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Energy in Environmental Justice Across the U.S. States

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Energy in Environmental Justice Across the U.S. States

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Abstract

Across the United States, state legislatures and agencies have increasingly incorporated the concept of environmental justice into state law. These laws typically seek to remedy disproportionate impacts of environmental harms on communities that have historically been burdened by these harms. In recent years, *energy* justice has emerged as a prominent field. Energy justice applies many environmental justice principles to the energy sector, and expands and adds nuance to these principles. At the federal level, the government has addressed environmental justice since 1994, with a focus on energy justice under the Biden administration. In January 2025, President Trump issued executive orders endeavoring to eliminate all federal environmental justice efforts.

Prior to this abrupt federal change, our research team identified and analyzed state environmental justice laws toward two objectives: 1) compare state approaches to environmental justice, and 2) determine how and to what extent the energy context is addressed explicitly within or alongside state environmental justice laws. The research shows that most states have not explicitly identified energy within environmental justice laws as a distinct area of concern. Our review suggests this reflects the energy sector's established place within the core concerns of environmental justice as a long-time source of

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place-based air, land, and water pollution impacts on host communities for energy infrastructure.

This paper documents and analyzes the core elements of state environmental justice policies, many of which incorporate energy, even if only implicitly. We analyze and compare state definitions of environmental justice (EJ) communities, approaches to mapping such communities, and substantive and procedural requirements for energy projects and other activities within EJ communities.

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I. Introduction

One of the many accomplishments of the U.S. environmental justice movement is the elevation of environmental justice in state law across a growing number of states. The overarching goals of this movement have centered on remedying the disproportionate effect of environmental harms on communities that are historically burdened by these harms and that have conditions, such as underlying health factors and limited resources, that make them more susceptible to harms. These communities often have higher percentages of low-income, minority, elderly, or disabled residents. More broadly, the environmental justice

movement calls into question the status quo acceptance of polluting industries.² In recent years, the specific environmental justice dimensions of the energy sector have become a growing concern for academics, government officials, and non-governmental organizations, leading to a focus on *energy* justice, specifically.

There is a long history of environmental justice policy in the United States at both the federal and state levels. President Clinton issued the first federal environmental justice order in 1994, and the Biden administration directed federal policy attention to energy justice, acknowledging its direct connection to environmental justice.³ In January 2025, President Trump issued executive orders that endeavor to eliminate all diversity, equity, and inclusion initiatives at the federal level, including environmental justice initiatives.⁴

Prior to this abrupt federal policy change, our research team set out to assess the current landscape at the state level: how and to what extent is the energy context addressed within or alongside environmental justice laws at the state level? Indeed, states, beginning with California in 1999, have enacted environmental justice legislation and implemented environmental justice policies, regulations, and programs.⁵

Our research is important at this transitional juncture for several reasons. First, it provides non-governmental organizations, policymakers, researchers, and the public with data and analysis on the degree to which states are currently—or not yet—carrying forward the focus

² First National People of Color Environmental Leadership Summit, *The Principles of Environmental Justice (EJ)*, <https://climatejusticealliance.org/ej-principles/> (accessed: Apr. 17, 2025).

³ Exec. Order No. 12,898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, 59 Fed. Reg. 7,629 (Feb. 11, 1994); Exec. Order 14,096, *Revitalizing Our Nation's Commitment to Environmental Justice for All*, 88 Fed. Reg. 25,251 (Apr. 26, 2023).

⁴ Exec. Order 14,148, *Initial Rescissions of Harmful Executive Orders and Actions*, 90 Fed. Reg. 8,237 (Jan. 26, 2025) (rescinding Exec. Orders 13,985 (“Advancing Racial Equity and Support for Underserved Communities Through the Federal Government”) and 14,096 (“Revitalizing Our Nation’s Commitment to Environmental Justice For All”), among other orders; Exec. Order No. 14,173, *Ending Illegal Discrimination and Restoring Merit-Based Opportunity*, 90 Fed. Reg. 8,633 (Jan. 31, 2025) (revoking Executive Order 12898, defining diversity, equity, and inclusion (DEI) and diversity, equity, inclusion, and accessibility (DEIA) as illegal; ordering “all executive departments and agencies” to “terminate all discriminatory and illegal preferences, mandates, policies, programs, activities, guidance, regulations, enforcement actions, consent orders, and requirements”; and ordering “all agencies” to “combat illegal private-sector DEI preferences, mandates, policies, programs, and activities”); Exec. Order 14,151, *Ending Radical and Wasteful Government DEI Programs and Preferencing*, 90 Fed. Reg. 8,339 (Jan. 29, 2025) (directing the Director of the Office of Management and Budget to “coordinate the termination of all discriminatory programs, including illegal DEI and ‘diversity, equity, inclusion, and accessibility’ (DEIA) mandates, policies, programs, preferences, and activities in the Federal Government” and to “terminate, to the maximum extent allowed by law, all DEI, DEIA, and ‘environmental justice’ offices and positions”).

⁵ OFFICE OF GOVERNOR GRAY DAVIS PLANNING AND RESEARCH, ENVIRONMENTAL JUSTICE IN CALIFORNIA STATE GOVERNMENT at 7 (2003), https://cawaterlibrary.net/wp-content/uploads/2017/05/Environmental_Justice_CA_Govt.pdf (“In 1999, Governor Davis signed SB 115 (Solis), making California the first state in the nation to codify a definition of ‘environmental justice.’”).

on energy justice, either by name or with newly explicit attention to environmental justice dimensions of the energy sector. Second, the work updates current knowledge of state environmental justice law by isolating the modern salience of the intersection of energy with environmental justice at the state level. Third, as the proliferation of new energy infrastructure intensifies the role of local communities in the energy sector, the work sheds light on potential interactions between state environmental justice law and energy development at the community scale. Current projections and utility plans forecast significant renewable energy development continuing, as well as substantial new gas power plant construction.⁶ Rapidly-growing demand for electricity—more generation needed to ensure reliability during weather extremes, data center energy use, and the electrification of buildings and vehicles—is driving these generation trends.⁷ Decisions related to these and other energy trends will emerge on a project by project basis, centered primarily at the state and local level, with implications for energy and environmental justice. Although state law has always shaped the energy sector in fundamental ways, for all these reasons, the evolving law and policy landscape across the states will have heightened importance in the near-term.

A. Background: Energy in Environmental Justice

Today, at least 34 states have incorporated environmental justice into one or more aspects of their legal regimes by at least establishing a definition of environmental justice.⁸ This is a critical accomplishment because many decisions that implicate environmental justice are made at the state level or local level through state delegation of authority. Such

⁶ Katherine Antonio, *Solar and wind to lead growth of U.S. power generation for the next two years*, U.S. ENERGY INFO. ADMIN., (Jan. 16, 2024), <https://www.eia.gov/todayinenergy/detail.php?id=61242> (accessed: Apr. 18, 2025) (forecasting solar power generation to grow 75% and wind to grow 11% from 2023 to 2025). Whether the pace of growth will continue under the new Trump administration is yet to be seen, but if the first Trump presidency (2017-2021) is any guide, renewable energy growth continued at a high rate during that period. See U.S. Energy Info. Admin., *Electricity Explained: Electricity in the United States*, <https://www.eia.gov/energyexplained/electricity/electricity-in-the-us.php> (accessed: Apr. 18, 2025) (see figure entitled, “U.S. electricity generation from renewable energy sources, 1950-2023,” which is an interactive graphic showing significant growth in wind and solar between 2017 and 2021) (drawing data from U.S. Energy Info. Admin. *Monthly Energy Review and Electric Power Monthly*, Feb. 2024). See also Jon Rea & Ryan Foelske (RMI), *What’s the State of Utility Planning Halfway through 2024?* (July 12, 2024), <https://rmi.org/whats-the-state-of-utility-planning-halfway-through-2024/> (accessed: Apr. 18, 2025) (mid-year review of utility integrated resource plans across the United States showed 274 GW of wind and solar additions as well as 70 GW of gas additions are planned).

⁷ N. AM. ELEC. RELIABILITY CORP., 2024 LONG-TERM RELIABILITY ASSESSMENT 7-8 (2024), https://www.nerc.com/pa/RAPA/ra/Reliability%20Assessments%20DL/NERC_Long%20Term%20Reliability%20Assessment_2024.pdf.

⁸ Hannah Wiseman, Uma Outka & Danielle Stokes, *EJ Definitions and Policy State Comparison Spreadsheet* (on file with authors); ENVIRONMENTAL JUSTICE STATE BY STATE, <https://ejstatebystate.org/> (accessed: Apr. 18, 2025).

decisions include selection of sites for polluting industrial land uses; dissemination of funds for amenities such as rooftop solar, support with electricity bill payment, or energy efficiency improvements; environmental permitting and enforcement decisions; siting and maintenance of energy, water, and transportation infrastructure; investment in environmental amenities, and more. Attention to environmental justice has a long (and mixed) history at the federal level, and although federal and state law are distinct in this regard, the interaction between federal environmental justice policy and states has arguably increased in recent years.

The history of federal recognition for environmental justice traces back to 1994, when President Bill Clinton signed Executive Order 12898, together with environmental justice leaders who had been uplifting the issue for federal action for at least a decade.⁹ This Executive Order, which remained in place through all subsequent presidential administrations prior to the current one, declared that each federal agency “shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations...”¹⁰ This order focused both on procedural aspects of justice—engaging communities in decisions—and distributive outcomes of decisions. Although the Order did not create a private right of action (meaning it did not provide the “hook” necessary to commence a legal action), federal courts established and clarified requirements for administrative consideration of environmental justice in numerous contexts.¹¹ Irrespective of these formal requirements that remained stable over time, commitment to Order 12898 implementation waxed and waned across presidential administrations, including the first

⁹ Exec. Order No. 12,898, *supra* n. 3.

¹⁰ *Id.* at § 1-101.

¹¹ See, e.g., *Friends of Buckingham v. State Air Pollution Control Board*, 947 F.3d 68, 87-93 (2020) (assessing and finding fault with Virginia Department of Environmental Quality’s environmental justice analysis for proposed natural gas compressor station under Virginia state law); *Vecinos para el Bienestar de la Comunidad Costera v. Federal Energy Regulatory Commission*, 6 F.4th 1321 (D.C. Cir. 2023) (finding inadequate environmental justice review when FERC approved a liquefied natural gas terminal); *Eagle County, Colorado v. Surface Transp. Bd.*, 82 F.4th 1152 (D.C. Cir. 2023) (certiorari granted) (noting a failure to quantify “effects of oil refining on environmental justice communities [of] the Gulf Coast”).

Trump administration.¹² To avoid this cycle, lawmakers have proposed comprehensive environmental justice legislation in the Congress, but none have succeeded to date.¹³

Against this historical backdrop, the Biden administration's effort to advance environmental justice, with special attention to energy, was marked by immediacy and ambition. This ambition was expressed through new Executive Orders signed in the initial weeks of the presidency in 2021,¹⁴ as well as some rare success advancing related goals through federal legislation, particularly in provisions of the Infrastructure Investment and Jobs Act in 2021 and the Inflation Reduction Act in 2022.¹⁵ These efforts reflected a growing awareness within policy spheres of energy's relevance to environmental justice. In turn, energy justice, by extension, has garnered newly specific attention. Notable examples include Executive Order 14008's priority of "Securing Environmental Justice and Spurring Economic Opportunity," which links "building a *clean energy* economy" with securing "*environmental justice...for disadvantaged communities that have been historically marginalized and overburdened by pollution and underinvestment...*"¹⁶ To that end, Order 14008 created the Justice40 Initiative, which aimed to have "40 percent of the overall benefits" of "certain Federal investments"—specifically including investments in "clean

¹² See, e.g., Uma Outka & Elizabeth Kronk Warner, *Reversing Course on Environmental Justice under the Trump Administration*, 54 WAKE FOREST L. REV. 393 (2019) (providing historical perspective on executive actions contrary to environmental justice under the first Trump administration); Rachael E. Salcido, *Reviving the Environmental Justice Agenda*, 91 CHI.-KENT L. REV. 115 (2016) (on efforts under the Obama Administration to revive federal progress environmental justice).

¹³ See, e.g., S.919 - A. Donald McEachin Environmental Justice For All Act, 118th Congress (2023-2024) (versions of this bill have been proposed numerous times).

¹⁴ See Exec. Order No. 13,985, *Advancing Racial Equity and Support for Underserved Communities Through the Federal Government*, 86 Fed. Reg. 7009 (Jan. 25, 2021) (addressing racial equity, with specific attention to environmental contexts); Exec. Order No. 14,008, *Tackling the Climate Crisis at Home and Abroad*, 86 Fed. Reg. 7619 (Feb. 1, 2021).

¹⁵ Infrastructure Investment and Jobs Act, Pub. L. 117-58, 135 Stat. 429 (2021); Inflation Reduction Act ("IRA"), Pub. L. 117-169, 136 Stat. 1818 (2022). For helpful resources for following implementation of the IRA, see Sabin Center for Climate Change L. & Envtl. Def. Fund, IRA Tracker, <https://iratracker.org> (accessed: Apr. 18, 2025); Interagency Working Group on Coal & Power Plant Communities & Economic Revitalization, *Energy Community Tax Credit Bonus*, <https://energycommunities.gov/energy-community-tax-credit-bonus/> (accessed: Apr. 18, 2025) (describing how under the Inflation Reduction Act, developers of low-carbon energy infrastructure in communities that have lost fossil fuel-related jobs get receive additional tax credits); Theodore Lee & Anisha Steephen, *Analysis of the First Year of the Low-Income Communities Bonus Credit Program: Building an Inclusive and Affordable Clean Energy Economy*, U.S. DEPT. OF THE TREASURY (Sept. 4, 2024), <https://home.treasury.gov/news/featured-stories/analysis-of-the-first-year-of-the-low-income-communities-bonus-credit-program-building-an-inclusive-and-affordable-clean-energy-economy> (accessed: Apr. 18, 2025) (noting 49,000 applications approved for solar and wind energy projects in low-income communities, amounting to "nearly 1.5 gigawatts of expected energy capacity and approximately \$3.5 billion in public and private investment into communities").

¹⁶ Exec. Order No. 14,008, *Tackling the Climate Crisis at Home and Abroad*, 86 Fed. Reg. 7619, at 7629, § 219 (Feb. 1, 2021) (emphasis added).

energy and energy efficiency” and remediating “legacy pollution”—“flow to disadvantaged communities.”¹⁷

These federal efforts paralleled non-governmental and academic efforts to mark energy justice as conceptually inclusive of the environmental harms resulting from energy industries, as well as access to benefits from cleaner energy resources and clean energy policy.¹⁸ It was a significant milestone when, in 2021, the Department of Energy was responsive to these calls by invigorating the Office of Energy Justice and Equity, which, after a few short years of intensive work, has now been eliminated.¹⁹

A second Trump administration was widely expected to cease the federal focus on these issues.²⁰ Indeed, in January 2025, President Trump revoked all of President Biden’s relevant Orders, including 14008, and went further to revoke the original Clinton-era Order 12898, ending thirty years of federal focus on justice dimensions of energy and environmental issues.²¹

Despite this abrupt federal change, extensive connections between former federal efforts and states may yet yield long-term benefits and further broader energy justice goals. Through its leadership role in Justice40’s implementation, for example, the Office of Energy Justice and Equity increased engagement between federal agencies and local communities across the states. Similarly, the \$7 billion Solar for All program, funded by the Inflation Reduction Act and administered by the Environmental Protection Agency to expand access to rooftop solar energy, resulted in “49 state-level awards, six awards to Tribes, and five innovative multistate awards, spanning the entire country.”²² These are just a few examples

¹⁷ *Id.* at 7631-32, § 223.

¹⁸ For a more in-depth discussion of the connection between energy justice and environmental justice, see Uma Outka, *Fairness in the Low-Carbon Shift: Learning from Environmental Justice*, 82 BROOK. L. REV. 789 (2017).

¹⁹ See U.S. Dep’t of Energy, Office of Energy Justice and Equity, archived on Jan. 19, 2025, at <https://web.archive.org/web/20250119071349/https://www.energy.gov/justice/office-energy-justice-and-equity>.

²⁰ To the extent the Trump administration follows strategies outlined in the Heritage Foundation’s Project 2025 Presidential Transition Project, *Mandate for Leadership: The Conservative Promise* (2023), Chapters 12 and 13 expressly propose ending energy and environmental justice work at the Department of Energy and the Environmental Protection Agency.

²¹ Exec. Order No. 14,173, *supra* n.4 (See Sec. 3. Terminating Illegal Discrimination in the Federal Government. “(a) The following executive actions are hereby revoked: (i) Executive Order 12898 of February 11, 1994 (Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations)”...); Exec. Order No. 14,154, *Unleashing American Energy*, 90 Fed. Reg. 8,353 (Jan. 29, 2025) (See Sec. 4. Revocation of and Revisions to Certain Presidential and Regulatory Actions.).

²² See U.S. Env’tl. Prot. Agency, *Solar for All*, <https://www.epa.gov/greenhouse-gas-reduction-fund/solar-all> (accessed: March 18, 2025). The Trump administration now seeks to freeze funds appropriated by the Congress associated with environmental justice and has been sued by states to release them. As of this writing, this is

of the ways in which energy and environmental justice initiatives created linkages with states.

B. Energy in Environmental Justice in the States

For those concerned about energy and environmental justice, state law and state lawmaking have always been important—and they will be all the more important in the near-term. Recognizing state law reform as dynamic, and notably so in connection with energy, we sought to determine to what extent energy is becoming a distinctive justice dimension of state environmental justice law.

To explore this question, the research team set out to address four research questions:

- 1) Which states have environmental justice policies?;
- 2) For the states that have policies, what is their definition of environmental justice, what screening tools do they use to identify environmental justice (EJ) communities, do their definitions or screening tools include “energy” variables, and what purpose does the environmental justice policy serve?;
- 3) How do environmental justice policies, tools, and practices compare and contrast across states?; and
- 4) How well do these policies account for energy justice?

With respect to question 4, we researched the impact (if any) of energy production or consumption sources on identification of EJ communities within screening tools and the procedural and substantive impacts of a proposed project being located in an environmental justice community.

The research team proceeded to collect data under a uniform methodology to answer these research questions. The team searched state statutes; state codes of regulation; state government websites, including websites of governors’ offices, state environmental, energy, utility, health, and transportation agencies; and LexisNexis®, Westlaw, and general internet search engines. The team conducted these searches for all 50 U.S. states, the District of Columbia, Guam, the Northern Mariana Islands, Puerto Rico, and the U.S. Virgin Islands. Search terms included “disproportionate impact,” “cumulative impact,” “environmental justice,” EJ, “energy justice,” “energy community,” “fair share,” overburdened /10 community

active litigation with preliminary injunctions in place. See Ali Sullivan, *DC Judge Joins RI In Blocking Trump Funding Freeze*, Law360, Feb. 3, 2025 (citing *National Council of Nonprofits et al. v. Office of Management and Budget et al.*, case number 1:25-cv-00239, in the U.S. District Court for the District of Columbia and *New York et al. v. Trump et al.*, case number 25-cv-00039, in the U.S. District Court for the District of Rhode Island).

population, disadvantaged /10 community population, low-income /10 community population, marginalized /10 community population, “fenceline community,” and “energy burden.” After identifying the initial EJ policy landscape, team members used additional search terms at their discretion to further investigate specific EJ data unveiled in the initial search.

The team entered data within one Excel spreadsheet and prepared individual one-page summaries for each location researched. These summaries included the following entries: definition of environmental justice, name and definition of environmental justice community, screening tools used to identify EJ communities, specific variables used in the screening tool, formula for calculating vulnerability score, inclusion of energy in EJ screening tool, inclusion of energy (production or consumption) in EJ or EJ community definition, impact/purpose of EJ policy, and other notes. Once those data were compiled, the team analyzed the data and categorized states with like policies for each question.

Our research did not extend to regulations and processes of state public utility commissions; the research only addressed public utility commissions to the extent that they provided utility commission-specific definitions of environmental or energy justice. Public utility commissions are state-level agencies that regulate investor-owned utilities, including energy utilities. They are primarily tasked with ensuring that utilities provide consumers with adequate service at just and reasonable rates. In many states, public utility commissions’ jurisdiction extends to overseeing utility planning processes that may impact the decision of whether and where to build energy infrastructure. These planning processes inherently implicate environmental justice considerations, and some public utility commissions have adopted environmental justice policies. Those policies are important but are beyond the scope of this paper.

This paper summarizes and highlights the most important project findings. It does not provide statistical data on the exact number of states or territories with environmental or energy justice policies or on the number of states with substantive or procedural requirements for approving projects within EJ communities. Rather, we highlight and compare examples of EJ and energy justice policies and their impacts, with an eye toward providing more comprehensive data in future reports.

II. Defining Environmental Justice (EJ) Communities

Environmental justice policy begins at the definitional level and involves three primary components: environmental burdens and benefits; geographic areas impacted by burdens and benefits (typically smaller than states or counties); and people within these geographic areas. Justice analyses focus on the *disproportionate* distribution of burdens on local

environments, such as greater concentrations of air and water pollution in specific areas; the infrastructure and activities that cause these burdens; and the people within these environments who experience these burdens through impaired health and other impacts. Environmental justice also acknowledges and endeavors to address the uneven distribution of environmental benefits and access to these benefits, such as public parks and other recreational areas, trees, and clean water. The groups of people experiencing environmental burdens and benefits are typically identified and defined geographically, such as areas of the United States defined by census tracts—“small, relatively permanent statistical subdivisions of a county or statistically equivalent entity.”²³

As explored in this paper, the growing field of “energy justice” applies environmental justice principles specifically to energy infrastructure and services. Environmental justice focuses on all forms of infrastructure and activities that cause environmental impacts, ranging from manufacturing facilities to coal-fired power plants. “Energy justice” focuses on the fact that energy infrastructure, in particular—such as generation facilities, electric transmission lines, oil and gas wells, and oil and gas pipelines—is one of the most common forms of infrastructure that has disproportionate impacts on groups of people. Additionally, groups of people have disproportionate access to energy infrastructure and services, such as rooftop solar panels, affordable electricity, or fuel for heat.

The energy justice field, as it has applied environmental justice principles to energy, has helped to further clarify and categorize key environmental justice themes. For example, a commonly accepted definition of energy justice highlights the three pillars of environmental justice: 1) *recognition* of disproportionate energy burdens and benefits encountered by different groups of people, 2) substantively addressing this uneven *distribution*, and 3) ensuring access to the *procedures* that impact the distribution of burden and benefits.²⁴

Once a geographic area is defined as an “environmental justice” (EJ) or “energy justice” area (typically defined as an environmental justice or energy justice “community”), this triggers a variety of state actions. Most commonly, an agency approving specific types of infrastructural development or other land use within an environmental or energy justice community will have to follow heightened procedures. It will have to more carefully review and document the impacts of that development before approving it. In some cases, more detailed public engagement is also required prior to approving infrastructure in these communities, such as more notice and opportunities to participate in decision-making processes. Additionally, some environmental justice policies have *substantive*

²³ U.S. Census Bureau, *Glossary*, https://www.census.gov/programs-surveys/geography/about/glossary.html#par_textimage_13 (accessed: April 18, 2025).

²⁴ Sonya Carley & David M. Konisky, *The justice and equity implications of the clean energy transition*, 5 NATURE ENERGY 569, 570 (2020).

requirements, such as discouraging locating schools or residences near polluting facilities, or requiring the distribution of specific percentages of funding for environmental or energy benefits to EJ communities, as we explore in this paper.

State environmental justice policies have various goals and intended impacts across different jurisdictions. Some policies, such as those in Pennsylvania and Colorado, seek to better engage affected communities in the decision-making process regarding energy projects; these are examples of procedural protections that we introduced in the previous paragraph. Other state policies, such as those in Maryland and California, strive to attract financial investment in environmental justice communities.²⁵ Many states also seek to improve public health or avoid disproportionate impacts that often adversely impact environmental justice communities. Collectively, these policies attempt to better protect communities that are often marginalized. The likelihood of success of these policies will meaningfully depend on how they define and identify environmental justice communities, as well as how the programs are structured to generate the benefits they seek to provide.

This Part analyzes general definitions of the terms environmental and energy justice and ways in which environmental or energy justice *communities* are defined, including historic exposure to environmental burdens and benefits and the demographics of communities impacted by infrastructure development. This Part also describes states' methods for screening proposed projects to determine whether they are located in environmental or energy justice communities, in which case the projects may require additional review and community engagement—or substantive changes—before proceeding.

A. General Definitions of Environmental and Energy Justice

This paper focuses on states' approaches to environmental and energy justice, but it is important to begin with the federal definition. Environmental justice movements began at the non-governmental level, with religious and other non-governmental groups investigating the publicizing the disproportionate environmental harms in portions of the United States.²⁶ But the U.S. government took an early leadership role. The President's Council on Environmental Quality's first annual report of 1970 observed that different communities experience different health effects of pollution, "particularly among the elderly and those

²⁵ Md. Dep't of the Env't, *Environmental Justice Policy and Implementation Plan*, at 10-11, https://mde.maryland.gov/Environmental_Justice/PublishingImages/Pages/Landing%20Page/Environmental%20Justice%20Policy%20and%20Implementation%20Plan%202022.pdf (Nov. 1, 2022); Ca. Env'tl. Prot. Agency, *California Climate Investments to Benefit Disadvantaged Communities*, <https://calepa.ca.gov/envjustice/ghginvest/> (accessed: April 14, 2025); Ca. Senate Bill No. 535 of 2012, http://www.leginfo.ca.gov/pub/11-12/bill/sen/sb_0501-0550/sb_535_bill_20120930_chaptered.html (accessed: April 14, 2025).

²⁶ Office of Governor Gray Davis, *supra* note 5.

with preexisting respiratory or cardiac conditions,” and noting concentrations of “the urban poor,” who had few options to move and experienced negative impacts from trends such as growing reliance on automobiles and associated freeways.²⁷ In 1994, President Clinton signed Executive Order 12898, which required federal agencies to incorporate environmental justice into their decision-making processes and created an Interagency Working Group on Environmental Justice.²⁸

1. Environmental Justice

One of the earliest official U.S. definitions of environmental justice is in Executive Order 12898, which required each Federal agency to “make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse health or environmental effects of its programs, policies, and activities on minority populations and low-income populations.”²⁹ Early on, this definition broadened to recognize disproportionate impacts on all groups of people. As of January 2025, the federal Environmental Protection Agency defined environmental justice as follows:

“Environmental justice” means the just treatment and meaningful involvement of all people, regardless of income, race, color, national origin, Tribal affiliation, or disability, in agency decision-making and other Federal activities that affect human health and the environment so that people:

- are fully protected from disproportionate and adverse human health and environmental effects (including risks) and hazards, including those related to climate change, the cumulative impacts of environmental and other burdens, and the legacy of racism or other structural or systemic barriers; and
- have equitable access to a healthy, sustainable, and resilient environment in which to live, play, work, learn, grow, worship, and engage in cultural and subsistence practices.³⁰

²⁷ Environmental Quality The First Annual Report of the Council on Environmental Quality together with The President’s Message to Congress 66, 168 (1970), *available at* <https://www.slideshare.net/whitehouse/august-1970-environmental-quality-the-first-annual-report-of#1> (accessed: Apr. 18, 2025). See also Environmental Justice Primer for Ports Appendix: Timeline of American Environmental Justice Movement, archived on Jan. 22, 2025 at <https://web.archive.org/web/20250123022646/https://www.epa.gov/ports-initiative/environmental-justice-primer-ports-appendix-timeline-american-environmental> (accessed Apr. 18, 2025) (summarizing key events in U.S. environmental justice history).

²⁸ Exec. Order 12,898, *supra* n.3.

²⁹ Exec. Order 12,898, *supra* n.3.

³⁰ Environmental Justice, Env’tl. Protection Agency, archived on Jan. 25, 2025 at <https://web.archive.org/web/20250125032341/https://www.epa.gov/environmentaljustice> (accessed Apr. 18, 2025).

As we explore in this paper, many states have their own definitions of environmental justice. These definitions are in some cases broad—emanating from a state statute or a regulation from the state’s environmental agency.³¹ In other cases, state agencies other than environmental agencies have their own environmental justice definitions and requirements. For example, some state transportation and public health agencies have their own regulatory definitions of environmental justice despite a lack of statewide definitions.³²

Many states have environmental justice definitions that parallel long-followed federal definitions. For example, Pennsylvania’s definition is identical to the U.S. EPA’s (with the exception of the omission of the word “federal” before “activities”).³³ Pennsylvania also adds one sentence not included in the EPA’s definition. This sentence acknowledges that different communities have experienced disproportionate burdens in the past, and could in the future; it also focuses on the importance of procedure—involving impacted communities in decision-making. Specifically, Pennsylvania’s definition provides: “It [environmental justice] further involves the prevention of future environmental injustice, and the redress of historic

³¹ See, e.g., Cal. Gov’t Code § 65040.12; Conn. Gen. Stat. § 22a-20a; Colo. Rev. Stat. § 40-2-108; 415 Ill. Comp. Stat. 155/5.

³² See, e.g., Environmental Justice State by State, *How Does Arizona Define Environmental Justice and Environmental Justice Communities*, <https://ejstatebystate.org/directory/arizona> (Accessed: Apr. 18, 2025) (“The state of Arizona does not specifically define environmental justice”); Environmental justice, Arizona Dept. of Transportation, archived on Sept. 14, 2024, at <https://web.archive.org/web/20240914085613/https://azdot.gov/business/environmental-planning/guidance-federal-aid-projects/environmental-justice> (“Environmental Justice is considered as part of the environmental review process.”); Environmental Justice, State of Hawaii, Dep’t of Health, <https://health.hawaii.gov/epo/ej/> (accessed: Apr. 18, 2025) (defining environmental justice as “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.”). *But see id.* (noting that the Environmental Planning Office closed on May 2, 2018, and that the office, which worked to “promote EJ procedures within” the Department of Health, was “no longer providing services”).

³³ Specifically, the Pennsylvania definition provides:

Environmental justice means the just treatment and meaningful involvement of all people, regardless of income, wealth, race, color, national origin, area of residence, Tribal affiliation, or disability, in agency decision-making and other activities that affect human health and the environment so that people: are fully protected from disproportionate and adverse human health and environmental effects (including risks) and hazards, including those related to climate change, the cumulative impacts of environmental and other burdens, and the legacy of racism or other structural or systemic barriers; and have equitable access to a healthy, sustainable, and resilient environment in which to live, play, work, learn, grow, worship, and engage in cultural and subsistence practices. It further involves the prevention of future environmental injustice, and the redress of historic environmental injustice, and the centering of environmentally burdened community voices in addressing environmental justice concerns.

Office of Environmental Justice, Commonwealth of Pa. Dep’t of Env’tl. Prot., <https://www.pa.gov/agencies/dep/public-participation/office-of-environmental-justice.html> (accessed Jan. 25, 2025).

environmental injustice, and the centering of environmentally burdened community voices in addressing environmental justice concerns.³⁴

Other states also have definitions that parallel the federal definition to varying degrees. New York’s Department of Environmental Conservation defines environmental justice as “the fair and meaningful treatment of all people, regardless of race, income, national origin or color, with respect to the development, implementation, and enforcement of environmental laws, regulations and policies.”³⁵ California defines environmental justice as follows:

(1) For purposes of this section, “environmental justice” means the fair treatment and meaningful involvement of people of all races, cultures, incomes, and national origins, with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies.

(2) “Environmental justice” includes, but is not limited to, all of the following:

(A) The availability of a healthy environment for all people.

(B) The deterrence, reduction, and elimination of pollution burdens for populations and communities experiencing the adverse effects of that pollution, so that the effects of the pollution are not disproportionately borne by those populations and communities.

(C) Governmental entities engaging and providing technical assistance to populations and communities most impacted by pollution to promote their meaningful participation in all phases of the environmental and land use decision making process.

(D) At a minimum, the meaningful consideration of recommendations from populations and communities most impacted by pollution into environmental and land use decisions.³⁶

Table 1 provides these and other examples of states’ (or individual state agencies’) definitions of environmental justice. In some cases, the term environmental justice itself is defined. In other cases, the state defines environmental justice geographically by defining “environmental justice community,” as shown by the Colorado example in Table 1.

³⁴ *Id.*

³⁵ NY Dept. of Env’tl. Conservation, *Environmental Justice*, <https://dec.ny.gov/environmental-protection/environmental-justice> (accessed Jan. 25, 2025).

³⁶ Cal. Gov’t. Code § 65040.12(e).

Table 1. Sample state environmental justice definitions

State or state agency	Statutory or regulatory citation	Definition	Summary of attributes within definition
California	Cal. Gov't Code § 65040.12(e)	"the fair treatment and meaningful involvement of people of all races, cultures, incomes, and national origins, with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies."	--Income --Race --Culture --National origin
Connecticut	Conn. Gen. Stat. § 22a-20a(a)(1) (2024) Conn. Gen. Stat. § 32-9p(b) (2024)	" 'Environmental justice community' means (A) a United States census block group, as determined in accordance with the most recent United States census, for which thirty per cent or more of the population consists of low income persons who are not institutionalized and have an income below two hundred per cent of the federal poverty level; or (B) a distressed municipality. . . ." Distressed municipality: meets "quantitative physical and economic distress thresholds" that make a community eligible for the urban development action grant program under federal Housing and Community Development Act of 1977	--Income --Unemployment --Recent job loss --High proportion of old housing stuck ³⁷
Colorado	Colo. Rev. Stat. Ann. § 24-4-109 (West 2024)	"Disproportionately impacted community"—community in which under most recent U.S. Census proportion of households below 200% of federal poverty level exceeds 40%, more than 50% of households spend more than 30% of income on housing, population that identifies as people of color greater than 40%, population that is linguistically isolated is greater than 20%, communities identified or approved by state agency as having a history of environmental racism, or communities where multiple factors may cumulatively affect health and the environment.	--Income (below poverty level) --Percentage of income spent on housing --Race (identification as person of color) --Linguistic isolation

³⁷ Comptroller General of the United States, *Criteria for Participation in the Urban Development Action Grant Program Should be Refined* at 3 (1989), <https://www.gao.gov/assets/ced-80-80.pdf> (describing previous HUD criteria used to measure economic distress for the purpose of the Urban Development Action Grant Program).

State or state agency	Statutory or regulatory citation	Definition	Summary of attributes within definition
Illinois	415 Ill. Comp. Stat. Ann. §§ 155/1 and 155/5 (West 2024) (creating Commission on Environmental Justice and issuing findings); Commission definition of EJ	“The principle of EJ requires that no segment of the population, regardless of race, national origin, age, or income, should bear disproportionately high or adverse effects of environmental pollution.” ³⁸	--Income --Race --National origin --Age
Maryland	Md. Code Ann., Envir. § 1-701 (LexisNexis 2024)	“ ‘Environmental justice’ means the equal protection from environmental and public health hazards for all people regardless of race, income, culture, and social status.”	--Income --Race --Culture --Social status
Pennsylvania	Office of Environmental Justice, Commonwealth of Pennsylvania Dep’t of Env’tl. Protection ³⁹	“Environmental justice means the just treatment and meaningful involvement of all people, regardless of income, wealth, race, color, national origin, area of residence, Tribal affiliation, or disability”	--Income --Wealth --Race --Color --National origin --Area of residence --Tribal affiliation --Disability
Virginia	Va. Code Ann. § 2.2-234 to 235 (2024)	“‘Environmental justice’ means the fair treatment and meaningful involvement of every person, regardless of race, color, national origin, income, faith, or disability, regarding the development, implementation, or enforcement of any environmental law, regulation, or policy” ⁴⁰	--Income --Race --Color --National origin --Faith --Disability

2. Energy Justice

As we have noted, a growing literature focuses specifically on how the infrastructure used to extract fuels for energy and use of fuels to produce electricity or other forms of energy can disproportionately impact certain groups of people. This literature also focuses on how the benefits of the energy sector, such as funds for “clean” (zero-carbon) energy or for energy efficiency (e.g., insulation and weatherization or low-energy-use appliances), do not always flow proportionately to disadvantaged communities. For the research described in this paper, we did not research all state efforts to address energy justice issues. Rather, we asked

³⁸ Overview, Illinois Commission on Environmental Justice; 415 Ill. Comp. Stat. Ann. §155/5 (legislative findings).

³⁹ *Supra* n.33.

⁴⁰ Va. Code Ann. § 2.2-234 (West 2025).

whether states specifically address energy issues *within* their definitions of environmental justice—whether those definitions were statewide, or specific to one state agency. We also explored whether states have independent definitions of “energy justice.”

Very few states incorporate energy expressly within their definitions of environmental justice or separately define “energy justice.” The many definitions of environmental justice that describe disproportionate impacts of polluting infrastructure, however, naturally incorporate energy, because a substantial percentage of polluting infrastructure is energy related, including, for example, fossil fuel-fired power plants, fossil fuel-fired compressors on natural gas pipelines, liquefied natural gas export terminals, and oil and gas well sites.⁴¹

A limited number of states incorporate energy as a component of their definition of an environmental justice (EJ) community or within their EJ screening and mapping tools that help to identify EJ communities. Illinois in its Illinois Power Agency Act defines environmental justice communities for purposes of identifying an “equity investment eligible community” as places where “residents have historically been subject to disproportionate burdens of pollution, including pollution from the energy sector.”⁴² Virginia defines “Permits of Concern” in EJ communities—permits that trigger heightened review of impacts and more participation requirements—as including new or modified fossil fuel-fired electricity generating facilities that can generate 500 megawatts or more of electricity, as well as fossil fuel-fired compressors on natural gas pipelines.⁴³

Other states provide special procedural or substantive requirements for specific types of energy projects within EJ communities. For example, Colorado attaches heightened procedural requirements, such as more public review and consultation and requirements for community engagement plans, to oil and gas facilities within disproportionately impacted communities or within a certain distance of specific types of buildings in these communities.⁴⁴ In Connecticut, applicants for power generating plants, electric and fuel transmission lines, and television and telecommunications towers in environmental justice

⁴¹ See, e.g., Curtis D. Davis, et al., *Community Health Impacts from Natural Gas Pipeline Compressor Stations*, 7 GeoHealth 1, 1-2, <https://doi.org/10.1029/2023GH000874> (2023) (compiling studies describing pollutants such as volatile organic compounds, nitrogen oxide compounds, and particular matter released from compressor stations); U.S. Env'tl. Prot. Agency, *Human Health & Environmental Impacts of the Electric Power Sector*, <https://www.epa.gov/power-sector/human-health-environmental-impacts-electric-power-sector> (last updated Feb. 6, 2025, visited Feb. 25, 2025) (“There are more than 3,400 fossil fuel-fired power plants in the U.S. Collectively, these power plants are the largest stationary source category of nitrogen oxides (NO_x) and sulfur dioxide (SO₂) emissions and a significant source of mercury (Hg) and fine particle emissions.”)

⁴² 220 Ill. Comp. Stat. Ann. 5/16-108.18(b) (West 2025).

⁴³ Commonwealth of Virginia, Virginia Dept. of Env'tl. Quality, Guidance Memo No. 23-XXXX-Environmental Justice in the Permitting Process (2023), <https://www.deq.virginia.gov/home/showpublisheddocument/17431/638144773847470000>.

⁴⁴ 2 Colo. Code Regs. §§ 404-1:403; 404-1:404 (West 2025).

communities must file assessments and public participation plans and consult with local governments.⁴⁵

Still other states channel state funds specifically to communities that have historically lacked access to energy benefits. Illinois defines “equity investment eligible communities”—geographic areas throughout Illinois that would most benefit from equitable investments by the State designed to combat discrimination—as those “where residents have historically been excluded from economic opportunities, including opportunities in the energy sector.”⁴⁶ In California, Senate Bill 525 and Assembly Bill 1550 require that at least 35 percent of the proceeds from California’s cap and trade program for greenhouse gas emissions—proceeds that go into the California Climate Investments fund—must be distributed to disadvantaged communities, low-income communities, or low-income households, referred to collectively as “priority” communities.⁴⁷ We describe “disadvantaged communities” in more detail below, but generally speaking, they are the communities that receive the highest scores under California’s EJ screening tool; those that have the highest “cumulative pollution burden scores” under that tool; those defined as disadvantaged prior to the use of the most recent version of the tool; and “areas under the control of federally recognized Tribes.”⁴⁸

Many of the greenhouse gas cap-and-trade auction proceeds distributed to priority communities in California support *energy investments* within those communities. These include, for example, funds for retrofits to buildings such as replacing fossil fuel appliances with electric appliances or installing more energy-efficient appliances; zero-emissions transportation measures; and the installation of solar photovoltaic panels and energy storage on the homes of low-income electricity customers.⁴⁹

Other states, too, designate some public funds to flow to energy projects in low-income or other communities identified as disadvantaged, such as Connecticut’s use of a System Benefit Charge (paid by electricity customers) to fund energy conservation for low-income

⁴⁵ Conn. Gen. Stat. § 22a-20a(b)(1) (2024).

⁴⁶ *Supra*, n.42.

⁴⁷ Cal. Climate Investments 2024 Annual Report at 6, https://ww2.arb.ca.gov/sites/default/files/auction-proceeds/cci_annual_report_2024.pdf; Cal. Climate Investments, *Priority Populations*, <https://www.caclimateinvestments.ca.gov/priority-populations> (accessed: Apr. 18, 2025).

⁴⁸ Cal. Env’tl. Prot. Agency, *Final Designation of Disadvantaged Communities Pursuant to Senate Bill 525*, https://calepa.ca.gov/wp-content/uploads/2022/05/Updated-Disadvantaged-Communities-Designation-DAC-May-2022-Eng.a.hp_-1.pdf.

⁴⁹ Cal. Climate Investments 2024, *supra* note 47; Cal. Climate Investments, *Self-Generation Incentive Program: Cal. Public Utility Comm’n*, <https://www.caclimateinvestments.ca.gov/sgip>; Cal. Climate Investments, *Equitable Building Decarbonization Program: Cal. Energy Comm’n*, <https://www.caclimateinvestments.ca.gov/equitable-building-decarbonization>.

customers, among other measures.⁵⁰ But we do not comprehensively evaluate or address these programs in this paper, as our focus is on states’ definitions of environmental justice and environmental justice communities, or on separate “energy justice” definitions, and how energy is expressly or innately covered by these definitions.

Because environmental justice centrally focuses on disproportionate distribution of benefits and burdens, the relevant groups of people on which impacts fall must be identified, as explored in the following section.

B. Drawing the Boundaries of Environmental Justice Communities: Impacts and People

This Part explores the factors used by states to define environmental justice or energy justice communities and the geographic boundaries of these communities. These factors are used either individually—one factor causes a community to be defined as an EJ community—or in combination, in which multiple factors must be met for a community to be defined as an EJ or energy justice community.

Defining EJ communities is important because EJ focuses primarily on *people* in specific areas. Environmental justice policies aim to identify and address the fact that historically, some groups of people, located in specific areas (as defined by neighborhood, postal service zip code, census tract, or other boundary) have experienced more negative externalities from infrastructure than other groups. These impacts take a variety of forms, from the physical division of communities by highways to pollution from industry. Environmental justice focuses on all of these impacts. Some environmental justice literature and policy also emphasizes the disproportionately *low* amount of beneficial infrastructure or services in some types of communities, such as access to clean water, public transportation, or safe sidewalks and streets.

Energy justice focuses on disproportionate burdens to groups of people caused specifically by energy infrastructure and its operation. Energy infrastructure facilities such as fossil fuel pipelines and processing facilities, electric transmission lines, and electricity generating plants dominate energy justice analysis. As with environmental justice, the energy justice literature also emphasizes that some communities are historically *devoid* of or have disproportionately low access to energy benefits, such as the benefits that flow from the

⁵⁰ Mary Fitzpatrick, Office of Legislative Research, *Public Policy Components of Electric Bills* 3 (2024), <https://www.cga.ct.gov/2024/rpt/pdf/2024-R-0132.pdf>.

installation of solar panels on businesses and homes and the income from the excess electricity generated by those panels.⁵¹

1. Defining EJ Areas

Given that environmental and energy justice policy focuses on disproportionate burdens and access to benefits, it makes sense that some states define environmental or energy justice communities using infrastructure and pollution-based data, as well as demographic data. In this part, we explore states' definitions of environmental justice *areas*—the places in which heightened procedures are required before certain infrastructure is built, where substantive protections (such as community benefits agreements) must be implemented, or simply where states hope that developers of infrastructure will more deeply consider potential negative (or positive) impacts. Additionally, these are sometimes the areas for which public expenditures on projects such as low-carbon energy are prioritized.

At the outset, it is important to understand that many states have several layers of definitions of “environmental justice.” In many cases, states have a general definition of environmental justice. Then, some states have a specific textual definition of “environmental justice area” or “environmental justice community,” as set out in a regulation or statute. To specifically identify these areas or communities, states then often deploy *screening* tools. As shown in Table 3, a large number of states rely on the EJScreen tool previously provided by the federal Environmental Protection Agency—a tool that the EPA under the Trump administration removed from the EPA website.⁵² State screening tools either include all of the specific components of the statutory or regulatory definition of “environmental justice” area, or they have more detailed and voluminous criteria to more specifically identify where environmental justice communities are located. Finally, states run the screening tool to highlight the specific environmental justice communities on a map.

Table 2 summarizes the many layers involved in defining and mapping EJ communities, using Colorado as an example

⁵¹ Shalanda H. Baker & Andrew Kinde, *The Pathway to a Green New Deal: Synthesizing Transdisciplinary Literatures and Activist Frameworks to Achieve a Just Energy Transition*, 44 ENV'T L. & POL'Y J. 1, 25 (2020); Shelley Welton & Joel Eisen, *Clean Energy Justice: Charting an Emerging Agenda*, 43 HARV. ENV'T L. REV. 307 (2019); Nadia Ahmad, Uma Outka, Danielle Stokes, and Hannah Wiseman, *Synthesizing Energy Transitions*, 39 Ga. St. U. L. Rev. 1087 (2023); Siddharth Sareen & Håvard Haarstad, *Bridging socio-technical and justice aspects of sustainable energy transitions*, 228 APPLIED ENERGY 624 (2018).

⁵² Environmental Data & Governance Initiative, *EPA Removes EJScreen from its Website* (Feb. 12, 2025)<https://envirodatagov.org/epa-removes-ejscreen-from-its-website/> (accessed: Apr. 18, 2025).

Table 2. Defining EJ communities: Colorado example

General definition of environmental justice (EJ)	“All people have a right to breathe clean air, drink clean water, participate freely in decisions that affect their environment, live free of dangerous levels of toxic pollution, experience equal protection of environmental policies, and share the benefits of a prosperous and vibrant pollution-free economy.” ⁵³
General definition of EJ community (sometimes alternatively called “disadvantaged communities” or EJ areas)	“Disproportionately impacted community”—census block group (most recent U.S. census), where proportion of: 1) households below two hundred percent of federal poverty level , or 2) population that identifies as people of color is over 40 percent, OR 3) proportion of linguistically isolated population is over 20 percent, OR 4) proportion of households that spend more than 30% on housing exceeds 50 percent. Alternatively, a community identified by a state agency based on a history of environmental racism or “ socioeconomic stressors, disproportionate environmental burdens, vulnerability to environmental degradation, and lack of public participation ” may cumulatively affect health and the environment and contribute to disparities. Alternatively, community is a mobile home park or is “located on the Southern Ute or Ute Mountain Ute Indian reservation.” ⁵⁴
Screening tool that identifies specific factors that, combined, indicate an EJ community	Colorado EnviroScreen: Environmental exposures (such as air toxic emissions, diesel emissions, lead exposure risk, noise), environmental effects (such as polluted (impaired) streams and rivers), hazardous waste facilities, mining locations, hazardous waste sites, oil and gas development, climate vulnerability (such as drought, extreme heat days, floodplains, wildfire risk), sensitive populations (such as asthma hospitalization rate, cancer prevalence, diabetes prevalence, heart disease in adults), demographics (housing cost burdened, percent disability, percent less than high school education, percent linguistic isolation, percent low income, percent people of color). ⁵⁵
Map based on screening tool results	Data provided per census tract. See https://teeo-cdphe.shinyapps.io/COEnviroScreen_English/#map

⁵³ Environmental Justice Act, 2021 Colorado Sess. Laws Ch. 411 (H.B. 21-1266), § 2

⁵⁴ Colo. Rev. Stat. § 24-4-109 (2024).

⁵⁵ Colorado EnviroScreen, Colorado EnviroScreen Environmental Justice Mapping Tool (May 2023), https://teeo-cdphe.shinyapps.io/COEnviroScreen_English/#map (accessed: Apr. 18, 2025).

The factors used to define and map EJ communities in various states are grouped beneath two major themes, including: 1) data directly showing burdens from energy infrastructure and other infrastructure, such as levels of pollution or undesirable infrastructure in or near the community, and/or 2) demographic data, such as the ethnicity, race, or income of residents. Many states define and map EJ communities based on actual pollution, the presence of polluting infrastructure, *and* demographics.

Defining environmental or energy justice communities based on both actual environmental burdens and effects and demographic data also makes sense because low-income, minority residents may be disproportionately harmed by polluting and otherwise undesirable infrastructure for overlapping reasons. For example, they may have inadequate access to healthcare and other services, fewer resources to mitigate harms (such as air filters to reduce indoor pollution, or fences as visual buffers), and less of an ability to relocate.

With respect to defining EJ communities based on the characteristics of residents within communities, at least twenty-four states define environmental justice (EJ) communities based on the percentage of low-income residents above a specific threshold within a community, or simply including “low-income communities” within the definition of EJ community.⁵⁶ At least twenty-five states (some of which overlap with those that include “low-income” within the definition of EJ communities) define EJ communities as those with a minimum percentage of minority residents, or simply communities defined as “communities of color.”⁵⁷ With respect to definition of EJ communities based on environmental impacts, at least fifteen states incorporate into their definitions of environmental justice communities exposure to disproportionate environmental impacts and/or high pollution levels.⁵⁸ At least fourteen states consider a community to be an environmental justice community based on either demographics or environmental impacts.⁵⁹

California’s approach to identifying environmental justice communities is indicative of many other states’ approaches, which include both environmental burdens and effects *and* the demographic information—the characteristics of people in communities. These

⁵⁶ These states include: Arizona, California, Connecticut, the District of Columbia, Hawaii, Illinois, Kentucky, Maryland, Michigan, Minnesota, Mississippi, Nevada, New Hampshire, New York, North Carolina, Oregon, Pennsylvania, South Carolina, South Dakota, Utah, Vermont, Virginia, Washington, and West Virginia.

⁵⁷ These states include: Arizona, California, Connecticut, the District of Columbia, Hawaii, Illinois, Kentucky, Maryland, Michigan, Minnesota, Mississippi, Nevada, New Hampshire, New Jersey, New York, North Carolina, Oregon, Pennsylvania, South Carolina, South Dakota, Utah, Vermont, Virginia, Washington, West Virginia

⁵⁸ These states include: Arizona, California, Colorado, the District of Columbia, Illinois, Kentucky, Mississippi, Nevada, New York, North Carolina, Oregon, Pennsylvania, Vermont, Washington, and West Virginia.

⁵⁹ These states include: Arizona, California, the District of Columbia, Illinois, Kentucky, Mississippi, Nevada, New York, North Carolina, Oregon, Pennsylvania, Vermont, Washington, and West Virginia.

characteristics typically include income and employment, health indicators such as asthma and heart disease, and sometimes race.

Through its CalEnviroScreen tool, California defines environmental justice communities as those communities “disproportionately burdened by multiple sources of pollution.”⁶⁰ The indicators used to identify EJ communities include the concentrations of a variety of air pollutants in the air, including contaminants from diesel vehicles on highways; “drinking water contaminants”; lead risk posed to children from older housing; “[u]se of certain high-hazard, high-volatility pesticides”; and “[t]raffic impacts.”⁶¹ CalEnviroScreen also identifies EJ communities based on the environmental effects that they experience—“[t]oxic clean up sites,” “groundwater threats from leaking underground storage sites and cleanups,” “[h]azardous waste facilities and generators,” polluted (“impaired”) water bodies, and “[s]olid waste sites and facilities.”⁶²

Beyond identifying EJ areas by the pollution and environmental effects they encounter, California also considers the presence of sensitive populations and socioeconomic factors to identify EJ communities most impacted by pollution and environmental effects, as explored in the following section.

2. Environmental Justice Screening

Many states that have defined specific areas as environmental or energy justice communities have tools—often called “screens”—that either define environmental or energy justice areas or add more nuanced criteria for identifying environmental justice areas defined more generally by regulation or statute.

Sometimes these screens align directly with a statutory or regulatory definition of environmental justice or energy justice community. For example, if the definition is demographic (such as communities with populations above a threshold percentage of low-income, elderly, or minority residents), the screening tool includes demographic factors.

In many states, the factors included within the state’s screening tool for the identification of EJ communities serve as the factors that actually define EJ communities, and these communities are defined differently—using different “scores” from the screening tool—depending on the state program being administered. For example, California has a statute defining environmental justice generally but not defining environmental justice

⁶⁰ Cal Envntl. Protection Agency, Environmental Justice Program, <https://calepa.ca.gov/envjustice/> (accessed: Apr. 18, 2025).

⁶¹ CalEnviroScreen 4.0 at 18-19 (2021), <https://oehha.ca.gov/media/downloads/calenviroscreen/report/calenviroscreen40reportf2021.pdf>.

⁶² *Id.* at 19.

communities.⁶³ To define environmental justice communities for different purposes, California has an environmental justice screening tool (CalEnviroScreen—introduced in part II.B.1.) that maps communities impacted by pollution and includes demographic characteristics of communities to identify socioeconomically disadvantaged areas. The state then uses this screen to identify different communities under grant programs and review of development impacts. “Disadvantaged communities” are areas in California that are in the top 25% of scores from the EnviroScreen tool, and where the state channels proceeds from a greenhouse gas auction.⁶⁴ The state also uses the screening tool to guide funds under the Agency’s Environmental Justice Small Grant Program—using a different definition and scores than those used for disadvantaged communities.⁶⁵

Screening tools sometimes also add additional nuance to states’ formal regulatory or statutory definitions of energy or environmental justice communities. In Virginia, the legislature through the Virginia Environmental Justice Act defines “environmental justice community” broadly as “any low-income community or community of color.”⁶⁶ The legislature then specifically defines “low-income community” as “any census block group in which 30 percent or more of the population is composed of people with low income.”⁶⁷ “Low income,” in turn, means the following:

[H]aving an annual household income equal to or less than the greater of (i) an amount equal to 80 percent of the median income of the area in which the household is located, as reported by the Department of Housing and Urban Development, and (ii) 200 percent of the Federal Poverty Level.⁶⁸

Virginia defines “population of color” as “a population of individuals who identify as belonging to one or more of the following groups: Black, African American, Asian, Pacific Islander, Native American, other non-white race, mixed race, Hispanic, Latino, or

⁶³ Cal. Gov’t Code § 65040.12.

⁶⁴ State of California OEHA, SB 525 *Disadvantaged Communities*, <https://oehha.ca.gov/calenviroscreen/sb535> (accessed Apr. 18, 2025).

⁶⁵ Cf. Memorandum from Arsenio Y. Matake, Cal. Env’tl. Protection Agency, to Cumulative Impacts and Precautionary Approaches Group 3 (Jan. 3, 2013), <https://oehha.ca.gov/sites/default/files/media/downloads/calenviroscreen/document/calenviroscreenguidancememo010313.pdf> (describing how “CalEnviroScreen will also be useful in the administration of the Agency’s Environmental Justice Small Grant Program, and may guide other grant programs as well as environmental educational and community programs throughout the state.”); Matthew Rodriguez, Cal. Env’tl. Protection Agency, California Communities Environmental Health Screening Tool, Version 2.0 (Oct. 2014), <https://oehha.ca.gov/sites/default/files/media/downloads/calenviroscreen/document/ces20finalreportupdateoct2014.pdf>.

⁶⁶ Va. Code Ann. § 2.2-234 (West 2025).

⁶⁷ *Id.*

⁶⁸ *Id.*

linguistically isolated.”⁶⁹ Virginia’s Department of Environmental Quality then uses Virginia EJScreen+ to match “Environmental Justice-related data” to specific areas within Virginia.⁷⁰ This screening tool includes numerous data layers, including, for example, low income communities “30% or more of population under HUD 80%” annual median income “and under two times federal poverty level”; communities of color with population more than the statewide average of 37.8%; air emissions, biosolids; specific types of infrastructure such as nursing homes, child care centers, and public and private schools; Superfund (polluted) sites; coal combustion residual waste permits; municipal solid waste permits; and generators of hazardous waste (small or large) as defined by the federal Resource Conservation and Recovery Act.⁷¹

Just as Virginia’s EJ screening tool provides data and helps to map EJ areas in ways far more detailed than the state’s formal definitions of EJ communities, Pennsylvania’s Environmental Justice Mapping and Screening Tool (PennEnviroScreen) allows the DEP to “more accurately” identify Pennsylvania’s EJ communities “using more than 30 environmental, health, and socioeconomic indicators.”⁷²

Other states have screening tools and associated maps that identify specific impacts within different communities, but not based on a full suite of indicators for environmental justice. For example, Arizona has an “AZ Counties Demographic and Environmental Dashboard” that allows people to map characteristics within counties such as percentage of “households below the federal poverty threshold,” “race/ethnicity,” “monthly unemployment rate” and environmental factors such as air quality (specific to different air pollutants), sites contaminated with hazardous pollutants (Superfund sites), number of leaking underground storage tank sites, drinking water contaminants exceeding federal limits, and generators of large quantities of hazardous waste.⁷³ Kansas’s Department of Health and the Environment has a similar “Kansas Environmental Interest Finder” that maps toxic releases, leaking underground storage tanks, waste water, contaminated sites, spills, landfills, and dry

⁶⁹ *Id.*

⁷⁰ Virginia EJScreen+ Overview, Virginia Department of Environmental Quality, <https://geohub-vadeq.hub.arcgis.com/pages/v-a-e-j-screen> (accessed: Apr. 18, 2025).

⁷¹ DEQ VA EJScreen+, <https://vadeq.maps.arcgis.com/apps/webappviewer/index.html?id=bad3e23c0d6545a1b6b36c1a45e8ed43> (accessed: Apr. 18, 2025).

⁷² Commonwealth of Pa., Office of Env’tl. Justice, *PA Environmental Justice Areas*, <https://pa.gov/agencies/dep/public-participation/office-of-environmental-justice/pa-environmental-justice-areas.html> (accessed: Apr. 18, 2025).

⁷³ AZ Counties Demographic and Environmental Dashboard (select “DEQ Data” and “Demographics”) tabs, <https://adeq.maps.arcgis.com/apps/MapSeries/index.html?appid=cc0da69679c74b8ca25125c15651805a> (accessed: Apr. 18, 2025).

cleaners for two different location-based units: legal description of specific property, or county-wide levels.⁷⁴

3. Mapping Approaches

An important consideration in defining environmental justice communities based on environmental burdens, demographics, or both—and in further defining these communities through screening tools—is the *boundaries* used for mapping these communities. For example, if a screening tool lists high levels of pollution, a specific amount of environmentally impactful infrastructure (e.g., landfills or leaking storage tanks), and numbers of people with health conditions that exacerbate the effects of pollution (e.g., asthma and heart conditions), one must determine the area in which these effects are found. One acre of land might have a high number of polluting industries and many people with sensitive health conditions, but if one looked more broadly—at 1,000 acres, for example—the concentration of pollution and sensitive people would appear lower.

Many states use census tract areas as the spatial unit in which they measure how many effects and what types of people are present in an EJ community. Others, such as Colorado, produce separate maps for higher and lower scores in counties, census tracts, and census blocks.⁷⁵ Census blocks are generally small areas surrounded by visible boundaries, such as streets or streams, and/or invisible boundaries, such as property lines or municipal boundaries.⁷⁶ In densely populated areas, census blocks can be as small as a city block; in areas with lower population density, they may cover hundreds of square miles.⁷⁷ Census blocks nest inside of other geographic census entities such as census tracts.⁷⁸ Larger than census blocks, census tracts are small units that generally cover an area with population between 1,200 and 8,000.⁷⁹ They are intended to remain relatively stable over time to allow for meaningful comparisons among data from different censuses.⁸⁰

Even for the many states that do not provide procedural or substantive protections within EJ communities, EJ maps—and maps generally identifying population characteristics and environmental burdens—have meaningful impact. Anyone planning a project within these communities will be alerted to the fact that the project could have disproportionate benefits, or costs, due to the fact that the community has historically high levels of pollution or

⁷⁴ KDHE Environmental Interest Finder, <https://maps.kdhe.ks.gov/keif/> (accessed: Apr. 18, 2025).

⁷⁵ Colorado EnviroScreen Environmental Justice Mapping Tool, Colorado EnviroScreen, May 2023, https://teeo-cdphe.shinyapps.io/COEnviroScreen_English/ (accessed: Apr. 18, 2025).

⁷⁶ United States Census Bureau, *Glossary*, <https://www.census.gov/programs-surveys/geography/about/glossary.html> (accessed: March 17, 2025).

⁷⁷ *Id.*

⁷⁸ *Id.*

⁷⁹ *Id.*

⁸⁰ *Id.*

environmentally impactful infrastructure (such as hazardous waste sites) and sensitive populations.

III. Requirements for Actions in Environmental Justice Communities

As introduced in Part I, the definition of an EJ or energy justice community matters for many reasons. Identifying a community as an EJ or energy justice community can lead to enhanced procedural or substantive measures. Procedurally, specific types of projects within these communities can trigger requirements for more robust and earlier notice, more robust and larger quantities of public participation, and more review of the impacts of the projects. Substantively, designation as an EJ or energy justice community can cause communities to receive benefits, such as proceeds from auctions of pollution allowances, grants, loans, or other incentives, or can discourage the development of projects at specific locations.

In other cases, states' definitions of and references to environmental justice are primarily aspirational and are not backed by statutory or regulatory enforcement requirements. For example, Kentucky's Energy and Environment Cabinet defines and describes environmental justice but does not change requirements for process or actions within environmental justice communities; nor does Kentucky delineate the boundaries of EJ communities. Kentucky does, however, provide informational links that may support communities wishing to engage in the public processes associated with Kentucky's permitting of industrial projects, such as environmental data and the federal Toxic Release Inventory.⁸¹

A. Procedural Requirements

States incorporate procedural requirements for projects in EJ communities in several ways. Some states require more detailed review of the impacts of projects proposed in EJ communities. Some states also or alternatively require enhanced notice and/or public participation for projects proposed in environmental justice communities. These procedural requirements, by requiring heightened review of impacts and/or more public participation, among other measures, may cause developers of projects in EJ communities, and agencies reviewing these projects, to change substantive aspects of the project.

1. Enhanced Review of Impacts

Virginia is a primary example of a state that requires agencies approving projects in EJ communities to more closely review the impacts of these projects. As the Virginia Department of Environmental Quality explains in draft guidance issued in 2023:

⁸¹ Environmental Justice, Team Kentucky Energy and Environment Cabinet, <https://eec.ky.gov/Pages/Environmental-Justice.aspx> (accessed: Apr. 18, 2025).

While all permits issued by DEQ are required to meet applicable state and federal standards for public involvement and the protection of human health and the environment, permits of concern proposed in these areas will undergo an additional potential disproportionate impact evaluation. The evaluation is a screening tool for identifying potential impacts based on air modeling, proximity to impaired waters or existing landfills.⁸²

The “potential disproportionate impact evaluation” investigates whether an EJ community will experience a “disproportionate share of any negative environmental consequence” and requires “fair treatment” of these communities if disproportionate impacts are identified.⁸³

2. Public Participation

Projects in environmental justice communities are often subject to requirements that give the public more opportunity to participate, including enhanced notice of proposed projects and avenues for public input regarding those projects.

Several states either perform or require project developers to perform an environmental justice assessment at the outset of a project to determine whether the proposed project is sited in an environmental justice community.⁸⁴ For projects determined to be located in an environmental justice community (called an overburdened community under state law), New Jersey and Ohio require developers of certain projects to prepare an environmental justice impact document that assesses environmental and public health effects of the proposed project.⁸⁵ In Connecticut, applicants for an environmental or siting permit for a project in an environmental justice community must consult with town officials to assess the need for a community environmental benefits agreement.⁸⁶ Pennsylvania and Illinois ensure that “plain language” summaries of project applications are made available to the

⁸² Commonwealth of Virginia, *supra* n.43.

⁸³ *Id.* at 5.

⁸⁴ See, e.g., Colorado Dep’t of Health & Env’t, *Environmental Justice in Air Permitting*, <https://cdphe.colorado.gov/environmental-justice-in-air-permitting> (accessed: Feb. 12, 2025).

⁸⁵ N.J. Admin. Code §§ 7:1C-3.1 – 7:1C-3.4; Ohio Dep’t of Transportation Office of Environmental Services, *Environmental Justice Guidance* (Jan. 2023), https://www.transportation.ohio.gov/wps/wcm/connect/gov/e72aeb44-df52-4791-a74c-fce47c6bec24/ODOT+Environmental+Justice+Guidance+January+2023+-+Clean+Version.pdf?MOD=AJPERES&CONVERT_TO=url&CACHEID=ROOTWORKSPACE.Z18_K9I401S01H7F40QBNJU3SO1F56-e72aeb44-df52-4791-a74c-fce47c6bec24-oqDWs2p.

⁸⁶ Conn. Gen Stat. § 22a-20a(b)(1).

public.⁸⁷ Other states, including North Carolina, allow for the state environmental justice office to review the project and establish recommendations for public notice.⁸⁸

Enhanced public participation is another common mechanism for providing additional process for environmental justice communities. Connecticut and Pennsylvania require the development of a public participation plan for projects located in an environmental justice community.⁸⁹ In Illinois and North Carolina, a state environmental justice office evaluates the needs of the community and makes recommendations for appropriate mechanisms for public participation.⁹⁰ Pennsylvania officials hold a public meeting with the affected community.⁹¹ For any “permits of concern” regarding projects located in environmental justice communities in Virginia, state officials are supposed to reach out to community contacts to gauge their concern over the project.⁹²

In a more detailed example of enhanced public participation requirements, for “permits of concern” (air pollution, water pollution, and landfill projects), Virginia specifically requires “meaningful involvement” of EJ communities in the permitting process. This involvement includes “additional outreach” beyond the outreach that the Department of Environmental Quality typically offers, including, for example, “[i]nformational meetings, listening sessions, walking or driving tours, working sessions, site visits, [and] ongoing communication.”⁹³ Virginia’s DEQ also includes the need to “[i]ncorporate accessibility options in public meetings and hearings, monitor public comments and work with technical staff to provide timely responses” in its requirement for meaningful involvement.⁹⁴

Some states single out certain types of development for extra process. As noted above, Virginia, under draft guidelines, has enhanced procedural requirements for “permits of concern,” which include, for air pollution, constructing or modifying new major sources of air pollution as defined by the federal Clean Air Act, constructing new fossil fuel-fired power plants with the capacity to generate 500 megawatts or more of electricity, or constructing or

⁸⁷ Illinois Environmental Protection Agency, *Enhanced Public Participation Plan*, <https://epa.illinois.gov/topics/environmental-justice/ejppp/enhanced-public-participation-plan.html> (accessed Feb. 13, 2025); Pa. Dep’t of Env’tl Prot. Env’tl Justice Office, *Environmental Justice Policy* (Doc. No. 015-0501-002) (Sept. 16, 2023), <https://greenport.pa.gov/elibrary//GetDocument?docId=5600403&DocName=ENVIRONMENTAL%20JUSTICE%20POLICY.PDF> (accessed: Feb. 13, 2025).

⁸⁸ North Carolina Dep’t of Env’tl Quality, *Public Participation Plan* at 8-9 (Aug. 2023), <https://www.deq.nc.gov/ej/deq-public-participation-plan-2023-update/download?attachment>.

⁸⁹ Conn. Gen. Stat. § 22a-20a(b)(1)(A); Pa. Dep’t of Env’tl. Prot. Env’tl. Justice Office, *supra* n.87.

⁹⁰ Illinois Environmental Protection Agency, *supra* n.87; North Carolina Dep’t of Env’tl Quality, *supra* n. 88, at 8-9.

⁹¹ Pa. Dep’t of Env’tl. Prot. Env’tl. Justice Office, *supra* n.87, at 10.

⁹² Commonwealth of Virginia, *supra* note 43, at 6.

⁹³ Commonwealth of Virginia, *supra* note 43, at 7.

⁹⁴ *Id.*

modifying a new major fossil fuel-fired compressor station for a natural gas pipeline.⁹⁵ For water pollution and use, permits of concern include permits for “new or expanded” major discharges of water pollution as defined by the Virginia pollution discharge elimination system, or impacts to wetlands or streams above specific unit measurements; groundwater withdrawal permits more than 1 million gallons per day or expansions of existing permits; or new or expanded surface water withdrawals.⁹⁶ Finally, permits of concern for land include new or expanded/modified solid waste landfills; hazardous waste treatment, storage, or disposal facilities, or materials recovery or transfer station facilities.⁹⁷

In Colorado, oil and gas developers must provide information about whether proposed oil and gas facilities are within a disproportionately impacted community or within a certain distance of facilities within disproportionately impacted communities, such as child care facilities, schools, residential buildings, and high-occupancy buildings.⁹⁸ Depending on their proximity to disproportionately impacted communities or buildings within these communities, oil and gas developers must consider impacts to the disproportionately impacted community in their cumulative impacts analysis and also develop an engagement and outreach plan for the community.⁹⁹ Arizona requires an individual permit for any process that involves combustion, including biomass boilers, regardless of whether the process is located in environmental justice communities.¹⁰⁰ These individual permits are subject to site-specific analysis, which can result in longer processing times.¹⁰¹

Under Pennsylvania’s Environmental Justice Policy, the Commonwealth’s Department of Environmental Protection will provide “enhanced public participation” in addition to the minimum legal requirements established by law for all projects.¹⁰² Enhanced public participation may include assistance like additional outreach or enhanced technical or consulting outreach to assist with comment development.¹⁰³ The enhanced public participation requirements automatically apply to certain projects, known as “Trigger Projects,” which are projects of a type “that have traditionally led to significant public concern due to potential impacts to the environment, human health, and communities” and

⁹⁵ Commonwealth of Virginia, *supra* note 43, at 6.

⁹⁶ *Id.*

⁹⁷ *Id.*

⁹⁸ 2 Colo. Code Regs. § 404-1-304(b)(2)(B)(x) (West 2025).

⁹⁹ 2 Colo. Code Regs. §§ 404-1-304(c)(19), 314(e)(10)(G) (West 2025).

¹⁰⁰ Arizona Dep’t of Env’tl Quality, *Permits: Renewable Energy Projects*, archived on Sept. 11, 2024 at <https://web.archive.org/web/20240911140224/https://legacy.azdeq.gov/function/permits/renew.html> (accessed: Apr. 18, 2025).

¹⁰¹ *Id.*

¹⁰² Pa. Dep’t of Env’tl. Prot. Env’tl. Justice Office, *supra* n.87, at 2.

¹⁰³ *Id.*

that have an area of concern that touches an environmental justice community.¹⁰⁴ The Department of Environmental Protection may use its discretion to additionally apply the enhanced public participation requirements to “Opt-in Projects” that have “community concerns, present or anticipated environmental impacts, or reasonably anticipated significant adverse community environmental burden” even if those projects do not satisfy the criteria for a Trigger Project.¹⁰⁵

B. Substantive Requirements

Beyond requiring heightened review of and/or enhanced public participation for specific types of projects—and typically specific types of projects within EJ communities—some states require or encourage different *outcomes* for projects within EJ communities. We call these “substantive” requirements or voluntary measures, meaning that they can lead to different results within these communities. These outcomes can include, for example, avoiding the placement of disproportionately more polluting infrastructure within EJ communities, or channeling more state funds to these communities for specific purposes, such as pollution clean-up or access to lower-pollution, affordable energy. We identified few examples of substantive limitations on projects within EJ communities.

In one example, California provides guidelines to local governments to address environmental justice issues within their general plans that guide the regulation of land use within cities and counties that have EJ areas. Among other provisions, California requires these cities and counties to avoid “overconcentrating” industrial facilities that pose “a significant hazard to human health and safety” near “schools or residential dwellings” and avoiding the placement of new schools and residential dwellings near these hazardous facilities.¹⁰⁶ California also requires that at least 35 percent of the proceeds from sales of greenhouse gas cap-and-trade permits go to “priority populations,” which include disadvantaged communities under CalEnviroScreen and other census tracts identified as low-income or low-income households.¹⁰⁷

Table 3 provides examples of the types of procedural and substantive actions that state agencies and/or individuals and firms taking actions in EJ communities must follow.

¹⁰⁴ *Id.* at 4.

¹⁰⁵ *Id.* at 3.

¹⁰⁶ Cal. Govt. Code § 65040.12(d).

¹⁰⁷ Cal. Climate Investments & Cal. Air Resources Bd., *Funding Guidelines: Funding Guidelines for Agencies that Administer California Climate Investments* 10, 73-76 (Dec. 2, 2024), <https://ww2.arb.ca.gov/sites/default/files/auction-proceeds/2024-CCIFundingGuidelines-FINAL.pdf>.

Table 3. Examples of state requirements for processes and substantive actions within EJ communities

State	Citation	Sample requirements
Procedural (specific processes required or encouraged in EJ communities)		
Colorado	Colo. Rev. Stat. Ann. § 24-4-109 (West 2024)	<p>All state agencies “shall strive to create new ways to gather input from communities across the state, using multiple languages and multiple formats and transparently sharing information about adverse environmental effects from its proposed state action.”</p> <p>For oil and gas facilities within disproportionately impacted communities or within a specific distance of buildings within these communities such as day care centers, high occupancy buildings units, residential buildings, and school facilities, procedural requirements such as community engagement plans and public comment periods.¹⁰⁸</p>
Illinois	Ill. Env'tl. Prot. Agency, <i>Environmental Justice Policy</i> (Oct. 2021), https://epa.illinois.gov/topics/environmental-justice/ej-policy.html (accessed: March 20, 2025)	<p>“Upon receiving a permit application, the permit reviewer will check the EJ Start mapping tool to determine if the site is in an area of EJ concern. If it is, they will submit a review request through the Illinois EPA EJ Tracking system to be reviewed by the EJ staff. EJ staff then determines whether to draft an EJ notification letter, which is the first step in conducting enhanced public outreach. The decision whether to draft an EJ notification letter is based on the type of facility, nature of the permit transaction, past interest in the facility, and any other relevant factors.”</p>
North Carolina	N. Car. Dep't of Env'tl. Quality, <i>Public Participation Plan</i> (Aug. 2023), https://www.deq.nc.gov/ej/deq-public-participation-plan-2023-update/download?attachment (accessed: March 20, 2025).	<p>“In a Final EJ Report, staff continues to assess the potential impact the proposed construction and operation of the facility under review has on the surrounding communities, considers any relevant comments received during the public comment period, and provides advice to the regulatory technical staff as they prepare the Hearing Officer's Report or other materials accompanying the Agency's decision. The Final EJ Report will also include a description of any enhanced engagement that was performed to communicate about the proposed facility to the surrounding community.”</p>
Pennsylvania	Pa. Dep't of Env'tl. Prot. Env'tl. Justice Office, <i>Environmental Justice Policy</i> (Doc. No. 015-0501-002) (Sept. 16, 2023), https://greenport.pa.gov/elibrary//GetDocument?docId=56004	<p>“Once DEP has determined a Trigger or designated Opt-In Project permit application is complete, a public participation strategy should be developed by DEP's OEJ and appropriate regional or district office programs, Regional Communications Managers, and Local Government Liaisons.”</p> <p>“As early as possible in the development of a project, DEP strongly encourages project representatives to meet with community stakeholders prior to developing and submitting applications to DEP.”¹⁰⁹</p>

¹⁰⁸ 2 Colo. Code Regs. §§ 404-1-304(c)(19), 314(e)(10)(G) (West 2025).

¹⁰⁹ Pa. Dep't of Env'tl. Prot. Env'tl. Justice Office, *supra* n.87.

	03&DocName=ENVIRONMENTAL%20JUSTICE%20POLICY.PDF (accessed: Feb. 13, 2025).	
Virginia	Commonwealth of Virginia, Virginia Dept. of Env'tl. Quality, Guidance Memo No. 23-XXXX-Environmental Justice in the Permitting Process (2023), https://www.deq.virginia.gov/home/showpublisheddocument/17431/638144773847470000 .	"In consultation with the appropriate Regional Directors, Division Directors, Program Managers, permit staff and Communications Office, the OEJ Coordinators will reach out to their community contacts to gauge interest in proposed permits of concern in [the manner outlined in the Guidance]." ¹¹⁰
Substantive (specific results required or encouraged)		
California	Cal. Gov't Code § 65040.12(e)	Office of Land Use and Climate Innovation serves as state coordinating agency for environmental justice programs, provides "guidelines for addressing environmental justice matters in city and county general plans," including, e.g., "equitable distribution of new public facilities" and avoiding locating schools and residences near industrial facilities hazardous to human health and safety. ¹¹¹ At least 35 percent of proceeds from greenhouse gas cap-and-trade permits to disadvantaged communities under CalEnviro Screen, low-income communities, or low-income households. ¹¹²
Procedural and substantive		
Connecticut	Conn. Gen. Stat. § 22a-20a(a)(1) (2024)	<u>Procedural</u> : Applicants to build "affecting facilities" (energy infrastructure, wastewater treatment, disposal, and large air emission facilities in environmental justice areas) must hold informal public hearings. <u>Substantive</u> : In communities with five or more affecting facilities, applicant must enter into a community environmental benefits agreements or consult regarding the need for this agreement. ¹¹³
Virginia	Virginia Department of Environmental Quality Draft Guidance	<u>Procedural</u> : For "permits of concern" in EJ communities, "meaningful involvement" such as "informational meetings, listening sessions, walking and driving tours, working sessions, site visits, ongoing communication."

¹¹⁰ Commonwealth of Virginia, *supra* n.43.

¹¹¹ Cal. Govt. Code § 65040.12(d); State of Cal., Governor's Office of Planning and Research, *General Plan Guidelines Chapter 4: Required Elements*, https://lci.ca.gov/docs/20200706-GPG_Chapter_4_EJ.pdf.

¹¹² *Supra* n.47.

¹¹³ Kristen Miller, Ct. Offc. of Leg. Research, *Connecticut's Environmental Justice Law* (2020), <https://www.cga.ct.gov/2020/rpt/pdf/2020-R-0286.pdf>; Conn. Gen. Stats. Ann. §22a-20a.

		<p><u>Substantive:</u> As part of the “fair treatment” requirement, “DEQ will actively engage permit applicants to voluntarily take additional measures to minimize or mitigate any potential disproportionate share of impacts from the proposed permit action to the fullest extent possible.”¹¹⁴</p>
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To implement procedural and substantive EJ requirements and to further define and formalize EJ, several states have environmental justice commissions tasked with improving many state agencies’ approaches to environmental justice. Table 4 summarizes some of the charges of these commissions.

Table 4. Sample state environmental justice commissions and selected responsibilities

Commission	Selected commission responsibilities
<p>Illinois Commission on Environmental Justice</p> <p>415 Ill. Comp. Stat. Ann. § 155/10</p>	<p>--Advise state government agencies on EJ issues</p> <p>--Review and analyze the impact of state laws on EJ communities; assess whether state and local laws adequately address EJ community issues; recommend to Governor options for addressing issues</p> <p>--Develop criteria to establish communities experiencing EJ issues</p>
<p>Maryland Commission on Environmental Justice and Sustainable Communities</p> <p>Md. Code Ann., Envir. §§ 1-701, 1-702 (LexisNexis 2024)</p>	<p>--Host community listening sessions</p> <p>--Advise state government agencies on EJ issues</p> <p>--Review and analyze the impact of state and local laws, permits, etc. on EJ communities</p> <p>--Coordinate with other commissions on children’s health, minority health, and climate change on EJ</p> <p>--Coordinate with Maryland Department of the Environment to:</p> <ol style="list-style-type: none"> 1) Adopt a methodology for identifying communities disproportionately affected by climate change; 2) Develop strategies to address geographic impacts, reduce greenhouse gas and other pollution emissions, and build “climate equity and resilience” in disproportionately affected communities; and 3) Determine percentage of funding for greenhouse gas emissions reduction that should flow to disproportionately affected communities

¹¹⁴ Commonwealth of Virginia, *supra* n.43, at 7.

IV. Synthesis and Conclusions

This research confirms the scope of state recognition and incorporation of environmental justice, as a concept and aspiration, is inclusive of at least 34 states.¹¹⁵ Notably, environmental justice is incorporated into state legal frameworks in multiple ways and spanning the political spectrum, consistent with the way environmental justice was recognized at the federal level across presidential administrations, despite political transitions, for more than three decades.

Our research did not show explicit attention to energy sector infrastructure and pollution, as distinct from other sources of potential environmental harms in EJ communities, to be widespread among the states reviewed. This suggests that the recent focus on energy justice as a distinct area of emphasis has done more to highlight energy sector issues than to change the contours of environmental justice as defined to date. We interpret this finding to show that energy justice concerns for community-scale *environmental* impacts of the energy sector have always been central to the primary concept of environmental justice. Longstanding energy sector sources of air and water pollution, such as coal-fired power plants—the dominant source of electricity in the U.S. into the 2010s—have long been among the significant sources of environmental harm motivating attention at the state and federal levels to disproportionate impacts at the local level.¹¹⁶

In contrast, aspects of energy justice that expand conceptually beyond traditional environmental justice definitions are being addressed (to the extent they are) in ways distinct from environmental justice.¹¹⁷ For example, the issue of household energy burden—an energy justice issue disproportionately affecting low-income households—implicates public utility commissions as regulatory authorities setting retail rates for residential consumers.¹¹⁸ Although we did not include PUCs’ energy justice work within the review procedure for this research, we highlight this adjacent regulatory sphere for energy justice

¹¹⁵ See, *supra*, n.8.

¹¹⁶ See U.S. Energy info. Admin., *Net generation, United States, all sectors, monthly*, <https://www.eia.gov/electricity/data/browser/> (accessed: Apr. 18, 2025) (showing coal generation dropping below other electricity sources for the first time around 2013).

¹¹⁷ Energy justice has particularly emphasized procedural elements, such as participating in decisionmaking processes that empower people to choose the type of energy sources available within a community. It has also emphasized the importance of enabling people with historically disproportionate burdens to participate in energy projects and take ownership of them, through, for example, co-operative structures or distributed energy ownership. Shalanda Baker, *Revolutionary Power: An Activist’s Guide to the Energy Transition* (2021).

¹¹⁸ See, e.g., Jasmine McAdams, Nat’l Ass’n of Regulatory Utility Commissioners, *State Energy Justice Roundtable: Energy Justice Metrics*, <https://pubs.naruc.org/pub/2BD402A3-1866-DAAC-99FB-446FA2E021B9> (2023) (see p. 4 for map showing growing priority of energy justice in energy policy at the state level); Nat’l Conf. of State Legislatures, *Report: Energy Justice and the Energy Transition*, <https://www.ncsl.org/energy/energy-justice-and-the-energy-transition> (May 2022) (highlighting energy affordability and energy burden as issues, among others, implicating energy justice).

recognition that is distinct from integrated energy-environmental justice focused on polluting industries.

The research shows that for many states that address environmental justice, the language is informational and aspirational, designed to support informed decision-making on a range of topics, inclusive of the energy sector. As Section II, described, the research shows how states that employ environmental justice mapping systems, whether the EPA-created EJScreen or an adapted or alternative state version, can assess the community-scale context for existing and proposed energy sector facilities. The research underscores the close federal-state linkages created by common environmental justice definitions and tools, as states have frequently incorporated or minimally revised the federal EPA definition and made use of EJScreen, directly or to inform a state developed mapping system.

A smaller subset of states has crafted procedural and substantive requirements for environmental justice. Within these, as described in Section III, we identified several states with procedural and substantive requirements specifically tailored to energy sector project/permit approvals. Triggers for such requirements include facility size threshold, type, and/or local context (e.g., concentration of facilities).

Future areas of research suggested by this project include:

- **Siting and participation related to energy infrastructure decisions in utility commission proceedings.** A hybrid area of regulation connecting PUCs or related state authorities with traditional conceptions of environmental justice is energy infrastructure approval, including siting at the state and/or local level, depending on the state. Further research on the extent to which PUCs are integrating energy-environmental justice concerns into their oversight role, where it includes siting review, would be a worthwhile complement to this project.
- **Community-scale impacts of energy projects in state permitting.** Permitting by state environmental agencies typically follows approval of energy infrastructure. Further research comparing approaches different state agencies take when they take energy-environmental justice concerns into account (if they do), looking with closer detail at specific types of permits (e.g., air pollution control permits, water discharge permits) would add nuance to the understanding of state law trends and areas of focus beyond what this research could reveal.
- **Reliance on state executive implementation.** Many state environmental justice statutes rely on the state executive branch—agencies under the leadership of the governor—to carry out the purpose of the statutes. Research focusing on state EJ implementation could detail what appear to be expansions and reductions of EJ activity as state executive leadership changes.

- **Conceptions of energy-environmental justice in relation to fossil versus renewable energy infrastructure.** Recent congressional approaches to infrastructure policy, such as in the Infrastructure Investment and Jobs Act and the Inflation Reduction Act, tended to assume that clean energy infrastructure would be perceived as a benefit in economically disadvantaged communities. Further research could help determine the extent to which host community views of clean energy projects and polluting energy facilities diverge or align.