

the STATE of STATE CLIMATE AMBITION

Modeling Policy Progress & Opportunities with RMI



July 19th 2–3pm ET

Introduction

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State Climate Policy
Network Manager

CLIMATE X CHANGE
[SCPN]

State Climate Policy Network (SCPN)

- Network of 18,000+ policymakers, advocates, business leaders and experts pushing for effective and equitable climate policies in their states
- Host monthly national calls and webinars
- Share updates, research, and analysis on various climate policy topics

How can we help you?

We specialize in state climate policy design and analysis. Reach out to kristen@climate-xchange.org with your questions on:

- **Bill drafting**, analysis, and technical design
- **Gap analysis** of your state's climate policy landscape
- **Example states** to follow for a given policy

Or, check out our **State Climate Policy Dashboard**, which tracks state-level climate policy and resources across all 50 states.

Speakers

Nathan Iyer



Senior Associate,
RMI

Ruby Wincele



**Policy & Research
Manager,**
Climate XChange

Ashna Aggarwal

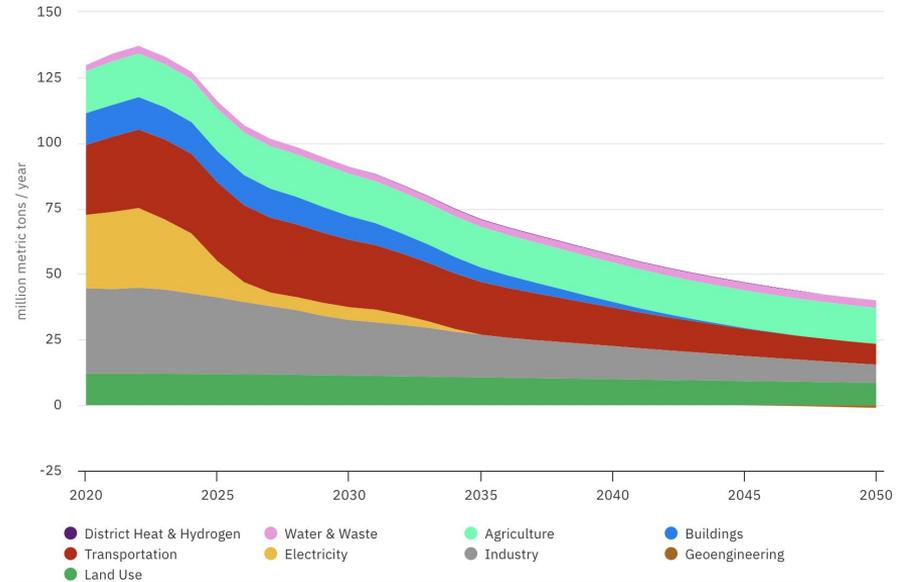


Senior Associate,
RMI

The Challenges of Energy Transition

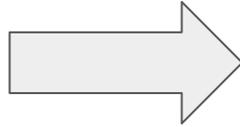
- Energy transition is a multi-decade, multi-sector challenge
- Complex layering of policies and changing technology and economic landscape
- Need for **high signal** data tools with robust inputs and simple outputs to guide political capital and effort

Emissions: CO2e - By Sector

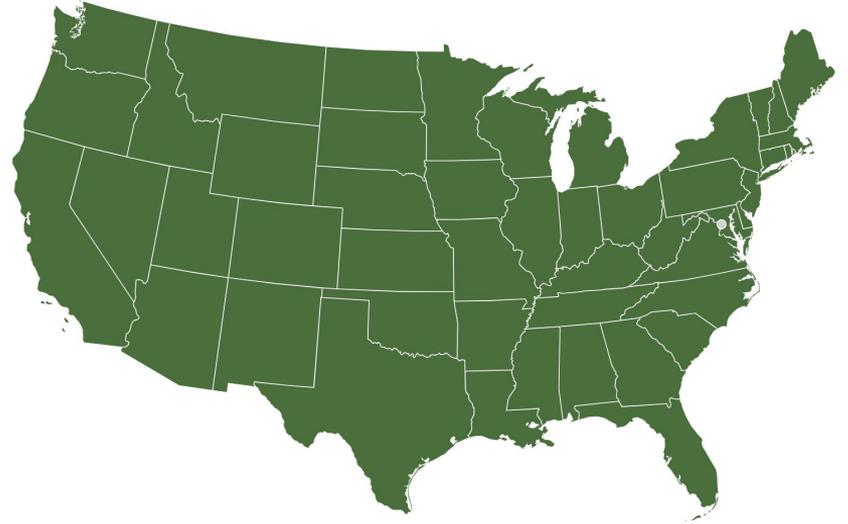


Open Source Data Tools Designed to Guide the Way

- Calibrated state data & projections
- Multi-sector policy modeling
- Sector and subsector visualizations



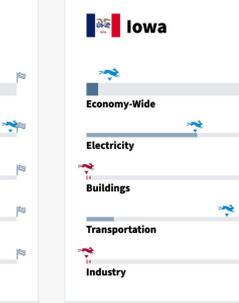
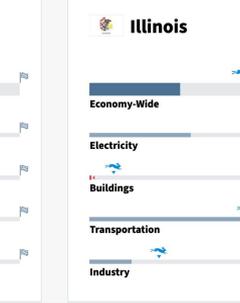
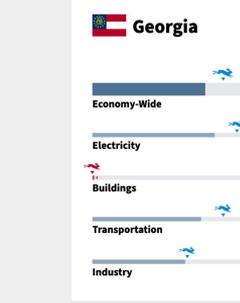
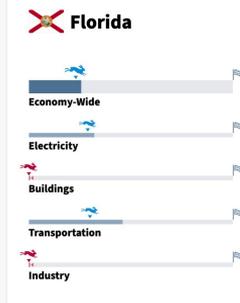
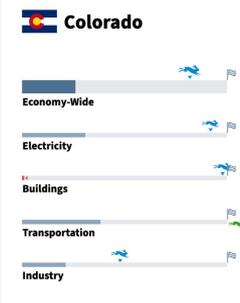
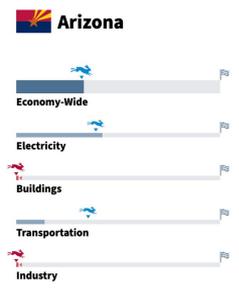
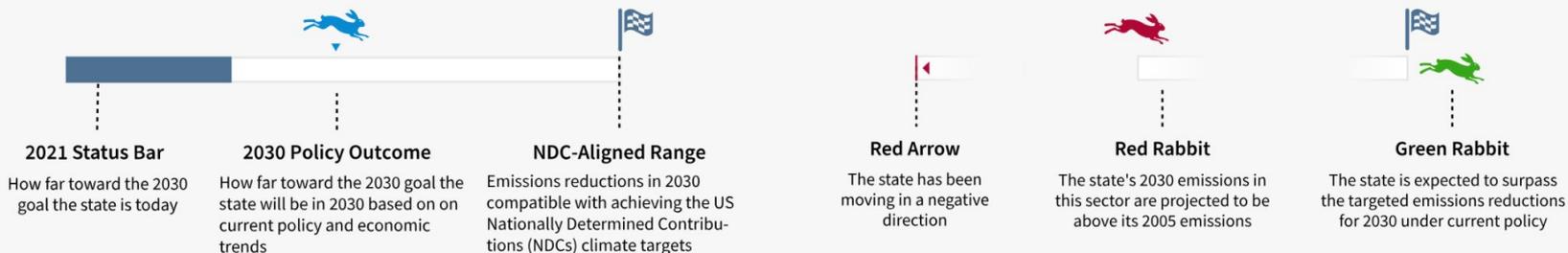
Click on any state in dark green below to view the simulator.



48 State Energy Policy Simulators

Quantifying state progress with the scorecards

How to Read the Scorecards

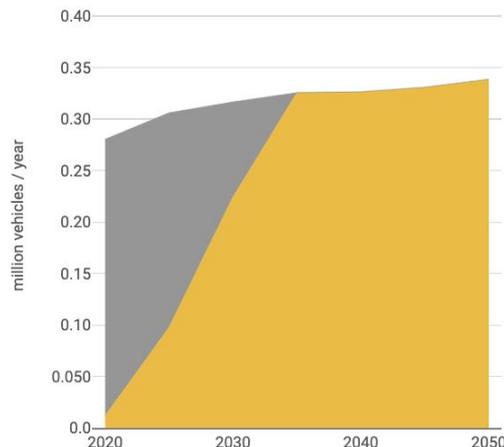


Setting State Targets

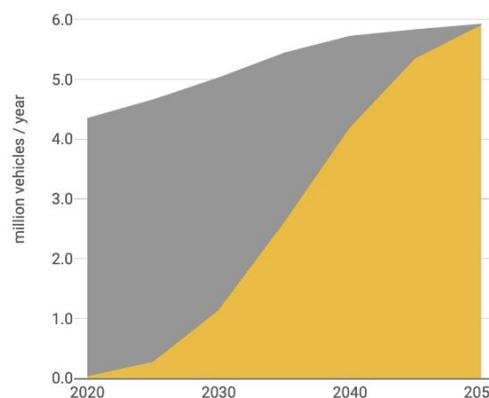
Core principles:

- National emissions reduced by 50-52% by 2030 (compared to 2005)
- Not all emissions are abated equally, across **state** or **sector**
- Emissions reductions lag behind deployment - can take 15-20 years for a policy to achieve maximum emissions impact

NDC - Car Sales



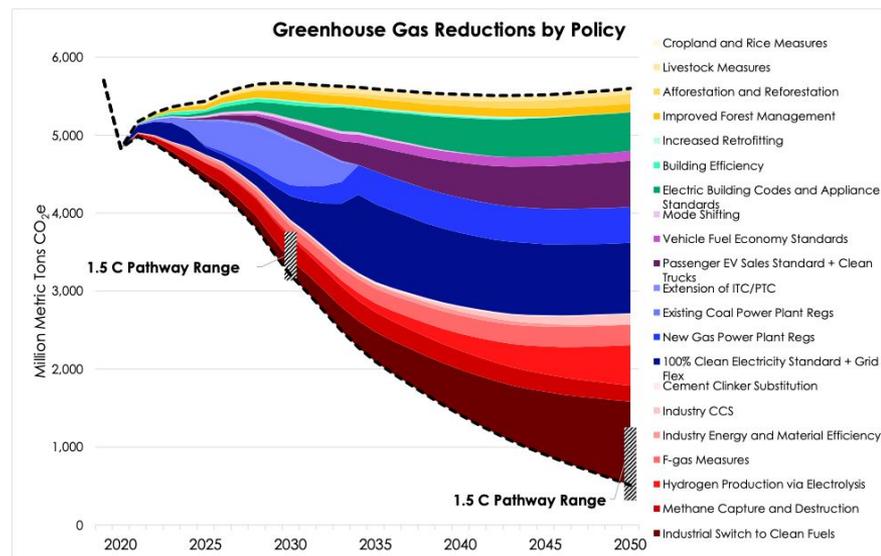
NDC - Fleet



■ Gasoline Engine Vehicle
■ Battery Electric Vehicle

Setting State Targets

- Energy Innovation has developed a policy scenario for their national model that achieves the 2030 and the 2050 NDC target
- Applying that same policy package to each state would add up to the national target
- We took the leading indicators (the NDC policy levers) and applied them equally to each state
- Targets vary by **state** and **sector**, based on the current breakdown of emissions



State Climate Policy Landscape Continues to Evolve

California moves to accelerate to 100% new zero-emission vehicle sales by 2035

CARB approves first-in-nation ZEV regulation that will clean the air, slash climate pollution, and save consumers money

Maryland Embraces Gradual Transition to Zero-Emissions Trucks and Buses

Walz touts 40 climate initiatives Minnesota legislation passed in 2023 session

Gov. Jared Polis signs “enormous package” of green energy and climate change bills

New greenhouse gas emission goals, tax credits, solar and geothermal programs fill out package

Duke Energy plans to exit all coal, double renewables

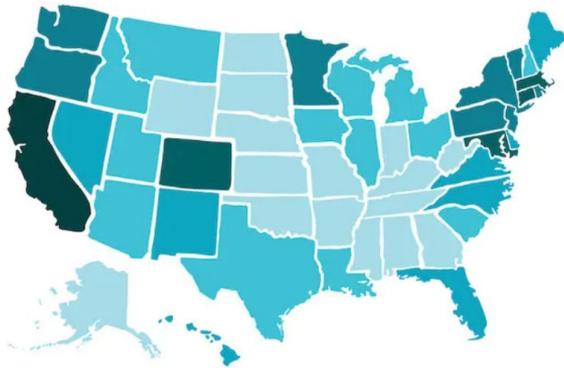
Michigan, Tennessee, Texas and Indiana to account for 42% of total coal retirements by 2029

17 states weigh adopting California’s electric car mandate

New green bank to focus on affordable housing in Massachusetts

Wind energy is now the leading power source in Kansas, Iowa

State Climate Policy Dashboard provides resources to fill the gaps



State

Our interactive state policy tracker includes a 50-state map that tracks passed climate policy at the state level, with links to policies and further resources.

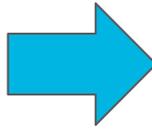


Policy Area

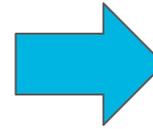
Our policy pages provide information, resources, and model rules on 65+ state climate policies across seven distinct policy areas.

Building State Scorecards

Researched state policies

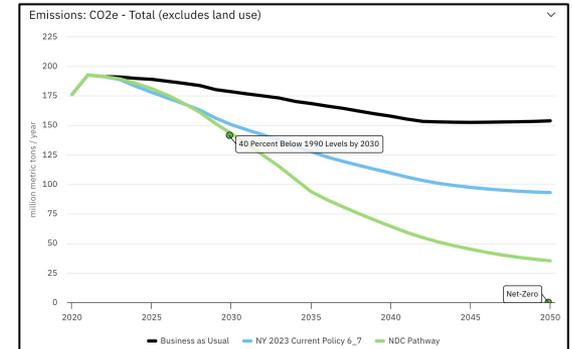
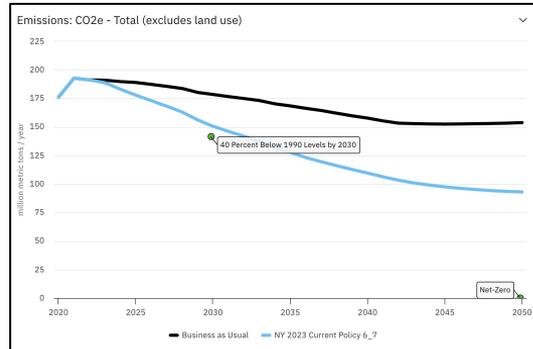


Designed and modeled current policy scenario on a state specific model



Compared with a scenario aligned with national climate alignment

New York Current Policy Scenario		
<p>RMI developed a scenario designed to model major climate legislation and regulatory provisions in New York, focusing on the Climate Leadership and Community Protection Act and key actions like the state's ambitious industrial and building energy efficiency target, building decarbonization incentives and requirements, and transportation funding.</p> <p>The New York current policy scenario is available here.</p>		
SECTOR	POLICY/STRATEGY...	MODELED AS...
Electricity	<ul style="list-style-type: none"> (A) 2018 power plant emission standards, effectively prohibiting unabated coal generators (B) Electricity standards in the Climate Leadership and Community Protection Act (CLCPA) (C) The Build Public Renewables Act (BPRA) requires the retirement of all gas peaker plants by 2030 (D) Offshore wind, storage, and rooftop solar procurement and incentives 	<ul style="list-style-type: none"> (A) All coal plants retired by 2021 (B) Assumes 90% clean electricity standard in 2030¹ and 100% in 2040 with CCS on remaining fossil electricity generation (C) Retire 414 MW of retired peaker capacity in 2030 (D) Assumes 90% capacity subsidy for offshore wind by 2035, 3 GW storage by 2030, and solar carve-out of 5% by 2025
Buildings	<ul style="list-style-type: none"> (A) State energy efficiency programs, including the 2025 target for 385 Tbtu site energy savings that includes electrification (B) Modest continued state policy and market momentum towards electric heating, inclusive of NYC Local Law 97 for building decarbonization 	<ul style="list-style-type: none"> (A) 20% efficiency in new appliances by 2025 (B) New appliance electrification sales: 10% by 2024 and 20% by 2030, with continued improvement to 40% by 2050²
Transportation	<ul style="list-style-type: none"> (A) Compliance with the current Advanced Clean Cars II California LEV / ZEV standard in effect (B) Advanced Clean Trucks (ACT) regulation for medium- and heavy-duty freight and buses. (C) State EV Incentives (in addition to federal incentives in BAU) (D) Historical trends and current, non-binding policy goals for VMT reduction 	<ul style="list-style-type: none"> (A) EV Sales Standard for passenger vehicles reaching 100% of sales by 2035 and 15% LDV new vehicle fuel economy improvement by 2026 (B) EV Sales Standard for freight vehicles, reaching 100% of sales by 2045, and 100% for bus sales by 2035 (C) EV Sales Subsidy covering 5% of vehicle cost (D) 5% LDV VMT reduction below BAU by 2030 and continued improvement to 2050, which keeps absolute VMT flat



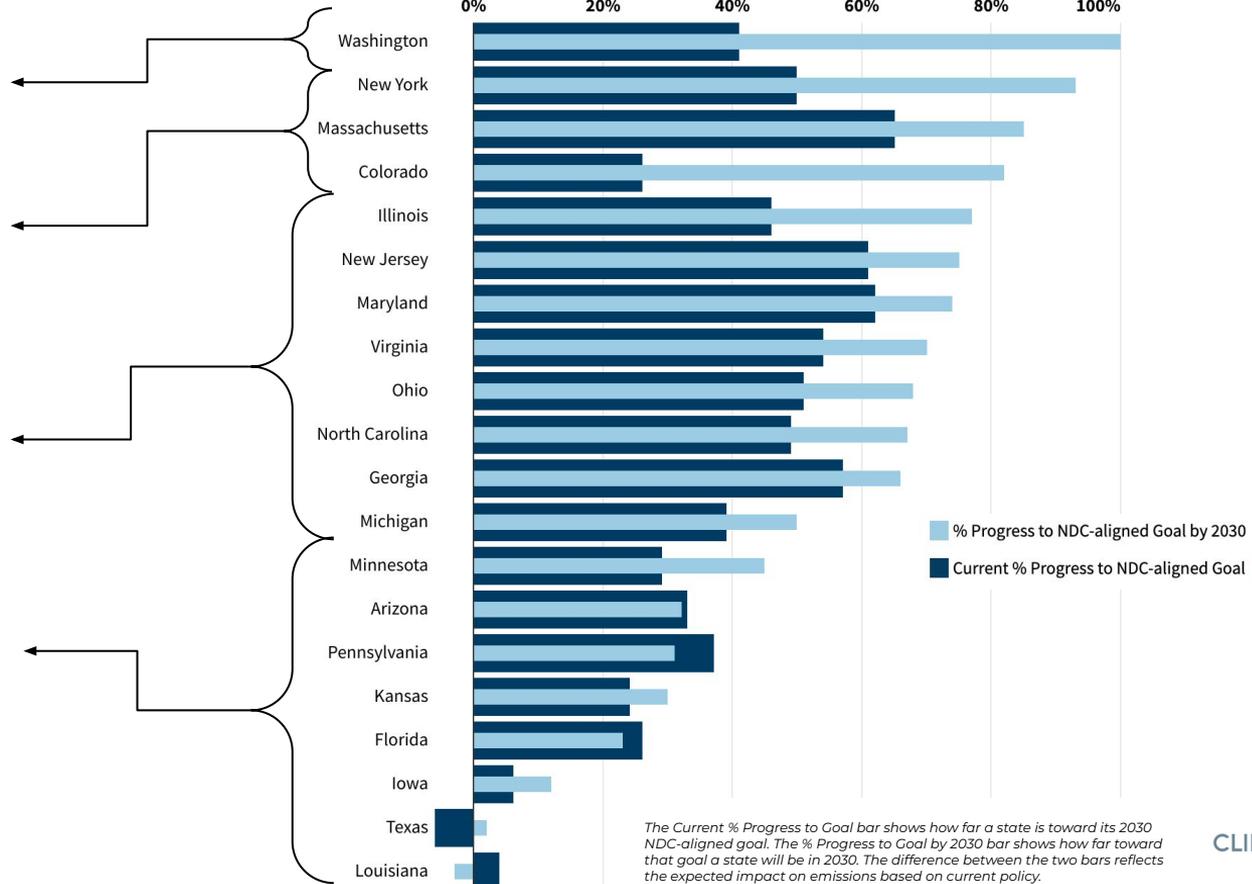
Progress toward 2030 Economy-wide NDC-Aligned Emissions Goals

On Track: 100%

Nearly There: >80%

Making Progress: >50% and ≤80%

High Potential: ≤50%



The Current % Progress to Goal bar shows how far a state is toward its 2030 NDC-aligned goal. The % Progress to Goal by 2030 bar shows how far toward that goal a state will be in 2030. The difference between the two bars reflects the expected impact on emissions based on current policy.

What is Driving Progress?

Foundational Policies do the Heavy Lifting

- Clean Energy Standards/Renewable Portfolio Standards
- Advanced Clean Cars (I and II)
- Advanced Clean Trucks
- Building code updates

Economy-wide Policy Coverage

- Cap-and-Invest programs
- Clean tech incentives across sectors

Market Forces Driving Clean Technology Adoption

- EV adoption
- Early coal plant retirements
- Energy-efficient building technology

Innovative Sector-Specific Policies

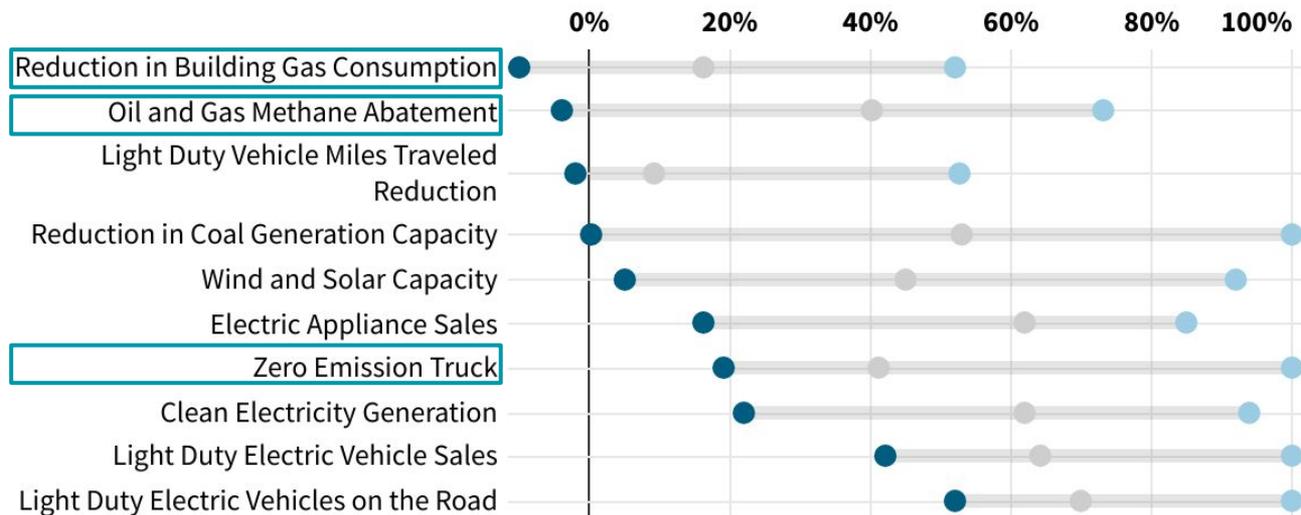
- Look to leading states for solutions in lagging sectors

Sub-sector level metrics show us where states should focus their efforts

Range of Progress toward NDC-aligned Goals by Sub-sector

States are projected to vary widely in the amount of progress achieved by 2030

● Average ● Lagging state ● Leading state



This bar chart shows the range in the percent progress to goal that states are projected to see by 2030.

Solutions exist to close these gaps and reach NDC-alignment

Reducing Gas Consumption

Take advantage of the IRA, which includes rebates and tax credits for building appliance electrification.

Oil and Gas Methane Abatement

Follow the example set by Colorado, who recently passed regulations that increase repairs of leaky equipment and set an intensity target for oil and gas operators.

Deploying Zero Emissions Trucks

Adopt Advanced Clean Trucks and take advantage of federal funding such as Clean Heavy Duty vehicles program from the IRA.

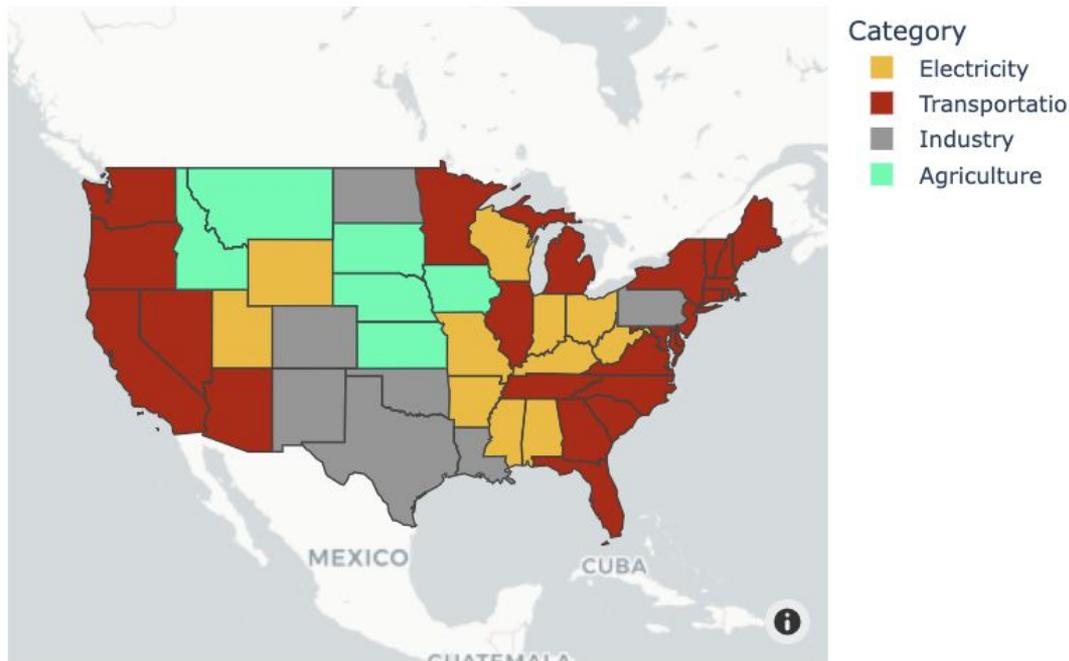
Additional resources to help close the gap

- [State EPS Data Dashboard](#) (developed by RMI and Sustainability Solutions Group)
- [State EPS models](#) (developed by RMI and Energy Innovation)
- [CXC State Climate Policy Resource Hub](#), which includes policy recommendations for various economic sectors
- [Evergreen Policy Hub](#), which provides links to reports and articles on how to meet national and state level climate targets

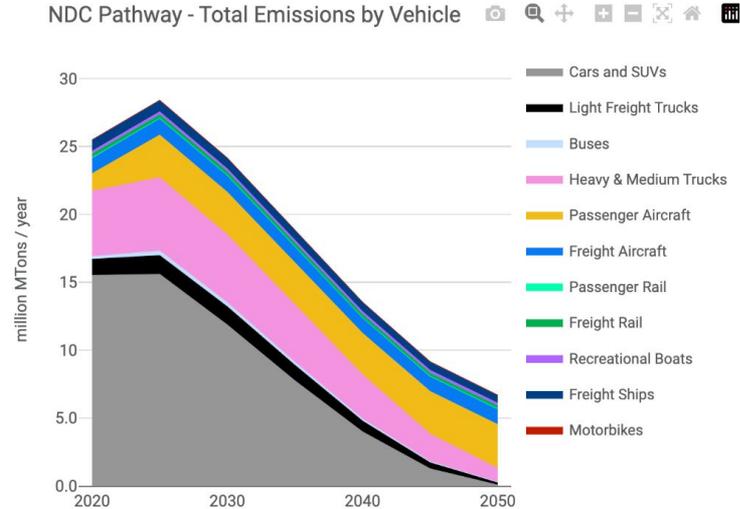
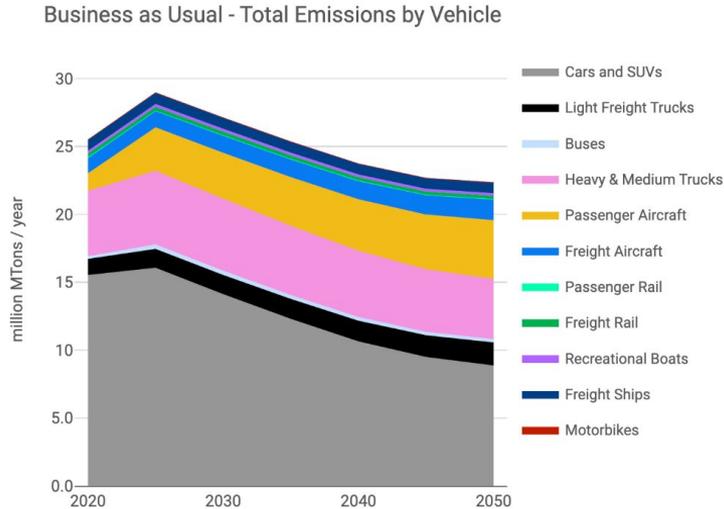
Deep dive on State EPS Data Dashboard

- Cross state dashboard allows user to visualize patterns across states and scenarios
- Ex. states with transportation as highest emitting sector are typically along the coast
 - regional EV charging networks and public transit

Business as Usual - 2020 Highest Emitting Sector (million MTons / year)



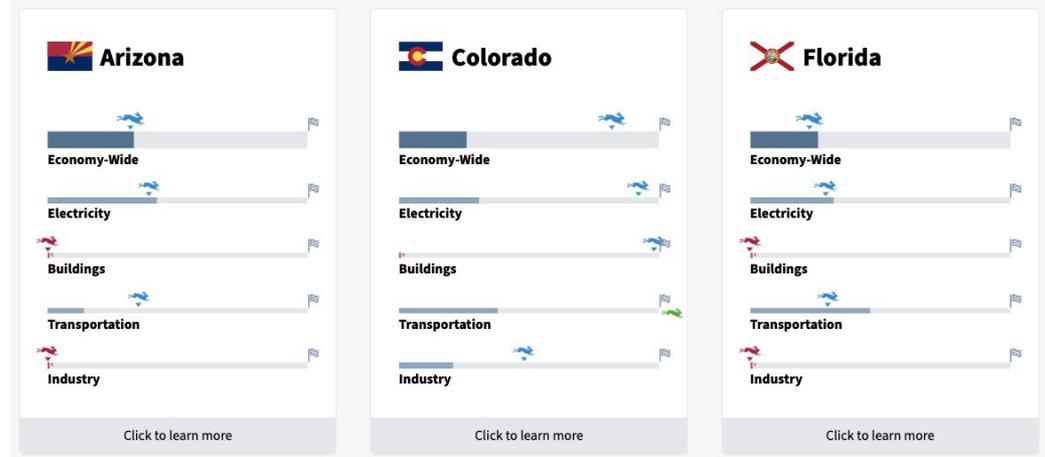
Deep dive on State EPS Data Dashboard



- Single state dashboard allows user to focus on results for a given state
- Can help identify the remaining major sources of emissions in a given year at a granular level to inform where states should focus policy efforts

Conclusion

- Scorecards track progress towards standardized 2030 targets across 20 states
- Early insights:
 - Foundational policies are doing the heavy lifting
 - Sub-sector metrics show where states should focus



We have the policies and historic federal funding to make US climate alignment a reality - it's up to states to deploy these solutions.

Q&A

Thank you for joining!

**Reach out to
kristen@climate-xchange.org with any
additional questions!**