

# Defining Environmental Justice

## What it Means for Energy Communities

by Madeleine J. Lewis



The Infrastructure Investment and Jobs Act (IIJA) and Inflation Reduction Act (IRA) have energized ambitions to transform the United States' energy grid, placing the federal government at the helm of the transition away from carbon-intensive fossil fuel sources toward sources such as nuclear, hydrogen, wind, and solar. The Biden Administration's vision for the new energy economy contemplates not only an all-of-the-above approach to clean energy deployment, but also an all-hands-on-deck approach to environmental justice and equity. Within days of taking office, on January 27, 2021, President Biden issued Executive Order 14008, "Tackling the Climate Crisis at Home and Abroad," signaling his Administration's vision for a new status quo in which historically marginalized and disadvantaged communities will benefit from the new energy economy in terms of economic, social, and environmental gains.

Since the passage of the IRA in August 2022, the Department of Energy has begun to chip away at the IRA's nearly \$400 billion allocation for clean energy projects, awarding billions of dollars to both private and public entities to promote the development of clean energy across the United States. Along with opportunity, however, these investments have brought forth significant interpretive challenges related to how this funding will achieve "environmental justice" for "disadvantaged communities." Both terms evade easy definition. "Environmental justice," for instance, simultaneously embodies a movement, a legal principle, a community descriptor, and a sociological concept, cutting across nuanced constructs of race, ethnicity, gender, age, community, and geography. The meaning of environmental justice and disadvantage varies by context and circumstance. As a leading scholar in environmental justice, quipped in a recent article, quoting Justice Potter Stewart from a different context, "when it comes to environmental justice—or rather, environmental *injustice*—you know it when you see it." Barry E. Hill, *Environmental Justice and the Transition from Fossil Fuels to Renewable Energy*, 53 ENVTL. L. REP. 10317 (2023).

As is often the case with complex problems, there is no one-size-fits-all solution to define, measure, and understand environmental justice. This is particularly the case for the large number of states that have not passed environmental justice legislation, leaving the increasing number of practitioners confronted with the issue without meaningful guidance. But what happens when a problem that defies definition still demands a starting point? Such is the case with the federal government's effort to align the clean energy transition with environmental justice and equity within a single framework. The existing toolkit for mobilizing environmental justice at the federal level, through programs such as the Justice40 Initiative, demonstrate a landmark executive commitment to environmental justice and may be effective in rectifying historic injustices in the energy industry. Yet, we may require a completely different set of tools to address future challenges that arise from the energy transition itself, particularly in communities with historic dependence on fossil fuels that stand to potentially lose the most in the energy transition.

### LOOKING BACK: ENVIRONMENTAL JUSTICE IN FEDERAL AGENCIES

The origin of the modern environmental justice movement is generally traced to North Carolina, when in 1982 a siting proposal for a hazardous waste facility galvanized protests. The state had designated Warren County—a rural, economically depressed, and predominantly African-American community—as the unwilling host of a landfill for soil contaminated with polychlorinated biphenyls (PCBs). The controversy generated nationwide attention, prompting more than 500 arrests (including a sitting member of Congress) and the subsequent formation of activist coalitions across the United States. Warren County lodged federal and state claims against North Carolina and the U.S. Environmental Protection Agency (EPA) to prevent the landfill, challenging the adequacy of the environmental impact statement under the National Environmental Policy

Act (NEPA), as well as asserting claims for public nuisance and violations of the Toxic Substances Control Act of 1976. *Warren County v. North Carolina*, No. 79-560-CIV-5 (528 F. Supp. 276, 16 ERC 2047) (E.D.N.C. November 5, 1981). Finding the county lacked standing under most of its claims, and dismissing other claims on various bases, the landfill pushed forward.

Although efforts to prevent the landfill were unsuccessful, the Warren County protests succeeded in another mission in laying the groundwork for modern conceptions of environmental justice. In 1987, the United Church of Christ released the first study of its kind, publicizing that three out of every five African Americans and Hispanics lived in proximity to toxic waste sites, and that race was the most significant factor in siting hazardous waste facilities. In 1992, on the heels of growing awareness and public outcry, President George H.W. Bush called for the creation of an Environmental Equity Working Group led by EPA. EPA Office of Legacy Management, *Environmental Justice History*.

In 1994, President Bill Clinton issued the first piece of watershed guidance on environmental justice via Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority and Low-Income Populations." The core objective of Executive Order 12898 was to focus federal attention on the impacts of federal actions on low-income and minority populations with an ambitious goal of achieving environmental protection for all communities. The order directed all federal agencies to identify and address the disproportionately high and adverse human health or environmental effects of their actions on minority and low-income populations, develop a strategy for implementing environmental justice, and promote nondiscrimination, access to information, and participatory opportunities in federal programs that affect human health and the environment. The mandates of Executive Order 12898 apply not only to environmentally focused entities such as DOE and EPA, but to all federal agencies, regardless of subject matter.

Executive Order 12898 has weathered multiple administrations, albeit with fluctuating levels of commitment in its implementation. But remarkably, forty years after Warren County, there remains no federal statutory authority for implementing environmental justice. It's not for lack of effort. Over 50 environmental justice-related bills have been introduced in the U.S. Legislature since 1992—many of them by the late civil rights icon, Representative John Lewis. See Hill, *supra*. Instead, for the past three decades, a sequence of executive orders building on E.O. 12898 has largely steered federal policy in the domain of environmental justice, with a reawakened interest in federal environmental justice policy under the Biden Administration. Executive Order 14008 is the most significant guidance under the Administration, largely due to its introduction of the Justice40 Initiative, which directs that 40% of the "overall benefits" from covered federal funding programs "flow to disadvantaged communities."

## THE VISION: DEFINING ENVIRONMENTAL JUSTICE

While you won't find definitions of "environmental justice" or "disadvantaged community" in Black's Law Dictionary—much less all-encompassing ones—the U.S. Environmental Protection Agency (EPA) has adopted a definition commonly referred to in practice and in the language of other agencies, including DOE. EPA and DOE define 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."

EPA's definition—though imperfect in many respects—generally tracks with two widely accepted principles of environmental justice: fair treatment and meaningful involvement. Fair treatment, sometimes called "distributive justice," means that no population should bear a disproportionate share of negative environmental consequences resulting from industrial, municipal, and commercial operations or from the execution of federal, state, and local laws, regulations, and policies. On the other hand, "meaningful involvement" refers to procedural or participatory justice. Namely, this is the idea that all people have effective access to decision makers, as well as the ability in all communities to make informed decisions and take positive actions to produce environmental justice for themselves.

Critics of EPA's widely used framework have called attention to deficiencies including EPA's focus on "all people," rather than on the specific groups that have experienced historic marginalization from federal

decision-making, including people of color and indigenous populations specifically. Clifford J. Villa, *Remaking Environmental Justice*, 66 LOY. L. REV. 469, 478–80 (2020). In addition to shrouding the reality that federal policies have disenfranchised specific groups of people more than others, other problems arise from a framework of environmental justice that is arguably over-encompassing. Such a framework loses nuance, and may cause unintended results when applied to communities that may have an entirely different set of equity concerns.

## THE CHALLENGE: ENVIRONMENTAL JUSTICE IN ENERGY COMMUNITIES

From the clean energy transition has emerged a new playing field in equity: the energy community. Broadly, the term “energy community” refers to a community that hosts a high number of coal, oil, or natural gas operations, which may be highly dependent on these industries for jobs and revenue. As fossil fuels are increasingly displaced by less carbon intensive forms of energy such as wind, solar, nuclear, and hydrogen, energy communities are projected to experience significant economic vulnerability. According to the U.S. Energy Information Administration, U.S. coal-fired generation capacity is projected to decline sharply by 2030—possibly by up to fifty percent. *Annual Energy Outlook 2023*, U.S. Energy Information Administration (2023). In communities that depend on these industries, a decline of traditional fossil fuels at the predicted scale represents not only huge losses in generally well-paying jobs, but could also translate to cuts in mineral tax revenue that supports vital social services from Medicare and Medicaid to public schools.

Energy communities present an interesting challenge within existing frameworks of environmental justice. Although energy communities will be increasingly vulnerable to significant economic and social hardships in coming decades, the majority of communities may not signal any kind of present economic disadvantage. The demographic composition of these communities is also distinct, generally mirroring U.S. demographics, but leaning heavily white in the case of closure communities. And, unlike the Warren Counties of the United States’ environmental legacy that have been subject to unwanted infrastructure, a large cross-section of energy communities engaged in coal and fossil fuel extraction perceive themselves as having reaped huge net benefits under the reign of those industries. Ben Cahill and Sandeep Pai, *Working toward a Just Transition for Coal Communities*, CENTER FOR STRATEGIC & INTERNATIONAL STUDIES (2021); Sam Mardell & Jeremy Richardson, *Supporting Coal Workers and Communities in the Energy Transition*, RMI (2022).

## CHALLENGES FOR INCORPORATING ENVIRONMENTAL JUSTICE IN ENERGY COMMUNITIES

Tracing its roots back to Warren County, the environmental justice movement arose upon sentiments that certain types of industrial-scale infrastructure are harmful to communities. This is often the case. In response, the federal government has developed mechanisms and safeguards that—in theory—facilitate community participation in siting decisions and allow for a consideration of equities when a facility is unwanted. Today, however, a growing number communities are faced with a countertextual set of concerns. Energy operators and community members in this author’s home state of Wyoming, for instance, have asked: how can you make an environmental justice in *favor* of your community hosting a large-scale industrial project?

Under the Justice40 Initiative, applicants for covered IRA funding must engage in an environmental justice analysis that 1) identifies disadvantaged communities and 2) explains how disadvantaged communities will benefit from the project. In general, recipients of covered federal funding must also develop a community engagement and community benefit plan, with recommendations from agencies such as DOE that project developers enter into formal agreements with affected communities to ensure they receive adequate benefits from the project. Proving compliance with Justice40’s mandate that disadvantaged communities receive 40% of the benefits from covered funding will also require the project developer to implement mechanisms to measure the flow of “benefits.”

The tools for identifying “disadvantaged communities” for purposes of Justice40 are the same tools designed to flag environmental justice concerns in project development across the United States. As part of their community benefit planning, applicants must utilize a growing list of geographic and demographic data tools

to assess a project's potential to generate environmental justice concerns. In response to the ongoing edicts of Executive Order 12898 that federal agencies "collect, maintain and analyze information assessing and comparing environmental and human health risks borne by populations identified by race, national origin or income," EPA has developed over the last decades a mapping tool designed to create a nationally consistent method for identifying "environmental justice communities" across the United States. In 2015, EPA publicly launched "EJScreen", an electronic GIS-based screening tool that provides users with the ability to visualize and analyze regional environmental and demographic information. EJScreen registers twelve environmental indicators including community proximity or exposure to particulate matter; ozone; diesel particulate matter; air toxins cancer risk and respiratory hazards; vehicle traffic proximity; lead paint; risk management plan areas for chemical facilities; hazardous waste; superfund sites; underground storage tanks; and wastewater discharge. Relying on U.S. Census data, EJScreen's demographic indices also incorporate seven socioeconomic indicators, including the percentage of a population that is people of color; low-income; unemployed; limited English-speaking; less than high-school educated; under age five; and over age 64. (U.S. EPA 2023).

So, how does EJScreen work in practice? Developers of a carbon capture facility, for instance, may be asked to conduct a geospatial analysis through EJScreen to identify socioeconomically disadvantaged communities within a project area, which may be negatively affected by the project, or that stand to benefit from it through decarbonization of the local atmosphere or via business and job growth. The applicant should emerge from this process with a firm idea of whether the project raises environmental justice concerns for a particular community. While a nice idea in theory, this analysis can produce misleading or confusing results. Since it first launched, it has at times been unclear whether the tool was intended to definitively identify so-called "environmental justice communities," or simply be used as an aid in analyzing regional demographics. In recent years, EPA has trended toward the latter, using EJScreen only as a "preliminary step when considering environmental justice in certain situations." <https://www.epa.gov/ejscreen/how-does-epa-use-ejscreen>.

Under EPA's screening approach—now adopted in corollary forms by the White House Council on Environmental Quality (the Climate & Economic Justice Screening Tool) and DOE (the Energy Justice Dashboard (BETA)), it is not entirely clear whether the presence of socioeconomically disadvantaged groups in a given project area will tip the scale in favor or against the siting of a proposed facility for purposes of Justice40, particularly in energy communities. The analysis sometimes becomes an exercise in cognitive dissonance: is the creation of the facility itself a benefit for groups who may soon become disadvantaged due to the *absence* of another type of energy facility? If the host community is presently stable due to coal revenue, should workforce development efforts be directed to currently disadvantaged populations who reside outside of the host community? Is our classification of "disadvantaged" communities subject to change throughout the lifetime of the project?

Other potential problems with tools such as EJScreen stem from both the geographic and temporal parameters of the data relied upon in the screening process. From a geographical perspective, delineating communities by census tract is unlikely to produce particularly meaningful results due to the large size of census tracts in communities with low population densities. As census tracts often encompass entire counties in rural areas, demographic and socioeconomic data may be generalizations for a relatively large region, rather than the vicinity of the actual project. Temporally, EJScreen's reliance on historic population data may also obscure emerging economic vulnerabilities in energy communities. While experts can say with certainty that planned coal plant and mine closures will wreak economic havoc on coal-dependent communities, they don't yet qualify as disadvantaged by screening metrics.

The IRA's definition of "energy communities" reinforces the confusion as to how energy communities will be prioritized in the transformation of the United States' energy portfolio. Recognizing that coal and fossil fuel energy communities may be exposed to growing vulnerability with the roll-out of a national clean energy portfolio, the IRA directed the creation of a tax credit bonus specific to energy communities, offering clean energy projects sited in "energy communities" a 10% bonus credit on top of base production and investment tax credits applicable to certain technologies, such as hydrogen production and carbon capture and storage. While this provision seems to be a win for energy communities, it falls short by apparently incentivizing development only in communities that are *already* in decline. For purposes of this credit, the IRA defines energy communities as those having "0.17 percent or greater direct employment or at least 25 percent of local

tax revenues [are] related to extraction, processing, transport, or storage of coal, oil, or natural gas," and where unemployment for the previous year is at or above the national average. Thus, for communities with planned coal closures, tax credit incentives may not go into effect until job losses are already underway, rather than addressing the issue proactively. As an analysis by the World Resources Institute points out, fluctuations in unemployment rates also make it unclear whether an energy community will retain that designation if its unemployment rate falls below the national average. Rajat Shrestha, Sujata Rajpurohit and Devashree Saha, *Redefining America's 'Energy Communities' Can Boost Clean Energy Investment Where It's Needed Most*, WORLD RESOURCES INSTITUTE (2023).

For energy communities, the effectiveness of the energy community tax credit bonus could also be diluted by the IRA's inclusion of "brownfield sites" within its definition of energy communities. According to EPA, a brownfield site is "a property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant." EPA, *Overview of EPA's Brownfields Program*. Brownfield sites can result from energy-associated activities, but not always. For example, around 15 brownfield sites have been identified in Ann Arbor, Michigan—a city with no energy development of note. See Daniel Raimi & Sophie Pesek, *What is an Energy Community?*, RESOURCES (2022). Across Wyoming, on the other hand, the vast majority of brownfield sites appear to be former junkyards, abandoned buildings due to asbestos contamination, and military disposal sites, among other miscellaneous histories. EPA, *Cleanups in My Community Map* (search of Wyoming). Though brownfield redevelopment can result in significant environmental and economic benefit to surrounding communities, including brownfield redevelopment in the energy community tax credit bonus could keep direct investment away from "true" energy communities.

## CONCLUSION

In many ways, the evolution of environmental justice in the United States has led to a presumption that large-scale, industrial infrastructure will constitute a burden rather than a benefit. This is a safe starting point in communities that have historically lacked a voice in the siting process, experienced adverse health or environmental impacts from industrial facilities, or that accrued no real economic benefit from certain developments (such as a hazardous waste landfill). On the other hand, in this author's home state of Wyoming (the entirety of which is considered an energy community), environmental justice concerns have arisen around the possibility that new infrastructure might *not* be sited here. Communities are not only clamoring to save their existing coal infrastructure, perhaps through carbon capture retrofits, but they also require opportunities to repurpose existing infrastructure and workforce skills in a diversified energy economy. In bidding for new clean energy facilities, however, Wyoming communities have struggled to communicate within operative environmental justice frameworks that large-scale energy projects would actually *serve* equity. Wyoming's experience may not be unique, generating questions as to the role of other energy communities in the clean energy transition and our sociolegal capacity to address disadvantage proactively.

New developments in federal policy, including but not limited to the Justice40 Initiative, signal movement toward improvements and clarifications in how we identify and prevent environmental injustices. Yet, we may be due for a foundational update and new frameworks to shape our understanding of justice and equity in new energy landscapes that invoke a new generation of cultural and environmental considerations specific to the energy transition.

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