

# RI 2025 Climate Action Strategy and CCAP

Transportation Focus Area Meeting

March 13<sup>th</sup>, 2025

**[bw]** RESEARCH  
PARTNERSHIP



Lighthouse Consulting  
Group, Inc.

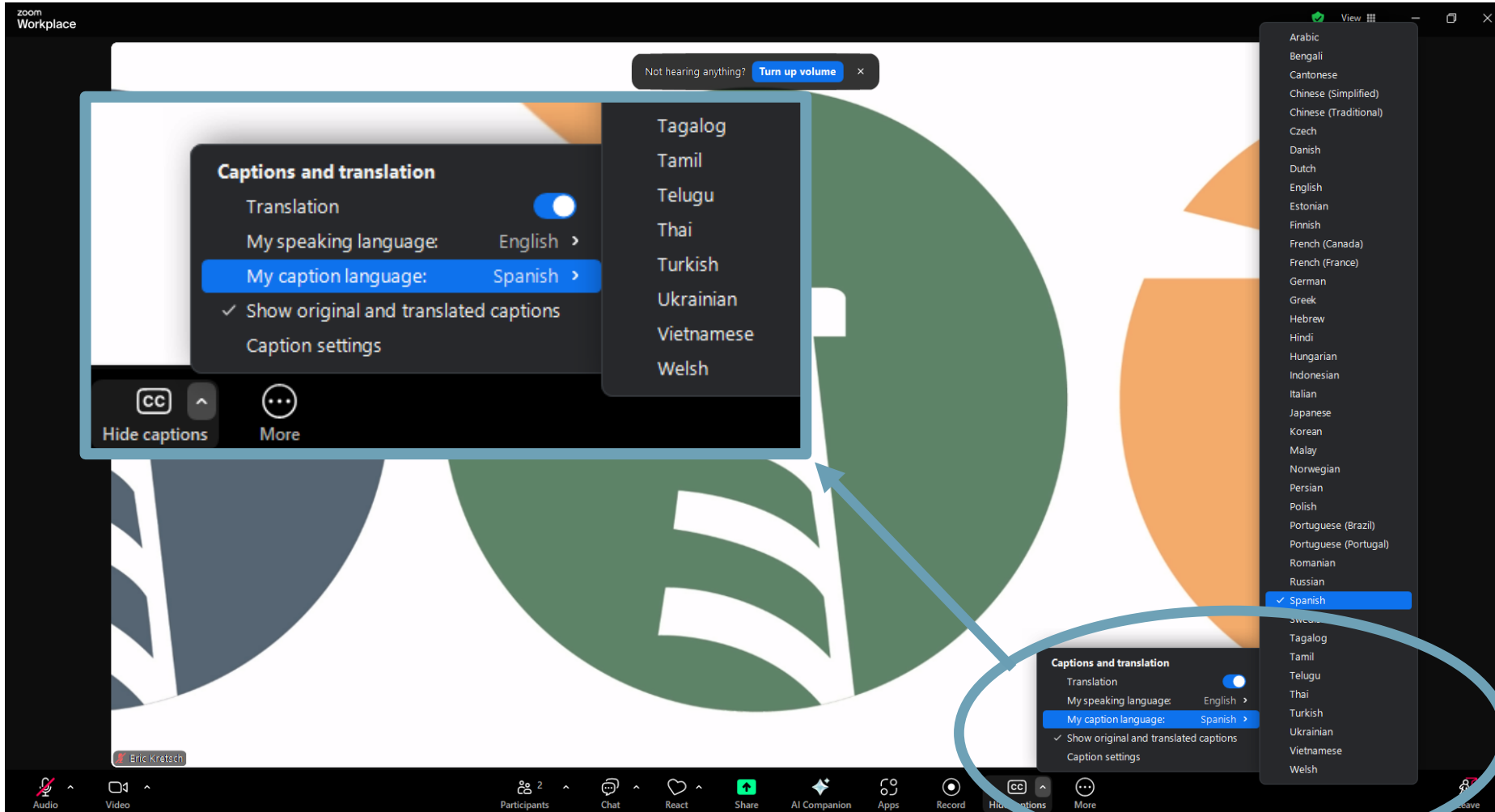


Energy+Environmental Economics

Chelsea Petrenko, E3  
Molly Bertolacini, E3  
Eric Kretsch, Lighthouse

# Translated Closed Caption (CC) Available

## Acceso a *subtítulos traducidos*



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# Ground rules and guidelines to participation

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**+ This workshop is being recorded so we can accurately capture your comments. We do not intend to post this recording publicly.**



**+ Power off other electronics and mute yourself to limit distractions.**



**+ Make space and take space. Be mindful of how much airtime you take, but we encourage you to voice your support and concern.**



**+ There are multiple ways to participate:**

- Raise your hand to be called on
- Use the chat feature
- Utilize the Survey Monkey Form, so that we capture all you have to say.



**+ Thank you in advance for your participation.**

# Introductions



## Energy and Environmental Economics (E3)



**Tory Clark**  
Project Partner



**Chelsea Petrenko**  
Project Lead



**Molly Bertolacini**  
Project Manager



**Rawley Loken**  
Technical Lead



## Lighthouse Consulting Group



**Eric Kretsch**  
Sr. Associate Facilitator



**Kyle McElroy**  
Facilitator



## BW Research Partnership



**Cai Steger**  
Project Manager



**Mitch Schirch**  
Modeling Specialist

# Project Goals

The overarching goal of this project is to create the RI Comprehensive Climate Action Plan (CCAP) for the Climate Pollution Reduction Grant (CPRG) program and the RI 2025 Climate Action Strategy as part of RI's Act on Climate

## + The RI CCAP and RI 2025 Climate Action Strategy will consist of:

- Robust stakeholder engagement
- GHG reduction measures modeling and sector-specific GHG target development
- Policy, technology and cost analyses
- Macroeconomic, workforce, climate resilience, and benefits analysis

## + Key elements of each plan will include:

- Energy efficiency in buildings and transportation
- Transition away from fossil fuel
- Transition to renewable electric power
- The removal of carbon from the air through land use and forest conservation
- A just transition for workers
- Considerations for energy affordability
- Benefits to environmental justice and low-income and disadvantaged communities (LIDAC)



# All Topic Areas for Engagement

How will climate mitigation efforts affect jobs, workforce and businesses? How can RI ensure a just transition as the economy decarbonizes?

## Workforce\*



What are the most effective strategies to ensure the communities most affected by climate change benefit from GHG reduction measures?

## EJ, equitable transition\*



How does decarbonization in RI affect the electric sector? What role do electric and gas utilities play in reducing emissions?

## Energy



Which subsectors are the biggest contributors to RI's emissions? What strategies should be prioritized to reduce transportation emissions?

## Transportation



What is the role of municipalities in decarbonizing RI's economy?

## Municipalities



What pathways for reducing building related emissions should be prioritized?

## Buildings



# Today's Focus

How will climate mitigation efforts affect jobs, workforce and businesses? How can RI ensure a just transition as the economy decarbonizes?

**Workforce\***



What are the most effective strategies to ensure the communities most affected by climate change benefit from GHG reduction measures?

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How does decarbonization in RI affect the electric sector? What role do electric and gas utilities play in reducing emissions?

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**Transportation**



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**Municipalities**

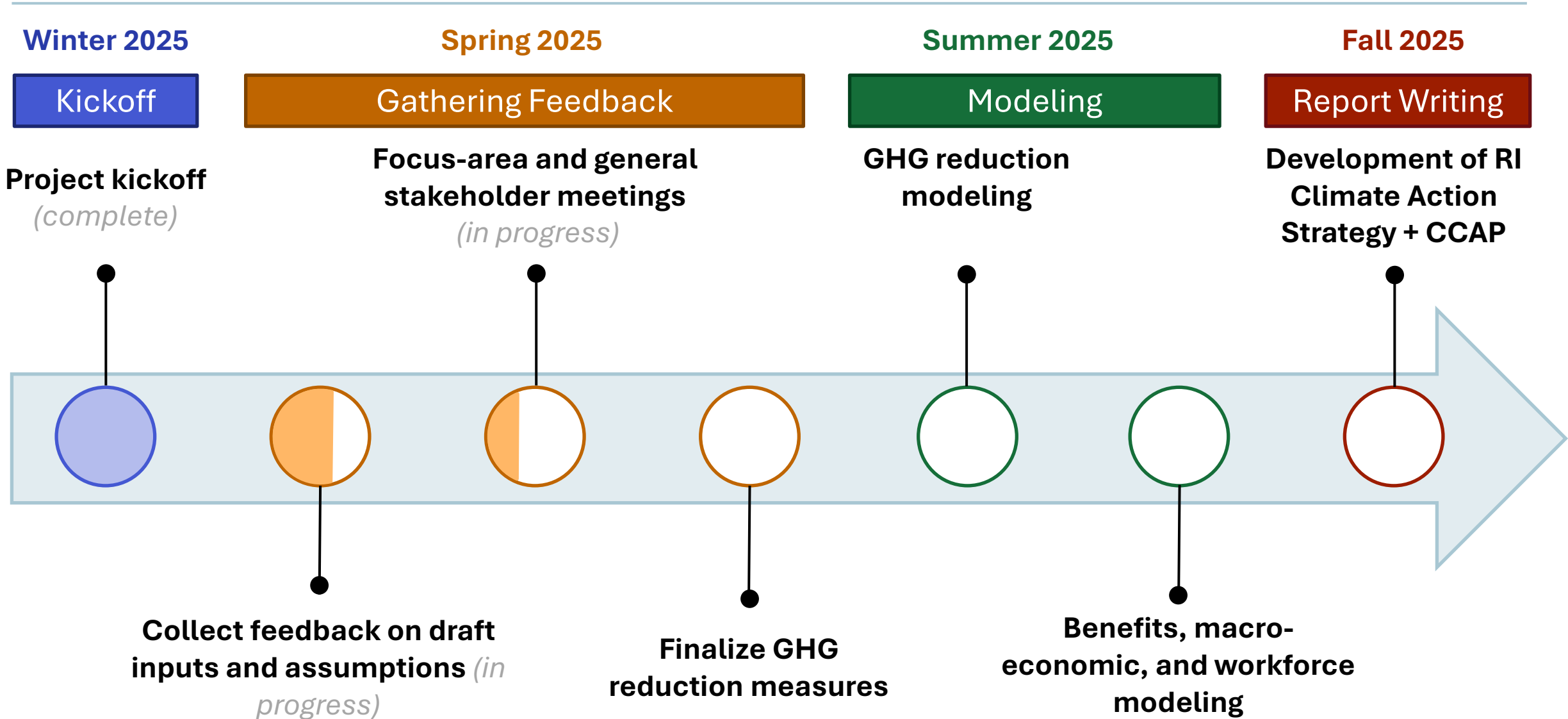


What pathways for reducing building related emissions should be prioritized?

**Buildings**



# Project Status and Timeline





# Incorporating Feedback from 1/9 Kickoff Meeting

## What we heard so far...

- + Stakeholders require sufficient notice for scheduled meetings and time to review materials
- + Importance of education in the plan
- + Equity must be integrated throughout the entirety of the plan, not just in the environmental justice section
- + The importance of distinguishing between workforce development and worker impacts
- + The need to include businesses in the planning process

## Key changes incorporated into process...

- + Providing “save-the-dates” for all Action Plan Development stage stakeholder meetings
- + Exploring how to integrate the topic of education into the RI Climate Action Strategy
- + Building a framework for integrating equity throughout the entirety of the plan
- + Leading conversations about RI worker impacts with interested groups, in addition to the workforce stakeholder meeting
- + Partnering with Commerce RI to integrate conversations with/about businesses

# The Role of an Equitable Transition in the RI Climate Action Strategy

The Act on Climate dictates that the RI Climate Action Strategy (RI CAS) “shall include an equitable transition to climate compliance for environmental justice populations, redress past environmental and public health inequities, and include a process where the interests of and people from populations most vulnerable to the effects of climate change and at risk of pollution, displacement, energy burden, and cost influence such plan.”



**Prioritize GHG Reduction Strategies that Advance Equity and Environmental Justice**








**Collaborate with Communities Most Impacted by Climate Change and Policies**



**Consider Decarbonization Cobenefits** (e.g., Workforce Development and Climate Resilience)

# Major Greenhouse Gas (GHG) Modeling Inputs and Assumptions in the Transportation Sector\*

Input	Source
 <b>Vehicle Miles Traveled (VMT)</b>	RI 2022 MOVES Data
 <b>Number of Vehicles by Type/Class</b>	RI 2022 MOVES Data; RI Department of Motor Vehicles (DMV) data
 <b>Vehicle Fuel Types</b>	RI 2022 MOVES Data
 <b>Vehicle Efficiency</b>	Energy Information Administration (EIA) Annual Energy Outlook (AEO) 2023; Argonne National Laboratory
 <b>Vehicle and Fuel Costs</b>	International Council on Clean Transportation (ICCT), CA Air Resources Board (CARB) Advanced Clean Trucks (ACT) Analysis

# Questions?



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# Overview of Modeling Approach



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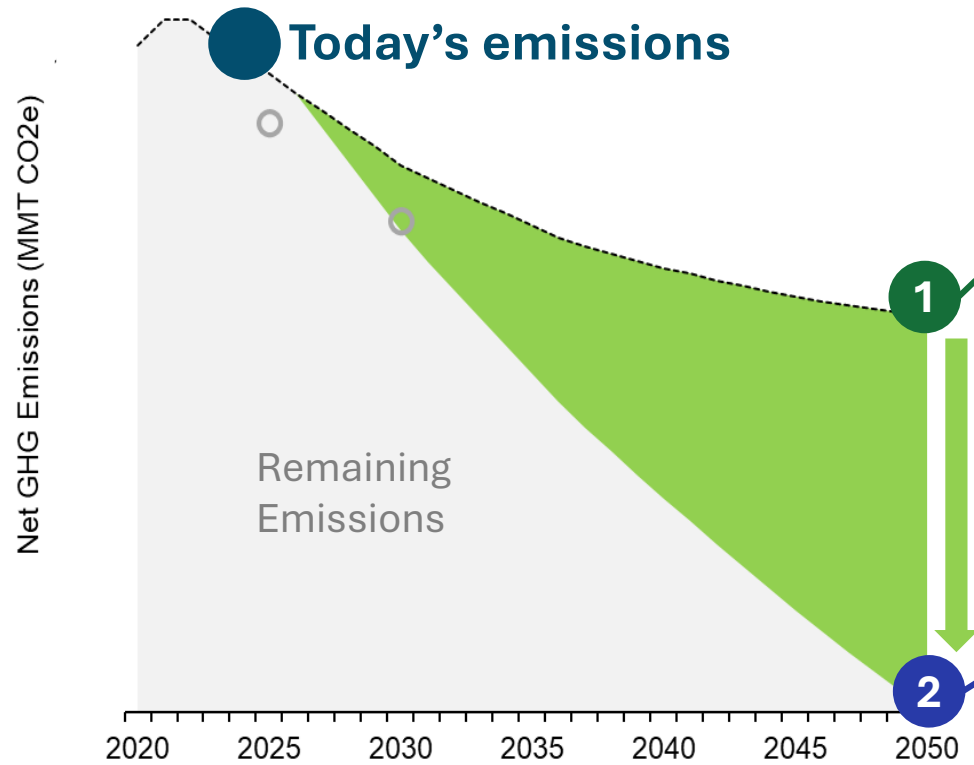
# RI Climate Action Strategy and CCAP Requirements and Components

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- + **Strategies, programs, and actions to meet RI's economywide emissions reduction targets across all sectors, sources, and sinks**
- + **Short-term and long-term emissions reduction projections and sectoral targets for at least two scenarios:**
  - Current policy scenario
  - Plan implementation scenario
- + **Estimated GHG reductions from specific strategies or policies**
- + **Workforce analysis to explore job creation and loss from decarbonization efforts and workforce training needs**
- + **Analysis of decarbonization benefits, including benefits for low-income and disadvantaged communities (LIDAC), such as the economic impacts of improved air quality**
- + **Analysis of authority to implement to determine the process and authority to implement the various GHG reduction strategies**
- + **Available funding analysis to explore existing funding available to support GHG reduction strategies**

# GHG Emissions Reduction Scenarios in the RI Climate Action Strategy and CCAP

## Illustrative Decarbonization Pathway



### 1. Current Policy Scenario

Near-term and long-term projections of GHG emissions in the absence of RI Climate Action Strategy/CCAP strategies.



### 2. Plan Implementation Scenario

Near-term and long-term projections of GHG emissions in a scenario where the CCAP is fully implemented. This scenario includes the proposed GHG reduction strategies.

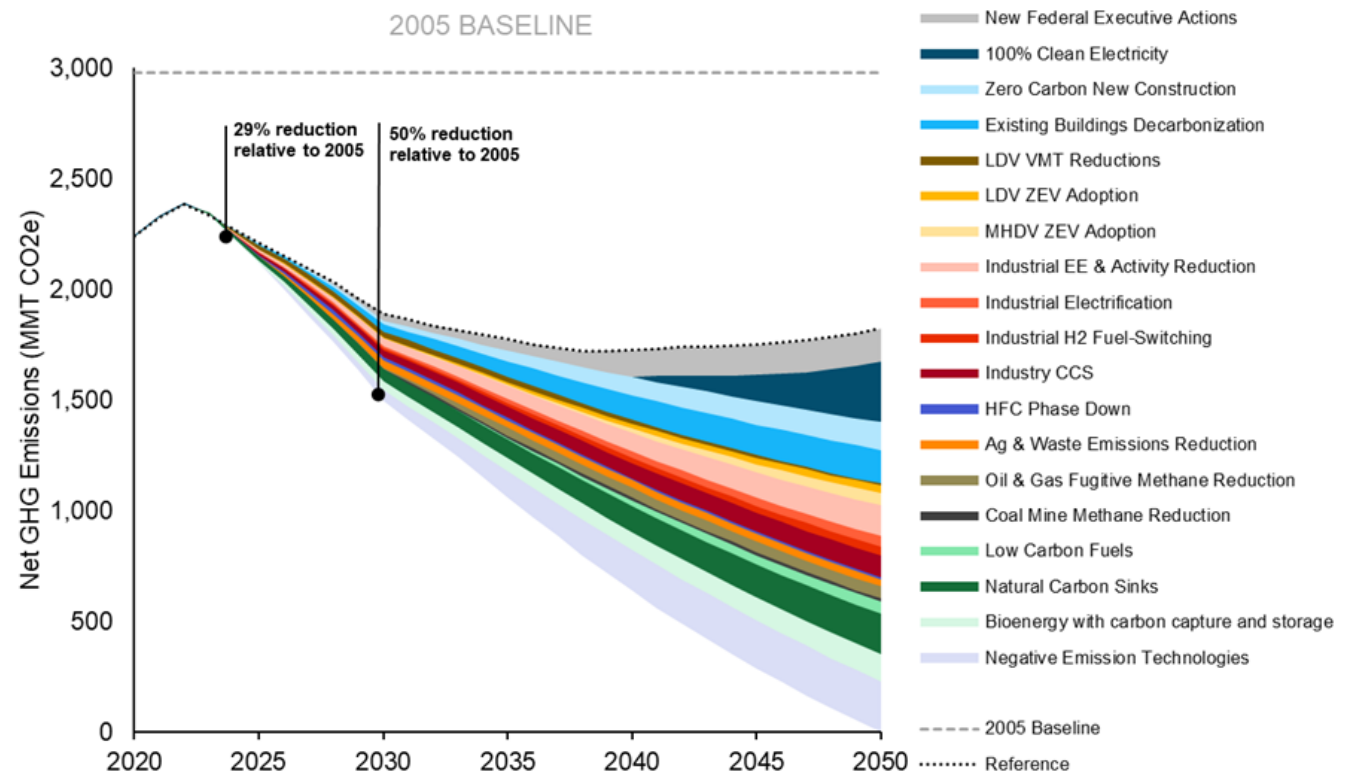


# Decarbonization Modeling Toolkit

## + The project team's modeling toolkit allows us to explore...

- The emissions impact of **GHG reduction measures**
- Changes in **energy use and emissions** by sector
- The **role of different sectors** in reaching economy-wide goals
- Changes in **infrastructure** and the **pace of the transition**
- Customer costs and affordability impacts
- Workforce impacts
- The benefits of decarbonization, such as air quality improvements

## Example Decarbonization Pathway by Measure\*



\* GHG reduction measures refer to discrete strategies that reduce emissions, such as electric vehicle adoption, building electrification, etc.



# Questions?



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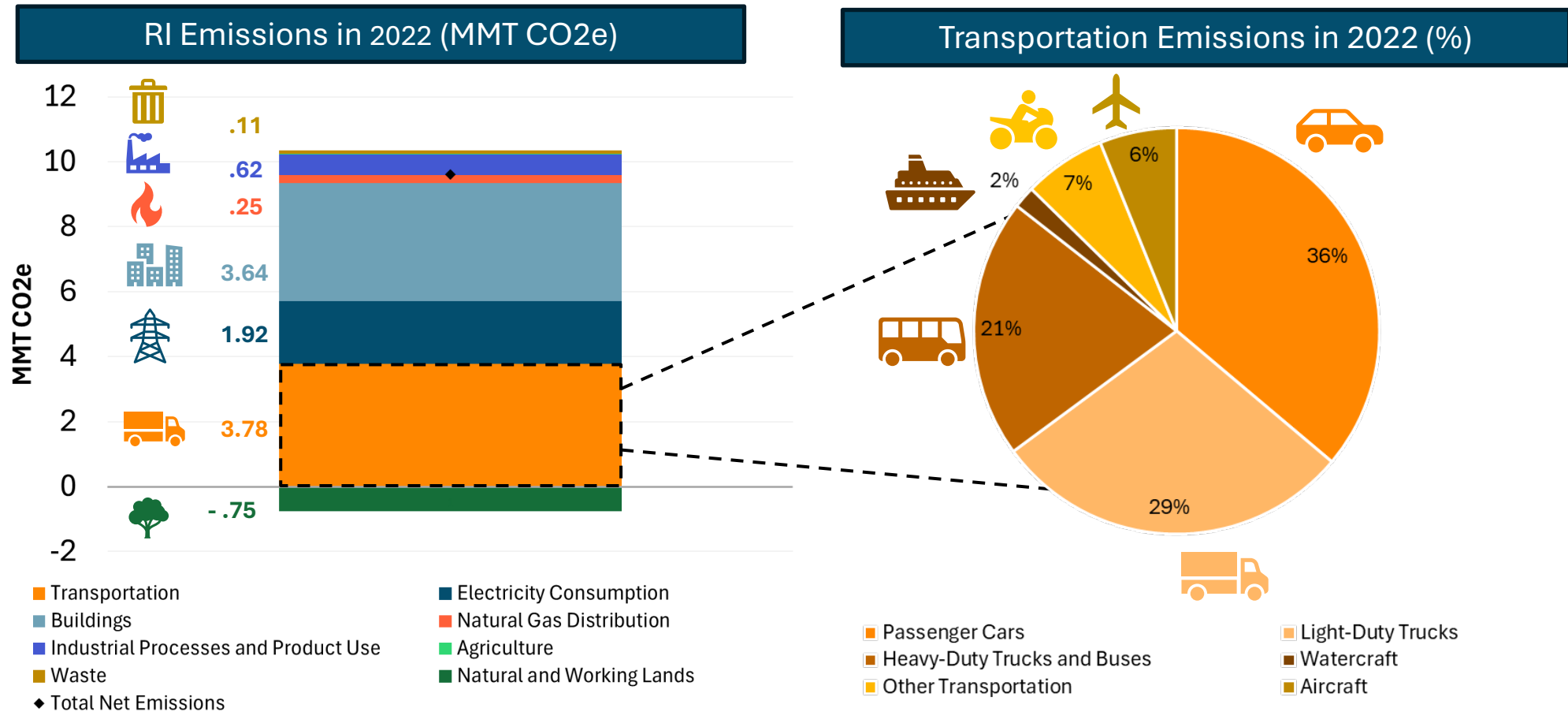
# Transportation Sector



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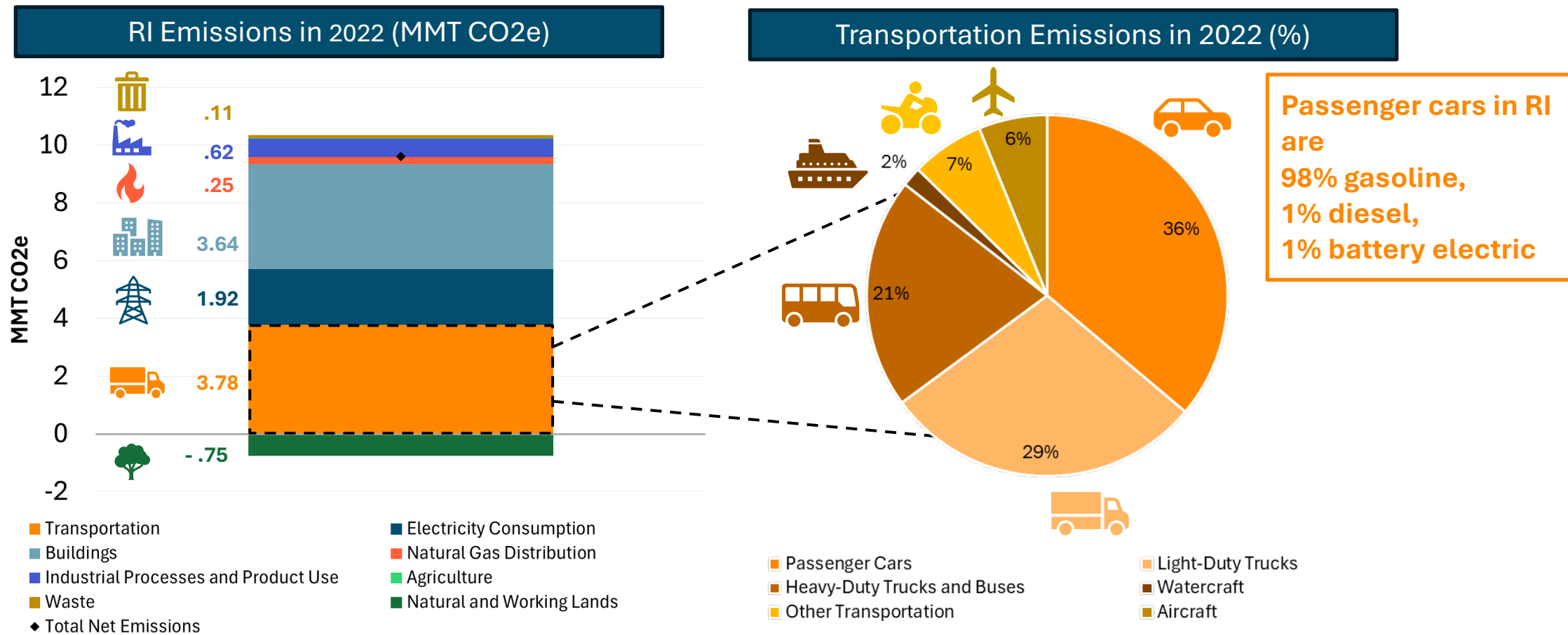
# Transportation Emissions in RI

- + RI emitted 10.4 MMT CO<sub>2</sub>e total greenhouse gas emissions in 2022, with the transportation sector contributing 37%
- + Transportation emissions are primarily driven by fossil fuel combustion from passenger cars, light-duty trucks, and heavy-duty trucks and buses



# Transportation Emissions in RI

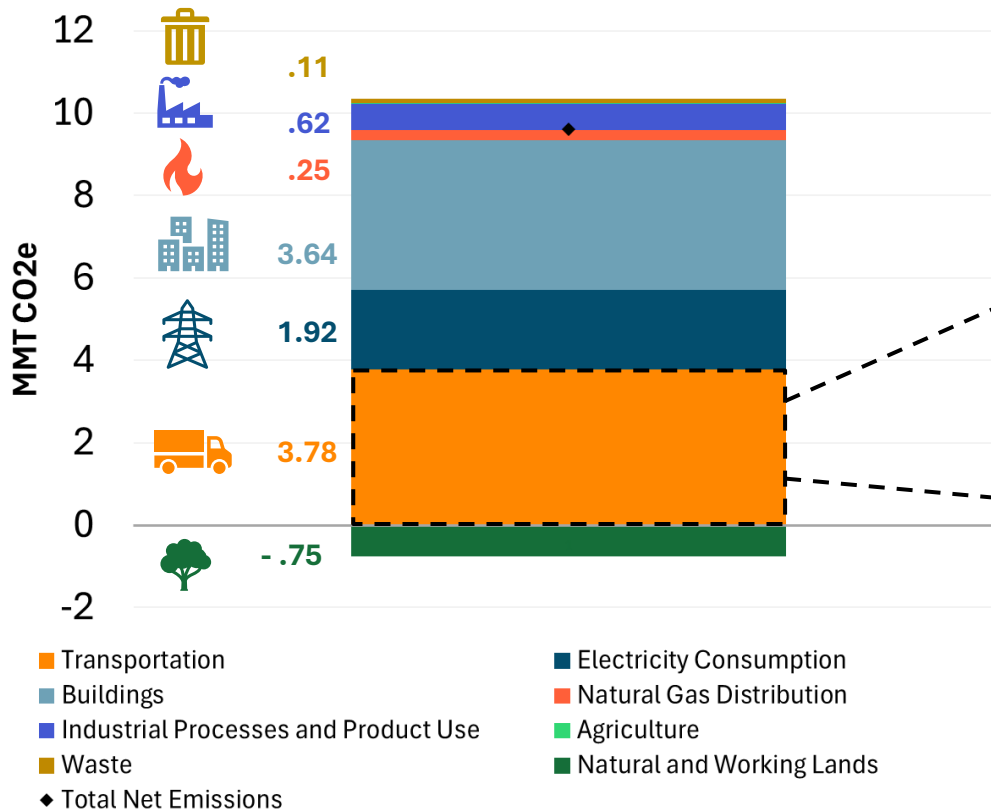
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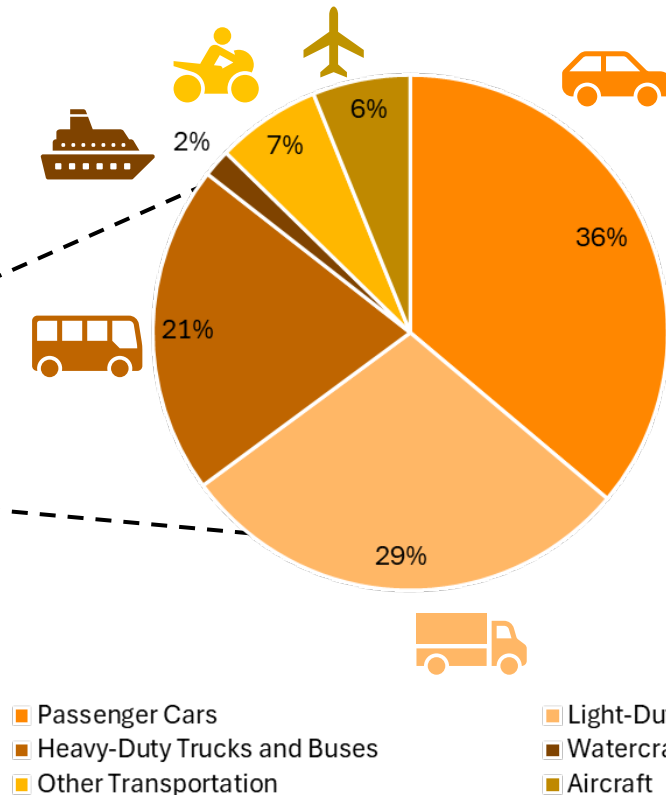
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RI Emissions in 2022 (MMT CO<sub>2</sub>e)



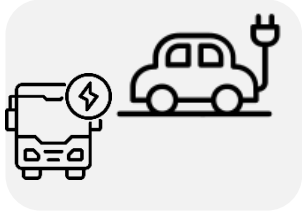
Transportation Emissions in 2022 (%)



Passenger cars in RI are 98% gasoline, 1% diesel, 1% battery electric

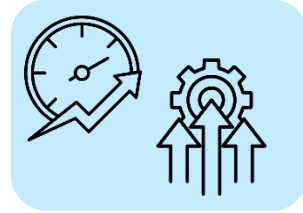
As of 2020, 80% of Rhode Islanders drive alone to work, 8.6% carpool, and 7.7% walk or work from home

# Transportation Decarbonization Pillars



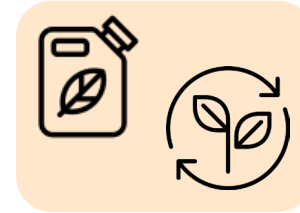
## Electrify Vehicles

- Increase **annual sales for electric vehicles** by vehicle class
- Electrification of non-road gasoline and diesel demand
- Electrification of locomotive diesel
- Electrification of marine fuel



## Increase Vehicle Efficiency

- **Improve fuel economy** for new vehicles



## Increase the Use of Low-Carbon Fuels

- Increase the **blend of renewable and synthetic fuels** in vehicles and other transportation equipment



## Reduce Vehicle Miles Traveled (VMT)

- **Increase transit ridership** through shared mobility programs, transit subsidies, improved bus shelters, improved rail
- **Increase active transportation** by increasing city walkability, improved bike lanes, bike and scooter share programs, and micromobility hubs
- Increase **work from home**
- Changes in **land use** policy to improve transit-oriented development
- Increase **carpooling**

# **Breakout Session #1: Opportunities for Decarbonizing the Transportation Sector in RI**

Survey Form



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# Questions

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- + **What are the greatest opportunities for transportation decarbonization in RI?**
- + ¿Cuáles son las mayores oportunidades para la descarbonización del transporte en Rhode Island?
  
- + **How can transportation decarbonization advance equity in RI?**
- + ¿Cómo puede la descarbonización del transporte promover la equidad en Rhode Island?
  
- + **What are the greatest barriers to transportation decarbonization in Rhode Island?**
- + ¿Cuáles son las mayores barreras para la descarbonización del transporte en Rhode Island?



# Report Out



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# Pillar: Electrify Vehicles

What strategies/policies can help RI meet this decarbonization pillar?



## Strategies Quantified in Current Policy Scenario

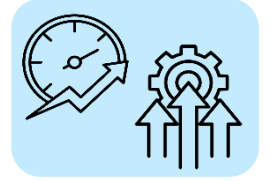
- Advanced Clean Cars II (ACCI) – sets manufacturer zero-emission vehicle sales requirements for light-duty vehicles (based on CA program)
- Advanced Clean Trucks (ACT) – sets manufacturer zero-emission sales requirements for medium- and heavy-duty vehicles (based on CA program)

## PCAP\* and 2022 Climate Update Priority Strategies

- Target **10% penetration of electric vehicles by 2030**
- **DRIVE EV Rebates** (with emphasis on increasing the low-income rebate and adding a section for small commercial vans)
- **Electrify Rhode Island** (charging infrastructure – particularly at workplaces and multiunit dwellings)
- **Green the Fleet** (municipal and state vehicles)
- RIPTA’s Action Plan for Electrification and Service Growth
- Department of Environmental Management (DEM)- provided **incentives for medium- and heavy-duty vehicle electrification** and charging
- Fund the replacement of gasoline-powered lawn and garden equipment with battery-operated equipment

# Pillar: Increase Vehicle Efficiency

What strategies/policies can help RI meet this decarbonization pillar?



## Strategies Quantified in Current Policy Scenario

- Corporate Average Fuel Economy (CAFE) standards that set minimum fuel economy requirements

## PCAP\* and 2022 Climate Update Priority Strategies

- N/A

# Pillar: Reduce VMT

What strategies/policies can help RI meet this decarbonization pillar?



## Strategies Quantified in Current Policy Scenario

- Current VMT levels in RI are impacted by multiple existing policies

## PCAP\* and 2022 Climate Update Priority Strategies

- Look to Transit Master Plan (TMP) and Bicycle Mobility Plan (BMP) for well-vetted strategies
- Look to Metro Connector Study
- Support for new Rhody Express train service (Wickford-TF Green-PVD)
- Support for transit subsidies to boost ridership and encourage mode shift
- Invest in bus shelter improvements to increase RIPTA ridership
- Local shared mobility van service
- Model climate impacts of transportation demand led by RI Department of Transportation (RIDOT)
- RI Complete Streets Plan and Design Guide to develop transportation infrastructure that is safe, accessible, and sustainable
- Rhode Island State Rail Plan

# Breakout Session #2: RI CAS Transportation Strategies

Survey Form



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# Questions

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- + Please provide feedback on the existing transportation decarbonization strategies under consideration, such as the strategies from the Priority Climate Action Plan (PCAP) and priority actions from the 2022 Climate Update.**
  - + Proporcione comentarios sobre las estrategias de descarbonización del transporte existentes que se están considerando.
- Survey Form
- + What strategies are missing and should be explored in the RI Climate Action Strategy?**
  - + ¿Qué estrategias faltan y deberían explorarse en la Estrategia de Acción Climática de RI?

# Report Out



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# Wrap-up Question

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+ What strategies discussed today are most important to you?

Survey Form





# Wrap Up and Next Steps

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- + E3 and RI will consider feedback from this session when developing the final list of strategies to include in the modeling
- + Please feel free to submit additional feedback on the transportation sector



- + RI, Lighthouse, and E3 will host additional engagement sessions over the course of March and April
- + E3 and BW will complete the quantitative GHG and workforce modeling over the summer

# Upcoming Engagement Opportunities

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## + Environmental Justice Focus Area Meeting

- 3/19/2025 6:00 pm - 8:00 pm
- Virtual Zoom meeting

## + Building Focus Area Meeting

- 3/27/2025 11:00 am - 1:00 pm
- Virtual Zoom meeting

## + General Stakeholder Meeting [In-person]

- 3/31/2025 6:00 pm - 8:00 pm
- Boys & Girls Clubs of Northern Rhode Island  
Woonsocket Campus

## + Municipalities Focus Area Meeting

- 4/4/2025 11:00 am - 1:00 pm
- Virtual Zoom meeting

## + Workforce Focus Area Meeting

- 4/8/2025 11:00 am - 1:00 pm
- Virtual Zoom meeting

## + Energy Focus Area Meeting

- 4/15/2025 1:00 pm - 3:00 pm
- Virtual Zoom meeting

## + General Stakeholder Meeting [In-person]

- 4/17/2025 6:00 pm - 8:00 pm
- Providence/Cranston: Location TBD

## + General Stakeholder Meeting

- 4/29/2025 11:00 am - 1:00 pm
- Virtual Zoom meeting

## + General Stakeholder Meeting [In-person]

- 5/1/2025 12:00 pm - 2:00 PM
- Newport: Location TBD

# Staying in the Loop on the 2025 Strategy

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Sign up to receive ongoing announcements about engagement on the RI 2025 Climate Action Strategy [HERE](#)



Sign up for updates!

Get the latest updates from the Executive Climate Change Coordinating Council (EC4) in your inbox.



Subscribe

# Thank You

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How did we do? Help improve  
future engagement events



English



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