feel that this session was well facilitated.	20%	80%	0%	0%
There was enough information presented for me to participate effectively.	40%	60%	0%	0%

# Review of Feedback from Meeting 3

## The part of the session most enjoyable...

Hearing from fellow committee members, and engaging in constructive dialogue.

I thought the discussion and information sharing was helpful. I know we got off topic, but I think everyone is most interested in finding best doable solutions. Thank you!

Good conversation

Getting more details and finally feeling like I was able to provide meaningful feedback

Discussion with committee members and learning from their perspectives

## The part of the session least enjoyable...

I think that we tried to cover too much material for the time allotted.

Some of the charts were not very readable, though not sure what to do to help that.

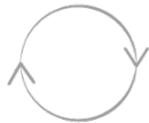
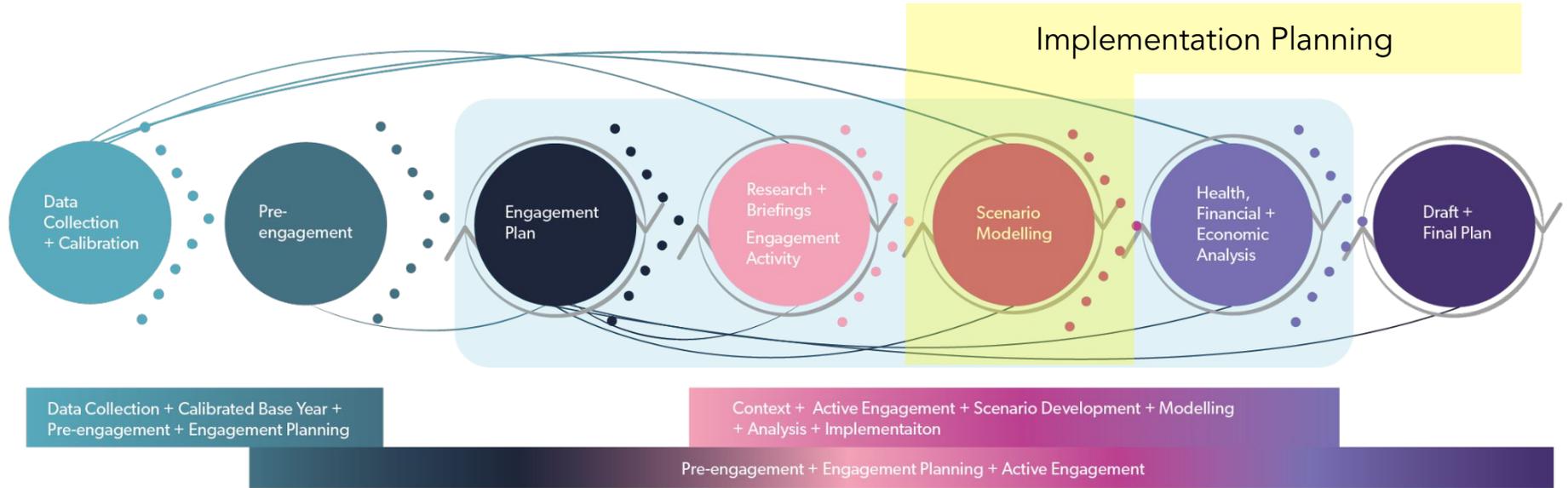
Definitely building in time for questions/thought after presenting each large piece of information.

Not having a model developer there to answer questions

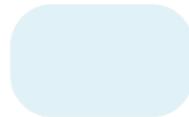
Not at this time

## General feedback for the future

I think folks are most concerned about implementation and will have lots of ideas, discussion, and questions. Definitely could use some best practice info and direction from the experts. Want to have enough time to get through all of that together.



Technical +  
Engagement  
Process Informing  
Each Other



Active  
Engagement Period

# Implementation Planning

# Implementation Planning

Enabling the County and community to take practical action on reducing climate pollution (GHG emissions) and generating community benefits with three primary lenses:

- 1. Funding Availability**
- 2. Feasibility + County Capacity**
- 3. Community Priorities**

# Implementation Planning

✓ Prioritize climate actions based on:

- GHG Reduction Potential
- Feasibility
  - County Capacity
  - Community Capacity
- Funding Opportunities
- Co-benefits
- Equity Impacts

✓ Identify specific funding pathways and program designs for major actions

Example Action & Category (May include: transportation, land use and zoning, renewable energy, water conservation, agriculture, etc.)

ABILITY TO IMPLEMENT (FEASIBILITY)	Scoring	Justification
Staffing and technical capacity	1-3	Does it leverage existing staff knowledge? Does it require hiring specialists or contractors or investing in training?
Existing Resources	1-3	Can the City use existing equipment, facilities, etc.?
Legal or Jurisdictional Control	1-3	Can the municipality implement the action on their own, does it require partnerships, or does it require the government to incentivize a private sector action?

ABILITY TO IMPLEMENT (COMMUNITY READINESS)	Scoring	Justification
County/Community Readiness / Political Will	1-3	Does it fit in with past public engagement and community advocacy? Are the Mayor or City Council championing the action?
City Policies and Programs	1-3	Does it fit in with existing policies and programs? Or, does it require altering existing policies and programs?
Example Policies and Programs from Other Jurisdictions	1-3	Are similar cities already doing this action and can provide best practice? Or, will the City be pioneering a pilot program (as may be the case with some IRA funding)?

ABILITY TO IMPLEMENT (COST)	Scoring	Justification
Cost	1-3	What is the cost over time?
Potential Funding or Grant Options	1-3	List of any potential funding sources: taxes, grants, yearly operating budget, etc.
Funding Availability and Application Involvement	1-3	Is the funding automatic (like IRA tax credits)? Or, does it involve an extensive application? Does it involve new funding mechanisms?

	Scoring	Justification
POTENTIAL GHG IMPACT	1-3	What is the GHG reduction over time?
CO - BENEFITS	1-3	Co-created by public process, may include public health, air quality, beautification, economic development, etc.
IMPACTS ON EQUITY	1-3	Co-created by public process to determine most important, location-specific indicators of equity.
OTHER NOTES		Any other notes.

Action prioritization score = feasibility score + community readiness score + cost score + potential GHG impact + co-benefits + impacts on equity

Funding

# Unprecedented funding opportunities

Three recent actions made available the most funding ever before to respond to and mitigate climate change:

- 1. The Inflation Reduction Act (IRA)**
- 2. Bipartisan Infrastructure Law (BIL)**
- 3. Climate Pollution Reduction Grant (CPRG)**

# The Inflation Reduction Act of 2022

- **\$783+ billion**
- Largest piece of federal legislation ever to address climate change
- Most provisions already in effect
- Works with Bipartisan Infrastructure Law
- Many federal agencies involved

## Climate & Energy Benefits

- ❑ Lower energy costs
- ❑ Create green jobs with good wages
- ❑ Grow domestic manufacturing
- ❑ Lower cost of electric vehicles
- ❑ Reduce air pollution
- ❑ Make homes and communities more resilient to flooding and fire

# Bipartisan Infrastructure Law of 2021

- **\$550 billion** from 2022-2026
- Roads, bridges, mass transit, water infrastructure, resilience, and broadband
- Works with Inflation Reduction Act
- Funding available to states, cities, counties, towns, tribal entities, MSAs, MPOs

## Climate & Energy Benefits

- ❑ Better transportation infrastructure
- ❑ Power systems for clean energy
- ❑ Expand broadband internet access
- ❑ Access clean drinking water
- ❑ Make public infrastructure and homes more resilient to climate impacts
- ❑ Strengthen freight & supply chains
- ❑ Clean up legacy pollution sites

# Climate Pollution Reduction Grant Program

**\$5 billion** in grants to states, local governments, tribes, and territories

- **\$250 million** for noncompetitive planning grants
- **\$4.6 billion** for competitive implementation grants

Administered by the EPA

SC Office of Resilience (SCOR) is leading the state planning effort

## Climate Goals

- ★ Reduce GHG emissions
- ★ Reduce air pollution
- ★ Create community benefits for disadvantaged communities
- ★ Leverage other resources to maximize GHG reductions

Feasibility + County Capacity

# Feasibility + County Capacity

The County will prioritize climate actions based on:

- 1. Emissions reductions potential**
- 2. Capacity to act**
- 3. Ability to improve services**
- 4. Cost**
- 5. Co-benefits/Equity benefits**

## Priority Action Considerations (1 of 2)

- ❑ Is it likely that implementing this action will have a **significant impact on GHG emissions**?
- ❑ Is this a priority action that **needs to be addressed** in the next 1-5 years, 5-10 years, 10-20 years?
- ❑ Is this action **within the County's authority**? Is the action **legally feasible**?
- ❑ Is there sufficient **staff capacity and expertise** in place to carry out the action? Will the action require additional staff capacity or temporary staff augmentation to implement?

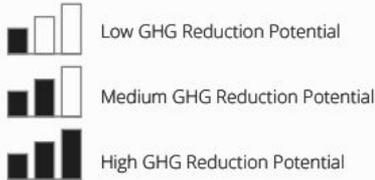
## Priority Action Considerations (2 of 2)

- ❑ **Are resources (funds, staff, expertise) either readily available** or can resources be obtained to implement and manage the action? Are there federal/state/community resources? If not, can resources be acquired? Is there opportunity to build on existing initiatives?
- ❑ Has this action been **identified as important** by the County/community? Are people in the community **interested in the issue**? Is there **momentum/political will** to move this initiative forward?
- ❑ Does this action create **co-benefits for the County and community**? How desirable are the secondary benefits?
- ❑ Does the action have the **potential to reduce inequity**? Does it benefit vulnerable communities?

# Action Criteria & Ranking

## GREENHOUSE GAS REDUCTION POTENTIAL

The potential for greenhouse gas reductions per action item were estimated to help evaluate the impact of each item as well as a priority.



## COST

An estimated cost of each item was considered to help evaluate and prioritize actions using the following scale:

- \$** = \$0 - \$10,000
- \$\$** = \$10,001 - \$50,000
- \$\$\$** = \$50,001 - \$100,000
- \$\$\$\$** > \$100,000

Scoring						
Ability to Implement (Feasibility)	Ability to Implement (Community Readiness)	Ability to Implement (Cost)	Potential GHG Impact	Co-benefits	Impacts on Equity	Score
3	3	2	2	1	1	12

Narrative Description										
Category	Ability to Implement (Feasibility)			Ability to Implement (Community Readiness)			Ability to Implement (Cost)			Potential GHG Impact
	Staffing and technical capacity	Existing Resources	Legal or Jurisdictional Control	County/Community Readiness / Political Will	City Policies and Programs	Example Policies and Programs from Other Jurisdictions	Cost	Potential Funding or Grant Options	Funding Availability and Application Involvement	
Categories decided by public process and research. May include: transportation, land use and zoning, renewable energy, water conservation, agriculture, etc.	Does it leverage existing staff knowledge? Does it require hiring specialists or contractors or investing in training?	Can it use existing equipment and facilities?	Can the municipality implement action on their own, does it require partnerships, or does it require the government to incentivize a private sector action?	Does it fit in with past public engagement and community advocacy? Are the Mayor or City Council championing the action?	Does it fit in with existing policies and programs? Or, does it require altering existing policies and programs?	Are similar cities already doing this action and can provide best practice? Or, will the City be pioneering something totally new?	What is the cost over time?	List of potential funding sources	Is the funding automatic (like IRA tax credits)? Or, does it involve an extensive application? Does it involve totally new funding mechanisms?	What is the GHG reduction over time?

Pause for discussion

What questions and  
observations do you have?

# Priority Action Analysis Example 1

Upgrade county fleet to electric or zero emissions vehicles.

<b>County Authority</b>	Total jurisdictional control
<b>Staffing and Technical Capacity</b>	Can be streamlined with current vehicle procurement process. More difficulty if rapid turnover in fleet. Requires knowledge and capacity to maintain electric vehicle (EV) fleet.
<b>Existing Resources</b>	The County has a Fleet Operations Department and existing facilities and capacity for fleet operations and management.
<b>Political Will/County Readiness</b>	County readiness depends on the lifecycle of the current fleet. Countywide map of charging stations reveal a readiness for expansion.
<b>Community Readiness</b>	TBD

# Priority Action Analysis Example 1

Upgrade county fleet to electric or zero emissions vehicles.

<b>County Policies and Programs</b>	There is currently a state plan for electric vehicle charging infrastructure.
<b>Examples from Other Jurisdictions</b>	Winter Park, Florida case study of fleet electrification
<b>Cost</b>	Cost depends on size of fleet and vehicle type.
<b>Potential Funding</b>	<a href="#"><u>Charging and Fueling Infrastructure Grant Program (BIL)</u></a> , <a href="#"><u>Clean Heavy-Duty Vehicle Program (IRA)</u></a>
<b>Potential GHG Impact</b>	The fleet is a small fraction of vehicles in the county, but can lead the way in adoption of electric vehicles.
<b>Co-benefits</b>	Improved air quality, reduction in noise pollution
<b>Impacts on Equity</b>	Minimal, though could induce demand for EV infrastructure in County service territories

# Priority Action Analysis Example 2

Provide incentives or rebates to homeowners for residential retrofits.

<b>County Authority</b>	Total jurisdictional control
<b>Staffing and Technical Capacity</b>	The Community Development and Revitalization Department has developed a Critical Home Repair Program, funded by ARPA.
<b>Existing Resources</b>	The County can take advantage of existing relationships with housing-related community organizations to implement a retrofit program.
<b>Political Will/County Readiness</b>	The County has drafted a housing plan for the County, indicating housing as a priority. Retrofits allow for a more resilient housing stock for current and future residents.
<b>Community Readiness</b>	Support for this program is likely to be higher with homeowners than renters.

# Priority Action Analysis Example 2

Provide incentives or rebates to homeowners for residential retrofits.

<b>County Policies and Programs</b>	Critical Home Repair Program
<b>Examples from Other Jurisdictions</b>	Rebates for Denton, TX Municipal Electric customers who perform energy-efficiency improvements in their homes
<b>Cost</b>	Depends on capacity, size and commitment of program.
<b>Potential Funding</b>	<a href="#">Energy Efficient Home Improvement Tax Credits (IRA)</a> , <a href="#">Home Efficiency Rebates (IRA)</a> , <a href="#">Weatherization Assistance Program (BIL)</a>
<b>Potential GHG Impact</b>	Residential uses make up a small proportion of GHG emissions, but will be more impactful the greater number of residences retrofitted.
<b>Co-benefits</b>	Indoor air quality improvements, increased property values, reduced energy costs on heating/cooling
<b>Impacts on Equity</b>	May increase access to retrofits for low-income homeowners

# Community Priorities

# Help shape the implementation outcome!

Documenting community priorities and focus areas helps the County shape climate actions to benefit communities through:

- 1. Program design**
- 2. Accessibility**
- 3. Benefits + beneficiaries**
- 4. Urgency**

# Help shape the implementation outcome!

Many climate actions can also address other community concerns or help advance a community vision.

Likewise, many actions taken to improve the community can be modified to reduce GHG emissions.

Roundtable discussion

What questions and  
observations do you have?

**Low-Carbon Scenario (LCS)**

Quick Overview

# How we arrive at a Low-Carbon Scenario

## Data and Information

Data from county and other trusted sources

Targets to drive the speed of the actions.



## Assumptions

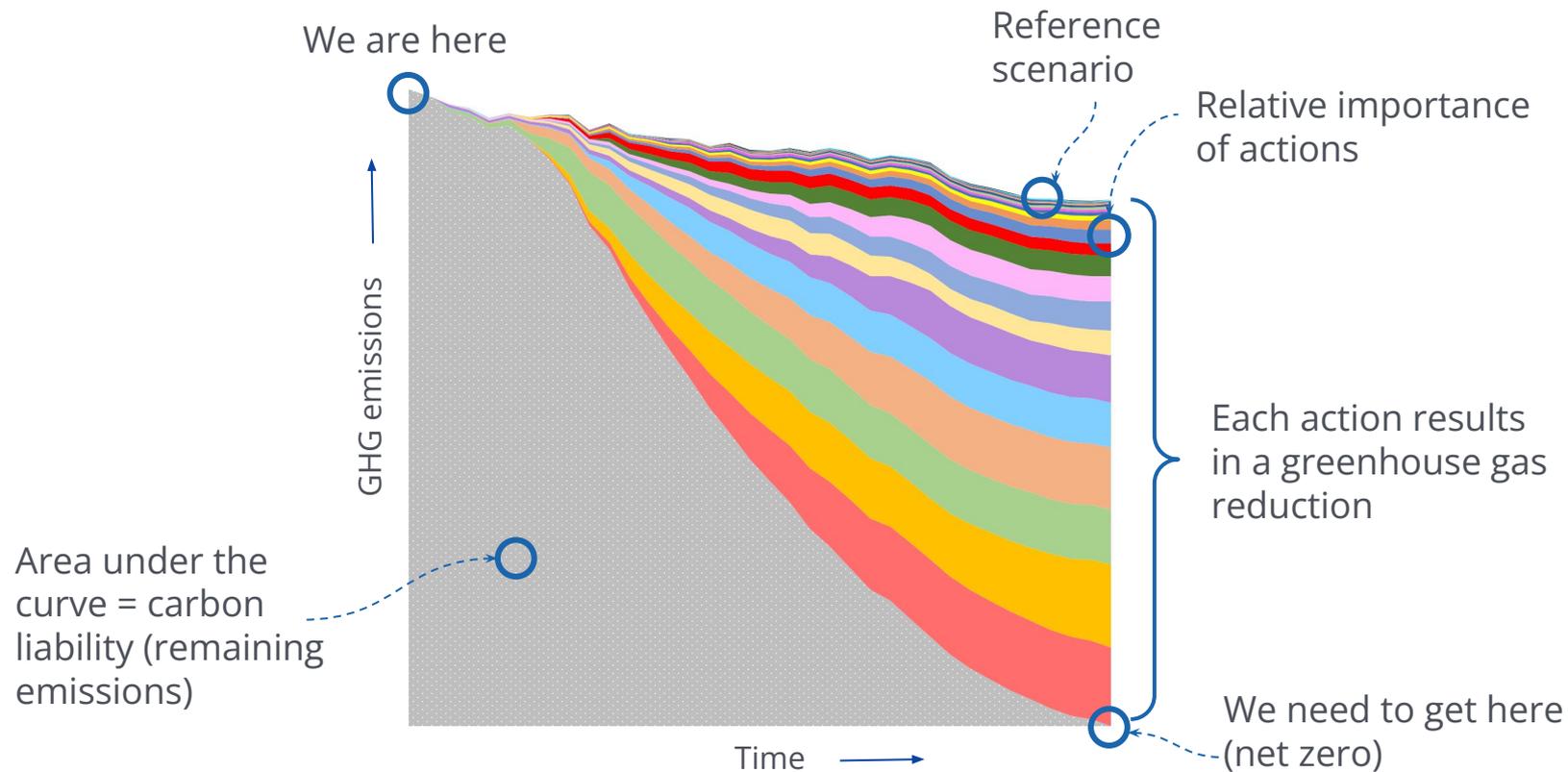
Analysis and interpretation of data and information



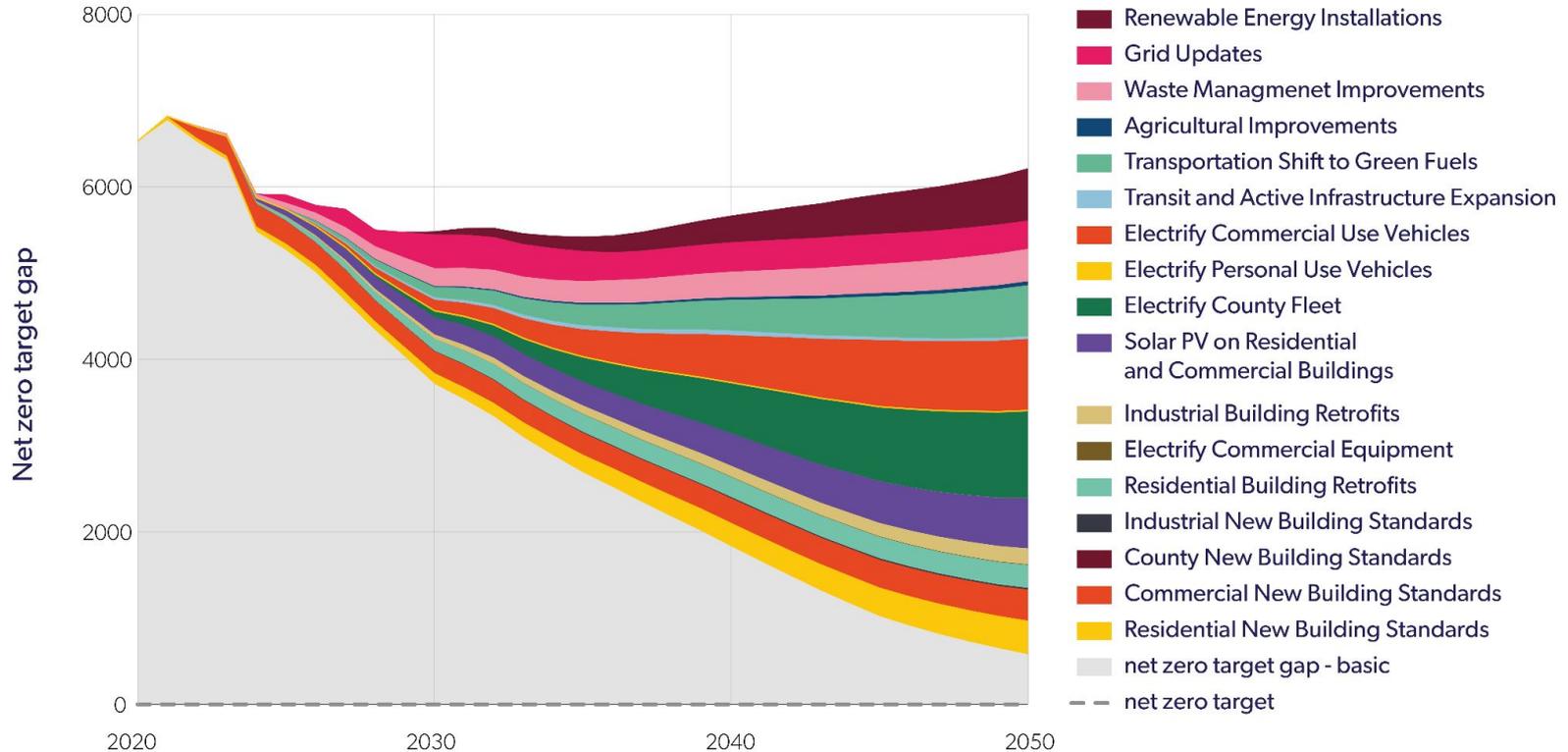
## Projections

Projections for individual factors modelled together to forecast a future plausible low-carbon scenario for community energy-use and emissions

# Anatomy of a Low-carbon Pathway



# Draft Low-carbon (Modeled) Scenario for Charleston County



# What does this scenario mean?

- Provides a blueprint for implementation planning by showing how much and how quickly emissions need to be reduced in each of the sectors.
- Actions must all be implemented in order to reach the low-carbon (climate pollution reduction) targets.
- Shows the relative impact of each of the actions.
- Highlights the importance of low-emissions electricity in meeting our climate goals.
- Target used to create this scenario for 2035: science-based, with 2020 as a base year.

# Example: Residential Building Retrofit Actions

- Switches from fossil fuels to electricity.
- Improves insulation and building envelope.
- Reduces total energy demand.
- Reduces costs to heat/cool houses.
- More efficient houses hold temperature longer in power outages.
- Deep emissions reductions require low-emissions electricity source, including solar panels, and other renewable energy options.
- Including battery storage or other energy storage can increase ability to withstand power outages.

## How does this happen? And when?

- Implementation planning helps answer that part of the equation by factoring in: funding opportunities, feasibility, county capacity, and community priorities.

We recognize this is a “first look”.

This draft scenario is in your workbook, for further review and to provide more time to ask questions about it.

Another draft scenario will be made after this.

Roundtable discussion

What questions and  
observations do you have?

# Community Outreach Update



Focus: Engaging municipalities and community stakeholders for in person discussion and questionnaire.

<b>Community Engagement + Outreach</b>	<ul style="list-style-type: none"><li>● Develop strategy to engage diverse stakeholders through community partners, residents, business owners and congregations in all municipalities</li></ul>
<b>Communications</b>	<ul style="list-style-type: none"><li>● Revised website to reflect more information and promote engagement for Plan</li><li>● Sent out first e-alert to over 200 people.</li><li>● Redesigned marketing content (flyers, social media, etc.)</li></ul>
<b>In person Meetings</b>	<ul style="list-style-type: none"><li>● Four in-person meetings scheduled</li><li>● Goal to host as many as possible through CAP team representative or partners sharing content with supporters/members</li></ul>
<b>Share Questionnaire</b>	<ul style="list-style-type: none"><li>● Questionnaire created to encourage feedback outside of in-person meeting. Received 115 responses as of today. <b>Deadline December 15.</b></li></ul>

# Quick Review of Session

The implementation planning process has just begun.

We will be further defining funding opportunities and feasibility to align with county capacity, community priorities, and the low-carbon targets for 2035 and 2050.

We would like your questions on this over the next week.

# Workbook Request

List any major initiatives, programs, or goals you have underway or planned for the short-to-medium term that might intersect the major emissions areas: transportation, buildings, energy, and land use.

We'll see if there are ways to leverage them for more resources or to integrate direct climate actions.

We would like to hear  
from you!

Feedback in Workbook + via Email  
<https://form.typeform.com/to/lpQ5Onff>

# THANK YOU

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**SSG**