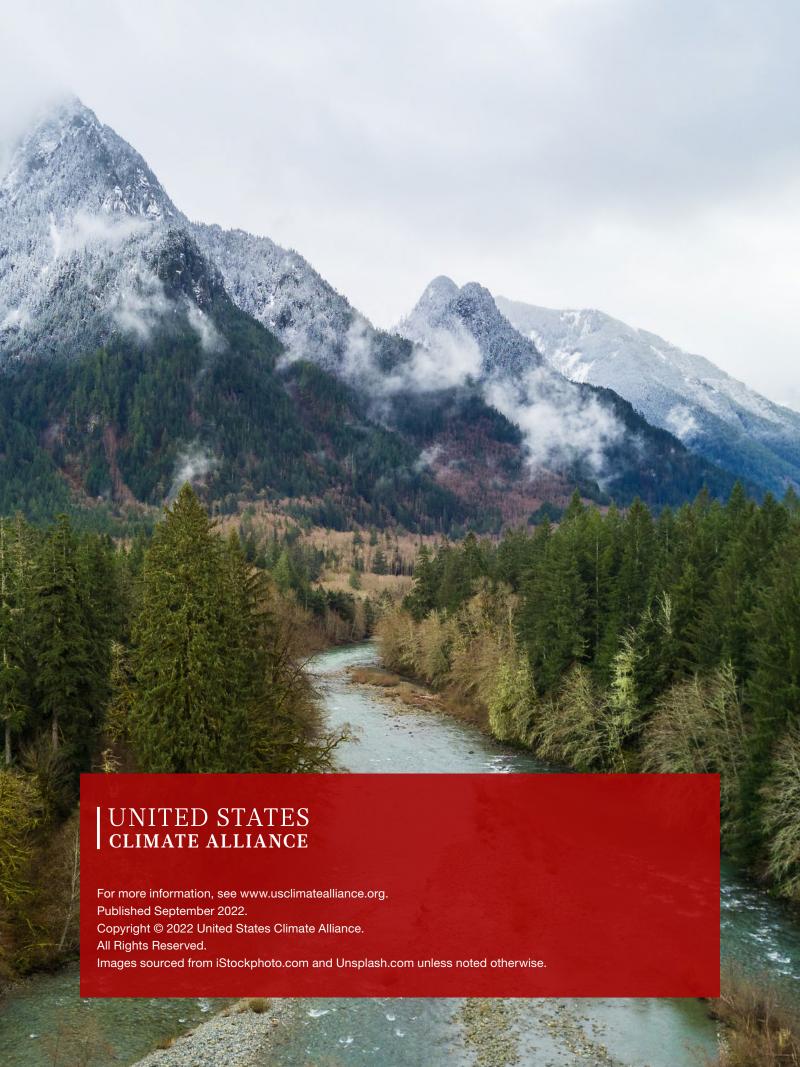
2022 ANNUAL REPORT

FULL SPEED AHEAD

States Delivering the Next Generation of Climate Action





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Message from the Co-Chairs

his year, the U.S. Climate Alliance celebrated a major milestone: five years of bold and sustained collaboration, innovation, and action on climate. What started merely as an idea among our three states has rapidly grown into an indispensable force of two dozen governors all committed to confronting the climate crisis. Together, we've overcome enormous obstacles along the way and this anniversary is a testament to our bipartisan coalition's collective push forward.

When the previous federal administration yanked the U.S. out of the Paris Agreement, we stepped up and filled the void. When they continued to attack critical climate policies and regulations, we protected and defended them. When the Biden Administration took office, we forged a new partnership and laid the foundation for them to hit the ground running. When climate action stalled at the national level, we continued to advance state-level actions, while advocating for bold national solutions.

Over the years, our members have set the pace for the nation—and even the world. And we've done so while weathering historic, extreme droughts, fires, floods, and storms. As you'll see in the pages that follow, state climate leadership remains essential to delivering a better future for our country—and we'll continue to do our part.

In 2022, we advanced, accelerated, and scaled the next generation of climate actions and solutions to help realize our goal of cutting emissions in half by 2030 and collectively achieving overall net-zero emissions no later than 2050. In fact, our members' policies and actions reduced collective net greenhouse gas emissions by 24 percent between 2005 and 2020, keeping us on track to meet our 2025 target. It's no coincidence that the air is cleaner, household and business energy

savings are higher, and clean energy jobs are more abundant across Alliance states. Day in and day out we are showing the power of state climate action and proving that together, we can make real progress.

This year we also strengthened our relationship with the federal government, working directly with the White House and federal agencies to develop and implement climate programs, policies, and tools. Additionally, we pressed Congress to swiftly pass a legislative package with the climate and clean energy investments our country needs to confront the climate crisis. This effort culminated with the signing of the historic Inflation Reduction Act, which together with last year's Infrastructure Investment and Jobs Act, is providing critical resources to transform our country, and our future. While there's more to do to protect the most vulnerable, we stand ready at the state level, alongside the president and his administration, to use every tool available to deliver on the promise of these laws—and go even further.

We know this work will take sustained effort over many years, which is why we're building a future-focused coalition with the strength and durability to withstand shifting political winds and uncertain outcomes in the federal courts. It's why we expanded the capacity of the Alliance Secretariat this year to provide our members more support and maximize opportunities to share experiences, resources, technical assistance, and regulatory, legislative, and policy expertise.

As we look back on how far we've come, we know our success depends not just on what we've achieved over the past five years, but on what we do together in the decades to come. There's no time to waste.



Gavin Newsom Governor, California



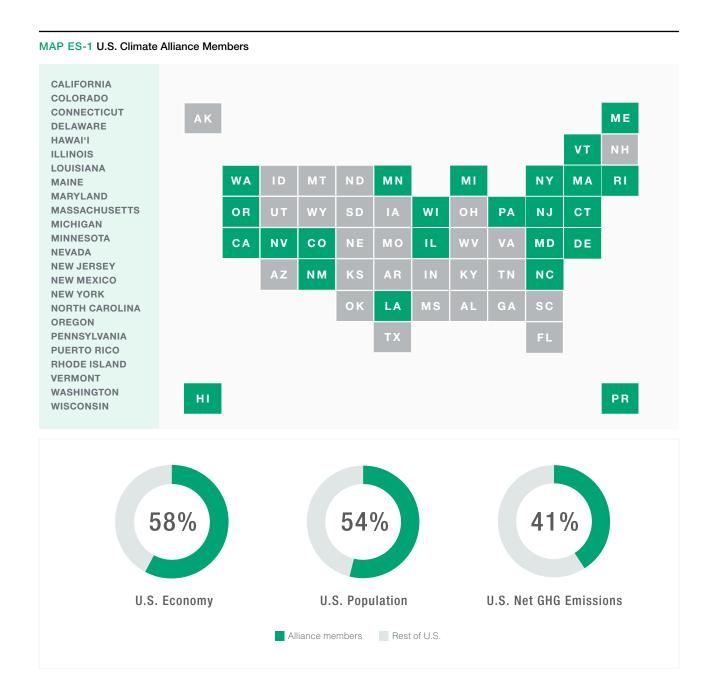
Kathy Hochul Governor, New York



Jay Inslee Governor, Washington

Executive Summary

The U.S. Climate Alliance (Alliance) is a bipartisan coalition of 24 governors advancing bold and innovative policies to achieve collective net-zero greenhouse gas (GHG) emissions and confront the climate crisis. Over the past five years, the Alliance has grown to represent every region of the country (Map ES-1) and 58 percent of the U.S. economy, 54 percent of the U.S. population, and 41 percent of U.S. net GHG emissions.



I hile passage of the Inflation Reduction Act (IRA) represents enormous progress in advancing the nation toward our climate goals, successfully limiting average global temperature increases to 1.5 degrees Celsius will continue to require state-level action. States and territories will not only play a key role in implementation of the new law, but will also need to continue advancing the next generation of climate solutions. This report measures the progress that the Alliance has made towards its collective GHG emissions reduction targets and highlights the ambitious climate actions Alliance members have taken individually over the previous year. These successes help lay a foundation for robust federal action as well as action in non-Alliance states and territories, cities, businesses, and from other actors.



Source: Michigan Governor's Office



Source: Washington State Governor's Office

Reflecting on 2022

Families and businesses across the United States and around the world have faced significant challenges this year—from humanitarian crises and international conflict to increased living costs and a continuing pandemic. Climate impacts are being felt through more frequent and intense extreme weather events, underscoring the need for transformational action to accelerate the transition to a cleaner, healthier, more equitable, and more resilient future. At the same time, signs of progress have emerged across the energy sector. For example, electric vehicle (EV) sales continued to break records in 2022 despite supply chain issues and solar and wind are expected to make up nearly two-thirds of new electricity generating capacity coming online in 2022.

Federal action on climate over the past year has produced both major advancements and significant setbacks. Congress has delivered the largest climate investment in U.S. history with passage of the Inflation Reduction Act and Infrastructure Investment and Jobs Act, accelerating decarbonization efforts and putting the country's commitment to cut emissions in half by 2030 within reach. At the same time, the U.S. Supreme Court this past June narrowed the U.S. Environmental Protection Agency's authority to curb GHG emissions from power plants. This moment has hardened the resolve of Alliance governors to continue moving forward with bold state climate action in 2023 and beyond. States will continue playing a critical role in achieving the nation's climate goals by maximizing the climate benefits from new and expanded federal programs, thanks to recent congressional action, while continuing to advance bold climate action beyond the federal floor.

Measuring our progress

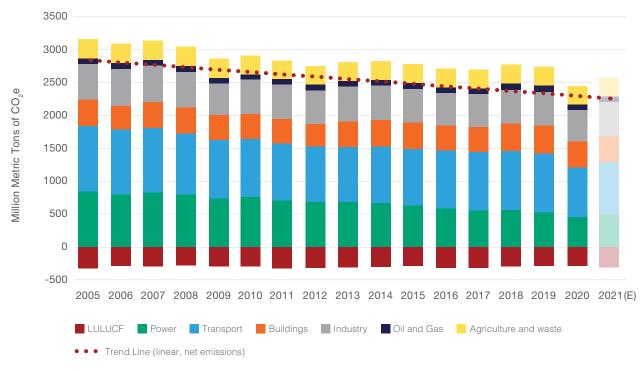
Alliance members implemented policies and actions that reduced collective net GHG emissions by 24 percent between 2005 and 2020 (Figure ES-1). While GHG emissions levels are estimated to have risen slightly in 2021 as the nation recovers from the economic downturn caused by the COVID-19 pandemic, the Alliance's 2025 GHG emissions reduction target remains within reach (26–28 percent below 2005 levels). Meanwhile, Alliance members delivered more co-benefits for their communities compared to the rest of the country, including lower levels of air pollution, more clean energy jobs, and larger energy savings for households and businesses.

From commitments to action

Recognizing that more needs to be done, Alliance members are moving beyond foundational climate policies to advance the next generation of innovative, high-impact, state-led climate actions that will result in even more significant reductions of GHG emissions

while building just, equitable, and climate-resilient infrastructure, ecosystems, and communities. Members are making meaningful progress on the more than 40 high-impact actions that they committed to last year, along with additional new actions. In the past year alone, Alliance members passed dozens of new laws to adopt more aggressive emissions reduction requirements and targets, reduce the climate impact of vehicles and buildings, and create governing bodies to guide state resilience and environmental justice actions and establish priorities. Members also have developed regulations to codify and operationalize their participation in carbon markets, EV sales mandates, and methane reductions from the oil and gas sector. By enshrining many of these policies in statute, members are increasing the durability of the progress made thus far-protecting the health and well-being of Americans regardless of future political and legal shifts.

FIGURE ES-1 The Alliance's collective net GHG emissions decreased an estimated 24 percent between 2005 and 2020.



Source: Rhodium Group Climate Deck. Note: LULUCF = land use, land-use change, and forestry

Deepening and expanding the statefederal partnership on climate

Achieving the nation's climate goals at the scale and speed necessary will require urgent action at all levels of government. Together, the Biden-Harris Administration and Alliance members are developing a strong, interconnected national climate framework to tackle climate pollution and advance the clean energy economy. Over the past year, the Alliance has deepened and expanded its federal engagement by working directly with the White House and federal agencies on program and policy implementation; consulting and informing federal rulemakings and tool development; working to secure additional authority and flexibility for climateleading states; and pressing for the federal climate and clean energy investments needed to confront the climate crisis. With the passage of the Infrastructure Investment and Jobs Act and Inflation Reduction Act, states now have a major role to play in implementing and delivering the new and expanded programs and funding in a way that maximizes their climate benefits.



Source: New Jersey Governor's Office



Looking ahead to the next five years and beyond

As the Alliance celebrates its five-year anniversary in 2022, states know maintaining momentum over the next five years will be crucial to deliver on the nation's climate goals and avoid the worst effects of climate change. While November's elections may bring changes to state leadership, the Alliance is committed to working across party lines with all governors willing to advance tangible bipartisan climate solutions, and it stands ready to support those new to office. The Alliance will also continue to work collaboratively with the federal government to advance climate solutions at all levels of government while accelerating the development and implementation of innovative state actions.

There is no time to waste—state climate leadership is more important than ever. Now is the time to roll up our sleeves and ensure the nation takes the necessary action this decade to secure a more livable, sustainable, and equitable future.



Introduction

The U.S. Climate Alliance (Alliance) is a bipartisan coalition of 24 governors harnessing the power of state government to confront the climate crisis. To achieve the nation's climate goals at the scale and speed necessary, bold and immediate action is needed at all levels of government. While passage of the Inflation Reduction Act represents enormous progress in advancing the nation toward our climate goals, successfully limiting average global temperature increases to 1.5 degrees Celsius will continue to require state-level action. It is as important as ever for Alliance members to continue driving the next generation of state climate solutions to ensure any national climate framework in the United States is sufficiently durable, impactful, and ambitious.

FIGURE 1 2022 Climate Alliance Membership

CALIFORNIA COLORADO CONNECTICUT DELAWARE HAWAI'I **ILLINOIS** LOUISIANA MAINE MARYLAND **MASSACHUSETTS** MICHIGAN **MINNESOTA NEVADA NEW JERSEY NEW MEXICO NEW YORK NORTH CAROLINA OREGON** PENNSYLVANIA **PUERTO RICO RHODE ISLAND** VERMONT WASHINGTON WISCONSIN





Source: Maine Department of Transportation

The Alliance was first launched five years ago by the governors of Washington, New York, and California to fill the void left by the previous administration's decision to withdraw the United States from the Paris Agreement. What started as a reaction has rapidly become a climate action coalition, growing from just three U.S. governors to 24—now representing every region of the country (Figure 1). As this coalition has grown, so too has the depth of climate expertise within each state, the strength of the Alliance's team, and the impact and reach of the Alliance's work. The Alliance now represents 58 percent of the U.S. economy, 54 percent of the U.S. population, and 41 percent of U.S. greenhouse gas (GHG) emissions based on 2020 data (the most recent available).

Governors in the Alliance have committed to collective GHG emissions reduction goals that are commensurate with the Paris Agreement, aiming to reduce collective GHG emissions at least 26–28 percent by 2025, 50–52 percent by 2030, and achieve overall net-zero GHG emissions as soon as practicable and no later than 2050. In their efforts to achieve these climate goals, Alliance governors are committed to centering equity, environmental justice, and a just economic transition. Because transparency and accountability guide its work, this report measures the progress that the Alliance has made toward its collective GHG emissions reduction targets and highlights the ambitious climate actions Alliance members have taken individually over the previous year.

Reflecting on 2022

While this past year has been marked by upheaval and uncertainty across the United States and around the world, there have also been signs of progress in the fight to address climate change. Global supply chain challenges persist, and inflation has increased the cost of energy, food, housing, and many other daily needs of families and communities. Russia's invasion of Ukraine has exacerbated energy supply issues both at home and abroad. While energy security concerns provide an opportunity to accelerate the transition to cleaner energy sources and bolster efforts to reduce GHG emissions, some leaders have instead focused on expanding domestic oil and gas production. All of this is happening while the COVID-19 pandemic continues to impact public health, while gun violence remains a persistent and dangerous problem, and while communities throughout the U.S. continue to struggle for equity and justice.

At the same time, the United States experienced 20 separate billion-dollar extreme weather and climate-fueled disasters in 2021 with a staggering price tag of \$145 billion.¹ During the first half of 2022, nine distinct billion-dollar events—ranging from drought to severe storms—have already occurred.² This count notably does not include the severe flooding in eastern Kentucky in late July that left dozens dead and hundreds homeless.³ One in three Americans report that an extreme weather event has personally affected them over the past two years.⁴ And, as of

June 2022, nearly every region of the continental United States had experienced some form of extreme weather including extreme heat, violent thunderstorms, wildfires, prolonged droughts, and flooding.⁵

The pace at which climate change impacts are occurring only underscores the need for transformational action that accelerates the transition to a cleaner, healthier, more equitable, and more resilient future. Signs of real progress have emerged over the last year. For example, electric vehicle (EV) sales continued to break records in 2022 (even despite broader automotive supply chain issues), with pure EVs reaching 5.6 percent of vehicles sold in the second quarter of 2022, more than double this time last year.6 Car manufacturers have also continued to make new EV commitments, including partnerships and research and development (R&D) investments to meet their zero-emissions vehicle goals.7 In the power sector, solar and wind account for nearly two-thirds planned electricity generating capacity expected to come online in 2022 (66 percent), with battery storage expected to make up 11 percent of new capacity additions.8 Offshore wind development is also poised to see tremendous growth. For example, East Coast governors have already set commitments to procure nearly 40 gigawatts (GW) of offshore wind, and in 2021 alone, investors announced \$2.2 billion in new funding to develop nine major manufacturing facilities.9

Over the past year, the Biden-Harris Administration and Congress have taken substantial steps to further federal action on climate. Congress delivered the largest climate investment in U.S. history with the Inflation Reduction Act (IRA) and Infrastructure Investment and Jobs Act (IIJA).10 On the heels of IIJA, which provides states with numerous opportunities for decarbonization, the passage of IRA ensures that the United States will be within striking distance of meeting its emissions reduction goals by 2030. The IRA represents an historic investment with \$369 billion in funding for climate and energy programs and \$4 billion for Western drought resilience, and, according to initial analysis by climate modelers, would reduce U.S. GHG emissions by roughly 40 percent below 2005 levels by 2030.11 In addition, the Biden-Harris Administration strengthened regulations and programs to better address climate change and enable state-level leadership. This includes, among other actions: adopting more-stringent corporate average fuel economy (CAFE) standards than initially proposed, while also reinstating California's authority under the Clean Air Act to implement its own GHG emissions standards



for cars and light-duty trucks; issuing the America the Beautiful Challenge that streamlines grant funding opportunities for new conservation and restoration projects; and releasing agency adaptation and resilience plans that outline the steps each agency will take to ensure their facilities and operations adapt to, and are increasingly resilient to, climate change impacts.

Even though these actions accelerated decarbonization efforts, they still fall short of meeting the nation's goal of cutting GHG emissions by 50-52 percent below 2005 levels by 2030 and getting on a pathway to net-zero no later than 2050. On top of this, this past June, the U.S. Supreme Court narrowed the U.S. Environmental Protection Agency's (EPA) ability to regulate GHG emissions from power plants.¹² This decision only hardened the resolve of the Alliance's governors to decarbonize the power sector using state authority, while continuing to work with the Biden-Harris administration to take the most ambitious regulatory action possible under current law.13 Recognizing that even more needs to be done, Alliance governors have begun moving beyond implementing foundational climate policies and are now advancing the next generation of innovative, high-impact, state-led actions that will result in even more significant GHG emissions reductions. This work is being done while also building just, equitable, and climate-resilient infrastructure, ecosystems, and communities.

In the past year alone, states passed dozens of new laws to adopt more aggressive GHG targets, reduce the climate impact of buildings, accelerate vehicle electrification, and create bodies to guide state resilience and environmental justice actions and establish priorities. States developed regulations to codify and operationalize their participation in carbon markets, EV sales mandates, and methane reductions from the oil and gas sector. By enshrining many of these policies in law, states will continue to protect the health and well-being of Americans, regardless of future political and legal shifts.

With the passage of the IRA and IIJA, states now have a major role to play in implementing and delivering the new and expanded programs and funding in a way that maximizes their climate benefits. This November may bring more transition to this coalition, and the Alliance is committed to working across party lines with all governors willing to advance tangible climate solutions to confront this crisis. The Alliance is actively working to increase inter-state coordination, bolster capacity to address climate change in the future, and protect the progress achieved so far. The Alliance is also exploring strategies to accelerate progress in non-Alliance states and territories by continuing to demonstrate that climate solutions and economic benefits go hand-in-hand while driving durable and bipartisan solutions.

Measuring our progress

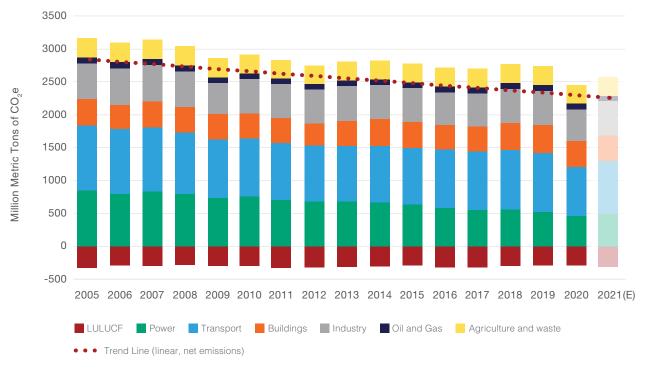
Over the past five years, Alliance governors have built a foundation of ambitious climate action that is not only driving GHG emissions reductions, but also transitioning our states to a cleaner, healthier, more equitable, and more resilient future. The Alliance's collective net GHG emissions decreased by 24 percent between 2005 and 2020 (Figure 2). Alliance members are making real progress across some of the largest emitting sectors, yet it's estimated that 2021 GHG emission levels rose (to 20 percent below 2005 levels) as Alliance members (and the country as a whole) recovered from the economic downturn caused by the COVID-19 pandemic. As such, additional action is needed across many other emissions sources.

Key trends between 2005 and 2020, include:

• The power sector achieved the largest GHG emissions reduction of all sectors (45 percent). This is largely due to a rapid shift in power generation from coal (70 percent decrease) to renewable sources like wind and solar (266 percent increase) coupled with decreased demand (4 percent). Renewable portfolio standards, clean energy standards, and energy efficiency standards—which have been adopted broadly across the majority of Alliance members—have been important drivers of these trends. However, even with this reduction, the power sector remains the third-largest source of collective emissions across the Alliance (Figure 3).¹⁴

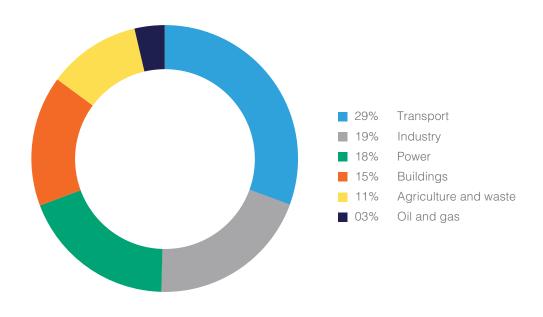
- The transportation sector saw the secondlargest GHG emissions reductions (24 percent decrease), yet it remains the largest source of collective emissions (31 percent). These reductions have partly been driven by policies and programs adopted by Alliance members that have helped accelerate the transition to low- and zero-emissions vehicles and promote use of cleaner fuels. Despite this progress, some uncertainty remains related to how much of the transportation-related emissions reductions achieved through 2020 stem from the COVID-19 pandemic rather than permanent shifts in driving patterns (e.g., adoption of flexible work schedules or increased public transit use) and use of more efficient and zero-emissions vehicles.
- Industry became the second-largest source of collective GHG emissions. The sector's emissions remain largely unchanged due to a limited policy focus on this sector in most states, although policy momentum is quickly growing. Over the past several years Alliance members have led the nation in implementing regulations that reduce emissions of short-lived climate pollutants (SLCPs) like hydrofluorocarbons (HFCs) and methane from oil and natural gas systems. More recently, Alliance members are developing markets for low-carbon industrial products, fuels, and feedstocks that will help cut GHG emissions from other major emitting industrial sectors.
- The land sector's ability to sequester carbon dioxide (CO₂) on a net basis has remained steady. Uncertainty remains on how much the land sector can store and sequester carbon going forward due to ecological factors such as disease, wildfire, and drought, as well as land use changes, including for development. In addition, a lack of robust data and analysis for natural and working lands (NWL) further undermines a comprehensive understanding of the sector's GHG emissions and carbon sequestration and storage capacity. However, Alliance members continue to prioritize actions in this sector that promote land conservation and natural climate solutions while working to improve NWL data and analysis.

FIGURE 2 The Alliance's collective net GHG emissions decreased an estimated 24 percent between 2005 and 2020.



Source: Rhodium Group Climate Deck. Note: LULUCF = land use, land-use change, and forestry

FIGURE 3 Transportation remains the largest source of collective GHG emissions, followed by industry and power.



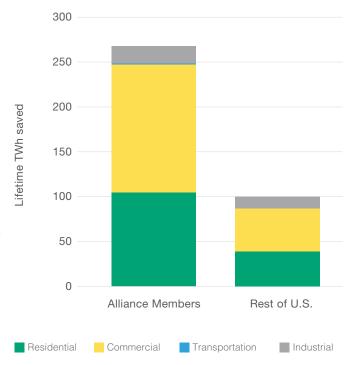
Source: Rhodium Group Climate Deck

Delivering benefits to communities across the Alliance

Alliance members continue to exceed the rest of the United States in delivering benefits to their residents and businesses while implementing climate actions. At the same time, Alliance states and territories are taking a broader and more thoughtful, deliberate, and inclusive approach in consulting with diverse stakeholders to develop new climate policies and programs, especially communities most impacted by fossil fuel production and pollution. Compared to the rest of the country, Alliance members are collectively:

- Delivering more energy savings to homes and businesses year after year (Figure 4).
 As of 2020, utility energy efficiency programs across Alliance members saved a cumulative 1.5 megawatt-hours (MWh) of electricity per capita over the lifetime of these programs compared to 0.65 MWh per capita in the rest of the United States.
- Centering resilience in more of their budgets and governance structures with designated resilience hubs and robust plans (Figure 5).
 Doing so helps to support local adaptation planning and driving implementation and pre-disaster response on the ground.
- Generating a higher proportion of electricity from zero-carbon sources (Figure 6).
 Non-Alliance states are more than twice as reliant on coal power as Alliance members.
 In 2020, non-Alliance states generated three times as much electricity from coal (581 TWh vs. 192 TWh) and 1.5 times as much from natural gas (964 TWh vs. 660 TWh).
- Employing more workers in the renewable energy and energy efficiency sectors
 (Figure 7). Alliance members collectively employ over 40 percent more workers in these fields compared to non-Alliance states.
- Achieving lower levels of harmful local air pollution (Figure 8). Alliance members generate just half of the levels of criteria pollutants per capita compared to non-Alliance states, on average.

FIGURE 4 Alliance members are generating much higher savings from utility energy efficiency programs compared to other states.



Source: U.S. Energy Information Administration. Note: Energy savings represents changes in energy use for incremental programs

FIGURE 5 Alliance members are creating adaptation and resilience plans that help drive implementation and predisaster preparation on the ground to a much greater degree compared to other states.



Source: Georgetown Climate Center

FIGURE 6 Nearly half of electricity generated across Alliance members is now from zero-carbon resources, compared to about a third in the rest of the country (2020).

FIGURE 7 Alliance members employ more renewable energy and energy efficiency workers compared to the rest of the country.

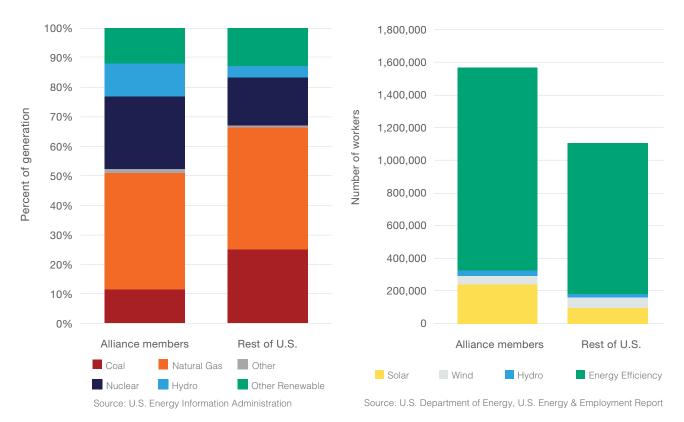


FIGURE 8 Alliance members have lower levels of harmful air pollutants per capita than the rest of the country (2020).



Source: U.S. Environmental Protection Agency, Air Pollutant Emissions Trends Data

From commitments to action

Alliance members have achieved significant climate progress by working with local governments, communities, fellow states, and the federal government to implement next-generation climate policies. In 2022, Alliance members continued to lead the way, achieving major policy milestones on the path to tackling the climate crisis.

Advancing the next generation of innovative, high-impact, state-led action

To guide its work in the years ahead, the Alliance collectively identified eight priority policy areas during COP26, the United Nations climate change conference held in 2021: power, buildings, industry, transportation, just transition and equity, resilience, natural and working lands (NWL), and the social cost of GHGs (see: gray boxes in Figure 9).

Within each of these priority areas, individual Alliance members committed to more than 40 specific and new high-impact actions that, by advancing through continued state coordination and leadership, will result in even more significant GHG emissions reductions while building just, equitable, and climate-resilient infrastructure, ecosystems, and communities. All of this work drives states closer to achieving their own economy-wide solutions (see: green box in Figure 9) and the Alliance's goals of: reducing collective net

GHG emissions at least 26–28 percent by 2025 and 50–52 percent by 2030, both below 2005 levels, and collectively achieving overall net-zero GHG emissions as soon as practicable, and no later than 2050.

Over the past year, Alliance members have made substantial progress turning their commitments into real-world action. Many Alliance members used these high-impact actions as a jumping off point and took even more new and innovative actions beyond those announced at COP26.

The following sections highlight the progress across Alliance states and territories.

FIGURE 9 Alliance Policy Priority Areas



Climate governance and economy-wide solutions

p.16



Power

Develop policy pathways and programs to decarbonize the electricity grid



Buildings

Develop policy pathways and programs to eliminate emissions from buildings



p.21

p.26

Industry

Establish innovative policy frameworks for eliminating GHG emissions

p.32



Transportation

Develop policy pathways and programs to decarbonize the transportation sector



1000

Natural and working lands

Scale best practices for land management, restoration, and conservation



Just transition and equity

Partner with frontline communities to develop climate and clean energy solutions

p.40

Resilience

Integrate physical climate risk and prioritize climate adaptation and equity

p.45



Social cost of GHG

Consider societal and environmental impacts of GHG emissions and climate change

p.55



Source: Wisconsin Governor's Office

and economy-

wide solutions

Actions across the Alliance: By the numbers

- 23 Lead by Example programs and goals
- 23 Economy-wide GHG goals
- 22 State climate action plans
- 16 Green and/or resilient infrastructure banks
- 14 Net-zero GHG goals

For up-to-date counts of actions from across the Alliance, go to: www.usclimatealliance.org

Planning climate action, setting targets, and engaging with communities, businesses, and other stakeholders are all foundational to a successful state climate framework.

In 2022, many members made significant progress in these areas.

Setting ambitious climate targets

Alliance members made significant progress this year by establishing increasingly ambitious climate goals, including:

California: Governor Newsom announced in August 2022 several new climate targets, including: a 20 percent clean fuels target for the aviation sector; 20 GW of offshore wind by 2045; carbon removal targets of 20 million metric tons (MMT) in 2030 and 100 MMT 2045; and creating 3 million climate-ready homes by 2030 and 7 million by 2035, with a primary focus on disadvantaged communities.¹⁵

Hawai'i: Governor David Ige signed House Bill 1800, which set an interim GHG emissions reduction target for 2030 to be at least 50 percent below 2005 emissions.¹⁶ This target complements the state's goal of making Hawai'i carbon "net-negative" by no later than 2045.

Maine: Governor Janet Mills signed into law An Act To Achieve Carbon Neutrality in Maine by the Year 2045.¹⁷ The Maine Department of Environmental Protection (ME DEP) also adopted Chapter 168, Statewide Greenhouse Gas Emissions Regulation, which requires a gross statewide GHG emissions reduction of 45 percent by 2030 and 80 percent by 2050 from 1990 levels.¹⁸

Maryland: Enacted the *Climate Solutions Now Act of 2022*, which adopted GHG emissions reduction targets of 60 percent below 2006 levels by 2031 and net-zero emissions by 2045.¹⁹

New Jersey: Governor Phil Murphy issued Executive Order No. 274, committing the state to reduce GHG emissions to 50 percent below 2006 levels by 2030.²⁰

North Carolina: Governor Roy Cooper issued Executive Order No. 246, which established new statewide goals to reduce GHG emissions at least 50 percent below 2005 levels by 2030 and achieve net-zero emissions no later than 2050.²¹

Tracking progress

With more ambitious climate goals comes a need for regularly updated GHG inventories that reflect up-to-date information on where improvements can be made to achieve GHG emissions reduction targets.

Examples include:

California: California's Air Resources Board (CARB) released its *2021 Greenhouse Gas Emissions Report*, which supports the statewide GHG emissions reduction goal by providing a summary of emissions for years 2000–2019 and outlining guidelines to support its statewide GHG emissions reduction goal of 40 percent below a 1990 baseline by 2030.²²

Colorado: The Colorado Department of Public Health and Environment released the state's 2021 GHG inventory, which shows that Colorado's emissions have decreased 9 percent between 2005 and 2019, and 16 percent since 2010.²³ The state is also tracking implementation of its *Colorado Greenhouse Gas Pollution Reduction Roadmap* per Executive Order No. B 2021 01, with progress reports released in December 2021²⁴ and June 2022.²⁵

Maine: The ME DEP established calculation methods for annual GHG emissions and requires a biennial results report to the legislature, which will be used to assess Maine's attainment of GHG emissions reduction requirements in state law. In July 2022, Maine released its Ninth Biennial Report on Progress Toward Greenhouse Gas Reduction Goals,26 the first of Maine's biennial reports to include a net GHG inventory and biogenic emissions (emissions that come from the combustion of natural sources like biofuels, wood, and waste). The report found that as of 2019, gross GHG emissions in Maine were 25 percent lower than 1990 levels, surpassing the state's medium-term goal of reducing gross GHG emissions to 10 percent below 1990 levels by January 1, 2020. The report also found that Maine is approximately 75 percent of the way to reaching carbon neutrality.

Nevada: The Nevada Division of Environmental Protection in 2021 released the state's *Nevada Statewide Greenhouse Gas Emissions Inventory and Projections, 1990–2041*, which accounts for emissions starting in 1990 and projected through 2041. This supports their goals to achieve a 28 percent emissions reduction compared to 2005 levels by 2025 and 45 percent reduction by 2030.²⁷

New York: The New York State Department of Environmental Conservation (NY DEC) released its *2021 Statewide GHG Emissions Report*, which provides a summary of emissions for the years 1990–2019 and outlines guidelines to support statewide GHG emissions reduction targets of 60 percent of 1990 levels by 2030 and 85 percent of 1990 levels by 2050.²⁸

North Carolina: The North Carolina Department of Environmental Quality (NCDEQ) released the 2022 edition of its *North Carolina Greenhouse Gas Inventory*, including updated key source emissions and GHG emissions projections through 2030.²⁹ Pursuant to Executive Order No. 246, NCDEQ will update the GHG inventory biennially.

Wisconsin: In December 2021, the Wisconsin Department of Natural Resources (WI DNR) released its latest *Wisconsin Greenhouse Gas Emissions Inventory Report*, which builds upon annual reporting and includes data through 2018.³⁰

Climate planning

Historic decisions by states to lay the foundation for accelerated action on climate policies also took center stage. Examples include:

California: CARB released its 2022 Scoping Plan, making California the world's first large economy to develop a detailed carbon neutrality roadmap. This plan, currently being finalized for adoption, lays out the state's path to carbon neutrality no later than 2045 and updates progress toward the 2030 emissions reduction target of 40 percent below 1990 levels by 2030.³¹ California also finalized its Natural and Working Lands Climate Smart Strategy that outlines results-oriented, nature-based solutions that help protect climate-vulnerable communities, achieve carbon neutrality, improve public health and safety, and expand economic opportunity.³²

Colorado: The state's Energy Office, Department of Transportation, and Department of Public Health and Environment collaborated on and released the *2022 Colorado Clean Truck Strategy* to encourage the adoption of zero-emissions medium- and heavy-duty trucks.³³

Louisiana: Governor Edwards's Climate Initiatives Task Force unanimously approved its first *Louisiana Climate Action Plan* in January.³⁴ This first-ever climate action plan in the U.S Gulf South outlines how the state can achieve net-zero GHG emissions by 2050 by providing 28 strategies and 84 specific action items to reduce emissions across its entire economy.

Massachusetts: The Executive Office of Energy and Environmental Affairs released the *Massachusetts Clean Energy and Climate Plan for 2025 and 2030*, which outlines a portfolio of strategies and policies designed to achieve sector-specific GHG emissions reductions covering transportation, buildings, electricity generation, industrial emissions, and non-energy emissions sources such as leaks of natural

gas and refrigerants.³⁵ Recognizing the important role that carbon sequestration will play in achieving net-zero emissions, the plan also includes goals and actions to reduce GHG emissions and increase carbon sequestration on natural and working lands.

Michigan: Governor Gretchen Whitmer announced the state's *MI Healthy Climate Plan* in April 2022, which lays out six different actions to achieve Michigan's 2030 and 2050 climate goals. These include committing to environmental justice and pursuing a just transition, cleaning the electric grid, electrifying vehicles and increasing public transit, repairing and decarbonizing homes and businesses, driving clean innovation in industry, and protecting Michigan's land and water.³⁶

Minnesota: The State of Minnesota released its draft *Minnesota's Climate Action Framework* in February 2022, which identified immediate, near-term actions to achieve its long-term carbon neutrality, resilience, and equity goals.³⁷ The framework is expected to be finalized in September 2022.

New York: Following the release of the *Draft Scoping Plan* to implement New York's *Climate Leadership and Community Protection Act* (a.k.a. Climate Act) in December 2021, the state's Climate Action Council held 11 public hearings across the state during the public comment period on the plan in 2022. The final scoping plan is due January 1, 2023.

North Carolina: Governor Cooper kicked off development of the North Carolina Deep Decarbonization Pathways Analysis to better understand viable pathways to achieve net-zero GHG emissions across the state's economy by 2050 and interim targets. The effort will analyze various pathways—looking at a variety of factors ranging from technology trends to population growth—to help policymakers and stakeholders understand the biggest opportunities to reduce emissions and sequester carbon, as well as explore tradeoffs among different emissions reduction strategies.

Vermont: The Vermont Climate Council released its initial *Vermont Climate Action Plan* (CAP)³⁸ while the Vermont Department of Public Service released its most recent iteration of the state's *Comprehensive*

Energy Plan (CEP).³⁹ The CAP includes recommended actions for state, regional, local, private, and nonprofit sector partners as well as actions that individual Vermonters can take, highlighting the request the Council heard many times for a set of implementable actions at all levels of society and government. The CEP outlines pathways, strategies, and actions to meet the emissions reductions requirements of the Global Warming Solutions Act, specifically exploring the transportation, buildings, industry, and electric sectors.

Wisconsin: In April 2022, Governor Tony Evers released Wisconsin's first ever *Clean Energy Plan*. 40 Developed in accordance with the governor's Executive Order No. 38, which was signed in August 2019 and set the state's first 100 percent carbon-free electricity consumption goals, 41 this plan creates a pathway to multi-sector deep decarbonization and a transition to a strong clean energy economy that prioritizes environmental justice, ensures a diverse workforce, and encourages technology innovation, while identifying strategies to lower



Source: Nevada Governor's Office

energy bills for Wisconsin families, promote energy independence, and create thousands of jobs.

Investing in and financing climate solutions

Climate change continues to impact state economies. However, integrating climate change into legislative budget requests and financial decision-making can help ensure that state stewardship of public capital is aligned with a low-carbon future. For example, more than a dozen states now require large insurance companies to adopt a climate risk disclosure standard, including California, Connecticut, Delaware, Maine, Maryland, Massachusetts, Minnesota, New Mexico, New York, Oregon, Pennsylvania, Rhode Island, Vermont, and Washington. The new standard aligns with the Task Force on Climate-Related Financial Disclosures (TCFD), an international best-practice benchmark for disclosure. ⁴² Additional examples include:

California: Governor Newsom announced a revised budget proposal consisting of a record \$53.9 billion to tackle pollution, build climate-resilient water supplies, reduce risk of wildfires, ensure grid reliability, and protect communities from extreme heat.⁴³

Maryland: The state legislature enacted legislation that requires the State Retirement and Pension System to assess its portfolio for climate risks and identify investment opportunities in net-zero-aligned industries.⁴⁴

Michigan: Governor Whitmer signed bipartisan budgets that invested in residential clean energy improvements, advanced mobility projects, mobility-centric workforce programs, and Michigan Saves, Michigan's nonprofit green bank. These investments in Michigan Saves will leverage over \$150 million in private capital for clean energy improvements for small businesses and families.

Minnesota: Governor Tim Walz proposed a \$35 million investment to provide seed money to establish a green bank to finance clean energy projects across the state.⁴⁵

New York: In November 2021, the New York State Department of Financial Services established a new Climate Division to ensure banks and insurers integrate the consideration of financial risks from



Source: Michigan Governor's Office

climate change into governance frameworks, risk management processes, and business strategies. Additionally, New York's 2022–2023 fiscal year enacted budget includes a \$4.2 billion environmental bond act that—subject to voter approval—will provide investments for climate change mitigation, resilient infrastructure, open space conservation, and water quality improvement. Under Governor Hochul, New York is driving more than \$30 billion towards combating climate change and creating a thriving clean energy economy, fostering tens of thousands of family-sustaining jobs, and working to ensure climate justice across the state.

Washington: In April 2022, Governor Inslee signed a historic transportation package that invests more than \$6.2 billion over the next 16 years in clean transportation, including public transportation, walking and biking infrastructure, and hybrid-electric ferries, with requirements for directing spending to overburdened communities.⁴⁷ This is in addition to the more than \$1 billion investment to transition Washingtonians to zero-emissions vehicles and \$170 million to deploy solar energy and battery storage throughout the state.⁴⁸

Economy-wide programs

Given the broad scope of the climate challenge, many states are looking to adopt programs that reduce GHG emissions simultaneously across multiple sources. These programs often incentivize cost-effective emissions reductions by setting prices or caps on carbon pollution. Examples include:

Oregon: The DEQ launched the Climate Protection Program, a new regulatory program that sets declining limits on GHG emissions from fossil fuels used in transportation, residential, commercial, and industrial settings, and aims to reach a 90 percent reduction in emissions by 2050.⁴⁹ The program also regulates site-specific GHG emissions at manufacturing facilities with a best available emissions reductions approach. Oregon is offering an alternative compliance option, allowing covered fuel suppliers to contribute funds to third-party entities to implement projects that reduce GHG emissions within the state, with a priority for promoting benefits for environmental justice communities.⁵⁰

Washington: The state's Department of Ecology began its regulatory rulemaking process to adopt rules to implement the Climate Commitment Act Program.⁵¹ This cap-and-invest program will help the state achieve its goal of net-zero GHG emissions by 2050, and requires 35 percent of investments—with a goal of 40 percent—to benefit overburdened communities, and 10 percent to investments supported by Tribes.



Policy priority area

Alliance members will develop policy pathways and programs to decarbonize the electricity grid, including establishing interim targets and identifying opportunities to better align planning and procurement processes for generation, distribution, and transmission resources with our collective climate goals.

Actions across the Alliance: By the numbers

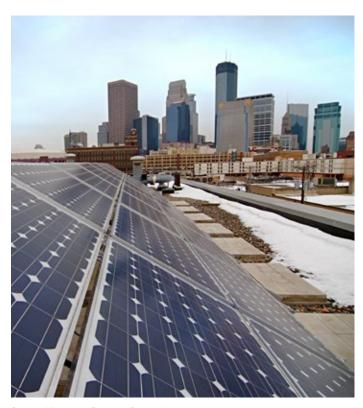
- 22 Renewable portfolio standards
- 18 100% clean electricity goals

For up-to-date counts of actions from across the Alliance, go to: www.usclimatealliance.org

States are the primary driver for clean energy policy, including the development of clean energy standards.³¹⁵ This authority is especially significant given the U.S.

Supreme Court's decision in West Virginia v.

EPA that narrowed the federal government's authority to confront climate pollution from the power sector. Importantly, the decarbonization of transportation, buildings, and industry is heavily reliant on rapid emissions reductions in the electricity sector to support increased electrification.



Source: Minnesota Pollution Control Agency

Making progress toward 100 percent clean energy

States and territories adopted new clean energy targets and conducted planning and procurement to make progress toward achieving them. Accelerating this transition has become increasingly important as the United States seeks to become even more energy independent, although alleviating supply chain constraints will be needed to transition at scale. Examples include:

California: California's Energy Commission, Public Utilities Commission, and Air Resources Board released its 2021 joint agency report, *Achieving 100 Percent Clean Electricity in California: An Initial Assessment*, ⁵² and the draft 2022 Scoping Plan provides the blueprint for how California will achieve 100 percent renewable and zero-carbon energy retail sales in 2045.⁵³

Colorado: The Colorado Public Utilities Commission approved Xcel Energy's plan to phase coal out of its energy mix by 2031. Over the past few months, Colorado grid operators have been working on a clean energy plan that puts Colorado on the path to more than 80 percent renewable energy by 2030.

Connecticut: Governor Ned Lamont signed Senate Bill 10, codifying the 2040 zero-carbon electric supply goal that he originally established through a 2019 executive order.⁵⁴ Additionally, the state's Public Utilities Regulatory Authority launched a statewide battery storage program with the Connecticut Green Bank and utilities, which will help the state achieve its goal of 1,000 megawatts (MW) of energy storage by 2030.⁵⁵

Hawai'i: Governor Ige signed House Bill 2089, which changes the way Hawai'i calculates state progress on switching to renewable energy by amending the definition of "renewable portfolio standard" to mean a percentage of electrical energy generation, rather than sales. It also requires electric utility companies to track and report data to inform the calculation of the renewable portfolio standards.⁵⁶ Additionally, in September 2022, Hawai'i will end the use of coal for electricity under Act 23,57 which prohibits the extension of the power purchase agreement between the last coal plant and Hawaiian Electric. In its place, eight new solar plus storage projects and one new standalone storage project are now under development. One project, Mililani I Solar, energized and began commercial operations on July 31, 2022. This 39 MW + 156 MWh project is the largest solar project on O'ahu and the island's first utility-scale solar plus storage project.

Illinois: In March 2022, the Illinois Power Agency released a proposed long-term renewable energy procurement plan implementing the state's 2021 *Climate and Equitable Jobs Act.* In June, Illinois launched the Coal-to-Solar Energy Storage Grant Program, selecting five former or planned coal plant retirement sites to receive incentives to install energy storage facilities.⁵⁸

Maine: In April 2022, Governor Mills signed legislation requiring the Maine Public Utilities Commission to procure 20 MW of highly efficient combined heat and power (CHP) projects.⁵⁹

Massachusetts: The Baker-Polito Administration announced \$2.2 million in grant funding to 32 organizations to develop and implement community-based initiatives to increase access to the benefits of clean energy and meaningfully reduce energy burden.⁶⁰

New York: In April 2022, the Public Service Commission (NY PSC) approved a framework for the NY-Sun initiative for at least 10 gigawatts (GW) of distributed solar by 2030, with at least 35 percent (and a goal of 40 percent) of that clean electricity earmarked for disadvantaged communities and low-to moderate-income New Yorkers. In May, the Commission opened a proceeding (22-M-0149) to implement the *Climate Leadership and Community Protection Act.* In June, Governor Hochul announced awards for 22 large-scale solar and energy storage projects that will allow the state to exceed its goal of 70 percent of electricity from renewable resources by 2030.62

North Carolina: Governor Cooper signed House Bill 951, bipartisan legislation requiring the North Carolina Utilities Commission to take the steps needed to achieve a 70 percent reduction in power sector carbon emissions below 2005 levels by 2030 and carbon neutrality by 2050.⁶³

Oregon: Oregon's Public Utility Commission issued an order directing utilities to file clean energy plans with their next integrated resource plan (IRP) consistent with 2021 legislation setting a pathway requiring 100 percent clean energy by 2040.⁶⁴

Pennsylvania: In April 2022, the Pennsylvania Department of Environmental Protection (PA DEP) finalized regulations to combat climate change and allow Pennsylvania to participate in the Regional Greenhouse Gas Initiative (RGGI), a regional limit on CO₂ emissions from electric power plants.⁶⁵ PA DEP's modeling estimates that from 2022 to 2030, participating in RGGI would boost Pennsylvania's gross state product (GSP) by nearly \$2 billion and see a net increase of more than 30,000 jobs in the commonwealth. Also, the citizens here could see a cumulative increase in disposable personal income (DPI) of \$3.7 billion by 2050.66 At the time this report was finalized, the regulations authorizing Pennsylvania's participation in RGGI are under litigation.

Puerto Rico: In February 2022, the Government of Puerto Rico joined the U.S. Department of Energy (US DOE), the Department of Homeland Security (DHS), and Housing and Urban Development (HUD) in a memorandum of understanding (MOU) to accelerate work to strengthen the island's grid



Source: Michigan Governor's Office

resilience and advance new initiatives to enhance Puerto Rico's energy future. FT This partnership includes the development of a community-driven and locally tailored roadmap to help Puerto Rico meet its target of 100 percent renewable electricity, improve power sector resilience, and increase access to more affordable energy and cleaner air. In March 2022, Governor Pedro Pierluisi announced expanded access to renewable energy through distributed energy projects, with the investment of \$300 million to the Green Energy Trust, among others.

Rhode Island: In June 2022, Governor Daniel McKee signed legislation requiring that 100 percent of all electricity sold in the state be generated from renewable sources by 2033.⁶⁹ This timeline is the fastest in the nation.

Wisconsin: Governor Evers released Wisconsin's *Clean Energy Plan* in April 2022, putting the state on a path to achieve 100 percent carbon-free electricity by 2050. The plan includes a recommendation to create a "Carbon Free by 2050" technical assistance grant program designed to assist Tribal Nations in developing plans to be carbon free by 2050, as well as a recommendation to direct funding to local governments to assist them with developing plans to be carbon free by 2050. The plan also recommends setting new goals such as reducing net carbon emissions in the power sector to at least 60 percent below 2005 levels by 2030.



Developing offshore wind

Alliance members made strides in the development of offshore wind resources in tandem with federal actions to accelerate offshore wind lease areas. Examples include:

California: Governor Newsom set a target of 20 GW of offshore wind capacity by 2045 and signed legislation requiring the California Energy Commission to develop a strategic plan for offshore wind production off California's coasts.⁷¹

Louisiana: Governor Edwards signed legislation to establish a framework for the development of offshore wind development in Louisiana state waters, and set a target of 5 GW of installed offshore wind capacity by 2035 in the state's *Climate Action Plan*.⁷²

Maine: The Maine Governor's Energy Office is developing a comprehensive *Offshore Wind Roadmap* through a broad stakeholder-based process and is pursuing a floating offshore wind research array

in federal waters of the Gulf of Maine to better understand potential impacts of floating offshore wind, improve technologies, and reduce costs.

Massachusetts: In April 2022, Governor Charlie Baker filed bond legislation that included \$750 million in clean energy investments, including \$72 million specifically for developing port facilities and marine terminals to support the offshore wind industry. More recently, Governor Baker signed An Act Driving Clean Energy and Offshore Wind, which provided funding for offshore wind energy and electric grid improvements. The bill removes the requirement that each subsequent procurement be cheaper than the previous one, a move designed to bring more bidders and innovation to the table.

New Jersey and New York: In January 2022, New York Governor Hochul, New Jersey Governor Murphy, and U.S. Secretary of the Interior Deb Haaland announced that the Bureau of Ocean Energy Management (BOEM) would hold a wind auction for six leasing areas in the New York Bight. The auction resulted in the largest-ever bid revenue at \$4.37 billion. They also announced a partnership to focus on job creation, environmental justice, regional supply chain, and delivering benefits to underserved communities.⁷⁵

New Jersey: The Federal Energy Regulatory Commission approved the New Jersey Board of Public Utilities (NJBPU) proposal, or State Agreement Approach Agreement,⁷⁶ which lays out the commitments by PJM, the regional transmission organization, and NJBPU regarding the competitive selection of transmission solutions to enable New Jersey's goal of delivering 7,500 MW of offshore wind generation to its residents by 2035.⁷⁷

New York: Governor Hochul announced \$500 million for the development of an offshore wind supply chain and port infrastructure. In July, Governor Hochul announced the first phase of this investment is included in New York's third competitive offshore wind solicitation, which seeks to procure at least 2,000 megawatts. The New York State Energy Research and Development Authority (NYSERDA) also announced nearly \$1.3 million to support data collection through acoustic and oceanographic surveys to facilitate responsible offshore wind development.⁷⁸

North Carolina: BOEM held the Carolina Long Bay lease auction, which could support over 3 GW of offshore wind development.⁷⁹ The North Carolina Department of Commerce, per Executive Order No. 218, established the N.C. Taskforce for Offshore Wind Economic Resource Strategies (NC TOWERS) to advise on ways to advance offshore wind energy projects, with a special focus on economic development and job creation.

Rhode Island: In June 2022, Governor McKee signed legislation to "require a market-competitive procurement for between 600 MW and 1,000 MW of newly-developed offshore wind capacity." Rhode Island's primary utility, Rhode Island Energy, is required to issue the procurement no later than October 15, 2022.

Advancing transmission and distribution grid policy

To achieve a carbon-free power sector, we must modernize our outdated grid. Studies continually point out the need for upgrading and vastly expanding transmission. Models estimate a 60 percent increase in electricity demand by 2030 and a need for a three- to five-fold increase in transmission capacity by 2050.80 Improving transmission planning, siting, permitting, and cost allocation methodologies remains critical to meeting power sector goals. Examples include:

Colorado: In February 2022, the Colorado Public Utilities Commission approved Xcel Energy's Colorado Power Pathway, a \$1.7 billion transmission loop that will have enough capacity to transmit 5,500 MW of wind and solar energy to the grid. ⁸¹ Governor Jared Polis signed into law the *Electric Grid Resilience* and Reliability Roadmap (HB22-1249) and the *Microgrids for Community Resilience Grant Program* (HB22-1013) in June 2022. The roadmap will help the state site microgrids, especially in rural areas where grid expansion is not practical. The bill will also help address barriers that have plagued expansion in the past, such as rights of way and rate structure issues. ⁸²

Maine: Governor Mills signed legislation requiring the Maine Public Utilities Commission to initiate a proceeding in 2022, and work with stakeholders every five years, to identify priorities for integrated grid



plans that improve system reliability and resilience and enable the cost-effective achievement of GHG reduction obligations and climate policies in law.⁸³

Massachusetts: In August 2022, Governor
Baker signed climate legislation that requires grid
modernization projects to minimize the price impacts
on ratepayers and mandates a study from the state's
Department of Energy Resources on medium- and
long-term energy storage systems by 2023.84

New Mexico: The New Mexico Energy, Minerals and Natural Resources Department published the New Mexico Grid Modernization Roadmap, which provides actionable steps over the next eight years to guide New Mexico's electricity providers, associated industries, the research community, and energy consumers to a zero-carbon electricity grid. Recommendations include investment in advanced metering infrastructure (AMI), updating New Mexico's interconnection rule and manual, updating the standards for advanced inverters, creating and supporting a coordinated statewide transmission planning group, and strategically deploying energy storage on the New Mexico grid.85 The New Mexico Public Regulation Commission (NM PRC) has already opened rulemaking dockets on interconnection reform.86

New York: In April 2022, Governor Hochul announced finalized contracts for the Clean Path NY and Champlain Hudson Power Express transmission projects, which are expected to halve New York City's need for fossil fuel generation by 2030.87 These projects—which will deliver wind, solar, and hydroelectric power—are expected to bring up to \$8.2 billion in state economic development and deliver \$5.8 billion in overall societal benefits, such as GHG emissions reductions and air quality improvements.88



Policy priority area

Alliance members will develop policy pathways and programs to eliminate emissions from buildings, including supporting the development and adoption of zero-emissions building codes.

Actions across the Alliance: By the numbers

- 20 Electric utility energy efficiency resources standards
- Gas utility energy efficiency resources standards
- Appliance efficiency standards
- Statewide building performance standards

For up-to-date counts of actions from across the Alliance, go to: www.usclimatealliance.org

To decarbonize the buildings sector, millions of people and businesses need to transition to more efficient heating, ventilation, and air conditioning (HVAC), water heating, and other appliances within the one to two lifecycles of equipment replacement. States are focusing on efficient, electric, and grid-connected buildings with policies that will help transform the new construction market and dramatically increase consumer options for efficient electric buildings.

Developing next-generation appliance standards

Alliance members are working to save consumers money and drive emissions reductions through establishing and adding new products to their state appliance efficiency standards. States have also begun examining mercury standards for fluorescent bulbs and emissions-based standards for HVAC and water heating equipment. Examples include:

California: CARB released the *2022 State Strategy* for the State Implementation Plan, which calls for the development of a zero-emissions standard for new space and water heaters sold in California beginning in 2030.⁸⁹

Connecticut: Governor Lamont issued Executive Order 21-3, which included a directive to develop appliance standards through a rulemaking.⁹⁰

Maryland: The Maryland Legislature passed legislation to adopt minimum efficiency requirements for 13 products, including air purifiers, faucets, water coolers, and restaurant cooking equipment.⁹¹

Nevada: Governor Steve Sisolak signed Assembly Bill 383 in 2021, which requires the Governor's Office of Energy to adopt efficiency standards for certain appliances, which will prohibit the sale, lease, rental, or installation of certain new appliances that are not in compliance with energy efficiency standards. A workshop and hearing have been scheduled, with expected adoption in late 2022 if approved.

New Jersey: Governor Murphy signed legislation to adopt minimum efficiency requirements for 17 products, including plumbing products, restaurant equipment, and air purifiers.⁹²

New York: As called for in the New York State Climate Action Council's *Draft Scoping Plan*, Governor Hochul signed legislation to enable low global warming potential (GWP) refrigerants in building codes, update energy and water efficiency standards for seven current products, and set standards for 31 new products, including air purifiers, EV chargers, and restaurant equipment. NYSERDA was also given the authority to establish new standards through rulemaking, joining California and Connecticut as states with that administrative authority.⁹³

Oregon: Building off the 2021 addition of 11 products, Governor Kate Brown signed legislation to add a standard for spray sprinkler bodies.⁹⁴

Vermont: Governor Phil Scott signed the nation's first clean lighting law, which bans the sale of four-foot linear fluorescent light bulbs starting in January 2024 to promote mercury-free alternatives and reduce toxic discharge. This mercury-based standard also has the co-benefit of significant efficiency savings.⁹⁵

Washington: Governor Inslee signed legislation establishing new standards for air purifiers, hot tubs, residential ventilating fans, EV charging, commercial ovens, and commercial hot food holding cabinets.⁹⁶

ALLIANCE RESOURCE SPOTLIGHT

Creating a one-stop shop for state appliance standards

The Alliance supported the Northeast Energy Efficiency Partnership's development of the State Appliance Standards Database (SASD), which launched in 2022.⁹⁷ It is a critical tool for states implementing appliance standards by providing a one-stop shop for manufacturers to navigate each state's product listing.

Adopting more-efficient building codes and performance standards

Alliance members support the development and adoption of zero-emissions building codes. This is the most effective tool for driving emissions reductions in new construction. Going beyond new construction, states are working on benchmarking and performance standards for their existing building stock. Examples include:

California: California's Building Standards
Commission approved the 2022 Energy Code, the
strongest building decarbonization policy in the United
States, which encourages builders' use of efficient
electric heat pumps, establishes electric-ready
requirements for new homes, and expands solar PV
and battery energy storage standards.⁹⁸ In addition,

the 2022 draft scoping plan also recommends the development of building performance standards and strengthens ventilation standards.⁹⁹

Colorado: Governor Polis signed a bill requiring most local governments that adopt a building code to adopt the 2021 International Energy Conservation Code (IECC) for new building. It sets requirements for prewiring for EV charging, rooftop solar PV, and heat pumps. Furthermore, it requires the adoption of a zero-carbon code in 2030. Following the passage of legislation in 2021, Colorado convened a Building Performance Standard Task Force from October 2021 through July 2022 to develop the program's recommendations, which are due October 1, 2022. 101

Connecticut: In December 2021, Governor Lamont signed Executive Order 21-3, which requires the Department of Energy and Environmental Protection (CT DEEP) and Department of Administrative Services (CT DAS) to develop a plan and budget by 2023 to achieve zero GHG emissions for all new construction and major renovations funded by the state or in facilities owned/operated by the executive branch, targeting construction beginning in fiscal year 2024 and after.¹⁰²

Hawai'i: Governor Ige signed HB 1801, which sets state government up to lead by example on reducing energy costs by increasing efficiency. The bill establishes deadlines for state facilities to implement cost-effective energy efficiency measures and directs the Hawai'i State Energy Office to collect utility bill and energy usage data for state-owned buildings. Additionally, the bill requires that all new state buildings be energy- and water-efficient, designed to maximize energy generation potential, and use materials that reduce the overall carbon footprint.

Maryland: Following the development of a comprehensive Maryland building transition plan, the Maryland Legislature passed the *Climate Solutions Now Act of 2022*, which included 1) establishing a statewide building performance standard, 2) requiring the adoption of the 2018 International Green Construction Code by January 1, 2023 and the adoption of each new version of the code within 18 months of issuance, and 3) increasing the utility efficiency program goals and directed alignment with emissions reductions.¹⁰⁵

Massachusetts: In June 2022, the state's
Department of Energy Resources released draft code
language for its Stretch Energy Code and Specialized
Municipal Opt-in Code.¹⁰⁶ The Act Driving Clean
Energy and Offshore Wind, signed by Governor Baker
in August 2022, allows 10 municipalities to legally ban
fossil fuel infrastructure in new and major construction
projects (if the towns meet Massachusetts's 10 percent
affordable housing target).¹⁰⁷

Michigan: The State Construction Code Commission is in the process of updating the state's building energy code in line with the 2021 Residential and Commercial International Energy Conservation Codes. The MI Healthy Climate Plan calls for adoption of the 2021 Model Energy Code with provisions to support EV charging and consider incorporation of additional climate mitigating solutions such as energy storage, renewable energy, and building decarbonization.

Nevada: In 2018, Nevada adopted regulations that require the automatic adoption of the most recent version of the International Energy Conservation Code (IECC), and effective July 28, 2022, the 2021 IECC has been adopted in Nevada.

New York: The New York State Climate Action Council's *Draft Scoping Plan* calls for the adoption of all-electric code and building performance standards for buildings larger than 25,000 square feet.¹⁰⁸

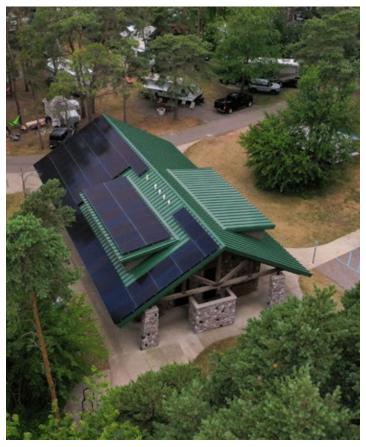
Vermont: In January 2022, the Vermont Department of Public Service released its *Comprehensive Energy Plan*, which set a target to achieve net-zero-ready construction for all newly constructed buildings by 2030.¹⁰⁹

Washington: The Washington State Building Code Council adopted a nation-leading code, requiring all new commercial buildings and large multifamily buildings be built with high-efficiency electric systems (e.g., heat pumps) for space and water heating and setting tighter standards for building envelopes. Having passed the first statewide building performance standard in 2019, Washington passed legislation to expand the program to incorporate buildings 20,000 square feet or larger, including multifamily buildings. It also includes a \$150 million incentive program.

Wisconsin: The Wisconsin Department of Safety and Professional Services (WI DSPS) has been working to update the state's commercial building codes in order to lower energy costs for Wisconsinites and reduce emissions. WI DSPS also launched the Wisconsin Advisory Council on Building Sustainability, a group of experts to advise state code councils on opportunities to enhance community resilience, encourage innovation, and incentivize use of clean energy in residential and commercial construction. WI DSPS is also looking into updating building codes to allow for mass timber construction, which will encourage long-term carbon storage while establishing market potential for manufacturing with Wisconsin wood.

Modernizing utility policy

State policies regulating electric and gas utilities are critical to decarbonization and consumer adoption of technology. States are working to ensure energy efficiency resource standards, utility electrification programs, and gas planning and procurement are aligned with their climate targets. Examples include:



Source: Michigan Governor's Office

California: California's Public Utilities Commission set biomethane procurement targets of 17.6 and 72.8 billion cubic feet in 2025 and 2030, respectively, which will help the state achieve its goal of reducing methane emissions 40 percent below 2013 levels by 2030.¹¹¹

Colorado: Following legislation in 2021, Colorado's Public Utilities Commission opened a rulemaking to implement a clean heat standard and establish gas system planning requirements.¹¹² The most recent clean heat targets require a 4 percent reduction below 2015 GHG emissions levels by 2025 and 22 percent below 2015 levels by 2030.¹¹³

Connecticut: Governor Lamont issued Executive Order 21-3 in December 2021, which requires CT DEEP and CT DAS to develop a plan retrofitting existing fossil fuel-based heating and cooling systems at state buildings to systems capable of being operated without carbon-emitting fuels.¹¹⁴

Massachusetts: In February 2022, the Massachusetts Department of Public Utilities (MA DPU) passed the 2022-2024 Three-Year Energy Efficiency Plan that will deliver \$9 billion in benefits to the state and 845,000 tons of emissions reductions. Delivered via Mass Save, this restructured program will provide utility customers with weatherization rebates, heat pump incentives, zero-cost efficiency upgrades, and additional energy efficiency incentives.¹¹⁵ Following issuance of Executive Order 596 in 2021 establishing the Commission on Clean Heat, the commission convened throughout 2022 to develop policy recommendations to equitably reduce the use of heating fuels and minimize GHGs. MA DPU also required gas utilities to file plans for compliance with the state's GHG goals.116

Michigan: The Michigan Public Service Commission began incorporating the state's emissions reduction goals into its utility resource planning process.

Minnesota: Following the passage of the *Natural Gas Innovation Act* in 2021, the Minnesota Public Utilities Commission opened a proceeding to establish frameworks for lifecycle GHG emissions intensity and cost-benefit analyses for review of utility plans.¹¹⁷

Nevada: The Public Utilities Commission of Nevada opened an investigatory docket in 2021 and took comment in January 2022 on long-term gas planning.¹¹⁸

New York: In May 2022, the NY PSC issued an order establishing a gas system planning process (20-G-0131).¹¹⁹ Additionally, Governor Hochul signed the *Utility Thermal Energy Network and Jobs Act* establishing a regulatory structure for utility thermal energy networks, such as district geothermal, and requiring pilot projects.¹²⁰

Oregon: In April 2022, following a series of workshops, the Oregon Public Utility Commission released a draft fact-finding report related to the impact of the Climate Protection Program on gas utilities, their customers, and other potential decarbonization activities.¹²¹

Rhode Island: In June 2022, the Rhode Island Public Utilities Commission opened an investigatory docket evaluating the future of the regulated gas distribution business in light of the state's Act on Climate. 122

Vermont: The state legislature approved a proposal for the Vermont Public Utility Commission to develop and implement a program to reduce emissions from buildings, including electrification and weatherization. The technical and economic effects of this proposal will undergo additional study in 2022.¹²³

Washington: The Utilities and Transportation Commission (UTC) opened a proceeding (U-210553) in 2021 to take comment on the investor-owned electric and natural gas utilities to contribute their share to GHG emissions reductions. In June 2022, the UTC launched an Energy Decarbonization Pathways Examination, which will consider pathways for achieving the reductions.¹²⁴

Wisconsin: The Public Service Commission of Wisconsin opened docket 5-EI-158 (*Roadmap to Zero Carbon Investigation*) to obtain further information on ongoing changes in Wisconsin's electricity sector and economic and environmental considerations that are contributing to increased deployment of zero-carbon technologies in order to meet customers' electricity needs.¹²⁵

Supporting building efficiency and electrification

States continued to increase market and workforce support for building decarbonization industries, including providing consumer incentives through state programs. Examples include:

California: California invested a total of \$84.7 million for heat pump incentives, including \$40 million from the 2023 allowance proceeds of CARB's Capand-Trade Program. Half of the incentive funds are reserved for low-income utility customers. Incentives will be available for electric panel upgrades if the upgrade is needed to install the heat pump water heater, and for systems using low-GWP refrigerants to reduce GHG emissions even further.¹²⁶

Colorado: Governor Polis signed SB22-051, which creates tax incentives for heat pumps and environmentally friendly building materials, such as green concrete, recycled steel, and composite wood products.¹²⁷ Beginning in 2023, purchases of residential and commercial heat pumps will receive a 10 percent income tax credit, which is eligible to a point of purchase, and will also receive a sales tax exemption. Additionally, beginning in 2024, lowemissions building materials will also be eligible for the sales tax exemption. Governor Polis also signed a bill that will allow for geothermal energy to receive similar regulatory treatment as solar energy. Geothermal will now be included as a renewable energy resource option within the state's GHG pollution reduction roadmap. It will also require the Colorado Energy Office to develop basic consumer education and guidance for geothermal energy options.128

Connecticut: CT DEEP launched the Statewide Weatherization Barrier Remediation Program, partnering with the nationally recognized nonprofit International Center for Appropriate and Sustainable Technology. With \$12.3 million of initial funding, this program will address health and safety barriers such as mold and asbestos as well as energy efficiency improvements in up to 1,000 income-eligible households.¹²⁹

Maine: Governor Mills announced in November 2021 that the *Maine Jobs & Recovery Plan* will provide \$50 million to the Efficiency Maine Trust to subsidize air sealing and insulation upgrades to

low- and moderate-income homeowners, as well as expand incentives for energy efficiency upgrades. The award-winning Efficiency Maine Trust program saw a 123 percent increase in heat pump installations from 2020 to 2021 through its heat pump initiative.¹³⁰

Michigan: Governor Whitmer announced the first projects for the state's Energy Efficiency Revolving Fund, a fund that upgrades state facilities through renewable energy and energy efficiency improvements. These projects included a new solar canopy and energy efficiency investments at four state facilities.¹³¹

New Mexico: Starting in the 2022 tax year, the New Mexico Sustainable Buildings Tax Credit—an incentive to build cutting-edge sustainable and efficient buildings—was updated to increase the stringency of qualifying projects (now at LEED Gold) and add bonuses for fully electric, EV-ready, net-zero, zero-energy, zero-waste, and zero-water projects. The revised incentive has scaled-up credits for affordable housing.¹³²

New York: In April 2022, Governor Hochul released *The Empire Building Playbook: An Owner's Guide to Low Carbon Retrofits*. This free online resource will serve as a valuable tool for high-rise building owners who hope to advance carbon neutrality in their buildings. The playbook also provides an in-depth analysis of four low-carbon retrofit case studies to help identify replicable pathways towards high-rise decarbonization. ¹³⁴

Oregon: The Oregon Legislature established the Joint Task Force on Resilient Efficient Buildings (REBuilding) to identify and evaluate policies related to building codes and building decarbonization for new and existing buildings that would enable the state to meet GHG emissions goals while maximizing other benefits.¹³⁵

Rhode Island: With \$25 million in *American Rescue Plan Act* (ARPA) funding, Governor McKee and the Office of Energy Resources are establishing an electric heat pump initiative program. This program will help homeowners and small business owners transition away from fossil-fueled heating and cooling, while giving preference to community organizations and families within environmental justice communities.¹³⁶



Vermont: After 65 percent of Burlington, VT, voters gave the city authority to implement carbon taxes on buildings in March 2021, Governor Scott signed this charter change into law in April 2022.¹³⁷ Burlington has an ambitious goal of eliminating fossil fuel use in all buildings by 2030 and this step will give residents the opportunity to vote on a possible building carbon tax in future elections.¹³⁸

Wisconsin: In his state budget proposal, Governor Evers proposed increasing the budget for Focus on Energy—a successful state program that offers energy efficiency and renewable energy resources and incentives—by \$100 million, which had the potential to generate an additional \$250 million in annual energy savings alone.¹³⁹



Policy priority area

Alliance members will establish innovative policy frameworks for eliminating GHG emissions from the industrial sector and its supply chains while fostering the growth of a strong, domestic clean manufacturing economy.

Actions across the Alliance: By the numbers

- 11 Regulations addressing hydrofluorocarbons
- 10 Regulations addressing methane
- 08 Buy Clean programs, studies, or pilot projects
- 05 Regulations addressing GHG emissions from industries

For up-to-date counts of actions from across the Alliance, go to: www.usclimatealliance.org

policy arena in the United States. Given its diverse array of activities, which rely on large amounts of fossil fuels to create high-temperature heat and generate distinct process emissions, this sector can be difficult to decarbonize. Without additional policy action, industry is projected to become the largest source of national GHG emissions by 2030.¹⁴⁰ However, many states are moving forward and adopting regulations to reduce methane and HFCs, building markets for cleaner industrial products, and creating a policy environment to incentivize the deployment of low-carbon fuels,

feedstocks, and carbon capture technology.

Industrial decarbonization is an emerging

Creating markets for low-carbon industrial products

State governments purchase large amounts of carbon-intensive products, such as construction materials like cement, concrete, steel, glass, and aluminum. Procurement policies that address embodied carbon like Buy Clean, a concept pioneered by California and adopted by Colorado in 2021, continue to take hold in several other states and the federal government. Examples include:

California: CARB is required by July 1, 2023 to develop a comprehensive strategy to achieve netzero GHG emissions associated with cement used within the state by 2045. It must also establish interim targets to reduce the GHG intensity of cement used within the state to 40 percent below 2019 average levels by 2035. CARB will evaluate measures to support market demand and financial incentives to encourage the production and use of cement with low GHG intensity.¹⁴¹

Maryland: Requires its Green Building Council to investigate the mechanisms by which Maryland can procure low-carbon concrete for state-funded projects, including environmental product declarations (EPDs), performance incentives for manufacturers, and performance-based GWP standards. Its recommendations are due in December 2022.¹⁴²

New Jersey: Governor Murphy signed a bill that requires builders to offer unit concrete products that "utilize carbon footprint-reducing technology," which are defined as generating at least 50 percent less CO₂ emissions than conventional products. The bill also offers tax incentives for residential and commercial properties that utilize this lower-carbon concrete and requires state procurement agencies to use or require the use of this concrete product when possible.¹⁴³

New York: Governor Hochul signed legislation that requires the Office of General Services to establish guidelines for procuring low-carbon concrete, including consideration of performance-based GWP standards and bid incentives to encourage the use of low-embodied-carbon concrete on state-funded projects.¹⁴⁴

Oregon: Governor Brown signed a bill that requires its Department of Transportation (ODOT) to establish a program by 2025 to reduce GHG emissions from



materials used in transportation infrastructure construction and maintenance, including concrete, steel, and asphalt. ODOT will require contractors to submit EPDs and assess limitations in data, methods, and implementation of such a program.¹⁴⁵

Washington, Oregon, and California: These three states are collaborating through the Pacific Coast Collaborative's Low Carbon Construction Task Force on strategies to reduce the embodied carbon of buildings and construction projects.¹⁴⁶

Washington: The Washington State Department of Commerce released its *Buy Clean Buy Fair Washington Project Progress Report*, which was commissioned by the state legislature in 2021. The pilot study describes progress towards meeting the legislative requirements of 1) developing a database to collect environmental and labor information, such as EPDs, from state projects and 2) conducting pilot projects as case studies.¹⁴⁷

Wisconsin: Governor Evers's *Clean Energy Plan* aims to expand green/clean procurement, reduce embodied carbon in goods and services, and directs the State Bureau of Procurement to develop and submit a plan to expand the use of green/clean procurement practices to the governor.¹⁴⁸

ALLIANCE RESOURCE SPOTLIGHT

Roadmapping industrial emissions reductions

The Alliance is working with the American Council for an Energy-Efficient Economy (ACEEE) to develop a high-level guidebook to help states understand the landscape of industrial emissions sources, the technology pillars and pathways for reducing emissions from industry, and the policy interventions that can enable deep decarbonization of industry. The guidebook—to be released in fall 2022—includes policy considerations, early case examples and progress momentum (both domestically and internationally), and specific mitigation opportunities for seven major industrial subsectors such as chemicals, cement, steel, and paper manufacturing.

Developing markets for and investing in low-carbon industrial fuels and feedstocks

With \$8 billion in federal funding available for regional clean hydrogen hubs, 10 Alliance members announced their intention to apply for these funds: via MOU (Colorado and New Mexico with Utah and Wyoming;¹⁴⁹ Connecticut, Massachusetts, New Jersey, and New York;¹⁵⁰ and Louisiana with Arkansas and Oklahoma¹⁵¹), through governor announcements (California¹⁵² and Pennsylvania¹⁵³), through legislation (Illinois¹⁵⁴ and Washington¹⁵⁵), and through letters (Washington¹⁵⁶). States are also developing programs, plans, and regulations to reduce emissions from and increase the efficiency of manufacturing. Examples include:

Colorado: Adopted its final regulation for Greenhouse Gas Emissions and Energy Management for Manufacturers (GEMM) in October 2021, which applies to four large steel and cement manufacturers that represent 52 percent of Colorado's manufacturing emissions. GEMM provides these facilities an opportunity to conduct a GHG Best Available Emissions Control Technology (GHG BAECT) and energy best management practices audit every five years, and use the results to demonstrate they are controlling their GHG emissions with the best technology possible. If they demonstrate they

are utilizing GHG BAECT, the facility is required to reduce emissions by an additional 5 percent. If they are not using GHG BAECT, the facility must implement strategies to meet the GHG BAECT emissions rate or be subject to further GHG regulation beyond the five percent. Through 2023, Colorado is working on a GEMM Phase 2 rulemaking to address GHG emissions from other manufacturing facilities and achieve its goal to reduce industrial sector emissions 20 percent by 2030.¹⁵⁷ In 2022, the state legislature also enacted a bill creating a \$25 million clean air grant program for voluntary projects that reduce emissions and air pollution from industrial and manufacturing operations beyond regulatory requirements.¹⁵⁸

Illinois: Governor Pritzker signed the *Hydrogen Economy Act*, which creates a Hydrogen Economy Task Force charged with identifying barriers and opportunities for hydrogen deployment across sectors including industry.¹⁵⁹

Louisiana and Michigan: These states recommended developing clean industrial hubs as a key strategy to meeting their economywide GHG targets in their first climate action plans, each adopted in 2022.¹⁶⁰

Oregon: Began enforcing its Climate Protection Program (CPP), which sets a declining emissions cap on fossil fuels used throughout the economy, including the industrial sector. CPP also regulates GHG emissions, including process emissions, from highly emitting new and existing industrial facilities, by requiring these entities to conduct "best available emissions reduction assessments." ¹¹⁶¹

Pennsylvania: Governor Tom Wolf announced that Pennsylvania will work with a diverse coalition of energy, labor, and subnational stakeholders to develop an industrial decarbonization strategy for the commonwealth's robust manufacturing base, including an emphasis on clean hydrogen and carbon capture and storage opportunities.¹⁶²

Washington: Governor Inslee signed a bill creating an Office of Renewable Fuels and accelerating the market for renewable and green electrolytic hydrogen. The new office is tasked with various items, including assessing the opportunities to deploy renewable fuels and green hydrogen in industrial

sectors. The bill also authorizes utilities to produce and sell green electrolytic hydrogen and creates tax exemptions to incentivize its production. Governor Inslee signed a separate bill that provides tax incentives for construction of facilities to produce and store green electrolytic hydrogen.

Reducing emissions of short-lived climate pollutants (SLCPs)

Alliance members continue to lead the nation with policies that address super-polluting methane, HFCs, and ozone precursor pollutants. The Alliance, in collaboration with industry and NGO partners, is also working to help states adopt revised building codes that permit the use of low-GWP equipment, actively breaking down one of the biggest barriers to implementation of low-GWP equipment and HFC phasedown. Updated building codes have passed in 10 states (Colorado, Connecticut, Maine, Massachusetts, New York, North Carolina, Oregon, Pennsylvania, Vermont, and Washington). 165 Other examples of SLCP policies include:

California: In addition to actions described above, California is investing \$100 million to launch satellites that will detect methane leaks globally and will provide this data in real time so governments can take action and polluters held accountable. Additionally, Governor Newsom also directed California's Geologic Energy Management Division (CalGEM) and CARB to form a task force to identify and address methane leaks from oil infrastructure near communities, recognizing the threats these leaks can pose to community health and safety.

Colorado and New York: State agencies were directed to procure refrigeration, HVAC equipment, and building insulation with low-GWP chemicals to reduce the climate impacts of leaked refrigerants from government operations.¹⁶⁷

Delaware: A new HFC regulation went into effect September 1, 2021, establishing a schedule for the state to phase down specific HFCs used in air conditioning and refrigeration equipment, aerosols, and foams. To support the phase down, Delaware offers the Cool Switch Low Impact Refrigerant Program to accelerate replacement of HFCs with low-GWP refrigerants. 169

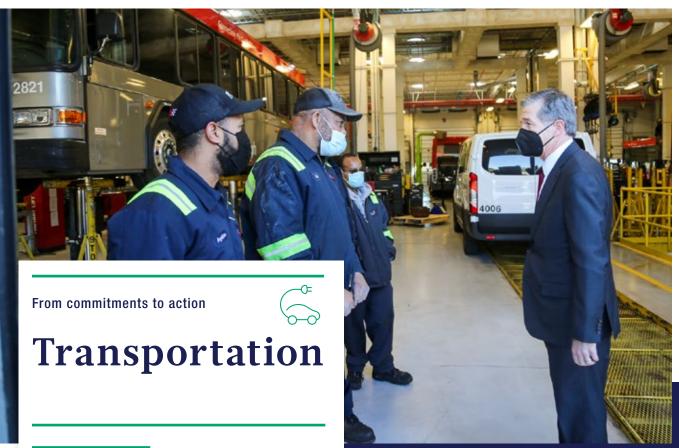
Maine: The ME DEP adopted its final rules to phase down HFCs, following legislation that passed in June 2021.¹⁷⁰ The rules became effective in January 2022.¹⁷¹

New Mexico: The New Mexico Environment Department adopted nationally leading rules that include emissions reduction requirements for certain oil and gas equipment and processes, emissions calculation and certification compliance obligations, and leak detection response obligations. The rules are expected to reduce methane and ozone precursor emissions by 386,000 and 118,000 metric tons per year, respectively.¹⁷²

New York: The NY DEC finalized regulations that require significant methane emissions reductions from oil and gas operations through gas venting prohibitions, leak detection and repair requirements, and other obligations. The rules will reduce methane and volatile organic compound emissions by at least 14,000 and 2,000 metric tons per year, respectively, resulting in as much as a 50 percent reduction in methane emissions.¹⁷³

Pennsylvania: The Environmental Quality Board adopted a final rule that establishes reasonably available control technology requirements for volatile organic compounds and other pollutants, such as methane, from existing unconventional oil and natural gas production facilities, compressor stations, processing plants, and transmission stations.¹⁷⁴ The rulemaking was unanimously approved by the Independent Regulatory Review Commission in July, but the General Assembly can still disapprove the rulemaking from being finalized.¹⁷⁵

Washington: Governor Inslee signed legislation to set new standards to effectively capture and control methane emissions from the state's largest landfills¹⁷⁶ and legislation setting a target of reducing organic material sent to landfills by 75 percent by 2030 and requiring additional organic solid waste collection services.¹⁷⁷



Source: North Carolina Governor's Office

Policy priority area

Alliance members will develop policy pathways and programs to decarbonize the transportation sector by reducing VMTs and significantly increasing access to and the affordability of ZEVs, clean fuels, and multi-modal options.

Actions across the Alliance: By the numbers

- 17 Low-emission vehicle standards
- 16 Zero-emission vehicle standards
- 09 Clean truck standards
- 04 Clean fuels standards

For up-to-date counts of actions from across the Alliance, go to: www.usclimatealliance.org

Transportation is the Alliance's—and the country's—largest source of GHG emissions. Getting more zero-emissions vehicles (ZEVs) on the road while reducing vehicle miles traveled (VMTs) are critical solutions for decarbonizing this sector. Both need to be advanced in tandem since increased VMTs can counteract the emissions reduction benefits of increased ZEV adoption.

Accelerating the transition to lowand zero-emissions vehicles

Alliance members are now developing the next generation of policies that will further accelerate the transition to ZEVs, including putting cleaner and more-efficient medium- and heavy-duty vehicles, like buses and trucks, on the road, which will increase demand for vehicles powered by domestically generated electricity and other low-carbon fuel sources. Examples include:

California: CARB issued draft regulations for Advanced Clean Cars II (ACC II),¹⁷⁸ which would require all new cars and passenger trucks sold in the state to be ZEVs by 2035 and mitigate the air quality impacts of other vehicles on California's roads. CARB is drafting a medium- and heavy-duty zero-emissions fleet regulation with the goal of achieving a zero-emissions truck and bus fleet by 2045 everywhere feasible and significantly earlier for certain market segments such as last-mile delivery and drayage applications.¹⁷⁹

Delaware: Governor Carney announced that it will adopt California's zero-emissions vehicle (ZEV) regulations, providing drivers looking to purchase an EV with more choices at Delaware dealerships.¹⁸⁰

Hawai'i: Governor Ige signed Senate Bill 2720, which provides a rebate for new or upgraded Level 2 charging stations with one port, eliminates the annual cap on rebates, and increases the flexibility of the Public Utilities Commission program administration guidelines.¹⁸¹ Additionally, the Hawai'i legislature passed a resolution requesting that the Hawai'i State Energy Office convene a working group to examine issues and barriers to the installation of EV charging systems in multi-unit dwellings and make recommendations regarding changes to statutes, rules, or other guidance to help clarify and facilitate the installation of electric vehicle charging systems in multi-unit dwellings.182 Governor Ige also signed Senate Bill 2570, which provides incentives to further hydrogen vehicles on the road. This is especially important for medium- and heavy-duty vehicles like trucks and semis and other emerging innovative transportation technologies.¹⁸³

Maine: Published its *Clean Transportation Roadmap* to identify the policies, programs, and regulatory changes needed to continue decarbonizing Maine's

transportation sector through electrification, VMT reduction, and transportation equity.¹⁸⁴

Massachusetts: Governor Baker signed *An Act Driving Clean Energy and Offshore Wind* in August 2022, which requires all new vehicle sales in the state to be zero-emissions beginning in 2035. Additionally, there are \$3,500 rebates to incentivize purchasing or leasing new and used passenger ZEVs (including light-duty trucks) that cost less than \$55,000, and additional incentives of \$1,000 for trading in an international combustion engine (ICE) vehicle. Low-income buyers can receive an additional \$1,500 rebate.¹⁸⁵

Massachusetts,¹⁸⁶ New Jersey,¹⁸⁷ New York,¹⁸⁸ Oregon,¹⁸⁹ Washington:¹⁹⁰ These five states adopted California's Advanced Clean Trucks rule, setting regulation in place to facilitate greater zero-emissions medium- and heavy-duty vehicle adoption through manufacturer sales requirements.

New Mexico¹⁹¹ and Washington: ¹⁹² Both states adopted rules to allow statewide implementation of California's Advanced Clean Cars rulemaking, setting regulation in place to facilitate greater light-duty ZEV adoption through manufacturer sales requirements and mitigate air quality impacts of other vehicles on the states' roads.

North Carolina: Governor Cooper issued Executive Order No. 246 calling for an increase in registered ZEVs to at least 1,250,000 by 2030 and for 50 percent of new vehicle sales in North Carolina to be zero-emissions by 2030. The order also directed the development of a Clean Transportation Plan.¹⁹³

Puerto Rico: The Energy Bureau of the Puerto Rico Public Service Regulatory Board hosted a stakeholder workshop in September 2021 to begin the discussion around EV adoption trends and to encourage the deployment of the necessary infrastructure additions.¹⁹⁴

Washington: Governor Inslee signed transportation and operating budgets that invest over \$1 billion to facilitate mass market EV adoption, as well as a goal for all new car sales to be zero-emissions by 2030.¹⁹⁵

Expanding access to clean, affordable, and resilient transportation options

Alliance members are developing programs and regulations to increase investments in lower-carbon, multimodal, and affordable transportation options that improve efficiency and resilience while reducing the need for energy-intensive fuel production, importation, and consumption. Examples include:

California: Through its 2022–2023 budget, California is investing \$10 billion in ZEVs and \$13.8 billion in public transportation. 196

Colorado: Finalized and approved planning standards that would require the Colorado Department of Transportation (CDOT) and the state's five metropolitan planning organizations (MPOs) to ensure that projects included in state and regional transportation plans meet GHG reduction targets, which will increase investment in more sustainable transportation options across the state.¹⁹⁷

Connecticut: Governor Lamont signed the Connecticut *Clean Air Act*, PA 22-25, to develop and expand new programs and regulations to decarbonize the transportation sector, including expansion of the CHEAPR EV rebate program to give priority to low-income individuals and residents of environmental justice communities and include e-bikes for the first time.¹⁹⁸

Hawai'i: The Hawai'i Department of Transportation is now required to plan for sea level rise in all future or amended transportation projects under Senate Bill 2295. The bill also requires all Hawai'i Department of Transportation highway, harbor, and airport projects to conform to certain carbon concrete standards except in certain circumstances. Additionally, Governor Ige signed Senate Bill 3158 which establishes the Electric Bicycle and Electric Moped Rebate Program and subaccount to encourage the purchase and use of electric bicycles and electric mopeds. 200

Massachusetts: Governor Baker signed the state climate bill, *An Act Driving Clean Energy and Offshore Wind*, which establishes a Charging Infrastructure Deployment Fund to develop a plan for equitable EV charging.²⁰¹

Michigan: Governor Whitmer launched the Michigan Mobility Grant Platform to promote accessible transportation solutions in local communities across the state and accelerate EV adoption.

Minnesota: The Minnesota Department of Agriculture and Department of Transportation published a summary report of stakeholder feedback regarding a clean fuels standard (CFS) for Minnesota, which indicated support to further explore opportunities to support clean fuels, including through a CFS.²⁰²

Oregon: The Land Conservation and Development Commission adopted the Climate Friendly and Equitable Communities Rulemaking to reduce pollution, increase housing and transportation choice, and increase equitable land use planning outcomes in the cities and counties of Oregon's eight largest metropolitan areas.²⁰³

Washington: Governor Inslee signed a historic transportation package that invests more than \$6.2 billion over the next 16 years in clean transportation, including public transportation and walking and biking infrastructure, with requirements for directing spending to overburdened communities.²⁰⁴



Source: Anna Lising, State of Washington

Leading the way with zero-emissions public and government fleet adoption

Alliance members are taking action to decarbonize public fleets, helping expand the marketplace for ZEVs across all vehicle classes and shifting government procurement towards a domestic clean energy future. Examples include:

California: Governor Newsom signed legislation to establish the Medium and Heavy-Duty Zero-Emission Vehicle Fleet Purchasing Assistance Program to make financing tools and nonfinancial supports available to operators of medium- and heavy-duty vehicle fleets to help enable their transition to ZEVs, including support to small and microfleet operators.²⁰⁵ CARB is currently developing the advanced clean fleets (ACF) regulation, a medium- and heavy-duty zero-emissions fleet regulation that contributes to the goal of achieving a zero-emissions truck and bus fleet in California by 2045, where feasible.²⁰⁶ CARB is also updating its in-use off-road diesel-fueled fleets regulation to require further retirement of high-emitting off-road equipment.²⁰⁷

Colorado: Governor Polis signed Executive Order No. D 2022-016 to ensure future fleet purchases of all light-duty vehicles are EVs by default, as well as medium- and heavy-duty vehicles insofar as they are available in the market.²⁰⁸

Connecticut: Governor Lamont enshrined actions taken in EO21-3 by signing Public Action 22-5, requiring 50 percent of all cars and light duty trucks purchased or leased by the state to be battery electric vehicles by 2026, 75 percent by 2028, and 100 percent by 2030. It also requires the Department of Transportation to cease purchasing diesel buses by January 1, 2024 and develop a plan to implement zero-emissions buses statewide.²⁰⁹

Delaware: The Delaware Transit Corporation releases its first *Climate Action Plan* to illustrate how the agency will achieve 50 percent GHG emissions reductions by 2030 and maximize its resilience to climate change, including actions to transition its revenue and support fleets to EVs.²¹⁰

Maine: Governor Mills signed legislation to require, where practicable, that 50 percent of state light-duty fleet purchases be zero-emissions and plug-in hybrid vehicles by 2025 and 100 percent by 2030, 100



Source: State of Delaware

percent of county and municipal government lightduty fleet purchases be zero-emissions and plug-in hybrid vehicles by 2030, and 75 percent of school bus fleet purchases be zero-emissions buses by 2035.²¹¹

Maryland: Passed the *Climate Solutions Now Act of 2022*, which among other measures established ZEV requirements for the state fleet and local school buses and established an electric school bus pilot program to facilitate electric school bus adoption.²¹²

Washington: Governor Inslee signed Executive Order No. 21-04, requiring all light-duty state fleets transition to 100 percent battery electric vehicles by 2035, and medium- and heavy-duty state vehicle fleets transition to 100 percent battery electric vehicles by 2040.²¹³

Wisconsin: Wisconsin's *Clean Energy Plan*, released by Governor Evers in April 2022, includes directives for the state to work to transition its vehicle fleet to those that can utilize lower-emitting fuels or low to no emissions.



Policy priority area

Alliance members will partner with frontline communities to develop climate and clean energy solutions; provide training, facilitation, and funding that bolsters capacity and fosters leadership in those communities; and direct significant expenditures to create environmental and economic benefits for vulnerable and overburdened populations and grow family-sustaining jobs.

Actions across the Alliance: By the numbers

- 19 Environmental justice offices or interagency bodies
- 17 Environmental justice screening and policy tools
- 07 Just transition offices or interagency bodies

For up-to-date counts of actions from across the Alliance, go to: www.usclimatealliance.org

Without careful planning, transitioning to a netzero economy could lead to disproportionate impacts on workers and communities tied to carbon-intensive industries. At the same time, Black, Indigenous, and People of Color (BIPOC) communities have historically faced a disproportionate burden of climate impacts and fossil fuel pollution.²¹⁴ To help alleviate these systemic injustices, states are creating more participatory processes and practices across government, standing up new governance structures to shape equitable policies, and developing new metrics and tools to ensure an equitable distribution of benefits and investments across impacted communities.

Developing tools and criteria to advance equitable outcomes

Dashboards and screening tools can help disseminate information about climate action outcomes, identify and eliminate existing disparities, and expand economic diversification efforts to communities impacted by climate change. At the same time, the development of frameworks and criteria can help to ensure improved participatory practices, opportunities for input in climate change policymaking processes, and disbursement of resources. Examples include:

California: CalEPA launched its California Climate Dashboard that highlights state climate action and progress toward key targets. The state also released an improved and updated version of CalEnviroScreen, which maps communities with multiple sources of pollution and social disadvantage.²¹⁵

Colorado: The Colorado Department of Public Health and the Environment (CDPHE) developed Colorado EnviroScreen, which visually presents data about the disproportionate impacts of climate change and other environmental concerns for communities throughout the state. ²¹⁶ CDPHE also released a *Climate Equity Framework*, which lays out specific actions for CDPHE to guide the implementation of the state's ambitious air quality and climate policies and programs to advance equity and environmental justice. ²¹⁷ In addition, CDPHE signed an MOU with Region 8 of the U.S. EPA to coordinate enforcement and compliance actions that advance the environmental justice goals of both agencies. ²¹⁸

Maine: Enacted legislation adopting definitions of "environmental justice and frontline communities," which allows the Maine Public Utilities Commission (ME PUC) to consider giving priority to qualified intervenors representing environmental justice populations. This law also contemplates providing intervenor funding at the beginning of a proceeding, potentially providing better access to those parties that historically have not been able to participate effectively in matters before the ME PUC. The law further requires that persons in environmental justice populations and frontline communities are provided with fair and equitable access to the ME DEP's decision-making processes related to matters before the Board of Environmental Protection and the department's rulemaking authority.219

Michigan: The Department of Environment, Great Lakes and Energy's draft Michigan Environmental Justice Mapping and Screening Tool allows users to explore environmental, health, and socio-economic indicators. These indicators are guides to help identify where populations are more vulnerable and what challenges communities face, as well as provide data to move toward environmental equity in policy and decision-making.²²⁰

New Jersey: The New Jersey Department of Environmental Protection (NJ DEP) has enhanced its geographic information system (GIS) mapping application, creating a brownfields inventory mapping layer that makes valuable information about related sites easily accessible. The agency also announced grant funding and low-interest loans to carry out cleanup activities at brownfield sites throughout the state.²²¹

New York: The NY DEC is undertaking a historic air quality and GHG mobile monitoring initiative in 10 communities across the state, home to approximately five million New Yorkers—25 percent of the state's population—in areas overburdened by environmental pollution. Working in partnership with community-based organizations, the effort will map local air pollution and GHGs at the community level. The initiative is bolstered by an estimated \$3 million in state grant funding; \$1 million is currently available for Community Air Monitoring Capacity Building Grants, and an additional \$2 million in new funding will support community-led air monitoring to complement the state's efforts.

Pennsylvania: The PA DEP released a draft *Environmental Justice Public Participation Policy,* which strengthens language on how the agency oversees and participates in environmental justice priorities and reform with community partners.²²²

Washington: The legislature enacted a law negotiated between the governor and Tribes to give Tribes early notice of projects seeking capand-invest funding, creating a stronger, clearer process for government-to-government consultation, including direct dialogue and mediation between the governor and Tribal leaders when needed.²²³

Wisconsin: A coalition of state agencies began development of the Wisconsin Environmental Equity Tool, a comprehensive environmental and public health equity screening and mapping tool that will analyze and visualize data so government and Tribal agencies, community-based organizations, and the public can pinpoint Wisconsin's most impacted communities and better understand the challenges they face from pollution, a changing climate, socioeconomic factors, and other environmental and health hazards.²²⁴

Establishing and advancing environmental justice offices and councils

Dedicated professionals help to ensure that a just and equitable transition is included in all climate policies and programs. Over the past year, half a dozen Alliance members established or advanced the capacity and authority of environmental justice offices and councils. For example:

Connecticut: Governor Lamont signed Executive Order No. 21-3, establishing Connecticut's first Office of Climate and Public Health, the first Connecticut Equity and Environmental Justice Advisory Council, and the first Connecticut Clean Economy Council.²²⁵

Hawai'i: Governor Ige signed into law Act 33 to provide \$5 million for the green jobs youth corps to provide temporary work and training opportunities in the fields of natural resource management, agriculture, or other sustainability-related professions to young adults ages 38 and younger.²²⁶

Maryland: The Maryland Commission on Climate Change's Climate Justice team meets regularly and reviews Commission products and current work to ensure equity for all Marylanders. It also hosts training events to educate its members and interested parties on issues of climate justice.

Nevada: Governor Sisolak formed an environmental justice team in March, which is responsible for implementing the Justice 40 Initiative and ensuring equity and justice are central to climate planning for the state.²²⁷

New Jersey: The NJ DEP announced the expansion of the Office of Environmental Justice as well as the beginning of a regular series of on-the-ground

community engagement sessions designed to help inform the department's policy and actions with the goal of better protecting the environment and public health in overburdened communities.²²⁸

New York: New York's Climate Justice Working Group released draft disadvantaged communities criteria to advance climate justice. These criteria—subject to 11 public hearings during a public comment period—will guide the equitable implementation of New York's ambitious *Climate Leadership and Community Protection Act.*

North Carolina: Governor Cooper signed Executive Order No. 246, directing cabinet agencies to consider environmental justice when taking actions and budgeting related to climate change, resilience, and clean energy and to identify an environmental justice lead to serve as the point person for agency environmental justice efforts.²³⁰ In addition, each cabinet agency has developed a public participation plan to improve communication and transparency with the public in government decision-making, particularly with underserved communities.

Oregon: The Oregon legislature passed Governor Brown's legislation to foster environmental justice as Oregon continues to address the impacts of climate change on historically underserved communities.²³¹ HB 4077 expands the capacity of the Environmental Justice Council (formerly the Environmental Justice Task Force) with dedicated staff and funding and creates a centralized data and information hub to inform environmental justice.

Vermont: Governor Scott signed Senate Bill 148, which establishes an environmental justice policy for the state and requires state agencies to incorporate environmental justice into their work, rules, and procedures.²³² It also establishes the Environmental Justice Advisory Council and the Interagency Environmental Justice Committee to advise the state on environmental justice issues and requires the creation of an environmental justice mapping tool.

Washington: Building upon last year's *Healthy Environmental for All (HEAL) Act*, Washington launched its Environmental Justice (EJ) Council in April 2022 to advise and ensure state agencies center equity and environmental justice in all of the state's climate policies and programs.²³³

State agencies are also currently in the process of developing community engagement processes and plans for the EJ Council's review.

Wisconsin: On Earth Day 2022, Governor Evers signed Executive Order No. 161, which created the Office of Environmental Justice at the Wisconsin Department of Administration.²³⁴ The Office of Environmental Justice will work with the Office of Sustainability and Clean Energy to facilitate collaboration across state agencies to provide strategies to promote environmentally just policies and prevent disparate outcomes in communities across the state. Additionally, the WI DNR created a new environmental justice policy advisor position to work in partnership with the Office of Environmental Justice.²³⁵

Allocating resources to overburdened communities

Commitment of resources helps to ensure that programs can be implemented on the ground to advance economy-wide and sector-specific goals and help local communities—particularly those that have been historically overburdened—transition to a clean energy economy. For example:

California: California's Climate Investments (CCI) program administered 75,000 new projects and directed more than 50 percent of its \$2.1 billion annual budget to disadvantaged communities and low-income communities and households.²³⁶

Colorado: Governor Polis signed legislation (HB22-1394) directing \$15 million to the state's Office of Just Transition to improve economic and social impacts to communities impacted by the transition away from coal.²³⁷

Delaware: The Delaware Department of Natural Resources and Environmental Control (DNREC) launched a low- to moderate-income (LMI) solar pilot program to bring renewable energy to a segment of the Delaware population that has historically been underserved by existing state programs.²³⁸ For low-income households, the solar program is coupled with energy efficiency improvements and health and safety services provided by the U.S. DOE's Weatherization Assistance Program.



Source: Monona Community Media

Maryland: Maryland's Climate Solutions Now Act of 2022 directs the Maryland Department of the Environment (MDE) and the Commission on Environmental Justice and Sustainable Communities to "adopt a methodology for identifying communities disproportionately affected by climate impacts" and set a goal for the percentage of funds dedicated to meeting the state's emissions targets that benefit disproportionately affected communities by the end of 2023.²³⁹ To satisfy the requirements, MDE created its MDE EJ Screening Tool, which can drill down to community levels, based on data derived from the U.S. Census Bureau.²⁴⁰

New York: In approving a new framework to achieve at least 10 GW of distributed solar by 2030, the NY PSC approved a new framework to expand the state's successful NY-Sun initiative into one of the largest and most-inclusive solar programs of its kind in the nation. The framework will invest at least 35 percent of the benefits (with a goal of 40 percent) in disadvantaged communities and low- to moderate-income New Yorkers, create 6,000 additional jobs, and ensure workers associated with the construction of NY-Sun supported projects that are greater than 1 MW be paid the applicable prevailing wage.²⁴¹

Establishing training programs

Developing a diverse and robust clean energy workforce is critical to achieving climate goals. Over the past year, multiple states initiated workforce analyses, development, and training programs to engage all levels of society in climate mitigation and adaptation solutions. For example:

California: Governor Newsom committed \$600 million to the Community Resilience Fund to promote a sustainable and equitable recovery from COVID-19 that creates high-quality and accessible jobs that leverage state, federal, philanthropic, and private-sector investments to maximize recovery efforts and catalyze long-term economic resilience. The governor also committed California \$315 million of the 2022–2023 state climate budget to expand workforce training opportunities in climate-related fields—including a workforce pilot project and fund to oil and gas workers facing displacement, as well as goods movement training facility—and to support a low-carbon economy workforce. 243

Delaware: In April 2022, Governor Carney announced the creation of the Delaware Climate Leadership Academy, a training opportunity for state and local government staff to learn how climate change is impacting Delaware.²⁴⁴ The Academy, which is administered by DNREC in partnership with the Association of Climate Change Officers, provides training that teaches participants to integrate concepts of climate change mitigation and adaptation into their professional decision-making.

Maine: Governor Mills unveiled a new Clean Energy Partnership backed by \$6.5 million from the *Maine Jobs and Recovery Plan*, including \$2.9 million in funding to provide career training opportunities, like apprenticeships, that will equip Maine residents with the skills to find good-paying jobs in the state's growing clean energy sector.²⁴⁵ Maine also established its Climate Corps Program to provide grants, technical assistance, and training to community service corps programs with the mission of responding to the impacts of climate change.²⁴⁶

Maryland: Maryland joined the ranks of states that have expanded their youth conservation corps programs to encompass climate more broadly.²⁴⁷

Michigan: Governor Whitmer launched the EV Jobs Academy and the Mobility Talent Action Team to prepare Michigan's workforce for EV and component manufacturing jobs, invested in a new higher education program at the University of Michigan focused on research and workforce development for vehicle electrification, and expanded workforce development programs that put hundreds of thousands of Michiganders on free paths to higher education and job training.²⁴⁸

North Carolina: A workforce subcommittee on the state's NC TOWERS) is conducting a job skills analysis to identify the skills most needed to prepare individuals to work in the offshore wind sector.²⁴⁹ Additionally, Governor Cooper's Executive Order No. 246 created a workgroup to identify strategies for increasing diversity in climate change-related jobs. Through support from the NCDEQ, the North Carolina Business Committee for Education and North Carolina A&T launched the first clean energy youth apprenticeship program in the country. The program is in its second year and has engaged over 90 students, the majority of whom identify as students of color and attend low-wealth high schools.250 Building on the success of the youth apprenticeship program, the state was awarded a \$23.7 million American Rescue Plan Good Jobs Challenge grant to significantly grow the state's clean energy workforce training efforts.

Wisconsin: In his state budget proposal, Governor Evers recommended creating a green jobs training grant program at the Wisconsin Department of Workforce Development, which would provide grants for training programs for green jobs that produce goods or offer services that benefit the environment or conserve natural resources. The Evers Administration has also invested millions of dollars, including federal COVID-19 relief funds, in additional workforce initiatives that have climate benefits, ranging from solar panel installation training programs to academic programs on sustainable forestry management.²⁵¹



Policy priority area

Alliance members will integrate physical climate risk and prioritize climate adaptation and equity in state planning and decision-making to help communities prevent, reduce, withstand, and recover from climate-related impacts and disasters. States, which have varying needs and capacity, will utilize and share best practices to bolster resilience and tailor effective solutions.

Actions across the Alliance: By the numbers

- 20 Resilience or adaptation plans
- 15 Resilience offices or interagency bodies

For up-to-date counts of actions from across the Alliance, go to: www.usclimatealliance.org

Source: Washington State Governor's Office

Choosing not to plan, prepare, and adapt to the climate impacts and disasters ahead is no longer an option. Together states, cities, and communities must move swiftly to become more resilient. In doing so, they can save billions of dollars and make America's communities more vibrant, healthy, and prosperous. Pre-disaster, inclusive planning is an economic, societal, and ecological imperative.

Scaling funding to drive implementation

Alliance members have made significant strides in resilience planning and are ready to implement solutions that build equitable resilience across their states and for their communities. This move from planning to implementation, though, requires significant increases in funding and capacity, so Alliance members are thinking creatively about how to leverage funds and identify opportunities for synergy with disaster recovery dollars and pre-disaster resilience funding structures. Congressional action is also vital as it is a key to expanding and securing opportunities to plan and implement inclusive climate resilience solutions. Examples include:

Colorado: Governor Polis signed *Disaster*Preparedness and Recovery Resources (SB
22-206), which aims to establish two programs to
strengthen communities affected by natural and
climate disasters and incentivizes coordinated
statewide planning on climate change preparedness.
The bill allocates \$15 million to the Disaster
Resilience Rebuilding Program to provide loans
and grants to communities rebuilding following
disaster emergencies. Another \$20 million will be
allocated to the Disaster Recovery and Resilience
Program to provide resources to communities
rebuilding more-resilient homes and structures.²⁵²

Connecticut: As directed by Governor Lamont, CT DEEP released a straw proposal for its Climate Resilience Fund to provide up to \$30 million in state bonds funds for community climate adaptation and resilience planning and project development. These plans will build a resilience project pipeline to ensure Connecticut is ready for the historic federal investment in resilience with the passage of the Infrastructure Investment and Jobs Act and the Inflation Reduction Act. Per the governor's direction, this fund will direct at least 40 percent of its resources to where vulnerable populations reside and ensure the plans address the needs of those populations.

Louisiana: Governor Edwards announced a workforce development program that will identify and create more job opportunities in professional resilience operations using the \$440 million federal fund received for flood mitigation projects, with the goal to develop a skilled workforce that can support flood risk reduction and build resilience against future disasters.²⁵⁴

Maine: Governor Mills unveiled two community grant programs. The \$4.75 million Community Resilience Partnership provides grants and technical assistance to support local projects that reduce emissions, transition to clean energy, and increase resilience to climate impacts. As of April 2022, a total of 75 Maine communities benefited from \$2.5 million in awards. The \$20 million Maine Infrastructure Adaption Fund provides funding for municipalities to improve vulnerable water-related infrastructure, ensuring Maine communities become more resilient to the effects of climate change. As of July 2022, 13 communities have received \$19.9 million in awards.

Maryland: MDE is leading the development of a plan to plant and maintain five million native trees in Maryland by 2031 with support from the Commission for the Innovation and Advancement of Carbon Markets and Sustainable Tree Plantings and sister agencies DNR, MDA, and MDOT.255 The plan will focus on afforestation and urban tree planting in underserved areas, with the final plan due by October 2022. To support progress tracking, MDE is developing a tree data tracking platform that: 1) allows the public to register planting projects, 2) maintains all spatial and non-spatial data in a state-accessible geodatabase, and 3) publishes the spatial locations of these projects on a public-facing interactive online map. MDE is also building out a framework for state engagement with the carbon market, which will clarify additional avenues for private investment to scale tree planting and other restoration efforts in the state.

Michigan: Created and funded the High Water and Climate Resilient Infrastructure program to provide communities with infrastructure and planning grants that directly address the impacts and vulnerabilities presented by severe weather events.

New York: Governor Hochul announced a historic fiscal year 2022–2023 enacted budget, which includes significant investment in climate resilience and preservation. The budget includes a \$4.2 billion environmental bond act, \$400 million for the Environmental Protection Fund, and \$500 million in clean water infrastructure funding.²⁵⁶

North Carolina: Announced the Regions Innovating for Strong Economies and Environment (RISE) program, led by the North Carolina Office of Recovery and Resiliency and partnered with the



Source: Maine Governor's Office

North Carolina Rural Center and other nonprofit and government agencies. RISE received a \$1.1 million U.S. Economic Development Administration grant to support resilience primarily in the storm-impacted regions of North Carolina. The program provides resources and training to further develop community resilience by holding leadership training workshops, offering various tools and guides, and supplying coaching and technical assistance to regional partners for better support with community vulnerability assessments and resilience actions.²⁵⁷

Vermont: Governor Scott signed *An Act Relating to Municipal Energy Resilience Initiatives* (H.518), establishing a \$5 million grant program for municipalities to receive recommendations on the use of more-efficient heating systems and to make necessary improvements to reduce fossil fuel use and increase efficiency in municipally owned buildings. This act also establishes the Municipal Energy Loan Program to provide financing to municipalities for equipment replacement, studies, weatherization, construction of improvements affecting the use of energy resources, the implementation of energy efficiency and conservation measures, and the use of renewable resources.²⁵⁸

Washington: Governor Inslee secured more than \$170 million over the next few years to build solar and storage systems to enhance grid resilience, prioritizing community centers to provide overburdened communities shelter, plug load, and refrigeration during outages.

Centering equity and equity-based solutions in resilience agendas

To increase social equity in building resilience, Alliance members have committed to centering equity, environmental justice, and a just economic transition in their efforts to achieve their climate goals and create high-quality jobs. Alliance members are developing climate resilience plans that consider adaptive capacity and impacts on the whole community—especially lower-income, minority, or otherwise vulnerable communities. By embedding equity across agency authorities and including language that prioritizes community resilience and social equity, the states are building climate resilience for the whole community. Examples include:

California: In April 2022, the Newsom Administration launched California's *Climate Adaptation Strategy*, which highlights the importance of equity-centered resilience action and social equity. Specifically, it emphasizes the need for stronger public health and safety protections for climate-vulnerable communities as a part of six strategy priorities.²⁵⁹ Later in the month, the state also released its *Extreme Head Action Plan* with the aim to protect its communities from rising temperatures. The plan utlines strategic and comprehensive resilience planning and actions to prepare for extreme heat, capturing the priorities of California's *Climate Adaptation Strategy*.²⁶⁰

Colorado: Developed the Rural Roadmaps Program with the purpose of advancing strategies for impactful COVID-19 community and economic recovery and resilience against future disasters. The initiative,

housed within the Colorado Resiliency Office (CRO), is led by 16 regional community teams made up of 165 rural jurisdictions and nonprofit partners. The program is supported by a state partnership team to ensure these rural regions receive technical assistance and implementation support for local priorities.²⁶¹

Maryland: Released the Maryland Climate
Adaptation and Resilience Framework
Recommendations, an update to the state's
adaptation plan that aims to guide and prioritize
action over the next 10 years, specifically in vulnerable
and underserved communities.²⁶² The framework
addresses sector-specific adaptation needs and
opportunities as well as considers overarching issues
that impact all sectors, specifically: diversity and
environmental justice, climate jobs and training, and
local government action and state service delivery.

Massachusetts: As a part of the Massachusetts Municipal Vulnerability Preparedness program, the state offers educational resources on the intersection of climate resilience, environmental justice, and equity and has been holding webinars centering environmental justice, equity, and community engagement in building climate resilience.²⁶³

Nevada: Governor Sisolak announced his leadership team responsible for developing the statewide strategy for dealing with extreme heat. This team will also engage with the governor's newly formed environmental justice team.²⁶⁴

New Jersey: Released the *Climate Change Resilience Strategy*, as directed by Executive Order No. 89 issued in October 2019. The strategy outlines six policy priorities including building a healthy and resilient community and coastal resilience planning by incentivizing and supporting community resilience projects. The strategy is a first step of a years-long effort of New Jersey building more-resilient communities and will be regularly updated years ahead.²⁶⁵

New York: Released interim recommendations for immediate action to help address the impacts of extreme heat on disadvantaged communities and other New Yorkers vulnerable to the effects of increasingly high temperatures driven by climate change. Directed by Governor Hochul, more than 20 state agencies are collaborating to

develop an Extreme Heat Action Plan, develop an extreme heat-specific update to the *State Emergency Response Plan*, and coordinate interagency investments to prioritize assistance to disadvantaged communities on the frontlines of climate change-driven extreme heat vulnerability.

Wisconsin: Governor Evers created a state-level chief resilience officer, as part of the newly-announced Office of Environmental Justice, who will be charged with leading the administration's efforts to integrate resilience planning across state agency programs and assisting local government and Tribal Nation leaders in implementing climate resilience programs and projects in their communities to protect people and properties.²⁶⁶ Wisconsin is the first state in the Midwest to create a state-level chief resilience officer position.²⁶⁷

Developing and improving resilience metrics, indicators, and standards to track progress and drive decision-making

Climate resilience action is an iterative process that requires the use of metrics that track processes, outputs, and community outcomes. Alliance members are developing metrics that can be used to evaluate and align efforts to advance a state's climate resilience vision. These metrics are a critical piece to climate resilience, as they can justify and scale funding for projects and programs that strengthen inclusive, equity-centered resilience planning. Examples include:

California: Insurance Commissioner Ricardo Lara and state agencies issued Safer from Wildfires, a new insurance framework that provides a list of achievable and effective actions that can prevent wildfires, reduce wildfire risks, and measure resilience progress against wildfires. The California Natural Resources Agency (CNRA) in April 2022 released the California Climate Adaptation Strategy outlining California's approach to building resilience across the state. It brings together in one place nearly 150 climate adaptation actions from existing state plans and strategies, and for the first time, introduces success metrics and timeframes for each action. 269

Colorado: Governor Polis signed HB22-1249, the *Electric Grid Resilience and Reliability Roadmap*, requiring the CEO and CRO to create a grid

resilience and reliability roadmap and post a completed draft by July 1, 2024. The roadmap will provide the community the benefits of microgrids in improving grid resilience and reliability, identify high-risk communities that need to be prioritized for microgrid projects, address existing and potential threats, and recommend any necessary legislative changes for projects.²⁷⁰ Colorado also passed the *Microgrids For Community Resilience Grant Program*, which will provide \$3.5 million to build community resilience through microgrids in rural areas.²⁷¹

Hawai'i: Governor Ige signed Senate Bill 1436 to expand the authority of the counties to regulate the transfer of development rights to help protect areas vulnerable to sea level rise, coastal erosion, storm surge, and flooding, thereby facilitating the potential movement of development away from at-risk areas to locations more appropriate for development.²⁷²

Maryland: In partnership with the University of Maryland Center for Environmental Sciences - Integration and Application Network (UMCES-IAN), Maryland developed the first Coastal Adaptation Report Card. The report card is a suite of indicators to track Maryland's adaptation progress. UMCES-IAN reviewed existing adaptation metrics and developed a new series to track progress towards state resilience goals. The report card provides a high-level overview to decision and policymakers, including a thorough methodology providing the scientific rationale for the indicators, their thresholds, and the data used to calculate the scores.

Massachusetts: Massachusetts is currently working on its statewide climate change assessment to evaluate the risks of climate change to the commonwealth, including public and private assets, natural resources, and human health and safety. The MA Climate Change Assessment is anticipated to be complete in October 2022. This assessment will directly inform the first five-year update to the State Hazard Mitigation and Climate Adaptation Plan that will be released in fall 2023.²⁷³

Minnesota: Minnesota's Resilience & Adaptation Team established a resilience metrics working group with state agencies to identify climate strategies, policies, and actions that can be used as a resource to connect and inform communities in the future.²⁷⁴

North Carolina: Governor Cooper issued Executive Order No. 266 to improve the resilience of new state buildings.²⁷⁵ The order directs the state's Department of Administration (NC DOA) to work with stakeholders to update the state's *Floodplain Management Policy* within 18 months, which will apply to buildings in a floodplain or otherwise at risk of flooding. NC DOA also will apply the policy to state-funded buildings (not just state-owned buildings) where feasible.

Puerto Rico: Governor Pierluisi requested the Committee of Experts and Advisors on Climate Change to submit specific recommendations to correct, mitigate, and prevent the effects of climate change on the coasts "that promote conservation and sustainable socioeconomic development." In addition, Pierluisi announced that the Department of Natural and Environmental Resources signed a collaborative agreement with the Aguadilla Campus of the University of Puerto Rico and the Vida Marina organization for the ecological restoration of dune areas and conservation of coastal ecosystems.

ALLIANCE RESOURCE SPOTLIGHT

Achieving an effective state-level climate resilience agenda

During COP26, the Alliance released its 2021 Governors' Climate Resilience Playbook, which outlines 12 foundational steps to set and achieve an effective state-level climate resilience agenda. 276 Updating the earlier 2018 playbook based on U.S. Climate Alliance member feedback, this new edition of the playbook serves as a key resource for practitioners across the climate resilience field and provides guides on how to effectively build and expand climate resilience against natural disasters.



Natural and working lands

Policy priority area

Alliance members will scale best practices for land management, restoration, and conservation to contribute to emissions reductions and carbon sequestration and storage at the scale needed for deep decarbonization. Where appropriate, integrate NWLs into state mitigation and resilience plans with ambitious goals, center equity, and prioritize NWL policies and programs that deliver multiple benefits.

Actions across the Alliance: By the numbers

- 15 NWL in state GHG inventories
- 11 Healthy soils legislation
- 11 NWL conservation or sequestration goals

For up-to-date counts of actions from across the Alliance, go to: www.usclimatealliance.org

Source: Oregon Governor's Office

Natural and working lands (NWL) is a complex sector, representing multiple land types with varying ownership and management, and which collectively remove carbon dioxide from the atmosphere and reduce net GHG emissions. In 2020, NWLs offset 13 percent of Alliance-wide GHG emissions. Because of the scope and diversity of the sector, it is critical that states continue to push no-regrets land management, conservation, and restoration strategies that build resilience and support equitable access to nature while reducing emissions and increasing carbon storage and sequestration.

Expanding innovative funding, financing, and partnership to drive transformative natural climate solutions

While most Alliance members have standalone NWL plans or incorporate NWLs in climate action or resilience plans, Alliance members are shifting the focus on NWLs in traditional climate conversations by elevating innovative funding and financing mechanisms for swift, multi-benefit NWL management, conservation, and restoration efforts. Examples include:

California: California's first *Natural and Working Lands Climate Smart Strategy* was released in
April 2022 and will drive implementation of Governor
Newsom's Executive Order No. N-82-20 to restore
nature and landscape health to deliver on the state's
climate change goals.

Colorado: Governor Polis signed HB21-1181, which authorizes the Colorado Department of Agriculture to develop the Colorado Soil Health Program, funded by state stimulus dollars, non-point-source pollution and other water funding, as well as grants from nonprofits and federal agencies. The program provides financial and technical assistance to producers as they implement new climate-smart practices over three years and consider adopting them across their operation.

Delaware: Governor Carney launched a new program that aims to plant a tree for every Delawarean as part of the state's efforts to reduce GHG emissions.277 This initiative is an important strategy in Delaware's Climate Action Plan to support local communities' enhancement of urban greenspaces and mitigate carbon emissions. The DNREC and the state's Department of Agriculture partnered to develop a new website for residents to access information on selecting, planting, and caring for trees. In addition, residents, nonprofits, and municipalities can visit de.gov/tedi to enter information and photos documenting plantings to help count the trees planted throughout the state through this initiative. To date, \$200,000 in state funding has been allocated to support community tree plantings and grants for partners implementing larger reforestation projects.

Hawai'i: Governor Ige signed SB3325, which establishes the Hawai'i Carbon Smart Land Management Assistance Pilot Program, which will



Source: Wisconsin Governor's Office

incentivize carbon sequestration activities through incentive contracts that provide compensation for eligible practices by program participants.²⁷⁸ The Hawai'i legislature also amended Section 205—2, Hawai'i Revised Statutes to allow composting in agricultural districts to facilitate the production of local organic material that farmers can use to improve soil health, increase drought resistance, and reduce the need for supplemental water and fertilizers while also increasing crop yields.²⁷⁹

Maine: Is conducting a soil carbon incentives analysis to develop recommendations to promote and incentivize practices that increase and enhance the sequestration of soil carbon on NWLs and inform the development of the state's Healthy Soils Program, which was established in 2021.²⁸⁰

Maryland: Maryland's Conservation Finance Act (SB0348/HB0653) is a nation-leading law that results in a comprehensive suite of changes to state contracting law, environmental funds, and green infrastructure programs that will help achieve Maryland's Chesapeake Bay, forest conservation, climate, and environmental justice goals without increasing the state budget.²⁸¹ Projects such as wetlands restoration and other nature-based initiatives are now eligible for traditional infrastructure financing, and the law leverages private financing to ensure public funds are used more quickly and cost-effectively.

Minnesota: In early 2022, Minnesota released its draft *Climate Action Framework*.²⁸² Goal 2 of the framework is focused on climate-smart NWLs and has a priority action of investing in new markets and supply chains that increase carbon storage. To

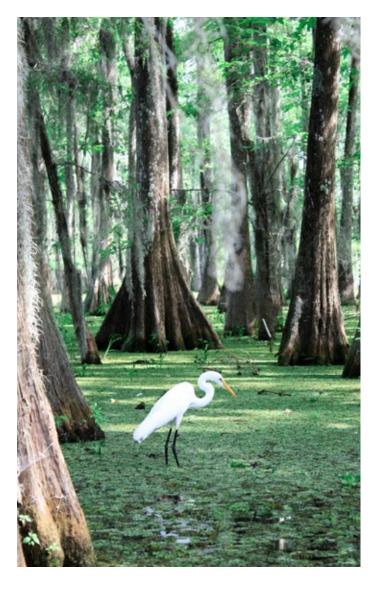
advance this action, Minnesota is working to mitigate the devastating impacts of the emerald ash borer—an invasive and deadly pest—on ash trees, and to fortify the vital ecosystem services that these trees provide, including carbon sequestration. As part of this effort, the state will develop a carbon protocol to be able to leverage carbon credits as a strategy to incentivize and finance the long-term preservation of ash trees.

New Mexico: In 2021, New Mexico's Energy, Minerals, and Natural Resources Department's Forestry Division established a Tribal working group to facilitate greater collaboration on landscape restoration among Tribes, state, federal, and other agencies. The working group has already coordinated over \$1.5 million in funding through innovative partnerships, including for invasive species management and wildland fire burn restoration.²⁸³

Puerto Rico: The Department of Natural and Environmental Resources (DNER) signed an agreement with the EcoCulture group that will enable the reforestation of 20 hectares of the Northeast Ecological Corridor.²⁸⁴ The first three-year phase of the project will plant approximately 2,000 trees per hectare with a long-term restoration goal of 125 hectares.

Washington: Washington Department of Natural Resources is looking to make a substantial investment in the state's forests, pledging to preserve or restore two million acres of trees by 2040.²⁸⁵

Wisconsin: Governor Evers announced that more than 9.3 million trees have been planted in Wisconsin since committing to the Trillion Tree Pledge, an effort led by the World Economic Forum and American Forests. On Earth Day 2020, Governor Evers signed Executive Order No. 112, pledging to plant 75 million new trees in rural and urban areas and conserve 125,000 acres of forest in Wisconsin by 2030.²⁸⁶ This pledge is being achieved and advanced in close collaboration with public, private, and non-governmental partners and is expected to result in 28.8 million metric tons of carbon dioxide stored over the next 50 years.



Improving NWL analysis and accounting for net-zero implementation

As states plan for their near-term and midcentury climate goals, they are working to improve inventory and accounting methods for land-based carbon flux and advancing programs, policies, and incentives to reduce GHG emissions and enhance resilient carbon sequestration and storage. Alliance members are trying to better understand how much NWLs contribute to overall state carbon budget, as NWLs can both contribute to a state's emissions profile and they can sequester and store carbon. Beyond that, states are focused on advancing policies that increase the NWL carbon sink in a resilient manner given each state and region's unique biophysical conditions. Examples include:

California: CARB's *Draft 2022 Scoping Plan Update* includes for the first time a thorough accounting of sources and sinks from the NWL sector, which will be critical in achieving carbon neutrality no later than 2045.²⁸⁷

Colorado: Colorado's Natural and Working Lands Strategic Plan will be published in fall 2022. During its development, state staff identified several gaps in inventory and accounting expertise within state agencies. To begin to meet this need, HB22-1012 provides resources for a new forest carbon accounting position in the Colorado State Forest Service. This technical expert will assist the state, industry, and landowners with forest carbon inventories and monitoring.

Maryland: Maryland is utilizing the best available soil carbon science to improve the resolution of annual agricultural soil fluxes in the state's inventory. This pioneering effort is in direct alignment with recommendations included in the state's 2021 annual report and will be critical to meeting Maryland's 2045 net-zero goal.²⁸⁸

New Jersey: The NJ DEP announced \$15 million for a new blue and green carbon grant program that will support projects that create, restore, and enhance salt marshes, sea grass beds, forests, and urban parks. The grant program is funded through auction proceeds the state has received through RGGI.²⁸⁹ This funding helps to advance the state's first-ever NWL strategy—to be released in late 2022—with tangible projects and efforts on the ground and in communities, especially those that have borne a disproportionate share of environmental inequities over the years.²⁹⁰

Oregon: In late 2021, the Oregon Global Warming Commission delivered its *Natural and Working Lands Proposal* to Governor Brown.²⁹¹ The proposal sets a goal for Oregon to sequester at least an additional five million metric tons of carbon dioxide equivalent (MMTCO_{2e)} per year in Oregon's NWLs and waters by 2030, and at least 9.5 MMTCO_{2e} per year by 2050 relative to a 2010–2019 activity-based, business-as-usual net carbon sequestration baseline.²⁹² The commission recommends that the NWL outcome-based goal should be separate from, and in addition



Source: Nevada Governor's Office

to, Oregon's sector-based emissions reduction goals as established by the legislature and updated in Governor Brown's Executive Order No. 20-04.

Avoiding conversion and smart land use planning

Given that management and protection of existing habitat is often easier and cheaper than ecosystem-scale restoration, Alliance members are focused on how they can center climate and carbon in key, often cross-cutting land use, planning, and development conversations. Alliance members are working to aggregate and advance best practices and cross-cutting policies to avoid the conversion of lands so that land carbon storage is maintained and enhanced over time. Examples include:

California: CNRA finalized the *Pathways to 30x30 Strategy* in April 2022, the state's blueprint for implementing Governor Newsom's nature-based solutions Executive Order No. N-82-20, with the goal of conserving 30 percent of California's lands and coastal waters by 2030.²⁹³

Illinois: The Illinois 30 by 30 Conservation Task Force was signed into law in August 2021 to achieve the goal of protecting 30 percent of Illinois lands and waters by 2030 in response to land development and conversion.²⁹⁴ The task force has held listening sessions on tools and resources for landowners and private industry to manage resources responsibly and restore natural areas and access to private, public, and philanthropic



Source: Delaware Governor's Office

funding to protect key areas and manage protected lands. The outcomes of such listening sessions and other recommendations will be compiled into a report for the governor and General Assembly.

Louisiana: The state's first ever *Louisiana Climate Action Plan*, released and approved in January 2022, sets a target for conserving or protecting 30 percent of Louisiana's interior natural lands by 2030.²⁹⁵

Michigan: The state's *MI Healthy Climate Plan* puts forth a bold agenda for protecting Michigan's land and water, including setting a 30-by-30 goal and other protections for wetlands, waterways, soils, and public and privately owned forests to avoid land conversion and degradation and prioritize land uses that reduce GHG emissions.²⁹⁶

New York: Governor Hochul signed the *Soil Health and Climate Resiliency Act* to enhance and maintain the health of soil on farms to improve farm productivity, protect natural resources, reduce the effect of farming on climate change, and mitigate the impact of climate change on farming.²⁹⁷ The Soil Health Initiative within the bill encourages farmers in urban, suburban, and rural communities to adapt soil health practices to optimize soil health, while the Climate Resiliency Initiative encourages the mitigation of GHG emissions on farmland and promotes the adaptation of farmland to projected climate change impacts.

North Carolina: The state's Natural Heritage Program and Department of Public Safety partnered to identify prison property with a high resilience value. The state then converted 44 acres of land at a prison facility to a dedicated natural area to ensure long-term restoration and preservation of critical wetland habitat. The agencies are currently working together to establish dedicated nature preserve agreements at several additional facilities.

Puerto Rico: Governor Pierluisi signed an executive order protecting El Yunque National Forest and its ecosystem.²⁹⁸ At nearly 29,000 acres, it is one of the smallest in land area, but is also one of the most biologically diverse national forests. Through the order, the Puerto Rico DNER will collaborate with the Forest Legacy Program of the U.S. Forest Service to identify opportunities and locate properties that connect El Yunque with the Northeast Ecological Corridor Nature Reserve so that they can be protected by said entity, to achieve a sustainable road system from an ecological and economic point of view.

Wisconsin: Wisconsin's first ever *Clean Energy Plan*, released by Governor Evers in April 2022, includes a recommendation for state agencies to work with local governments to implement sustainable land use planning.²⁹⁹

Incorporating NWLs into state climate goals

In fall 2022, the Alliance will publish a NWL state guide, *Natural and Working Lands and Climate Action: A State Guide to Enhance the Sector's Contribution to State and National Climate Goals.* The goal of this resource is to support states in scoping, setting, and implementing ambitious and effective NWL goals/targets and better integrating this sector with economy-wide climate goals/targets.



Policy priority area

Alliance members will consider societal and environmental impacts of GHG emissions and climate change, including SC-GHG, across relevant policymaking and decision-making processes, and guidance from the federal government's Interagency Working Group on the Social Cost of Greenhouse Gases and the academic and scientific communities.

Actions across the Alliance: By the numbers

- 17 Social cost of GHG in policymaking
- 12 Carbon market participation

For up-to-date counts of actions from across the Alliance, go to: www.usclimatealliance.org

The social cost of GHGs (SC-GHG) represents the present value of the costs associated with emitting one additional ton of GHG emissions in the future. It considers impacts such as changes in net agricultural productivity, human health effects, property damage from increased flood risk and other natural disasters, disruption of energy systems, risk of conflict, environmental migration, and the value of ecosystem services. Essentially, the SC-GHG is a tool that policymakers can use to help understand the monetary benefits of reducing GHG emissions.



Source: Governor's Office of Wisconisn

Valuing damages caused by climate pollution

States have typically utilized SC-GHG in electric power sector planning and resource compensation but are now looking to follow the federal government's lead and expand its use across all relevant agencies. This will allow them to justify strong environmental policies across all sectors and allocate funds more effectively by considering the true cost of climate change damages. Over the past year, many states have expanded their use of the SC-GHG to help inform planning and regulatory actions. Examples include:

California: In its 2022 Draft Scoping Plan, CARB included estimates of the avoided climate damages resulting from each of its scenarios, and compared that to other characteristics of each scenario, including direct costs, health benefits, economic growth rate, and job growth rate, among others.³⁰⁰ CARB also made these estimates for individual measures, including those that address methane emissions and NWLs, allowing state officials to understand the economic benefits of different climate actions.

Colorado: Steel and cement facilities complying with Colorado's GEMM rule are required to utilize SC-GHG as the cost-effectiveness threshold for reduction measures being proposed as part of the GEMM rule's audit requirements.³⁰¹ The GEMM rule reduces risk of future devaluation of SC-GHG by setting a floor for the minimum value to be used in the rule. Additionally, Governor Polis's Earth Day Executive

Order No. D 2022 016 established new goals to reflect the state's continued commitment to efficient and sustainable government operations. Relevant agencies and/or departments are now directed to identify and pursue energy efficiency improvements and HVAC systems for state buildings that are cost effective when comparing the net-present value energy costs and the costs of GHG emissions using the social cost of carbon and methane.

Delaware: At the request of DNREC, the University of Delaware's Special Initiative on Offshore Wind conducted an analysis of market trends, economic viability, and technical obstacles and options for the possible procurement of offshore wind to serve Delaware.³⁰³ This report found that not only does projected offshore wind power pricing fall within the range of wholesale power being purchased for Delaware now, but that offshore wind power costs less than half of Delaware's current electricity supply when the social costs of health and climate impacts are included. DNREC will continue to study and evaluate all the options and the technical challenges involved in connecting offshore wind to the power grid.

New York: The state's *Draft Scoping Plan*, released December 2021, utilized SC-GHG to help compare the costs (net system costs) and benefits (avoided GHG benefits and health benefits) of its three alternative scenarios developed to achieve the state's climate goals. ³⁰⁴ The NY DEC also utilized SC-GHG to compare costs and benefits of recent regulations related to Advanced Clean Trucks³⁰⁵ and the oil and natural gas sector³⁰⁶ information that will support development of new HFC rules—and is currently developing social cost values for sulfur hexafluoride. ³⁰⁷

North Carolina: Governor Cooper's Executive Order No. 246 directed the Governor's Office to release guidelines for including and considering the federal Interagency Working Group's (IWG) updated SC-GHG estimates in specifically identified cabinet agency decisions and actions.³⁰⁸ The executive order also notes that agencies shall follow the guidelines within the timeframe provided by the guidelines and consistent with applicable law. These guidelines are due within 90 days of the publication of the IWG's updated SC-GHG estimates.

Wisconsin: In his state budget proposal, Governor Evers recommended requiring the Public Service Commission to consider the social cost of carbon in approving utility construction projects, such as those for electricity generation facilities and transmission lines.

ALLIANCE RESOURCE SPOTLIGHT

Supporting states and the social cost of GHGs

In August 2022, the Alliance and New York University's Institute for Policy Integrity published a state guide to help inform and support the use of SC-GHG. This guide provides background on SC-GHG and how states have used it to date, the legal authority required for a government to use SC-GHG to inform different types of analyses or decisions, and the applications of SC-GHG to policymaking and regulatory decision-making in different types of decision or analysis.

In the years ahead

Alliance members will continue to collaborate to advance our shared priorities and build a durable climate framework that can be adopted and tailored by other states and the federal government. This includes efforts to improve the data, methodologies, and tools utilized by states for more robust policy decision-making and communication of progress. At the same time, Alliance members will work together across our eight policy priority areas to put our 2030 climate goals within reach, including:

Power: Continue implementing IIJA programs in the year ahead, particularly those related to modernizing the power grid, and respond to and implement U.S. EPA power sector regulations and FERC transmission-related rulemakings.

Buildings: Adopt net-zero codes, state building performance standards, gas system planning, clean heat standards, and next-generation appliance and equipment standards. The Alliance will also coordinate to strategize ways to achieve net-zero goals in state-owned buildings and facilities.

Industry: Develop and greatly expand policies that directly target industrial carbon dioxide to meet long-term climate goals. This will require developing industry-specific recommendations in climate action plans and state energy plans, establishing GHG reduction targets for specific industries, and accounting for industrial fuel-switching in utility resource plans.

Transportation: Adopt regulations and programs that accelerate the equitable transition to ZEV technologies, particularly Advanced Clean Trucks, Advanced Clean Cars II (once approved), and through other incentive and rebate programs. Alliance members are also looking to expand access to ZEVs and public EV charging infrastructure and expand access to clean, affordable, and efficient multimodal transportation networks that provide additional travel options beyond driving.

Just transition and equity: Continue working to embed principles of a just and equitable transition and center equity across all climate policies and engaging with impacted communities to develop new tools, programs, and metrics to ensure an equitable distribution of investment and benefits.

Resilience: Measure the effectiveness of strategies, programs, and policies to build the resilience of our systems, especially those communities on the frontlines of a changing climate. The Alliance will continue to elevate and prioritize resilience alongside GHG mitigation so that our mitigation strategies have lasting impact.

Natural and working lands: Improve the modeling and analysis of NWL carbon budgets and fluxes, and map out pathways and policies to reach Alliance as well as federal midcentury net-zero goals.

Social cost of GHGs: Work together with the federal government and outside experts to build capacity across state agencies on how to utilize SC-GHG and where needed, develop and utilize new tools.



Deepening and expanding the state-federal partnership on climate

With an administration committed to climate action now in office, Alliance members and the federal government have embarked on a new kind of partnership—one rooted in collaboration, teamwork, and mutual support to drive climate solutions forward.

The Biden-Harris Administration and Alliance governors agree that achieving the nation's climate goals at the scale and speed necessary will require bold and immediate action at both the federal and state levels. As U.S. EPA Administrator Michael S. Regan has said, "Our partnership with states has never been more important to reduce emissions and deliver solutions." 309 Together, the federal government and Alliance members are working across levels of government to forge a strong, interconnected national climate framework that builds on both federal and state leadership to confront the climate crisis and build the clean energy economy of the future.

The Alliance has deepened and expanded its federal engagement by working directly with the White House and federal agencies through letters, webinars, and roundtables on program and policy implementation; consulting and informing federal rulemakings and tool development; working to secure additional authorities and flexibilities for climate-leading states; and where appropriate, pressing for federal investments in climate and clean energy that are commensurate with the climate crisis and the rapid transition that is needed. With the passage of the \$1.2 trillion *Infrastructure Investment and Jobs Act* (IIJA) and \$369 billion in new spending on domestic energy security and

climate action through the *Inflation Reduction Act* (IRA), Alliance states are leading efforts to ensure this funding is deployed in a manner that maximizes opportunities for economic development, job growth, climate mitigation, adaptation, and justice and equity.

As made clear by the U.S. Supreme Court's decision in *West Virginia v. EPA*, federal action is limited under current law and cannot solve the climate crisis alone. Within the limitations of existing authorities, the Alliance will keep engaging our federal partners and urge them to take the strongest regulatory action possible. Equally important, Alliance states will continue working with the Biden-Harris Administration to ensure states have the tools and flexibilities necessary to continue driving the next generation of state-level climate solutions—including by harnessing new resources under IIJA and IRA—which is essential to ensure our national climate framework is sufficiently durable, impactful, and ambitious. Below are just a few examples that illustrate the breadth and depth of this state-federal partnership:



Source: Office of New Jersey Governor Phil Murphy

Engaging the Biden Administration to deliver bold federal climate actions

Alliance members urged the administration to strengthen federal programs and regulations to better address climate change and center equity, and also leaned on agency expertise to inform their own actions:

- Encouraged the strengthening of the Climate and Economic Justice Screening Tool to center equity and environmental justice (CEQ)³¹⁰
- Urged more stringent corporate average fuel economy (CAFE) standards (NHTSA) and heavyduty engine and vehicle standards (U.S. EPA)
- Co-hosted regional listening sessions to meet the new U.S. DOE regional specialists, provide feedback on state priorities, and identify areas where DOE could support states
- Provided feedback on proposed rulemakings related to regional transmission planning, cost allocation and interconnection (FERC), the Reducing Climate Pollution from New Gas-Fired Turbines whitepaper (U.S. EPA), and approaches for potential power plant regulations and the impact on states (U.S. EPA)
- Engaged federal officials on the impacts of climate change in the agricultural sector and federal funding opportunities (NRCS) and priority issues in transitioning government fleets (CEQ)

Empowering states to lead

Alliance members worked closely with the Biden administration on groundbreaking new tools, authorities, and flexibilities to enable state-level leadership on climate:

- Reinstated California's authority under the Clean Air Act to implement its own GHG emissions standards for cars and light trucks (U.S. EPA)³¹¹
- Published the first ever inventory of U.S. GHG emissions and sinks by state and state-level opportunities to reduce non-CO₂ emissions (U.S. EPA)³¹²
- Initiated development of a consumption-based GHG emissions inventory tool for states (U.S. EPA)
- Established a federal-state partnership with East Coast Governors on offshore wind³¹³
- Developed the American Conservation and Stewardship Atlas that supports 30x30 goals (U.S. DOI)
- Issued the America the Beautiful Challenge that streamlines grant funding opportunities for new conservation and restoration projects (NFWF)

Maximizing climate action under the Infrastructure Investment and Jobs Act

The Alliance is developing and executing an ambitious strategy for states to maximize the climate benefits of new federal infrastructure investments, including engagement with the administration on:

- Remediation of abandoned and orphaned wells (U.S. DOI)
- National Electric Vehicle Infrastructure Formula Program (U.S. DOT and U.S. DOE)
- Various programs to strengthen resilience and coastal communities (NOAA)
- Clean School Bus Program (U.S. EPA)
- Carbon Reduction Program (U.S. DOT)
- Climate-smart commodities (USDA)

Securing federal climate investments and pressing for reforms

The Alliance called for the federal resources necessary to address the climate challenge, at a level commensurate with the crisis we face and in an effective and accessible manner for states:

- Recommended reforms to federal funding programs from the perspective of small and resource-constrained Alliance states (Congressional leadership and OMB)
- Urged Congress to swiftly pass a robust package of climate and energy investments, culminating with passage of the the *Inflation Reduction Act*, the largest climate investment in American history³¹⁴



Source: Environmental Protection Agency

Climate success stories across the Alliance

U.S. Climate Alliance members are cutting emissions, accelerating climate action and policies, building resilience to the impacts of climate change, and promoting clean energy deployment at the state level. Here we highlight some of the bipartisan climate solutions deployed by each of the Alliance members to safeguard public health, grow their economy, and secure a just and equitable net-zero future.



California

marks a clear path to state carbon neutrality by 2045



makes transformational climate and air quality investments

Connecticut

celebrates a 100% zerocarbon electric supply

Delaware

races toward achieving GHG reduction and other climate goals



Hawai'i

keeps forests and farmlands intact and sequesters carbon



accelerates the affordable EV transition



is on the path toward net-zero emissions by mid-century



positions all communities for success in achieving a clean economy



Maryland

adopts the most ambitious nation-leading climate targets



Massachusetts

releases Clean Energy and Climate Plan for 2025 and 2030



Michigan

delivers bold climate action in the Midwest



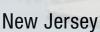
Minnesota

bolsters climate resilience with state grants

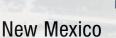


Nevada

brings Nevadans together with Climate Series 2022



sets transformative cross-sector GHG reduction goal by 2030



adopts nation-leading oil and gas industry emissions rules



develops nation-leading offshore wind portfolio



North Carolina

reduces emissions, creates jobs, and centers environmental justice



Oregon

keeps the state's 2035 GHG reduction target in reach



Pennsylvania

provides low-interest loans for high-impact energy efficiency



Puerto Rico

supports farmers and energy diversification



Rhode Island

adopts historic renewable energy legislation



Vermont

looks to those impacted most by climate change



Washington

passes nation's first statewide gas ban in new buildings



Wisconsin

celebrates solar array at Monona Grove High School



CALIFORNIA

CLIMATE SUCCESS STORY The recently adopted Advanced Clean Cars II (ACC II) regulation centers equity and advances the state's ZEV transition.





Source: California Governor's Office

California's Advanced Clean Cars II Regulation marks a clear path to state carbon neutrality by 2045

In 2020, California became the first state in the nation to announce it will phase out gasoline powered passenger vehicles by 2035 to reduce the state's demand for fossil fuels, advance its climate goals, and reduce air pollution. Governor Gavin Newsom took this action via executive order and, as part of his historic \$53.9 billion state climate budget, committed \$10 billion over six years to grow all segments of the ZEV market and provide incentives to all Californians, including low- and moderate-income consumers.

This ZEV funding commitment will directly support the implementation of the California Air Resources Board (CARB)'s Advanced Clean Cars II (ACC II) regulation, adopted in August 2022, that provides California with an aggressive roadmap of new car sales targets and that must be met to assure the state's 2035 target of 100 percent sales of ZEVs and plug-in hybrids.

With the transportation sector responsible for around half of California's GHG emissions, these bold moves set a more secure pathway to achieve the state's progressive air quality and climate goals. ACC II will help deliver substantial emission and pollution reductions to all Californians, particularly those who live near roadways, commonly in disadvantaged communities.

ACC II will provide incentives for manufacturers to offer low-cost ZEVs, offer discounts to community car share programs, increase supply of used ZEVs and plug-in hybrid vehicles to dealerships, and contribute to California's goal of reducing greenhouse gases while making progress toward achieving the state's carbon neutrality goal by 2045 or sooner.

COLORADO

CLIMATE SUCCESS STORY The state's \$340+ million investment in climate and air quality solutions includes expansion of electrified transportation.





Source: Colorado Governor's Office

Colorado's new laws make transformational climate and air quality investments

In 2022, Governor Jared Polis signed a transformational package of bills into law, including the largest one-time investment in air quality in Colorado's history. These bipartisan measures represent another step in the governor's work to protect the health and safety of all Coloradans, while saving people money on their energy bills and transportation.

This comprehensive package was initially developed by the governor and introduced as part of his responsible and resourceful budget in November 2021. Funding covers a broad range of areas—from \$65 million to jump-start the transition to electric school buses to \$12 million in e-bike rebates. It also includes \$20 million for building efficiency and electrification, \$30 million to expand bus rapid transit along the I-25 and I-70 corridors, \$28 million for free transit fares statewide during ozone season, \$25 million for innovative projects to reduce emissions from industrial and manufacturing facilities, \$20 million to

support high-efficiency and low-carbon rebuilding after natural disasters, and \$7 million for aerial monitoring of oil and gas and other industrial emissions sources.

These new programs and funding will help accelerate Colorado's efforts to meet the goals laid out in the Polis Administration's *Greenhouse Gas Pollution Reduction Roadmap* and HB-19-1261, which include reducing greenhouse gas emissions at least 26 percent by 2025, 50 percent by 2030, and 90 percent by 2050, compared to 2005 levels.

In addition to this legislative victory, Colorado passed two bills to spark geothermal research, education, and implementation in the state, HB22-1381 and SB22-118, and advanced the state's commitment to geothermal energy by making it the cornerstone of Governor Polis's 2023 Western Governors' Association Chair's Initiative.

CONNECTICUT

CLIMATE SUCCESS STORY Codifying the state's goal for a 100 percent zero-carbon electric supply will mitigate climate change while improving air quality and supporting clean energy jobs.





Source: Governor Lamont's Office

Connecticut celebrates a 100% zero-carbon electric supply

In 2022, Governor Ned Lamont celebrated the passage of Public Act No.22-5, *An Act Concerning Climate Change Mitigation*, that codified into state law the governor's zero-carbon electric supply by 2040 goal established in Executive Order No. 3. This law establishes a shared goal among state policymakers and the electricity sector to fully transition the state's electricity supply away from natural gas and oil. This bill received bipartisan support in the House and a unanimous vote of 35–0 in the Senate.

Connecticut has already made substantial progress toward a zero-carbon electric grid. Through direct investment in the form of long-term contracts, Connecticut ratepayers are supporting zero-carbon resources equivalent to nearly 74 percent of the electricity consumed by customers of the state's two electric distribution companies: nearly 700,000 MWh/

year of grid-scale, zero-emissions renewables and nearly 18,000,000 MWh/year of nuclear resources. This is expected to increase to 92 percent by 2025 as new offshore wind and grid-scale solar projects come online.

Investments in a zero-carbon electric grid will not only mitigate climate change, but also improve air quality and support clean energy jobs across the state. Under Public Act 21-43, for example, covered renewable energy projects must pay the prevailing wage or the wage determined through a project-labor agreement and include workforce development programs and community benefit agreements.

Codifying this goal into law allows Connecticut to continue reaping positive co-benefits of climate action for years to come.

DELAWARE

CLIMATE SUCCESS STORY The state's first climate action plan, released in 2021, set the foundation for Delaware's rapid implementation of the plan throughout 2022.





Source: Governor Carney's Office

Delaware is well on its way toward achieving GHG reduction and other climate goals

In November 2021, Governor John Carney released Delaware's first *Climate Action Plan*. Taking these actions to reduce emissions will allow Delaware to meet or exceed its 2025 emissions reduction target and make further reductions in the years ahead. Implementation of the plan is already well under way.

Also last November, Delaware launched the Tree for Every Delawarean Initiative. This program combats the negative impacts of climate change by creating healthy and resilient forests. To date, more than \$200,000 in funding has been allocated to support tree plantings and reforestation projects.

In March 2022, Governor Carney announced Delaware would adopt California's Zero Emission Vehicle (ZEV) regulations, accelerating commercialization of electric vehicles to address transportation emissions, the leading contributor to greenhouse gas emissions.

Also this year, Delaware launched the Climate Leadership Academy. Administered by the Department of Natural

Resources and Environmental Control (DNREC), the Academy's first cohort provided training to 90 state and local government staff on the impacts of climate change, and how to integrate concepts of climate change mitigation and adaptation into their professional decision-making. This fall, the Academy will open to the private sector, nonprofits, and academic institution staff, and will expand to include monthly webinars, networking events, and training for new state agency staff.

Additionally, Delaware's Department of Transportation (DelDOT) created a director of transportation resilience and sustainability position and completed an agency climate plan. Following the release of the state plan, the Delaware Transit Corporation (DTC), a division of DelDOT, released its *Climate Action Plan* to serve as a blueprint for the agency's response to the threats from climate change. The plan sets agency-wide objectives and targets to guide DTC's Sustainability Program through 2030.

HAWAI'I

CLIMATE SUCCESS STORY The state's carbon-smart land management assistance pilot program will incentivize nature-based actions while addressing food and water security.





Source: State of Hawai'i

Hawai'i's pilot program keeps forests and farmlands intact and sequesters carbon

In June 2022, Governor David Ige signed Act 185 into law, establishing the Hawai'i carbon-smart land management assistance pilot program. The program will promote keeping forests and farmlands intact and sequestering additional carbon on the lands. The program concept was formed at the Alliance Natural and Working Lands (NWLs) Learning Lab and pursued and refined by the Hawai'i NWL research team.

The NWL research team recognized the challenges climate change will have on NWLs, including an increase in the frequency of extreme weather events that put greater stress on the state's vulnerable food supply chain and water supplies. The program will work to address the state's need for greater food and water security while supporting climate-smart actions on NWLs.

After many iterations of the program and working closely with landowners to identify barriers to implementing climate-smart practices, this program will incentivize nature-based actions that improve soil health and are carbon-positive, while providing

rich and diverse co-benefits, such as restoring, maintaining, and improving landscape soil health and water security through payment-for-services programs. These programs would allow small farmers, ranchers, foresters, and landowners and lessees to be compensated for taking measures to help Hawaii reach its climate readiness goals.

Activities identified as having a high likelihood of effectively achieving durable sequestration benefits at reasonable compensation rates across eligible land include: reforestation; windbreaks; conservation tillage and reduced field pass intensity; control of invasive species; efficient nutrient management; crop diversity through rotations and cover crops; manure management; rotational grazing and improved forages; compost, biochar, and anaerobic digest; improved cropping and organic systems; and feed management.

By incentivizing these nature-based actions, Hawai'i is providing climate-smart support for small landowners throughout the state.

ILLINOIS

CLIMATE SUCCESS STORY The state's Electric Vehicle (EV) Rebate Program incentivizes a shift from gas-powered to electric vehicles by increasing affordability and accessibility.





Source: Illinois Governor's Office

Illinois's rebate program accelerates the affordable EV transition

In July 2021, Illinois announced the opening of its EV Rebate Program, supporting its efforts to reduce emissions from the transportation sector and make EVs more affordable. This program was created under the *Climate and Equitable Jobs Act* (CEJA), which Governor J.B. Pritzker signed in fall 2021, and named Megha Lakhchaura Illinois's first-ever EV coordinator.

With the transportation sector the leading producer of CO_2 emissions in Illinois, this move continues the state's comprehensive approach to emissions reductions through transportation electrification and establishes it as a national leader in EV adoption. This program makes EVs more affordable and incentivizes the switch from gas-powered to EVs by prioritizing low-income applicants for the \$4,000 rebate so that no one gets a rebate until all low-income applicants

receive a rebate. This reflects Illinois's approach to the clean energy transition, which asserts that it is only as effective as it is accessible. With households facing increasingly high costs of living and transportation emissions particularly concentrated in low-income communities and communities of color, making EVs more affordable is a crucial part of Illinois's climate plan.

The rebate program reflects continued progress in the implementation of Illinois's comprehensive and groundbreaking climate bill, the CEJA, and is one of many efforts in Illinois to accelerate statewide EV adoption. Additionally, earlier in 2022, Governor Pritzker included \$30 million in the state budget for the state to convert its vehicle fleet to EVs, and \$70 million was reappropriated for EV charging infrastructure statewide.

LOUISIANA

CLIMATE SUCCESS STORY The Gulf South's first climate action plan, approved in 2022 by the Louisiana Climate Initiatives Task Force, lays out strategies and policy actions for reducing statewide GHG emissions.





Source: Louisiana Governor's Office

Louisiana's Climate Action Plan puts the state squarely on the path toward net-zero emissions by mid-century

In January 2022, the Louisiana Climate Initiatives Task Force unanimously approved the Gulf South's first statewide climate action plan, which sets Louisiana on a path to achieve net-zero greenhouse gas (GHG) emissions by 2050, while also improving quality of life, creating a more-equitable society, strengthening the economy, and protecting the environment. The 23-member task force, put in place by an executive order from Governor John Bel Edwards, represents the diverse interests of Louisiana's people, state agencies, energy and chemicals industries, academia, private sector, community advocates, and Indigenous peoples.

In a state like Louisiana, which is both on the frontlines of climate impacts and where heavy industry plays a large role in the economy, consensus among competing interests has felt nearly impossible. The state faced this challenge head-on by incorporating a structured decision-making framework into the 15-month planning process that brought together

150 stakeholders in 49 public meetings to ensure decisions were transparent, collaborative, and outcomes-oriented. The robust planning process led to the approval of the *Louisiana Climate Action Plan*, which comprehensively lays out 28 strategies and 84 policy-specific actions to reduce statewide GHG emissions. To track the outcomes of these actions, the task force has committed to continue meeting quarterly to publicly track implementation, hold workshops, and continue to partner with local communities.

With the climate action plan as a foundation, the state has quickly moved into implementation by pursuing federal funding, executive and legislative action, and continuing to engage across the wide spectrum of stakeholders and communities. The *Louisiana Climate Action Plan's* bottom-up approach, inclusivity, and transparent decision-making has built political momentum toward climate action and provides the framework for a more equitable and resilient Louisiana.

MAINE

CLIMATE SUCCESS STORY 75 communities have taken part in the state's Community Resilience Partnership, which supports activities in line with the *Maine Won't Wait* climate action plan.





Source: Jack Sullivan

Maine's Community Resilience Partnership positions all communities for success in achieving a clean economy

In December 2021, Governor Janet Mills announced the Community Resilience Partnership, a program to support communities and Tribes in Maine to pursue plans and strategies to reduce emissions, transition to clean energy, and increase resilience to the effects of climate change.

By joining the partnership, cities, towns, and Tribal governments can receive grants and technical assistance to undertake activities that align with the state's four-year climate action plan, *Maine Won't Wait*. So far, 75 Maine communities have received support via the partnership, which puts the program on pace to exceed its bold goal of enlisting 100 communities during its first year.

Achieving Maine's emissions reduction targets and resilience goals requires complementary action by communities across the state. *Maine Won't Wait* recognized that limited local capacity and elevated social vulnerability compound climate impacts and inhibit action for most small, rural communities. To bridge this gap, the Community Resilience Partnership empowers partner organizations that are engaged in these communities

to work on-the-ground with them to help identify priority climate actions and impacted populations.

The first round of partnership grants, announced in April 2022, awarded \$2.5 million, which included \$500,000 for electric vehicle (EV) charging infrastructure, an electric school bus, LED streetlight conversions, heat pump installations in public buildings, and greenhouse gas (GHG) emissions inventories. More than \$730,000 supported vulnerability assessments, sea level rise resiliency for working waterfront infrastructure, climate-informed open space and watershed planning, and stormwater management. Another \$540,000 enables community and regional organizations to help a total of 46 communities take their first steps toward climate action.

The Community Resilience Partnership is a key recommendation of Maine's climate action plan, providing support to communities for both climate mitigation and adaptation activities.

MARYLAND

CLIMATE SUCCESS STORY The Climate Solutions Now Act strengthens the state's GHG emissions reduction targets, making them the most ambitious in the nation.





Source: Maryland Governor's Office

Maryland adopts the most ambitious nation-leading climate targets

Maryland has set the most aggressive emissions reduction targets in the nation. Under the *Climate Solutions Now Act* (CSNA), which passed into law in 2022, a new greenhouse gas (GHG) emissions reduction target has been established at 60 percent by 2031 based on 2006 levels. The Maryland Commission on Climate Change's *Building Energy Transition Plan* was made possible by a U.S. Climate Alliance technical assistance grant. Many provisions of the plan were included in the legislation.

Under the CSNA, the commission and certain executive agencies must develop proposals that allow the state to reach its target and achieve net-zero GHG emissions by 2045.

Maryland is charging ahead to create an ambitious climate plan, adopt building energy performance

standards (BEPS) regulations, create a Climate Catalytic Capital Fund with at least 40 percent of funding to benefit disadvantaged communities, and expand the state's electric vehicle fleet, as well as school buses.

The CSNA requires the Maryland Department of the Environment to create a Building Energy Transition Implementation Task Force and add four new working groups to the Maryland Commission on Climate Change.

The CSNA includes numerous other provisions to support greenhouse gas emissions reductions as well as impacts on underserved or overburdened communities.

MASSACHUSETTS

CLIMATE SUCCESS STORY The state's new *Clean Energy and Climate Plan* is poised to achieve a 50 percent emissions reduction by 2030.





Source: Massachusetts Governor's Office

Massachusetts releases Clean Energy and Climate Plan for 2025 and 2030

In June 2022, the Baker-Polito Administration released the *Clean Energy and Climate Plan for 2025 and 2030* (2025/2030 CECP), outlining a comprehensive suite of strategies, policies, and actions to achieve a 33 percent and 50 percent reduction in greenhouse gas (GHG) emissions by 2025 and 2030, respectively, to increase net carbon sequestration by 25 percent in 2030, and to maximize the commonwealth's ability to achieve net zero emissions in 2050. The Baker-Polito Administration also announced that Massachusetts achieved the 2020 greenhouse gas emissions limit of 25 percent below the 1990 level with estimated emissions of 31.4 percent below the 1990 level in 2020.

The 2025/2030 CECP was a three-year process that was informed by rigorous analysis of Massachusetts-specific deep-decarbonization pathways and carbon sequestration potential of natural and working lands, as well as close coordination with numerous state agencies across three secretariats, extensive stakeholder engagement, and review of over 1,100 public comments.

The plan includes specific benchmarks for 2025 and 2030 to track implementation progress, including the number of electric vehicles on the road, heat pump installations, building retrofits, renewable energy procurements, and percent of land and water protected from development. It also commits the commonwealth to enhanced participatory public processes for all policy and regulatory decisions, future clean energy and climate policies that ensure affordability and accessibility to low-income residents, and clean energy job creation and education that target historically disadvantaged low-income populations.

Working together with key stakeholders and members of the public to create the 2025/2030 CECP was essential, and its implementation will deliver more well-paying jobs, improved public health, reduced consumer costs, and provide better quality of life for all residents.

MICHIGAN

CLIMATE SUCCESS STORY In 2022, Governor Whitmer unveiled the *MI Healthy Climate Plan*, which directs the state toward a carbon-neutral economy.





Source: Michigan Governor's Office

Michigan's Governor Whitmer delivers bold climate action in the Midwest

After two years of climate-fueled emergencies—from a polar vortex and historic floods to dam failures and week-long power outages—Governor Gretchen Whitmer directed the Department of Environment, Great Lakes, and Energy, via executive order and executive directive, to develop a plan to lower Michigan's emissions by 28 percent by 2025, 52 percent by 2030, and to reach carbon neutrality by 2050. This year, the governor unveiled the *MI Healthy Climate Plan*, detailing actions Michigan must take to build a carbon-neutral economy and create tens of thousands of good-paying jobs while meeting environmental justice goals and ensuring a just transition for all workers.

The plan focuses on actions to spur economic development, create quality jobs, lower energy and transportation costs, mitigate the worst impacts of climate change, improve public health, and protect natural resources.

The plan's recommendations focus on actions needed by 2030, including powering Michigan with 60 percent renewable energy, building the infrastructure to support two million electric vehicles (EVs), protecting 30 percent of Michigan's land and water, investing no less than 40 percent of climate-related funds in disadvantaged communities across the state, and more.

The state convened hundreds of Michiganders to develop the plan, including listening sessions for environmental justice concerns, over a dozen meetings of the Council on Climate Solutions, and almost 2,000 public comments. This robust engagement ensured that as Michigan decarbonizes, everyone will reap the benefits, and no one will get left behind.

The governor also signed the bipartisan *Building Michigan Together Plan*, which invested nearly \$2 billion in water infrastructure, \$450 million in parks and natural resources, over \$100 million in clean energy and mobility, and more. The governor's actions prove that bold climate action is possible even in a divided government.

MINNESOTA

CLIMATE SUCCESS STORY Grant-funded work in the state includes wetland modifications to increase water storage capacity, a wetland restoration, and a grade stabilization structure.





Source: Minnesota Pollution Control Agency

Minnesota's resilience to climate change is bolstered by state grants

The Minnesota Board of Water and Soil Resources (BWSR) awarded more than \$840,000 in funding to three local governments for water storage grants to improve water quality and to help make landscapes more resilient to severe weather events due to climate change. Recipients include Lyon and Le Sueur soil and water conservation districts and Area II Minnesota River Basin Projects, Inc. Grant-funded work is slated to include wetland modifications to increase water storage capacity, a wetland restoration, and a grade stabilization structure.

The state is experiencing more frequent and intense rainfall events, resulting in negative impacts to agriculture and infrastructure, significant erosion along riverbanks, and declining water quality. The state legislature passed bipartisan legislation last year allocating \$2 million to BWSR to develop a water storage program to address these challenges. A second round of grants is planned within the next year.

"These grants mark an important step toward protecting infrastructure and controlling water rates to mitigate flooding and water quality impacts in areas of the state

vulnerable to intense rainfall," BWSR Executive Director John Jaschke said. "Implementing water storage projects benefits communities and farmers alike."

The Minnesota Pollution Control Agency also committed more than \$900,000 to 12 local governments for stormwater, wastewater, and climate resiliency planning. This funding provides an opportunity for communities to assess vulnerabilities and begin planning for the effects of Minnesota's changing climate in three areas: increasing resilience to stormwater and reducing localized flood risk; improving resilience of wastewater systems; and reducing human health effects and adapting community services, ordinances, and public spaces to the changing climate.

These two grant opportunities directly support Minnesota's Climate Action Framework. This investment also supports the need to closely connect water quality improvement responsibilities with climate benefits.

NEVADA

CLIMATE SUCCESS STORY Through the Nevada Climate Series 2022, Governor Sisolak collaborated with communities and individuals throughout the state, including Tilli Allen, a Reno middle school student impacted by a 2020 wildfire.





Source: Nevada Governor Steve Sisolak's Office

The Nevada Climate Series 2022 brings Nevadans together

In July 2022, Governor Steve Sisolak launched the Nevada Climate Series 2022 to bring awareness to the impacts of climate change—from drought to extreme heat, wildfires, and more—and is collaborating with residents and organizations across the state to ensure Nevadans have the resources they need to mitigate the negative effects.

As part of this series, Governor Sisolak met Tilli Allen, a recent 6th grade graduate in Reno, NV, whose neighborhood was impacted by a wildfire in 2020. Multiple houses were destroyed, and Allen and her neighbors had to evacuate. This experience prompted Allen to start a climate action club at her elementary school to bring awareness to the dangers of climate change and encourage other students to use their voices to take action. The governor was inspired to meet Allen after she spoke to the Nevada Legislature, urging them to take immediate action as well.

With the Nevada Climate Series, the state has centralized resources to deal with the issues that impact Nevadans the most, from how to prepare for wildfire season, to where you can go to cool off during extreme heat events, to how to weatherize your household against heat and save money on utilities. These guides bring together tips and resources across the state into one place. The governor is committed to continue collaborating with stakeholders across the state to ensure every Nevadan is equipped with knowledge they need to stay safe and healthy.

The governor is also working closely with Kristen Averyt, PhD, who was appointed as the state's first-ever climate advisor, to ensure that this work is collaborative from the federal, state, and local levels and will lead to policies that are equitable and sustainable.

NEW JERSEY

CLIMATE SUCCESS STORY Executive Order No. 274 sets forth a whole-of-government, all-hands-on-deck approach to the state's climate action.





Source: Governor Murphy's Office

New Jersey sets transformative cross-sector interim goal for GHG reduction by 2030

In November 2021, Governor Phil Murphy established an interim GHG reduction target of 50 percent below 2006 levels by 2030, strengthening New Jersey's path to achieve an 80 percent reduction in GHG emissions by 2050 (via Executive Order No. 274).

New Jersey has set forth strategic and urgent policy and regulatory pathways to curtail the impacts of climate change caused by GHG emissions. The November 2021 executive order stresses the need for near-term, steep, cross-sector emissions reduction policies and actions in the transportation, residential, commercial, and electric generation sectors. Near-term emissions reduction achievement will ensure that the state is on track to meet longer-term emissions reduction goals to protect New Jersey's residents, economy, and environment.

To reach the goal set by Executive Order No. 274, the state has not only coordinated a whole-of-government, all-hands-on-deck approach to policymaking and day-to-day agency practices, but has also heavily invested in GHG mitigation policies and programs.

The executive order signing was coupled with a multimillion-dollar investment in clean medium- and heavyduty vehicles in overburdened communities. New Jersey is taking a concerted effort to urgently address worsening air pollution from vehicles and other sectors, the health impacts of which are disproportionately felt by overburdened communities and communities of color.

To accelerate work in building decarbonization across the state, New Jersey is working to identify equitable, strategic, and economically beneficial paths to transition both new and existing buildings away from fossil fuels.

The order continues to drive policy, regulatory, and legislative action in the immediate term to align climate efforts with federal leadership and to achieve an affordable and equitable clean energy future.

NEW MEXICO

CLIMATE SUCCESS STORY New air quality rules adopted by the New Mexico Environmental Improvement Board were the product of years of public and stakeholder engagement.





Source: Oil Conservation Division, New Mexico Energy, Minerals and Natural Resources Department

New Mexico adopts nation-leading oil and gas industry emissions rules

After two and a half years of collaborative public and stakeholder engagement, the New Mexico Environmental Improvement Board adopted new air quality rules that will eliminate hundreds of millions of pounds of harmful emissions annually from oil and gas operations in New Mexico. The rules will improve air quality for New Mexicans by reducing the emissions of ozone precursor pollutants—volatile organic compounds (VOCs) and nitrogen oxides (NOx)—by approximately 260 million pounds annually, and will have the co-benefit of reducing methane emissions (one of the most potent short-lived climate pollutants) by over 851 million pounds annually.

The rules as adopted are more protective of public health and the environment than current federal requirements while allowing industry to use and develop cutting-edge technologies to prevent leaks and end the wasteful process of flaring natural gas as they comply. The rules also complement a set of methane waste reduction rules developed by the New Mexico Energy, Minerals and Natural Resources Department in 2021, which call for 98 percent gas capture in oilfield operations by 2026.

Starting in summer 2022, compliance obligations for new and existing oil and gas operations in New Mexico counties with high ozone levels will begin to take effect. The improved air quality for communities impacted by oil and gas operations will promote public health—reducing ozone-caused rates of asthma, other respiratory illnesses, and cardiovascular disease. The rules also reduce greenhouse gas emissions from methane in industry, New Mexico's largest emitting sector.

NEW YORK

CLIMATE SUCCESS STORY Offshore wind projects in the state will power more than 2.4 million homes and create more than 6,800 jobs.





New York State's offshore wind portfolio leads the nation

This year has been a banner year for offshore wind development in New York. Currently, the state has a nation-leading goal of 9,000 megawatts (MW) of offshore wind by 2035 in addition to the largest portfolio in the nation with five offshore wind projects in active development. This initial portfolio totals more than 4,300 MW, will power more than 2.4 million New York homes, and is expected to bring a combined economic impact of \$12.1 billion to the state. The projects are also expected to create more than 6,800 jobs in project development, component manufacturing, installation, operations, and maintenance.

In January, New York finalized contracts with Equinor and bp for their Empire Wind 2 and Beacon Wind projects, which included an unprecedented public and private funding commitment of \$644 million in port infrastructure. In February, Governor Kathy Hochul announced the groundbreaking of the state's first offshore wind project, South Fork Wind, on Long Island. When operational in 2023, it will be one of the first commercial-scale offshore wind projects to commence operation in North America.

Most recently, in July 2022, Governor Hochul announced the release of New York's third competitive offshore wind solicitation, seeking enough clean, renewable energy to power at least 1.5 million New York homes. The procurement includes the first phase of the nation-leading \$500 million investment in offshore wind ports, manufacturing, and supply chain infrastructure, as announced in the governor's 2022 State of the State address. Private capital will be leveraged alongside the infrastructure investment, ultimately delivering more than \$2 billion in economic activity and creating more than 2,000 good-paying, green jobs.

Overall, achieving the state's 2035 goal will generate enough energy to power approximately 30 percent of New York State's electricity needs, equivalent to nearly 6 million homes, and spur approximately 10,000 jobs. New York remains committed to renewable energy, ensuring cleaner air and clean, affordable power in the areas that need it most.

NORTH CAROLINA

CLIMATE SUCCESS STORY North Carolina is expanding efforts to cultivate an equitable, net-zero clean energy economy through executive action.





Source: Governor's Office of North Carolina

North Carolina's comprehensive climate approach reduces emissions, creates jobs, and centers environmental justice

In January 2022, North Carolina affirmed its commitment to bold climate action and environmental justice. Governor Roy Cooper signed Executive Order No. 246, which establishes science-based goals of a 50 percent reduction in greenhouse gas (GHG) emissions by 2030 and net-zero emissions by 2050. The order directs numerous actions to achieve those goals in a manner that centers environmental justice and maximizes public health and economic benefits for North Carolinians.

Executive Order No. 246 takes important steps to reduce GHG emissions from the transportation sector, the state's top-emitting source, by establishing targets of 1.25 million zero-emissions vehicles (ZEVs) registered and 50 percent of in-state new light-duty vehicle sales by 2030. In addition, it directs development of the North Carolina Clean Transportation Plan to guide the state's transition to a clean transportation future. The order also charges agencies to take steps to elevate the consideration of environmental justice, including by identifying an agency point person for environmental justice efforts. Each agency also has developed a public participation plan to ensure the public—especially

underserved communities—is meaningfully engaged in government decision-making. The order calls for actions to increase workforce diversity in industries that are critical to addressing climate change as well as expand youth apprenticeship programs that prepare graduates for good-paying careers in the clean energy economy. Finally, the order promotes accountability and long-term strategic planning by directing the regular updates to the statewide GHG inventory, an analysis of pathways for achieving net-zero GHG emissions by 2050, and consideration of the social cost of GHG emissions in agency decision-making.

The impacts of climate change are already being felt in North Carolina. At the same time, the state has experienced significant job growth and economic benefits by leading the transition to renewable energy, electric vehicle manufacturing, and more. Executive Order No. 246 will bolster and complement leadership across North Carolina's public and private sectors to confront the climate crisis while cultivating an economy that serves all residents for generations to come.

OREGON

CLIMATE SUCCESS STORY In her final year in office, Governor Brown is ensuring the state's greenhouse gas (GHG) target remains in reach as the Oregon Climate Protection Program comes into effect.





Source: Governor's Office of Oregon

Oregon's Climate Protection Program keeps the state's 2035 greenhouse gas reduction target in reach while enhancing public welfare

Under the leadership of Governor Kate Brown, Oregon has set some of the most aggressive timelines to reduce GHG emissions and put Oregon on the path to a clean energy future. In 2020, the governor issued an executive order to cap GHG emissions. Building on this order, in 2021 she signed into law a bill to move Oregon's utilities to 100 percent clean electricity sources by 2040, making Oregon one of the first states in the country to do so.

This year, Oregon's Climate Protection Program begins to take effect, with state agencies setting reduction targets for Oregon's largest GHG emitters and enhancing public welfare for the environmental justice communities that bear the disproportionate impact of climate change—including communities of color, Tribal communities, people with low incomes, and rural and coastal communities. Notably, the Climate Protection Program came to fruition through one of the most extensive and inclusive public

engagement processes in the state's Department of Environmental Quality's 52-year history, having received and reviewed 7,600 comments on the rule.

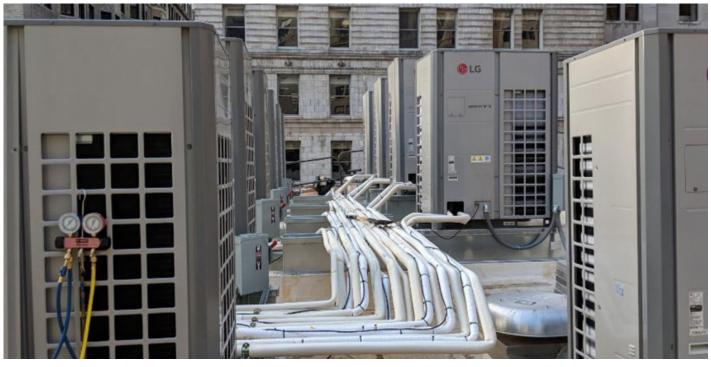
Combined with Oregon's other efforts, such as its first-in-the-nation electric vehicle (EV) rebate for used EVs, Oregon is centering equity in its efforts to take climate action and avoid the worst impacts of climate change. The Oregon Global Warming Commission recently announced that Oregon is on track to reach its 2035 target for GHG emissions reductions, as long as the state continues to implement its policies and programs and fund them with the necessary resources.

In her final months in office, Governor Brown is focused on doing just that and ensuring this goal stays on the horizon as state agencies implement Oregon's comprehensive approach to taking climate action.

PENNSYLVANIA

CLIMATE SUCCESS STORY The state's Green Energy Loan Fund has invested \$30 million in low-interest loans and completed 15 high-impact energy efficiency projects since 2009.





Source: Pennsylvania Governor's Office

Pennsylvania's Green Energy Loan Fund provides lowinterest loans for high-impact energy efficiency projects

The Pennsylvania Department of Environmental Protection has reached a milestone of \$30 million invested in low-interest loans for high-impact energy efficiency projects on commercial properties through its Green Energy Loan Fund (GELF).

GELF has supported a range of cutting-edge energy efficiency approaches in everything from new buildings and gut rehabs to installation of HVAC systems, geoexchange systems, boilers, chillers, windows, white roofing, insulation, smart elevator motors, LED lighting and controls, water heaters, water conservation plumbing, and an ultra-efficient laboratory exhaust system.

With 15 projects completed since the program's creation in 2009, the fund has supported carbon

dioxide emissions reductions of 110,000 tons over the life of these projects, which is equivalent to removing 22,000 cars from the road for a year.

GELF prioritizes local community development efforts and seeks to support projects in environmental justice areas. Nearly 30 percent of funded projects have been in buildings owned or controlled by persons of color or low-income individuals, and more than half are in low-income census tracts.

Through GELF, Pennsylvania is continuing to improve energy efficiency projects that support all communities, including those most vulnerable to climate impacts.

PUERTO RICO

CLIMATE SUCCESS STORY Puerto Rico's AGROSolar Grant has provided \$10 million in funding and technical assistance, including to Nestor Reyes Farm.





Puerto Rico's AGROSolar programs supports farmers and energy diversification

In 2017, prior to Hurricane Maria, agriculture in Puerto Rico was growing in importance and production was increasing in a place where around 85 percent of food is imported. Because island states and territories face additional vulnerabilities to climate change, adopting agricultural practices and management strategies, such as diversification of products and energy sources, allows farmers to offset its impacts.

The Government of Puerto Rico, through the Puerto Rico Department of Agriculture in collaboration with the Puerto Rico Department of Economic Development and Commerce's Energy Policy Program (EPP), developed the AGROSolar Grant, which provided \$10 million in grant funding and technical assistance. AGROSolar provided photovoltaic and storage systems to 140 small agriculture businesses and the EPP provided technical support and management for the qualification of sites, systems construction, and final inspections. In addition to achieving energy savings, 90 of the installed systems included integration of energy storage to support critical loads during power outages.

Most farms in Puerto Rico are small family farms ideal for specialty crops like organic vegetables, and the island offers perfect growing conditions for coffee and other highly profitable crops. Small farms can grow to meet the needs of the local market, including restaurants. For example, Nestor Reyes Farm & Associates (Nestor Reyes Farm), located in Río Grande, Puerto Rico, provides a constant supply of eggs to meet locals' needs.

Since its inception, AGROSolar has impacted 140 small agribusinesses, saved \$980,000 in electricity bills, produced 3,391,800 kilowatt-hours (kWh) of solar electricity, and—significantly—has avoided 2,643 tons of $\rm CO_2$ emissions. By participating in AGROSolar, Nestor Reyes Farm has avoided the equivalent of 35.8 tons of $\rm CO_2$ e, equivalent to the carbon sequestered by more than 500 tree seedlings grown for 10 years.

Puerto Rican farmers want to fight climate change, and AGROSolar empowers them to support their livelihoods with clean energy.

RHODE ISLAND

CLIMATE SUCCESS STORY The state became among the first in the nation to set a 100 percent renewable energy standard by 2033.





Source: Patrick Crowley, Rhode Island AFL-CIO

Rhode Island adopts historic legislation requiring 100 percent of the state's electricity be generated from renewable energy by 2033

In June 2022, Rhode Island became one of the few states committed to an ambitious 100 percent renewable energy standard after Governor Dan McKee signed legislation into law requiring that 100 percent of Rhode Island's electricity be from renewable production by 2033.

In the Ocean State, Rhode Island is already feeling the effects of climate change and the risks facing communities across the state will only increase without bold action.

This historic legislation outlines a firm 10-year commitment to achieve Rhode Island's climate change mitigation goals, giving the state the most ambitious renewable energy standard in the nation. It also reaffirms Rhode Island's commitment to meeting its *Act on Climate* goals and reducing economy-wide greenhouse gas (GHG) emissions to net-zero by 2050.

Governor McKee further bolstered the state's commitment to renewable energy by requesting and signing additional legislation requiring a market-competitive procurement for between 600 and 1,000 megawatts (MW) of newly-developed offshore wind capacity—expanding Rhode Island's first-in-the-nation offshore wind industry and creating hundreds of jobs in the process.

However, climate success is not only measured in clean energy. Governor McKee made additional investments in climate resilience this year, allocating \$25 million for an Electric Heat Pump Grant Program, \$35 million to support the offshore wind industry at South Quay Marine Terminal, and \$46 million for upgrading essential infrastructure at the Port of Galilee, the hub of Rhode Island's commercial fishing industry.

VERMONT

CLIMATE SUCCESS STORY The Vermont Climate Council engages Vermonters to develop the state's climate action plan.





Source: Vermont Governor's Office

Vermont's *Climate Action Plan* looks to those impacted most by climate change

Vermont must prepare for a changing climate and cut its climate pollution roughly in half by 2030 to meet the target in Vermont's 2020 *Global Warming Solutions Act.* Development of the state's initial *Climate Action Plan*, released in December 2021, was a significant step in Vermont's process.

The legislature established the Vermont Climate Council (VCC) to draft the *Climate Action Plan*, which incorporated ideas and feedback from Vermonters. Five subcommittees shaped the plan: Rural Resilience and Adaptation, Agriculture and Ecosystems, Cross-sector Mitigation, Just Transitions, and Science and Data.

Vermonters must be part of determining and implementing solutions to climate change. The Just Transitions Subcommittee created *Guiding Principles* for a Just Transition to provide a framework for the council and subcommittees to evaluate, adjust, and prioritize recommendations based on how they will impact Vermont's frontline communities, including those who are highly exposed to climate risks,

experience oppression and racism, are excluded from opportunities or have fewer resources to adapt to climate and economic change, bear the brunt of pollution and negative effects from fossil fuels and extractive economies, and are more likely to experience a job transition as Vermont addresses climate change.

Vermont has already seen bold climate action as a direct result of the *Climate Action Plan* in the 2022 legislative session, with the investment of hundreds of millions of federal dollars in weatherization, electrification of the transportation sector, flood-resilient communities, and natural and working lands. Additionally, the state stood up a Climate Action Office, passed comprehensive environmental justice legislation (S.148), and created a forest reserve land category for enrollment in the state's current use tax program (H.697). Continued engagement with Vermonters in the coming years will realize the bold action envisioned by the *Climate Action Plan*.

WASHINGTON

CLIMATE SUCCESS STORY Governor Inslee cuts the ribbon at Telegraph Townhomes, sustainable, affordable townhomes built in partnership with Habitat for Humanity and the Kulshan Community Land Trust in Bellingham, WA.





Source: State of Washington Governor's Office

Washington passes nation's first statewide gas ban in new buildings

On Earth Day 2022, the Washington State Building Code Council adopted the country's strongest, most climate-friendly building energy codes to date. Beginning July 2023, new commercial and large multifamily residential buildings must be built with high-efficiency electric heat pumps for water and space heating.

Buildings represent Washington state's second-largest source of emissions and its fastest-growing source of carbon pollution, with emissions coming primarily from gas-powered space and water heating. By banning the use of fossil fuels in new commercial buildings, Washington is projected to eliminate more than eight million metric tons of CO₂ by 2050. Washington is poised to expand these requirements to all residential buildings by the end of the year.

However, Washington is not waiting until July 2023 to act. Earlier this year, Washington expanded its Clean Buildings law to institute energy performance standards to all buildings over 20,000 square

feet, thereby achieving greenhouse gas (GHG) emissions reductions from existing buildings.

Washington will also continue to leverage state funds to make energy efficiency upgrades and install renewable energy in multifamily housing and community facilities, such as Hobson Place, which opened its doors in January 2022.

Located in South Seattle, Hobson Place provides permanent supportive housing and an integrated physical and behavioral health care clinic. Hobson Place is also the first permanent supportive housing facility in Washington state to achieve Passive House certification, improving residents' health and comfort while significantly reducing building operational costs.

This progress supports Washington's push to make buildings more efficient, healthy, and climate-friendly.

WISCONSIN

CLIMATE SUCCESS STORY Monona Grove School District in Monona, WI cut the ribbon on the largest solar PV array on a K-12 public school building in the state with the help of a grant from the Public Service Commission of Wisconsin.





Source: Monona Community Media

Wisconsin celebrates solar array at Monona Grove High School

On May 21, 2022, Monona Grove School District in Monona, WI, cut the ribbon on the largest solar PV array on a K-12 public school building in Wisconsin, thanks to a \$250,000 grant from the Public Service Commission of Wisconsin (WI PSC). The WI PSC oversees public utilities in Wisconsin and is composed of three full-time commissioners, a majority of whom Governor Tony Evers appointed. The solar array project was made possible due to the cumulative efforts by teachers, students, school administrators, and community members to create a sustainability committee to explore how the school district could become more sustainable.

"With any sustainability project you have a wave of benefits that emanates outwards," said teacher Tyler Kuehl, who taught environmental science and served on the committee. Over the course of its lifetime, the project is expected to save the school district \$1.5 million—money that will then be available for other school needs. But more importantly, the project is providing

opportunities for students and staff to learn more about sustainable practices and the value of renewable energy. "Students will be able to learn about these panels and the connections to their lives in a variety of disciplines, including the trades and the ever-growing jobs that renewable energy provides," said Kuehl.

In addition to the benefits this project is providing to the students and the school community, the project will offset the burning of 16,000 tons of coal, reducing harmful coal-related emissions, including 31,000 tons of carbon dioxide. This will have significant positive health impacts for the broader community and aligns with Governor Evers' goal of ensuring all electricity consumed in Wisconsin is 100 percent carbon-free by 2050—as outlined in Executive Order No. 38. The solar array project was supported by \$50,000 from Focus on Energy, a state program that offers resources and incentives for energy efficiency and renewable energy projects.



Looking ahead to the next five years and beyond

While 2022 has been marked by extreme weather events and uncertainty across the United States, states have continued to rise to the challenge—adopting and implementing policies that will ensure our country avoids the worst impacts of climate change. The next five years will be crucial to maintaining this momentum and delivering on our climate goals and emissions reduction targets. With the passage of the Infrastructure Investment and Jobs Act and Inflation Reduction Act, states now have a major role to play in implementing and disbursing the new and expanded programs and funding in a way that maximizes their climate impact. Simply put, there is no time to waste. State climate leadership is now more important than ever.

This November may bring leadership changes across many of our states, but what will not change is the capacity of governors—acting individually and together—to lead on climate. Our coalition is prepared to build on the durable climate solutions developed over the past five years and accelerate progress as we welcome a new generation of Alliance governors into our ranks. We will work collaboratively across party lines and with the federal government to advance climate action at all levels of government, while demonstrating the jobs, economic growth, and public health benefits that come with building a clean energy future. We will forge new and non-traditional partnerships, cultivate public-private cooperation, and equip our current and incoming governors with the tools to lead.

Alliance governors are showing every day in their words and actions that good climate policy is good economic policy. There is now a clear roadmap for future governors to follow. Through the changes and transitions that are ahead of us, Alliance members will continue to lead the way by stepping up to the climate crisis, meeting the moment with resolve and determination, and charting the path forward. Now is the time to roll up our sleeves and ensure the nation takes the necessary action this decade to secure a more livable, sustainable future.

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