the STATE of CLIMATE AMBITION
Modeling Policy Progress & Opportunities with RMI
July 19th 2–3pm ET
Introduction

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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.
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
Open Source Data Tools Designed to Guide the Way

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

48 State Energy Policy Simulators
Quantifying state progress with the scorecards

How to Read the Scorecards

2021 Status Bar
How far toward the 2030 goal the state is today

2030 Policy Outcome
How far toward the 2030 goal the state will be in 2030 based on current policy and economic trends

NDC-Aligned Range
Emissions reductions in 2030 compatible with achieving the US Nationally Determined Contributions (NDCs) climate targets

Red Arrow
The state has been moving in a negative direction

Red Rabbit
The state’s 2030 emissions in this sector are projected to be above its 2005 emissions

Green Rabbit
The state is expected to surpass the targeted emissions reductions for 2030 under current policy

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https://statescorecard.rmi.org/
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
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

Duke Energy plans to exit all coal, double renewables

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

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

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.

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 Scenarios

<table>
<thead>
<tr>
<th>Sector</th>
<th>Policies/Actions</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electricity</td>
<td>Meet or exceed the National Greenhouse Gas Inventory Reporting Standards for Electric Utilities.</td>
<td>Achieved by 2021.</td>
</tr>
<tr>
<td></td>
<td>Implement a 100% renewable energy portfolio.</td>
<td>Achieved by 2030.</td>
</tr>
<tr>
<td></td>
<td>Increase energy efficiency by 30% by 2040.</td>
<td>Achieved by 2030.</td>
</tr>
<tr>
<td>Transportation</td>
<td>Meet or exceed the National Emission Standards for New Motor Vehicles.</td>
<td>Achieved by 2021.</td>
</tr>
<tr>
<td></td>
<td>Meet or exceed the National Fuel Economy Standards.</td>
<td>Achieved by 2021.</td>
</tr>
</tbody>
</table>

Emissions: CO2e - Total (excludes land use)

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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**

- **Reduction in Building Gas Consumption**
- **Oil and Gas Methane Abatement**
- **Light Duty Vehicle Miles Traveled Reduction**
- **Reduction in Coal Generation Capacity**
- **Wind and Solar Capacity**
- **Electric Appliance Sales**
- **Zero Emission Truck**
- **Clean Electricity Generation**
- **Light Duty Electric Vehicle Sales**
- **Light Duty Electric Vehicles on the Road**

*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

![Map showing 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.
Thank you for joining!

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