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Fairness in the Low-Carbon Shift: Learning from Environmental Justice

Uma Outka

Fairness in the Low-Carbon Shift

LEARNING FROM ENVIRONMENTAL JUSTICE

Uma Outka†

INTRODUCTION

The environmental justice movement in the United States forged a pivotal connection among concerns for social justice, civil rights, and environmental protection. At a time when the federal environmental statutes enacted in the early 1970s were beginning to mature, the movement drew critical attention to the disproportionate environmental harm borne by low-income communities and communities of color. The movement forced environmentalists to reflect on their biases and their commitments—to recognize that urban or degraded landscapes where people live are as much a part of our environment as the remote wilderness of our national parks. It made plain that our laws, designed to protect human health and the environment, were letting environmental justice communities down.[1]

Today, as climate change drives a shift in the energy sector away from fossil fuels and toward low-carbon resources, calls for "energy justice" and "climate justice" expand the movement's conceptual reach in the modern context. These justice concerns respond to inequality in the distribution of

† Associate Professor, University of Kansas School of Law. The author is grateful to Dean Mazza for his support, and for helpful comments following presentations of this work in early form at the Duke Law School Race and Reform Conference and the Brooklyn Law School Trager Symposium, especially from Professor Gregg Macey. The author is also grateful to the Commons at the University of Kansas for an interdisciplinary starter grant that funded a symposium held at KU—"Finding Justice in the Low-Carbon Shift"—which greatly informed this work. Contact: uoutka@ku.edu.

[1] The term "environmental justice communities" is generally understood to mean "low-income communities and[/or] communities of color." *See, e.g.*, *Mission and Vision*, CAL. ENVTL. JUSTICE ALL., http://caleja.org/about-us/vision-and-history/ [https://perma.cc/D76J-B7SA]. EPA defines 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," *Environmental Justice*, EPA, https://www.epa.gov/environmentaljustice [https://perma.cc/Z8PD-UQ8Q] (last updated Apr. 10, 2017), but as the discussion *infra* Part II explains, this is narrower than EJ advocates' definition.

environmental harms, as well as access to the environmental, economic, and social benefits associated with the energy sector and climate policy.[2] The link between climate change, energy, and environmental justice is unmistakable: the energy sector contributes to climate change more than any other industry; climate change is predicted to affect environmental justice communities most; and the energy sector has a long history with environmental injustice. In the United States and around the globe, the energy sector is the primary source of greenhouse gas emissions, causing atmospheric temperatures to rise.[3] The electric power industry alone is responsible for 30% of total U.S. greenhouse gasses (GHGs), due mostly to overreliance on coal, which releases carbon dioxide when burned.[4] Historically, the United States has contributed more to climate change than any other country and it remains the second highest annual emitter today, behind only China.[5] The low-carbon transition is underway in the United States and other parts of the world, but it is still early in the trajectory, and there is a pressing need for it to be rapid and dramatic.[6] The world reaffirmed this premise by

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[2] These terms are context specific, conceptually broad, and yet connect closely through their origin in the environmental justice concept. *See, e.g.*, Michael B. Gerrard, *What Does Environmental Justice Mean in an Era of Global Climate Change?*, 19 J. ENVTL. & SUSTAINABILITY L. 278 (2013) (considering how climate change is expanding areas of relevance for the concept of environmental justice); BENJAMIN K. SOVACOOL ET AL., ENERGY SECURITY, EQUALITY, AND JUSTICE 23–29 (2014) (understanding "energy justice" in terms of "the distribution of energy services as a social good" and "how the harms of energy production and use are allocated," including but not limited to "environmental harms *per se*").

[3] The energy sector is generally understood to include electricity—which relies on coal, natural gas, nuclear power, and renewable resources to power industrial, commercial, and residential users, as well as transportation, which relies almost entirely on oil. *Use of Energy in the United States Explained*, U.S. ENERGY INFO. ADMIN., http://www.eia.gov/energyexplained/index.cfm?page=us_energy_use [https://perma.cc/D3NV-J9ED].

[4] *Sources of Greenhouse Gas Emissions*, EPA, https://www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions [https://perma.cc/EYT6-FHLJ] (citing EPA, INVENTORY OF U.S. GREENHOUSE GAS EMISSIONS AND SINKS: 1990–2014 (2016), https://www.epa.gov/sites/production/files/2016-04/documents/us-ghg-inventory-2016-main-text.pdf [https://perma.cc/G53C-586X]).

[5] *See Each Country's Share of CO2 Emissions*, UNION OF CONCERNED SCIENTISTS, http://www.ucsusa.org/global_warming/science_and_impacts/science/each-countrys-share-of-co2.html#.V_QGsTKZPdR [https://perma.cc/A3PD-LLWW] (citing U.S. Energy Information Administration data); *see also* Mengpin Ge et al., *6 Graphs Explain the World's Top 10 Emitters*, WORLD RES. INST. (Nov. 25, 2014), http://www.wri.org/blog/2014/11/6-graphs-explain-world's-top-10-emitter [https://perma.cc/XW9C-EQLS].

[6] *See generally* INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE (IPCC), CLIMATE CHANGE 2014 IMPACTS, ADAPTATION, AND VULNERABILITY (2014), https://www.ipcc.ch/report/ar5/wg2/ [https://perma.cc/6ULV-BEBH] (detailing present and anticipated effects of climate change on human experience); WORLD BANK, TURN DOWN THE HEAT: WHY A 4°C WARMER WORLD MUST BE AVOIDED (2012), http://documents.worldbank.org/curated/en/865571468149107611/pdf/NonAsciiFileName0.pdf [https://perma.cc/SRZ4-C54G] (summarizing scientific literature and outlining why immediate policy responses are critical to avoiding climate change impacts).

international agreement in December 2015, when the Conference of the Parties to the United Nations Convention on Climate Change signed the Paris Agreement, recommitting to the original treaty's shared goal of "stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system."[7]

The impacts of climate change—from extreme weather, to air quality impacts, to vector-born diseases—are widely expected to be most severe for those with the fewest resources to adapt.[8] A key message from the Third National Climate Assessment is that the adaptive capacity and vulnerability of a community is "influenced by pronounced social inequalities that reflect age, ethnicity, gender, income, health, and (dis)ability differences."[9] For indigenous peoples in the United States, the Assessment anticipates climate change impacts will be "especially severe" because they will exacerbate "persistent social and economic problems."[10] A special assessment on health impacts explains that although "all Americans are at risk, some populations are disproportionately vulnerable, including those with low income[s], some communities of color, immigrant groups (including those with limited English proficiency), Indigenous peoples, children and pregnant women, older adults, vulnerable occupational groups, persons with disabilities, and persons with preexisting or chronic medical conditions."[11] Globally, these risks have occupied international negotiators grappling with how to ensure those who contributed least to climate change—and are typically most

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[7] United Nations Framework Convention on Climate Change art. 2, May 9, 1992, S. Treaty. Doc. No. 102-38, 1771 U.N.T.S. 107.

[8] *See generally* U.S. GLOB. CHANGE RESEARCH PROGRAM, THE IMPACTS OF CLIMATE CHANGE ON HUMAN HEALTH IN THE UNITED STATES: A SCIENTIFIC ASSESSMENT (2016), https://s3.amazonaws.com/climatehealth2016/low/ClimateHealth2016_FullReport_small.pdf [https://perma.cc/AAS7-K5JD] (addressing health impacts and vulnerabilities); CARMEN GONZALEZ ET AL., CTR. FOR PROGRESSIVE REFORM, CLIMATE CHANGE, RESILIENCE, AND FAIRNESS: HOW NONSTRUCTURAL ADAPTATION CAN PROTECT AND EMPOWER SOCIALLY VULNERABLE COMMUNITIES ON THE GULF COAST (2016), http://progressivereform.org/articles/Climate_Change_Resilience_Gulf_Coast_1603.pdf [https://perma.cc/5W4G-9Y3Q]; RACHEL MORELLO-FROSCH ET AL., THE CLIMATE GAP: INEQUALITIES IN HOW CLIMATE CHANGE HURTS AMERICANS & HOW TO CLOSE THE GAP (2009), https://dornsife.usc.edu/assets/sites/242/docs/The_Climate_Gap_Full_Report_FINAL.pdf [https://perma.cc/6HZL-RN3U] (addressing the "climate gap" caused by inequality).

[9] U.S. GLOB. CHANGE RESEARCH PROGRAM, CLIMATE CHANGE IMPACTS IN THE UNITED STATES: THE THIRD NATIONAL CLIMATE ASSESSMENT 288 (Jerry M. Melillo et al. eds., 2014), http://s3.amazonaws.com/nca2014/low/NCA3_Climate_Change_Impacts_in_the_United%20States_LowRes.pdf [https://perma.cc/CSM9-GV6Q].

[10] *Id.* at 298.

[11] U.S. GLOB. CHANGE RESEARCH PROGRAM, *supra* note 8, at 2.

vulnerable to its harmful effects—receive support and funding for climate adaptation efforts.[12]

Around the world and in the United States, energy resource extraction and production has been marked by conflicts and harms affecting environmental justice communities. The U.S. petroleum industry has been charged with devastating environmental harms and human rights abuses in Africa and South America.[13] In the United States, coal-fired power plants and petroleum refineries along the Gulf Coast provide examples of the long-standing connection between environmental justice and the fossil fuel-based energy sector. For example, a recent NAACP study reports that people living within three miles of a coal plant have a lower per capita income than the U.S. average, and among those "39 percent are people of color—a figure that is higher than the 36 percent proportion of people of color in the total U.S. population."[14] Coal plants built in urban areas, the study found, "tend to be disproportionately located in . . . communities of color."[15] Coal ash disposal in these areas has likewise led to water and soil contamination, implicating environmental justice concerns.[16]

With these linkages in mind, this article advances two related claims in connection with the low-carbon shift in the United States. The first is that environmental justice can and should inform the transition's trajectory *early* to achieve robust integration of the movement's core principles with legal and physical infrastructures for a low-carbon energy sector. These principles include the right to a clean and safe environment, antidiscrimination, self-determination, equal participation in decision making, and equal access to resources.[17] Environmental

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[12] *See generally Climate Finance*, UN FRAMEWORK CONVENTION ON CLIMATE CHANGE, http://unfccc.int/cooperation_and_support/financial_mechanism/items/2807.php [https://perma.cc/H2MY-TRRG] (providing overview of mechanisms within the treaty for assisting developing country Parties to implement the Convention and acknowledging these Parties are "less endowed and more vulnerable").

[13] *See*, *e.g.*, Ava Azad, *Remedies for Foreign Citizens Subjected to Outsourced Pollution: A Case Study of American Big Oil in the Ecuadorian Amazon*, 9 FLA. A & M U. L. REV. 277 (2014).

[14] NAACP, COAL BLOODED: PUTTING PROFITS BEFORE PEOPLE 15, http://www.naacp.org/wp-content/uploads/2016/04/CoalBlooded.pdf [https://perma.cc/K6QK-ETPD].

[15] *Id.*

[16] *See, e.g.*, Brian Bienkowski, *Spotlight Hits Coal Ash Impact on Poor and Minority Communities*, ENVTL. HEALTH NEWS (Jan. 14, 2016), http://www.environmentalhealthnews.org/ehs/news/2016/jan/coal-ash-environmental-justice-epa-civil-rights [https://perma.cc/7K9L-9YCB].

[17] *See The Principles of Environmental Justice*, ENVTL. JUSTICE LEADERSHIP FORUM ON CLIMATE CHANGE, http://www.ejleadershipforum.org/the-principals-of-environmental-justice/ [https://perma.cc/G4LM-EAMU]. These principles were adapted by the First National People of Color Environmental Leadership Summit in 1991. The Environmental Justice Leadership Forum has also crafted a set of principles that

justice, with its achievements and disappointments, is instructive as critique, as ideal, and as practical guidance for emerging law and policy. Conceived broadly, in the energy sector, it speaks to the distribution of energy-related environmental harms as well as the environmental and economic benefits associated with the shift away from fossil fuel dominance.

Second, there is a unique and time-sensitive context for justice concerns in the energy transition; change is happening quickly and discordant notions of fairness are competing for validation in the energy policy space. Throughout its development, for example, the Obama administration's Clean Power Plan, now stayed by the Supreme Court, faced critiques from environmental justice groups, alongside lawsuits from coal companies, both sounding in fairness.[18] How fairness questions resolve across this transitional landscape may solidify assumptions and conceptual frames with long-lasting effects.

In this context, a key question becomes: Can the modern movement engage this early transitional moment to build environmental justice, conceived broadly, into the structure of a low-carbon energy sector? A corollary question, just as important, asks: What does the movement teach about the risks of not doing so?

This article responds to these questions, but also emphasizes they are questions that need to be asked repeatedly as the energy sector evolves and in as many micro-contexts as possible. The tenor of transition dialogue across the electric power industry is notably different from what it was just two or three years ago. There is widespread recognition, including among utilities, that low-carbon policy drivers are here to stay. There are many moving parts in this dynamic policy environment—political, technical, economic, environmental, social—that will affect the pace and extent of the energy sector's transformation with federal, state, regional, and local components. Returning to environmental justice in the energy reform discourse again and again—spanning these multiple contexts and governance scales—can help ensure that mistakes, oversights, and missed opportunities are not replicated in emerging regimes.

This article proceeds in three parts. Part I situates environmental justice in modern environmental law. As this part explains, the environmental justice movement has

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translate environmental justice into the climate change context. *See EJ Forum Principles of Climate Justice*, ENVTL. JUSTICE LEADERSHIP FORUM ON CLIMATE CHANGE (July 28, 2015), http://www.ejleadershipforum.org/ej-forum-principles-of-climate-change/ [https://perma.cc/SW6F-9JER].

[18] The Clean Power Plan is discussed *infra* Parts II, III.

succeeded in making justice a central concern in a wide range of formal environmental law settings, yet structural barriers persist that continue to undercut the goal of eliminating disproportionate environmental harm in low-income communities and communities of color. Part II addresses the low-carbon shift that is roiling the electric power industry and the fairness narratives competing for precedence as the industry finds itself forced to evolve. The cautionary observation by Peter Newell, writing on international energy policy, rings equally true for the United States, when he notes, "the day to day governance of energy is largely determined by producer or consumer (purchasing and bargaining) power where questions of justice and equitable access and distribution are easily marginalised in the context of market transactions."[19] Combining the force of this "day to day governance" with increasing industry appeals to fairness, there is reason to worry that industry perspectives will overshadow environmental justice goals. Part III highlights ways in which environmental justice is already informing the low-carbon transition and considers how structural integration of environmental justice in emerging regimes might begin to be achieved.

I. ENVIRONMENTAL JUSTICE IN MODERN ENVIRONMENTAL LAW

The arc of the environmental justice movement, from its emergence in the early 1980s to today, highlights both achievements and frustrations that can inform justice goals for energy transition.[20] The movement's important work solidified environmental justice (EJ) as an integral consideration and objective of the federal government, especially in the administration of federal environmental law.

EJ advocates made their first federal inroads when they convinced the George H. W. Bush administration to establish an Environmental Equity Working Group in 1990. Two years later, the administration formed the Office of Environmental Equity (now the Office of Environmental Justice) within the

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[19] PETER NEWELL ET AL., U.N. DEV. PROGRAMME, PURSUING CLEAN ENERGY EQUITABLY 5 (2011), https://www.uea.ac.uk/documents/439774/5802284/10.+Newell+et+al_HDR+2011+Research+Paper.pdf/82787b7a-966b-43cb-9922-e28f15de691d [https://perma.cc/YG7M-NLXE].

[20] For accounts of the movement's development, see for example, THE QUEST FOR ENVIRONMENTAL JUSTICE: HUMAN RIGHTS AND THE POLITICS OF POLLUTION 19–21 (Robert D. Bullard ed., 2005); LUKE W. COLE & SHEILA R. FOSTER, FROM THE GROUND UP: ENVIRONMENTAL RACISM AND THE RISE OF THE ENVIRONMENTAL JUSTICE MOVEMENT (2001); Bunyan Bryant, *History and Issues of the Environmental Justice Movement*, *in* OUR BACKYARD: A QUEST FOR ENVIRONMENTAL JUSTICE 3 (Gerald R. Visgilio & Diana M. Whitelaw eds., 2003).

U.S. Environmental Protection Agency (EPA) after the Working Group concluded "racial minority and low-income populations experience higher than average exposures to selected air pollutants, hazardous waste facilities, [and] contaminated fish and agricultural pesticides in the workplace."[21]

This hard-fought recognition for the movement was formalized more expansively in 1994 when President Bill Clinton signed Executive Order 12898, requiring each federal agency to develop an environmental justice strategy to identify and address "disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations."[22] Equipped with the information these strategies would generate, the executive order directed all federal agencies to make environmental justice part of their missions to "the greatest extent practicable and permitted by law."[23] Federal agencies ranging from EPA, to the Department of Energy and Department of the Interior, began developing environmental justice strategies in accordance with the order.[24]

The next year, President Clinton assembled a National Environmental Justice Advisory Council (NEJAC) to advise the administration on environmental justice concerns,[25] and EPA established an Office of Civil Rights (OCR) to review complaints of environmental discrimination filed under Title VI of the Civil Rights Act of 1964.[26]

The EJ movement replicated aspects of its success garnering federal recognition at the state level and with influential public interest environmental organizations. When EJ advocates chastised these groups in the early 1990s for racial bias in policy development and hiring, the best of them took the critique to heart and expanded their missions to include environmental justice.[27]

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[21] S. REP. NO. 110-498, at 2 (2008) (quoting EPA, ENVIRONMENTAL EQUITY REDUCING RISK FOR ALL COMMUNITIES 3 (1992)).

[22] Exec. Order No. 12898, 59 Fed. Reg. 7629, § 1-101 (Feb. 11, 1994).

[23] *Id.*

[24] Federal agency EJ plans are collected by EPA. *See Federal Interagency Working Group on Environmental Justice (EJ IWG)*, EPA, https://www.epa.gov/environmentaljustice/federal-interagency-working-group-environmental-justice-ej-iwg [https://perma.cc/QX3V-Q9RW] (last updated Apr. 13, 2017).

[25] *See generally Environmental Justice: National Environmental Justice Advisory Council*, EPA, https://www.epa.gov/environmentaljustice/national-environmental-justice-advisory-council [https://perma.cc/28H2-HMHE].

[26] *See generally Civil Rights*, EPA, https://www.epa.gov/ocr [https://perma.cc/Z9X3-LK4S] (last updated Apr. 7, 2017).

[27] *See, e.g.*, Heather Kathryn Ross, *Righting Civil Wrongs*, EARTHJUSTICE, http://earthjustice.org/features/righting-civil-wrongs [https://perma.cc/E3NH-4HH7] (last updated Feb. 12, 2017); *Environmental Justice*, SIERRA CLUB, http://www.sierraclub.org/environmental-justice [https://perma.cc/FTY8-ZWNJ]; *Protect the Health of Low-*

According to a fifty-state survey, the majority of states have addressed EJ goals in some way by statute, regulation, or state program.[28] Examples include Arkansas's Environmental Equity Act for the siting of solid waste disposal facilities,[29] the California Environmental Protection Agency's Intra-agency Environmental Justice Strategy and Action Plan,[30] and the Connecticut Department of Environmental Protection's Environmental Justice Program, including an EJ Complaint Investigator.[31]

Yet the difficulty of preventing environmental injustice, despite the movement's genuine achievements, underscores why the aim of integrating EJ into the basic infrastructure of the energy transition is so important. Despite the indicia of formal recognition for EJ's importance, EJ results have continued to disappoint. Influential EJ studies by the United Church of Christ (UCC) capture this discouragement in stark terms. A 1987 report on environmental injustice by the UCC helped spur federal action in the 1990s, but a follow-up report released in 2007 showed little had changed over two decades.[32] The highly varied approaches to EJ at the state level have been

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Income Communities, NAT'L RES. DEF. COUNCIL, https://www.nrdc.org/issues/protect-health-low-income-communities [https://perma.cc/3XL7-6DUM]; *Community Voices: Science, Democracy, and Environmental Justice*, UNION OF CONCERNED SCIENTISTS, http://www.ucsusa.org/center-science-and-democracy/connecting-scientists-and-communities/community-voices-science-democracy-environmental-justice#ejdefinition [https://perma.cc/LHF9-LVFE]; *see also* Andrea Y. Simpson, *Public Hazard, Personal Peril: The Impact of Non-Governmental Organizations on the Environmental Justice Movement*, 18 RICH. J.L. & PUB. INT. 515 (2014) (case study of collaboration between environmental nonprofit and EJ community affected by flame-retardant manufacturer and waste incinerator). *But see* Patrice Lumumba Simms, *On Diversity and Public Policymaking: An Environmental Justice Perspective*, 13 SUSTAINABLE DEV. L. & POL'Y 14, 14 (2012) (arguing "the ongoing homogeneity of the environmental policy leadership continues to stand as a significant barrier to the important objectives of current environmental justice efforts.").

[28] *See generally* UNIV. OF CAL. HASTINGS, PUB. LAW RESEARCH INST., ENVIRONMENTAL JUSTICE FOR ALL: A FIFTY STATE SURVEY OF LEGISLATION, POLICIES AND CASES (Steven Bonorris ed., 2010) (summarizing individual state EJ policies), https://gov.uchastings.edu/public-law/docs/ejreport-fourthedition.pdf [https://perma.cc/5VPG-5HWV]; *see also* Alexandra Dapolito Dunn & Adam Weiss, *Environmental Justice in Permitting: State Innovations to Advance Accountability*, 81 MISS. L.J. 747 (2012) (on U.S. state policies and procedures to promote consideration of environmental justice in facility siting and permitting); Steven Bonorris & Nicholas Targ, *Environmental Justice in the Laboratories of Democracy*, 25 NAT. RESOURCES & ENV'T 44 (2010) (summarizing EJ developments at the state level).

[29] UNIV. OF CAL. HASTINGS, PUB. LAW RESEARCH INST., *supra* note 28, at 13.

[30] *Id.* at 17–18.

[31] *Id.* at 45.

[32] *See* COMM'N FOR RACIAL JUSTICE, TOXIC WASTES AND RACE IN THE UNITED STATES: A NATIONAL REPORT ON THE RACIAL AND SOCIO-ECONOMIC CHARACTERISTICS OF COMMUNITIES WITH HAZARDOUS WASTE SITES (1987), http://d3n8a8pro7vhmx.cloudfront.net/unitedchurchofchrist/legacy_url/13567/toxwrace87.pdf?1418439935 [https://perma.cc/27M4-NBHG]; ROBERT D. BULLARD ET AL., UNITED CHURCH OF CHRIST, TOXIC WASTES AND RACE AT TWENTY 1987–2007, at 16 (2007), https://www.nrdc.org/sites/default/files/toxic-wastes-and-race-at-twenty-1987-2007.pdf [https://perma.cc/6Q42-EVWX].

both praised for their innovation and criticized for being politically symbolic, rather than effective, policy.[33] Concerned members of Congress have repeatedly proposed bills to increase the impact of environmental justice in federal law, bemoaning the lack of progress and the inconsistent commitment across administrations. In explaining the need for the Environmental Justice Renewal Act in 2008, for example, Senate sponsors observed that "[a]lthough the NEJAC met 16 times over 7 years during the Clinton Administration, it ha[d] met only 5 times in 8 years during the Bush Administration."[34]

EPA reinvigorated its commitment to environmental justice in 2010, with a goal of marking the twentieth year of the Clinton Executive Order with new and substantive progress. In an effort to move more definitively past talking about environmental justice to effectively rectifying and preventing harm, the agency developed a new, multi-dimensional environmental justice strategy and implementation plan—EJ 2014.[35] One product of this effort is a detailed report, *EJ 2014: Legal Tools*, in which EPA documented "leading opportunities" across the statutory and regulatory work of the agency where environmental justice could be addressed under existing authority.[36] The *Legal Tools* document identifies substantive and procedural provisions that can be used to advance environmental justice goals under the Clean Air Act (CAA);[37] the Clean Water Act (CWA);[38] the Safe Drinking Water Act (SDWA);[39] the

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[33] *Compare* Dunn & Weiss, *supra* note 28 (celebrating state policy approaches), *with* Tonya Lewis & Jessica Owley, *Symbolic Politics for Disempowered Communities: State Environmental Justice Policies*, 29 BYU J. PUB. L. 183 (2014) (concluding that state environmental justice policies are generally "more effective at recognizing the plight of minority and low-income communities in regards to adverse environmental conditions than they are at actually addressing the problem," *id.* at 186, and offering a case study of New York state).

[34] S. REP. NO. 110-498, at 2 (2008).

[35] *See* EPA, PLAN EJ 2014, at i–vi (2011), https://nepis.epa.gov/Exe/ZyPDF.cgi/P100DFCQ.PDF?Dockey=P100DFCQ.PDF [https://perma.cc/D94M-UXND].

[36] *See* EPA, PLAN EJ 2014: LEGAL TOOLS 2 (2011), https://www.epa.gov/sites/production/files/2015-04/documents/planej2014legaltools.pdf [https://perma.cc/H36S-PSHM]. This work builds on and updates EPA's earlier work to implement EO 12898. *See, e.g.*, Memorandum from Gary S. Guzy, General Counsel, EPA, to Steven A. Herman, Assistant Adm'r, Office of Enf't & Compliance Assistance et al. (Dec. 1, 2000), https://www.epa.gov/sites/production/files/2015-02/documents/ej_permitting_authorities_memo_120100.pdf [https://perma.cc/3HNA-JXDM].

[37] Opportunities to consider environmental justice exist, for example, in the siting requirements for solid waste incinerators under CAA section 129(a)(3), certain aspects of standard setting for hazardous air pollutants under section 112, in establishing its monitoring network to support a National Ambient Air Quality Standard under Section 109, and in preconstruction New Source Review, among other provisions. EPA, *supra* note 36, at 4–22.

[38] Opportunities for considering environmental justice exist under CWA section 303, for example, when EPA is "reviewing new or revised state and tribal water quality

National Environmental Policy Act (NEPA);[40] the Emergency Planning and Community Right-to-Know Act (EPCRA);[41] the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA);[42] the Toxic Substances Control Act (TSCA);[43] the Resource Conservation and Recovery Act (RCRA); the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA, also known as the "Superfund" law);[44] EPA's tribal

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standards to ensure that states and tribes are . . . providing adequate protection for highly exposed populations," in determining whether new or revised designated uses are necessary for water body segments, or when establishing total maximum daily loads for impaired waters. *Id.* at 23–29; *see also id.* at 30–36, highlighting EJ review opportunities under the National Pollutant Discharge Elimination System permit program under CWA section 402, as well as storm water management programs and combined sewer overflows affecting EJ communities.

[39] Opportunities for considering environmental justice under the SDWA, for example, through implementation of the rules controlling lead in drinking water and with regulatory and guidance revisions to underground injection control permitting with "focused attention on minority, low-income, and indigenous populations." *Id.* at 40–44.

[40] Since enacted in 1969, NEPA has expressed the overarching goal of ensuring "for *all* Americans safe, healthful, productive, and esthetically and culturally pleasing surroundings." National Environmental Policy Act of 1969, 42 U.S.C. § 4331 (2012) (emphasis added). As I have written elsewhere, environmental justice supplies the practical and conceptual specificity needed to lend content to this otherwise abstract ideal. Uma Outka, *NEPA and Environmental Justice: Integration, Implementation, and Judicial Review*, 33 B.C. ENVTL. AFF. L. REV. 601 (2006). Thus NEPA, perhaps more than any other statute, is readily amenable to include environmental justice among considerations in an environmental assessment or environmental impact statement required in connection with major federal actions affecting the environment. *See* EPA, *supra* note 36, at 83–85. Further, under CAA section 309's review provision, under which EPA reviews and comments on environmental impacts of other agencies' actions, EPA can "consider environmental justice at each stage of the CAA section 309 review process." *Id.* at 86. For more on NEPA and environmental justice, see Alan Ramo, *Environmental Justice as an Essential Tool in Environmental Review Statutes: A New Look at Federal Policies and Civil Rights Protections and California's Recent Initiatives*, 19 W.-N.W. J. ENVTL. L. & POL'Y 41 (2013) (contrasting NEPA and federal civil rights for environmental justice with California's similar but broader state legal regimes); Stephen M. Johnson, *NEPA and SEPA's in the Quest for Environmental Justice*, 30 LOY. L.A. L. REV. 565 (1997) (an early take on the use of environmental review statutes for advancing environmental justice).

[41] EPCRA section 303, for example, contains authority for guidance "on considering environmental justice issues in preparing and implementing emergency plans." EPA, *supra* note 36, at 52.

[42] Under FIFRA section 2, for example, the broad mandate to consider cost and benefit factors can better include environmental justice considerations, and EPA can use its section 3(c)(2)(B) authority to request data in a way tailored to gather "more focused information on exposure to pesticides of farm workers and their children; minority, low-income, and indigenous populations; or animals, water, land and other resources that are of special importance to particular populations." *Id.* at 57–64.

[43] Under TSCA section 6, for example, EPA has broad authority to evaluate and regulate a chemical substance if there "is 'a reasonable basis to conclude'" that it "presents or will present an unreasonable risk of injury to health or the environment." *Id.* at 69. The balancing required for an "unreasonable risk" determination could allow for the agency "to consider whether a risk is borne disproportionately by minority, low-income, and indigenous populations in evaluating whether it may be 'unreasonable.'" *Id.*

[44] Under RCRA section 3005, for example, EPA may consider environmental justice when it issues hazardous waste permits. *Id.* at 47–48. The EPA Environmental Appeals Board has acknowledged "the relevance of disparities in health and environmental

programs;[45] as well as EPA's grants and procurement authority.[46] The agency also sought to enhance its EJ analysis of other federal agencies' work under its CAA Section 309 authority. Section 309 allows EPA to review the environmental impact statements prepared by other agencies under NEPA when they are triggered by a "major federal action significantly affecting the quality of the human environment."[47] In April 2011, EPA issued a memorandum to guide this review process, urging each EPA regional office to "fully utiliz[e] EPA's authorities to advance environmental justice in the course of complying with NEPA" and "in connection with its review of other federal agencies' NEPA documents under CAA section 309."[48]

For the public interest environmental community, this refreshed focus was encouraging. As Professor Rachael Salcido writes, EPA's recent efforts were widely celebrated for "reviving the EJ agenda."[49] At the same time, it is important to recognize that this revival grew out of an acknowledgement that, decades after the first federal recognition of environmental injustice, disproportionate environmental harm in low-income communities of color persisted. An underlying problem glares from the pages of the Legal Tools' carefully compiled "leading opportunities" for EJ consideration: the core statutes of the federal environmental canon do not protect or address, much less assure, environmental justice. The amenable statutory and regulatory provisions

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impacts" to permitting decisions, *id.* at 48, but does not recognize a "legal basis for rejecting a RCRA permit application based solely upon alleged social or economic impacts upon the community." *Id.* at 48 (quoting *In re* Chemical Waste Mgmt. of Indiana, Inc., 6 E.A.D. 66, 73 (EAB 1995)). RCRA also allows for EJ consideration in contingency planning, review of state permits, and facility siting standards. *Id.* at 48–50. Under CERCLA, EPA may consider environmental justice, for example, in prioritizing non-National Priorities List sites for cleanup, in identification of remedial alternatives, and through the public participation component of remedial action plans. *Id.* at 53–54.

[45] EPA could promote environmental justice under its Indian Policy, for example, by interpreting statutory authority where possible to "eliminate the need for tribes to show inherent authority over non-member activities" when tribes act as a state under federal environmental statutes, as well as "clarify its interpretation of some existing regulations to further the role of tribes." *Id.* at 79–80.

[46] *See id.* at 98–101. For more on efforts by the Obama administration to reinvigorate federal environmental justice work through executive authority, see Rachael E. Salcido, *Reviving the Environmental Justice Agenda*, 91 CHI.-KENT L. REV. 115, 122–34 (2016).

[47] *See* EPA, *supra* note 36, at 84 (citing NEPA § 102(c)).

[48] *Id.* at 83; *see* Memorandum from Cynthia Giles, Assistant Adm'r for Enf't & Compliance Assurance, EPA to Regional Administrators & Assistant Administrators (Apr. 19, 2011), https://www.epa.gov/sites/production/files/2014-08/documents/nepa-environmental-justice-memo-pg.pdf [https://perma.cc/3FAW-A4GY]. This memorandum builds on the prior, EPA, Final Guidance for Consideration of Environmental Justice in Clean Air Act 309 Reviews (1999), https://www.epa.gov/sites/production/files/2014-08/documents/enviro_justice_309review.pdf [https://perma.cc/495M-YF8J].

[49] Salcido, *supra* note 46, at 122.

identified by EPA in the EJ 2014 effort, though encouraging in their scope, depend on the use of discretionary authority.[50] This weakness remains a central concern today. Despite the hard work of the Obama EPA, the start of a new administration reminds advocates that, by definition, discretionary authority may be exercised inconsistently and with varying degrees of commitment to the issues EJ presents across executive transitions at the federal level.

For each document associated with environmental justice policy development, the agency disclaimer clarifies that it "identifies internal Agency policies and recommended procedures for EPA employees," "is not a rule or regulation," "may not apply to a particular situation based upon the circumstances," and "is not legally enforceable."[51] The disclaimer appropriately mirrors the intended scope of Executive Order 12898, which directed federal agencies to pursue environmental justice to "the greatest extent practicable and permitted by law," but without providing citizens with a right to judicial review.[52] Thus, agency policy is only as strong, committed, and effective as the plan people comprising that agency at a given time work to implement.

An assessment of EJ 2014 by the General Accountability Office (GAO), recognized "EPA's renewed commitment to environmental justice," but also questioned whether EPA had fully addressed management, staffing, and resources needed to implement EJ 2014.[53] More substantively, the GAO found EPA insufficiently addressed the role of states in EJ 2014 strategies, observing that "[w]ithout articulating clearly in its plans the roles and responsibilities of states, EPA cannot ensure that states are meaningfully involved in the planning and implementation of its environmental justice integration efforts, including efforts involving permits and enforcement and compliance."[54]

Constitutional and statutory civil rights remedies, like the Executive Order over most years since its issuance, have provided weak protection in the EJ context as well. This reality became clear when environmental justice advocates received a stinging defeat in their effort to stop the New Jersey Department of Environmental Protection from approving yet

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[50] EPA, *supra* note 36, at 2, 4, 23, 40, 47, 66.

[51] EPA, TECHNICAL GUIDANCE FOR ASSESSING ENVIRONMENTAL JUSTICE IN REGULATORY ANALYSIS, at iv (2016), https://www.epa.gov/sites/production/files/2016-06/documents/ejtg_5_6_16_v5.1.pdf [https://perma.cc/865A-HKUT].

[52] Executive Order 12,898, 59 Fed. Reg. 7632, § 6-609 (Feb. 11, 1994).

[53] U.S. GOV'T ACCOUNTABILITY OFF., GAO-12-77, ENVIRONMENTAL JUSTICE: EPA NEEDS TO TAKE ADDITIONAL ACTIONS TO HELP ENSURE EFFECTIVE IMPLEMENTATION 31 (2011).

[54] *Id.*

another air polluting facility in the community of South Camden, New Jersey.[55] South Camden was already host to Superfund sites, abandoned contaminated industrial sites, chemical companies, waste facilities, food processing facilities, a petroleum coke transfer station, regional sewage treatment plant permits, trash incinerators, and a power plant.[56] The community sued and experienced early success in litigation, framed as a Section 1983 action for disparate impact discrimination under Title VI of the Civil Rights Act.[57] Between South Camden's district court win and the opinion of the circuit court of appeals, the Supreme Court's opinion in *Alexander v. Sandoval*[58] precluded the disparate impact claim, leaving the community with no legal recourse based on civil rights.[59]

Civil rights claims have faced institutional barriers as well. This was true at the state level in the South Camden case, where the community saw the New Jersey Department of Environmental Protection as unresponsive to its concerns.[60] This has also been true of EPA. In 2015, five communities filed a lawsuit against EPA, alleging a "pattern and practice of unreasonable delay" in the agency's handling of civil rights complaints.[61] The Center for Public Integrity (CPI) recently confirmed that EPA's Office of Civil Rights has not once made a formal finding of discrimination under Title VI, despite having received hundreds of complaints, some exhaustively documented, often left unaddressed for years.[62] In 2016, the U.S. Commission on Civil Rights published conclusions to the same effect in a lengthy assessment of EPA's compliance and enforcement actions related to EJ.[63] In the words of one Louisiana resident

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[55] South Camden Citizens in Action v. N.J. Dep't of Envtl. Prot., 274 F.3d 771, 775 (3d Cir. 2001).

[56] *Id.* at 775; *see also* Sheila Foster, *The Challenge of Environmental Justice*, 1 RUTGERS J.L. & URB. POL'Y 1 (2004) (on the story of the *South Camden* case).

[57] *South Camden Citizens in Action*, 274 F.3d at 774.

[58] Alexander v. Sandoval, 532 U.S. 275 (2001).

[59] *South Camden Citizens in Action*, 274 F.3d at 790–91.

[60] *Id.* at 775 ("Approximately 120 community members voiced their opinions and concerns about St. Lawrence's facility at the hearing" and plaintiffs requested a grievance hearing with the NJDEP alleging "the NJDEP's permit review procedures violated Title VI of the Civil Rights Act of 1964."). The NJDEP proceeded to issue the permit and did not respond to the grievance hearing request. *Id.*

[61] Complaint for Declaratory and Injunctive Relief at 20, Californians for Renewable Energy v. EPA, No. 3:15-cv-03292, 2015 WL 4509997 (N.D. Cal. July 15, 2015); *see Environmental Justice, Denied, Environmental Racism Persists, and the EPA Is One Reason Why*, CTR. FOR PUB. INTEGRITY (Sept. 4, 2015), https://www.publicintegrity.org/2015/08/03/17668/environmental-racism-persists-and-epa-one-reason-why [https://perma.cc/Q4DF-8PSN].

[62] *Id.*

[63] U.S. COMM'N ON CIVIL RIGHTS, ENVIRONMENTAL JUSTICE: EXAMINING THE ENVIRONMENTAL PROTECTION AGENCY'S COMPLIANCE AND ENFORCEMENT OF TITLE VI

interviewed for the CPI report, "[a]ll these complaints to EPA have gotten us nothing—zero."[64]

The agency responded to these critiques, not by denying them, but by releasing for comment a draft strategic plan for reinvigorating OCR review of Title VI complaints.[65] When EPA agreed in the spring of 2015 to investigate EJ impacts of industrial hog farming in North Carolina, advocates celebrated, but with exasperation over the time it took to get the agency's attention. As the Earthjustice attorney who filed the complaint told the press, advocates had long been working for state level reform while "[p]eople have been living with this and trying to raise the civil rights issue, the health issue, the environmental issue for years," and calling change "so long overdue, people have almost given up wanting the state to pay attention."[66]

EPA continued to demonstrate its commitment to advancing environmental justice in what was left of President Obama's term. In December 2015, the agency published a proposed rule to improve civil rights protections and nondiscrimination compliance.[67] In May 2016, EPA released a final draft of EJ 2020 for comment, intending to build on the EJ 2014 plan.[68] Early drafts of EJ 2020 outline three goals for the next five years: "1. Deepen environmental justice practice within EPA programs to improve the health and environment of overburdened communities; 2. Work with partners to expand our positive impact within overburdened communities; and 3. Demonstrate progress on significant national environmental justice challenges."[69] EJ 2020

AND EXECUTIVE ORDER 12,898 (2016), http://www.usccr.gov/pubs/Statutory_Enforcement_Report2016.pdf [https://perma.cc/PR2P-TGL4]. Findings include: "The EPA has a history of being unable to meet its regulatory deadlines and experiences extreme delays in responding to Title VI complaints in the area of environmental justice," and "EPA's Office of Civil Rights has never made a formal finding of discrimination and has never denied or withdrawn financial assistance from a recipient in its entire history, and has no mandate to demand accountability within the EPA." *Id.*

[64] *Environmental Justice, Denied*, CTR. FOR PUB. INTEGRITY, https://www.publicintegrity.org/environment/environmental-justice-denied [https://perma.cc/93Y3-K7XR].

[65] *See* EPA, OFFICE OF CIVIL RIGHTS, EXTERNAL COMPLIANCE AND COMPLAINTS PROGRAM STRATEGIC PLAN: FISCAL YEAR 2015–2020, at 3 (2015), https://www.epa.gov/sites/production/files/2015-10/documents/strategic_plan.pdf [https://perma.cc/VK3T-LHZD].

[66] Robin Bravender, *EPA: Agency to Launch Civil-Rights Probe of N.C. Hog Farms*, GREENWIRE (Feb. 26, 2015) (quoting Earthjustice attorney Marianne Engelman Lado).

[67] Proposed Rule, Nondiscrimination in Programs or Activities Receiving Federal Assistance from the Environmental Protection Agency, 80 Fed. Reg. 77284 (Dec. 14, 2015).

[68] *See* EPA, DRAFT EJ 2020 ACTION AGENDA: THE U.S. EPA'S ENVIRONMENTAL JUSTICE STRATEGIC PLAN 2016–2020 (2016), https://www.epa.gov/sites/production/files/2016-05/documents/052216_ej_2020_strategic_plan_final_0.pdf [https://perma.cc/N9FQ-LL9N].

[69] *Id.* at 2.

continues the focus on permitting, rulemaking, compliance and enforcement, and science to advance environmental justice with an eye to a set of key results. The report declares that by 2020 EPA will: "Improve on-the-ground results for overburdened communities . . . ; Institutionalize environmental justice integration in EPA decision-making; Build robust partnerships with states, tribes and other co-regulatory partners; Strengthen our ability to take action on environmental justice and cumulative impacts and; Better address complex national environmental justice issues."[70] In an effort to make these goals more concrete before the conclusion of the term, EPA published Technical Guidance for Assessing Environmental Justice in Regulatory Analysis in June 2016, to provide "methods for analysts to use when assessing potential environmental-justice concerns in national rules" and present best practices for use in regulatory actions by the agency.[71] On the last full day of President Obama's term, the EPA Office of Civil Rights issued a finding of discrimination in a case stemming from a 1994 power plant permit in Flint, Michigan.[72] In a letter to the Michigan Department of Environmental Quality (MDEQ), resolving the case and formally ending the investigation, EPA concluded "the preponderance of evidence supports a finding of discriminatory treatment of African Americans by MDEQ in the public participation process" from 1992 to 1994 during the permitting for the plant.[73] The letter also described "significant concerns about MDEQ's current public participation program and whether MDEQ can ensure that these instances of discriminatory treatment would not occur today."[74] Reverend Philip Schmitter, who was among those who filed the complaint in 1992, told news sources "[i]t's late, but better late than never."[75]

In sum, the committed efforts of the Obama administration show it is possible to graft environmental justice concerns across the environmental law canon, and it may be possible to do more through the Office of Civil Rights. Notwithstanding the critiques it faced, there is no question that the Obama EPA did much more

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[70] *Id.* at 7.

[71] EPA, *supra* note 51.

[72] Letter from Lilian S. Dorka, Dir., EPA External Civil Rights Compliance Office of General Counsel, to Heidi Grether, Dir. of Mich. Dep't of Envtl. Quality (Jan. 19, 2017), https://www.epa.gov/sites/production/files/2017-01/documents/final-genesee-complaint-letter-to-director-grether-1-19-2017.pdf [https://perma.cc/W2NR-3FCL].

[73] *Id.* at 3 (footnote omitted).

[74] *Id.* at 17.

[75] Arianna Skibell, *EPA: At Obama's Exit, a Rare Discrimination Finding in Permit Case*, GREENWIRE (Jan. 26, 2017), https://www.eenews.net/greenwire/stories/1060049050.

than efforts in years past to advance EJ in meaningful ways. But the record teaches that neither approach has offered reliable protection. A successor administration that does not share the same commitment could disregard the work—leaving the legal tools unused.[76] The lack of integration between environmental justice and substantive law and policy has allowed EJ to be positioned as a secondary—even cursory—concern, addressed as a matter of procedure.[77] In Professor Alice Kaswan's assessment, in the face of institutional barriers, bias, and "power politics," the movement to date has had an "important, but ultimately modest, role . . . in influencing environmental law."[78]

Imagine, by contrast, if environmental justice were a central and integrated aspect of state and federal statutory mandates. Although Congress could always have acted to amend federal environmental laws with EJ protections, the present system, with a grafted, discretionary EJ analytical frame seems to have solidified. As new law and policy is crafted to advance the low-carbon transition, however—whether at the federal level or more likely, at the state level in the near term—there will be opportunities to consider a different, integrated approach to social justice goals in the energy sector.

II. FAIRNESS DISCOURSE IN THE LOW-CARBON TRANSITION

EPA defines 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 and implementation of environmental laws, regulations, and policies."[79] The environmental justice principles,

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[76] *See, e.g.*, Brady Dennis, *EPA Environmental Justice Leader Resigns, Amid White House Plans to Dismantle Program*, CHI. TRIBUNE (Mar. 9, 2017), http://www.chicagotribune.com/news/nationworld/ct-epa-environmental-justice-leader-resigns-20170309-story.html (on departure of EPA's assistant administrator for environmental justice, Mustafa Ali, early in the Trump administration transition in the wake of news that key EJ programs would be defunded).

[77] *See* J.B. Ruhl & James Salzman, *Climate Change Meets the Law of the Horse*, 62 DUKE L.J. 975, 985, 1002 (2013) (describing environmental justice "as a procedural overlay" and as a concept that is "more procedural than substantive, more a framework of analytical questions").

[78] Alice Kaswan, *Environmental Justice and Environmental Law*, 24 FORDHAM ENVTL. L. REV. 149, 149 (2013); *see also* Tseming Yang, *Melding Civil Rights and Environmentalism: Finding Environmental Justice's Place in Environmental Regulation*, 26 HARV. ENVTL. L. REV. 1, 1–2 (2002) (arguing that "drastically different problem paradigms" of civil rights and environmental protection "has impeded greater progress in the integration" of EJ concerns "into the traditional environmental regulatory framework").

[79] EPA, *supra* note 36, at 3.

defined by the movement and interpreted for the climate and energy context, take the concept much further. Among other things, the Principles of Climate Justice, developed by the Environmental Justice Leadership Forum on Climate Change, emphasize fairness themes in calling for law and policy that will work toward "a zero carbon economy." Several of these key principles include Principle 2, protect all "communities equally from the environmental, health and social impacts of climate change"; Principle 4, "[r]equire those most responsible for creating the impacts that arise from climate change to bear the proportionate cost of responding to the resulting economic, social, and environmental crisis"; and Principle 7, create opportunities for "all Americans, especially people-of-color, Indigenous Peoples and low-income Americans, to experience a just transition" to "living-wage, clean, safe, green jobs in the energy sector."[80]

In the broadest sense, social justice demands climate change action to reduce environmental harms, create new energy and environmental benefits, and "close the EJ gap" in climate impacts.[81]

But in immediate energy policy debates, other conceptions compete for primacy. Industry and utility interests are staking both direct claims of unfairness, based on how policies will affect their business model, as well as indirect fairness-based claims, in which potential harm to third parties is presented as a proxy of sorts for the direct claims. Two contexts exemplify this aspect of the energy transition discourse: distributed solar energy policy at the state level and EPA's Clean Power Plan rulemaking at the federal level.

A. Distributed Solar Energy Policy

Electric utilities across the states are raising fairness claims in reaction to the expansion of customer-generated renewable electricity. Distributed generation (DG) is the generation of electricity from decentralized small-scale sources in contrast to traditional, utility-scale centralized power plants.[82] DG most commonly refers to rooftop solar systems on customer property that generate electricity on the customer side of the

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[80] *See EJ Forum Principles of Climate Justice*, *supra* note 17.

[81] *See Policy Initiatives*, ENVTL. JUSTICE LEADERSHIP FORUM ON CLIMATE CHANGE, http://www.ejleadershipforum.org/policy-initiatives/ [https://perma.cc/L38Z-XS8M]; *see also* MORELLO-FROSCH ET AL., *supra* note 8 (on addressing "climate gap" caused by inequality).

[82] For more on distributed generation generally, *see, e.g.*, *Distributed Generation of Electricity and Its Environmental Impacts*, EPA, https://www.epa.gov/energy/distributed-generation [https://perma.cc/XR8S-PE79].

meter for on-site use. Other forms of DG, however, include community solar, or shared renewable energy projects, that are small-scale and located in close proximity to electricity consumers, such as a shared solar array on an apartment complex serving all tenants.[83]

To encourage distributed rooftop solar development, over forty states have adopted some form of net energy metering policy, by statute or by order of the state public utility commission.[84] As explained by the Interstate Renewable Energy Council (IREC), net metering is essentially a "billing arrangement by which customers receive credit on their utility bills for energy generated by their on-site renewable energy system."[85] Typically, net-metering programs have required a utility to buy back any excess electric power a customer's solar system generates at the retail rate.[86] That excess power then enters the flow of electricity in the grid.

Today, rooftop solar is a rapidly growing market, and utilities have begun to regard DG as a serious threat,[87] although the extent of DG proliferation is still low overall, is rising quickly in a handful of states.[88] The National Renewable Energy Laboratory (NREL) suggests utilities' fears are mostly anticipatory and "likely amplified by the simultaneous growth in energy efficiency" as both erode customer demand.[89] Growth

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[83] *See Glossary*, INTERSTATE RENEWABLE ENERGY COUNCIL, http://freeingthegrid.org/#education-center/glossary/ [https://perma.cc/5E2X-QAJQ] (defining community shared solar as "[a] model for shared solar projects that is designed to expand access to energy consumers who are unable to go solar on their own home or business. Participants receive credit on their utility bills for their portion of the clean power generated, much as if those systems were located at their own home or business.").

[84] *See* U.S. DEP'T OF ENERGY, DATABASE OF STATE INCENTIVES FOR RENEWABLE ENERGY, NET METERING (2015), http://ncsolarcen-prod.s3.amazonaws.com/wp-content/uploads/2015/04/Net-Metering-Policies.pdf [https://perma.cc/YKA5-FZAL].

[85] *See Glossary*, *supra* note 83.

[86] State policies have recently begun trending away from requiring retail rate compensation. For a recent discussion of the shifting ground in state solar policy, including with regard to netmetering at retail rates, see Lincoln L. Davies, *Making Sense of the Rapidly Evolving Legal Landscape of Solar Energy Support Regimes*, 6 KLRI J.L. & LEGIS. 81, 93 (2016).

[87] *See, e.g.*, Karen Henry, *Solar Is a Serious Threat to Electric Utilities*, ENERGY MANAGER TODAY (Aug. 5, 2015), http://www.energymanagertoday.com/dg-serious-challenge-electric-utilities-0114379/ [https://perma.cc/P34E-QPQZ] (reporting that "[e]ighty percent of electric utilities believe distributed generation [DG] . . . is a serious challenge to their business").

[88] *See, e.g.*, Julia Pyper, *Inside the Minds of Regulators: How Different States Are Dealing with Distributed Energy*, GREENTECH MEDIA (May 29, 2015), http://www.greentechmedia.com/articles/read/what-are-the-most-pressing-issues-facing-public-utility-commissioners [https://perma.cc/3ZVU-LMST] (discussing lessons that states with low but growing DG might learn from states with high levels of DG on the grid, including California, Texas, Minnesota, and Arizona).

[89] GALEN BARBOSE ET AL., NAT'L RENEWABLE ENERGY LAB., ON THE PATH TO SUNSHOT: ADVANCING CONCENTRATING SOLAR POWER TECHNOLOGY, PERFORMANCE,

forecasts vary, but the NREL projects that by 2020, residential solar DG will still represent less than 3% of total residential retail electricity sales on a nationwide basis.[90] DG is expected to exceed 5% in only ten states, though in two of those penetration will be notably higher—California surpassing 30% and Hawaii surpassing 50%.[91] Extending the time horizon, the picture does change significantly by some estimates, with sixteen states exceeding 10% distributed solar.[92]

Nonetheless, utilities have lobbied in a number of states to alter existing net-metering programs to make them less attractive to customers or to supplement rates with new fixed charges—applicable either only to DG customers or across all customers—designed to compensate for lost returns. Both approaches have been routinely framed in direct or, more commonly, indirect fairness terms, and stem from concern, as IREC explains, over "whether residential net metering customers continue to pay a fair portion for the upkeep of the grid that they rely on to net meter."[93] Alternatively, others are asking whether DG offers net benefits to the grid and other ratepayers in the form of reliability and clean energy.[94] This has spurred intense debate over how best to reflect the true value of distributed solar in rates.[95] Utilities claim that current policies unfairly benefit DG customers, while advocates and others maintain they are undervaluing benefits of increased DG on the grid.[96]

As the debate continues, utilities are getting through to state legislatures and utility commissions. Nine states amended their net-metering policies in 2015 alone, and another six states

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AND DISPATCHABILITY 6–7 (2016), http://www.nrel.gov/docs/fy16osti/65670.pdf [https://perma.cc/H6TG-SVD2].

[90] *Id.* at 6.

[91] *Id.*

[92] *Id.*

[93] *Emerging Issue: Fixed Charge Proposals Warrant Reasoned and Reasonable Approach*, FREEING THE GRID 2015, http://freeingthegrid.org/#education-center/emerging-issue/ [https://perma.cc/3WSB-CCST].

[94] *See, e.g.*, Mark Muro & Devashree Saha, *Rooftop Solar: Net Metering Is a Net Benefit*, BROOKINGS (May 23, 2016), http://www.brookings.edu/research/papers/2016/05/23-rooftop-solar-net-metering-muro-saha# [https://perma.cc/7TCA-WWAR].

[95] *See, e.g.*, Diane Cardwell, *Solar Panel Payments Set Off Fairness Debate*, N.Y. TIMES (June 4, 2012), http://www.nytimes.com/2012/06/05/business/solar-payments-set-off-a-fairness-debate.html [https://perma.cc/B58K-V3RW].

[96] *See, e.g.*, Muro & Saha, *supra* note 94 (discussing the debate with emphasis on benefits rooftop solar contribute to the grid); MIKE TAYLOR ET AL., NAT'L RENEWABLE ENERGY LAB., VALUE OF SOLAR: PROGRAM DESIGN AND IMPLEMENTATION CONSIDERATIONS, at vi, 12 (2015), http://www.nrel.gov/docs/fy15osti/62361.pdf [https://perma.cc/WR7H-KESU].

have initiated review of their programs.[97] Utility perspectives have not prevailed in all instances—for example, Minnesota made headlines for being the first state to provide a "value of solar" tariff alternative to net metering, factoring in the social cost of carbon avoided.[98] But other states have modified policies to diminish support for solar energy. Utility regulators in Nevada, which had enjoyed a booming solar industry, voted to eliminate its net-metering retail rate while increasing fixed charges for solar customers.[99]

In his thoughtful analysis of fairness narratives in the distributed solar debate, Professor Troy Rule isolates utilities' three basic fairness arguments.[100] The most common are indirect claims of unfairness—what he calls the "fair share" argument, alleging "Unfairness Toward Customers Without Rooftop Solar Energy Systems,"[101] and the "regressivity argument," in which utilities argue "Unfairness Toward Low-Income Utility Customers."[102] The third and less common claim—likely because it would be least compelling to policy makers and the public—is direct and authentically motivating for the utilities asserting it, the "Breach of Regulatory Contract" argument.[103] This argument captures the claim that DG policy is unfair to utilities and their shareholders who, in exchange for submitting to more regulation than most other private enterprises, have received monopoly territories where they can charge customers for their services at a price that affords a reasonable rate of return.[104] Support for DG arguably drains customer demand in what is supposed to be an exclusive service territory.[105]

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[97] *See* CTR. FOR THE NEW ENERGY ECON., 2015 YEAR IN REVIEW: STATE ADVANCED ENERGY LEGISLATION 4 (2016), http://www.aeltracker.org/graphics/uploads/2015-Year-in-Review-State-Advanced-Energy-Legislation.pdf [https://perma.cc/C9PX-PR9E].

[98] *See, e.g.*, Dan Haugen, *Minnesota Becomes First State to Set 'Value of Solar' Tariff*, MIDWEST ENERGY NEWS (Mar. 12, 2014), http://midwestenergynews.com/2014/03/12/minnesota-becomes-first-state-to-set-value-of-solar-tariff/ [https://perma.cc/UWS7-S5GH]. Because the value could exceed the retail rates applicable under net metering, no utilities have opted to apply the new tariff. *Value of Solar Tariff*, DEP'T OF ENERGY, http://energy.gov/savings/value-solar-tariff [https://perma.cc/Y3RV-H367]; *see also* MINN. DEP'T OF COMMERCE, DIV. OF ENERGY RES., MINNESOTA VALUE OF SOLAR: METHODOLOGY (2014), http://mn.gov/commerce-stat/pdfs/vos-methodology.pdf [https://perma.cc/JZ3A-2V2E].

[99] Julia Pyper, *Does Nevada's Controversial Net Metering Decision Set a Precedent for the Nation?*, GREENTECH MEDIA (Feb. 4, 2016), https://www.greentechmedia.com/articles/read/nevada-net-metering-decision [https://perma.cc/Z33H-PAPJ].

[100] Troy A. Rule, *Solar Energy, Utilities, and Fairness*, 6 SAN DIEGO J. CLIMATE & ENERGY L. 115 (2014–15).

[101] *Id.* at 129.

[102] *Id.* at 135.

[103] *Id.* at 138.

[104] *Id.* at 139.

[105] *Id.*

Professor Rule disassembles each of the arguments. The "fair share" argument weakens substantially when held up against other modes of cross-subsidization that have long been built into cost-of-service rates.[106] The "regressivity" argument, that low-income utility customers will shoulder costs for customers who can afford rooftop solar, is likewise oversimplified. First, the argument seems premised on an assumption that losses would necessarily be borne by low-income customers rather than by shareholders. As Rule notes, the argument conspicuously ignores the existence of rate discounts for low-income customers in some states and the availability of this option in states that have not yet provided this safety net.[107] Second, Rule is right to observe that weakening solar incentives may also help to perpetuate energy-related harms that disproportionately affect EJ communities living in close proximity to fossil energy plants and production facilities.[108] This is why EJ advocates argue that policies supporting renewable energy, at the distributed- and utility-scale, advance environmental and climate justice principles.[109]

This connection is difficult to draw, of course, in the context of a technical utility rate case, where the generic effect of solar energy policy in reducing environmental harm is remote compared to the localized immediacy of rising rates. Groups representing low-income customers, which may include EJ communities, commonly protest rate increases in these case dockets.[110] Yet the binary choice suggested between favoring solar system owners or protecting low-income customers is a false framing that clutters policy dialogue over DG's growth. Utility investors—though assured a reasonable rate of return under the regulatory compact—have not been assured a specific or necessarily favorable return. Risk is mitigated for investors under the traditional model of utility regulation, but it does not insulate shareholders entirely from political, technological, or economic disruptions.[111] For this reason, the "breach" argument, essentially that DG interference with something approaching rights in high electricity consumption, is weak.[112]

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[106] *See id.* at 131–32.

[107] *See id.* at 136–37.

[108] *Id.* at 137.

[109] *See The Principles of Environmental Justice*, *supra* note 17.

[110] *See, e.g.*, *Mission*, CITIZEN UTIL. BD., http://citizensutilityboard.org/mission/ [https://perma.cc/WJR8-3G8S] (explaining how CUB "intervene[es] in ratemaking proceedings before the Illinois Commerce Commission (ICC)" and "in the courts to represent the interests of residential utility customers across the state").

[111] *See, e.g.*, Jersey Cent. Power & Light Co. v. Fed. Energy Regulatory Comm'n, 810 F.2d 1168, 1193 (D.C. Cir. 1987) (Starr, J., concurring).

[112] *See* Rule, *supra* note 100, at 138–40. I agree with Rule that if DG in fact were to threaten utilities' solvency, and thus essential electricity service, that would raise

Apart from utilities' fairness claims in net-metering and value-of-solar debates, energy justice advocates have long sought expanded access to distributed solar for EJ communities. Over fifteen years ago, the Renewable Energy Policy Project developed a *Resolution on Sustainable Energy and Low-Income and Minority Communities* through "an extensive, consensus-based process among representatives of groups focusing on environmental justice, low-income energy advocacy, clean energy, environmental, enterprise development, and Indian Country issues."[113] The resolution grounds broad support for renewable energy development in basic fairness, opening with the premise that "everyone has the right to safe, clean, affordable, and reliable energy and transportation services."[114] Distributed solar is described as desirable, "appropriate 'neighborhood technologies' for urban areas."[115]

Today, groups like the nonprofit Grid Alternatives and Center for Social Inclusion promote low-income solar policy to advance fairness and social justice in the energy sector. They seek "equitable access" and participation so that all communities are "part of our national transition to clean energy."[116] They argue for inclusive policies to afford relief to low-income families spending a "disproportionate amount" of their household income on energy.[117] They argue these inclusive policies are necessary to ensure basic fairness given that "[l]ow-income communities bear the brunt of pollution and climate change."[118]

Even this brief discussion is sufficient to demonstrate that competing conceptions of fairness in the distributed solar context are widely divergent. Utility and community perspectives reflect embedded value judgments about the desirability of promoting solar energy and distributed generation. Their arguments reveal marked differences in how fairness is conceived, spatially and temporally—how boundaries are drawn around fairness questions

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policy issues distinct from the fairness arguments being raised at this anticipatory point in the DG growth trajectory. *Id.* at 134–35.

[113] RENEWABLE ENERGY POLICY PROJECT, SPECIAL REPORT: RESOLUTION ON SUSTAINABLE ENERGY AND LOW-INCOME MINORITY COMMUNITIES 2 (2000).

[114] *Id.* at 3.

[115] *Id.* at 9.

[116] GRID ALTERNATIVES ET AL., LOW-INCOME SOLAR POLICY GUIDE 7 (2016), http://www.lowincomesolar.org/wp-content/uploads/2016/03/Low-Income-Solar-Policy-Guide_3.11.16.pdf [https://perma.cc/DZC3-9HS8].

[117] *Id.*

[118] *Id.*; *see also* U.S. DEP'T OF ENERGY, INTEGRATING PHOTOVOLTAIC SYSTEMS INTO LOW-INCOME HOUSING DEVELOPMENTS: A CASE STUDY ON THE CREATION OF A NEW RESIDENTIAL FINANCING MODEL AND LOW-INCOME RESIDENT JOB TRAINING PROGRAM (2011) (demonstrating how benefits of solar energy can be more inclusive by linking financing and job training policies to low-income housing).

matters. Equity concerns presented within the confines of a rate case convey differently in the broader policy dialogue of which that rate case is a part. The fairness narratives described here are in competition for primacy in evolving solar DG policy.

B. The Clean Power Plan

In 2014, under Clean Air Act authority, EPA proposed "Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units."[119] This rule, commonly known as the Clean Power Plan, proposed for the first time to set greenhouse gas emissions guidelines for existing power plants in the United States.[120] EPA received over four million comments during the public comment period[121] and published a revised final version of the rule on October 23, 2015.[122]

The stated purpose of the rule "is to protect human health and the environment by reducing CO_2 emissions from fossil fuel-fired power plants," which are "by far the largest domestic stationary source of emissions of CO_2."[123] With full implementation, the Clean Power Plan is designed to "achieve CO_2 emission reductions from the utility power sector of approximately 32 percent from the CO_2 emission levels in 2005."[124] The rule is complicated, and its details are beyond the scope of this article, but at its most basic, the Clean Power Plan creates a framework for achieving CO_2 emission performance rates for existing fossil-fuel fired electric generation units (EGU).[125] The rule sets state-specific CO_2 goals that take into account each state's unique mix of affected power plants, and provides guidelines for states to develop plans for achieving the

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[119] Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units, 79 Fed. Reg. 34,830 (June 18, 2014) (to be codified at 40 C.F.R. pt. 60).

[120] *Id.*

[121] *See Standards of Performance for Greenhouse Gas Emissions from Existing Sources: Electric Utility Generating Units*, REGULATIONS.GOV, https://www.regulations.gov/docket?D=EPA-HQ-OAR-2013-0602 [https://perma.cc/B2PX-Q9K9].

[122] Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units, 80 Fed. Reg. 64,661 (Oct. 23, 2015) [hereinafter Clean Power Plan Final Rule].

[123] *Id.* at 64,664.

[124] *Id.* at 64,665.

[125] For information on the Clean Power Plan, see *Clean Power Plan*, EPA, https://www.epa.gov/cleanpowerplan [https://perma.cc/4PM6-7983]; *E&E's Power Plan Hub*, E&E NEWS, http://www.eenews.net/interactive/clean_power_plan [https://perma.cc/DT89-WHS7] (providing basic information and analysis of the Clean Power Plan and pending litigation); Clean Power Plan: Megan Herzog, *Resources on the Clean Power Plan*, LEGAL PLANET (Sept. 11, 2015), http://legal-planet.org/2015/09/11/resources-on-the-clean-power-plan/ [https://perma.cc/3VSX-YFRS].

required emission reductions. States are afforded a range of options for crafting their plans, including collaboration with other states[126] and regional emissions trading programs.[127]

The entire rulemaking process was highly politicized and the rule was embroiled in litigation even before it was finalized.[128] On February 6, 2016, in a decision that surprised many, the Supreme Court granted a request from the rule's opponents for a stay pending judicial review.[129] The merits of the case were presented to the Court of Appeals for the District of Columbia Circuit en banc in September 2016.[130] Although the new Trump administration has stated it will seek to retract the rule, it remains extremely valuable to the discussion of EJ in the low-carbon shift for several reasons. First, the rulemaking process revealed the kinds of fairness claims that have come to characterize this energy transition. Second, the rule itself outlined pathways for incorporating EJ in evolving energy policy that can endure without the rule in place.

The Clean Power Plan presents an entirely distinct set of legal questions from those relevant to distributed solar policy, but discordant notions of fairness compete in similar ways in both contexts. The competing narratives can be seen in public comments submitted on the proposed rule. In its comments, the National Environmental Justice Advisory Council expressed support for "sharply reducing emissions of greenhouse gases" in broad fairness terms, charging that "climate change policy should address equity" and "the EPA has a fundamental obligation to ensure equity while addressing this global threat."[131] In that vein, the NEJAC critiqued the proposed rule for "seldom mention[ing] equity and fail[ing] to ensure that environmental and

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[126] *See* Clean Power Plan Final Rule, 80 Fed. Reg. at 64,669.

[127] *See id.* at 64,675.

[128] *See In re* Murray Energy Corp. v. EPA, 788 F.3d 330 (D.C. Cir. 2015) (denying request for preliminary injunction of proposed rule as premature in absence of final agency action).

[129] Order in Pending Case, West Virginia v. EPA, No. 15A773, (U.S. Feb. 9, 2016), http://www.ago.wv.gov/publicresources/epa/Documents/15A773%20West%20Virginia%20v.%20EPA%20-%20USSC%20stay%20order%20(M0118593xCECC6).pdf [https://perma.cc/F3HB-QNTE].

[130] *See* Order at 2, West Virginia v. EPA, No. 15-1363 (D.C. Cir. Aug. 17, 2016), http://www.ago.wv.gov/publicresources/epa/Documents/Oral%20argument%20order%20(en%20banc).pdf [https://perma.cc/JDD8-BXQL]; LINDA TSANG & ALEXANDRA M. WYATT, CONG. RESEARCH SERV., R44480, CLEAN POWER PLAN: LEGAL BACKGROUND AND PENDING LITIGATION IN *WEST VIRGINIA V. EPA* (2017), https://fas.org/sgp/crs/misc/R44480.pdf [https://perma.cc/JC2T-8Y66].

[131] National Environmental Justice Advisory Council, Comment Letter on Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units (May 21, 2017), http://ceed.org/wp-content/uploads/2015/12/2015-NEJAC-Clean-Power-Recommendation-Letter.pdf [https://perma.cc/8V93-YDMQ].

technological benefits of the plan will reach EJ communities."[132] The Council articulated three recommendations to correct this perceived flaw: (1) require that CO_2 reductions occur in and near EJ communities so they benefit from co-pollutant reductions; (2) target renewable energy and energy efficiency development in EJ communities; and (3) require states to account for EJ to ensure equitable distribution of costs and benefits as they develop implementation plans under the rule.[133]

The Environmental Justice Leadership Forum raised the same critique against the Obama administration, expressing concern that neither the President's 2013 Climate Action Plan nor the Clean Power Plan adequately addresses environmental justice.[134] The Forum reiterated long-standing opposition to carbon trading mechanisms and nuclear power for exacerbating, instead of alleviating, environmental harms to EJ communities, despite their potential to cut carbon in the energy sector.[135] The Forum's concrete requests, however, centered on fairness in the distribution of harms and benefits under the rule. To avoid harm, the Forum asked EPA to "include language that recognizes and considers potential disparate impacts the rule may have on environmental justice communities, and directs states to identify environmental justice communities" and "take steps to avoid or mitigate" disparate impacts.[136] To ensure benefits from the rule would be inclusive, the Forum called for targeting renewable energy, energy efficiency, and actions to leverage health improvements of the rule for EJ communities.[137] In a subsequent letter after meeting with EPA representatives,

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[132] *Id.*

[133] *Id.* The issue of co-pollutants for EJ communities is important, because upgrades at a facility to cut carbon typically have the effect of also reducing other harmful air pollutants that more directly affect the health of the local community. *See, e.g.*, Alice Kaswan, *Climate Change, the Clean Air Act, and Industrial Pollution*, 30 UCLA J. ENVTL. L. & POL'Y 51 (2012) (discussing this interaction and implications for GHG regulation).

[134] Environmental Justice Leadership Forum, Comment Letter on Clean Power Plan EPA Docket No. EPA-HQ-OAR-2013-0602 (Dec. 1, 2014), https://www.regulations.gov/document?D=EPA-HQ-OAR-2013-0602-22585 [hereinafter Environmental Justice Leadership Forum, Comment Letter]; *see generally* EXEC. OFFICE OF THE PRESIDENT, THE PRESIDENT'S CLIMATE ACTION PLAN 6 (2013), http://www.whitehouse.gov/sites/default/files/image/president27sclimateactionplan.pdf [https://perma.cc/6JBY-ABCA].

[135] *See id.* at 2–3. When comprehensive climate change legislation seemed possible in the late 2000s, advocates and scholars raised EJ concerns with emission trading that should be revisited and refreshed for the coming decade. For a summary of EJ objections to emissions trading, see ALICE KASWAN ET AL., CTR. FOR PROGRESSIVE REFORM, THE CLEAN POWER PLAN: ISSUES TO WATCH 68–74 (2015), http://progressivereform.org/articles/CPP_1506.pdf [https://perma.cc/Z8WV-ECXL].

[136] Environmental Justice Leadership Forum, Comment Letter, *supra* note 134, at 5.

[137] *See id.* at 4–5.

the Center on Race, Poverty, and Environment wrote EPA on behalf of the Forum to more specifically request state plans be required to "1) demonstrate emissions reductions in and near EJ communities; 2) demonstrate the prioritized use of energy efficiency and renewable energy in EJ communities; and 3) determine the distributive costs and benefits to EJ communities of the plan."[138] These examples capture the general tenor of the many public comments grounding the fairness of the Clean Power Plan proposed rule in the potential for harmful and beneficial impacts on EJ communities.[139]

In stark contrast to the EJ critiques, utilities, the coal industry, and coal-dependent states regard the Clean Power Plan as threatening an excessive and unfair economic burden against their interests. This fairness-based objection, alongside legal arguments, carried over from the public comments into the litigation that is still ongoing in the federal courts. Murray Energy Corporation, which claims to be the largest underground mining company in the country, sought, by extraordinary writ, to enjoin the proposed rule from being finalized.[140] In support of this unsuccessful bid, Mr. Robert Murray's Standing Addendum emphasized the business losses he anticipated and a sense of being unfairly targeted by the rule. He characterized the rule as being EPA's plan "for the shutting down and/or conversion of even more coal-fired power plants than already planned as a result of this piling on of regulation after regulation directly aimed at coal."[141]

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[138] Environmental Justice Leadership Forum on Climate Change, Comment Letter on Clean Power Plan EPA Docket No. EPA-HQ-OAR-2013-0602 (May 31, 2015), https://www.regulations.gov/document?D=EPA-HQ-OAR-2013-0602-35464.

[139] For more on EJ and the Clean Power Plan, see Alice Kaswan's detailed blog series for the Center for Progressive Reform. Alice Kaswan, *The Clean Power Plan and Environmental Justice: Part One*, CTR. FOR PROGRESSIVE REFORM BLOG (Aug. 13, 2015), http://www.progressivereform.org/CPRBlog.cfm?idBlog=6EF50540-CFB2-7EEA-104237BF37A2688C [https://perma.cc/ZL4J-2LJR]; Alice Kaswan, *The Clean Power Plan and Environmental Justice: Part Two*, CTR. FOR PROGRESSIVE REFORM BLOG (Aug. 14, 2015), http://www.progressivereform.org/CPRBlog.cfm?idBlog=6F3B659E-E88E-E275-1DC49007DFE09E14 [https://perma.cc/EX8S-VN8T]; Alice Kaswan, *The Clean Power Plan and Environmental Justice: Part Three*, CTR. FOR PROGRESSIVE REFORM BLOG (Aug. 17, 2015), http://www.progressivereform.org/CPRBlog.cfm?idBlog=6FC636DC-D38C-53B5-50862030F359F0E3 [https://perma.cc/SDU3-EDRH].

[140] *See In re* Murray Energy Corp., 788 F.3d 330, 335 (D.C. Cir. 2015). The Murray Energy Corp. website states: "Murray Energy Corporation is the largest privately owned coal company in the United States, producing approximately 65 million tons of high quality bituminous coal each year, and employing over 6,000 people in six states." *See About*, MURRAY ENERGY CORP., http://www.murrayenergycorp.com [https://perma.cc/J339-JT72].

[141] Opening Brief of Petitioner at 81, Murray Energy Corp. v. EPA, No. 14-1151 (D.C. Cir. Dec. 15, 2014).

Intervenors Peabody Energy and others who, like Murray Energy, opposed the Clean Power Plan, cited "concern for disproportionate harm to coal-reliant States" as a reason for the defeat of 2009 cap-and-trade legislation in Congress that likewise warranted a rejection of this rule.[142] Intervenors quoted Senator Claire McCaskell's concern that a cap-and-trade program, which is an authorized compliance measure under the Clean Power Plan, would "unfairly punish[] businesses and families in coal-dependent states like Missouri."[143] With this rule, Intervenors reasoned, EPA is forcing coal-dependent "[s]tates (and their consumers, communities, businesses, and utilities) to bear the burden for a state objective that is global in nature."[144] In doing so, they asserted, "EPA seeks to pit different parts of the country against one another and to foist potentially ruinous burdens on coal-reliant communities."[145] According to Intervenors, a measure with fairness implications of this "magnitude" is beyond the scope of an agency's power and must be passed by Congress.[146]

Casting the alleged unfairness of the Clean Power Plan from another angle, Intervenors argued the rule's "deliberate targeting" of "coal-fueled power plants in particular" contrasts with a light-touch approach to the transportation sector, which also accounts for a high percentage of U.S. greenhouse gas emissions.[147] Pointing to the emissions profile of the transportation sector, Intervenors asserted "transportation does not face the same treatment."[148] Even as they rightly conceded that EPA separately regulates greenhouse gas emissions from motor vehicles, they nonetheless claimed the agency "does not embark on a 'war' against the automobile."[149] Instead, they

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[142] Opening Brief of Intervenors Dixon Bros., Inc. et al. in Support of Petitioners at 19, West Virginia v. EPA, No. 15-1363 (D.C. Cir. Feb. 23, 2016).

[143] *Id.* at 19 n.19 (quoting Bradford Plumer, *Analyzing the House Vote on Waxman-Markey*, NEW REPUBLIC (June 29, 2009), https://newrepublic.com/article/50550/analyzing-the-house-vote-waxman-markey [https://perma.cc/2CE8-DQSG] (quoting Sen. Claire McCaskill)).

[144] *Id.* at 19.

[145] *Id.*

[146] *Id.*

[147] *Id.* at 20.

[148] *Id.*

[149] *Id.* Under the Obama administration, EPA and the Department of Transportation's National Highway Traffic Safety Administration have engaged in joint rulemaking to regulate both average fuel economy and GHG emissions from new motor vehicles. *See* Light-Duty Vehicle Greenhouse Gas Emission Standards and Corporate Average Fuel Economy Standards, 75 Fed. Reg. 25,324, 25,401 (May 7, 2010) (finalizing standards applicable to passenger cars, light-duty trucks, and medium duty passenger vehicles in model years 2012 through 2016). The rule estimates the program would "result in approximately 960 million metric tons of total carbon dioxide equivalent emissions reductions and approximately 1.8 billion barrels of oil savings

asserted, EPA has in an "egregious way . . . single[d] out certain disfavored entities to bear the burden of achieving a goal that is national, indeed global, in nature."[150] Without going so far as to call the Clean Power Plan an unconstitutional taking, they cited takings law for the proposition that government may not "forc[e] some people alone to bear burdens which in all fairness and justice should be borne by the public as a whole."[151]

Utilities and related industries assert indirect fairness-based claims with reference to low-income electricity consumers under the Clean Power Plan, just as they have in reference to net-metering and distributed solar policy. Invoking an indirect fairness approach similar to utilities' in the solar DG debate, Murray Energy's CEO called the plan an assault on low-cost electricity.[152] In support of Murray Energy's extraordinary writ, fellow coal company Peabody Energy argued that harm from the rule "will not be confined to coal producers and utilities" but will also "inflict disproportionate harm on minorities" and the elderly.[153] The coal companies also argued indirect fairness claims with reference to coal-producing communities. In both settings, these assertions overlook the range of social justice concerns that pertain to policy fairness, suggesting indirect claims are proxies for these stakeholders' primary concerns: the "utility death spiral" and the diminishing dominance of coal in the electricity sector.[154]

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over the lifetime of vehicles sold in model years (MYs) 2012 through 2016." *Id.* at 25,328*; see also* 2017 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions and Corporate Average Fuel Economy Standards, 77 Fed. Reg. 62,624 (Oct. 15, 2012) (finalizing GHG emissions standards for model years 2017–2025). The rule estimates the program will "save approximately 4 billion barrels of oil and to reduce GHG emissions by equivalent of approximately 2 billion metric tons over the lifetimes of those light duty vehicles produced in [model years] 2017–2025." 2017 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions and Corporate Average Fuel Economy Standards, 77 Fed. Reg. at 62,627. The standards will require the equivalent of 54.5 miles per gallon fleetwide average if the "163 grams/mile of carbon dioxide" standard "were achieved solely through improvements in fuel efficiency." *Id.*

150 Opening Brief of Intervenors Dixon Bros., Inc. et al., *supra* note 142, at 40.

151 *Id.* at 40 n.39 (quoting Armstrong v. United States, 364 U.S. 40, 49 (1960)).

152 Robert Murray, *Destroying Affordable Electricity*, INTELLIGENCER/WHEELING NEWS REGISTER (Dec. 12, 2015), https://thewheelingalternative.silvrback.com/murray [https://perma.cc/96NW-9FH4]. Mr. Murray is the president and CEO of Murray Energy Corporation. *Id.*

153 Emergency Renewed Petition for Extraordinary Writ by Intervenor Peabody Energy Corp. at 7–8, Nos. 14-1112, 14-1151 (D.C. Cir. Aug. 13, 2015), ECF No. 1567796, http://www.ago.wv.gov/publicresources/epa/Documents/Peabody%27s%20renewed%20writ%20in%20full%20-%20file%20stamped%20(M0101851xCECC6).pdf [https://perma.cc/3AQ3-Z84L].

154 *See, e.g.*, Kenneth W. Costello & Ross C. Hemphill, *Electric Utilities' 'Death Spiral': Hyperbole or Reality?*, 27 ELECTRICITY J. 7 (2014) (assessing the characterization and citing earlier "death spiral" moments in the history of the electricity industry).

That is not to say that these indirect claims do not gesture toward genuine equity issues presented by the low-carbon shift—they do—but as the counter positions of EJ advocates demonstrate, these issues are complex and nuanced. Accounting for complexities may well resolve these unfairness claims in ways that no longer align with the positions of the parties asserting them.

For example, in addition to their direct claims of unfairness, Intervenors in opposition to the Clean Power Plan litigation advanced the fairness theme to assert the rule "will result in the economic devastation of States and rural, economically depressed communities that rely on coal."[155] The effect on coal-producing communities is an important aspect of the low-carbon transition that raises social justice concerns. As Professor Pat McGinley has highlighted in his work, these communities, dependent on coal mining for their livelihoods, have suffered disproportionate environmental harms in service to the rest of the nation's electricity use.[156] Having long-suffered environmental and health burdens associated with their reliance on the coal industry, many coal communities are now suffering severe economic hardship as the energy sector turns from coal to natural gas and renewable energy.[157] In 2016, President Obama took a step in this direction when he launched the federal Partnerships for Opportunity and Workforce and Economic Revitalization Initiative (the Power Initiative) "to invest federal economic and workforce development resources in communities and regions negatively impacted by changes in the

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[155] Opening Brief of Intervenors Dixon Bros., Inc. et al., *supra* note 142, at 40.

[156] *See* Patrick McGinley, *Collateral Damage: Turning a Blind Eye to Environmental and Social Injustice in the Coalfields*, 19 J. ENVTL. & SUSTAINABILITY L. 304 (2013) (on the failure of environmental, political, and coal industry leaders to plan for the hardships declining coal "portends for coalfield communities"); Patrick C. McGinley, *From Pick and Shovel to Mountaintop Removal: Environmental Injustice in the Appalachian Coalfields*, 34 ENVTL. L. 21 (2004) (on the environmental, economic, and social justice in Appalachian communities).

[157] *See, e.g.*, ADELE MORRIS, BROOKINGS, BUILD A BETTER FUTURE FOR COAL WORKERS AND THEIR COMMUNITIES (2016), https://www.brookings.edu/wp-content/uploads/2016/07/Build-a-Better-Future-for-Coal-Workers-and-their-Communities-Morris.pdf [https://perma.cc/T52V-Y9FT] (reviewing challenges facing individuals and communities dependent on the coal industry and arguing for a carbon tax to help fund programs to support successful economic transitions in coal communities); TED STRICKLAND ET AL., CTR. FOR AM. PROGRESS, REVITALIZING APPALACHIA: HOW CONGRESS CAN CORRECT DISTORTIONS IN THE COAL MARKET AND INVEST IN STRUGGLING COAL COMMUNITIES 1–5 (2015), https://cdn.americanprogress.org/wp-content/uploads/2015/02/CoalCommunities-report2.pdf [https://perma.cc/U7ME-VT28] (explaining economic hardship in coal reliant communities and highlighting how federal laws have exacerbated the problem).

coal economy."[158] To be sure, there is more to do to help these struggling communities.[159]

The discordant fairness narratives described here, even if they can be reconciled to some degree, are competing for attention and priority in a rapidly evolving environment. Parsing the fairness issues raised by this transitional moment is highly time-sensitive. Reinforcing EJ notions of fairness and equity is especially important when competing fairness claims can obscure environmental justice advocacy and continuity in the low-carbon transition. No one can doubt that the industry and utility stakeholders will make themselves heard, in Congress, in the state legislatures, and in the courts. By one estimate, utilities have spent $400 million on energy-related lobbying in the last five years alone[160] If all voices deserve to be heard, it bears emphasis just how stark the resource imbalance is in this space. If social justice-based fairness is to be a guiding principle for emerging law, policy, and institutions, it is critical that its advocates are not drowned out by competing profit-driven fairness claims that may or may not also gesture toward vulnerable communities.

To that end, the next section highlights examples of energy transition approaches that are informed by environmental justice and near-term possibilities for further advancing social justice in the low-carbon shift.

III. LEARNING FROM ENVIRONMENTAL JUSTICE

Learning from environmental justice successes and disappointments, a central, solvable problem has been the absence of distributional concerns and inclusive environmental protection in mandatory provisions of the major federal environmental laws and companion state laws. This problem should readily inform the low-carbon transition toward incorporating justice goals into emerging state and federal structures.

Achieving this depends on the genuine connections between environmental justice, energy, and climate being amplified. The NAACP Climate Justice Program has worked to raise awareness of these linkages through its study of power plants, the focus of the Clean Power Plan, and their host

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[158] *Power Initiative*, U.S. ECON. DEV. ADMIN., https://www.eda.gov/power/ [https://perma.cc/9PXV-3AR8].

[159] *See* MORRIS, *supra* note 157; STRICKLAND ET AL., *supra* note 157.

[160] SARA E. MURPHY, SUSTAINABLE INV. INST., IRRC INST., THE TOP 25 U.S. ELECTRIC UTILITIES: CLIMATE CHANGE, CORPORATE GOVERNANCE AND POLITICS 6 (2016), http://irrcinstitute.org/wp-content/uploads/2016/04/FINAL-Climate-Change-Corporate-Governance-and-Politics.pdf [https://perma.cc/L68Z-RQTD].

communities. To do so, a recent study compared the EJ performance of 378 coal-fired power plants in the United States.[161] Of those, the study identified 75 plants that fail by EJ standards, having a considerable and disproportionate impact on EJ communities.[162] Four million people live within three miles of these failing plants where the average per capita income is roughly $17,000.[163] Over half are people of color.[164] Some states have made these connections by tying decisions related to energy, or the benefits of energy policy, with EJ considerations. In California, for example, locating a new power plant requires a disproportionate impact siting assessment.[165] In Delaware, likewise, a portion of proceeds from the sale of CO_2 allowances goes to programs designed to help low-income ratepayers.[166]

Yet, as advocates stress the distribution of energy pollution and transition benefits alike, it is clear that environmental justice can inform the low-carbon shift in both registers. In troubling patterns mirroring some of the same disparities that exist in exposure to harm, inclusion for EJ communities in transitional benefits has been disproportionately low.[167] Some nonprofit organizations, like Green for All and Grid Alternatives, are working to connect EJ communities with the economic opportunities of transition in the energy sector through job training and solar affordable housing programs, but much more can be done at the state and federal level to support these efforts.[168]

Clean Power Plan implementation, particularly at the state level, offered a structure for advancing EJ at the intersection of energy and environmental law. Advocates'

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[161] NAACP, *supra* note 14, at 9.

[162] *Id.* at 27.

[163] *Id.*

[164] *Id.*

[165] UNIV. OF CAL. HASTINGS, *supra* note 28, at xvi.

[166] *Id.*

[167] *See, e.g.*, ROBERT POLLIN ET AL., DEP'T OF ECON. & POLITICAL ECON. RESEARCH INST., GREEN PROSPERITY: HOW CLEAN-ENERGY POLICIES CAN FIGHT POVERTY AND RAISE LIVING STANDARDS IN THE UNITED STATES 2 (2009) (arguing that "[t]he building of a clean-energy economy in the United States can . . . create new 'pathways out of poverty' for the 78 million people in this country (roughly 25 percent of the population) who are presently poor or near-poor, and raise living standards more generally for low-income people in the United States").

[168] Green for All is a nonprofit organization that "works to build an inclusive green economy strong enough to lift people out of poverty," with a focus on renewable energy and energy efficiency job training and access to these clean energy resources for all communities. *See About Us*, GREEN FOR ALL, http://www.greenforall.org/about_us [https://perma.cc/V2JF-YMNN]. Grid Alternatives is a nonprofit with a mission "to make renewable energy technology and job training available to underserved communities." *See Mission and History*, GRID ALTERNATIVES, http://www.gridalternatives.org/about/about-grid [https://perma.cc/BX8L-WVXW].

participation in the public dialogue around this rulemaking had an impact: there is significantly more focus on EJ and community involvement in the final rule than there was in the proposed version.[169] Groups that played an active role in raising these issues have reason to celebrate that achievement. Still, many of the measures the Environmental Justice Leadership Forum and others urged to be mandatory were only encouraged in the final rule. For example, the final rule does not require states to perform EJ analyses, as advocates urged, but the agency created a new EJ screening tool to support states in crafting compliance plans that advance environmental justice.[170] Advocates hoped the final rule would require states to engage EJ communities in developing compliance plans, but instead the rule calls on states to address how they engaged vulnerable communities in that process.[171] It does not mandate this engagement or provide a mandatory structure for ensuring inclusion. Similarly, the rule does not require states to prioritize renewable energy and energy efficiency in EJ communities, but it did create an incentive program designed to drive early investment in low-income areas.[172] In adhering to the discretionary nature of EJ considerations under the Clean Air Act generally, the risk of inconsistent attention inherent in discretionary authority remained under this rule.

The lack of state EJ mandates in the Clean Power Plan, and even the rule's anticipated demise—however disappointing—does not preclude informed and committed states from crafting plans to reduce greenhouse gas emissions that make inclusion and EJ notions of fairness concrete. Such efforts will be made easier with access to EJ screening tools developed by the Obama EPA and a growing movement toward localized energy models. Moreover, the measures that might have comprised a compliance plan do not have to depend on the Clean Power Plan structure. Many states halted formal planning for Clean Power Plan compliance after the Supreme Court's stay of the rule, but many

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[169] Jalonne L. White-Newsome, *Here's How Environmental Justice Advocates Improved Obama's Clean Power Plan*, GRIST (Aug. 13, 2015), http://grist.org/climate-energy/heres-how-environmental-justice-advocates-improved-obamas-clean-power-plan/ [https://perma.cc/YJ35-HXLC]. Ms. White-Newsome is the director of federal policy for the advocacy organization WE ACT for Environmental Justice. *Id.*

[170] *See* EPA, EJ SCREENING REPORT FOR THE CLEAN POWER PLAN (2015), https://www.epa.gov/sites/production/files/2016-04/documents/ejscreencpp.pdf [https://perma.cc/33F2-92LU] (produced as "companion piece" to the final rule for states to use in community engagement and development of state plans).

[171] White-Newsome, *supra* note 169.

[172] *Id.*

others are continuing to plan for a low-carbon shift, with or without the Clean Power Plan.[173]

States on a low-carbon trajectory can do everything required by the Clean Power Plan without it and more on their own. The "green zones" concept, for example, which identifies "overburdened and underserved communities," can be adapted as a framework in mandatory thresholds for community solar or other distributed renewables or for geographic limits on emissions allowances in trading programs.[174] If a state participates in an emissions trading program over some EJ groups' objections, it might mitigate the concerns with protective measures, like eliminating emission reduction credits for facilities in EJ communities.[175] A state might institute EJ as a guiding principle for retirements and upgrades for electric generating units at power plants, bringing distributed renewable energy and energy efficiency to EJ communities and reducing energy bills. States can modify the mandates on public utility commissions to strengthen protections for low-income ratepayers facing rising electricity rates due to transitional policies or climate change impacts. These examples are just a few among the kinds of measures that environmental justice brings to the energy policy space.

Within the Clean Power Plan's cooperative structure, and more broadly across the energy sector, the low-carbon shift is proving to be a largely decentralized transition. This presents challenges and opportunities for EJ advocacy. Much of the energy law and policy development is occurring at the state level, through public utility commissions and state legislatures that are much less conversant in EJ concerns, principles, and strategies than EPA or state environmental agencies. The learning curve for these institutions is likely to be much higher. A decentralized transition also creates a challenge of highly dispersed subjects for EJ analysis—there are wide-ranging and continuously evolving state and local infrastructures for the low-carbon transition. Consolidated federal advocacy has advantages for groups working

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[173] *See E&E's Power Plan Hub*, *supra* note 125 (summary map of post-stay planning status across the states).

[174] *See* ELLEN KERSTEN ET AL., USC PROGRAM FOR ENVTL. & REGIONAL EQUITY, COLL. OF NAT'L RES., FACING THE CLIMATE GAP: HOW ENVIRONMENTAL JUSTICE COMMUNITIES ARE LEADING THE WAY TO A MORE SUSTAINABLE AND EQUITABLE CALIFORNIA 4 (2012), https://dornsife.usc.edu/assets/sites/242/docs/FacingTheClimateGap_web.pdf [https://perma.cc/3YDR-AU38]; CAL. ENVTL. JUSTICE ALL., GREEN ZONES FOR ECONOMIC AND ENVIRONMENTAL SUSTAINABILITY (2014), http://caleja.org//wp-content/uploads/2014/03/greenzones_shortFINAL.pdf [https://perma.cc/DT9H-XQ7M].

[175] *See, e.g.*, Helen H. Kang, *Pursuing Environmental Justice: Obstacles and Opportunities—Lessons from the Field*, 31 WASH. U. J.L. & POL'Y 121, 148 (2009).

with very limited resources, and deep state-level campaigns are difficult to staff and fund. At the same time, there are benefits to advocacy that is closer to home—recognition of EJ in the abstract at the federal level has too often seemed more symbolic than substantive.

This transitional moment for the energy sector and energy policy creates an opportunity to avoid repeating the mistakes that have made the goal of environmental justice so difficult to achieve. Professor Tseming Yang's grounding summary of EJ "deficiencies of the environmental regulatory system" is an instructive starting point for evaluating opportunities in emerging energy regimes.[176] He grouped environmental justice critiques as stemming mostly from three such deficiencies: "1) the failure of regulations to provide adequate substantive environmental protections for minorities and the poor, 2) inequality and disproportionality in the distribution of the burdens and benefits of regulations, and 3) the inability of minority groups and the poor to participate actively and effectively in environmental decision-making processes."[177]

Adapted to analyze opportunities in the low-carbon shift, these deficiencies might be avoided by asking in connection with energy reforms, programs, and projects: Can a given reform, program, or project be consciously crafted to both protect and provide tangible benefits for EJ communities? Is the process for developing the reform, program, or project affirmatively inclusive, with resources to support meaningful, early community engagement?

To preserve the full range of possibilities, a critical element of transition policymaking will be to prevent fairness frames that prioritize utilities' interests from crowding out equity goals clarified by the EJ movement in new legal infrastructures for a low-carbon energy sector.

CONCLUSION

The conceptual expansion of environmental justice to the energy and climate spheres builds on the movement's core values in ways that emphasize their relevance in the low-carbon transition at an early stage. This article has focused on the *transition*, rather than an end-point vision, because it presents an imperative to reflect and to reimagine alternative pathways

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[176] Tseming Yang, *Environmental Regulation, Tort Law and Environmental Justice: What Could Have Been*, 41 WASHBURN L.J. 607, 610 (2002).

[177] *Id.*

for developing inclusive law and policy. In turning for guidance from the environmental justice movement, which has been fundamentally concerned with fairness, this article considers how it can inform the energy transition and its evolving legal regimes. This is a question that must continue to be asked again and again as the low-carbon shift alters U.S. patterns of energy consumption and energy industries reorganize around new economic and regulatory realities.

Ultimately, environmental justice speaks to more than just instrument design—it can refresh the common understanding of who and how energy and environmental regulatory systems should serve. Even with progressive reforms, law is a limited tool for advancing energy and environmental justice. The late EJ advocate Luke Cole warned, "these struggles are not about the law. They are about political and economic power."[178] He rejected the notion that EJ communities necessarily "need a lawyer," and argued instead that the role of law, and of lawyers serving EJ communities, should stay focused on "building power and securing a place for our clients at the negotiating table."[179] Or, as the executive director of the Center for Race, Poverty, and the Environment, Caroline Farrell, reflects, "public laws and policies constitute a '*necessary* but *insufficient* condition for ensuring . . . equitable solutions.'"[180]

Conversely, the EJ movement teaches that political and economic power imbalances will not be changed by purely procedural measures and public participation alone. But as the energy sector and legal regimes that structure it evolve, long-standing power structures within the industry may recalibrate. Among the discordant notions of fairness competing for validation, environmental justice is at once the most enduring, the most broadly instructive, and the most easily obscured by energy industries' lobbying advantages. Yet, if policymakers can parse the fairness discourse, this transitional moment opens a window for joining concrete policies with enhanced

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[178] Luke W. Cole, *Environmental Justice and the Three Great Myths of White Americana*, 14 HASTINGS W. N.W. J. ENVTL. L. & POL'Y 573, 582–84 (2008).

[179] *Id.*; *see also* Sheila Foster, *Justice from the Ground Up: Distributive Inequities, Grassroots Resistance, and the Transformative Politics of the Environmental Justice Movement*, 86 CALIF. L. REV. 775, 779 (1998) (considering, through a case study of Chester, Pennsylvania, the potential and limits of legal reform and legal action in advancing environmental justice and the need "to redefine existing power relations" and "create new political possibilities for historically marginalized communities in local decision-making processes").

[180] Caroline Farrell, *Just Transition: Lessons from the Environmental Justice Movement*, 4 DUKE F.L. & SOC. CHANGE 45, 55 (2012) (omission in original) (quoting Julie Sze et al., *Best in Show? Climate and Environmental Justice Policy in California*, 2 ENVTL. JUST. J. 179, 184 (2009)).

community engagement in ways that can correct persistent harms and explicitly position EJ communities to reap the economic and health benefits in the low-carbon shift.