



Via Electronic Email and [Online Portal](#)

March 22, 2021

Honorable Kathleen Theoharides, Secretary
Executive Office of Energy and Environmental Affairs
100 Cambridge Street, Suite 900
Boston, MA 02114
gwsa@mass.gov

**Subject: Comments on the Interim Clean Energy and Climate Plan for 2030
from members of the GWSA IAC Climate Justice Working Group**

Dear Secretary Theoharides, Undersecretary Chang, and the 2030 Clean Energy and Climate Plan Team:

Thank you for the opportunity to comment on the Draft Interim Clean Energy and Climate Plan (CECP) for 2030.

As members of the Global Warming Solutions Act (GWSA) Implementation Advisory Committee (IAC) Climate Justice Working Group (CJWG), the undersigned organizations are committed to ensuring that the Commonwealth is on target to achieve 2030 and 2050 greenhouse (GHG) emission reductions while also ensuring targeted benefits to environmental justice (EJ) populations and other historically marginalized communities.

Since first forming in November of 2019, the CJWG has sought to help define equity and climate justice for the IAC and EEA specifically in the context of state climate planning and as a primary consideration in evaluating GWSA policy, the Roadmap to 2050, and the CECP for 2030. As a working group and within the IAC, we have discussed at length the importance of prioritizing and anchoring the work in equity and justice, of supporting a people-centered approach to policy making, program design and implementation, and of taking a holistic approach to achieving climate goals, net zero by 2050, and overall GWSA compliance. However, metrics that evaluate progress towards achieving equity and introducing accountability are the underpinning of successfully establishing and attaining an equitable path to net zero.

Toward that end, we submit these comments, informed by the accompanying report prepared on behalf of the CJWG by Applied Economics Clinic (AEC), to provide specific guidance for how progress towards achieving the equity and climate justice goals of our work group's six policy priorities can and should be tracked, measured, and evaluated (see Appendix A). The AEC report, *An Initial Assessment of the Climate Justice Working Group's Recommended Policy Priorities - Tracking Equity and Justice*, also includes "a discussion of the importance of setting measurable, actionable equity goals that include clear standards for community engagement in the Massachusetts 2030 CECP."

CJWG Policy Priorities & Proposed Metrics

The CJWG policy priorities were included as part of a comprehensive memo overwhelmingly supported by the IAC in October 2020 and detailing guiding principles, cross-cutting policies, and sector specific recommendations. The working group's policy priorities reflect a desire to enable a clean energy transition anchored in equity and capable of contributing to improved community health and economic opportunity for all.

Policy Priority 1: Set annual air pollution reduction targets for pollution hotspots.

Presently, pollutants known to be extremely damaging to human health -- black carbon, ultrafine particulate matter, and nitrogen oxides -- are not comprehensively monitored or tracked. These pollutants must be monitored to establish a baseline and targets must be established requiring improvement by 2030 to mitigate air pollution to the degree necessary to improve air quality and protect the health of Massachusetts' most vulnerable residents.

Policy Priority 2: Require diverse hiring and workforce development practices across all sectors to achieve quality jobs. Opportunities for economic growth and investments in workforce development are a primary focus of both the post-COVID-19 recovery and the clean energy transition nationally and throughout the Commonwealth. For Massachusetts to fully realize its commitment to a just transition that fosters pathways out of poverty and entry into the green economy for historically marginalized residents, state agencies must be deliberate in their coordination around workforce development and effort must be made to meaningfully prioritize job training, state contracting policies, and hiring practices that will enable greater diversity and representation in the state's clean energy sector.

Policy Priority 3: Ensure that community engagement is reflected in and influences state decision-making. For policy and program planning and implementation to be transparent and inclusive, participation along the way must be open, accessible, and representative. Additionally, in an effort to introduce a level of accountability to impacted communities and to avoid tokenizing processes or participants, community feedback should be recognized, responded to, and reflected in final decision making. Efforts should be made to ensure membership of any and all advisory bodies is diverse and inclusive, beginning with representatives of the populations whose needs the advisory body has been convened to meet. In state decision-making, EEA should fully leverage the EJ Advisory Council and engage this body in decisions regarding each sector addressed in the CECP. State agencies should re-examine how stakeholdering is undertaken and how

public input is gathered, considered, and reflected. This will require the ability to provide two-way language interpretation at public meetings and in state-led webinars and public feedback sessions.

Policy Priority 4: Prioritize climate investments in EJ populations. An equitable response to climate change can not be achieved through verbal commitments alone. Dollars must be directed and invested in a way that supports community-led planning and fosters climate-smart building, community resilience, and markedly increased access to clean energy solutions than currently exists for EJ populations and communities most vulnerable to climate change. Existing data should be utilized to direct and track targeted investments and set a threshold for investments in EJ populations and climate vulnerable communities. Establish a new, representative advisory body or leverage the EJ Advisory Council to help guide funding allocations. Barriers to program participation and technology adoption that prevent EJ populations from benefiting from the clean energy transition can be addressed, in part, through innovative approaches to financing and cross-sector collaboration, but the process will necessarily be iterative.

Policy Priority 5: Redress harm of long-standing environmental, energy and development policies that have burdened EJ populations and other vulnerable residents. Investments in clean energy and climate measures made to address environmental, health, and energy burdens imposed on EJ populations and other climate vulnerable residents should not induce displacement. Instead, processes should include measures to ensure that communities do not turnover as a result of environmental, energy, housing, and economic improvements tied to CECP implementation. Further, all environmental, energy, and development projects that receive state funding should contribute to making housing within their vicinity more affordable.

Policy Priority 6: The burdens of existing energy infrastructure must be reduced for nearby residents and workers. Additionally, ensure that increased clean energy investments do not increase the energy burden in low-to-moderate income communities and EJ populations. The Commonwealth must acknowledge that existing energy infrastructure disproportionately burdens EJ populations. The Commonwealth agencies should evaluate existing operating permits to see if more stringent conditions can be applied to reduce burdens on nearby residents and workers.

The Commonwealth should establish target deadlines to close polluting facilities, such as incinerators, fossil-fuel power plants, and other facilities that create a public health burden, especially for environmental justice populations and other historically marginalized communities. Further, the Commonwealth should also aim to reduce the energy infrastructure burden in EJ populations when siting new energy infrastructures. Utility rate design must incorporate analysis of environmental burdens. Utility rates must be monitored to ensure rates decrease or are stabilized for LMI communities during the transition.

Future electric and gas distribution system infrastructure should not be sited in EJ populations, except after cumulative impact reviews for projects proposed in EJ

populations that include consideration of potential public health impacts and long-term harms, as well as meaningful community engagement processes wherein community concerns and ideas inform and influence decision-making starting at the initiation of the project proposal process.

Conclusion

The final CECP for 2030 will establish an important framework to guide decarbonization in the Commonwealth, helping to determine the clean energy trajectory Massachusetts embarks upon to achieve net zero by 2050. Metrics are the building blocks of success, a success that will not only be measured by our ability to achieve deep GHG emission reductions, but also by our ability to do so in a way that benefits EJ populations and other historically marginalized communities and those at risk of the most adverse effects of climate change.

We offer these recommendations as a starting point for what should be reflected in the plan to measure progress towards this shared goal. We avail ourselves to EEA to delve more deeply into what has been proposed, to collaborate on additional metrics, and to finalize and implement a robust clean energy and climate plan designed to establish an equitable and transformational path to net zero emissions.

For questions about these comments, please contact Eugenia Gibbons (egibbons@hcwh.org) and Staci Rubin (srubin@clf.org), CJWG co-chairs.

Thank you and best regards,

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Appendix A

Applied Economics Clinic Report

*An Initial Assessment of the Climate Justice Working Group's Recommended Policy Priorities -
Tracking Equity and Justice*

Initial Assessment of the Climate Justice Working Group's Recommended Policy Priorities—Tracking Equity and Justice

March 2021

Applied Economics Clinic

Prepared on behalf of:

Conservation Law Foundation, Health Care Without Harm, Neighbor to Neighbor, Alternatives for Community and Environment, GreenRoots, Coalition for Social Justice, Clean Water Action, and Unitarian Universalist Mass Action

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Applied Economics Clinic
Economic and Policy Analysis of Energy, Environment and Equity



Executive Summary

The Climate Justice Working Group (CJWG) was created in November 2019 by the Massachusetts Global Warming Solutions Act (GWSA) Implementation Advisory Committee (IAC) and provides direction to Massachusetts in meeting its climate goals while ensuring benefits for environmental justice (EJ) and historically marginalized communities. This Applied Economics Clinic report—prepared on behalf of Conservation Law Foundation, Health Care Without Harm, Neighbor to Neighbor, Alternatives for Community and Environment, GreenRoots, Coalition for Social Justice, Clean Water Action, and Unitarian Universalist Mass Action, members of the CJWG—describes how progress could be tracked, measured and evaluated for each of CJWG’s six policy priorities by recommending specific metrics to evaluate their equity and justice impacts. CJWG’s policy priorities include:

- addressing pollution hotspots;
- promoting diverse workforce development;
- ensuring community engagement influences state decision-making;
- prioritizing investments in EJ populations;
- redressing long-standing environmental harms; and
- reducing energy system burdens for EJ and other historically marginalized communities.

This report also includes a discussion of the importance of setting measurable, actionable equity goals that include clear standards for community engagement in the Massachusetts 2030 Clean Energy and Climate Plan (2030 CECP).

Measuring equity impacts requires disaggregated data that track EJ populations and other historically marginalized communities—a key challenge in producing useful metrics. In addition, CJWG’s six policy priorities push the Commonwealth to the next level on issues of equity and justice. Although much of the data needed for the metrics recommended in this report do not exist at present, they could be collected with adequate time and resources. This report draws attention to the additional efforts that will be required to measure progress towards equitable and just community impacts of climate policy. For example, among this report’s recommendations are: expanding the Commonwealth’s air monitoring system; establishing new advisory councils; creating new diversity, representation and funding standards; and implementing new databases and tracking systems. If Massachusetts’ equity and justice goals are to be more than just lip-service, they must include concrete, specific plans and actionable metrics to facilitate their evaluation and meaningful community engagement to ensure accountability and transparency.



The recommendations contained in this report are not intended to be prescriptive: They are intended as a starting point for discussions regarding what types of data collection, community involvement and public policy actions will be required to measure progress towards equity goals in the Commonwealth.



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Introduction

The Massachusetts Global Warming Solutions Act (GWSA) Implementation Advisory Committee (IAC) voted to approve the development of a Climate Justice Working Group (CJWG) in November 2019. The CJWG provides direction to Massachusetts in meeting its climate goals “while ensuring targeted benefits to environmental justice [EJ] populations and other historically marginalized communities.”¹

The CJWG developed recommendations to the Executive Office of Energy and Environmental Affairs (EEA) to inform its 2030 Clean Energy and Climate Plan (2030 CECP). In October 2020, the IAC overwhelmingly supported a memo to EEA detailing guiding principles, cross-cutting policies, and sector-specific recommendations, including those from the CJWG, and requested that these materials be included in the Draft CECP. In December 2020, EEA released its Interim 2030 CECP for public comment. Based on input from prepared on behalf of Conservation Law Foundation, Health Care Without Harm, Neighbor to Neighbor, Alternatives for Community and Environment, GreenRoots, Coalition for Social Justice, Clean Water Action, and Unitarian Universalist Mass Action—members of the CJWG—this Applied Economics Clinic report defines and describes how progress could be tracked, measured and evaluated for each of the CJWG’s six policy priorities (see Table 1) and recommends specific metrics to evaluate their equity and justice impacts. This report also includes a discussion of the importance of setting measurable, actionable equity goals that include clear standards for community engagement in the 2030 CECP.

¹ Climate Justice Working Group. February 24, 2020. *Climate Justice Working Group Memorandum*. Written to the Global Warming Solutions Act Implementation Advisory Committee. Available at: <https://www.mass.gov/doc/gwsa-iac-climate-justice-working-group-memo/download>.



Table 1. CJWG’s six policy priorities

1) Set annual air pollution reduction targets for pollution hotspots
2) Require diverse hiring and workforce development practices across all sectors to achieve quality jobs
3) Ensure that community engagement influences state decision-making
4) Prioritize climate investments in EJ populations
5) Redress harm of long-standing environmental, energy, and development policies that have burdened EJ populations and other vulnerable residents
6) The burdens of existing and future energy infrastructure must be reduced for nearby residents and workers. Additionally, ensure that increased clean energy investments do not increase the energy burden in LMI and EJ communities.

Source: CJWG. October 26, 2020, GWSA Implementation Advisory Committee Guiding Principles, Cross-cutting policy priorities, and sector-specific policy priorities for the 2030 Clean Energy Climate Plan, <https://www.mass.gov/doc/iac-work-group-proposed-guiding-principles-and-policy-priorities-updated-10262020/download>.

Some CJWG policy priorities recommend establishing new advisory councils, however, the precise form and function of the new advisory councils recommended in this report remains to be determined. Many of the equity metrics recommended in this report would entail the collection of new data that would be better suited to measure equity impacts of policy. However, collecting data that are compatible with tracking distributive, equity-related policy impacts entails privacy concerns because collection of these data cannot help but identify and facilitate tracking of environmental justice (EJ) populations and other historically marginalized communities. Data privacy concerns can be mitigated using deliberate and transparent methods that put decision-making about privacy in the hands of individuals and communities with the greatest concerns. Methods that help to ensure data privacy include: self-reporting group affiliation, anonymous data collection techniques, or data privacy protocols.

CJWG’s policy priorities are intended to push the Commonwealth’s environmental justice efforts further than they have gone before (and further than Massachusetts Senate Bill 9, An Act Creating



a Next-Generation Roadmap for Massachusetts Climate Policy,² which strengthens the legal standing for EJ populations). As a result, almost all of the data needed for metrics recommended in this report do not currently exist or are not publicly available, but could be collected and/or made publicly available given considerable time and resources. The recommendations contained in this report are not intended to be prescriptive; they are intended as a starting point for discussions regarding what types of data collection, community involvement and public policy actions will be required to measure progress towards equity goals in the Commonwealth. If Massachusetts equity goals, including those specified in the 2030 CECP, are to be more than just lip-service, it is of vital importance that they be formalized with concrete, specific plans that meaningfully engage the community and actionable metrics to facilitate their evaluation.

CJWG's policy priorities

1. Set annual air pollution reduction targets for pollution hotspots

To fully account for health impacts/co-benefits of proposed policies, agencies need to expand the air monitoring network, actively analyze air monitoring data, and consistently review environmental and energy policies to assess what is working and what needs to be tweaked to achieve air quality improvement.³

a) Recommended metric: Establish new air monitoring stations in environmental justice populations and other historically marginalized communities

Yes/no metric: Have air monitoring stations been added to every community?

Massachusetts Department of Environmental Protection (MassDEP) tracks air pollution throughout the state using 23 air monitoring stations (see Figure 1).⁴ Data collected by these stations are used to create an air quality index that provides local data on the concentration of harmful local air pollutants (called criteria pollutants): particulate matter (a catch-all category for any pollution particles suspended in the air that can get breathed into the lungs), ground-level ozone, lead, carbon monoxide, nitrogen oxides (NOx), volatile organic compounds, black carbon and sulfur

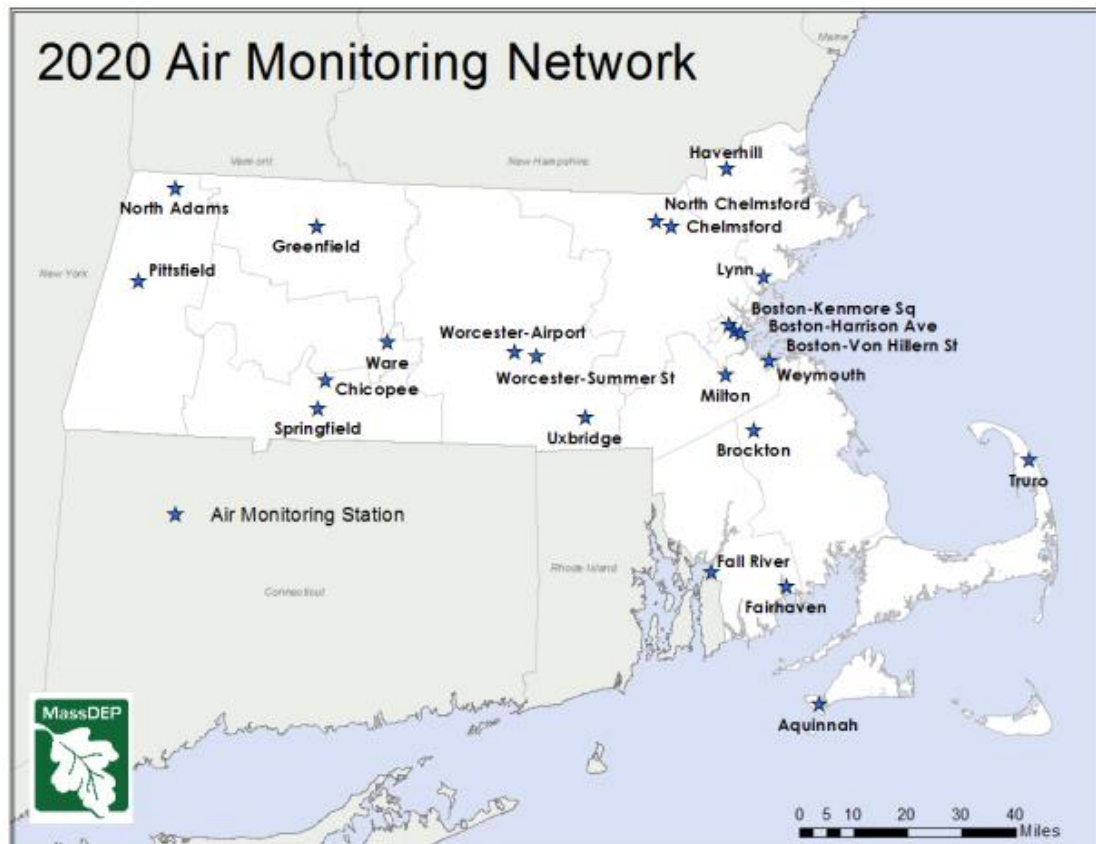
² The 192nd General Court of the Commonwealth of Massachusetts. 2019-2020. *An Act Creating a Next-Generation Roadmap for Massachusetts Climate Policy*. Bill S.2995. Available at: <https://malegislature.gov/Bills/191/S2995>.

³ GWSA IAC. September 28, 2020. *GWSA IAC CJWG Refined List of Preliminary Recommendations*. Available at: <https://www.mass.gov/doc/iac-climate-justice-work-group-policy-priorities/download>.

⁴ MassDEP. 2020. *MassDEP Ambient Air Quality Monitoring Network & Annual Plan*. Available at: <https://www.mass.gov/service-details/massdep-ambient-air-quality-monitoring-network-annual-plan>.

dioxide.⁵ In total, there are 14 specific pollutants that are tracked by air monitoring stations, though no station measures all 14—the greatest number of pollutants tracked is 11 (at the Boston air monitoring station on Harrison Avenue in Roxbury) and the smallest number of pollutants tracked is 1 (at the Fairhaven, North Chelmsford and Uxbridge air monitoring stations).

Figure 1. 2020 MassDEP Air Monitoring Network



Source: Reproduced from MassDEP. August 7, 2020. Draft Massachusetts 2020 Air Monitoring Network Plan. p.5. Available at: <https://www.mass.gov/doc/draft-2020-annual-ambient-air-quality-monitoring-network-plan/download>.

MassDEP also has the regulatory authority to enforce the Commonwealth’s Ambient Air Quality Standards by tracking air quality and granting or denying air permits accordingly.⁶ Per the Clean Air Act, each year, MassDEP submits air quality data to the U.S. Environmental Protection Agency (EPA)⁷ for review using its standards (known as National Ambient Air Quality Standards, or

⁵ U.S. Environmental Protection Agency. October 2015. *Environments and Contaminants: Criteria Air Pollutants*. Available at: https://www.epa.gov/sites/production/files/2015-10/documents/ace3_criteria_air_pollutants.pdf.

⁶ MassDEP. June 14, 2019. *310 CMR 6.00: Ambient Air Quality*. Available at: <https://www.mass.gov/doc/310-cmr-600-ambient-air-quality-standards>.

⁷ Ibid.



NAAQS), which establish limits on the concentration of pollutants in the air to protect public health, including “protecting the health of ‘sensitive’ populations such as asthmatics, children, and the elderly.”⁸

While both federal NAAQS and existing Massachusetts Ambient Air Quality Standards⁹ are intended to safeguard public health,¹⁰ these limitations have ultimately failed to mitigate air pollution to the degree necessary to protect Massachusetts’ most vulnerable households and communities from the worst impacts of the COVID-19 pandemic: In 2020, researchers at the Harvard T. H. Chan School of Public Health found a close relationship between air pollution and COVID-19 infection and mortality rates¹¹ and researchers from Harvard University and the University of Birmingham found that a substantially higher number of people died in 2018 from fossil fuel pollution (8 million) than earlier research had suggested (4.2 million).¹² Similarly, a May 2020 study from the Office of the Massachusetts Attorney General Maura Healey found that areas in the Commonwealth “with the lowest environmental quality are largely communities of color and current COVID-19 hot spots.”¹³

Since only the criteria pollutants are tracked to ensure compliance with federal and Massachusetts air quality standards, some pollutants that are damaging to human health are not comprehensively measured or tracked, such as black carbon, ultrafine particulate matter, and volatile organic compounds. Also called soot, black carbon is particulate matter formed when fossil fuels and/or biomass fuels are burned inefficiently for energy generation purposes—for example, black residue left behind in a fireplace.¹⁴ Black carbon pollution results from car, truck, bus, rail, and port traffic,

⁸ U.S. Environmental Protection Agency. No date. "NAAQS Table". Criteria Air Pollutants. Available at:

<https://www.epa.gov/criteria-air-pollutants/naaqs-table>.

⁹ MassDEP. June 14, 2019. *310 CMR 6.00: Ambient Air Quality*. Available at: <https://www.mass.gov/doc/310-cmr-600-ambient-air-quality-standards>.

¹⁰ 1) Ibid; 2) and U.S. Environmental Protection Agency. No date. "NAAQS Table". Criteria Air Pollutants. Available at:

<https://www.epa.gov/criteria-air-pollutants/naaqs-table>.

¹¹ Center for Climate, Health, and the Global Environment. No date. “Coronavirus and Air Pollution.” *Harvard T.H. Chan School of Public Health*. Available at: <https://www.hsph.harvard.edu/c-change/subtopics/coronavirus-and-pollution/#:~:text=For%20communities%20of%20color%2C%20air,of%20dying%20from%20Covid%2D19>.

¹² Burrows, L. February 9, 2021. “Deaths from fossil fuel emissions higher than previously thought.” *Harvard John A. Paulson School of Engineering and Applied Sciences*. Available at:

<https://www.seas.harvard.edu/news/2021/02/deaths-fossil-fuel-emissions-higher-previously-thought>.

¹³ Office of Massachusetts Attorney General Maura Healey. 2020. *COVID-19’s Unequal Effects in Massachusetts*. Available at: <https://www.mass.gov/doc/covid-19s-unequal-effects-in-massachusetts/download>.

¹⁴ Climate & Clean Air Coalition. No date. “Black Carbon”. Available at: <https://www.ccacoalition.org/en/slcps/black-carbon>.



is found in the highest concentrations near roadways and ports,¹⁵ and has been linked to serious health impacts, including respiratory conditions like lung disease, bronchitis, aggravated asthma and lower respiratory infections like pneumonia.¹⁶ Volatile organic compounds are gases that are emitted by gasoline and diesel, wood burning and industrial processes that, in high enough quantities, can cause cancer and damage the nervous system and internal organs like the liver and kidneys.¹⁷

Massachusetts cannot track the impact of air pollution on EJ populations and other historically marginalized communities without increasing the number of air monitoring stations and increasing the number of monitoring stations measuring non-criteria pollutants like black carbon, ultrafine particulate matter, and volatile organic compounds.

b) Recommended metric: Declassify environmental justice populations and other historically marginalized communities as “pollution hotspots” due to sustained lower air pollution levels

Standard-setting metric: Set air quality standards for local pollutants and a hotspot declassification standard.

Pollution hotspot standards should be more stringent than NAAQs and may require updates to the Massachusetts Clean Air Act to ensure that standards¹⁸ are based on the recommendations of public health experts, and could be measured relative to Massachusetts communities with the cleanest air. For example, the pollution hotspot standard could mandate that communities with high cumulative exposure burdens for toxic air contaminants and criteria pollutants have their air quality improved by setting annual targets to decrease air pollutants between 2023 and 2035, or until such time as their air quality is consistent with the best available science about the health risks of air pollution. Regardless of the standards set, the list of pollution hotspots should be reviewed and updated on an annual basis. To ensure that air quality improvements are true and

¹⁵ Environmental Law Institute. January 2020. *Reducing Indoor Exposure to Particle Pollution from Outdoor Sources*. Available at: <https://www.eli.org/sites/default/files/eli-pubs/web-reducing-indoor-exposure-particle-pollution-outdoor-sources.pdf>.

¹⁶ Climate & Clean Air Coalition. No date. “Black Carbon”. Available at: <https://www.ccacoalition.org/en/slcps/black-carbon>.

¹⁷ American Lung Association. February 12, 2020. “Volatile Organic Compounds.” Available at: <https://www.lung.org/clean-air/at-home/indoor-air-pollutants/volatile-organic-compounds>.

¹⁸ MassDEP. 2019. *The Massachusetts Clean Air Act: (M.G.L. Chapter 111, Sections 142A-142J)*. Air Pollution Control Regulations: 310 CMR 6.00: Ambient Air Quality Standards; 310 CMR 7.00: Air Pollution Control; 310 CMR 8.00: Prevention & Abatement of Air Pollution Episodes & Emergencies; 310 CMR 60.00: Air Pollution Control For Mobile Sources. Available at: <https://www.mass.gov/regulations/310-CMR-600-ambient-air-quality-standards>.



sustained, pollution hotspots should not be declassified until their pollution threshold remains below “hotspot” levels for at least two consecutive years.

2. Require diverse hiring and workforce development practices across all sectors to increase access to/achieve quality jobs

The Commonwealth should allocate agency staff to work with an independent advisory council to oversee job creation. The jobs created through procurement, infrastructure projects, and implementation of climate policies should create a pathway out of poverty, with family-sustaining wages and benefits. The contract opportunities should advance women-, people of color-, and veteran-owned businesses and incentivize domestic and local quality job creation. Funding should be allocated for programs that directly recruit, train, and retain those underrepresented in the workforce, including women, people of color, veterans, formerly incarcerated people, and people living with disabilities. Training should also be provided for workers who need to learn new skills to support the just transition away from fossil fuels to clean energy.¹⁹

a) Recommended metric: Establish an independent advisory council to oversee job creation from state policies (that is, jobs created through procurement, infrastructure projects, and implementation of climate policies)

Yes/no metric: Has the advisory council been created?

At present, there is no dedicated body responsible for tracking or overseeing all jobs created by state climate and clean energy policy.

Voluntary self-identification survey: Do advisory group members belong to EJ populations and other historically marginalized communities (women, people of color, veterans, formerly incarcerated people, and people living with disabilities)? Is the council composition diverse and inclusive?

To maintain personal privacy, we recommend asking all advisory council members to voluntarily self-identify as a member of EJ populations and other historically marginalized communities as defined above.

b) Recommended metric: Work contracts created by climate and clean energy policies prioritize people of color, women, people living with disabilities, formerly incarcerated people, and veterans

¹⁹ GWSA IAC. September 28, 2020. *GWSA IAC CJWG Refined List of Preliminary Recommendations*. Available at: <https://www.mass.gov/doc/iac-climate-justice-work-group-policy-priorities/download>.



Set diversity standards: The share of work contracts created by Massachusetts’ climate and clean energy policy that are filled by people of color, women, people living with disabilities, formerly incarcerated people, and veterans should, at a minimum, reflect the share of those groups in the Commonwealth population as a whole.

Moving beyond the bare minimum would involve ensuring that the share of work contracts filled by EJ populations and other historically marginalized community groups reflect the share of those groups in the community where the work contract is to take place. For example, the Massachusetts Department of Transportation strengthened its diversity criteria for developers’ bids for 1.3 acres on Kneeland Street in downtown Boston near South Station such that the diversity of the bidding team would account for 25 percent of its total score.²⁰ Other diversity requirements could include mandating respondents specify: their plans for training and workforce development; their plans to solicit business from minority and disadvantaged contractors; their plans to solicit investment from minority and disadvantaged contractors; and/or their plans to mitigate environmental harm and create economic opportunities. Once work contracts are awarded, winning bidders could be required to cooperate with the state Supplier Diversity Office and other state agencies to establish a process to provide regular updates about their progress towards their commitments.

Employment reporting by state contractors: Require reporting—within the bounds of applicable civil rights and antidiscrimination laws—by gender, race/ethnicity, veteran status, formerly incarcerated status and disability status to an independent advisory council to oversee job creation.

To maintain personal privacy, we recommend using anonymous data collection techniques and/or data privacy protocols such as multi-factor authentication, developing and maintaining incidence response plans, developing authorized user and access protocols and/or data encryption techniques. Jurisdictions around the country have passed legislation that establishes “limitations on the use of criminal background checks in employment and/or housing decisions,”²¹ which makes it possible to identify formerly incarcerated individuals in a manner that is legal and does not expose them to discrimination.

²⁰ Chesto J. February 24, 2021. “State toughens diversity criteria as it looks to divest prime downtown Boston site”. The Boston Globe. Available at: <https://www.bostonglobe.com/2021/02/24/business/state-toughens-diversity-criteria-it-looks-sell-prime-downtown-boston-site/>.

²¹ Nelson J, et al. December 2016. *Racial Equity Toolkit*. Local and Regional Government Alliance on Race and Equity. December 2016. p.10. Available at: https://www.racialequityalliance.org/wp-content/uploads/2015/10/GARE-Racial_Equity_Toolkit.pdf.



c) Recommended metric: Jobs created by climate and clean energy policies meet minimum standards for a more diverse workforce

Set diversity standards: The share of jobs created by Massachusetts’ climate and clean energy policy that are filled by women, people of color, veterans, formerly incarcerated people, and people living with disabilities should, at a minimum, reflect the share of those groups in the Commonwealth.

Not only should all workers across all sectors reflect the diversity of the Commonwealth, but this should also be true for the workers within a specific sector or company—it is equally important for equity that representation is present across sectors as well as across job types and job hierarchies.²² For example, women make up approximately half of the population of the Commonwealth; they should fill half of all jobs created by Massachusetts’ climate and clean energy policy, they should fill half of all jobs within each sector, and they should fill half of all jobs across job types and job levels. Policies and employee benefits should also reflect efforts to retain a diverse workforce. For example, offering parental leave and accommodations to those living with disabilities.

Employment data: Track workers by: women, people of color, veterans, formerly incarcerated people, and people living with disabilities.

Currently, the Massachusetts Executive Office of Labor and Workforce Development manages the Commonwealth’s workforce development and labor departments and oversees tools and training for workers, employers and the unemployed.²³ Massachusetts employment data are tracked by the Massachusetts Department for Unemployment Assistance.²⁴ These data exist by sector and occupation, but not by income group, race/ethnicity, gender, or veteran status. Data made available by the U.S. Census Bureau track the annual employment status by race/ethnicity, gender, and age but do not include occupations or job sector classifications. In addition, the Massachusetts Clean Energy Center (MassCEC)—a quasi-public state agency that aims to accelerate the growth of the clean energy sector and spur job creation for the people of Massachusetts²⁵—tracks workforce

²² Ibid.

²³ Executive Office of Labor and Workforce Development. No date. “Labor and Workforce Development agencies”. Available at: <https://www.mass.gov/orgs/executive-office-of-labor-and-workforce-development>.

²⁴ Massachusetts Department for Unemployment Assistance tracks data from Local Area Unemployment Statistics, Current Employment Survey, the Occupational Employment and Wage Statistics, and Quarterly Census of Employment and Wages programs. Available at: <https://www.mass.gov/orgs/department-of-unemployment-assistance>.

²⁵ Massachusetts Clean Energy Center. No date. “About MassCEC”. Available at: <https://www.masscec.com/about-masscec>.



development in the Commonwealth. Although these data are not made available to the public at present, MassCEC produces workforce development reports—like a 2020 report on the Building Operator workforce²⁶ and a 2018 report on the Offshore Wind workforce.²⁷ Making existing data on workforce development publicly available raises privacy issues but, given anonymous data collection techniques and/or data privacy protocols (such as multi-factor authentication, developing and maintaining incidence response plans, developing authorized user and access protocols and/or data encryption techniques), would improve the ability to track workers from EJ populations and other historically marginalized communities. To be clear, it is not possible to use current employment data to track equity impacts.

In addition, there are significant data privacy concerns associated with identifying and tracking workers across EJ populations and other historically marginalized communities. Such privacy concerns can be mitigated using anonymous data collection techniques and/or data privacy protocols, like those mentioned above. EJ populations and other historically marginalized communities should be involved in decision-making regarding data privacy measures, to ensure that their concerns are addressed in decisions about how to safely and respectfully collect data.

d) Recommended metric: Jobs created by climate and clean energy policies provide family-sustaining wages and benefits

Set job quality standards: Ensure that jobs created by climate and clean energy policies provide family-sustaining wages and benefits that are higher than the current minimum wage in the Commonwealth.

Family-sustaining wages are higher than the minimum wage currently set by the Commonwealth. The Massachusetts Institute of Technology (MIT) offers a free, online “living wage calculator” that estimates the hourly wage needed for residents to meet minimum standards of living (i.e. procuring the goods and services necessary for their household’s health and well-being: food, child care, medical, housing, transportation, etc.) across different states, counties, cities and metro areas.²⁸ For example, MIT’s living wage for the Commonwealth of Massachusetts is \$15.46 per hour for an individual with no children, while the living wage for the same individual would be

²⁶ BW Research Partnership. 2020. *MassCEC Building Operators Workforce Development Report*. Prepared for the Massachusetts Clean Energy Center. Available at: https://files-cdn.masscec.com/blog/pdf/2020%20MassCEC%20Building%20Operators%20Workforce%20Development%20Report_Final.pdf.

²⁷ Massachusetts Clean Energy Center. 2018. *2018 Massachusetts Offshore Wind Workforce Assessment*. Available at: <https://files.masscec.com/2018%20MassCEC%20Workforce%20Study.pdf>.

²⁸ MIT Living Wage Calculator. No date. “Living Wage Calculator.” Available at: <https://livingwage.mit.edu/>.



\$16.74 for the Boston-Cambridge-Newton metro area due to higher costs of basic living expenses. (MIT makes its living wage calculator technical documentation publicly available.²⁹) Multiple cities—including Boston,³⁰ Somerville³¹ and Cambridge³²—have active ‘living wage ordinances’ that mandate hourly wages able to support a family for all city employees, contractors and subcontractors. The Massachusetts Prevailing Wage Law for contractors mandates minimum wage rates for workers on public construction projects, which are set by the Massachusetts Executive Office of Labor and Workforce Development, Department of Labor Standards by region and job type.³³ As of January 1, 2021, the minimum wage in the Commonwealth is \$13.50 per hour, which will increase to \$15 per hour in January 2023.³⁴

Employment data: Track workers by gender, race/ethnicity, veteran status, formerly incarcerated status, and disability status, as well as by other demographic characteristics and compensation levels, including benefits.

Identifying and tracking workers across EJ populations and other historically marginalized communities, and the income/benefits of their jobs, entails significant data privacy concerns that can be mitigated using deliberate methods like anonymous data collection techniques, data privacy protocols (such as multi-factor authentication, developing and maintaining incidence response plans, developing authorized user and access protocols and/or data encryption techniques) and self-reporting.

e) Recommended metric: Create green job training programs for workers at-risk from the transition away from fossil fuels

²⁹ Glasmeier AK, Nadeau CA. February 3, 2021. *Living Wage Calculator: User’s Guide / Technical Notes*. Department of Urban Studies and Planning: Massachusetts Institute of Technology. Available at:

<https://livingwage.mit.edu/resources/Living-Wage-Users-Guide-Technical-Documentation-2021-02-03.pdf>.

³⁰ Salerno P. September 2, 1998. *The Boston Jobs and Living Wage Ordinance*. City of Boston. Available at:

https://www.cityofboston.gov/TridionImages/livwageord_tcm1-693.pdf.

³¹ City of Somerville. May 4, 2020. “City of Somerville Code of Ordinances Section 2-397 et seq.” Somerville Living Wage Ordinance Certification Form. Available at: <https://www.somervillema.gov/sites/default/files/living-wage-ordinance-form-fy21.pdf>.

³² City of Cambridge. November 5, 2015. “City of Cambridge Ordinance. *Chapter 2.121*”. Cambridge Living Wage Ordinance. Available at: <https://www.cambridgema.gov/-/media/Files/purchasingdepartment/forsitelaunch/livingwageordinanceupdated31416.pdf>.

³³ Mass.gov. 2021. “Massachusetts Prevailing Wage Law for Contractors.” Available at: <https://www.mass.gov/service-details/massachusetts-prevailing-wage-law-for-contractors>.

³⁴ Massachusetts Government. January 1, 2021. “Massachusetts law about minimum wage.” Available at: <https://www.mass.gov/info-details/massachusetts-law-about-minimum-wage#massachusetts-minimum-wage->



Set “at-risk worker” standards: Create a classification system for worker vulnerability from the transition away from fossil fuels.

At-risk workers include all workers in the coal, oil, motor vehicle, and gas sectors—but different workers within those sectors will have different levels of vulnerability to job loss. For example, entry-level workers are more likely to see their job eliminated than executives. In addition, some workers in sectors that are not directly involved with fossil fuels but especially reliant on them—like, for example, gas station workers and gas vehicle mechanics—will also be vulnerable.³⁵ Certain agricultural, forestry and ocean-dependent workers may also be vulnerable to job loss as climate change impacts accelerate and worsen.

Job data: Track existing jobs and job openings identified as “at-risk” for the purpose of targeting green job training programs at those who most need them.

Track participation in green job training programs: Offer green job training programs to at-risk workers, labor unions and apprenticeship programs and track participation in these programs.

f) Recommended metric: Ensure zero net job losses from the transition away from fossil fuels in the state

Employment data: Track jobs identified as “at-risk” from the transition away from fossil fuels.

Job data: Track existing jobs and job openings identified as “green” (currently compiled by MassCEC)—if they replace “fossil fuel related” jobs at a one-to-one rate, then net job losses are zero.

3. Ensure that community engagement influences state decision-making

All state advisory committees should include representation from EJ populations. The Environmental Justice Advisory Council should be routinely convened and invited to participate in decisions about transportation, electricity, buildings, nature-based solutions, development, and housing. Agencies should routinely engage in robust stakeholder processes to seek public input in advance of decisions.³⁶

a) Recommended metric: All state advisory committees and state boards include (self-identified) representatives from EJ populations

³⁵ Saha D. May 19, 2020. “Ensuring a Fair Transition for US Fossil Fuel Workers in Economic Recovery”. World Resources Institute (WRI). Available at: <https://www.wri.org/blog/2020/05/coronavirus-fair-transition-fossil-fuel-workers>.

³⁶ GWSA IAC. September 28, 2020. *GWSA IAC CJWG Refined List of Preliminary Recommendations*. Available at: <https://www.mass.gov/doc/iac-climate-justice-work-group-policy-priorities/download>.



Set an EJ representation standard: EJ community leaders should be convened by the state to provide guidance regarding how to set EJ representation standards for all state advisory committees and state boards. Representation standards should reflect the guidance received from EJ community leaders.

Participation and EJ representation tracker: A new public database that tracks participants on state advisory committees, including current and former committee members, and tracks EJ representation via voluntary self-identification.

To maintain personal privacy, we recommend asking all advisory committee members to voluntarily self-identify as EJ representatives.

b) Recommended metric: The Environmental Justice Advisory Council participates in state agency decisions regarding transportation, electricity, buildings, nature-based solutions, development and housing

Participation reporting by all state agencies: Agencies should be required to report publicly on the participation of the Environmental Justice Advisory Council in decisions related to transportation, electricity, buildings, nature-based solutions, development, and housing.

c) Recommended metric: All state agencies conduct stakeholder processes to get public input on planned decisions

Set standards for inclusive stakeholder processes: Stakeholder demographics should, at a minimum, reflect statewide demographics regarding women, people of color, veterans, formerly incarcerated people, and people living with disabilities.

The population share of some of the underrepresented groups listed above, like women and people of color, is known from publicly available data. For other groups, it is not currently possible to know their share of the Commonwealth's population and further efforts will be needed to identify an adequate share of stakeholder representation. To maintain personal privacy, we recommend asking stakeholders to voluntarily self-identify as members of underrepresented groups that cannot be known from publicly available data, and to ensure these data are treated in a confidential manner. For EJ populations and other historically marginalized communities that have concerns about interaction with government, the use of trusted advocates and engagement



liaisons (such as community-based organizations) can be a useful strategy to secure stakeholders that are willing and able to participate.³⁷

Stakeholder processes should ensure two-way language access in which interpreters are either familiar with the subject matter or briefed on the topic ahead of the meetings. Documents relevant to the process should be made available in the languages spoken in the community in question with adequate lead-time, for example, at least one week before a meeting is to take place. Public comment meetings should ensure that the bulk of meeting time is used for public comments. Stakeholder processes should require community meetings and hearings be held multiple times during different times of the day and different days of the week. For example, those working at night should be able to attend a morning meeting or a weekend meeting.

Inclusion/participation tracker: A new public database that tracks EJ inclusion and participation in state agency stakeholder processes.

Transparency in the recommendations made to and by stakeholders is critical: For example, make a list of stakeholders and their recommendations publicly available. This enables the Commonwealth to document and demonstrate how the stakeholder process works and how it influences the public processes.³⁸ For maximum inclusion and representation, stakeholders should be provided with multiple ways to engage, such as online and in-person participation options, written and oral feedback options, and smaller and larger group settings.³⁹ Outside of mandated quarantines, online hearings and meetings should supplement in-person participation, not replace it. Virtual meetings are an alternative method of engagement that may benefit some communities. Meetings and hearings should take place in the communities impacted by the project or proposal with options for both in-person and virtual engagement.

Financial incentive tracker: A new public database that tracks the availability and rate of utilization of financial incentives or reimbursements for participation in public boards, committees, and stakeholder processes.

Achieving EJ stakeholder involvement may require financial incentives because it is often very difficult, if not impossible, for EJ populations and other historically marginalized community members to allocate labor hours for which they are not paid and/or ensure their children are cared

³⁷ Nelson J, Brooks L. December 2016. *Racial Equity Toolkit*. Government Alliance on Race and Equity. Available at: https://www.racialequityalliance.org/wp-content/uploads/2015/10/GARE-Racial_Equity_Toolkit.pdf.

³⁸ Ibid.

³⁹ Ibid.



for while they participate. Unpaid participation is a particularly acute issue when EJ populations and other historically marginalized community members are expected to participate in meetings.

d) Recommended metric: All state agencies must respond to stakeholder comments and explain how decisions incorporate public input

Set standards for responses to stakeholder comments: Standards should include quantifying the percent of comments in support and against proposals that require state decision-making and specifying which recommendations were taken up, which were not, and the reasoning behind these decisions. Make this information publicly available in all languages spoken by the community or communities in question.

4. Prioritize climate investments in EJ populations

When dollars are being directed to support development, a concerted effort should be made to a) prioritize investment in EJ populations that will enable climate-smart building and b) convene input from an advisory body that includes community and worker representation to guide how funding is allocated. Provide enhanced incentives and innovative financing for income-eligible customers, regardless of creditworthiness, to make new, clean technologies more accessible and affordable (e.g., EVs, air source heat pumps, solar panels, rides on regional electric rail).⁴⁰

a) Recommended metric: Development dollars are directed to EJ populations for climate-smart building

Existing tracking/classification of EJ populations: EJ populations and climate vulnerable populations are currently classified and tracked by various Massachusetts state agencies.

Currently, EEA tracks and makes publicly available a list of EJ populations, based on data from the 2010 U.S. Census and American Community Survey data;⁴¹ new decennial Census data are unlikely to be available before 2022.⁴² Created in 2017 as a result of Governor Baker's Executive Order 569,⁴³ the Municipal Vulnerability Preparedness (MVP) grant program certifies Massachusetts

⁴⁰ GWSA IAC. September 28, 2020. *GWSA IAC CJWG Refined List of Preliminary Recommendations*. Available at: <https://www.mass.gov/doc/iac-climate-justice-work-group-policy-priorities/download>.

⁴¹ MassGIS. September 29, 2016. "Environmental Justice Viewer". Available at: http://maps.massgis.state.ma.us/map_ol/ej.php.

⁴² MassDEP. No date. "Environmental Justice Populations in Massachusetts". Available at: <https://www.mass.gov/info-details/environmental-justice-populations-in-massachusetts>.

⁴³ Office of Governor Charlie Baker and Lt. Governor Karyn Polito. September 16, 2016. *Executive Order. No. 569: Establishing an Integrated Climate Change Strategy for the Commonwealth*. Massachusetts Government. Available at: <https://www.mass.gov/executive-orders/no-569-establishing-an-integrated-climate-change-strategy-for-the-commonwealth>.



municipalities as MVP communities with regard to climate,⁴⁴ which makes them eligible for MVP Action Grant funding⁴⁵ to conduct vulnerability assessments and develop climate resiliency plans. As such, the MVP program collects important data on climate vulnerable populations in the Commonwealth. The Massachusetts Department of Public Health is responsible for tracking and evaluating environmental health data “to identify health disparities among Massachusetts residents” and support “programs to reduce exposure to environmental hazards.”⁴⁶

Public investment tracker: Track and make publicly available Massachusetts government dollars spent on climate and clean energy efforts by the location of the project (this might include both manufacturing and implementation locations). Tracking financial flows to EJ populations is made difficult by the fact that Massachusetts defines EJ populations as neighborhoods within cities rather than for entire cities or towns.⁴⁷

It is important to mention Massachusetts Senate Bill 9, An Act Creating a Next-Generation Roadmap for Massachusetts Climate Policy, as this Bill⁴⁸ strengthens the legal standing for EJ populations but does not create any new funding streams for EJ populations.⁴⁹

Set an EJ funding standard: Set a relative standard for EJ populations funding that mandates a certain amount of investment in EJ populations, relative to investments made in non-EJ populations.

We recommend setting a relative standard. As an illustration: for every \$1 of funding that a non-EJ community receives, an EJ community should receive \$2 of funding. For example, the currently proposed *An Act Relative to Transportation and Environmental Justice* seeks to mandate that “[a] minimum of 70 percent of the annual [Transportation and Climate Initiative] proceeds shall be used to benefit underburden [sic] and underserved communities with an environmental justice population.”⁵⁰

⁴⁴ Executive Office of Energy and Environmental Affairs. November 1, 2020. *Municipal Vulnerability Preparedness Program*. Available at: <https://www.mass.gov/doc/municipal-designation-status-0/download>.

⁴⁵ Municipal Vulnerability Preparedness Program. No date. “MVP Action Grant”. Available at: <https://www.mass.gov/service-details/mvp-action-grant>.

⁴⁶ Massachusetts Department of Public Health. No date. “Environmental Health Data.” Available at: <https://www.mass.gov/environmental-health-data>.

⁴⁷ MassDEP. No date. “Environmental Justice Populations in Massachusetts”. Available at: <https://www.mass.gov/info-details/environmental-justice-populations-in-massachusetts>.

⁴⁸ Should the Bill become law.

⁴⁹ The 192nd General Court of the Commonwealth of Massachusetts. 2019-2020. *An Act Creating a Next-Generation Roadmap for Massachusetts Climate Policy*. Bill S.2995. Available at: <https://malegislature.gov/Bills/191/S2995>.

⁵⁰ The 192nd General Court of the Commonwealth of Massachusetts. February 19, 2021. *An Act Relative to Transportation and Environmental Justice*. Bill SD.2317. Available at: <https://malegislature.gov/Bills/192/SD2317>.



b) Recommended metric: Establish an advisory body to guide funding allocation to EJ populations that includes community and worker representation

Yes/no metric: Has the advisory body been created or is an existing advisory body—like the Environmental Justice Advisory Council—overseeing this work?

Voluntary self-identification survey: A survey in which advisory body members self-identify whether they belong to EJ populations and other historically marginalized communities, to affected communities, or hold affected jobs.

To maintain personal privacy, we recommend asking all advisory committee members to voluntarily self-identify as members of EJ populations and other historically marginalized communities, members of affected communities, or as holding an affected job. This information should be publicly disclosed as part of the advisory council member database recommended above.

c) Recommended metric: Offer grants, financial incentives, and other financing options that are accessible regardless of creditworthiness for adoption of EVs, air source heat pumps, solar panels, and rides on regional electric rail

Clean energy financing accessibility tracker: A new public database that tracks the availability and rate of utilization of financing for participant costs of clean energy projects. Offering these incentives would require reallocating funding for current incentives and/or collecting additional revenue. The MOR-EV program (which paid rebates up to \$2,500 for the purchase of a new electric vehicle) provides an example of how such grant programs can have inequitable impacts. The program’s published data demonstrate that it has primarily benefited households living in the wealthiest areas of the Commonwealth (including Lincoln, Harvard, Carlisle, Lexington, Weston and Concord).⁵¹ Almost 80 percent of MOR-EV rebates have gone to communities where the household income is higher than the state median and only 9 percent went to communities where the median household income is lower than the state median. In addition, a full third of the program’s total expenditures supported the purchase of Tesla vehicles—a luxury car.⁵²

⁵¹ MilNeil C. February 18, 2021. “Analysis: Bay State’s EV Rebate Program Overwhelmingly Benefits Wealthy Suburbanites”. Mass Streets Blog. Available at: <https://mass.streetsblog.org/2021/02/18/analysis-bay-states-ev-rebate-program-overwhelmingly-benefits-wealthy-suburbanites/>.

⁵² MOR-EV. March 5, 2021. “MOR-EV Program Statistics”. Available at: <https://mor-ev.org/program-statistics>.



5. Redress harm of long-standing environmental, energy, and development policies that have burdened EJ populations and other vulnerable residents

*Projects receiving state funds must increase housing affordability. Any new incentives for solar projects must prioritize opportunities for ownership of renewable energy assets in historically disadvantaged communities.*⁵³

a) Recommended metric: All environmental, energy, and development projects that receive state funding make housing in their vicinity more affordable

Set housing affordability criteria: Projects could apply for “affordability enhancement” status based on one of several potential criteria (provides housing below a threshold rent, lowers other key costs for residents such as transportation or heating, etc.). Currently, Section 8 housing in Massachusetts serves over 22,000 households and 75 percent of households receiving this benefit are very low-income households (defined as less than 30 percent of Area Median Income (AMI)).⁵⁴ In addition, the Emergency Rental & Mortgage Assistance program can assist households with total gross household incomes of between 50 and 80 percent of AMI, and these standards differ by country or metro area.⁵⁵ The shortcomings of existing standards—that use AMI as a metric—include: AMI does not capture the totality of essential living expenses that households are paying (like the cost of food or transportation); using a firm AMI cutoff (i.e. no more than 30 percent, no more than 80 percent) leaves housing assistance out of reach for households living just above the threshold; and using the same AMI range for large areas of the state (for example, the Boston-Cambridge-Quincy Metro Area) means that households in towns and cities with drastically different median household incomes (for example, Boston versus Lynn) are applying for housing assistance according to the same AMI metrics.

State-funded project tracker: A new public database that tracks projects receiving state funds and the cost of nearby housing before and after project completion. For example, when projects are first proposed, information on the costs of nearby housing (rents, mortgages and home values) could be collected as a baseline. Once the project is built and operational the costs of nearby rental housing could be mandated to remain at the baseline (or no more than some percentage higher

⁵³ GWSA IAC. September 28, 2020. *GWSA IAC CJWG Refined List of Preliminary Recommendations*. Available at: <https://www.mass.gov/doc/iac-climate-justice-work-group-policy-priorities/download>.

⁵⁴ Massachusetts Housing and Community Development. No date. “Section 8 Housing Choice Voucher Program (HCVP)”. Available at: <https://www.mass.gov/service-details/section-8-housing-choice-voucher-program-hcvp>.

⁵⁵ Massachusetts Housing and Community Development. No date. *Emergency Rental & Mortgage Assistance Program Income Guidelines*. Available at: <https://www.mass.gov/doc/erma-area-median-income-information/download>.



than the baseline to account for inflation) by way of rent freeze, rent stabilization, rent forgiveness or rent control mechanisms for a set period of time (for example, two years).

b) Recommended metric: Energy burdens are reduced or are stabilized for low- and moderate-income households

Yes/no metric: Have energy burdens (energy costs as a share of income) among low- and moderate-income (LMI) households (where low-income is defined as 0 to 60 percent of AMI and moderate income is defined as 61 to 120 percent of AMI) remained stable or been reduced as the Commonwealth's energy system transitions to 100 percent renewable electricity and net zero greenhouse gas emissions?

Utilities in Massachusetts offer LMI rates, which are publicly available.⁵⁶ Low-income households are also eligible for heating fuel assistance through the Low Income Home Energy Assistance Program (LIHEAP).⁵⁷ Though it is not publicly available, the gas and electric utilities record energy use and expenditures of every customer, including households participating in LMI programs. Importantly, not all LMI households participate in LMI programs—some households are simply unaware of them, while others are aware but choose not to participate.⁵⁸ The Massachusetts Department of Revenue has access to, but does not make publicly available, information on household income. Together, these two data sources could provide the information necessary to determine the approximate energy burden of every household in Massachusetts. Collecting data of this nature (e.g., tracking low-income households, their income, and their energy expenditures) would require combining existing data in one place or a new source of data, such as a survey or a new question on the U.S. Census Bureau American Community Survey⁵⁹ and would also entail serious privacy concerns, calling for strict data privacy protocols, such as multi-factor authentication, developing and maintaining incidence response plans, developing authorized user and access protocols and/or data encryption techniques.

⁵⁶ Massachusetts Electric Power Division. No date. "Electric rates and tariffs". Available at: <https://www.mass.gov/service-details/electric-rates-and-tariffs>.

⁵⁷ Massachusetts Housing and Community Development. No date. "Low Income Home Energy Assistance Program (LIHEAP)". Available at: <https://www.mass.gov/service-details/learn-about-low-income-home-energy-assistance-program-liheap>.

⁵⁸ Illume Advising. February 27, 2020. *Residential Nonparticipant Market Characterization and Barriers Study*. Available at: <https://illumeadvising.com/files/Residential-Nonparticipant-Market-Characterization-and-Barriers-Study.pdf>.

⁵⁹ U.S. Census Bureau. No date. "American Community Survey (ACS)". Available at: <https://www.census.gov/programs-surveys/acs>.



6. The burdens of existing energy infrastructure must be reduced for nearby residents and workers. Additionally, ensure that increased clean energy investments do not increase the energy burden in LMI and EJ populations

The state should establish target deadlines to close polluting facilities, such as aging landfills, incinerators, fossil-fuel power plants, and other facilities that create a public health burden, especially for environmental justice populations and other historically marginalized communities. The State should also aim to reduce the energy infrastructure burden in EJ populations when siting new energy infrastructure. Utility rate design must incorporate analysis of environmental burdens. Utility rates must be monitored to ensure rates decrease or are stabilized for LMI communities during the transition.⁶⁰

a) Recommended metric: Create an energy infrastructure database

Track/classify existing energy infrastructure: Track and make publicly available a database that lists the location, age, type, emissions profile, permit exceedances, and violations of all existing energy infrastructure, including: energy storage facilities, compressor stations, pipelines, substations, transmission lines, landfills, power plants (including utility-scale solar and wind), and backup generators. Update the database at least once per year, and account for any and all infrastructure retirements or additions. Where there are existing databases that document emissions profiles or permit exceedances, we are not recommending recreating those databases. Instead, we recommend a website landing page that links to the relevant existing sources of information and includes a new database to cover information not currently retained elsewhere.

b) Recommended metric: Determine which communities are burdened by existing energy infrastructure

Identify and track overburdened communities: Use the energy infrastructure database to identify which communities are overburdened by energy infrastructure sited in their neighborhoods. We recommend utilizing a relative standard to identify overburdened communities, whereby communities with the greatest number of polluting, fossil fuel facilities are defined as overburdened as well as communities with the greatest number of facilities, polluting or not. (It may be necessary to create weights to better capture the burden of different kinds of energy infrastructure on communities, for example, to reflect size or the extent of pollution generated.) As an example of how such a relative standard would work, the energy infrastructure database (and any associated weights) could be used to determine the average energy infrastructure burden

⁶⁰ GWSA IAC. September 28, 2020. *GWSA IAC CJWG Refined List of Preliminary Recommendations*. Available at: <https://www.mass.gov/doc/iac-climate-justice-work-group-policy-priorities/download>.



among all communities in the Commonwealth; any community with more energy infrastructure than the average would be classified as overburdened. This standard would change over time as the Commonwealth retires polluting facilities. The database should also identify which overburdened communities are EJ populations. In addition to making this database publicly available (including the list of overburdened communities, which of those are EJ populations, and information about the energy infrastructure that is sited in those communities), publications summarizing the state of energy infrastructure and overburdened communities that are suitable for a broad audience should be produced at least once per year.

c) Recommended metric: Establish closure dates for all energy infrastructure

Track energy infrastructure closures: Each facility in the energy infrastructure database should be assigned a closure date based on its useful lifetime. If the infrastructure in question is polluting, its closure date should be consistent with Commonwealth emission reduction goals, even if that closure would otherwise be prior to the end of its economic lifetime. Infrastructure in overburdened communities may merit early retirement depending on their impacts; infrastructure closure dates should take into account EJ community status, public health impacts, and other social and economic demographics. Update the database at least once per year, and account for any and all actual infrastructure retirements.

d) Recommended metric: Energy burdens are reduced or are stabilized for low- and moderate-income (LMI) communities

Yes/no metric: Have energy burdens (energy costs as a share of income) among LMI households remained stable or been reduced every year between now and 2050 (when the transition to 100 percent renewable electricity and net zero greenhouse gas emissions is complete)? (Note: This metric is identical to Metric #5b.) For example, two households may each pay \$6,000 per year in electric and heating costs but one household earns \$30,000 while the other earns \$120,000. The energy burden for the household with the lower income would be 20 percent ($\$6,000/\$30,000$) while the energy burden for the household with the higher income would be 5 percent ($\$6,000/\$120,000$). It is particularly important that the communities that are shouldering the burden of the physical energy infrastructure and have been categorized as energy overburdened (per Metric #6b above) should not be subject to additional energy cost burdens. Currently, electric rates in Massachusetts do not account for which communities are burdened by their infrastructure and which are not.

Comments on the Clean Energy and Climate Plan for 2030



Massachusetts Clean Energy and Climate Plan for 2030 (2030 CECP) details the actions that the Commonwealth will take over the next decade to ensure that the state is on track to achieve its target of 45 percent emissions reductions by 2030 and net zero emissions by 2050. The 2030 CECP and the 2050 Decarbonization Roadmap (which examines various pathways for the Commonwealth to achieve net zero emissions by 2050) are being prepared in parallel so that the actions outlined in the 2030 CECP will align with the Commonwealth’s overall decarbonization strategy for 2050.⁶¹

On December 30, 2020, the Massachusetts Executive Office of Energy and Environmental Affairs (EEA) made the draft 2030 CECP available for public comment; these comments will inform the final plan. AEC reviewed the 2030 CECP equity content and found three important areas for improvement:

- equity and justice goals need to be measurable,
- these goals need to be actionable by the state, and
- community engagement standards need to be robust and transparent.

The 2030 CECP contains a “Commitment to Equity” as well as several equity and justice-specific goals throughout the report, including:

Overarching equity aims

1. **Equitable implementation:** “equitable implementation of policies that impact residents and businesses in their jurisdictions”⁶²;
2. **Health and economic equity:** “closing the health and economic disparities experienced in Environmental Justice communities and communities of color”⁶³;
3. **Equity of benefit access:** “greater equity of access to mobility and the benefits of decarbonization”⁶⁴; and
4. **Affordability standards:** Consider additional issues, including “Zero up-front capital solutions for low income and affordable housing residents.”⁶⁵

Transportation-specific equity aims

⁶¹ Massachusetts Executive Office of Energy and Environmental Affairs (EEA). December 30, 2020. “Clean Energy and Climate Plan for 2030”. Available at: <https://www.mass.gov/info-details/massachusetts-clean-energy-and-climate-plan-for-2030>.

⁶² Ibid. p.9.

⁶³ Ibid. p.10.

⁶⁴ Ibid. p.18.

⁶⁵ Ibid. p.33.



5. **Electric vehicle access:** “seeking to develop a low and moderate income (LMI) consumer programs [sic] to help provide more equitable access to the benefits of ZEVs”⁶⁶;
6. **EV chargers in EJ neighborhoods:** “additional support for charging equipment in Environmental Justice communities in Eversource territory”⁶⁷; and
7. **Accelerating clean transportation:** “prioritizing positive environmental justice impacts” in the “Accelerating Clean Transportation Now (ACTNow) program by MassCEC.”⁶⁸

Energy-specific equity aim

8. **Targeted incentives and outreach:** “DOER will work to expand access to energy efficiency and clean heating for low- and moderate-income renters and homeowners in Environmental Justice communities through targeted community-based incentives and outreach programs, and increased funding for pre-weatherization barriers.”⁶⁹

Community engagement equity aim

9. **Engagement, trust and transparency:** EEA is committed to “enhance dialogue, stakeholder trust, and governmental transparency.”⁷⁰

Measurable goals

It is important that Massachusetts EEA set equity and justice goals that can be measured, and be clear about the data and metrics that will be used to measure progress towards those goals. For a goal to be measurable, it needs to have a clear definition of success and metrics that can be used to measure progress towards its success. Some of the 2030 CECP’s equity goals are easily measurable, because their success is relatively easy to define (goals #4, #5, #6, #8 and #9), and others are not, because their notion of success is vague or ill-defined (goals #1, #2, #3 and #7). It is important to note that even when the success of an equity or justice goal can be well-defined, that is no guarantee that the data or information needed to measure success exist.

For example, goal #6 (EV chargers in EJ neighborhoods) is easily measurable. Success could be measured by determining whether utilities dedicate additional funding to develop electric vehicle charging equipment in EJ populations, and whether electric vehicle charging equipment is actually sited in EJ populations.

⁶⁶ Ibid. p.22.

⁶⁷ Ibid. p.23.

⁶⁸ Ibid. p.25.

⁶⁹ Ibid. p.31.

⁷⁰ Ibid. p.11.



On the other hand, goal #1 (equitable implementation) is not easily measurable. Defining success would require quantifying “equitable [policy] implementation,” identifying which residents and businesses are impacted by the policy in question, and collecting new data that are sufficient to monitor policy impacts for those residents and businesses.

Actionable goals

It is equally important that equity and justice goals be actionable by the state. The 2030 CECP mentions two groups dedicated to providing equity and justice feedback and input. First, the EJ Task Force (which includes representatives from every EEA agency and office),⁷¹ which will provide a “comprehensive assessment of the Secretariat’s programs and policies through an equity and justice lens.”⁷² Second, the IAC-led Climate Justice Working Group (CJWG), which will advise EEA and provide recommendations regarding “the development of climate mitigation policies that can benefit EJ populations and other historically marginalized communities.”⁷³ These groups, however, do not have the authority to set policy, regularly monitor policy impacts, or take action when goals are not met.

For a goal to be actionable, it needs to have a clear implementation path that designates responsible parties for policy/program implementation, measurement, and follow-up. Some of the 2030 CECP’s equity goals are clearly actionable by the state; others entail an implementation path by or through state agencies that are either not obvious or not clearly described.

For example, goal #8 (targeted incentives and outreach) is clearly actionable. The goal specifies that the Massachusetts Department of Energy Resources (DOER) will work to achieve the goal of expanded access to energy efficiency and clean heating for LMI households, which means that DOER would have the authority to require electric distribution companies to offer targeted LMI energy efficiency incentives and outreach programs, though such incentives and programs require approval by the Department of Public Utilities.

On the other hand, goal #2 (health and economic equity) does not appear to be actionable by state agencies. It does not specify what action the Commonwealth could or would take to close health and economic disparities in EJ populations, or what measures to take if these disparities are not closed. It also does not specify which government bodies have the authority to force action to close these disparities if they fail to be addressed by the 2030 CECP.

⁷¹ Ibid. p.11.

⁷² Ibid. p.11.

⁷³ Ibid. p.14.



Community engagement

Finally, the 2030 CECP expresses the importance of public engagement “to avoid inequitable outcomes”⁷⁴ but falls short of specifying what kinds of community engagement standards or metrics will be used regarding goal #9 (engagement, trust, and transparency). To build public trust, it is important to be clear about how the public will be engaged and how public feedback will be considered. For example:

- How many public meetings and/or community workshops will be held?
- Will public input be sought at all stages of policy development and decision-making?
- Will partnerships with community-based organizations be developed?
- Will different kinds of policies/programs entail different levels of public engagement?
- Will community co-management of project development be offered, and under which circumstances?
- Will policy and program budget information be made publicly available?
- Will historically marginalized groups be provided active roles in decision-making?
- How will public feedback play a role in holding parties accountable in the case that equity and justice goals are not met?
- Will outreach and education be conducted in multiple languages?
- Will all public meetings be accessible to people with mobility needs and Americans with Disabilities Act accessible?

Conclusion

For Massachusetts equity goals, including those specified by the CJWG and those contained in the 2030 CECP, to be more than just lip-service, it is of vital importance that they be formalized with concrete, specific plans that meaningfully engage the community and actionable metrics to facilitate their evaluation. In other words, all equity and justice goals need to be measurable, actionable, and involve robust, meaningful, and transparently conducted community engagement processes. This report demonstrates that much of the data and information needed to measure progress towards equity and justice goals do not currently exist or are not currently publicly available, and draws attention to the additional efforts that will be required to measure progress regarding the impacts of climate policy in EJ populations and other historically marginalized communities.

⁷⁴ Ibid. p.11.



The recommendations contained in this report are intended to push the Commonwealth to the next level on issues of equity and justice by providing a starting point for discussions regarding what types of data collection, community involvement and public policy actions will be required to measure progress towards equity goals in the Commonwealth.