Advancing Equity through 100% Clean Energy

A Review of the Plans of 12 States

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Prepared for the 100% Clean Energy Collaborative

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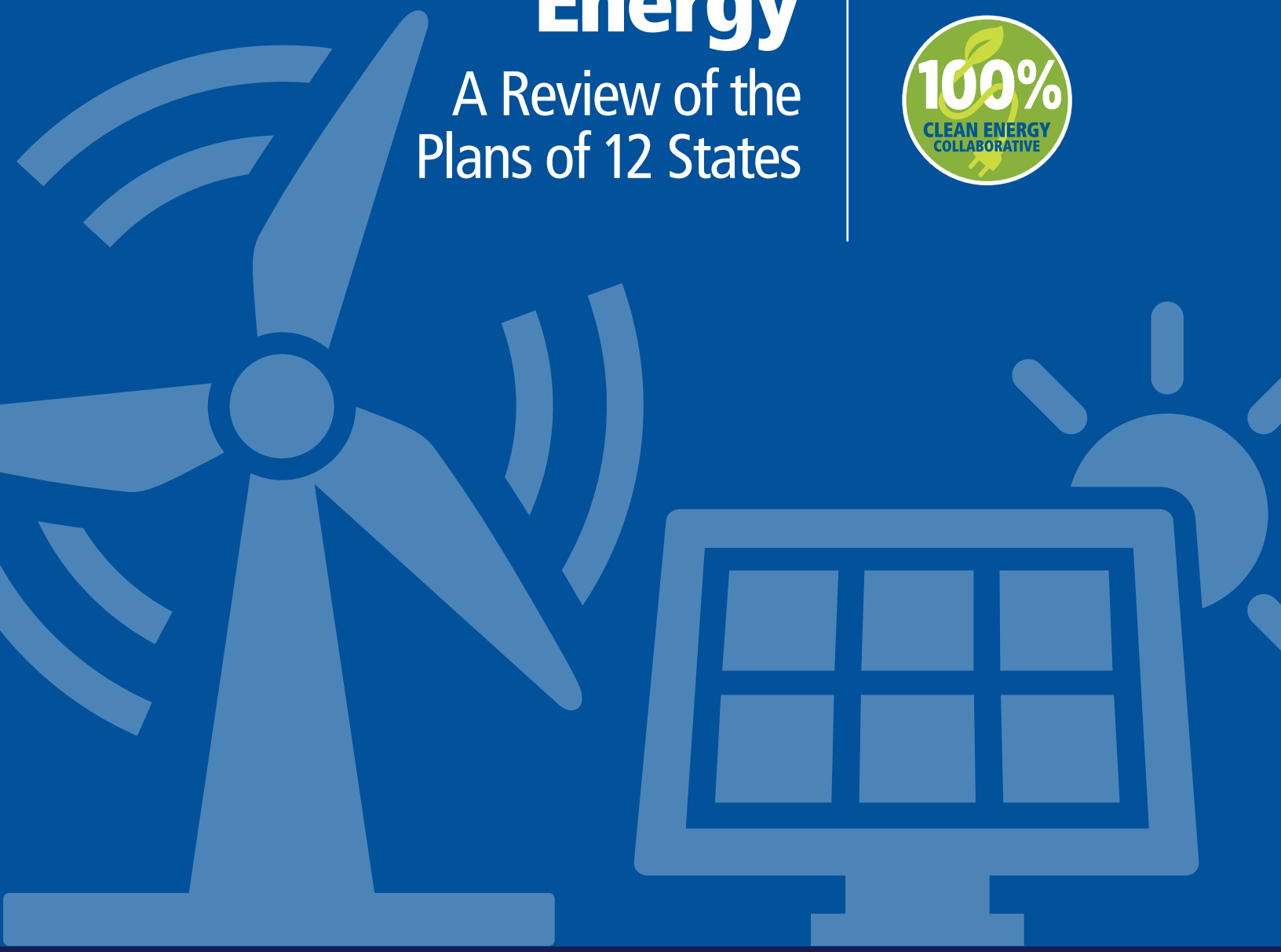

Clean Energy States Alliance In Partnership with United States Climate Alliance

About the 100% Clean Energy Collaborative

The Clean Energy States Alliance (CESA) created the 100% Clean Energy Collaborative to assist states that have 100% clean energy goals by providing knowledge-sharing activities and analysis so that they can address program challenges and opportunities. The primary participants in the Collaborative are state agency officials with responsibilities for achieving their state's zero-carbon goals, as well as policymakers in other states who may consider establishing similar goals. Through the Collaborative, participants share program insights, engage with analysts who are studying solutions to technical challenges, and participate in Collaborative meetings. www.cesa.org/100

To ensure the success of the Collaborative, CESA has entered into a partnership with the U.S. Climate Alliance (USCA), a bipartisan coalition of governors committed to reducing greenhouse gas emissions consistent with the goals of the Paris Agreement. CESA and USCA are coordinating their respective activities to create synergies and avoid duplication.

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About the Clean Energy States Alliance

CESA is a national, nonprofit coalition of public agencies and organizations working together to advance clean energy. CESA members—mostly state agencies—include many of the most innovative, successful, and influential public funders of clean energy initiatives in the country. CESA facilitates information sharing, provides technical assistance, coordinates multi-state collaborative projects, and communicates the views and achievements of its members. www.cesa.org

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Disclaimer

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by Charles Hua
for the 100% Clean Energy Collaborative

Introduction

In 2015, Hawaii became the first state to establish a goal of 100% clean energy. In the years since, 19 additional states, the District of Columbia, and Puerto Rico have followed suit, establishing executive orders and passing legislation to create legally binding and voluntary targets to achieve 100% clean energy for the electricity sector or economy-wide. The majority of Americans now live in a state that has established a 100% clean energy goal.[1]

Many of these states have developed plans that outline strategies—including policies, program, and processes—to achieve their clean energy targets. These plans often incorporate technical assistance from consultants and are frequently informed by feedback from internal and external stakeholders, including advocates and community representatives. Some of these 100% clean energy plans primarily consist of quantitative modeling results and corresponding recommendations based on those model outcomes; others focus on qualitative recommendations for achieving 100% clean energy goals based on a stakeholder-centered process.

Equity and environmental justice have played an increasingly prominent role in states' clean energy plans. Policymakers, legislators, community advocates, and a range of other stakeholders continue to push for a greater focus on equity and environmental justice in clean energy planning efforts. As a result, many states have made equity and environmental justice a priority in their 100% clean energy plans.

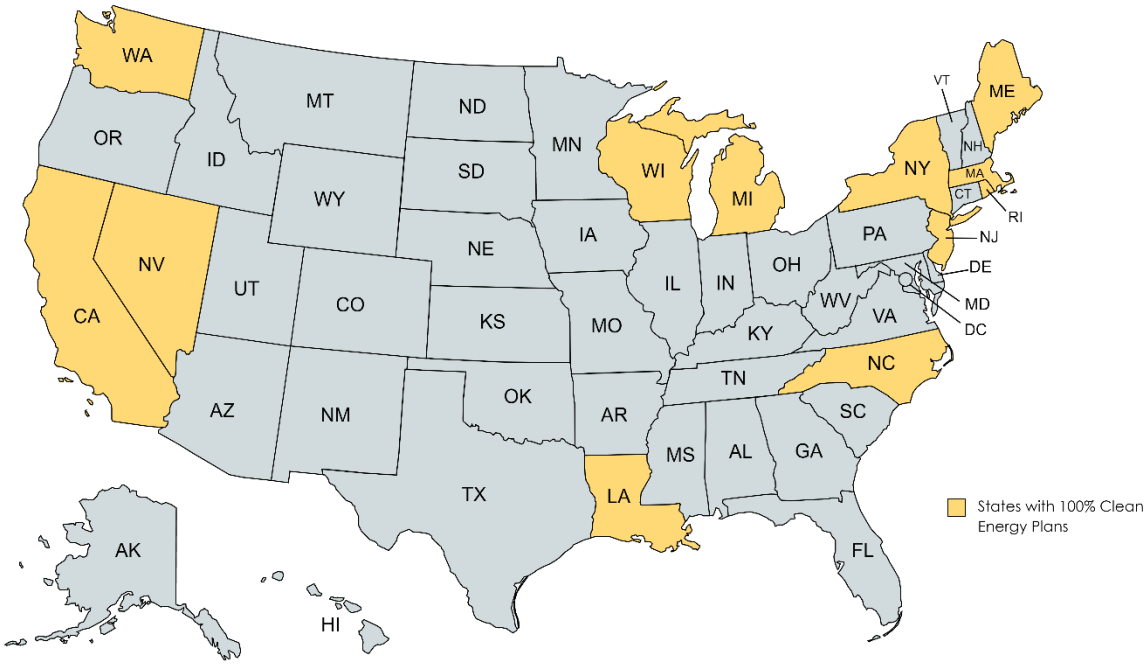
This paper reviews the 100% clean energy plans for the 12 US states with published plans and analyzes them through an equity and environmental justice lens (see Figure 1, p.6). These plans were published between 2019 and 2022, starting with North Carolina's and followed most recently by New York's. In most cases, a single state agency or office commissioned the plan, while other states developed the plan through a council, task force, or other governing body. A detailed list of the 100% clean energy plans considered is included in Appendix A.

This paper outlines different states' approaches regarding the equity implications of climate impacts, proposed mitigation solutions, and planning and implementation processes, in addition to other equity-related considerations. These concepts are also referred to in this paper as *recognition justice*, *distributive justice*, and *procedural justice*, respectively. The paper identifies common themes and best practices. It also presents a selection of relevant case studies and examples associated with them.

[1] "Table of 100% Clean Energy States," Clean Energy States Alliance, https://www.cesa.org/projects/100-clean-energy-collaborative/guide/table-of-100-clean-energy-states (accessed October 6, 2022).

This compilation of the equity-related provisions from different states' clean energy plans is intended to make it easier for stakeholders to see different ways in which equity and environmental justice can be addressed in state energy planning efforts. We hope this will lead to strong consideration of equity and environmental justice in future clean energy plans, strategies, and modeling studies.

Figure 1 – Map of 12 States that have established a 100% Clean Energy Plan



Equity of Impacts (Recognition Justice)

Numerous studies, including a 2021 analysis from the US Environmental Protection Agency (EPA), have documented the disproportionate impacts of climate change on different communities, with especially large impacts falling on "environmental justice" populations that primarily include low-income communities, communities of color, and other vulnerable or underserved communities.[2] These populations tend to have been historically underrepresented and marginalized, resulting in greater vulnerability to climate-related impacts, including heat waves, floods, air pollution, and exposure to toxic chemicals. For instance, EPA found that Black and African American individuals are "34% more likely to currently live in areas with the highest projected increases in childhood asthma diagnoses" and "40% more likely to currently live in

[2] "EPA Report Shows Disproportionate Impacts of Climate Change on Socially Vulnerable Populations in the United States," United States Environmental Protection Agency, https://www.epa.gov/newsreleases/epa-report-shows-disproportionate-impacts-climate-change-socially-vulnerable (accessed January 13, 2023).

areas with the highest projected increases in extreme temperature deaths," while Hispanics and Latinos are "43% more likely to currently live in areas with the highest projected reductions in labor hours due to extreme temperatures" and "50% more likely to currently live in areas with the highest estimated increases in traffic delays due to increases in coastal flooding." These populations live in places that have typically received less direct investment and benefits associated with the clean energy transition.

Several states have acknowledged these disproportionate impacts in their 100% clean energy plans. Building on research from the Initiative for Energy Justice (IEJ), the US Department of Energy (DOE) refers to this concept as *recognition justice*, which consists of "innovations and solutions that promote equity by addressing historic and ongoing inequalities."[3] Appendix B documents the ways in which states' 100% clean energy plans address equity of impacts.

Nearly all 12 states considered in this analysis have a general recognition, with varying degrees of specificity, of the disproportionate environmental, health, and economic impacts that certain populations have faced regarding climate change and energy issues. Often, there is reference to "vulnerable" and "disadvantaged" communities, although these discussions are not always accompanied by a clear definition of such communities. States use a range of sources to cite evidence for these equity and environmental justice impacts, including the Fourth National Climate Assessment (NCA)[4] and the Environmental Protection Agency.[5]

- The California 2021 SB 100 Joint Agency Report: Achieving 100 Percent Clean Electricity in California: An Initial Assessment mentions that climate impacts are "often disproportionately borne by the state's most vulnerable and disadvantaged populations."
- The Maine Won't Wait: A Four-Year Plan for Climate Action mentions that "the costs of Maine's inaction on climate change will be acutely borne by vulnerable communities, which should be given foremost consideration for opportunities and support from climate action." It goes on to outline specific ways in which climate change hits certain communities particularly hard, including a list of natural disaster, economic, and health impacts.
- The Louisiana Climate Action Plan: Climate Initiatives Task Force Recommendations to the Governor states that "Louisiana's low-income communities, communities of color, Indigenous people, and other marginalized residents are being hit especially hard because they are more likely to live in areas vulnerable to extreme weather and are typically less financially able to take on the economic challenges of recovery or relocation." (See Figure 2, p. 9.)

[3] Patricia Romero-Lankao and Erin Nobler, "Energy Justice: Key Concepts and Metrics Relevant to EERE Transportation Projects," National Renewable Energy Laboratory, https://afdc.energy.gov/files/pdfs/energy-justice-key-concepts.pdf, p. 2 (accessed January 13, 2023)

[4] "Fourth National Climate Assessment: Volume II Impacts, Risks, and Adaptation in the United States," U.S. Global Change Research Program, https://nca2018.globalchange.gov (accessed October 6, 2022).

[5] "Climate Change and Social Vulnerability in the United States: A Focus on Six Impacts," United States Environmental Protection Agency, https://www.epa.gov/system/files/documents/2021-09/climate-vulnerability_september-2021_508.pdf (accessed October 6, 2022).

- The Massachusetts 2050 Decarbonization Roadmap acknowledges that "for too long, too many people have disproportionately borne the environmental and health burdens associated with our current energy economy" and expresses a desire to "dramatically reduce…on-going, location-specific environmental burdens" for certain communities. Similarly, the Massachusetts Clean Energy and Climate Plan for 2050 recognizes that communities of color and low-income neighborhoods "face disproportionately higher exposure than other areas to health and climate risks because of decades of decisions about siting highways, power plants, and other sources of pollution," including pollution from power generators, industrial facilities, and vehicle exhaust.
- The 2019 New Jersey Energy Master Plan: Pathway to 2050 mentions that "environmental justice and low-income communities are disproportionately impacted by air pollutants and other environmental and climate change-related hazards."
- The New York Scoping Plan acknowledges that certain communities, specifically "disadvantaged communities" and "historically marginalized communities," demonstrate particular vulnerability to climate impacts, which are "adversely affecting economic well-being, public health, and public safety through increased risk of extreme heat, flooding, or exposure to air pollutants emitted alongside GHG emissions." The plan states that these "historically marginalized communities typically experience a lower life expectancy and quality of life as measured by environmental burdens, climate change risks, population characteristics, and health vulnerabilities." The plan uses a range of scientific studies to describe these impacts, finding that "the most severe harms from climate change fall disproportionately upon underserved communities that are least able to prepare for and recover from" climate impacts, communities that include "women, femmes, youth, and children in poverty."
- The Washington 2021 State Energy Strategy: Transitioning to an Equitable Clean Energy Future states that "climate change will inflict its greatest harm on highly impacted communities" and that "vulnerable populations and overburdened communities experience disproportionate, cumulative risk from environmental burdens, including climate change."
- The State of Wisconsin Clean Energy Plan acknowledges that "a long-standing reliance on fossil fuels, poor environmental policy decisions, and broader historical injustices have had a detrimental effect on various communities in the state."

A few of these states specifically use the term **"environmental justice"** when describing equity-related impacts and issues regarding the clean energy transition.

- The Massachusetts 2050 Decarbonization Roadmap acknowledges that environmental justice communities "experience higher than averages rates of environmentally-related adverse health impacts due to their proximity to the localized cumulative impacts and long-term environmental degradation associated with, among other things, the combustion of fossil fuels."
- The Michigan Healthy Climate Plan states that "environmental justice considerations are a key component of equitable climate action and will continue to be a priority for the state as it works to eliminate racial disparities impacting the health and well-being of Michiganders" and that the "transition to a carbon neutral economy has the potential to help alleviate existing environmental injustices, address historical harms, and create new opportunities for Michiganders." It grounds

this approach in a recognition of historic environmental injustice that have affected Michigan: the report discusses how environmental injustices are "part of a long history of race-based discrimination rooted in the sustained actions, behaviors, and attitudes of institutions and individuals and encoded in our laws at every level" and that "environmental justice communities disproportionately neighbor highways, power plants, factories, and other facilities" that "release pollution" and lead to poorer health and quality of lives, and that these communities "enjoy fewer trees and lack access to green spaces."

- The State of Wisconsin Clean Energy Plan has a dedicated section on environmental justice that outlines the disproportionate pollution and health impacts that low-income communities and communities of color face, in addition to energy burden impacts. The report specifically states that "dangerous criteria pollutant emissions from coal-fired power plants and the location of these plants often close to population centers" disproportionately affect "low-income and environmental justice communities most affected by the traditional energy economy."

All 100% clean energy plans identify the important role that **income and socioeconomic status** play. The following are a few examples.

- The Maine Won't Wait: A Four-Year Plan for Climate Action acknowledges that low-income households "often pay a higher percentage of their income to meet their home energy needs."
- The New York Scoping Plan indicates that climate change disrupts food systems, which "may have impacts on food security, particularly in low-income communities."
- The North Carolina Clean Energy Plan: Transitioning to a 21st Century Electricity System acknowledges the barriers that underserved communities face when attempting to adopt clean energy. The plan mentions that low- and moderate-income residents "face many challenges when trying to adopt clean energy" and that "many of these same communities face disproportionate burdens from energy production, generation, and use, and would benefit especially from measures that increase non-emitting sources of energy." The plan references the reality that low income and energy burdened individuals experience a host of barriers, including living in older and less energy efficient housing, spend a greater proportion of their income on their electricity bills, can't take advantage of existing clean energy programs as readily as others due to physical and financial barriers, and may lack access to certain financing opportunities (for example, due to lower credit scores or lack of access to full tax credit benefits). They may not be able to "take advantage of existing programs for clean energy or energy efficiency due to up-front costs and financing challenges, physical challenges related to the quality of the building or ownership status of their housing, or simply a lack of access to high-integrity service providers."
- The Washington 2021 State Energy Strategy: Transitioning to an Equitable Clean Energy Future finds that "low-income communities are disproportionately more likely to experience the environmental and health disparities associated with climate change."

Additionally, many, but not all, of these states explicitly call out the role that **race and histories of racial discrimination and systemic racism** have played in exacerbating climate injustices and energy inequities.

- The California 2021 SB 100 Joint Agency Report: Achieving 100 Percent Clean Electricity in California: An Initial Assessment acknowledges research showing that "Latinos, African Americans, and low-income communities are exposed to substantially higher levels of vehicle pollutants than other demographic groups," resulting in disproportionate air pollution burdens on communities of color.
- The Louisiana Climate Action Plan: Climate Initiatives Task Force Recommendations to the Governor acknowledges that "climate change and GHG emissions disproportionately impact low-income, Black, and Indigenous communities" and that "these communities are the least responsible for emissions but bear the highest costs in health and environmental degradation."
- The Michigan Healthy Climate Plan acknowledges that although the State of Michigan "should be a place where everyone, no matter their zip code or what is in their wallet, should have the opportunity to thrive...this has not always been the case, particularly for Black, brown, Indigenous, rural, and low-income people." The plan includes a section dedicated towards explaining the disproportionate health, economic, and other impacts of climate change on such communities.
- The New York Scoping Plan states that race is one of the two biggest predictive factors, along with wealth, of who bears a "disproportionate burden of the impacts of climate change and pollution" due to historical legacies of marginalization, including "racial and ethnic discrimination across public institutions, which has created a structural disadvantage and made it particularly difficult for some New Yorkers to access basic needs."
- The North Carolina Clean Energy Plan: Transitioning to a 21st Century Electricity System acknowledges that "pollution to waterways, odors, and public health concerns" are "felt disproportionately by minority populations."
- The Road to 100% Renewable Electricity by 2030 in Rhode Island acknowledges that "there is a long history of systemic racism and inequities in the United States and Rhode Island that have shaped current systems and processes" and that, consequently, "communities of color and environmental justice communities have gained lived experiences crucial to shaping better programs that serve their immediate needs."
- The State of Wisconsin Clean Energy Plan acknowledges the costs of inaction on climate, including the fact that low-income communities and communities of color are more likely to be exposed to environmental toxins and poor air quality that increases the risk of respiratory illnesses and asthma exacerbation," including the fact that "exposure to air pollution falls unequally on Black, Hispanic/Latino communities, and communities of color."

Certain 100% clean energy plans specifically reference **Indigenous and Native American populations** as having particularly suffered from historical legacies of energy inequity.

- The Louisiana Climate Action Plan: Climate Initiatives Task Force Recommendations to the Governor has a dedicated section on climate impacts on Indigenous peoples, mentioning that "Indigenous peoples are also uniquely and disproportionately impacted because of the compounding health issues related to the loss of traditional foods, practices, and the mental stress of adaptation alongside the damage to ecosystems, species, and land that carry cultural, economic, and historical significance," that "the ability of Indigenous peoples to adapt to climate-change-

induced changes can also be thwarted by limitations to self-determination that arise differently for federally or state-recognized tribes," and that "Indigenous peoples can be even more vulnerable to the physical challenges brought on by climate change because of historical and ongoing social, political, and economic factors with tangible impacts on human health, called 'social determinants of health.'"

- Nevada's 2020 State Climate Strategy outlines the impact of climate justice for Nevada's Indigenous communities, acknowledging that "low-income communities, people of color, and Indigenous populations have disproportionately borne the burden of climate change impacts."

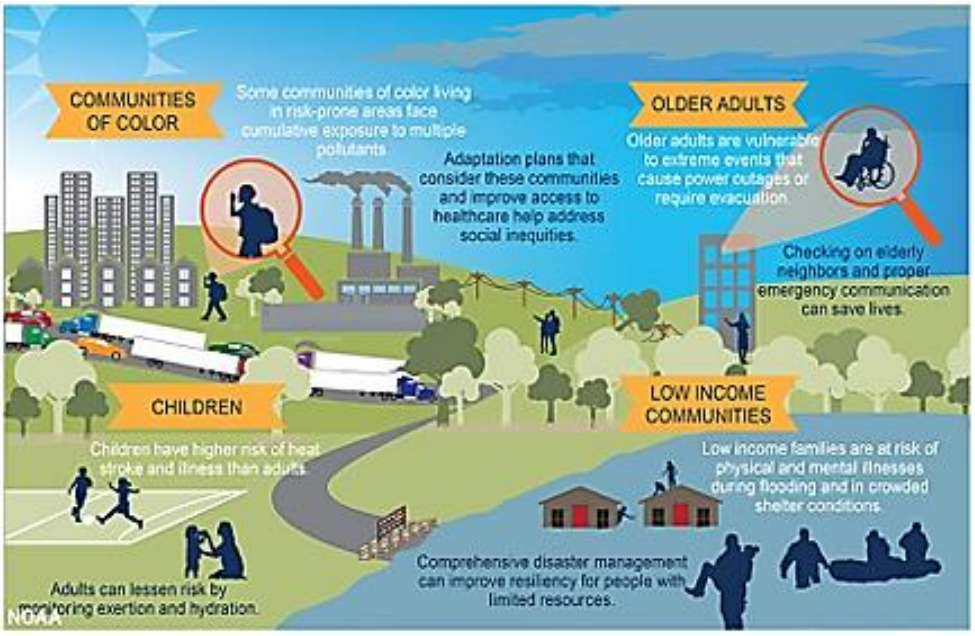
Some states cite **quantitative metrics** specific to communities within their own state regarding energy equity and climate justice.

- The Louisiana Climate Action Plan: Climate Initiatives Task Force Recommendations to the Governor states that "people of color are most likely to currently live in areas that are projected to have the highest levels of climate change impacts with 2 degrees Celsius of warming" and that "Black individuals, in particular, are at increased risk for health effects, in part due to disparities in exposure" as "Black individuals are 41-60% more likely than others to currently live in areas with the highest projected increases in premature mortality from climate-driven changes in PM 2.5" and that "Black individuals are also 34% more likely to live in areas with the highest projected increases in childhood asthma diagnoses due to climate-driven changes in particulate air pollution." See Figure 2, p. 12.
- The Washington 2021 State Energy Strategy: Transitioning to an Equitable Clean Energy Future cites that "Black Washingtonians were 10 times more likely to live in the highest ranked census tract than the lowest ranked census tract" in terms of the greatest environmental health disparities.

Some clean energy plans include references to the ways in which certain communities have historically suffered from **underinvestment**, resulting in **missed opportunities for wealth building**, thereby exacerbating climate-related inequalities among different populations.

- The Louisiana Climate Action Plan: Climate Initiatives Task Force Recommendations to the Governor states that Louisiana's low-income communities, communities of color, Indigenous people, and other marginalized residents have been "excluded from the opportunity to build wealth for generations, are more likely to live and work in overburdened communities, are more likely to live in areas with higher flood risk, and are more likely to experience insufficient or delayed investments in infrastructure and disaster recovery efforts."
- The Michigan Healthy Climate Plan states that environmental justice communities are often communities of color and low-income communities that have "been excluded from the opportunities enjoyed by most of society and left behind during major historic economic shifts like our current transition to carbon neutrality."

Figure 2 - Climate Vulnerable Populations - Heath Impacts



Certain populations are particularly vulnerable to climate impacts.
Graphic is from Louisiana Climate Action Plan: Climate Initiatives Task Force Recommendations to the Governor.

- The North Carolina Clean Energy Plan: Transitioning to a 21st Century Electricity System mentions that many energy burdened communities "are the least able to reap benefits of investments in clean energy and energy efficiency while being most impacted by the legacy energy industry."

Other equity-related issues come up in states' 100% clean energy plans, albeit less frequently than the previously mentioned topics.

Some states mention mental health concerns as an important health-related impact.

- The Louisiana Climate Action Plan: Climate Initiatives Task Force Recommendations to the Governor acknowledges the mental health impacts of climate change-related stress and states that "some groups are more likely than others to be at risk to the negative mental health effects, including the economically disadvantaged and Indigenous peoples."

Accessibility of clean energy solutions for certain populations is an important consideration for the Michigan and Massachusetts 100% clean energy plans.

- The Massachusetts 2050 Decarbonization Roadmap acknowledges that "the ability of Massachusetts residents to participate in this thirty-year transition will differ as a result of income level, race, ability to access and benefit from available resources, location in urban and rural settings, proficiency in English, and previous marginalization."

- The Michigan Healthy Climate Plan states that public transit opportunities are not "equitably accessible to all Michigan families" and that this is particularly true for people with disabilities.

Equity is not only about income or race, but also encompasses a variety of considerations regarding a fair and "just" transition.

- The Michigan Healthy Climate Plan dedicates a section to explaining the importance of a just energy transition from an economic standpoint, including workforce development and protection.
- The Washington 100% clean energy plan places particular emphasis on the transportation sector's role in poor equity and environmental justice outcomes, particularly pollution from cars.
- The Washington 2021 State Energy Strategy: Transitioning to an Equitable Clean Energy Future identifies transportation as a "major source of local air pollution, industrial activity, and railways" in "communities where vulnerable populations often reside."

Lastly, some 100% clean energy plans acknowledge that the COVID-19 pandemic has placed an even greater burden on these communities.

- Maine Won't Wait: A Four-Year Plan for Climate Action mentions that the COVID-19 pandemic has "mirrored the gradual effects of climate change," which includes the "inequities and unequal burdens that economic and social disruptions have on vulnerable populations."
- The Washington 2021 State Energy Strategy: Transitioning to an Equitable Clean Energy Future states that "rural and low-income communities are disproportionately exposed to this threat" of climate change and the impacts of the COVID-19 pandemic.

Equity of Solutions (Distributional Justice)

Beyond recognizing that environmental justice communities face outsized burdens from climate impacts, many states require or encourage the incorporation of equity and environmental justice considerations in proposed clean energy solutions. These efforts include policies, programs, investments, and other strategies to accelerate the development and deployment of clean energy technologies particularly for low-income communities and communities of color. The US DOE refers to this concept as *distributional justice*, or efforts to "ensure the fair distribution of benefits or negative impacts" associated with a particular policy or portfolio of policies. Appendix C documents the ways in which states' 100% clean energy plans address equity of solutions.

The section below on equity of solutions looks first at states' efforts to recognize the importance of distributional justice and then at proposed solutions to the problem.

The Importance of Distributional Justice

Many states recognize the need for equity of solutions in their clean energy planning efforts and include equity and environmental justice as a component of the state's overarching framework regarding climate action.

- The 2021 SB 100 Joint Agency Report: Achieving 100 Percent Clean Electricity in California: An Initial Assessment lists "advancing energy equity"—specifically, "ensuring the benefits of cleaner, more efficient energy are enjoyed by all Californians, including those in low-income and disadvantaged communities, as well as tribal and rural communities"—as a key component of the state's efforts to achieve 100% clean electricity. Implementation of the law will require efforts to benefit disadvantaged communities, in addition to tribal and rural communities. The plan defines ensuring equitable outcomes as "keeping electricity affordable, with an emphasis on vulnerable populations and households that pay a disproportionately high share of their household income on energy… reducing air pollution from local power plants, particularly in communities that experience a disproportionate amount of air pollution, … strengthening communities' ability to function during power outages and enjoy reliable energy in a changing climate, … [and] funding of training for high-quality jobs and careers in the growing clean energy industry."
- The Louisiana Climate Action Plan: Climate Initiatives Task Force Recommendations to the Governor states that Louisiana has been "prioritizing equity in the design of policies" such that the "costs of mitigation or adaptation actions do not fall unequally on people currently and historically disadvantaged in Louisiana." The plan is an "opportunity to implement climate mitigation and adaptation measures which also address long-standing inequities while promoting new opportunities for a more inclusive, low-carbon economy in the future."
- Maine Won't Wait: A Four-Year Plan for Climate Action states an intent to advance equity and "ensure communities and citizens who are often left behind can benefit from climate solutions by having access to opportunities and protection from threats." One of the plan's four primary goals is to advance equity.

- The Massachusetts 2050 Decarbonization Roadmap states that the "Commonwealth's policy action plan" aims to "equitably and cost-effectively achieve" the state's emissions reduction targets, yielding "equitable access to the known benefits of decarbonization, while avoiding the potential inequitable distribution of costs." Additionally, the Massachusetts Clean Energy and Climate Plan for 2050 includes "Centering Environmental Justice" as one of its eight core chapters, outlining a vision for ensuring equitable investments in reducing air pollution and siting infrastructure equitably, Additionally, the plan states a general need to "close the gap between environmental justice and non-environmental justice communities in receiving the benefits of the clean energy transition" by prioritizing and centering equity and justice in policymaking efforts.
- The Michigan Healthy Climate Plan states that "environmental justice considerations are a key component of equitable climate action and will continue to be a priority for the state as it works to eliminate racial disparities impacting the health and well-being of Michiganders" and that the "transition to a carbon neutral economy has the potential to help alleviate existing environmental injustices, address historical harms, and create new opportunities for Michiganders."
- The 2019 New Jersey Energy Master Plan: Pathway to 2050 states that New Jersey "has a responsibility to facilitate equal access to and representation within the clean energy economy and all the opportunities and benefits it provides." The plan states the importance of having New Jersey "encourage, support, and enable…environmental justice communities to assess the impacts of localized pollution, assess energy demand, build more resilient communities, and establish opportunities across all sectors to develop the innovation economy at the local level and to participate in and benefit from the clean energy economy."
- The New York Scoping Plan provides a comprehensive discussion around the state's emphasis on advancing climate justice to "address the structural disadvantages that have caused historically marginalized communities…to bear a disproportionate burden of the impacts of climate change and pollution." The effort seeks to advance equity-oriented climate mitigation and adaptation efforts, uplift "historically marginalized populations," ensure an equitable clean energy transition, and create economic opportunities by targeting and prioritizing the development and deployment of proposed strategies in these communities while ensuring that they are not disproportionately harmed by administrative decisions. Furthermore, "through enshrining equity objectives in state investments, program design, and internal and external engagement strategies," the plan aims to create a "high standard of economic well-being and health every community." These efforts will work towards the desired outcome of making "every neighborhood and community healthy and resilient to the unavoidable impacts of climate change and to provide quality jobs in safe work environments for all New Yorkers in a thriving energy economy."
- The North Carolina Clean Energy Plan: Transitioning to a 21st Century Electricity System states that "to successfully transition to a clean energy future, North Carolina must" pursue policy and regulatory models that create an "energy system that is clean, affordable, reliable, and equitable."
- Nevada's 2020 State Climate Strategy states that "by acting on climate, the state can move toward addressing Nevadans' concerns and build a better future with cleaner air, better health,

an equitable society, economic stability, renewable energy, and a cleaner environment for everyone." The plan proposes a climate mitigation policy evaluation framework that includes climate justice—specifically, whether communities of color, low-income communities, and tribal communities have been meaningfully engaged in the policy development process and whether vulnerable communities will experience negative impacts and/or net benefits with proposed policies—as one of its four pillars.

- The Road to 100% Renewable Electricity by 2030 in Rhode Island aims to "consider specific policy, programmatic, planning, and equity-based actions" to achieve the 100% renewable electricity goal, using three key principles of decarbonization, economic considerations, and policy implementation. One of the economic considerations' sub-principles is to "improve energy and environmental equity."
- The Washington 2021 State Energy Strategy: Transitioning to an Equitable Clean Energy Future states that "a just and equitable state energy strategy is a necessary condition for success" and that stakeholders should "examine clean energy policies for equity impacts in development and during implementation" and that the state should "provide needed funding for communities to participate in the clean energy transformation." The plan provides numerous reasons why the state considers equity and environmental justice an important priority, noting that "the strategy must benefit people, businesses, and rural, urban, highly impacted, and Indigenous communities throughout the state." The plan asserts that "highly impacted communities and vulnerable populations must gain the most from this transition as they are most at risk from worsening climate impacts" and that "equitable energy policy design addresses inequities, while creating environmental and economic opportunities for all," which can "also offer the opportunity to improve democratic participation across state and local government and create public confidence in government."
- The State of Wisconsin Clean Energy Plan indicates that justice, equity, and collaborative action are three core pillars of the state's clean energy transition, aims to "ensure communities that have been most impacted by climate change benefit from this transition," and asserts that the state must prioritize "transforming environmental, health, and economic conditions for communities disproportionately impacted by climate change" and that "a just and equitable clean energy transition can lessen the energy burden that is often placed on families with low incomes and lessen hardships for those who are already struggling to make ends meet." A main objective of the plan is "reducing the disproportionate impacts of energy generation and use on low-income communities and communities of color" and "maximizing the creation of, and equitable opportunities for, clean energy jobs, economic development and stimulus, and retention of energy investment dollars in Wisconsin."

Strategies for Achieving Distributional Justice

Nearly all states include **strategic recommendations and proposed actions** that the state and relevant stakeholders should take to accelerate climate action, with each state articulating these strategies in

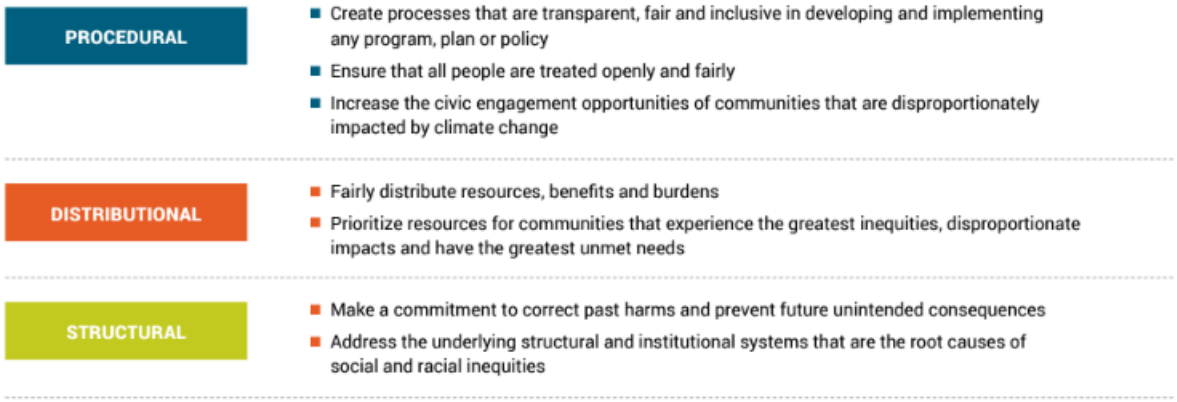
slightly different ways. Many states have recommendations that address equity and environmental justice.

- The Louisiana Climate Action Plan: Climate Initiatives Task Force Recommendations to the Governor consists of seven strategies, one of which is "creating a more equitable society" with three core components: "reduce socioeconomic, demographic, and geographic disparities in future opportunities and outcomes," "maximize reduction and mitigation of historical and structural inequities and their impacts for underserved and marginalized communities, including communities of color and Indigenous peoples," and "maximize engagement with and participation of communities in decision-making and implementation." The plan proposes a series of environmental justice measures, including strategies to provide financial incentives for clean energy in an equitable manner, promote greater equity in the development and deployment of clean energy technologies (including carbon capture, utilization, and storage; electric vehicles; and broadband internet), and other equity-focused clean energy solutions (public transit, regional composting facilities and community gardens, equity-oriented regulatory frameworks, grant programs focused on low-income households, and property-assessed clean energy financing).
- Maine Won't Wait: A Four-Year Plan for Climate Action includes a range of strategies and sub-strategies, one of which has an equity component. The plan recommends that the state "establish a term-limited incentive program, targeted to low- and moderate-income drivers, to encourage drivers to upgrade to higher-efficiency vehicles in the near term." The plan also references results of the state's "Equity Assessment" regarding alignment with equity objectives. Specific strategies include ensuring equitable access to electric vehicles and charging infrastructure through targeted incentives and public transit, targeted weatherization and heat pump incentive programs, price stability and affordability for ratepayers, greater access to electrification solutions for low- and moderate-income communities, expanded access to job opportunities, and equitable outreach in stakeholder engagement.
- The Michigan Healthy Climate Plan includes addressing environmental justices as one of the plan's eight primary objectives. The plan "strongly emphasizes environmental justice to ensure Michigan's climate strategies uplift every portion of the state, including individuals and communities that have borne the brunt of climate impacts and are at the greatest risk of being left behind in the transition ahead. It proposes several recommendations, each of which includes environmental justice considerations. For example, the plan proposes a range of goals and objectives including ensuring energy affordability and justice, limiting energy burden, incentivizing energy efficiency particularly for low-income residents, adopting a "30x30 initiative" to conserve 30 percent of Michigan's land and water resources by 2030 in consultation with Tribal Nations, and developing environmental justice data and screening tools.
- Nevada's 2020 State Climate Strategy proposes several strategies, each of which is evaluated along the dimension of climate justice, accompanied by significant discussion of equity-related considerations and impacts for proposed strategies.
- The 2019 New Jersey Energy Master Plan: Pathway to 2050 proposes several strategies and sub-strategies that have equity provisions, each of which includes specific details and a rationale.

These strategies include recommendations to prioritize education, incentives, energy efficiency programs, clean power generation, and clean transportation solutions in low- and moderate-income and environmental justice communities.

- The New York Scoping Plan proposes strategies across multiple sectors, some of which incorporate equity and environmental justice components. The plan also includes an overarching framework of prioritizing climate justice for "disadvantaged communities" that includes five key benefits, including improved energy affordability, reduced environmental burden, a more inclusive economy, greater investment, and robust stakeholder engagement.
- The North Carolina Clean Energy Plan: Transitioning to a 21st Century Electricity System provides detailed recommendations on how the state can improve equity outcomes, embeds rationale for considering equity impacts throughout discussions of proposed recommendations, and includes specific actions to mitigate these issues. It proposes several recommendations around "equitable access and just transition" to "address equitable access and energy affordability" and to "foster a just transition to clean energy." Specific recommendations include incorporating social equity and environmental justice impacts in cost-benefit methodologies "used to make decisions about resources and programs" in addition to policy development and decision making processes, inclusive financing programs, assessments of the feasibility of a low-income electricity rate structure, apprenticeship programs to expand access to clean energy jobs, creating long-term job opportunities for displaced workers, and development of equity metrics to track and measure progress.
- The Road to 100% Renewable Electricity by 2030 in Rhode Island proposes three sets of recommendations: policy, planning and enabling, and equity recommendations. The proposed equity recommendations include establishing community partnerships including education and stakeholder engagement, developing equity metrics to track progress, and improved community-determined outcomes to reduce equity-related barriers and provide financial and non-financial support to frontline communities.
- The Washington 2021 State Energy Strategy: Transitioning to an Equitable Clean Energy Future proposes a "framework for equitable policy design" and evaluation that includes a seven-step process for environmental justice (see Figure 3, p. 19) focused on three dimensions of environmental justice (procedural, distributional, and structural) (see Table 1, p. 20). The plan states that "local communities and advocacy organizations…need to hold policymakers and government officials accountable when policies fail to meet these criteria." The plan proposes several strategies, one of which is to "build an equitable, inclusive, resilient clean energy economy," including sub-strategies that state the need for stakeholders "recognize that no single definition of equity may be satisfactory," "break from historical patterns and narratives," "ensure public participation and inclusion of historically marginalized voices," "prioritize energy resiliency as part of energy policy and planning," and "embed equity in the design of clean energy policies and programs."

Figure 3 - Three Dimensions of Environmental Justice Work



Washington state considers three primary components of an equitable approach: procedural equity, distributional equity, and structural equity. Graphic is from the Washington 2021 State Energy Strategy: Transitioning to an Equitable Clean Energy Future. Source: Washington State Department of Commerce.

- The State of Wisconsin Clean Energy Plan proposes a series of measures targeted at improving energy equity outcomes for the state, particularly in low-income communities and environmental justice communities. Those measures include: promote equitable deployment of clean energy and transportation technologies (including community solar, electric vehicle charging, renewable thermal); promote development of equity-oriented policies (including equity and environmental justice provisions for policies related to net metering, third-party solar, and utility tariffs); expand access to financing for low-income customers; invest in energy efficiency programs; develop clean energy education and outreach efforts; create inclusive and diverse stakeholder engagement, develop data-driven equity tools; diversify suppliers and contractors through procurement policies; and improve equity-related data collection. The plan also proposes an "equity first program" that consists of a "novel, comprehensive, and holistic statewide program to deliver the broadest range of clean energy technologies and services to the homes and businesses who need it most."

Table 1 - Seven Step Process for Building Equity into Clean Energy Policies

Equitable Policy Design	Highlights and Priorities
1. Ensure equitable access to economic benefits and opportunity by empowering communities.	Support participatory processes, direct funding, removal of barriers to autonomy and independence and greater access to processes and decisions.
2. Ensure universal and equitable access to affordable remote service options.	Efforts must be expanded to develop affordable, quality broadband, including in rural and under-resourced areas.
3. Center program design on reduction of energy cost burdens.	Reduce home energy and transportation costs for highly impacted populations by focusing on cost burden as a metric in planning.
4. Incorporate health disparity metrics into energy planning.	Improve health and safety, safeguard against health and safety risks and improve access to the physical, service and social conditions linked to health and well-being by operationalizing a health disparity metric in energy planning.[23]
5. Increase resilience and energy sovereignty for Tribes and energy independence for vulnerable communities.	Support the efforts of communities especially prone to instability from climate change and other natural disasters, such as communities located in the Cascadia Subduction Zone and wildfire prone areas and communities impacted by fossil fuels.[24]
6. Address procedural inequities in program design and prioritize equitable development.	Perhaps the most significant combined equity-and-energy gains can be made through planning. The state has an opportunity to help guide clean and equitable development of programs and funding that support development.
7. Address nexus issues of affordable housing, livable communities and displacement in energy policy.	Work with housing policy experts to address unhoused and displaced communities through energy policy design, especially focusing on cost burdens.

Source: Washington State Department of Commerce

Washington state provides a seven-step plan for advancing equity. Graphic is from the Washington 2021 State Energy Strategy: Transitioning to an Equitable Clean Energy Future. Source: Washington State Department of Commerce.

Most often, states look towards **equitable adoption and deployment of clean energy technologies** as a critical way to advance equity and environmental justice benefits for historically marginalized communities. Beyond the ones already mentioned, there are other examples of efforts to advance equitable clean energy solutions.

- The 2019 New Jersey Energy Master Plan: Pathway to 2050 proposes to "develop a comprehensive Community Energy Plan program in concert with local community groups to identify energy needs and establish ways to participate in and benefit from the clean energy transition at the local level," to "maximize solar rooftop and community solar development in urban and low- and moderate-income communities using the local workforce," and to "adopt equitable clean energy financing mechanisms that enable greater penetration of energy efficiency opportunities for all customers."
- The New York Scoping Plan recommends clean energy measures with a particular focus on yielding benefits for "disadvantaged communities," including strategies to provide financial and

technical support for large-scale renewables, retire facilities based on environmental justice considerations, create investment in disadvantaged communities, hire workers from disadvantaged communities and provide support for displaced and transitioning workers, transition away from fossil fuel-based natural gas systems in an "equitable and cost-effective manner," and consider emissions of co-pollutants in disadvantaged communities for emissions reductions. Other efforts include measuring and publishing benefits to disadvantaged communities, providing robust consumer protections, and alleviating high transmission interconnection costs in disadvantaged communities. The report claims that these strategies will result in air quality improvements, energy bill savings, workforce and economic development opportunities, and greater investment.

- The North Carolina Clean Energy Plan: Transitioning to a 21st Century Electricity System promotes the development of community solar and weatherization to reduce energy burdens and to expand access to clean energy resources.
- The Washington 2021 State Energy Strategy: Transitioning to an Equitable Clean Energy Future proposes actions to "advance an equitable clean energy economy." These actions for equitable energy distribution and deployment include equity assessments of renewable energy programs, energy equity indicators, a publicly accessible energy equity dashboard, community engagement process metrics, and an evaluation of past and existing clean energy programs to identify "highly impacted populations" and "gaps in service…for further investment." Additional strategies include equitable deployment of clean energy technologies (including distributed energy resources and community renewable generation resources) and equity-focused renewable potential assessments to determine siting of in-state energy resources. The plan also proposes actions to "develop plans for the long-term transition of the natural gas distribution system," which includes efforts to examine "financing, incentives and other mechanisms to protect members of highly impacted populations," in addition to provisions stating that natural gas distribution companies should "work with regulators and stakeholders to develop comprehensive and equitable plans to transition from the use of fossil natural gas."

Equity features prominently in many states' **transportation decarbonization strategies**, particularly in recognition of the air pollution and health impacts associated with combustion-based transportation modes and the importance of affordable and accessible transportation options for low-income populations who rely on reliable transit service for their jobs. For example:

- The Massachusetts Clean Energy and Climate Plan for 2050 aims to improve transportation equity by providing financial support to low-income drivers for electric vehicles, by assisting low- and moderate-income residents with retiring old and high-emissions vehicles, and by helping them "acquire cleaner alternatives, including electric vehicles, transit passes, e-bikes, or alternative modes of transportation."
- The New York Scoping Plan proposes improved public transportation services for underserved and unserved communities, incentive and rebate programs for low- and moderate-income customers to adopt clean vehicles, investments in electric vehicle charging infrastructure and fleet electrification in disadvantaged communities, enactment of a "Clean Transportation

Standard" prioritizing co-pollutant emissions reductions in disadvantaged communities, and efforts to ensure alternative fuels, including hydrogen, do not "continue to disproportionately impact" disadvantaged communities.

- The Washington 2021 State Energy Strategy: Transitioning to an Equitable Clean Energy Future highlights the importance of efforts to "create accessible, affordable, safe and sustainable mobility opportunities that work for all Washingtonians—particularly highly impacted populations which often lack historical mobility investments." The plan proposes planning efforts to "shift travel to more efficient modes" including public transit and maritime freight transport with an eye towards "equity and efficiency benefits" and the development of a roadmap "describing how the state will achieve an equitable transition to a zero-carbon transportation sector." The plan also considers a road usage charge, reductions in freight vehicle miles traveled, incorporation of environmental justice and health criteria for "planning and development" of clean transportation projects through a "cumulative impacts analysis tool," equitable and "stable funding mechanisms" for "maintenance…and system improvements across all transportation modes," expanded affordability and access of electric vehicles and accompanying infrastructure in conjunction with electric utilities for underserved communities. These policies should "directly benefit highly impacted populations and people with disabilities" through urban and rural transit investments, while clean transportation targets "should be especially aggressive for diesel-fueled, short-haul vehicle classes…that contribute disproportionately to local air pollution, especially in frontline communities."

Equitable **building decarbonization strategies** are similarly important for a few states' clean energy plans. For example:

- The Massachusetts Clean Energy and Climate Plan for 2050 proposes to establish a statewide "benchmarking and labeling program" to "be integrated with existing programming to support necessary building upgrades in a way that will not create undue burdens" for environmental justice populations and proposes that particular efforts be made to ensure equitable access to clean energy program offerings.
- The New York Scoping Plan proposes: scaling up investment in energy efficiency and heat pump solutions for disadvantaged communities; changes to building codes and regulations in order to prioritize low- and moderate-income customers and frontline communities; technical and financial assistance for energy upgrades; financial support programs including grants and rebates; affordable and public housing solutions; expansion of Weatherization Assistance Program efforts to better serve disadvantaged communities; workforce development and training programs; consideration of new partnerships to "effectively deliver programs," including with housing agencies and community development financial institutions; and phaseout of hydrofluorocarbons.
- The Washington 2021 State Energy Strategy: Transitioning to an Equitable Clean Energy Future identifies numerous opportunities for the state to advance equity through building dicarbonization to "enable equitable outcomes for low-income communities, including improvements in public health outcomes, increases in energy affordability, and making homes more comfortable."

In particular, the plan proposes that the state "invest in Washington's clean buildings and weatherization workforce development organizations" through grant and workforce training programs for historically underrepresented communities and develop a Washington Building Decarbonization Plan to identify challenges that "highly impacted populations and low-income communities" face that couples "non-energy policy with energy policy" and supports equitable workforce development efforts. Additional specific measures include alignment of utility rate-payer programs with the "needs of low-income and other vulnerable customers;" accelerated equitable deployment of low-emissions refrigerants, energy efficiency and electrification programs focused on equity metrics; a mandatory residential performance standard including "comprehensive equity and workforce provisions;" inclusion of Tribal representatives in development of energy codes and building performance standards; and accelerated decarbonization of public buildings in low-income communities.

A couple of states identify solutions to advance climate justice through **agricultural and natural resources strategies**. For example:

- The Massachusetts Clean Energy and Climate Plan for 2050 proposes to prioritize environmental justice in natural and working lands solutions, such as by increasing tree canopy in environmental justice neighborhoods and by ensuring land management is more equitable. The plan also recognizes the importance of considering potential risks and harms of carbon sequestration measures on environmental justice communities. Additionally, the plan proposes expanding air monitoring networks in environmental justice populations through air monitoring stations and distribution of air sensors to different municipalities to improve data around air quality and air pollution, particularly for environmental justice populations.
- The New York Scoping Plan proposes technical and financial resources to "improve access to programs and reduce barriers to access for historically unrepresented farmers and forest land-owners," efforts to promote soil health and climate resiliency, and identification of bioenergy and low-carbon pathways to improve air quality and health benefits while avoiding pollution in disadvantaged communities.

Investment in historically marginalized communities is a prominent lever in many states' approaches to advance equity.

- The Massachusetts Clean Energy and Climate Plan for 2050 announces a commitment for the state to work with stakeholders, including the state's Environmental Justice Council, to identify climate investments benefitting environmental justice neighborhoods and to set a minimum threshold for investments benefiting environmental justice populations. While the plan does not specify the percentage or dollar amount for this investment, the state will gather data on existing investments in disadvantaged communities and pursue a robust stakeholder engagement process to determine best metrics to track investments in environmental justice communities (e.g., percentage-based investment vs. total funding requirement), along with the value of this investment threshold.

- The Michigan Healthy Climate Plan proposes that "at least 40 percent of state funding for climate-related and water infrastructure initiatives benefit Michigan's disadvantaged communities," in alignment with the Biden Administration's Justice40 initiative, and that such efforts be "developed in partnership with leaders in disadvantaged communities."
- The New York Scoping Plan includes several measures to direct greater investment towards disadvantaged communities. In particular, the report proposes a goal of disadvantaged communities receiving a "minimum of 35%, with a goal of 40%, of the benefits of spending on clean energy and energy efficiency programs, projects, or investments." The plan indicates that state agencies will work with the state's Climate Justice Working Group to develop methodologies for defining these benefits and to create a coordinated approach.
- The Washington 2021 State Energy Strategy: Transitioning to an Equitable Clean Energy Future acknowledges the critical and sensitive role of investment in accelerating an equitable clean energy transition. The plan states that "because the strategy relies so heavily on investments and infrastructure, the risk is high that the clean energy transition will exacerbate the inequitable distribution of wealth and prosperity" and that "those with access to capital, such as home equity or savings, could make the upfront investments to shift to less expensive clean energy." Thus, those without capital and resources may be "paying for expensive fossil fuels and the infrastructure used to produce and deliver them," which creates a need for robust "public sector mechanisms to finance the transition." It also proposes an investment in the state's Clean Energy Fund as a "tool to build on Washington's clean energy policies and sectoral strengths, ensure costs and benefits are equitably distributed and help the state rebuild [its] economy." The plan also states that policymakers should "ensure market transformation programs have carveouts and direct funding for low- and moderate-income households and Tribal nations."
- The State of Wisconsin Clean Energy Plan asserts that communities that have "faced systemic barriers to wealth and opportunity must also see and feel the benefits of this transition" and that economic investment "should be directed to communities that have seen the least investment."

The New York 100% clean energy plan specifically proposes creation of a new **cap-and-invest program** to reduce emissions and direct investment towards disadvantaged communities.

- The New York Scoping Plan proposes a cap-and-invest program that would include investments benefiting disadvantaged communities through program revenues and prioritize emissions reductions in disadvantaged communities. This program would require additional efforts to "track and report on the investments and benefits" in these communities, including rigorous accounting of funding and co-benefits of investments, such as "energy savings, bill savings, workforce development, and projected health impacts." The implementation of this program would itself consist of equity and environmental justice provisions, including gradual program phase-in with cost containment mechanisms or rebates to ensure energy burden is not worsened for low- and moderate-income households, investment of cap-and-invest program auction proceeds benefiting disadvantaged communities, engagement of these communities in the investment process, limits on trading allowances for regions near disadvantaged communities, efforts to

avoid emissions "hotspots" in these communities, and general consideration of cost impacts and affordability.

The California 100% clean energy plan specifically states the **need to eliminate fossil fuel combustion** in order to advance energy equity and climate justice.

- The 2021 SB 100 Joint Agency Report: Achieving 100 Percent Clean Electricity in California: An Initial Assessment plan considers a "no combustion" scenario in its modeling efforts, which environmental justice communities had advocated for throughout the development of the plan.

Some states propose establishing **monitoring and enforcement programs** to ensure that positive health and economic impacts reach historically marginalized communities:

- The New York Scoping Plan proposes equity-focused community air monitoring programs aimed at providing data to "inform strategies to reduce air pollution in these regions." The plan proposes providing a few million dollars in grant funding to support these programs, which would help inform efforts ensuring that state approvals and decisions do not "disproportionately burden" disadvantaged communities. The plan also proposes establishing a statewide dashboard consisting of community- and municipality-based emissions inventories, which would allow the state to better "monitor equity considerations." These efforts would be part of the state's broader desire to "measure, track, and report on the investments, benefits, and positive outcomes" for disadvantaged communities associated with clean energy solutions. The state also intends to produce an "implementation report" that highlights the impact of policies and regulations on disadvantaged communities.
- The Washington 2021 State Energy Strategy: Transitioning to an Equitable Clean Energy Future proposes deployment of "community-scale air quality monitoring in highly impacted populations" to assess benefits of clean energy and transportation strategies. The plan asserts that "improved access to air quality data will empower communities and measure whether the areas with the highest pollution burden are realizing the health benefits of vehicle electrification and clean fuels."

Two states propose **creating new governing bodies** to accelerate progress on equity and environmental justice issues.

- The Louisiana Climate Action Plan: Climate Initiatives Task Force Recommendations to the Governor plan proposes the creation of a "statewide authority to provide guidance for resilient local land-use practices," which would "support locals in the development of comprehensive land use plans and climate adaptation and mitigation plans that address the spectrum of relevant community challenges and incorporate the needs of underserved and overburdened populations."
- The State of Wisconsin Clean Energy Plan proposes creating an Office of Environmental Justice and evaluating models for the creation of an equity-oriented Wisconsin Green Bank.

Some plans propose strategies to **protect vulnerable communities from climate impacts**, including equity-focused adaptation solutions.

- The Louisiana Climate Action Plan: Climate Initiatives Task Force Recommendations to the Governor recommends strategies to "preserve and expand natural lands and urban green spaces to maximize climate mitigation and adaptation goals" and to "support the sustainable management and conservation of working agricultural and forestry lands," in addition to incorporating "social equity in conservation planning to ensure that co-benefits can be realized for all Louisianans and ecosystems."
- Maine Won't Wait: A Four-Year Plan for Climate Action plan proposes that climate vulnerability assessments give "particular attention to areas of the state where socially vulnerable communities and vulnerable infrastructure overlap."
- The New York Scoping Plan proposes efforts to develop and implement an "equitable state climate change adaptation and resilience plan" and incorporate "equitable adaptation and risk-reduction considerations into relevant state funding and regulatory programs, projects, and policies." The plan calls for the state governor to appoint a Chief State Resilience Officer to develop this plan, which would ensure that programs are applied equitably and that adaptation and resilience strategies "serve to ameliorate environmental, health, social, and economic inequities in historically marginalized communities."

Two states specifically call out **race as an important factor** in targeting policies and programs to advance equity and environmental justice in clean energy planning.

- The Louisiana Climate Action Plan: Climate Initiatives Task Force Recommendations to the Governor states that "intentional policy design" must "recognize the historical systems of discrimination and oppression that directly and indirectly contribute to these social vulnerabilities, to environmental hazards, and climate change," including legacies of slavery in Louisiana, to avoid reinforcing and repeating the "stratification and divisions present today."
- Maine Won't Wait: A Four-Year Plan for Climate Action proposes that public health measures should include consideration of equity impacts and gathering of data disaggregated by "age, race, ethnicity, gender, disability, geography, and other demographic factors" to "identify impacts on socially vulnerable populations and, accordingly, make interventions."

Workforce development and **just transition principles** are referenced as an important opportunity for states to prioritize equity and justice in 100% clean energy implementation efforts.

- The 2021 SB 100 Joint Agency Report: Achieving 100 Percent Clean Electricity in California: An Initial Assessment states that the SB 100 legislation will "increase diversity in the state's clean energy workforce." The plan also cites takeaways from a previous state Equity Framework analysis that includes strategies around workforce development, diverse hiring, and training.
- The Louisiana Climate Action Plan: Climate Initiatives Task Force Recommendations to the Governor proposes establishing a Louisiana Plan for Economic Transition to "identify or propose educational and training opportunities and programs to support and grow Louisiana's workforce with tailored assistance for…communities that have been historically marginalized or excluded from participating in economic advancement." It also proposes other strategies for workforce development, including establishing an Abandoned Well Pilot Program to provide "training,

equipment, and jobs for unemployed residents in Louisiana to plug leaking abandoned wells" and that "pilots of this program should be initiated in underserved communities with the highest concentration of oil and gas infrastructure and leaks."

- The Massachusetts Clean Energy and Climate Plan for 2050 emphasizes the importance of building a "robust and diverse clean energy workforce" and prioritizing diversity, equity, and inclusion through inclusive approaches to growing the state's clean energy workforce, while reducing historical income inequalities and creating new opportunities for residents. Massachusetts is looking to build on its $12 million Equity Workforce Development program and provide "clean energy occupational training for priority populations" while supporting "minority- and women-owned small business enterprises" as part of a broader statewide push to provide mentorship, training, and employment opportunities for historically underrepresented communities.
- The New York Scoping Plan emphasizes the importance of creating a just economic transition as part of state clean energy planning efforts. It includes several just transition principles, including collaborative stakeholder engagement during transition planning efforts, "preservation of culture and tradition," reparation of structural and historical inequalities, equitable access to jobs, "redevelopment of industrial communities," development of in-state supply chains, and conservation and preservation of natural systems and resources. The plan identifies mechanisms to create apprenticeship and training programs, robust community engagement, support for workers and small and local businesses, and other workforce development opportunities.
- The Washington 2021 State Energy Strategy: Transitioning to an Equitable Clean Energy Future proposes "capacity building and training for minority- and women-owned construction businesses and contractors." It also proposes that project teams include underrepresented communities and have more diverse representation through "community-driven outreach and participation in program design and implementation" and that the state "establish accredited systems of regional dual-credit career [and] technical education programs" and "engage under-resourced and under-represented communities in the development of their programs and recruitment policies."
- The State of Wisconsin Clean Energy Plan states a need to "achieve an inclusive and equitable clean energy workforce through a clean energy workforce development program to systematically train and prepare workers for the nation and state's transition to clean energy." It acknowledges that Wisconsin has "yet to achieve conditions that effectively support" low-income communities and communities of color and that "people of color are underrepresented in the energy industry" and that, to address this issue, the state needs a "systematic approach to clean energy workforce development." Specific strategies include efforts to "launch a clean energy job inventory and outreach program," "support a Clean Energy Workforce Advisory Council," "support communities and workers who will experience power generation plant closures," "establish and fund a clean energy training and reemployment program," "support a clean energy and small business incubator," "increase engagement and collaboration with labor unions," "ensure the clean energy transition supports family-supporting wages," "launch a clean energy

reentry pilot program," and "support transit for job access and reverse commute program funding."

- The Washington 2021 State Energy Strategy: Transitioning to an Equitable Clean Energy Future proposes efforts to ensure a just industrial transition that is "thoughtfully implemented so as to not create displacement, environmental damage or economic disinvestment in local communities, referred to as 'sacrifice zones,' often through locally unwanted land use."

A few 100% clean energy plans identify **siting and permitting processes** as an important lever for states to advance environmental justice and equity outcomes.

- The Louisiana Climate Action Plan: Climate Initiatives Task Force Recommendations to the Governor proposes efforts to "update existing permitting and facility siting practices and regulations to align with Louisiana's emission reduction goals" and that these siting decisions and processes should "fully integrate the most recent understanding of climate impacts and environmental justice concerns" and that there is robust public input, "particularly from those who face disproportionate climate and environmental impacts" and that "project, permitting, and siting decisions are climate neutral and are not exceeding the cumulative risk burden on vulnerable communities, tribal lands, or the environment."
- The Massachusetts Clean Energy and Climate Plan for 2050 places significant focus on ensuring environmental justice in energy infrastructure siting and permitting processes, including consideration of policies for utilities to "report the current and forecasted number of facilities that may need to be located in environmental justice communities" while evaluating existing approaches in the siting and permitting of energy infrastructure to create a more equitable approach to infrastructure deployment.
- The North Carolina Clean Energy Plan: Transitioning to a 21st Century Electricity System proposes the inclusion of environmental justice impacts into project siting decisions and other planning and permitting processes.
- The Washington 2021 State Energy Strategy: Transitioning to an Equitable Clean Energy Future proposes creating a structure to "implement a clean industrial policy" that would include a "review of potential tools to streamline permitting and siting of clean industrial activities that protect communities from disproportionate impacts."

Two states have specific strategies for **ensuring Indigenous communities benefit** from proposed clean energy strategies.

- The Washington 2021 State Energy Strategy: Transitioning to an Equitable Clean Energy Future discusses how decision makers and other stakeholders should navigate relationships with Tribal groups, stating that "state and local governments must continue intentional and thoughtful engagement with Tribal governments to understand the different ways Tribes approach their relationship with energy" and that "steps must be taken to ensure meaningful outreach and opportunity for participation by all of Washington's Tribes" and maintain collaborative relationships, with efforts that "strengthen sovereignty" and promote Tribal "self-determination." The plan goes on to state that "policies must recognize the individual needs of Tribes across the state

and help leverage local energy resources" and that "both public and private entities can create carve-outs in existing programs to account for the unique tax status of Tribes and the structure of land ownership that may prevent Tribes from taking advantage of some financial tools."

- The State of Wisconsin Clean Energy Plan aims to launch a "tribal relations pilot project" to increase engagement with tribal nations and establish a technical assistance grant program to support Tribal Nations in decarbonization efforts.

Most states acknowledged that their plans' consideration of equity, while an important early step, will need to be accompanied by significant further efforts to meaningfully integrate equity into the state's clean energy planning efforts. For example:

- The 2021 SB 100 Joint Agency Report: Achieving 100 Percent Clean Electricity in California: An Initial Assessment plan states that equity priorities will be considered in future SB 100 efforts, including "program design, modeling, analysis, implementation, and evaluation."

States also have proposed a range of other measures to advance equity internally and externally:

- The Louisiana Climate Action Plan: Climate Initiatives Task Force Recommendations to the Governor proposes the state "coordinate action with local governments" which will help advance equity "around local concerns as climate mitigation activities are implemented."
- The New York Scoping Plan proposes equity-oriented waste solutions, including reducing the volume of waste handled by waste management facilities in disadvantaged communities to reduce odors and health impacts, prioritizing leak reduction from wastewater treatment plants in disadvantaged communities, and terminating "disposal of food scraps and yard trimmings at landfills and combustors."
- The New York Scoping Plan proposes land use strategies that prioritize equity considerations and the interests of disadvantaged communities, including equity-oriented health assessments for resilience planning, incentivizing affordable housing near transit systems, and incorporation of climate and environmental justice principles in planning and zoning policies, in addition to other equity tools and models including "community land trusts, land banks, inclusionary zoning and shared/community-centered ownership, and equity models to address displacement, gentrification, and the concentration of poverty."
- The Road to 100% Renewable Electricity by 2030 in Rhode Island proposes greater education for state agencies to "continue to improve on their understanding of systemic racism, social justice, and energy and environmental equity."

Equity of Processes (Procedural Justice) and Other Equity Considerations

While solutions targeted at remediating the historic burdens that environmental justice communities have faced are critical to advancing equity, they are most effective when designed and implemented jointly with frontline communities. States have recognized the importance of having diverse representation of a range of stakeholders throughout their 100% clean energy planning processes. This includes equity-based approaches to stakeholder engagement, such as targeted outreach of traditionally underrepresented populations and the prioritization of concerns among certain environmental justice communities, in addition to diverse representation on councils, task forces, and other governing bodies that inform a particular state's 100% clean energy planning efforts. The US Department of Energy refers to this concept as *procedural justice*, including efforts to "achieve equity by including women, elderly, the working class, rural, and other underrepresented racial or ethnic groups in framing the mobility and energy needs and innovations to address those needs."

Many states emphasized incorporating equity and environmental justice into clean energy planning processes. For example:

- The Louisiana Climate Action Plan: Climate Initiatives Task Force Recommendations to the Governor states that the Louisiana Climate Initiatives Task Force "developed strategies and actions with climate equity at the forefront" and that, from the start of the development of the climate action plan, the Louisiana Climate Initiatives Task Force and supporting members were "chosen with this reality in mind, and open discussion of equity considerations were fostered during public meetings."
- The Massachusetts 2050 Decarbonization Roadmap includes a page outlining "equity considerations for deep decarbonization" and mentions the state's prioritization of "broad and sustained public engagement during policy and program development, particularly with environmental justice populations, communities of color, and low-income residents" to achieve net zero emissions.
- The Road to 100% Renewable Electricity by 2030 in Rhode Island seeks to "propose equity recommendations that have directionality," including partnerships with frontline communities, environmental justice communities, and communities of color to develop equity metrics to measure progress and inform policymaking and decision-making processes.

Stakeholder engagement was one of the most common ways in which equity and environmental justice were incorporated into clean energy planning processes. States emphasized the importance of incorporating feedback from a range of stakeholders, particularly those representing low-income communities and communities of color.

- The 2021 SB 100 Joint Agency Report: Achieving 100 Percent Clean Electricity in California: An Initial Assessment mentions the inclusion of environmental justice organizations on workshop panels.

- The Louisiana Climate Action Plan: Climate Initiatives Task Force Recommendations to the Governor states that, for low-income, Black, and Indigenous communities, "in addition to their own inherent value as people of the state of Louisiana and the price they have paid through past inequities, these communities hold tremendous knowledge of the state's lands, waters, wildlife, and environment and are needed leaders in the implementation of GHG reducing actions." Additionally, the state's conservation practices should "consider and draw upon Traditional Ecological Knowledge, the evolving knowledge acquired by Indigenous and local peoples over hundreds or thousands of years through direct connection with the environment."
- Maine Won't Wait: A Four-Year Plan for Climate Action states that the Maine Climate Council working group included 30 to 40 members with "diverse perspectives and expertise" and that Council leaders would "continue to find additional ways to reach…lower-income and rural residents, older adults, tribal communities, people of color, and new Mainers." The report was informed by multiple stakeholder interviews, one of which is with a Native American tribal leader.
- The Massachusetts Clean Energy and Climate Plan for 2050 indicates that the Massachusetts Executive Office of Energy and Environmental Affairs is working with the state's Environmental Justice Task Force and the Environmental Justice Council to develop a statewide environmental justice strategy. The plan places significant emphasis on conducting robust stakeholder engagement processes with environmental justice communities as the "best process by which to gain an understanding of the circumstances and needs" of environmental justice populations. The plan also calls for the state to launch a Climate Campaign to raise awareness, understanding, and engagement around climate issues, particularly with the general public and environmental justice communities.
- The Michigan Healthy Climate Plan states that the state's stakeholder engagement process included two consultations with Tribal governments.
- Nevada's 2020 State Climate Strategy states a need for "formal mechanisms that also ensure that representatives and advocates across different interest groups and communities have a voice," including "advocates from underserved communities."
- The 2019 New Jersey Energy Master Plan: Pathway to 2050 states that the stakeholder engagement process included low-income consumers and environmental justice communities.
- The New York Scoping Plan indicates that stakeholder engagement was a significant component of the development of the plan. These stakeholders provided feedback on environmental justice and equity provisions through formal advisory bodies and public comment processes. The plan also lays particular emphasis on efforts to engage with federally recognized Indian Nations and seek their feedback on implementation efforts, including "rulemaking processes, administrative planning, and investment strategies." It also stipulates a need for "multilingual, culturally appropriate public and consumer education efforts through large-scale, coordinated awareness, inspiration, and education campaigns" and a need for disadvantaged communities to be reflected in messages and messaging materials. Lastly, the state seeks to ensure agencies and authorities are "creating conditions for communities that would not typically engage in administrative processes to do so."

- The Road to 100% Renewable Electricity by 2030 in Rhode Island acknowledges that certain communities have historically been excluded from certain decision making and policy design processes. It includes statistics on the representativeness of the stakeholder engagement process used to inform the plan.
- The Washington 2021 State Energy Strategy: Transitioning to an Equitable Clean Energy Future states that "equity is not in and of itself assured through fair and open public meetings," since voices of historically excluded groups "must be intentionally sought out, respected, empowered, and privileged." The plan emphasizes a need to "ensure public participation and inclusion of historically marginalized voices," and that "public and community participation is important to ensure energy policy is informed by local knowledge, meets local needs and is viewed as legitimate by the local community." Specific measures to address equity in stakeholder engagement include providing enhanced technical assistance, consulting with impacted communities, and ensuring community members "have a seat at the table in designing programs and selecting projects," in addition to a "commitment to fully fund and develop the enabling tools and strategies and take a ground-up approach to the design, adoption, and implementation of our state's energy policies."
- The State of Wisconsin Clean Energy Plan makes specific reference to the importance of including the voices of environmental justice communities and groups, including Tribal Nations and Indigenous communities, Black, Hispanic/Latino, Hmong American, Asian American, other communities of color, people who have low incomes, people with disabilities, immigrants, women, senior residents, veterans, and rural communities, in the state's clean energy planning efforts, including "decision-making on clean energy technologies, financial impacts, and health impacts." The plan dedicates a section on accelerating government-led efforts, including "drawing from the lived experiences, expertise, and knowledge of Tribal Nations" and other stakeholders that builds on a previous Executive Order from Governor Tony Evers to strengthen the "intergovernmental relationship between the State of Wisconsin ensuring each state agency consult with Tribal governments on matters that may indirectly impact their members." Through the state's clean energy plan, it has attempted to support Tribal Nations and communities "in their independent development and oversight of clean energy planning and projects on their lands," thereby centering environmental justice and elevating Tribal Nations such that they can make "their own decisions about their energy planning and needs" and by supporting them through "increased inter-government communication and grant assistance."

Stakeholder feedback on energy equity and environmental justice were transparently featured in three of the states' 100% clean energy plans.

- The 2021 SB 100 Joint Agency Report: Achieving 100 Percent Clean Electricity in California: An Initial Assessment mentions that the stakeholder engagement process included multiple pieces of feedback about the need for supporting energy equity.
- The Massachusetts Clean Energy and Climate Plan for 2050 includes stakeholder feedback on the plan, which includes a recommendation for the state to prioritize environmental justice in the clean energy transition.

- The North Carolina Clean Energy Plan: Transitioning to a 21st Century Electricity System mentions that 60 percent of stakeholders "disagreed that North Carolina's current electricity system suitably addresses equity concerns" and that environmental justice and equity were notable factors for the clean energy plan to emphasize among stakeholders polled, with 7 percent and 5 percent of votes, tied for the second-largest and sixth-largest vote share.

Some states describe representation in clean energy planning processes as a way to advance equity.

- The Louisiana Climate Action Plan: Climate Initiatives Task Force Recommendations to the Governor states that "representation and process integration are the foundation for equitable opportunity and outcomes" and that "representation and transparent processes must be continued to help inform, design, and implement climate actions that offer tangible benefits to under-resourced communities and lead the vision and work of repairing our environment and building an equitable and sustainable clean energy future."
- The Washington 2021 State Energy Strategy: Transitioning to an Equitable Clean Energy Future highlights the importance of equity and inclusion in stakeholder engagement, arguing that community engagement is critical and that "funding should be made available to support participation in equity advisory groups" and that metrics for evaluating funding proposals should be developed in collaboration with Tribal nations, frontline and community groups, and other stakeholders. The plan emphasizes a need to "break from historical patterns and narratives" and that "much of the conversation on equity by policymakers ignores the role of history in shaping the lived experiences of highly impacted populations" which "results in the perpetuation of exclusion and inequities." Additionally, the plan states that "community engagement and understanding of opportunities for local capacity-building must be prioritized" and that "public processes…and community-based participatory research provide models of equitable and accessible approaches to this work."
- The State of Wisconsin Clean Energy Plan states that "individuals who have been most impacted by pollution and climate change must be involved in the decision-making process, and this process must include diverse voices as it relates to race and ethnicity, sex and gender, socio-economic status, and geography" to ensure a just and equitable transition. It further states that "engaging and involving diverse representation, sharing power and resources, equitable policy development and implementation, and putting people above profit will help ensure that there is equitable access to the benefits of the clean energy transition." The plan also states that low-income, environmental justice, and Tribal communities should be "meaningfully involved in conversations, processes, and decisions" and that these marginalized communities "must be involved in decision-making on clean energy technologies, jobs, financial impacts, and health impacts." The plan goes on to say that "those involved in developing and implementing the recommendations in this report should lean on community leaders and community-based organizations" because "they have strong relationships of trust with local communities to help engage individuals and families in conversations about what they want their energy future to look like." This approach would remediate historic marginalization of "voices from these communities"

who have been "left out of the conversation on transforming our country's energy system and transitioning to clean energy."

Many states refer to equity- and environmental justice-focused **advisory groups** that they consulted in the development of their 100% clean energy plans.

- The 2021 SB 100 Joint Agency Report: Achieving 100 Percent Clean Electricity in California: An Initial Assessment states that state agencies consulted with the Disadvantaged Communities Advisory Group (DCAG), an 11-member group that "consists of members from and representing disadvantaged communities" and advises the California Energy Commission (CEC) and California Public Utilities Commission (CPUC) on energy equity issues. In 2018, DCAG proposed an equity framework to inform the design, outreach, and workforce development efforts associated with Senate Bill 100, which established the 100% clean energy target.
- The Louisiana Climate Action Plan: Climate Initiatives Task Force Recommendations to the Governor mentions that the state formed an equity advisory group to "consider the potential outcomes of policy proposals for advancing or negating progress toward a more equitable society." This group "developed a definition of climate equity and evaluated the potential impact of climate actions on the three equity-centered fundamental objectives aimed at reducing disparities, addressing historic and structural inequities, and increasing participation for Black, low-income, historically marginalized, and Indigenous peoples across Louisiana."
- Maine Won't Wait: A Four-Year Plan for Climate Action plan states that the Maine Climate Council added an equity analysis to inform decision-making and created a new "Equity Sub-committee" to "support ongoing planning and implementation of Maine's climate strategies to ensure shared benefits across diverse populations of Maine people.
- The Massachusetts Clean Energy and Climate Plan for 2050 acknowledges the input of the Environmental Justice Council, which serves to "advise the state on policies to promote environmental justice."
- The 2019 New Jersey Energy Master Plan: Pathway to 2050 mentions multiple working groups, including the Climate Justice Working Group that serves to "directly advise on the design of policies that can benefit environmental justice populations and other historically marginalized communities."
- The New York Scoping Plan was developed in consultation with the state's Climate Justice Working Group, Just Transition Working Group, and other advisory bodies, which included representatives from environmental justice communities, state agencies, and other communities across the state.

Defining equity and environmental justice terms is also an important component of states' clean energy planning efforts. These definitions enable stakeholders to properly understand how to target certain solutions for certain communities in advancing equity.

- The 2021 SB 100 Joint Agency Report: Achieving 100 Percent Clean Electricity in California: An Initial Assessment defines key equity-related terms, including "environmental justice" and "disadvantaged communities."

- The Massachusetts Clean Energy and Climate Plan for 2050 defines "environmental justice" as the principle that "all people deserve protection from environmental pollution and the ability to live in and enjoy a clean and healthy environment, regardless of race, color, income, class, handicap, gender identity, sexual orientation, national origin, ethnicity or ancestry, religious beliefs, or English language proficiency." This definition is based on the definition of "environmental justice population" as established in previous statutes which considers the proportion of racial minority, low-income, or limited English proficiency residents in a particular Census block. In particular, achieving environmental justice requires "meaningful involvement of all people with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies" and "equitable distribution of energy and environmental benefits and environmental burdens."
- The 2019 New Jersey Energy Master Plan: Pathway to 2050 defines an "environmental justice community" as "a community that is disproportionately impacted by pollutants."
- The New York Scoping Plan defines "Disadvantaged Communities," as "communities that bear the burdens of negative public health effects, environmental pollution, impacts of climate change, and possess certain socioeconomic criteria or comprise high-concentrations of low- and moderate-income households." The process of developing a definition for this term involved several hearings and stakeholder engagement opportunities.
- The North Carolina Clean Energy Plan: Transitioning to a 21st Century Electricity System references the US EPA definition of "environmental justice" in its analysis. It also defines "household energy burden" and "energy poor households."
- The Road to 100% Renewable Electricity by 2030 in Rhode Island defines "equity-based recommendations" as "recommendations on ways to foster equitable outcomes in partnership with frontline communities."
- The Washington 2021 State Energy Strategy: Transitioning to an Equitable Clean Energy Future provides a definition of success: the plan states that "environmental equity will be achieved when no single group or community faces disadvantages in dealing with the effects of the climate crisis, pollution, environmental hazards, or environmental disasters" and that "addressing these disparities requires acknowledging the inequities that have led to them." The plan emphasizes a need to "recognize that no single definition of equity may be satisfactory" and that "many definitions of equity exist and no single definition can perfectly capture the expectations and goals of all communities and populations," although it starts by using the EPA's definition of environmental justice as a statewide definition.

A few states proposed or highlighted the importance of establishing a **separate assessment process** regarding equity impacts of clean energy planning for the state. For example:

- Maine Won't Wait: A Four-Year Plan for Climate Action mentions that the Maine Climate Council's Equity Subcommittee was tasked with "setting clear equity outcomes for proposed actions, monitoring progress, and making recommendations to ensure that programs and benefits reach the intended populations and communities." It explains that a separate equity

assessment was conducted that "called for further analysis of equity impacts" to "inform the development of climate policies and programs."

- The New York Scoping Plan discusses the implications of a separate state-wide Barriers and Opportunities Report that outlines efforts to "address past practices that excluded historically marginalized and overburdened communities from state decision-making processes.". It identifies key problems and barriers, including "physical and economic structures and conditions," "financial and knowledge resources and capacity," "perspectives and information," and "programmatic design and implementation." It also proposed eight recommendations to ensure inclusive processes, greater program accessibility, and other procedural justice concerns, including co-designing programs and projects with communities, robust public engagement opportunities, people-centered policies and programs, support for local governments, and greater public engagement.
- The Washington 2021 State Energy Strategy: Transitioning to an Equitable Clean Energy Future acknowledges the need to identify who the state's most impacted and vulnerable communities are prior to or during the process of implementing the state's clean energy plan. It suggests identifying "priority communities" using "statewide energy equity indicators and environmental health and cumulative impact analysis tools such as the Environmental Health Disparity Map" that can be "used in partnerships with direct service providers like community action partnerships, who have a rich history of working with state agencies and are well situated for qualifying and engaging with highly impacted populations."

Conclusion

State 100% clean energy plans have addressed equity and environmental justice in many ways. They have acknowledged the legacies of systemic discrimination that have resulted in underinvestment in certain communities and the disproportionate climate risks and impacts that they currently face. They have proposed policies, programs, and investments in low-income communities, communities of color, and other vulnerable and marginalized communities to remediate these historical injustices. They have taken steps to ensure diverse representation and inclusive participation among stakeholders in the planning processes that have informed the development of the plans. And they have identified opportunities for further and deeper engagement on equity issues with a diverse range of stakeholders.

Yet, more progress can—and should—be made regarding equity and environmental justice in the clean energy transition. States can undertake the following:

- Continue to place a central focus on equity in clean energy planning processes
- Implement deliberate measures to engage with communities and populations that are underrepresented in stakeholder engagement processes
- Propose policies and solutions that meaningfully address energy burdens and other economic and health impacts associated with climate change
- Expand efforts to ensure that implementation of the 100% clean energy plans is done in an equitable manner that does not reproduce or exacerbate climate injustices
- Create new or improved measurement and accountability frameworks to ensure that progress on equity outcomes is made effectively and expediently

Doing so will not be easy. However, there are few aspects of the transition to a low-carbon economy that are more important than ensuring it is done in an equitable manner. States will need to continue to take a thoughtful, intentional, and intersectional approach to equity and environmental justice in 100% clean energy planning efforts.

Appendix A: List of 100% Clean Energy Plans Considered

The 100% clean energy plans for 12 states were considered in this analysis.

State	Reference	Publisher(s) and Author(s)	Year Published
California	**2021 SB 100 Joint Agency Report: Achieving 100 Percent Clean Electricity in California: An Initial Assessment** https://efiling.energy.ca.gov/EFiling/GetFile.aspx?tn=237167&DocumentContentId=70349	California Energy Commission, California Public Utilities Commission, California Air Resources Board	2021
Louisiana	**Louisiana Climate Action Plan: Climate Initiatives Task Force Recommendations to the Governor** https://gov.louisiana.gov/assets/docs/CCI-Task-force/CAP/Climate_Action_Plan_FINAL_3.pdf	Louisiana Climate Initiatives Task Force	2022
Maine	**Maine Won't Wait: A Four-Year Plan for Climate Action** https://www.maine.gov/future/sites/maine.gov.future/files/inline-files/MaineWontWait_December2020.pdf	Maine Climate Council	2020
Massachusetts	**Massachusetts 2050 Decarbonization Roadmap** https://www.mass.gov/doc/ma-2050-decarbonization-roadmap/download	Massachusetts Executive Office of Energy and Environmental Affairs	2020
	Massachusetts Clean Energy and Climate Plan for 2050 https://www.mass.gov/doc/2050-clean-energy-and-climate-plan/download		2022
Michigan	**Michigan Healthy Climate Plan** https://www.michigan.gov/egle/-/media/Project/Websites/egle/Documents/Offices/OCE/MI-Healthy-Climate-Plan.pdf	Michigan Department of Environment, Great Lakes, and Energy	2022
Nevada	**Nevada's 2020 State Climate Strategy** https://climateaction.nv.gov/wp-content/uploads/2021/01/NVClimateStrategy_011921.pdf	State of Nevada Climate Initiative	2021

State	Reference	Publisher(s) and Author(s)	Year Published
New Jersey	**2019 New Jersey Energy Master Plan: Pathway to 2050** https://nj.gov/bpu/pdf/publicnotice/NJBPU_EMP.pdf	New Jersey Board of Public Utilities	2020
New York	**New York Scoping Plan** https://climate.ny.gov/-/media/project/climate/files/NYS-Climate-Action-Council-Final-Scoping-Plan-2022.pdf	New York State Climate Action Council	2022
North Carolina	**North Carolina Clean Energy Plan: Transitioning to a 21st Century Electricity System** https://files.nc.gov/ncdeq/climate-change/clean-energy-plan/NC_Clean_Energy_Plan_OCT_2019_.pdf	North Carolina Department of Environmental Quality	2019
Rhode Island	**The Road to 100% Renewable Electricity by 2030 in Rhode Island** http://www.energy.ri.gov/documents/renewable/The Road to 100 Percent Renewable Electricity - Brattle 04Feb2021.pdf	Rhode Island Office of Energy Resources	2020
Washington	**Washington 2021 State Energy Strategy: Transitioning to an Equitable Clean Energy Future** https://www.commerce.wa.gov/wp-content/uploads/2020/12/Washington-2021-State-Energy-Strategy-December-2020.pdf	Washington State Department of Commerce	2020
Wisconsin	**State of Wisconsin Clean Energy Plan** https://osce.wi.gov/Documents/SOW-CleanEnergyPlan2022.pdf	Wisconsin Office of Sustainability and Clean Energy	2022

Appendix B:
Equity of Impacts in 100% Clean Energy Plans by State

All 12 states, to varying degrees of specificity and comprehensiveness, acknowledged the disproportionate impacts of climate change on different communities in their 100% clean energy plans.

California

2021 SB 100 Joint Agency Report: Achieving 100 Percent Clean Electricity in California: An Initial Assessment (2021)

- The report mentions that climate impacts are "often disproportionately borne by the state's most vulnerable and disadvantaged populations." (p. 7)
- The report acknowledges research that shows that "Latinos, African Americans, and low-income communities are exposed to substantially higher levels of vehicle pollutants than other demographic groups" and acknowledges the disproportionate burdens of air pollution on communities of color. (p. 43)

Louisiana

Louisiana Climate Action Plan: Climate Initiatives Task Force Recommendations to the Governor (2022)

- The report states that "Louisiana's low-income communities, communities of color, Indigenous people, and other marginalized residents are being hit especially hard because they are more likely to live in areas vulnerable to extreme weather and are typically less financially able to take on the economic challenges of recovery or relocation." It goes on to say that "these groups have been excluded from the opportunity to build wealth for generations, are more likely to live and work in overburdened communities, are more likely to live in areas with higher flood risk, and are more likely to experience insufficient or delayed investments in infrastructure and disaster recovery efforts." (p. 19)
- The report contains a graphic that includes a list of vulnerable populations (e.g., communities of color, older adults, low-income communities, and children) and discusses the impacts of energy generation and climate change on their health, along with "adaptation measures that can help address disproportionate impacts, when considering the full range of threats from climate change as well as other environmental exposures." (p. 20)
- The report states that "Louisiana's low-income communities, communities of color, Indigenous people, and other marginalized residents are being hit especially hard because they are more likely to live in areas vulnerable to extreme weather and are typically less financially able to take on the economic challenges of recovery or relocation." It goes on to say that "these groups have been excluded from the opportunity to build wealth for generations, are more likely to live and work in overburdened communities, are more likely to live in areas with higher flood risk, and are

more likely to experience insufficient or delayed investments in infrastructure and disaster recovery efforts." (p. 19)

- The report contains a graphic that includes a list of vulnerable populations (e.g., communities of color, older adults, low-income communities, and children) and discusses the impacts of energy generation and climate change on their health, along with "adaptation measures that can help address disproportionate impacts, when considering the full range of threats from climate change as well as other environmental exposures." (p. 20)
- The report also references an Intergovernmental Panel on Climate Change and National Climate Assessment study that describes the "unequal distribution of climate impacts" including the fact that the "vulnerable, those who are low income, communities of color, children, the elderly, Indigenous populations, and others who are marginalized have a lower capacity to prepare for and cope with extreme weather, climate-related events, and other changes" and that "vulnerable populations may also be disproportionately affected by actions taken to address the underlying causes and impacts of climate change if those inequities and circumstances are not considered explicitly." (p. 21) It also mentions specific ways in which these inequities manifest, particularly in terms of air quality.
- The report states that "people of color are most likely to currently live in areas that are projected to have the highest levels of climate change impacts with 2 degrees Celsius of warming" and that "Black individuals, in particular, are at increased risk for health effects, in part due to disparities in exposure" as "Black individuals are 41-60% more likely than others to currently live in areas with the highest projected increases in premature mortality from climate-driven changes in PM 2.5" and that "Black individuals are also 34% more likely to live in areas with the highest projected increases in childhood asthma diagnoses due to climate-driven changes in particulate air pollution." (p. 28)
- The report acknowledges mental health impacts of climate change-related stress, and mentions that "some groups are more likely than others to be at risk to the negative mental health effects, including the economically disadvantaged and Indigenous peoples." (p. 29)
- The report also has a dedicated section on climate impacts on Indigenous peoples, mentioning that "Indigenous peoples are also uniquely and disproportionately impacted because of the compounding health issues related to the loss of traditional foods, practices, and the mental stress of adaptation alongside the damage to ecosystems, species, and land that carry cultural, economic, and historical significance" and that "the ability of Indigenous peoples to adapt to climate-change-induced changes can also be thwarted by limitations to self-determination that arise differently for federally or state-recognized tribes..." and that "Indigenous peoples can be even more vulnerable to the physical challenges brought on by climate change because of historical and ongoing social, political, and economic factors with tangible impacts on human health, called 'social determinants of health.'" It also includes a range of statistics around Indigenous peoples' health, including that they are "48% more likely than others to currently live in areas where the highest percentage of land is projected to be inundated due to sea level rise",

etc. It also provides further specific examples of historical injustices towards Indigenous peoples. (pp. 29-30)
- The report acknowledges that "climate change and GHG emissions disproportionately impact low-income, Black, and Indigenous communities" and that "these communities are the least responsible for emissions but bear the highest costs in health and environmental degradation." (p. 40)

Maine

Maine Won't Wait: A Four-Year Plan for Climate Action (2020)

- The report mentions that the COVID-19 pandemic has "mirrored the gradual effects of climate change," which includes the "inequities and unequal burdens that economic and social disruptions have on vulnerable populations." (p. 6)
- The report acknowledges that "the costs of Maine's inaction on climate change will be acutely borne by vulnerable communities, which should be given foremost consideration for opportunities and support from climate action." (p. 9)
- The report outlines specific ways in which climate change disproportionately impacts certain communities, including a list of natural disaster, economic, health impacts, etc. (pp. 36-37)
- The report acknowledges that low-income households "often pay a higher percentage of their income to meet their home energy needs." (p. 47)

Massachusetts

Massachusetts 2050 Decarbonization Roadmap (2020)

- The report acknowledges that "for too long, too many people have disproportionately borne the environmental and health burdens associated with our current energy economy," which was particularly true for "environmental justice" communities who "experience higher than averages rates of environmentally-related adverse health impacts due to their proximity to the localized cumulative impacts and long-term environmental degradation associated with, among other things, the combustion of fossil fuels." (p. 17)
- The report recognizes the disproportionate impacts of climate and pollution on certain communities and also recognizes the need to "dramatically reduce" "on-going, location-specific environmental burdens" for certain communities. It also intends to leverage "new economic activity" with the "potential to revitalize communities across Massachusetts which have been disadvantaged." (p. 17)
- The report also acknowledges that "the ability of Massachusetts residents to participate in this thirty-year transition will differ as a result of income level, race, ability to access and benefit from available resources, location in urban and rural settings, proficiency in English, and previous marginalization." (p. 17)
- The report mentioned that the public health benefits associated with reducing combustion would be "principally realized by people of color." (p. 41)

- The report does state that "the pace and scale of transformation that will be required to achieve Net Zero demands that close attention and vigilant care is given to mitigate any undue or avoidable impact or burden on Massachusetts' residents across the Commonwealth's entire economic, social, and geographic diversity" and that "it is a top priority to ensure that the benefits from climate mitigation actions are realized by those who have borne the disproportionate burden of historic and current fossil fuel pollution." (p. 82)

Massachusetts Clean Energy and Climate Plan for 2050 (2022)

- The report acknowledges that certain communities face a greater burden from the combustion of fossil fuels than others. In particular, communities of color and low-income neighborhoods "face disproportionately higher exposure than other areas to health and climate risks because of decades of decisions about siting highways, power plants, and other sources of pollution" and that "tenants and people with limited incomes or limited English language proficiency face significant barriers and need additional support switching to clean energy." (p. xiv)
- The report states that previous studies show that "communities of color, low-income neighborhoods, indigenous populations, and neighborhoods with high percentages of residents with limited English proficiency face disproportionately higher exposure to pollution, public health, and climate risks, and bear a higher energy burden when compared with other neighborhoods" and that these "disproportionate burdens often stem from the cumulative impacts of many factors, including historical implementation of housing, transportation, environmental permitting, and energy infrastructure siting policies; lack of economic opportunities or educational resources; and consequent public health vulnerabilities." (pp. 11-12)
- The report acknowledges that existing air pollution is disproportionately worse in EJ neighborhoods due to siting of large point-source emissions (including "power generators and industrial facilities") and vehicle exhaust due to proximity to highways. (p. 15)

Michigan

Michigan Healthy Climate Plan (2022)

- The report briefly acknowledges that "families and communities historically impacted by pollution" are especially vulnerable to negative/adverse health outcomes (p. 15)
- The report acknowledges that although the State of Michigan "should be a place where everyone, no matter their zip code or what is in their wallet, should have the opportunity to thrive...this has not always been the case, particularly for Black, brown, Indigenous, rural, and low-income people." (p. 18)
- The report has a section dedicated to explaining how "action is an opportunity to right environmental injustices." It states that environmental justice communities are often communities of color and low-income communities that have "been excluded from the opportunities enjoyed by most of society and left behind during major historic economic shifts like our current transition to carbon neutrality." (p. 18)

- The report states that "environmental injustices are part of a long history of race-based discrimination rooted in the sustained actions, behaviors, and attitudes of institutions and individuals and encoded in our laws at every level" and that "environmental justice communities disproportionately neighbor highways, power plants, factories, and other facilities" that "release pollution" and lead to poorer health and quality of lives, and that these communities "enjoy fewer trees and lack access to green spaces." (p. 18)
- The report states that "environmental justice considerations are a key component of equitable climate action and will continue to be a priority for the state as it works to eliminate racial disparities impacting the health and well-being of Michiganders" and that the "transition to a carbon neutral economy has the potential to help alleviate existing environmental injustices, address historical harms, and create new opportunities for Michiganders." (p. 18)
- The report has a page dedicated to explaining the disproportionate health, economic, and other impacts of climate change on different communities, particularly low-income communities and communities of color. The report also makes reference to historical injustices with tribal nations. (p. 19) It also has a section dedicated towards explaining the importance of a just transition. (p. 20)
- The report acknowledges that public transit opportunities are not "equitably accessible to all Michigan families" and that this is "particularly true for non-white households" and people with disabilities. (p. 42)

Nevada

Nevada's 2020 State Climate Strategy (2021)

- The report briefly discusses climate justice by acknowledging that "low-income communities, people of color, and Indigenous populations have disproportionately borne the burden of climate change impacts" and that, "as temperatures continue to rise and climate-related challenges expand and intensify, particular attention must be paid to these vulnerable populations." (p. 1)
- The report, towards the end, mentions how various climate impacts are social justice issues, such as how extreme heat leads to underperformance in minority populations on standardized tests, etc. (p. 203)

New Jersey

2019 New Jersey Energy Master Plan: Pathway to 2050 (2020)

- The report mentions repeatedly that certain "environmental justice" communities are dis-proportionately impacted by health and pollution impacts. It states that "environmental justice and low-income communities are disproportionately impacted by air pollutants and other environmental and climate change-related hazards, as well as affected by economic disparities." (p. 200)

New York

New York Scoping Plan (2022)

- The report acknowledges the "vulnerability of Disadvantaged Communities," stating that climate change is "adversely affecting economic well-being, public health, and public safety through increased risk of extreme heat, flooding, or exposure to air pollutants emitted alongside GHG emissions" for these communities. (p. 6)
- The report states that "climate-driven impacts are magnified in New York's historically marginalized communities that have been disproportionately affected by and are on the front lines of climate change." The report draws upon a range of scientific analyses to demonstrate these impacts, including studies from the EPA, which show that "the most severe harms from climate change fall disproportionately upon underserved communities that are least able to prepare for and recover from" climate impacts. These communities include "women, femmes, youth, and children in poverty." (p. 25)
- The report states that "historically marginalized communities typically experience a lower life expectancy and quality of life as measured by environmental burdens, climate change risks, population characteristics, and health vulnerabilities." (p. 58)
- The report states that race and wealth are the two biggest predictive factors of who bears a "disproportionate burden of the impacts of climate change and pollution" due to historical legacies of marginalization, including "racial and ethnic discrimination across public institutions, which has created a structural disadvantage and made it particularly difficult for some New Yorkers to access basic needs" including affordable energy and housing and employment opportunities. Furthermore, the "stress and hardship of these struggles is heightened by the destructive impacts of climate change from both single extreme weather events and ongoing, low-intensity events." (p. 58)
- The report acknowledges that climate change disrupts food systems, which "may have impacts on food security, particularly in low-income communities." (p. 95)
- The report describes a series of examples of health conditions that disproportionately burden communities of color and low-income communities. (p. 96)
- The report mentions that "Disadvantaged Communities are likely to have greater health disparities (or inequities) and shoulder more significant environmental burdens than other communities," including elevated levels of nitrogen dioxide associated with fuel combustion, higher rates of COVID-19 infection, and higher rates of air pollution-induced deaths. (pp. 100-101)

North Carolina

North Carolina Clean Energy Plan: Transitioning to a 21st Century Electricity System (2019)

- The report acknowledges that "low-income and energy-burdened customers and communities are not able to take advantage of existing programs for clean energy or energy efficiency due to up-front costs and financing challenges, physical challenges related to the quality of the building

or ownership status of their housing, or simply a lack of access to high-integrity service providers" and that "energy burdened communities are paying a disproportionately high amount of their income on energy bills." (p. 41)

- The report mentions that "many of the energy burdened communities are directly impacted by the health and pollution impacts resulting from energy production, generation, transportation" and that "these communities are the least able to reap benefits of investments in clean energy and energy efficiency while being most impacted by the legacy energy industry." (p. 41)
- The report mentions that "low and moderate income residents face many challenges when trying to adopt clean energy" and that "many of these same communities face disproportionate burdens from energy production, generation, and use, and would benefit especially from measures that increase non-emitting sources of energy." (p. 94)
- The report acknowledges that "pollution to waterways, odors, and public health concerns" are "felt disproportionately by minority populations." (p. 110)
- The report states that low income and energy burdened individuals experience a host of barriers, including living in older and less energy efficient housing, spend a greater proportion of their income on their electricity bills, can't take advantage of existing clean energy programs as readily as others due to physical and financial barriers, and may lack access to certain financing opportunities, for example, due to lower credit scores or lack of access to full tax credit benefits. (p. 113)
- The report states that, although affordability "has been a core tenant of utility regulation and system planning, stakeholders in the CEP process identified that there are segments of customers for whom the cost of energy is not affordable and argued that there should be a more nuanced treatment of affordability in utility ratemaking and rate design." Although the report acknowledges that, due to limited time and resources, this discussion fell outside the scope of its analysis, it effectively and concisely characterizes the problem. (p. 116)

Rhode Island

The Road to 100% Renewable Electricity by 2030 in Rhode Island (2020)

- The report makes no mention of how climate change or energy disproportionately impacts certain populations. However, it does make brief mention of how "there is a long history of systemic racism and inequities in the United States and Rhode Island that have shaped current systems and processes." It includes this statement to explain that "communities of color and environmental justice communities have gained lived experiences crucial to shaping better programs that serve their immediate needs." (p. 85)
- The report does acknowledge that disparities in outcomes are not solely due to socioeconomic status or wealth, but also due to race and other demographics. It states this to "provide more of an intersectional approach to the problem." (p. 85)

Washington

Washington 2021 State Energy Strategy: Transitioning to an Equitable Clean Energy Future (2020)

- The report contains a letter from the Director of the Washington State Department of Commerce that states that the plan reflects concerns about "disproportionate impacts on vulnerable populations and highly impacted communities." (p. 3)
- The report states that "rural and low-income communities are disproportionately exposed to this threat" of climate change and the impacts of the COVID-19 pandemic. (p. 11)
- The report states that "climate change will inflict its greatest harm on highly impacted communities" and "tribes, rural areas, and low-income households, just as the economic and health impacts of COVID-19 are now disproportionately affecting those same populations." It goes on to state that "absent deliberate and committed efforts, the envisioned clean energy transformation could easily leave those communities worse off." (p. 19)
- The report states that the Governor's Interagency Council on Health Disparities' Environmental Justice Taskforce found that "vulnerable populations and overburdened communities experience disproportionate, cumulative risk from environmental burdens, including climate change" and that "low-income communities are disproportionately more likely to experience the environmental and health disparities associated with climate change." (p. 21)
- The report cites specific statistics, including that "Black Washingtonians were 10 times more likely to live in the highest ranked census tract than the lowest ranked census tract" in terms of the greatest environmental health disparities. Furthermore, the poverty rates in the regions with greatest environmental health disparities is nearly double that of the lowest. (p. 21)
- The report states that "communities and families experiencing environmental health disparities and other burdens created by the disproportionate impacts of pollution are less able to adapt to or recover from climate change impacts." (p. 22)
- The report states that "transportation is a major source of local air pollution that disproportionately impacts the health of people living near roadways, port facilities, industrial activity, and railways--communities where vulnerable populations often reside" and that "these populations are particularly sensitive to transportation pollution due to health, economic, and other environmental factors." (p. 51)

Wisconsin

State of Wisconsin Clean Energy Plan (2022)

- The report acknowledges that "a long-standing reliance on fossil fuels, poor environmental policy decisions, and broader historical injustices have had a detrimental effect on various communities in the state." (p. 9)
- The report acknowledges that "failure to address the health inequities associated with emissions results in missed opportunities to directly address the health of Wisconsin Indigenous, Black, Hispanic/Latino, Hmong American, Asian American, and other communities of color." (p. 15)

- The report also states that "Wisconsin needs to support the communities historically and still today harmed and overburdened by the traditional energy system and the correlated emissions that this system contributes to increased climate change impacts" and that "inequities in living conditions disproportionately place low-income communities and some communities of color at greater risk of the health impacts from climate change" as they are "more likely to be exposed to environmental toxins and poor air quality that increases the risk of respiratory illnesses and asthma exacerbation." (p. 16)
- The report acknowledges that "Tribal Nations and Indigenous communities, Black, Hispanic/ Latino, Hmong American, Asian American, other communities of color, people who have low incomes, people with disabilities, immigrants, women, senior residents, veterans, and rural communities have been left out of the conversation on transforming our country's energy system and transitioning to clean energy...leaving some residents behind and others suffering a disproportionate burden of the energy system." (p. 18)
- The report includes specific examples of ways in which these communities experience adverse outcomes (e.g., poorer health outcomes) and cites an EPA review with further health impact analysis. (p. 26)
- The report acknowledges the costs of inaction on climate, including the fact that "inequities in living conditions disproportionately place low-income communities and some communities of color at greater risk of the health impacts from climate change" and that "low-income communities and communities of color are more likely to be exposed to environmental toxins and poor air quality that increases the risk of respiratory illnesses and asthma exacerbation," including the fact that "exposure to air pollution falls unequally on Black, Hispanic/Latino communities, and communities of color." The report bluntly states that "failure to address the health inequities associated with emissions results in missed opportunities to directly address the health of Wisconsin Indigenous, Black, Hispanic/Latino, Hmong American, Asian American, and other communities of color." (p. 51)
- The report has a dedicated section on environmental justice that outlines the disproportionate pollution and health impacts that low-income communities and communities of color face, in addition to energy burden impacts. (p. 60)
  • The report states that "dangerous criteria pollutant emissions from coal-fired power plants and the location of these plants often close to population centers" disproportionately affects "low-income and environmental justice communities most affected by the traditional energy economy." (p. 91)
- The report recognizes the disproportionate impacts of transportation emissions on environmental justice communities. (p. 136)

Appendix C:
Equity of Solutions in 100% Clean Energy Modeling Reports by State

All 12 states proposed measures to advance equity and environmental justice considerations in the design and implementation of clean energy solutions through 100% clean energy plans.

California

2021 SB 100 Joint Agency Report: Achieving 100 Percent Clean Electricity in California: An Initial Assessment (2021)

- The report states that the analysis "builds on the modeling and assumptions used for CPUC's integrated resource planning and considers California's overarching priorities on energy, climate, equity, and public health." (p. 16)
- The report lists "advancing energy equity" as a key benefit of 100% clean electricity. Specifically, it mentions the joint agencies' commitment to "ensuring the benefits of cleaner, more efficient energy are enjoyed by all Californians, including those in low-income and disadvantaged communities, as well as tribal and rural communities." (pp. 17-18)
- The report mentions that ensuring equitable outcomes will require "keeping electricity affordable, with an emphasis on vulnerable populations and households that pay a disproportionately high share of their household income on energy," "reducing air pollution from local power plants, particularly in communities that experience a disproportionate amount of air pollution," "strengthening communities' ability to function during power outages and enjoy reliable energy in a changing climate," and "funding of training for high-quality jobs and careers in the growing clean energy industry." (p. 18)
- The report states that SB 100 will provide an opportunity to "increase diversity in the state's clean energy workforce." (p. 19)
- The report states that, "as the SB 100 scenarios are refined in the future, additional factors must be considered in planning for SB 100 implementation and coordination with complementary proceedings and programs," including equity. The report mentions that "steps must be taken to ensure equitable implementation of SB 100 and benefit communities in a meaningful and measurable way." (p. 33)
- The report mentions California's previous efforts to advance energy equity by focusing on "low-income and disadvantaged communities." (p. 43)
- The report states that SB 100 "emphasizes the need to benefit disadvantaged communities" and that the "joint agency reports consider how the implementation of the law affects disadvantaged communities, as well as tribal and rural communities." (p. 62)
- The report considers a "no combustion" scenario that was recommended by environmental justice advocates.

- The report also briefly summarizes the key takeaways from the Disadvantaged Communities Advisory Group (DACAG) Equity Framework including workforce development, diverse hiring, and training policies. (p. 137)
- The report further discusses the DACAG Equity Framework, including the following components: health and safety, access and education, financial benefits, economic development, and consumer protection. (p. 139)
- The report states that these priorities will be considered in future/continued efforts of the joint agencies and SB 100, "including program design, modeling, analysis, implementation, and evaluation" and that "AB 617 Community Emissions Reduction Plans provide a resource for actions that will achieve air pollution emission and exposure reductions within disproportionately impacted communities and are tailored to address the communities' air quality priorities." (pp. 139-140)

Louisiana

Louisiana Climate Action Plan: Climate Initiatives Task Force Recommendations to the Governor (2022)

- The report states that the Climate Initiatives Task Force has met for 15 months and consists of six sector committees and four advisory groups, one of which is focused on equity. In the introduction, the report states that the state has been "prioritizing equity in the design of policies" such that "the costs of mitigation or adaptation actions do not fall unequally on people currently and historically disadvantaged in Louisiana." It states that the plan is an "opportunity to implement climate mitigation and adaptation measures which also address long-standing inequities while promoting new opportunities for a more inclusive, low-carbon economy in the future." (p. 5)
- The report consists of seven strategies, one of which is "creating a more equitable society" with three core components: "reduce socioeconomic, demographic, and geographic disparities in future opportunities and outcomes," "maximize reduction and mitigation of historical and structural inequities and their impacts for underserved and marginalized communities, including communities of color and Indigenous peoples," and "maximize engagement with and participation of communities in decision-making and implementation." (p. 8)
- The report states a need for "intentional policy design" in order to avoid reinforcing and repeating the "stratification and divisions present today" and that these measures must "recognize the historical systems of discrimination and oppression that directly and indirectly contribute to these social vulnerabilities, to environmental hazards, and climate change." It also provides an example of reducing industrial GHG emissions in Louisiana's industrial sector along the Mississippi River and a need to acknowledge the history of enslavement and the use of land for plantations. In summary, "effectively policymaking should further seek opportunities to remedy disproportionate impacts of environmental and climate hazards on historically marginalized peoples and communities." (p. 40)

- The report states that "by deliberately considering climate equity at the forefront, Louisiana's Climate Action Plan aims to ensure that the costs of mitigation or adaptation actions do not fall unequally on the already disadvantaged, and that the opportunity to advance climate mitigation and adaptation addresses long-standing inequities while promoting new opportunities for a more inclusive, low-carbon economy in the future." (p. 41)
- The report acknowledges that the state's natural lands and wetlands, beyond being a carbon sink, are "part of the state's cultural heritage, particularly for Indigenous communities." (p. 42)
- The report states that "financial incentives for renewable energy installation and storage at household and commercial scales...are important for ensuring equitable access to renewable energy across Louisiana." (p. 53)
- The report proposes reviewing "net metering and crediting policies for on-site and community solar energy system owners and participants" to ensure that these policies are equitable for customer rate schedules. (p. 54)
- The report proposes supporting the "safe and responsible deployment of carbon capture, utilization, and storage for high-intensity and hard-to-abate emissions" and mentions that "these efforts should result in responsible CCUS projects that address cumulative pollution and incorporate environmental justice and equity concerns into siting and decision making." (p. 64)
- The report proposes a strategy of providing "workforce training to plug legacy wells" and notes that the establishment of an Abandoned Well Pilot Program should provide "training, equipment, and jobs for unemployed residents in Louisiana to plug leaking abandoned wells" and that "pilots of this program should be initiated in underserved communities with the highest concentration of oil and gas infrastructure and leaks." (p. 71)
- The report proposes accelerating "adoption and accessibility of low- and zero-emission vehicles and fuels," with the state "expanding the infrastructure to support this transition, including charging and fueling stations that are accessible to more drivers and passengers across income levels." (p. 76)
- The report proposes working to "expand the availability and reduce socio-economic and geo-graphic barriers to low- and zero-emission passenger vehicles and supporting infrastructure. The report mentions a need to "prioritize access for underserved and overburdened communities" and that incentives (e.g., targeted incentive program, or income-based tax credit, particularly with up-front grants rather than rebates or loans) can "provide equitable access and a means by which low-income households can purchase electric vehicles." (p. 77)
- The report proposes expanding broadband access and "tasks the BEL [Broadband for Everyone in Louisiana] Commission to apply for grants that connect Louisiana's underserved communities to expanded broadband access and deployment." (p. 80)
- The report also states that "more reliable and frequent public transit...particularly in high-population areas of low-wage workers and other areas with limited transit access...will also benefit marginalized, transit-dependent populations in rural areas and provide access to economic opportunity." (p. 82)

- The report proposes the creation of a "statewide authority to provide guidance for resilient local land-use practices," which would "support locals in the development of comprehensive land use plans and climate adaptation and mitigation plans that address the spectrum of relevant community challenges and incorporate the needs of underserved and overburdened populations." (p. 84)
- The report proposes "accelerat[ing] the retrofitting of existing residential and commercial buildings to support comprehensive energy efficiency and resilience upgrades" including efforts to "develop grants that ease barriers for low-income households to participate." It states that "this outreach is necessary to provide assistance for low-income households" and that "grant funding for existing and future retrofit programs should be prioritized for homeowners and renters who face the greatest energy cost burden." (p. 87) An additional related action is to "redesign and expand property-assessed clean energy (PACE) financing" to "provide access to low-income households." (p. 88)
- The report proposes to "preserve and expand natural lands and urban green spaces to maximize climate mitigation and adaptation goals" and that "the actions within this strategy emphasize the importance of social equity in conservation planning to ensure that co-benefits can be realized for all Louisianans and ecosystems." It mentions that the strategy can reduce environmental disparities, since "thoughtfully focusing investments in historically underserved communities can narrow existing socioeconomic disparities in access to green space and its benefits." (p. 92)
- The report proposes to "support the sustainable management and conservation of working agricultural and forestry lands" and states that "adoption of such practices will benefit from rural and urban focus, where equitable access for all farmers and foresters to such practices and technologies can be continued through conservation implementation programs and enhanced through grants and research programs." (p. 96)
- The report proposes to "establish regional compost facilities and accompanying local programs" and states that "near-term implementation of these actions will increase the viability of local compost programs and community gardens that further promote sustainable and local agriculture, providing resources to underserved and overburdened communities." (pp. 97-98)
- The report acknowledges that "deliberate action is necessary to ensure that all Louisianans have equitable access to future economic opportunities and that any disruptions to the economy associated with the energy transition do not fall disproportionately on any one community." It goes on to state that "by prioritizing the success of those who have historically been excluded from the benefits of prior economic transitions and those who are most directly affected by the energy transition, the shift to a low-carbon economy can more broadly, inclusively, and equitable provide benefits throughout the state." It further states that supporting historically marginalized groups ensures that there is a "targeted effort to address historical and ongoing inequities" which is "more likely to lead to positive outcomes for the clean energy transition and for historically marginalized communities and residents, including communities of color and Indigenous peoples." (p. 101)

- The report proposes to "establish a Louisiana Plan for Economic Transition" that should "identify or propose educational and training opportunities and programs to support and grow Louisiana's workforce with tailored assistance for…communities that have been historically marginalized or excluded from participating in economic advancement." (p. 101)
- The report proposes to "coordinate action with local governments" which will help advance equity "around local concerns as climate mitigation activities are implemented." Furthermore, this will enable collectively implementing "equitable disaster planning and recovery across the rural to urban gradient." (p. 110)
- The report proposes to "improve engagement with and track progress on outcomes for disadvantaged communities and Indigenous peoples," which has the benefit of "supporting historically marginalized groups" which is "critical for achieving widespread success and equitable outcomes of a low carbon transition." (p. 111)
- The report proposes to "advance an equitable, efficient, and sustainable siting and permitting process for new energy and infrastructure projects" and to "incorporate environmental justice considerations." The report states that these efforts will improve public health outcomes, particularly for "marginalized communities that have been disproportionately impacted by pollution-related health impacts." (p. 113)
- The report proposes to "collaboratively develop regulatory frameworks and statewide siting plans for new energy technologies with considerations for both climate and environmental justice." (p. 114)
- The report proposes to "update existing permitting and facility siting practices and regulations to align with Louisiana's emission reduction goals" and that these siting decisions and processes should "fully integrate the most recent understanding of climate impacts and environmental justice concerns" and that there is robust public input, "particularly from those who face disproportionate climate and environmental impacts" and that "project, permitting, and siting decisions are climate neutral and are not exceeding the cumulative risk burden on vulnerable communities, tribal lands, or the environment." (p. 115)

Maine

Maine Won't Wait: A Four-Year Plan for Climate Action (2020)

- The report states an intent to "advance equity as we undertake this work" and to "ensure communities and citizens who are often left behind can benefit from climate solutions by having access to opportunities and protection from threats." (p. 7)
- The report sets four main goals, one of which is to "advance equity through Maine's Climate Response." (p. 9)
- The report includes a recommendation to "establish a term-limited incentive program, targeted to low- and moderate-income drivers, to encourage drivers to upgrade to higher-efficiency vehicles in the near term." (p. 10)

- For each of the report's strategies and sub-strategies, there is a brief reference to the results of the Equity Assessment in terms of how the strategies align with the state's attempts to advance equity. Strategies include ensuring equitable access to electric vehicles and charging infrastructure through targeted incentives and shared/public transit options, targeted weatherization and heat-pump incentive programs, ensuring price stability and affordability for all ratepayers, expanding access to electrification options for low- and moderate-income communities, ensuring access to job opportunities for stakeholders, engaging stakeholders in planning processes, pursuing equitable outreach, etc.
- The report states that "resilience" can have multiple meanings, but one foundational pillar includes ensuring that "community dialogue and participation that ensures the voices and needs of the most vulnerable citizens are elevated and prioritized." (p. 85)
- The report recommends that public health measures include greater monitoring, education, and prevention, with consideration of equity impacts and gathering of data disaggregated by factors including "age, race, ethnicity, gender, disability, geography, and other demographic factors" to "identify impacts on socially vulnerable populations and, accordingly, make interventions." (p. 88)
- The report mentions that climate vulnerability assessments should give "particular attention to areas of the state where socially vulnerable communities and vulnerable infrastructure overlap." (p. 93)

Massachusetts

Massachusetts 2050 Decarbonization Roadmap (2020)

- The report states that the "Commonwealth's policy action plan" aims to "equitably and cost-effectively achieve the 2030 limit." (p. 7)
- The report includes the following overarching question guiding the report, its modeling, and its analysis: "How can the Commonwealth achieve Net Zero while maintaining a healthy, equitable, and thriving economy?" (p. 7)
- The report states that "Massachusetts policy actions can and must help to ensure not only that this technological shift [to low-carbon technologies] accelerates dramatically in the years to come, but also that it occurs with equitable access to the known benefits of decarbonization, while avoiding the potential inequitable distribution of costs." (p. 25)

Massachusetts Clean Energy and Climate Plan for 2050 (2022)

- The report states a general commitment to ensuring that environmental justice neighborhoods and low- and moderate-income neighborhoods are "not left behind in the energy transition, which will require prioritizing investments in clean energy" in such neighborhoods. (p. xiv)
- The report indicates that the State will "work with stakeholders and the Environmental Justice Council to identify climate investments it will dedicate to EJ neighborhoods or income-targeted programs" while using "best practices for community engagement." (p. xiv)

- The report states that the Massachusetts Department of Environmental Protection will "continue and enhance its air monitoring and community-based air sensor deployment efforts in EJ areas to determine existing air quality and opportunities to reduce pollution in these areas." (p. xiv)
- The report states that the clean energy transition will require policies to "maintain the safety and reliability of the natural gas distribution systems, when in use, while minimizing the risks of passing on any stranded costs to consumers, especially EJ populations." (p. xvii)
- The report indicates an underlying commitment to "close the gap between EJ and non-EJ communities in receiving the benefits of the clean energy transition." It includes six guiding principles, one of which is to "prioritize and anchor equity and justice in policymaking" by ensuring the "equitable distribution of...benefits to all people in the Commonwealth" and that "vulnerable populations must be prioritized, heard, and included in the policy and program development process." (p. 5)
- The report dedicates one of its eight chapters to "Centering Environmental Justice," which outlines a vision for environmental equity, ways to "ensure equitable investments" and "reduce impacts of air pollution and infrastructure siting on environmental justice populations," and principles for community engagement.
- The report states that a "core component of Massachusetts' strategy to prioritize equity is to set a minimum threshold for investments that benefit EJ populations and low-to-moderate-income residents" and that by 2024, "a certain number of clean energy and climate investments go to disadvantaged communities" and that "within this amount, a specified portion will target EJ populations" in line with the federal Justice40 initiative. The exact proportion is still to be determined but will be "consistent with the steps taken by other jurisdictions" and will "require an open and transparent process that ensures that the voices of EJ populations are at the forefront of policy deliberations." (pp. 12-13)
- The report states that Massachusetts will first define clean energy and climate investments and "gather a baseline of existing investments in disadvantaged communities, EJ neighborhoods, or benefiting EJ populations" and then identify best metrics to track these investments in EJ communities, "whether it be a percentage-based investment or a total funding requirement" that will ultimately be released publicly to create transparency and accountability to "track progress toward climate mitigation in Massachusetts." (p. 13)
- The report references the state's efforts to expand air monitoring networks in EJ populations through new air monitoring stations and provision of air sensors to different municipalities. The state will then use this data to "increase public understanding of air quality and guide actions to reduce air pollution, especially in EJ populations." The state will also "work with public health professionals to increase coordination" on mitigating air pollution and GHG emissions impacts and to "help identify communities experiencing energy-related health impacts, design solutions to strategically invest in these communities, and provide air pollution monitoring to ensure that these investments have a positive health impact on EJ populations." (p. 15)
- The report indicates that EJ will be a consideration in developing future statewide plans for "siting energy infrastructure." (p. 15)

- The report includes a goal to "build a robust and diverse clean energy workforce" and prioritize "diversity, equity, and inclusion" through an "inclusive approach" to grow the state's clean energy workforce, "significantly reduce historical income inequalities" and "provide tremendous opportunities for residents," all while meeting the state's decarbonization goals. This will build on the state's $12 million in annual funding for Equity Workforce Development programming through MassCEC in providing "clean energy occupational training for priority populations and support[ing] minority- and women-owned small business enterprises." These efforts "align with a broader statewide commitment to increasing equity in the workforce" and will provide "increased opportunities for unemployed and underemployed individuals and members of historically marginalized communities" through "training programs that include robust support services, transparent communication about career fit considerations, and solid employment partnerships to enable strong post-training placements and inclusive work environments." It also states that, "to amplify the impacts of these public investments, employers can partner with community-based organizations and training providers to develop more apprenticeship and pre-apprenticeship programs that include effective mentoring supports focused on increasing diversity and inclusion across all genders and racial-ethnic backgrounds." The report also emphasizes the role of technical and community colleges. (pp. 32-35)
- The report considers creating a Climate Service Corps that builds off the Equity Workforce Training implementation programs. (p. 39)
- The report states that Massachusetts' land use strategy will "consider how to efficiently and equitably site the energy infrastructure that will be necessary as the state transitions to electrified heating and transportation." (p. 40)
- The report briefly alludes to improving equity in transportation and to "encourag[ing] the construction of housing near public transit stations." Additional measures include providing financial support to low-income drivers for electric vehicles, ensuring clean transportation programs "will provide targeted incentives and grant funding opportunities for low- and moderate-income residents and EJ communities," and assisting low- and moderate-income residents with retirement of old and high-emissions vehicles and "help[ing] them acquire cleaner alternatives, including EVs, transit passes, e-bikes, or alternative modes of transportation." (pp. 49-52)
- The report states an intent to "develop and implement a Commonwealth-wide building benchmarking and labeling program" to be developed in consultation with stakeholders and LMI and EJ communities and "be integrated with existing programming to support necessary building upgrades in a way that will not create undue burdens to LMI and EJ populations." Buildings in LMI/EJ communities that are poor performing "should be prioritized for various incentive programs through Mass Save" and other programs. (pp. 57-58)
- The report states that the Building Decarbonization Clearinghouse would focus on "ensuring equitable access to the clean energy program offerings across all communities, with a particular focus on ensuring equity and EJ" and that the Clearinghouse would "implement targeted

outreach to engage with LMI and EJ community members, and design program attributes to meet their needs" such that LMI and EJ populations "do not bear a significant cost increase." (p. 59)

- The report states that with the electricity system, Massachusetts would aim to protect LMI customers who may be disproportionately impacted by costs associated with natural gas instead of individually opting for electrification, perhaps due to upfront costs. (p. 61)
- The report states that "public climate campaigns and outreach in LMI and EJ communities will be a priority from the very beginning, with a focus on collaboration with trusted community-based organizations and leaders." (p. 64)
- The report proposes creating a Grid Modernization Advisory Council that would engage EJ communities to "encourage efficient investments in the electric distribution systems that will facilitate the achievement of the statewide GHG limits and sublimits" and "reduce impacts on and provide benefits to low-income ratepayers." (pp. 73-74)
- • The report recommends a focus on efforts to incorporate EJ into decarbonizing electricity systems, including robust public outreach in an inclusive manner, consideration of "environmental burdens and equity impacts on communities" for "siting and permitting processes" for new energy facilities, and efforts to "amplify the voices of EJ communities in...proceedings, working groups, and stakeholder discussions." The state is also considering "requiring the electric and natural gas utilities to report the current and forecasted number of facilities that may need to be located in EJ communities, particularly those facilities that may present a significant impact on certain communities" and pursue a re-evaluation of approaches used in siting and permitting of energy infrastructure projects to create a "more inclusive and equitable approach to assess how energy infrastructure is deployed across the state." (p. 77)
- • The report proposes an effort to implement natural and working lands solutions that "provide equitable benefits to EJ communities, such as increasing tree canopy in EJ neighborhoods, ensuring that lands managed by state agencies or with public funding are accessible to everyone, including EJ populations, and increasing incentives and technical assistance to underserved and underrepresented landowners and farmers." This would include efforts like the Greening the Gateway Cities program that "targets EJ neighborhoods in gateway cities that have less tree canopy, older housing stock, higher wind speeds, and a larger renter population." Increasing (urban) tree canopy mitigates urban heat islands and lowers energy costs while improving air and water quality. (p. 92)
- The report mentions that, in developing a carbon sequestration plan, one key consideration will be to "mitigate potential risks and harms of both carbon sequestration activities and residual emissions, particularly to EJ communities" and that distributional effects (investments and externalities) and impacts on EJ populations and disadvantaged communities, in addition to costs, must be considered. (p. 120)

Michigan

Michigan Healthy Climate Plan (2022)

- The report states that addressing environmental injustices is one of the eight top objectives and that the plan "strongly emphasizes environmental justice to ensure Michigan's climate strategies uplift every portion of the state, including individuals and communities that have borne the brunt of climate impacts and are at the greatest risk of being left behind in the transition ahead." (pp. 6-7)
- The report proposes a commitment to environmental justice and a just transition by ensuring that "at least 40 percent of state funding for climate-related and water infrastructure initiatives benefit Michigan's disadvantaged communities" and that "Justice40 is developed in partnership with leaders in disadvantaged communities." (p. 7)
- The report states that "environmental justice considerations are a key component of equitable climate action and will continue to be a priority for the state as it works to eliminate racial disparities impacting the health and well-being of Michiganders" and that the "transition to a carbon neutral economy has the potential to help alleviate existing environmental injustices, address historical harms, and create new opportunities for Michiganders." (p. 18)
- A series of key recommendations in the report includes environmental justice considerations in every recommendation. It consists of a range of goals and objectives, including ensuring a just transition, prioritizing environmental justice, ensuring at least 40 percent of state funding benefits disadvantaged communities (in line with Justice40), limiting energy burden, etc. (p. 30)
- The report outlines the background/context around environmental justice in Michigan, discusses how the state can guard against future challenges (e.g., making renewable energy cheaper, expanding access, focusing on disadvantaged communities, pursuing justice in funding decisions, engaging with a range of environmental justice communities/stakeholders, and pursuing inclusive and transparent engagement and decision making, including the development of environmental justice screening tools, expanding previous efforts to incorporate environmental justice into health impact analyses and utility integrated resource planning efforts.) (pp. 32-33)
- The report states a need to ensure affordability and justice based on energy burden impacts and the need to allow for more "participation from disadvantaged communities in the design of these programs." (p. 38)
- The report emphasizes a strategy that incentivizes energy efficient appliances, particularly for low-income residents. (p. 43)
- The report proposes a 30x30 initiative that includes "expanding access in disproportionately impacted communities" for natural resources. It also states that care should be taken such that "the state will not interfere with treaty rights, treaty resources, and tribal cultural resources" in future conservation efforts and that the state will "consult with Tribal Nations" moving forward. (p. 49)
- The report emphasizes the need to lead by example, including in its previous efforts to develop an environmental justice screening tool that advances equity. (p. 55)

Nevada

Nevada's 2020 State Climate Strategy (2021)

- The report states that "by acting on climate, the state can move toward addressing Nevadans' concerns and build a better future with cleaner air, better health, an equitable society, economic stability, renewable energy, and a cleaner environment for everyone." (p. 1)
- The report provides a "climate mitigation policy evaluation framework" that "provides a mechanism to track progress while providing a roadmap for where investments may be needed to ensure the adoption of robust and sound policies," and includes "climate justice considerations" as one of four pillars. (pp. 5-6)
- The report's "climate justice considerations" metric primarily asks the following questions: "Have communities of color, low-income households, and tribal partners (i.e., Indigenous communities) been directly engaged and consulted about the challenges and opportunities associated with the policy? Will the policy avoid any negative impacts to vulnerable communities, provide the opportunity for a net benefit, and/or reconcile broader social justice issues?" (p. 6)
- The report proposes several strategies, each of which is evaluated along the dimension of climate justice and equity. There is significant supporting discussion of equity-related considerations and impacts for each of these proposed strategies.
- The report states that "all stakeholders must have a voice, and the health of the most vulnerable populations cannot be sacrificed, nor should industry and labor be overburdened" and that "in order to be fair and equitable, the overall effectiveness and cost of energy efficiency programs or policies must be evaluated." (p. 207)

New Jersey

2019 New Jersey Energy Master Plan: Pathway to 2050 (2020)

- The report proposes several strategies and sub-strategies, many of which have equity components, including recommendations to: "increase clean transportation options in low- and moderate-income and environmental justice communities," "maximize solar rooftop and community solar development in urban and low- and moderate-income communities using the local workforce," "establish a clearinghouse for home energy and health and safety programs targeted to low-income households," "adopt equitable clean energy financing mechanisms that enable greater penetration of energy efficiency opportunities for all customers," "develop a comprehensive Community Energy Plan program in concert with local community groups to identify energy needs and establish ways to participate in and benefit from the clean energy transition at the local level, prioritizing education and incentives in low-income and environmental justice communities," "prioritize energy efficiency programs in low- and moderate-income and environmental justice communities," "support local, clean power generation in low- and moderate-income and environmental justice communities," "prioritize clean transportation options in low- and moderate-income and environmental justice communities," "identify

barriers that prevent the participation in and benefit from the clean energy economy and create outreach programs that work with communities to overcome the obstacles." (pp. 5-10)

- For each of these recommendations and sub-recommendations, the report provides thorough, specific details and rationale underpinning the proposed strategy in question; consequently, many of the equity-based recommendations have specific references to equity impacts and considerations.
- The report states that New Jersey "has a responsibility to facilitate equal access to and representation within the clean energy economy and all the opportunities and benefits it provides" and that it will "support and incentivize local, clean power generation" particularly for low- and moderate-income and environmental justice communities. (p. 16)
- The report contains references to state commitments to develop community solar programs that enable greater access to clean energy benefits, particularly for low- and moderate-income families, such as the Community Solar Energy Pilot Program. (p. 29)
- The report mentions that benefits associated with reducing emissions and improving public health will "apply more directly to environmental justice communities and other New Jersey residents who are currently disproportionately burdened by air pollution." (p. 53)
- The report mentions that environmental justice communities stand to benefit from certain policies and strategies, such as vehicle electrification, etc. (p. 63)
- The report states that "Governor Murphy has made the promise of a stronger and fairer New Jersey a pillar of his administration" and that "a signature component of the Governor's economic plan is to reduce existing disparities and inequities, and to empower the workforce." Furthermore, the report mentions that "in April 2018, Governor Murphy signed Executive Order No. 23, which directed NJDEP to develop guidelines on how all state departments can incorporate environmental justice into their actions" and that the state "has a responsibility to facilitate equal access to and representation in the clean energy economy and all the opportunities and benefits it provides." (p. 200)
- The report mentions the value of having New Jersey "encourage, support, and enable LMI and environmental justice communities to assess the impacts of localized pollution, assess energy demand, build more resilient communities, and establish opportunities across all sectors to develop the innovation economy at the local level and to participate in and benefit from the clean energy economy" and the importance of making sure that "new and existing clean energy and bill assistance programs are widely marketed and easily accessible to LMI ratepayers and environmental justice communities." (p. 200)

New York

New York Scoping Plan (2022)

- The report recommends a broad effort to "mitigate the effects of climate change and adapt to climate change risks while protecting workers and uplifting historically marginalized populations." It also states that a key benefit of New York's clean energy transition is that it will ensure "an

equitable clean energy economy for everyone" such that "every community, every trade, and every region will have access to clean energy solutions and the economic opportunities that the transition to a just and equitable energy system will provide." (pp. 1-5)

- The report includes a section on climate justice impacts, which recognizes the importance of making sure that the energy transition "addresses health, environmental, and energy burdens that have disproportionately impacted underrepresented or underserved communities (including people of color, indigenous populations, low-income individuals, and women)" and that it should "remedy the structural causes that underpin these burdens." (p. 5)
- The report references the Climate Act's requirement that Disadvantaged Communities "receive a minimum of 35%, with a goal of 40%, of the benefits of spending on clean energy and energy efficiency programs, projects, or investments in the areas of housing, workforce development, pollution reduction, low-income energy assistance, energy, transportation, and economic development." As part of this effort, various state agencies are working with the Climate Justice Working Group and other stakeholders to develop a methodology for "defining the benefits of State investments in Disadvantaged Communities," which will then inform all State agencies' efforts through a coordinated approach. (p. 6)
- The report incorporates equity and environmental justice provisions throughout the proposed strategies. The report lists 5 key benefits to individuals in Disadvantaged Communities: 1) "addressing energy affordability concerns and reducing energy burden," 2) "reducing environmental burden from GHG emissions and co-pollutants," 3) "ensuring full participation in the new clean economy and corresponding job growth, including through access to good quality jobs and union-based employment opportunities," 4) "ensuring access to New York State's significant and growing policies and programs that invest in clean local resources, like solar and energy efficiency," and 5) "ensuring an inclusive process and full participation by Disadvantaged Communities and their representatives in the ongoing work of developing and implementing climate action policies and programs." (p. 7)
- The report places emphasis on creating a just economic transition as part of the state clean energy planning efforts, including union labor, job opportunities, etc.
- The report, on numerous occasions, mentions that development and deployment of proposed strategies should be targeted or prioritized in Disadvantaged Communities. This includes solutions across the transportation, buildings, electricity, industry, agriculture, forestry, and waste sectors.
- The report proposes establishing a "statewide dashboard of community GHG emission inventories" that would allow the state to "monitor equity considerations." (p. 18)
- The report proposes a transition away from fossil fuel-based natural gas systems in an "equitable and cost-effective" manner. (p. 20)
- The report proposes a cap-and-invest program that would include "investments to benefit Disadvantaged Communities" through program revenues, with an effort to prioritize emissions reductions in Disadvantaged Communities. (pp. 20-21)

- The report states that climate adaptation and resilience efforts and investments will alleviate associated risks of climate-induced physical threats that are disproportionately high for Disadvantaged Communities. Additionally, the "benefits of adaptation and resilience actions include improved economic opportunities, infrastructure, and equity." (p. 30)
- The report proposes an equity-focused community air monitoring program to "develop a strategy to reduce toxic and criteria air pollutant emissions in Disadvantaged communities" including ensuring the State does not issue "approvals and decisions" that would "disproportionately burden Disadvantaged Communities." These efforts will be accompanied by a few million dollars in grants to support community-led air monitoring programs. Monitoring data will be used to inform strategies to reduce air pollution in these regions. (p. 38)
- The report includes a list of steps the state is already taking to mitigate climate impacts while advancing equity. It includes congestion pricing as an example. (p. 44)
- The three key pillars of the strategies the report proposes include "climate justice," "just transition," and "public health." (p. 51)
- The report includes a standalone chapter on advancing climate justice to "address the structural disadvantages that have caused historically marginalized communities...to bear a disproportionate burden of the impacts of climate change and pollution" and that "through enshrining equity objectives in state investments, program design, and internal and external engagement strategies," the plan would demonstrate how the Climate Act rectifies "past discrimination" and that "implementation will create a model where achieving a high standard of economic well-being and health in every community is the baseline condition of climate action." (p. 58)
- The report states that the Climate Act requires state bodies to prioritize emissions reductions in Disadvantaged Communities and that these communities should not be disproportionately harmed when "considering and issuing administrative approvals and decisions." Furthermore, state actions should "prioritize the safety and health of Disadvantaged Communities, control for potential regressive impacts of climate change mitigation and adaptation policies, and recognize the allocation of public investments to these communities." (p. 58)
- The report states that, informed by the Climate Act, the "desired outcome is to make every neighborhood and community healthy and resilient to the unavoidable impacts of climate change and to provide quality jobs in safe work environments for all New Yorkers in a thriving clean energy economy." (p. 59)
- The report includes a list of benefits of an equity-focused approach to clean energy and energy efficiency investments that will go to Disadvantaged Communities: "air quality improvements associated with the reduction of fossil fuel combustion in buildings, transportation, and power generation; energy bill savings from energy efficiency improvements to homes and small businesses; workforce and small business development and employment opportunities; the advancement of community self-determination through community-based organization capacity-building; and the remediation or redevelopment of underused sites within Disadvantaged Communities such as brownfields, abandoned commercial sites, landfills, or otherwise

dilapidated land." Job growth and economic development will also play a crucial role to promote investment in these communities. (p. 61)

- The report includes a discussion of steps New York has already taken on equity. Example actions and programs that the report sites include Clean Green Schools, NY Sun Solar Equity Framework, EmPower New York, Regional Clean Energy Hubs, Climate Justice Fellowships, New York Clean Transportation Prizes, and large-scale renewable projects. (pp. 62-63)
- The report mentions that, to implement the goal of 35-40 percent of benefits of clean energy and energy efficiency investments flowing towards Disadvantaged Communities, the State will need to take steps to "track and report on the investments and benefits occurring in Disadvantaged Communities," an effort that should include "an accounting of clean energy and energy efficiency funding" and a "quantification of measurable co-benefits of these investments such as energy savings, bill savings, workforce development, and projected health impacts," among other data collection steps. (p. 63)
- The report states that its equity-focused approach will mitigate the issue of emission "hotspots" that "occur when certain sources maintain or increase higher levels of co-pollutant emissions despite a reduction in emissions statewide." This reduction will occur due to a combination of "sector-based investment and regulatory strategies designed to decarbonize and substantially reduce or eliminate the emission of unhealthy co-pollutants from mobile and stationary sources." This effort will result in improved air quality. (p. 63)
- The report includes a standalone chapter on "Just Transition" strategies and recommendations. This section identifies resources the state will look towards to advance a just transition (including federal legislation and incentives), presents a set of just transition principles (which includes "stakeholder-engaged transition planning," "collaborative planning for a measured transition toward long-term goals," "preservation of culture and tradition," "realiz[ing] vibrant, healthy communities through repair of structural inequalities," "equitable access to high quality, family-sustaining jobs," "redevelopment of industrial communities," "development of robust in-state low-carbon energy and manufacturing supply chain," "climate adaptation planning and investment for a resilient future," "protection and restoration of natural and working lands systems and resources," and "mutually-affirming targets for state industrialization and decarbonization"), and identifies "workforce impacts and opportunities" and mechanisms for providing worker and labor support and opportunities to support small and local businesses (particularly minority-owned ones), in addition to describing other strategies around apprenticeship and training programs, community engagement, etc. (pp. 71-92)
- The report states that one of the "cross-cutting principles" of the "prevention agenda" it is employing is to "focus on addressing social determinants of health and reducing health disparities." The report emphasizes a focus on public health impacts to Disadvantaged Communities. (p. 93)
- The report states that "transportation emissions have been concentrated in Disadvantaged Communities for generations and decarbonizing the transportation sector provides an

opportunity to focus emission reductions in the communities that have historically been over-burdened by pollution." (p. 107)

- The report mentions the significant potential benefits of expanding access to green space for Disadvantaged Communities. (p. 113)
- The report mentions that "children living in homes with gas stoves have an increased risk of being diagnosed with asthma" and that "individuals in Disadvantaged Communities are disproportionately affected by asthma and may be more likely to have unvented and/or piloted gas stoves," but that electrification may reduce the risk of asthma in these communities. (p. 114)
- The report looks to quantify the health benefits associated with energy efficiency upgrades and other measures for low- and moderate-income homes in particular.
- A section on transportation recommendations includes discussions of the need for: public transportation services serving unserved and underserved communities; alternative fuels (e.g., hydrogen) and fuel policies to avoid "reliance on fossil fuel infrastructure or allow emissions from fuel combustion to continue to disproportionately impact Disadvantaged Communities;" greater incentives and rebates for LMI customers to adopt clean vehicles to advance climate justice and air quality improvements; investments in EV charging infrastructure in Disadvantaged Communities and areas with "less access to home charging;" zero-emissions fleets (trucks and buses) in low- and moderate-income and overburdened communities; expansion of "low-cost transportation options accessible to underserved communities;" consideration of equity impacts of "smart growth;" and establishing a "Clean Transportation Standard" prioritizing "co-pollutant emission reductions in Disadvantaged Communities" and benefiting "LMI households," with program revenues invested in clean transportation and mobility solutions, particularly for Disadvantaged Communities. (pp. 146-174)
- A section on building recommendations includes discussions of the need for scaled-up investment in energy efficiency measures and heat pumps for Disadvantaged Communities; changes to building codes and regulations that prioritize LMI households and frontline communities (e.g., "regulatory sunset dates for combustion equipment in buildings"); energy benchmarking and disclosure efforts; proper "technical and financial assistance for LMI homeworkers and building owners" to "scope and finance energy upgrades" in Disadvantaged Communities; "dedicated financial support programs for LMI households" in addition to affordable and public housing; grants for LMI households and performance-based house rebates or credits; expanding Weatherization Assistance Program to better serve Disadvantaged Communities; establishment of new partnerships to "effectively deliver programs" (e.g., with "housing agencies, community development financial institutions, and local community-based organizations); streamlined "program enrollment models;" adoption of "inclusive engagement processes" that "include Disadvantaged Communities and LMI households in program co-design processes;" greater access to community solar; greater funding for non-energy improvements "when necessary;" support for thermal energy networks in Disadvantaged Communities; more equitable rate designs; investing in workforce development and training; prioritization of

Disadvantaged Communities in job training programs; investment in phaseout of hydrofluoro-carbons (HFCs); and other measures. (pp. 175-218)

- A section on electricity recommendations includes discussions of the need for: stakeholder input from environmental justice perspectives; consideration of Disadvantaged Communities in determining interim emissions reduction targets; consideration of emissions of co-pollutants in disadvantaged and environmental justice communities; examination of options to "reduce emissions impacts in environmental justice and Disadvantaged Communities" such as "prioritizing facilities located in Disadvantaged Communities for retirement and/or repurposing;" financial and technical support for large-scale renewables; hiring of workers from Disadvantaged Communities and support for displaced and transitioning workers; sites in Disadvantaged Communities for infrastructure investments; measurement and publishing of benefits; loan loss reserve programs; robust consumer protections; efforts to address high transmission interconnection costs in Disadvantaged Communities; rigorous life cycle analyses of different technologies (e.g., hydrogen, nuclear); and other measures . (pp. 219-256)
- A section on industrial recommendations includes discussions of the need for: more investment and assistance in Disadvantaged Communities toward reducing industrial emissions; pursuing workforce development opportunities in Disadvantaged Communities; expansion of training capacity and resources for these communities; reduction of fossil fuel combustion when possible; quantification of potential harmful effects of certain processes (e.g., hydrogen combustion) from an environmental justice standpoint; analysis of potential "emissions control technologies;" economic incentives for industrial decarbonization measures in coordination with Regional Economic Development Councils; and other measures. (pp. 257-270)
- A section on agriculture and forestry includes discussions of the need for: increased "technical services and financial assistance to improve access to programs and reduce barriers to access for historically unrepresented farmers and forest landowners;" improvements to soil health and climate resiliency; identification of "bioenergy and low-carbon product development pathways that demonstrate air quality and health benefits" and include "requirements to avoid localized pollution in Disadvantaged Communities;" development of sustainability guidelines for bioenergy products with particular focus on reducing impacts to Disadvantaged Communities; and other measures. (pp. 271-314)
- A section on waste recommendations includes discussions of the need for: reductions in volume of waste handled for waste management facilities in Disadvantaged Communities to reduce odors and potential negative health impacts; termination of "disposal of food scraps and yard trimmings at landfills and combustors;" prioritized reduction of leaks from wastewater treatment plants to reduce odors and health impacts; and other measures. (pp. 315-338)
- The report includes discussion of a cap-and-invest policy. As part of this policy, the report states that the Council "recommends gradually phasing in the program with cost containment mechanisms and rebates or subsidies to offset the burden of increased energy prices on LMI households," along with a provision that at least 35 percent of auction proceeds be invested to benefit Disadvantaged Communities in addition to other just transition strategies. These efforts

would also be accompanied by processes to "engage impacted communities in the identification and implementation of investment strategies in their communities funded with auction proceeds," with projects incorporating various workforce standards favorable to Disadvantaged Communities. Additional equity provisions may include limits on trading allowances for certain regions near Disadvantaged Communities, targeted air quality monitoring efforts, "Disadvantaged Community" investment plans that are "intended to ensure air quality improvements" and would "identify priority areas and pollutants, including establishing success metrics," and other strategies and regulatory programs. The report also mentions the need for states to consider cost impacts and affordability and avoid potential emissions "hotspots" in Disadvantaged Communities. (pp. 341-344)

- The report includes a discussion of transitioning the gas system towards cleaner sources of energy and references the Climate Justice Working Group's recommendation of balancing cost-effectiveness and equity to "ensure the transition is just" and prioritizing Disadvantaged Communities. The report also calls for the State to create a "comprehensive equity strategy to prioritize the needs of LMI households and Disadvantaged Communities in the transition, ensuring they are not left behind," a process that would require stakeholder engagement with these communities, provision of technical and financial assistance, and workforce development resources for members of Disadvantaged Communities. (pp. 354-356)
- The report calls for prioritization of equity considerations and Disadvantaged Communities in land use policies, including opportunities to "revitalize" these communities through resilience planning that includes health assessments with a focus on Disadvantaged Communities. The report also calls for the acceleration of transit-oriented development to incentivize "green affordable housing near transit," and other measures to ensure that affordability, climate justice, and environmental justice "play a prominent role in...planning, zoning, funding, project implementation, and public policies on the State and local levels." Additionally, the report suggests that the State "support equity tools and models, such as community land trusts, land banks, inclusionary zoning and shared/community-centered ownership, and equity models to address displacement, gentrification, and the concentration of poverty." (pp. 393-394)
- The report contains several recommendations around adaptation and resilience. Two of these recommendations are for the state to "commit to creating, implementing, and updating a comprehensive and equitable state climate change adaptation and resilience plan" and for the state to "incorporate equitable adaptation and risk-reduction considerations into relevant state funding and regulatory programs, projects, and policies." The report also calls for policies to evaluate equity and justice impacts of state-wide adaptation and resilience efforts in addition to resources for Disadvantaged Communities to strengthen climate resilience. Additionally, the plan calls for the Governor to appoint a "Chief State Resilience Officer (CSRO)" who would develop a "comprehensive State climate change adaptation and resilience plan" ensuring "not only that programs are applied equitably, but that, as feasible, adaptation and resilience activities serve to ameliorate environmental, health, social, and economic inequities in historically marginalized communities and in Disadvantaged Communities." (pp. 405-408)

- The report calls for the state to identify "locations of urban heat islands in Disadvantaged Communities." (p. 416)
- The report states that New York will "measure, track, and report on the investments, benefits, and positive outcomes for Disadvantaged Communities associated with...clean energy and energy efficiency spending." The state will also produce an implementation report that highlights the "impacts from regulations on Disadvantaged Communities and their access to or community ownership of services and commodities." (p. 429)

North Carolina

North Carolina Clean Energy Plan: Transitioning to a 21st Century Electricity System (2019)

- The report briefly mentions that "to successfully transition to a clean energy future, North Carolina must" pursue policy and regulatory models that create an "energy system that is clean, affordable, reliable, and equitable." (p. 12)
- The report contains several recommendations around "equitable access and just transition," including recommendations to "address equitable access and energy affordability" and to "foster a just transition to clean energy." These recommendations also include: incorporating equity-based costs and benefits in modeling, design, and decision making processes; analyzing the feasibility and design of a low-income rate structure; expanding energy efficiency and clean energy programs aimed towards underserved communities; including historically marginalized communities in decision-making processes; establishing apprenticeship programs to expand access to clean energy jobs; and creating long-term jobs for low-income communities and workers displaced by the fossil fuel transition. (p. 16)
- The report mentions that policymakers and regulators in North Carolina will need to "ensure fair and equitable methods to pay for the transitioning power grid" and to provide "equitable access and a just transition to [a] clean energy economy" (pp. 21-22)
- The report mentions that "programs such as community solar and home weatherization offer some opportunities to directly reduce electric bill; however, public policy focusing on energy rates and an equitable and just transition to a clean energy economy is needed." (p. 41)
- Throughout the report, the rationales for proposed recommendations reference the need to consider equity impacts, among a range of other considerations, such as costs and emissions.
- The report proposes expanding "cost-benefit methodologies used to make decisions about resources and programs to include societal and environmental factors," which includes "social equity" or "environmental justice" impacts. This recommendation also recognizes the disproportionate impacts on "low-income, disadvantaged communities." (p. 78)
- The report contains recommendations surrounding creating more inclusive financing programs and expanding access to clean energy resources, including community solar.
- The report provides detailed recommendations on improving equity outcomes, each of which includes a thorough discussion of the background context of the equity-related issue, the rationale for addressing it, and specific actions to mitigate these issues. (pp. 112-124)

- The report proposes consideration of equity impacts to certain communities, development of equity metrics to measure and track progress, consideration of methodologies to incorporate equity considerations into analyses, and inclusion of environmental justice impacts into planning processes such as project siting decisions. The report also proposes expanding access and improving effectiveness of clean energy programs, with particular focus on "underserved markets and low-income communities." (pp. 115, 117)
- The report states that North Carolina must "continue to strive for the achievement of environmental justice goals around inclusion and meaningful involvement in decisions." (p. 121)

Rhode Island

The Road to 100% Renewable Electricity by 2030 in Rhode Island (2020)

- In the Executive Summary, the report mentions that its second objective is to "consider specific policy, programmatic, planning and equity-based actions that will support achieving the 100% renewable electricity goal." (p. 7)
- The report lays out 3 key principles: decarbonization, economic, and policy implementation. Each of these three principles contains three sub-principles. Within the economic principles is "improve energy and environmental equity." (p. 8)
- The report includes three sets of recommendations: policy, planning & enabling, and equity recommendations. (p. 16)
- The equity recommendations include community partnerships, equity metrics, and "improv[ing] community-determined outcomes." Community partnerships consists of recommendations to "partner with and listen to frontline communities about their needs and goals in the clean energy transition," to "target community-based training efforts to support in-demand clean energy jobs," and to "provide education about the opportunities and challenges available in creating clean energy programs and policies, and information about energy programs, including comparative costs and benefits." Equity metrics consists of recommendations to "develop metrics to track progress toward community-identified equity outcomes." Improving community-determined outcomes consists of recommendations to "improve outcomes identified and prioritized by communities through rate design, program adjustments, and policy," to "reduce barriers to participation through effective and culturally competent program design and delivery," and to "reduce financial burdens and provide support for low- and moderate-income households and frontline communities beyond installing technology, including structures for aiding with upkeep and services." (p. 18)
- The report proposes expanding educational opportunities for energy externally and internally (the report states that "state agencies should continue to improve on their understanding of systemic racism, social justice, and energy and environmental equity." (p. 87)

Washington

Washington 2021 State Energy Strategy: Transitioning to an Equitable Clean Energy Future (2020)

- The report states that the "recommendations in the strategy ensure that Tribes, rural communities, and low-income households are partners and benefactors in our state's clean energy transition." (p. 3)
- The report states that, "particularly in light of COVID-19's devastating economic impacts, a just and equitable state energy strategy is a necessary condition for success" and that "the strategy must benefit people, businesses, and rural, urban, highly impacted, and Indigenous communities throughout the state." (p. 15)
- The report includes a brief description of priority recommendations that states that "highly impacted communities and vulnerable populations must gain the most from this transition as they are most at risk from worsening climate impacts." (p. 16)
- The report looks at the "role of investment in an equitable and inclusive transition." It states that "because the strategy relies so heavily on investments and infrastructure, the risk is high that the clean energy transition will exacerbate the inequitable distribution of wealth and prosperity" and that "those with access to capital, such as home equity or savings, could make the upfront investments to shift to less expensive clean energy." Thus, those without capital and resources may be "paying for expensive fossil fuels and the infrastructure used to produce and deliver them," which creates a need for robust "public sector mechanisms to finance the transition." (p. 17)
- The report states that key actions to take to address communities include measures to "examine clean energy policies for equity impacts in development and during implementation" and to "provide needed funding for communities to participate in the clean energy transformation." (p. 19)
- The report proposes several strategies, one of which is to "build an equitable, inclusive, resilient clean energy economy." Sub-strategies include measures to "recognize that no single definition of equity may be satisfactory," "break from historical patterns and narratives," "ensure public participation and inclusion of historically marginalized voices," "prioritize energy resiliency as part of energy policy and planning," and "embed equity in the design of clean energy policies and programs." (p. 20)
- The report states that the state's Clean Energy Transformation Act of 2019 requires that the state's transition to a 100% renewable or non-emitting electric grid "includes the equitable distribution of clean energy benefits and reduction of burdens to communities highly impacted by climate change," which would include assistance to low-income households and a requirement for utilities to consider "energy and non-energy benefits for and costs to vulnerable populations and highly impacted communities in their resource and clean energy planning" that "mitigate energy burdens and consider the adequacy of energy assistance programs." (p. 22)
- The report states that policymakers must "embed equity, resiliency, and inclusivity into policy design and implementation." (p. 22)
- The report acknowledges that "equitable energy policy design addresses inequities, while creating environmental and economic opportunities for all," which can "also offer the opportunity to improve democratic participation across state and local government and create

public confidence in government." Consequently, the state "must empower and provide opportunity for active participation by all of Washington's communities and residents" since "equitable policy design will allow communities across the state to take advantage of the clean energy transition's economic and technological advancements." (p. 22)

- The report mentions that there are "emerging frameworks from statewide environmental justice efforts, such as the newly released report from Front and Centered, 'Accelerating a Just Transition in Washington State,' exploring the intersection of governance, regenerative economics and community power." (p. 24)
- The report also states, "state and local governments must continue intentional and thoughtful engagement with Tribal governments to understand the different ways Tribes approach their relationship with energy" and "steps must be taken to ensure meaningful outreach and opportunity for participation by all of Washington's Tribes" and maintain collaborative relationships. These efforts, including the design and implementation of policy, must also "strengthen sovereignty" and "planning efforts conducted by Tribes can help inform the actions of other governments." (p. 24)
- The report identifies "providing the technical, financial, and human resources for community participation" as an important component of equitable stakeholder engagement. Furthermore, the state must engage in "planning, evaluating and implementing energy and resilience projects that meet the unique needs of the state's diverse communities" and "policy makers must identify and amend laws and rules, remove barriers and change systems that prevent equitable and just participation and policy choices." (pp. 24-25)
- The report includes a robust graphic that provides a seven-step process for incorporating equity into clean energy policies: 1) "ensure equitable access to economic benefits and opportunity by empowering communities;" 2) "ensure universal and equitable access to affordable remote service options;" 3) "center program design on reduction of energy cost burdens;" 4) "incorporate health disparity metrics into energy planning;" 5) "increase resilience and energy sovereignty for Tribes and energy independence for vulnerable communities;" 6) "address procedural inequities in program design and prioritize equitable development;" and 7) "address nexus issues of affordable housing, livable communities, and displacement in energy policy." (p. 25)
- The report lists three dimensions of environmental justice work: procedural, distributional, and structural. The procedural dimension includes efforts to "create processes that are transparent, fair and inclusive in developing and implementing any program, plan or policy," "ensure that all people are treated openly and fairly," and "increase the civic engagement opportunities of communities that are disproportionately impacted by climate change." The distributional dimension includes efforts to "fairly distribute resources, benefits, and burdens" and "prioritize resources for communities that experience the greatest inequities, disproportionate impacts and have the greatest unmet needs." The structural dimension includes efforts to "make a commitment to correct past harms and prevent future unintended consequences" and "address the

underlying structural and institutional systems that are the root causes of social and racial inequities." (p. 26)

- The report states that the seven-step process and the three dimensions of environmental justice serve as a "framework for equitable policy design" and evaluation. It ensures meaningful engagement in policy design and implementation by affected stakeholder groups. It also mentions that "local communities and advocacy organizations in turn need to hold policymakers and government officials accountable when policies fail to meet these criteria." (p. 26)
- The report states that "renewable potential assessments will determine how in-state resources should be sited to maximize net benefits, including indirect benefits such as equity." (p. 49)
- The report states that "structural issues regarding existing transportation systems must be addressed along with the required reduction in greenhouse gas emissions" and that "to create accessible, affordable, safe and sustainable mobility opportunities that work for all Washingtonians—particularly highly impacted populations which often lack historical mobility investments—our transportation system must prioritize efficiency and equity improvements." (p. 51)
- The report states that one action for decarbonizing transportation is to "shift travel to more efficient modes," such as "public transit or maritime freight transport," and that "comprehensive implementation will result in both equity and efficiency benefits." The report notes that a key step for the state is to "provide a roadmap—with clearly defined targets—describing how the state will achieve an equitable transition to a zero-carbon transportation sector." (p. 52)
- The report states that the "Legislature should direct WSDOT and Commerce—in consultation with local and regional jurisdictions, as well as highly impacted populations—to adopt new, discrete, near- and long-term targets for transit and active transportation and to recommend new targets for broadband access." (p. 54)
- The report states a need to "improve transportation system planning and coordination, prioritizing VMT [(vehicle miles traveled)] reduction" and that "to improve the efficiency and equity of Washington's transportation system, the state must take steps to set statewide priorities for land-use planning, infrastructure development and service improvements." (p. 54)
- The report states that "investment in and preservation of low-income housing, community-serving businesses and cultural centers near transit create more opportunities for those with the fewest choices." (p. 55)
- The report considers a road usage charge as a substitute for a gas tax and includes efforts to conduct an analysis of equity impacts of these proposals. (p. 56)
- The report proposes that the Legislature "identify and establish stable funding mechanisms for maintenance, preservation and system improvements across all transportation modes" and that the funding must be "stable, equitable and accessible to all jurisdictions and sufficient to cover programmatic and capital needs." (p. 57)
- The report states that "urban and rural transit investments, funded by the Legislature and local governments, should directly benefit highly impacted populations and people with disabilities." (p. 58)

- The report states that "strategies for reducing freight VMT also need to consider the pollution and health impacts on highly impacted populations." (p. 59)
- The report states that "vehicle replacement targets should be especially aggressive for diesel-fueled, short-haul vehicle classes (e.g., school and transit buses, utility and service vehicles, local freight delivery, drayage and off-road vehicles) that contribute disproportionately to local air pollution, especially in frontline communities." (p. 63)
- The report states that the Legislature should "fund expanded deployment of community-scale air quality monitoring in highly impacted populations" and that "improved access to air quality data will empower communities and measure whether the areas with the highest pollution burden are realizing the health benefits of vehicle electrification and clean fuels." (p. 63)
- The report proposes to "improve planning and oversight of BEV [(battery electric vehicle)] charging and FCV [(fuel cell vehicle)] fueling infrastructure" and that the planning entity should "ensure the equitable, efficient, coordinated and timely implementation of capital projects" and should engage with equity advisers and frontline community groups. Furthermore, "planning and development criteria should prioritize projects in communities underserved by existing infrastructure and reduce air pollution in highly impacted population, especially around ports and distribution centers identified through a cumulative impacts analysis tool." (p. 64)
- The report states that "the Legislature and state agencies should directly support, and further enable electric utilities to support electric vehicle supply equipment in underserved urban and rural communities." (p. 64)
- The report states that "building electrification and energy efficiency policies and programs should enable equitable outcomes for low-income communities, including improvements in public health outcomes, increases in energy affordability, and making homes more comfortable." (p. 71)
- The report recommends "develop[ing] a detailed Washington Building Decarbonization Plan" that should "uniquely address the challenges that the clean energy transition poses for" groups including "highly impacted populations and low-income communities." Furthermore, the state's building decarbonization strategy should "couple non-energy policy with energy policy" including "support for workforce development efforts to ensure equitable access to career-track jobs in and beyond building decarbonization." (p. 72) This plan should be "developed with an inclusive public process addressing specific needs on communities, with a focus on equity and inclusion." (p. 73)
- The report recommends "align[ing] utility ratepayer programs around decarbonization performance outcomes," which includes "develop[ing] structures that assure funding allocations respond to the needs of low-income and other vulnerable customers." (p. 73)
- The report proposes to "accelerate adoption of low greenhouse gas emissions refrigerants and equipment" and, further, that the "State Board of Community and Technical Colleges…incorporate application of state regulations for refrigerant management in industry-related coursework" and that "capacity building and training for minority- and women-owned construction businesses and contractors should be prioritized for development." (p. 74)

- The report proposes to maximize building energy efficiency and electrification and that "consideration should be given to the challenges" of stakeholder groups including "highly impacted populations." Furthermore, these programs "need to be focused on metrics, such as public health outcomes to track progress toward increasing equitable outcomes, as there is a known gap in the data available regarding the efficacy of building electrification efforts for low-income communities." (p. 74)
- The report proposes a "mandatory residential performance standard to scale up the residential retrofit market" that includes "comprehensive equity and workforce provisions." Furthermore, there should be "capacity building and training for minority- and women-owned construction businesses" and to "design training programs from energy audits with incentives or requirements to hire from low-income and frontline communities." This also includes efforts to "ensure inclusion of local and Tribal government representatives during the process of developing the energy code and building performance standards framework and strategy." (pp. 75-76)
- The report proposes to "lead by example with public capital projects and energy management," which includes efforts to "prioritize decarbonization of public buildings in low-income communities, specifically public schools and hospitals." (p. 77)
- The report proposes to "create and fund a high efficiency electrification program." This would include "mechanisms to ensure participation by low-income households, based on input from organizations that represent their interests and communities." (pp. 77-78)
- The report proposes to "broaden the scope and scale of the low-income household energy programs" includ[ing] efforts to "facilitate meaningful participation by highly impacted populations to explore solutions to address historic barriers to accessing the limited resources currently available for weatherization" and to "conduct ongoing engagement with Tribal governments to explore approaches to systematically expand services to and within Tribal communities" and to "invest in and leverage workforce capacity within these communities." Furthermore, these efforts should "prioritize services to underserved households within highly impacted populations, including rental housing, multifamily housing, non-electrically heated housing and high-energy burden households" and to "provide innovative financing models that can be used to provide low-income households the access to capital needed to decarbonize their homes." Additionally, the state should "expand funding for the state's successful Weatherization Plus Health program as part of a broader strategy to reduce energy burden and improve health outcomes for low-income households impacted by the COVID-19 pandemic." (p. 79)
- The report proposes to "ensure market transformation programs have carveouts and direct funding for low- and moderate-income households and Tribal nations." (p. 80)
- The report proposes to "develop plans for the long-term transition of the natural gas distribution system," which includes efforts to examine "financing, incentives and other mechanisms to protect members of highly impacted populations" and that natural gas distribution companies should "work with regulators and stakeholders to develop comprehensive and equitable plans to transition from the use of fossil natural gas." (p. 82)

- The report proposes to "create a structure to implement a clean industrial policy," which would include a "review of potential tools to streamline permitting and siting of clean industrial activities that protect communities from disproportionate impacts." (p. 96)
- The report proposes to "continue to invest in the Clean Energy Fund" which can "continue to be a tool to build on Washington's clean energy policies and sectoral strengths, ensure costs and benefits are equitably distributed and help the state rebuild our economy." (p. 98)
- The report proposes to "expand policies to consider consumption-based emissions" and states that "understanding consumption-based emissions is also important for equity," as "a household's carbon footprint generally increases with income." (p. 105)
- The report proposes to "invest in Washington's clean buildings and weatherization workforce development organizations" and further proposes that "grants, stipends, and training should be equitable advertised and offer opportunities to historically under-resourced and underrepresented communities." (p. 111)
- The report proposes to "establish accredited systems of regional dual-credit career & technical education programs" and that the Legislature should commission the state's Centers of Excellence to "engage under-resourced and under-represented communities in the development of their programs and recruitment policies" which would include grant and stipend opportunities. (p. 111)
- The report proposes to "establish a battery-electric bus fleet training program" and proposes including "grants and stipends for under-resourced and underrepresented communities and the operators and crewpersons of retiring fossil fuel fleets." (p. 112)
- The report proposes to "prepare for a just industrial transition," and that "steps to enable rapid decarbonization…should be thoughtfully implemented so as to not create displacement, environmental damage or economic disinvestment in local communities, referred to as 'sacrifice zones,' often through locally unwanted land use." Furthermore, tools such as the Washington Environmental Health Disparities Map can "help identify communities most impacted by siting a certain industry and to determine the local priorities." (pp. 112-113)
- The report proposes to support 100% clean electricity to "meet the needs of a decarbonized economy" which includes efforts to "advance an equitable clean energy economy and create living-wage jobs." The report states that "an equitable transformation, as envisioned in the Clean Energy Transformation Act, will reflect community priorities for resilience and affordability." (p. 115)
- The report proposes to "facilitate community deployment of renewable generation resources and grid services." It states that "state government must address access and equity in its own programs and funding" and that the state has made progress towards this through "updated budget instructions for the CEF and by funding efforts like the state Environmental Justice Task Force, which has identified ways that state agencies can incorporate environmental justice priorities into their work." (p. 129)
- The report states that "priority communities can be identified using statewide energy equity indicators and environmental health and cumulative impact analysis tools such as the Environmental Health Disparity Map" and can be "used in partnerships with direct service providers like community action partnerships, who have a rich history of working with state

agencies and are well situated for qualifying and engaging with highly impacted populations." (p. 129)

- The report proposes to "increase the opportunity for community DERs and Energy Program Management" and states that "sharing the benefits of DERs allow communities to be in control of their energy supply" and that "the state can ensure a more equitable clean energy future by supporting local planning resources, including efforts by Tribal governments." Furthermore, "policies must recognize the individual needs of Tribes across the state and help leverage local energy resources" and that "both public and private entities can create carve-outs in existing programs to account for the unique tax status of Tribes and the structure of land ownership that may prevent Tribes from taking advantage of some financial tools." (p. 129)
- The report proposes to "create specific programs for Tribal energy projects that promote Tribal sovereignty and self-determination." (p. 130)
- The report proposes to "develop tools for equitable energy distribution and deployment," which includes sub-actions to "perform an equity assessment of existing programs related to renewable energy," "explore the adoption of energy equity indicators and a publicly accessible energy equity dashboard, including both outcome and process measures," and to "use an equity and environmental justice lens for CEF program structure, design elements and participation." (p. 131) Furthermore, the report states that "energy equity indicators, data collection, and a publicly accessible energy equity dashboard would assist in ensuring a just transition" with indicators that should "include both outcome and process measures" such that "outcome measures, such as increasing renewable energy in communities, must be supported by community engagement process metrics to hold state agencies accountable for increasing meaningful engagement with communities." (p. 131)
- The report states that "to understand current inequities associated with disbursement of energy funds and incentives, Commerce should review past and existing programs that support clean energy…and other state incentives" and that "Commerce should compare the locations of projects supported by public programs with the Environmental Health Disparities Map to identify highly impacted populations," with the outcome used to "identify gaps in service and specific use cases...for further investment." Furthermore, the "Legislature and Commerce should use equity design elements for CEF and related energy programs" and "these elements could include a lower or no match requirement based on applicant type, a requirement that grant applicants identify how their project will lead to more equitable outcomes, incentives to include under-represented communities or organizations on project teams and ensuring community-driven outreach and participation in program design and implementation." (p. 131)

Wisconsin

State of Wisconsin Clean Energy Plan (2022)

- The report indicates that one objective of the Clean Energy Plan is "reducing the disproportionate impacts of energy generation and use on low-income communities and communities of color" and "maximizing the creation of, and equitable opportunities for, clean energy jobs, economic development and stimulus, and retention of energy investment dollars in Wisconsin." (p. 8)
- Justice, equity, and collaborative action are three core values of Wisconsin's clean energy transition to "ensure communities that have been most impacted by climate change benefit from this transition." (p. 9)
- The report states that Wisconsin must "prioritize transforming environmental, health, and economic conditions for communities disproportionately impacted by climate change" and that "a just and equitable clean energy transition can lessen the energy burden that is often placed on families with low incomes and lessen hardships for those who are already struggling to make ends meet." (p. 9)
- The report asserts that communities that have "faced systemic barriers to wealth and opportunity must also see and feel the benefits of this transition" and that economic investment "should be directed to communities that have seen the least investment." (p. 9)
- The report states that the Clean Energy Plan ensures an inclusive transition through "prioritizing health equity, environmental justice, and equitable economic development." (p. 18)
- The report defines overburdened communities and states a "need to ensure a just transition for fossil fuel communities." (p. 26)
- The report acknowledges the need for Wisconsin to "achieve an inclusive and equitable clean energy workforce through a clean energy workforce development program to systematically train and prepare workers for the nation and state's transition to clean energy." (p. 67) Furthermore, it discusses the importance of a just energy transition. (p. 68)
- The report proposes several equity-related strategies, including an "equity first program" that consists of a "novel, comprehensive, and holistic statewide program to deliver the broadest range of clean energy technologies and services to the homes and businesses who need it most." This includes the establishment of definitions, goals, evaluation, measurement, and verification practices "in consultation with communities of color leaders...and the US Department of Energy's Office of Energy Justice Policy and Analysis," making sure that "to the greatest extent possible the jobs created because of this program are jobs created in the communities being served." (p. 73)
- The report includes a number of other recommendations, including to "prioritize engagement and environmental justice for all applicable renewable energy, energy efficiency, electrification, and clean transportation policies and projects" (including a certain set of guiding principles from human rights and health advocacy groups), "develop, coordinate, and promote robust clean energy education and outreach efforts across the state," "invoke Aarhus Convention at a state level to create inclusive stakeholder input practices" (e.g., access to environmental information, public participation in decision making), and "utilize the Wisconsin Environmental Equity Tool in ongoing education, program, and policy development related to the clean energy transition." It

also includes long-term strategies, such as the creation of an Office of Environmental Justice. (pp. 73-75)

- The report recognizes that, from a jobs and economic impact standpoint, Wisconsin has "yet to achieve conditions that effectively support" low-income communities and communities of color and that "people of color are underrepresented in the energy industry." Therefore, the State needs a "systematic approach to clean energy workforce development." Specific strategies that it has proposed include efforts to "launch a clean energy job inventory and outreach program," "support a Clean Energy Workforce Advisory Council," "support communities and workers who will experience power generation plant closures," "establish and fund a clean energy training and reemployment program," "support a clean energy and small business incubator," "increase engagement and collaboration with labor unions," "ensure the clean energy transition supports family-supporting wages," "launch a clean energy reentry pilot program," and "support transit for job access and reverse commute program funding." (pp. 76-82)
- The report states that its climate and energy strategies are aimed at improving environmental justice indirectly by reducing "community burden of transitioning to clean energy and energy efficiency." It also suggests that "purchasing policies could intentionally address emissions in communities; for example, by contracting with persons of color, rural, women, and veteran-owned businesses." (pp. 84-85)
- The report proposes specific immediate action strategies, including launching a "tribal relations pilot project" (as a "tool to conduct regular, meaningful, and robust consultations with Tribal Nations on energy and environmental policy issues"), "increasing tribal representation and consultation on any state or regional commission or board, and multi-year energy planning efforts," (including direct lines of communication between Tribes and IOUS, ensuring Tribal representation on task forces and committees), and establishing a "Carbon-Free by 2050 Technical Assistance Grant Program" (to assist Tribal Nations to develop plans to become carbon-free by 2050). (pp. 85-86)
- The report states that, at a state government level, environmental justice should be prioritized, including working with "agency leaders across the enterprise to measure and verify environmental justice-related actions in programs and policies" and considering a "life cycle analysis policy for purchasing and developments that considers impacts on environmental justice communities." (p. 89)
- The report states that the state should place focus on "access to financing and increasing affordability" to "lessen the energy burden on low- and middle-income communities and communities disproportionately impacted by climate change by reducing the often-high up-front costs associated with clean energy projects." It notes that "these communities have not yet been positioned to benefit from these investments because of decisions made by other people, sectors, and systems." The report states that "by including these communities in Wisconsin's clean economy and creating the conditions for ownership or power over how they receive their energy, the strategies advance environmental justice" and "low-income and the most vulnerable Wisconsin communities must be allowed to benefit from these projects." (p. 96)

- The report advocates for the evaluation of potential models for a Wisconsin Green Bank that "should prioritize communities disproportionately impacted by climate change throughout the planning and implementation process." (pp. 104-105)
- The report acknowledges that "solar photovoltaic installation inequity exists in Wisconsin, as it does across the nation" and that "most community solar projects are deployed in higher-income communities and most participants are higher-income households" and that the state should therefore aim to "increase the rate of development of community solar and particularly projects aimed at and tailored to low-income communities, communities disproportionately impacted by climate change, and other vulnerable communities." It also states that "more equitable net metering and third-party policies will create opportunities for more customers with low incomes...and businesses in communities of color to enjoy the economic benefits of solar." (p. 111)
- The report states that community solar projects should be expedited, with investor-owned utilities developing comprehensive community solar plans that should "emphasize providing opportunities for low- and moderate-income customers and communities of color," "facilitate community solar/renewable energy sponsored by local communities and Tribal Nations to support work toward their clean energy goals," and "monitor current pilot projects that are underway to support low- to moderate-income community solar projects." (p. 111)
- The report proposes an expansion in tariffs to "prioritize environmental justice impacts" in line with how tariffs have previously been used to develop significant renewable energy projects. The report states that these tailored tariffs should also be made available to "Native Nations' campuses and businesses, businesses owned by people of color, and businesses and nonprofit organizations that provide services to communities." (p. 114)
- The report states that "energy conservation programs need to design and implement programs dedicated to supporting those who cannot afford these costs, especially in low-income communities and communities disproportionately impacted by climate change." (p. 117)
- The report proposes increasing funding for the Focus on Energy's energy efficiency program, stating, "increasing available funding along with exploring goals for Focus on Energy that include emission reductions and equity/justice metrics hold the greatest environmental justice potential." (p. 120)
- The report also proposes improving Wisconsin GHG emissions data collection, including a "breakdown of GHG emissions based on established environmental justice metrics" and "promot[ing] creative financing options and additional energy efficiency measures for customers with low incomes" (including dedicated Focus on Energy funding for low-income customers and the creation of a "study/assessment of best practices for reducing renter energy burdens for those with low and moderate incomes.") (pp. 121-122)
- The report states that building decarbonization has the "potential to substantially reduce utility bills and increase energy reliability," thereby "increasing equity and decreasing the high energy burdens experienced by low-income households, communities disproportionately impacted by

climate change, and Tribal Nations." It also states that innovations such as renewable thermal technologies "should be targeted in low-income communities. (pp. 127-128)

- The report states that Wisconsin must "ensure that EV charging is widely available...and that such infrastructure reaches lower-income and environmental justice communities." (p. 139)
- The report proposes increasing Wisconsin Department of Transportation "engagement with communities...with an emphasis on socioeconomic, environmental justice, and equity strategies in support of communities of color and low-income communities." (p. 142)
- The report proposes accelerating the Wisconsin statewide push towards electric vehicles, including exploring "funding to subsidize used, community-owned ZEV rideshare...as an amenity in low-income, rural, and communities disproportionately impacted by climate change" and proposes ensuring that "electric charging infrastructure and federal funding to support infrastructure buildout...reaches rural, low-income, and communities of color." (pp. 144-145)

Appendix D:
Equity of Processes in 100% Clean Energy Modeling Reports by State and Other Equity Considerations

Most states discussed incorporating equity into processes regarding 100% clean energy planning, including stakeholder engagement and feedback sessions, to varying degrees.

California

2021 SB 100 Joint Agency Report: Achieving 100 Percent Clean Electricity in California: An Initial Assessment (2021)

- The report states that the joint agencies "consulted with the Disadvantaged Communities Advisory Group, which consists of members from and representing disadvantaged communities and advises the CEC and CPUC on energy equity issues." (p. 16)
- The report proposes a couple of equity-based recommendations, including consulting with "advisory groups to guide equitable planning and implementation." Specifically, the report mentions that the "[Disadvantaged Communities Advisory Group] and other environmental justice, health, and equity stakeholders provided valuable input for this report" and that the joint agencies intended to continue to build upon these collaborations. (p. 36)
- The report describes the Disadvantaged Communities Advisory Group as a 11-member group that reviews CEC and CPUC clean energy programs and policies. In 2018, they proposed an "Equity Framework that can serve as a guide for SB 100 program design, outreach, and workforce development efforts." (p. 44)
- The report mentions that the stakeholder engagement process included multiple pieces of feedback about the need for supporting energy equity. (p. 66)
- The report acknowledges that additional analysis will be needed to "provide higher-resolution insights to address equity concerns." (p. 120)
- The report mentions that "the joint agencies will continue coordinating with the California Workforce Development Board (CWDB) to maximize alignment between SB 100 implementation and the state's efforts to ensure a just transition into the clean energy future and promote equity in the clean energy workforce." (p. 136)
- The report provides thorough definitions of key equity-related terms, including environmental justice and disadvantaged communities.

Louisiana

Louisiana Climate Action Plan: Climate Initiatives Task Force Recommendations to the Governor (2022)

- One of the objectives of the initial Task Force meeting was focused on equity. (p. 11)
- The report states that "in addition to their own inherent value as people of the state of Louisiana and the price they have paid through past inequities, these communities hold tremendous

knowledge of the state's lands, waters, wildlife, and environment and are needed leaders in the implementation of GHG reducing actions." It goes on to say that "representation and process integration are the foundation for equitable opportunity and outcomes" such that "from the start of the Climate Action Plan development process, the Task Force and supporting members were chosen with this reality in mind, and open discussion of equity considerations were fostered during public meetings." (p. 40)

- The report states that "an equity advisory group was formed to specifically consider the potential outcomes of policy proposals for advancing or negating progress toward a more equitable society" and that the group "developed a definition of climate equity and evaluated the potential impact of climate actions on the three equity-centered fundamental objectives aimed at reducing disparities, addressing historic and structural inequities, and increasing participation for Black, low-income, historically marginalized, and Indigenous peoples across Louisiana." (p. 40)
- The report states that "representation and transparent processes must be continued to help inform, design, and implement climate actions that offer tangible benefits to under-resourced communities and lead the vision and work of repairing our environment and building an equitable and sustainable clean energy future." (p. 40)
- The report states that the Task Force "developed strategies and actions with climate equity at the forefront." (p. 40)
- The report states that "conservation practices should consider and draw upon Traditional Ecological Knowledge, the evolving knowledge acquired by Indigenous and local peoples over hundreds or thousands of years through direct connection with the environment." (pp. 92-93)

Maine

Maine Won't Wait: A Four-Year Plan for Climate Action (2020)

- The report states that the Maine Climate Council added an equity analysis to inform decision-making. (p. 6)
- The report mentions that the Maine Climate Council has created a new "Energy Subcommittee" to "support ongoing planning and implementation of Maine's climate strategies to ensure shared benefits across diverse populations of Maine people and to understand any concerns for implementation." (p. 9)
- The report states that the Maine Climate Council's working group process included 30-40 members with "diverse perspectives and expertise." Although the report does not describe what "diverse" means in greater detail, it does state that "Council leaders and staff will continue to find additional ways to reach these communities such as lower-income and rural residents, older adults, tribal communities, people of color, and new Mainers." (p. 18)
- The report includes several stakeholder interviews, one of which is with a Native American tribal leader who discusses the importance of equity and the work of the Equity Subcommittee. (p. 37)

- The Equity Subcommittee has been tasked with "setting clear equity outcomes for proposed actions, monitoring progress, and making recommendations to ensure that programs and benefits reach the intended populations and communities." (p. 37)
- The report mentions that a separate Equity Assessment has been conducted and that "where the Equity Assessment called for further analysis of equity impacts, the Equity Subcommittee's ongoing engagement with diverse communities will inform the development of climate policies and programs." (p. 37)

Massachusetts

Massachusetts 2050 Decarbonization Roadmap (2020)

- The report includes one page that outlines "equity considerations for deep decarbonization." (p. 17)
- The report states a desire to pursue "broad and sustained public engagement during policy and program development, particularly with environmental justice populations, communities of color, and low-income residents" to achieve net zero emissions. (p. 17)

Massachusetts Clean Energy and Climate Plan for 2050 (2022)

- The report was developed with the consultation of the Environmental Justice Council which serves to "advise the state on policies to promote EJ" and met four times before the release of the plan to establish a definition for environmental justice in the state's environmental justice policy and this plan. (p. 4)
- The report defines environmental justice as the principle that "all people deserve protection from environmental pollution and the ability to live in and enjoy a clean and healthy environment, regardless of race, color, income, class, handicap, gender identity, sexual orientation, national origin, ethnicity or ancestry, religious beliefs, or English language proficiency." It states that achieving environmental justice requires "meaningful involvement of all people with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies" and "equitable distribution of energy and environmental benefits and environmental burdens." (p. 11)
- The report indicates that the Massachusetts Executive Office of Energy and Environmental Affairs (EEA) is developing a state EJ strategy along with the state's Environmental Justice Task Force and that implementation will occur through "actions that agencies have outlined in the EJ strategy." (p. 11)
- The report states that the 2021 Climate Law defines an "environmental justice population" in Massachusetts based on the proportion of "racial minority, low-income, or limited English proficiency residents living in a particular 'block group' as delineated by the United States Census Bureau" and that the state's updated environmental justice policy "seeks to ensure environmental, energy, and climate benefits for Environmental Justice populations while minimizing harm to the most vulnerable populations." (p. 12)

- The report indicates an intent to "conduct the assessment with a substantial stakeholder process that will include input" from a range of stakeholders to "improve how the Commonwealth ensures equitable distribution of the benefits." (p. 13)
- The report states an intent to focus on enhancing community engagement efforts, "particularly when implementing programs that could affect EJ populations," as the "best process by which to gain an understanding of the circumstances and needs of EJ populations," referencing past examples of internal stakeholder engagement and public participation efforts that proved fruitful. (p. 14)
- The report announces that the state will "launch a Climate Campaign in 2023 to raise climate awareness across the Commonwealth" and "build awareness, understanding, and interest in climate education," "educate the public about the actions that each resident can take to save energy and minimize climate impact," and "increase people's receptivity to clean energy technologies." The campaign would be "centered around EJ" and information would be provided "in languages accessible to EJ populations." Additionally, as part of the campaign, the state would increase engagement by building toolkits that are focused on specific communities and helping them "access financial and technical assistance support from the state, with a focus on ensuring inclusion and a just transition for all communities while being particularly attentive to the unique needs of EJ populations." (p. 14)

Michigan

Michigan Healthy Climate Plan (2022)

- The stakeholder engagement process included two consultations with Tribal governments. (p. 11)
- The report presents a range of goals and visions for Michigan in 2050, including one in which "Michigan has addressed racial disparities in health outcomes." (p. 28)
- The report describes Michigan's previous work around environmental justice, including the creation of the Office of the Environmental Justice Public Advocate, which has "hosted 8 regional roundtables across the state to discuss environmental justice challenges and identify opportunities to pursue more just outcomes in environmental decision making" and has worked "directly with partners in individual communities" to build various community resilience plans. (p. 33)

Nevada

Nevada's 2020 State Climate Strategy (2021)

- The report does not explicitly mention how equity was incorporated into the stakeholder engagement process.
- The report provides a robust discussion of Indigenous communities and the feedback they voiced. (pp. 212-214)
- The report states that "formal mechanisms that also ensure that representatives and advocates across different interest groups and communities have a voice should also be considered in

developing an organizational structure for climate." This includes "advocates from underserved communities." (p. 243)

New Jersey

2019 New Jersey Energy Master Plan: Pathway to 2050 (2020)

- The report mentions that the stakeholder engagement process included "low-income consumers and environmental justice communities." (p. 18)
- The report also mentions that there are several working groups, including the "Climate Justice Working Group," that serve to "directly advise on the design of policies that can benefit environmental justice populations and other historically marginalized communities." (p. 18)
- The report mentions that the Integrated Energy Plan methodology includes stakeholder input and participation with a wide range of stakeholders, including "environmental justice communities." (p. 44)
- The report provides the following definition of environmental justice: "an environmental justice community is a community that is disproportionately impacted by pollutants." (p. 247)

New York

New York Scoping Plan (2022)

- The report mentions that the Climate Act defines Disadvantaged Communities as "communities that bear burdens of negative public health effects, environmental pollution, impacts of climate change, and possess certain socioeconomic criteria, or compose high concentration of low- and moderate-income households." These communities were identified based on "geographic, public health, environmental hazard, and socioeconomic criteria." (p. 5)
- The report incorporates findings from various equity-oriented plans and reports from the state, including the Barriers and Opportunities Report as part of an "effort to address past practices that excluded historically marginalized and overburdened communities from State decision-making processes." This report identifies "problems associated with access to, or community ownership of, services and commodities in Disadvantaged Communities in five key clean energy and climate resilient infrastructure areas" and that state entities would "work to improve engagement with residents and representatives of Disadvantaged Communities to identify and understand barriers and opportunities at the local level to increase participation in the clean energy transition and enhancing community resilience." The Barriers and Opportunities report identifies four main categories of barriers preventing "Disadvantaged Communities from receiving fair and equal access and ownership:" 1) "physical and economic structures and conditions," 2) "financial and knowledge resources and capacity," 3) "perspectives and information," and 4) "programmatic design and implementation." The Barriers and Opportunities Report also includes eight recommendations, organized as "high-level principles," aimed at ensuring "processes are inclusive," streamlining "program access," and addressing "emerging issues:" 1) "Co-design

programs or projects with and for communities;" 2) "Provide meaningful opportunities for public input in government processes and proceedings;" 3) "Work across intersecting issues and interests to address needs holistically;" 4) "Transition to program models that require little to no effort to participate and benefit;" 5) "Establish people-centered policies, programs, and funding across local, State, and federal governments;" 6) "Find and support resource-constrained local governments;" 7) "Mobilize citizen participation and action;" and 8) "Improve housing conditions and adherence to local building codes." The report asks state entities to conduct a self-assessment and barriers analysis while adhering to certain recommended strategies, such as identifying staff to conduct relevant work, identifying barriers and opportunities based on guidelines, and developing a plan to address these challenges." (pp. 6, 67-69)

- The report states that part of the state's work includes "ensuring that agencies and authorities are creating conditions for communities that would not typically engage in administrative processes to do so." (p. 6)
- The report was developed with the intent of continuing to receive input from Disadvantaged Communities and related stakeholders.
- The report includes a sidebar that explains the use of the term "disadvantaged communities" for consistency with the language specified in the New York Climate Act. These communities are defined in the Act as "communities that bear burdens of negative public health effects, environmental pollution, impacts of climate change, and possess certain socioeconomic criteria or comprise high-concentrations of low- and moderate-income households." (p. 26)
- The report mentions that the New York Climate Act created the "Climate Justice Working Group" which "comprises representatives from environmental justice communities and State agencies." The Climate Justice Working Group assisted with the development of the Scoping Plan and advised the Council that developed the report to heavily consider the role of Disadvantaged Communities in the "implementation of the Climate Act." (pp. 37-38)
- The report mentions that the plan was the result of many stakeholders engaging with the report development, including feedback from the Climate Justice Working Group on benefits and impacts of proposed recommendations for Disadvantaged Communities. There was also a Just Transition Working Group that provided guidance on how to reduce emissions while providing benefits to Disadvantaged Communities. The report also describes extensive stakeholder engagement through the public comment process, which includes comments on climate and environmental justice.
- The report mentions the state's creation of a Climate Justice Working Group that includes three representatives from rural communities, three from New York City communities, three from upstate New York communities, and representatives across various government agencies; additionally, the report states that this composition was "intended to ensure that the perspective of environmental justice communities from across New York State were included in the work of the group." The Working Group was tasked with "developing the definition of Disadvantaged Communities" and plays an "important advisory role, providing strategic advice to the Climate

Action Council for incorporating the needs of Disadvantaged Communities in the Scoping Plan." (p. 59)

- The report mentions that "Disadvantaged Communities" were identified by the Climate Justice Working Group based on a range of criteria, including climate risks, environmental burdens, public health outcomes, and socioeconomic factors. The Working Group examined over 100 indicators and leveraged their lived experiences and perspectives from working with frontline communities. This effort was intended to "create a holistic statewide standard of climate justice that incorporates a broad range of valid factors and knowledge inputs." Multiple hearings on this definition were held. (p. 60)
- The report states that the Council "sought robust engagement with environmental justice organizations throughout the process to ensure these perspectives were prioritized in this Scoping Plan." Environmental justice organizations were represented across all Advisory Panels and Working Groups to ensure the "perspective of Disadvantaged Communities was included in the development of their respective recommendations." (p. 69)
- The report states that the State "provided information and offered consultation with all State and federally recognized Indian Nations with territories that share boundaries in New York State on matters before the Council and Climate Justice Working Group," including presentations on the Climate Act to various Indian Nation leadership meetings. The state seeks to continue engaging with these communities, including recognized Indigenous Nations with whom state entities "share overlapping interests" in implementation of the plan, including "rulemaking processes, administrative planning, and investment strategies." (pp. 69-70)
- The report mentions on a few occasions the need for "multilingual, culturally appropriate public and consumer education efforts through large-scale, coordinated awareness, inspiration, and education campaigns" and a need for environmental justice communities to be reflected in messages and messaging materials. (pp. 209-210)

North Carolina

North Carolina Clean Energy Plan: Transitioning to a 21st Century Electricity System (2019)

- The report makes no mention of equity in the stakeholder engagement process.
- The report does mention that "60% of CEP stakeholders disagreed that North Carolina's current electricity system suitably addresses equity concerns." (p. 48)
- The report indicates that environmental justice and equity were notable points of emphasis among stakeholders polled, with 7 percent and 5 percent of votes, tied for the second-largest and sixth-largest vote share, respectively. (p. 49)
- The report proposes specific definitions around "household energy burden" and "energy poor households." (p. 114)
- The report includes the US EPA definition of environmental justice in its analysis. (pp. 120-121)

Rhode Island

The Road to 100% Renewable Electricity by 2030 in Rhode Island (2020)

- The report makes no mention of equity in the stakeholder engagement process.
- The report states that "of course, other factors such as equity and land use are also important and must be considered in addition to the cost and economic analyses of the upcoming sections. These issues may be specific to particular projects and thus difficult to generalize to technology types, or may not be directly related to the choice of renewable technologies." There was no explicit discussion of how equity was incorporated into the modeling process. (p. 50)
- The report defines equity-based recommendations as "recommendations on ways to foster equitable outcomes in partnership with frontline communities." The report does not define frontline communities. (p. 74)
- The report mentions that "equity is set aside as its own category in order to bring salience to this important topic." The report then states that "however, we assure readers that equity is also integrated into each of the Policy and Planning & Enabling recommendations." (p. 75)
- The report identifies that a remaining challenge is the "achievement of more equitable outcomes for all Rhode Islanders through improved access, participation, and cost distribution." It then states that this challenge requires greater "in-depth collaboration with a diverse set of stakeholders" and proceeds to propose a "forum for stakeholder dialogue and consensus-building" on a range of topics, one of which is "consumer equity." (p. 79)
- The report mentions that it seeks to "propose equity recommendations that have directionality," including partnerships with certain communities (e.g., "frontline communities," "environmental justice communities," and "communities of color") to develop equity metrics to track progress and utilize these metrics to inform policymaking and decision-making processes. (p. 85)
- The report acknowledges that certain communities have historically been excluded from decision making and policy design processes. (p. 86)
- The report proposes leveraging existing structures and organizations to "identify partners, facilitate conversations, and derive guidance for future directions." (p. 86)
- The report defines the representation of the stakeholder engagement process through diversity metrics. Black individuals made up 3.5 percent of the survey respondents, but 8.5 percent of the Rhode Island population; Asian and Asian-American individuals made up 2.1 percent of the survey respondents, but 3.7 percent of the Rhode Island population; and Hispanic or Latino individuals made up 3.5 percent of the survey respondents, but 16.3 percent of the Rhode Island population. Similarly, lower-income residents were also under-represented among survey respondents. (p. 95)

Washington

Washington 2021 State Energy Strategy: Transitioning to an Equitable Clean Energy Future (2020)

- The report states that "environmental equity will be achieved when no single group or community faces disadvantages in dealing with the effects of the climate crisis, pollution,

environmental hazards, or environmental disasters" and that "addressing these disparities requires acknowledging the inequities that have led to them." (p. 22)

- The report states that "Washington has become an international leader in environmental justice over the last two decades." (p. 22)
- The report emphasizes a need to "break from historical patterns and narratives" and that "much of the conversation on equity by policymakers ignores the role of history in shaping the lived experiences of highly impacted populations" which "results in the perpetuation of exclusion and inequities." Furthermore, the report asserts that "equity must consider the price of energy but also energy sufficiency and the health and economic impacts from energy production," that "equity is not in and of itself assured through fair and open public meetings" (since voices of historically excluded groups "must be intentionally sought out, respected, empowered, and privileged") and that the "clean energy transition will not be equitable if it benefits only a few or if the costs are not fairly distributed across communities." (p. 23)
- The report emphasizes a need to "recognize that no single definition of equity may be satisfactory" and that "many definitions of equity exist, and no single definition can perfectly capture the expectations and goals of all communities and populations." However, it mentions that the state's Environmental Justice Task Force developed a recommended statewide definition based on the EPA's definition: "The fair treatment and meaningful involvement of all people regardless of race, color, national origin or income with respect to the development, implementation and enforcement of environmental laws, regulations and policies." The report also notes that equity "includes using an intersectional lens to address disproportionate environmental and health impacts by prioritizing highly impacted populations, equitably distributing resources and benefits and eliminating harm." The report acknowledges that the "equity discussion woven throughout this strategy leans on this definition," particularly with regards to "highly impacted populations" which "have connections across race and ethnicity, income, housing status, immigration status, and health disparities" but that the definition has limitations in that "highly impacted populations are not a monolith and it is important to hold space for community members and advocates to come forward and weigh in on process and policy development." In short, "there is no one-size-fits-all approach when it comes to equitable policy design" and that "policy needs to recognize and include elements that address the full spectrum of impacted interests." (p. 23)
- The report lists a series of examples of successful community outreach efforts, include "Puget Sound Sage's climate equity community-based participatory research, the Climate Equity Task Force and public participation for the King County Strategic Climate Action Plan 2020 Update." (p. 24)
- The report emphasizes a need to "ensure public participation and inclusion of historically marginalized voices," and that "public and community participation is important to ensure energy policy is informed by local knowledge, meets local needs and is viewed as legitimate by the local community." This includes providing enhanced technical assistance, consulting with impacted communities, and ensuring community members "have a seat at the table in designing programs

and selecting projects." Furthermore, "there must be a commitment to fully fund and develop the enabling tools and strategies and take a ground-up approach to the design, adoption, and implementation of our state's energy policies." (p. 24)

- The report acknowledges that, due to the constraints of a compressed schedule and the pandemic, "meaningful community outreach and participation was limited" and that "more robust participation needs to occur in the implementation of the strategy." (p. 25)
- The report states that the state must adopt "evaluation metrics for funding proposals" which should be developed and prioritized through collaboration with stakeholders including Tribal nations, frontline and community groups. (p. 54)
- The report states that community engagement is critical and that "funding should be made available to support participation in equity advisory groups involved in transportation planning and implementation." (p. 54)
- The report states that "to address the inequities created by previous efforts as deployment of DERs is accelerated, community engagement and understanding of opportunities for local capacity-building must be prioritized" and that "public processes like the King County Climate Equity Task Force and community-based participatory research provide models of equitable and accessible approaches to this work." (p. 129)

Wisconsin

State of Wisconsin Clean Energy Plan (2022)

- The report acknowledges that "to help ensure a just and equitable transition, individuals who have been most impacted by pollution and climate change must be involved in the decision-making process, and this process must include diverse voices as it relates to race and ethnicity, sex and gender, socioeconomic status, and geography." Furthermore, "engaging and involving diverse representation, sharing power and resources, equitable policy development and implementation, and putting people above profit will help ensure that there is equitable access to the benefits of the clean energy transition." (p. 9)
- The report states that marginalized communities "must be involved in decision-making on clean energy technologies, jobs, financial impacts, and health impacts." (p. 19)
- The report states that it is "designed to provide environmental justice organizations...an action-able plan to transition Wisconsin to a robust and affordable clean energy economy." (p. 34)
- The report has a dedicated section on environmental justice, which acknowledges the fact that "Tribal Nations and Indigenous communities, Black, Hispanic/Latino, Hmong American, Asian American, other communities of color, people who have low incomes, people with disabilities, immigrants, women, senior residents, veterans, and rural communities have been left out of the conversation on transforming our country's energy system and transitioning to clean energy" and that "in seeking to mitigate climate damage, these communities must be involved in decision-making on clean energy technologies, jobs, financial impacts, and health impacts." (p. 60)

- The report states that “efforts must be made such that people in low-income, environmental justice, and Tribal communities are meaningfully involved in conversations, processes, and decisions” and that “those involved in developing and implementing the recommendations in this report should lean on community leaders and community-based organizations” because “they have strong relationships of trust with local communities to help engage individuals and families in conversations about what they want their energy future to look like.” (p. 71) It also states that “voices from these communities, as well as women and veterans, have been left out of the conversation on transforming our country’s energy system and transitioning to clean energy,” but that the plan seeks to “ensure the fair and meaningful involvement of all communities in the state.” (p. 72)
- The report dedicates a section on accelerating government-led efforts, which includes “drawing from the lived experiences, expertise, and knowledge of Tribal Nations” and other stakeholders and building on a previous Executive Order from Governor Tony Evers to strengthen the “intergovernmental relationship between the State of Wisconsin ensuring each state agency consult with Tribal governments on matters that may indirectly impact their members.” The report acknowledges an attempt to “support Tribal Nations and communities in their independent development and oversight of clean energy planning and projects on their lands,” thereby centering environmental justice and elevating Tribal Nations such that they can make “their own decisions about their energy planning and needs,” including supporting them through “increased inter-government communication and grant assistance.” (pp. 83-84)

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