

EQUITABLE, SUSTAINABLE, AND JUST: A TRANSITION FRAMEWORK

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As climate change accelerates, so do demands for a transition away from an extractive fossil fuel economy toward one that is ecologically sustainable. Yet efforts to advance that transition may exacerbate inequitable distributions of climate hazards and economic opportunities. Just Transition is a theory of change that recognizes that those least culpable for the climate crisis are most burdened by its effects. While Just Transition is gaining a foothold in climate policy and academic circles, legal scholars have yet to fully consider how structural racism, labor law, and environmental policy are likely to perpetuate this inequity in a green economy. This Article proposes a transition framework integrating racial equity, environmental justice, and collective labor power. Applying this framework to energy transition initiatives, such as Colorado's Just Transition Plan, reveals critical gaps for frontline workers and fenceline communities. Creating energy transition law and policy that advances racial equity, worker power, and principles of environmental justice will be necessary for a transition to an equitable, sustainable, and just economy.

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INTRODUCTION

Transition is inevitable. Justice is not.¹

Hurricane floodwaters shattered the sliding glass door to Darlene Lee's basement apartment, pinning her against a wall and trapping her underwater.² Collapsing at the end of his shift, spent picking hops inside humid tunnels of vines, Gueta Vargas became the latest casualty of a Yakima Valley heatwave.³ Kyanna Parsons-Perez was turning out scented candles on the graveyard shift when a tornado reduced the Tennessee factory to rubble, killing nine of her co-workers and trapping her below the torn-off roof as the sirens wailed.⁴ The risks of climate change are no

1. CLIMATE JUST. ALL., JUST TRANSITION PRINCIPLES 3 (2018), https://climatejusticealliance.org/wp-content/uploads/2018/06/CJA_JustTransition_Principles_final_hi-rez.pdf [https://perma.cc/2PFF-8JZB].

2. See Kimmy Yam & Sakshi Venkatraman, *Ida's Forgotten Victims: Nearly All Storm's Basement Deaths Were Asian Residents, Obscured by Climate Injustice*, NBC NEWS (Oct. 18, 2021, 12:08 PM), <https://www.nbcnews.com/news/asian-america/ida-s-forgotten-victims-nearly-all-storm-s-basement-deaths-n1281670> [https://perma.cc/98DT-FABN] (nearly all of the eleven New York City basement-flooding deaths during Hurricane Ida were residents of Asian descent who lived in below-ground dwellings that were particularly susceptible to storms).

3. See Sarah Sax, *A Just Transition for Farmworkers*, HIGH COUNTRY NEWS (Feb. 1, 2022), <https://www.hcn.org/issues/54.2/north-labor-a-just-transition-for-farmworkers> [https://perma.cc/SQV9-UJZ6] (noting that farmworkers are around 35 times more likely to die from heat than other workers, and studies predict that climate change will almost double the number of dangerously hot workdays by 2050).

4. See Ben Tobin, *What to Know About the Mayfield Candle Plant Destroyed by Tornado with Workers Inside*, LOUISVILLE COURIER J. (Dec. 12, 2021), <https://www.courier-journal.com/story/news/local/2021/12/12/mayfield-consumer-products-candle-factory-collapse-kentucky-tornado-workers-inside/6476729001/> [https://perma.cc/VXV4-K3WU] (reporting that starting wages at the factory, which employed prison labor and mandated overtime, were \$8 an hour).

longer theoretical; its causes are no longer uncertain.⁵ Hurricanes, heatwaves, and tornados—as well as wildfires, landslides, and drought—are impacting us all, though not all of us equally.⁶ As the effects of climate change accelerate, so too do demands for a transition away from burning fossil fuels in an extractive, carbon-based economy toward one that is ecologically sustainable.⁷ Yet efforts to advance that transition may exacerbate inequitable distributions of social and economic

5. See Brett Israel, *Coal Plants Smother Communities of Color*, SCI. AM. (Nov. 16, 2012), <https://www.scientificamerican.com/article/coal-plants-smother-communities-of-color/> [<https://perma.cc/769B-KTDG>] (quoting former NAACP president Benjamin Todd Jealous: “It’s very easy right now to talk about climate change as something that is theoretical, to talk about the dirtiness caused by coal plants as something that is aesthetic. But when you . . . actually meet with people in these communities, the stories that they tell you—about their children’s lives being diminished, about older people in the communities’ lives being shortened by the presence of these plants—are disturbing.”).

6. See INT’L FED’N OF RED CROSS & RED CRESCENT SOCIETIES, DISPLACEMENT IN A CHANGING CLIMATE 9 (2021), https://www.ifrc.org/sites/default/files/2021-10/IFRC-Displacement-Climate-Report-2021_1.pdf [<https://perma.cc/N8KG-XSRV>] (finding that while climate change and climate-related displacement affects everyone, it has a disproportionate impact on the most vulnerable communities in low and middle-income countries). See also VIVIANE CLEMENT ET AL., GROUNDSWELL PART 2: ACTING ON INTERNAL CLIMATE MIGRATION xvii (2021), <https://openknowledge.worldbank.org/handle/10986/36248> [<https://perma.cc/NQ5N-T3ZK>] (finding that without early and concerted climate and development action, as many as 216 million people could move within their own countries due to slow-onset climate change impacts by 2050).

7. This Article uses the terms “low-carbon economy,” “zero-carbon economy,” “green economy,” and “regenerative economy” interchangeably. Aggressive goals to reduce the Earth’s temperature by 1.5 to 2 degrees Celsius, as outlined in the 2015 Paris Agreement, have yet to reduce global emissions sufficient to meet those goals. Earlier projections of rising sea levels and other effects of climate change have only accelerated, requiring even more aggressive reductions in greenhouse gas emissions. Such reductions, designed to benefit the environment, are also predicted to produce even “harsher social and employment impacts than those experienced so far. This will lead to major changes, adjustments, costs, and opportunities and will considerably affect jobs, livelihoods, working conditions, skills, and job prospects.” INT’L LAB. ORG., JUST TRANSITION TOWARDS ENVIRONMENTALLY SUSTAINABLE ECONOMIES AND SOCIETIES FOR ALL 1, 4 (2018), https://www.ilo.org/wcms5/groups/public/---ed_dialogue/---actrav/documents/publication/wcms_647648.pdf [<https://perma.cc/4J5U-C5U7>].

benefits and burdens among frontline energy workers⁸ and *fenceline* communities.⁹ Those most responsible for the negative consequences of climate change—oil and coal companies and their investors, wealthier consumers in the Global North—should arguably shoulder most of its risks.¹⁰ But in what's been described as a “double environmental injustice,” in which risk and responsibility are inverted,

8. For purposes of this Article, “frontline energy worker” is defined as one whose labor directly produces energy (through, e.g., extraction, manufacturing, or refining of electricity, oil, and natural gas) or provides direct services in support of the energy industry and are typically entitled to earn overtime regardless of occupation. This includes laborers, technicians, drivers, and dispatchers. See *Occupational Employment and Wage Statistics*, U.S. BUREAU OF LAB. STAT. (May 2021), https://www.bls.gov/oes/current/naics4_211100.htm [https://perma.cc/ZHF6-PJ5J]. Of approximately 6,413 power plants in the United States, 48% are powered by combusting coal (which is transported by rail), 20% are nuclear power plants, and 22% are powered by natural gas. Hydroelectric plants constitute 6%, oil 1%, and renewable sources (solar, wind, and geothermal) comprise 3%. See *Energy Sector*, CYBERSECURITY & INFRASTRUCTURE SEC. AGENCY, <https://www.cisa.gov/energy-sector> [https://perma.cc/B2A3-YYJW] (last visited Oct. 27, 2022). The U.S. Bureau of Labor Statistics (BLS) estimates that about 38,000 people work in U.S. coal mines. *Employment, Hours, and Earnings from the Current Employment Statistics Survey (National)*, U.S. BUREAU OF LAB. STAT. <https://data.bls.gov/timeseries/CES1021210001> [https://perma.cc/XM3H-GM98] (last visited Oct. 27, 2022). 133,800 people work in oil and gas extraction. *Oil and Gas Extraction: NAICS 211*, U.S. BUREAU OF LAB. STAT., <https://www.bls.gov/iag/tgs/iag211.htm> [https://perma.cc/XP8R-N28J] (last visited Oct. 27, 2022). About 565,000 work in all mining, quarrying, and oil and gas extraction. *Mining, Quarrying, and Oil and Gas Extraction: NAICS 21*, U.S. BUREAU OF LAB. STAT., <https://www.bls.gov/iag/tgs/iag21.htm> [https://perma.cc/D4L6-XJFC] (last visited Oct. 27, 2022).

9. For purposes of this Article, “fenceline communities,” refers to not only to those communities sited adjacent to energy production activities causing pollution, but also those:

that experience “first and worst” the consequences of climate change. These are communities of color and low-income, whose neighborhoods often lack basic infrastructure to support them and who will be increasingly vulnerable as our climate deteriorates. These are Native communities, whose resources have been exploited, and laborers whose daily work or living environments are polluted or toxic.

See Carolyn Holland, *Centering Fenceline Communities*, ECOTRUST (May 20, 2017), <https://ecotrust.org/centering-frontline-communities/> [https://perma.cc/NL2Q-WBBQ]. The Gulf Coast Center for Law & Policy defines frontline communities “as all people living, working or worshipping in coastal or fence-line spaces . . . and communities targeted by extractive industries including energy, petrochemical and prison industries.” See *Vision & Mission*, GULF COAST CTR. FOR L. & POL’Y, <https://gcclp.org/mission-vision> [https://perma.cc/4D76-GL6G] (last visited Oct. 27, 2022).

10. See *Confronting Carbon Inequality*, OXFAM 2, 3 (Sept. 21, 2020), <https://oxfamlibrary.openrepository.com/bitstream/handle/10546/621052/mb-confronting-carbon-inequality-210920-en.pdf> [https://perma.cc/X87P-TQ9B] (noting that the richest 10% are responsible for over 50% of the cumulative carbon emissions, as opposed to the poorest 50%, who are responsible for only about 7% of such emissions).

those least responsible for the harmful effects of climate change live with its most significant impacts on their health, livelihood, and security.¹¹

Producing energy by carbon-neutral means will not, alone, redress this systemic inequality, nor will clean energy production automatically result in a more racially equitable distribution of occupational opportunities and climate hazards. Structural racism has shaped and supported the fossil fuel economy, a history largely ignored in discussions of renewable energy development and sustainability.¹² For example, those close to coal-fired power plants are more likely to be Black, Indigenous, or other people of color, whose wages and wealth are significantly below national averages.¹³ Not only are they disproportionately exposed to high levels of mercury, lead, and carbon dioxide, a lack of infrastructure and other investments have left their communities unprepared to endure the worst impacts of climate change.¹⁴ At the same time, shuttering fossil-fuel-powered facilities, absent economic diversification, will deal a significant financial blow to communities dependent on them for property and sales tax revenue.¹⁵ The United Nations refers to the racialized nature of this systemic overexposure to, and underpreparedness for, the effects of climate change and the process of decarbonization as “climate apartheid.”¹⁶

Addressing the root causes of this climate apartheid will be necessary to prevent its replication in a green energy economy. While a transition to renewable

11. See James M. Schultz et al., *Double Environmental Injustice—Climate Change, Hurricane Dorian, and the Bahamas*, 382 NEW ENG. J. MED. 1,1 (2020), https://www.nejm.org/doi/full/10.1056/NEJMp1912965?query=featured_home [<https://perma.cc/V8G9-QB54>] (explaining that a “double environmental injustice” is that “socioeconomically disadvantaged and marginalized populations sustain disproportionate harm and loss, with more hazardous storms exacerbating the inequity; and while the populations most vulnerable to Atlantic hurricanes, especially those in small-island states, contribute virtually nothing to climate change, they are among those most exposed to risks that are worsened by the carbon emissions from higher-income countries”).

12. See Julius Alexander McGee & Patrick Trent Greiner, *Racial Justice is Climate Justice: Racial Capitalism and the Fossil Economy*, HAMPTON INST. (May 2020) (identifying how the processes of fossil fuel extraction and racial oppression are “fused to one another”).

13. See NAACP ET AL., COAL BLOODED: PUTTING PROFITS BEFORE PEOPLE 15, 30, <https://naacp.org/resources/coal-blooded-putting-profits-people> [<https://perma.cc/5P29-8EQW>] (last visited Oct. 27, 2022) (reporting that the nearly 6 million people living within three miles of a U.S. coal-fired power plant had an average per capita income of \$18,000 per year; 39% were people of color. For the roughly two million people living within three miles of the 12 worst polluting plants, 76% were people of color, and the average income dropped to \$14,626).

14. See *id.* at 16, 18, 62.

15. See Ann M. Eisenberg, *Transitions in Energy Communities*, 12 GEO. WASH. J. ENERGY & ENV’T L. 103, 105–06 (2021) (noting that “ripple effects included reduced property and sales taxes, decreased regional economic vitality, and budgetary struggles for local governments”).

16. See *World Faces ‘Climate Apartheid’ Risk, 120 More Million in Poverty: UN Expert*, UN NEWS (June 25, 2019), <https://news.un.org/en/story/2019/06/1041261> [<https://perma.cc/UX9Z-RLBS>], cited in Jacob Z. Bolton, *Health in All or Profit for Some: Health and Racial Equity in All Policy for a Just Transition*, 20 J. L. SOCIETY 315, 319 (2020).

energy production is estimated to result in the loss of 6 million fossil fuel jobs, economists predict that between 24 and 37 million clean energy jobs will be created, a global net gain of 18 million jobs.¹⁷ Simple math does not accurately account for the impacts transition will have on frontline workers and fenceline communities. Human rights advocates cite growing violations of Indigenous land and water rights for wind and solar farms;¹⁸ children mining cobalt, a core component of lithium batteries needed to power electric vehicles;¹⁹ and few women and people of color in economically sustainable, green energy jobs.²⁰

Just Transition is a theory of change that recognizes that those least culpable for the current climate crisis are most vulnerable to its effects.²¹ If put into practice, just transition can move us away from an extractive and exploitative carbon-based economy to one that is regenerative and equitable. Equity is recourse to principles of justice when applying the law would be unjust.²² But according to whose principles of justice, by what means, and for what purposes vary considerably in the context of climate change. As some scholars have noted, there is a risk that various social movements—environmental, climate justice, racial justice, and labor

17. See INT'L LAB. ORG., WORLD EMPLOYMENT AND SOCIAL OUTLOOK 2018: GREENING WITH JOBS 1 (2018), https://www.ilo.org/wcmsp5/groups/public/---dcomm/---publ/documents/publication/wcms_628708.pdf [<https://perma.cc/2V9M-CTMC>] (calculating a net gain of 18 million jobs in the green energy sector); see also NEW CLIMATE ECON., *Unlocking the Inclusive Growth Story of the 21st Century: Accelerating Climate Action in Urgent Time* 39 (Aug. 2018), https://newclimateeconomy.report/2018/wp-content/uploads/sites/6/2018/09/NCE_2018_FULL-REPORT.pdf [<https://perma.cc/CH8Y-5E6E>] (concluding that ambitious climate action would result in a net gain of 37 million jobs across the global economy by 2030).

18. See BUS. & HUM. RTS. RES. CTR., RENEWABLE ENERGY & HUMAN RIGHTS BENCHMARK: KEY FINDINGS FROM THE WIND & SOLAR SECTORS 4 (2021), https://media.business-humanrights.org/media/documents/2021_Renewable_Energy_Benchmark_v4.pdf [<https://perma.cc/W2LQ-C46G>] (the BHRRC has recorded over 200 human rights violation allegations linked to renewable energy projects in the last 10 years).

19. See Sean Fleming, *The Hidden Cost of the Electric Car Boom—Child Labour*, WORLD ECON. F. (Sept. 24, 2018), <https://www.weforum.org/agenda/2018/09/the-hidden-cost-of-the-electric-car-boom-child-labour/> [<https://perma.cc/Y3WU-ZKM2>] (reporting that children as young as ten are employed in cobalt mining, a critical raw material in lithium-ion battery production, in the Democratic Republic of the Congo).

20. See Shelley Welton & Joel Eisen, *Clean Energy Justice: Charting an Emerging Agenda*, 43 HARV. ENV'T L. REV. 307, 334 (2019) (finding the underrepresentation of women and people of color in green industries compared to the workforce in general and with overall population demographics).

21. See JUST TRANSITIONS: SOCIAL JUSTICE IN THE SHIFT TOWARDS A LOW-CARBON WORLD 2 (Edouard Morena, Dunja Krause & Dimitris Stevis eds., 2020) [hereinafter JUST TRANSITIONS: SOCIAL JUSTICE] (emphasizing that “the most vulnerable sections of society and least responsible for the climate crisis are either made to pay the price for low-carbon transition or used/manipulated to justify climate inaction or low ambition”). The author notes that it was, in part, a “growing sense of anger at the fact that the country’s increasingly cash-strapped and precarious working and lower-middle-class, was unjustly being made to pay for the energy transition,” that fueled the “Yellow Vests” protests, which began in 2018. *Id.* at 3.

22. See *Equity*, BLACK’S LAW DICTIONARY (8th ed. 2004).

rights—will advocate for separate and disconnected visions of how law and policy should advance this vision of a just transition.²³ An integrative framework can resolve competing justice narratives, but it must prioritize racial equity and worker power to avoid replacing one form of climate apartheid with another. This Article considers how collective bargaining and environmental justice principles may be re-visioned to meet the needs of frontline workers and fenceline communities in transitioning to an equitable, sustainable, and just economy.

The Article proceeds as follows: Part I explores the history, principles, and applications of Just Transition Theory. Part II uses a Louisiana fenceline community to analyze the weaknesses in environmental and labor laws in advancing a just transition and how race, and structural racism, are missing from just transition literature. Part III offers a law and policy framework integrating racial equity, environmental justice, and collective labor power dimensions. Part IV applies this framework to the policies and programs emerging from the State of Colorado.

I. JUST TRANSITION THEORY

A. History of a Movement

The idea of a “just transition for workers” was conceived not in response to climate change but to demands for nuclear disarmament and an end to toxic chemical production.²⁴ Concurrent with movements for civil rights and gender equality, the anti-nuclear demands of peace activists and environmentalists would yield safer, cleaner air and water, but could be viewed as threatening to workers’ livelihoods in the atomic industry.²⁵ One visionary union leader saw an opportunity where most environmentalists and labor leaders saw conflict. Tony Mazzocchi, who had found work in a Long Island cosmetics factory following his decorated discharge from World War II, rose swiftly through the ranks of his Oil, Chemical,

23. See David J. Doorey, *Just Transitions Law: Putting Labour Law to Work on Climate Change*, 30 J. ENV. L. & PRAC. 201, 221 (2017) [hereinafter *Just Transitions Law*].

24. See LAB. NETWORK FOR SUSTAINABILITY ET AL., “*Just Transition*”—*Just What is It? An Analysis of Language, Strategies, and Projects* 5, https://labor4sustainability.org/files/Just_Transition_Just_What_Is_It.pdf [<https://perma.cc/XGG2-STEV>] (citing Jill Nelson, *Jobs with Peace*, in Jeremy Brecher & Tim Costello, *BUILDING BRIDGES: THE EMERGING GRASSROOTS COALITION OF LABOR AND COMMUNITY* (New York: Monthly Review Press, 1990)).

25. See *Just Transitions Law*, *supra* note 23, at 214 (noting a similar tension in the contemporary context, in that “reducing industrial production, requiring a phase out of high carbon producing practices, or imposing new costs on employers in order to reduce environmental harm and emissions...may be contrary to the goal of labour law to produce decent, high paying jobs, at least in the short term”). Cf. Patrice Lumumba Simms, *On Diversity and Public Policymaking: An Environmental Justice Perspective*, 13 SUSTAINABLE DEV. L. & POL’Y 14 (2012) (noting the “genealogical” ties between the civil rights and the environmental movements). As Jose Bravo, head of the Just Transition Alliance, recalls, “Here you had workers who depended on 100 percent of the most vile things on the planet. The chemicals, the fuels, the artillery, the weapons . . . And they said, *You know what? The stuff we produce, and many of the things we put together in these plants, probably shouldn’t be put together on the face of this planet.*” Samantha Harvey, *Leave No Worker Behind*, EARTH ISLAND J. (2018) https://earthisland.org/journal/index.php/magazine/entry/leave_no_worker_behind [<https://perma.cc/6SM4-3HJM>].

and Atomic Workers (“OCAW”) union.²⁶ Mazzocchi pushed for legal protections for his members, whose jobs producing atomic weapons, plastics, and toxic chemicals exposed them to serious health hazards in workplaces with few enforceable safety standards, and he was instrumental in passing the 1970 Occupational Safety and Health Act.²⁷

Making the shopfloor safer was crucial, but fully protecting workers, their communities, and the planet from the dangers these industries created required a total elimination of toxic products, including all the plastics his members produced.²⁸ Calling for an end to manufacturing is a bold move for any labor leader; as the leader of a union whose workers’ livelihoods depended on that production, it was tantamount to treason. But Mazzocchi had a bold idea. To offset the burden his members would shoulder for the sake of the public, Mazzocchi—inspired by the G.I. Bill, of which he was a beneficiary—proposed a program by which his workers would be paid to be retrained and transition to an alternative form of work.²⁹ He explained that being paid to undergo such a “transition from one kind of economy—from one kind of job—to another is not welfare. Those who work with toxic materials on a daily basis . . . in order to provide the world with the energy and the materials it needs deserve a helping hand to make a new start in life.”³⁰

Though not the only labor leader interested in the burgeoning environmental movement, Mazzocchi’s vision was a critical inflection point for collaboration.³¹ In 1973, Sierra Club Executive Director Mike McCloskey called for

26. See *Hall of Honor Inductee: Tony Mazzocchi*, U.S. DEP’T OF LAB. (2012), https://www.dol.gov/general/aboutdol/hallofhonor/2012_mazzocchi [https://perma.cc/YPA6-M8QQ] (noting that when OSHA was signed in 1970, President Richard M. Nixon publicly acknowledged his instrumental role in the legislation).

27. See Steve Early, *A Working-Class Hero is Something to Be, AGAINST THE CURRENT* (Mar.–Apr. 2008), <https://againstthecurrent.org/atc133/p1409/> [https://perma.cc/55QR-LBPY] (quoting Mazzocchi’s biographer Les Leopold, who described Mazzocchi as “the Rachel Carson of the American workplace”).

28. *Id.*

29. See Tony Mazzocchi, *A Superfund for Workers*, 9 EARTH ISLAND J. 1, 40–41 (1993–1994). For a fulsome recounting of the evolution of Mazzocchi’s vision as relayed by his biographer, Les Leopold, see Labor Network for Sustainability, *Just Transition: Love It, Hate It—You’ve Heard the Term, Now Hear the Story*, FACEBOOK (July 22, 2020), <https://www.facebook.com/labor4sustainability/videos/just-transiton-love-it-hate-ityouve-heard-the-term-now-hear-the-story/272068424089558/> [https://perma.cc/9MB4-3G5D].

30. Mazzocchi, *supra* note 29, at 41. Mazzocchi explained that this “Superfund for Workers” would “guarantee full wages and benefits to employees who lose their jobs due to environmental regulations or accidents until a comparable job can be found. As with any unjustified firing, displaced workers should receive full wages and benefits.” *Id.*

31. Mazzocchi was not the only labor leader attuned to the growing environmental movement. In 1968, the newly elected President of the United Auto Workers, Walter Reuther, addressed his union’s 1968 convention with a rallying call to develop young leaders “with stars in their eyes” who could help turn “labor’s power and money loose” on complex problems ranging from racism to affordable housing to cleaning the air. Three days later, the delegates approved an “Environmental Bill of Rights for Americans” and promised to bargain to reduce the emission levels of the cars they assembled. Reuther was killed in a plane crash before his first real chance to turn that “money and power loose” on General Motors.

the government “to indemnify workers who are displaced in true cases of plant closures for an environmental reason.”³² In what would become a central tenet of Just Transition Theory—equitable distribution of benefits and burdens—McCloskey implored, “Workers should not be made to bear the brunt of any nation’s commitment to a decent environment for all. Society should assume this burden and aid them in every way possible.”³³ This nascent labor and environmental partnership attracted little attention in legal scholarship outside of a single article in the 1974 *Yale Review of Law and Social Action*.³⁴ The article considered the viability of “environmental collective bargaining,” a potential solution to the tension created between labor’s desire for jobs and the public’s interest in abating pollution.³⁵ However, early attempts at this compromise had limited victories at the bargaining table,³⁶ no legislative traction, and scant discussion in legal scholarship.³⁷

Meanwhile, the environmental conservation movement began facing criticism for failing to acknowledge and address the racially disparate ways toxic chemical pollution production impacted workers and communities.³⁸ As this new

Reuther’s successors were less militant about emission standards, which were soon promulgated by the newly formed Environmental Protection Agency. Hultin noted other unions that at that time had engaged in environmental bargaining, including the United Rubber Workers union, which “negotiated the nation’s first major environmental clause in a collective bargaining agreement, convincing the large tire companies to contribute half a cent per man-hour to research the ‘harmful factors in the working environment’ and develop a ‘toxicological surveillance’ system.” See Hultin, *infra* note 34, at 50–52.

32. LES LEOPOLD, THE MAN WHO HATED WORK AND LOVED LABOR 309 (2007).

33. See *id.* Today, the Sierra Club and other environmental organizations have partnered with large labor unions in a “blue-green alliance” to advocate for environmental reform alongside policies that “create and maintain quality jobs.” See *Members*, BLUE-GREEN ALLIANCE, <https://www.bluegreenalliance.org/about/members> [<https://perma.cc/7T7E-72JA>] (last visited Oct. 27, 2022).

34. See Jerry Hultin, *Unions, the Environment, and Corporate Social Responsibility*, 3 YALE REV. L. & SOC. ACTION 49, 63 (1973), https://openyis.law.yale.edu/bitstream/handle/20.500.13051/17907/08_3YaleRevL_SocActi on49_1972_1973_.pdf?sequence=2&isAllowed=y [<https://perma.cc/RPE3-AZ32>]. The Journal was in print for only three years, featured Hillary Rodham Clinton on its editorial board, and included mimeographed images of flora and fauna.

35. See *id.* at 51–53 (arguing that when the government, corporation, or union implements pollution, safety, and consumer standards that put jobs at risk, the solution “may be to ensure that jobs are not lost, or that job assistance is provided”).

36. See *id.* at 64 n.36 (citing accounts of unions taking the exact opposite stance from that of Mazzocchi and Reuther, such as a New Jersey Teamsters local that helped stop plans to ban non-returnable bottles and a Massachusetts local that replaced its fall safety campaign with a drive “to save jobs by halting the ecology steamroller”).

37. See McCauley & Raphael Heffron, *Just Transition: Integrating Climate, Energy, and Environmental Justice*, 119 ENERGY POL’Y 1, 1–2 (2018) (noting that while Just Transition originated from the trade union movement and is historically connected with environmental justice, leading scholars frequently overlook it).

38. See *Principles of Environmental Justice*, ENVIRONMENTAL JUSTICE/ENVIRONMENTAL RACISM, <https://www.ejnet.org/ej/principles.html> [<https://perma.cc/VK9F-A7DH>] (Apr. 6, 1996). “Delegates to the First National People of Color Environmental Leadership Summit held on October 24–27, 1991, in Washington, D.C.,

movement for what would be called “environmental justice” coalesced, Mazzocchi began to call attention to the high rates of cancer in fenceline oil, coal, and gas communities and connect environmental concerns with those of frontline workers.³⁹ Characterizing the EPA remediation program as a “Superfund for dirt,” Mazzocchi renewed calls for a federal benefits program for workers in those industries, calling it a “Superfund for workers.”⁴⁰ Such a program would aid workers in the fossil fuel sector by replacing paycheck benefits for up to four years while also providing relocation grants, retraining, and education.⁴¹

Suspecting that negative associations with the “Superfund” program made it hard to garner public support for the concept, the idea was rebranded by two of Mazzocchi’s collaborators—Les Leopold and Brian Kohler—in a 1995 public address:

The basis for Just Transition is the simple principle of equity. We ask that any worker who loses [their] job during a sunsetting transition suffer no net loss of income. No toxic-related workers should be asked to pay a disproportional tax—in the form of losing [their] job—to achieve the goals of sunsetting. Instead, these costs should be fairly distributed across society.⁴²

“Just transition” resonated with environmental justice organizers, who pushed Leopold and Kohler to broaden their vision to include not only frontline workers but also communities.⁴³ However, the most immediate crisis this partnership was called on to combat was not climate change but globalization, the passage of the North American Free Trade Agreement (“NAFTA”), and the

drafted and adopted 17 principles of Environmental Justice. Since then, *The Principles* have served as a defining document for the growing grassroots movement for environmental justice.” *Id.*

39. See, e.g., National Film Board of Canada, *Tony Mazzocchi Talks About Chemicals and the Workers 1978 National Film Board of Canada*, YOUTUBE (July 4, 2012), <https://www.youtube.com/watch?v=VmV8bpcFrc4> [<https://perma.cc/GST6-PAAF>] (in which Mazzocchi characterizes workers’ death certificates (from accidents, exposures, or disease) as “subsidy for industry,” but also observes that “the only growth product [in toxic industries] is cancer”).

40. Mazzocchi insisted, “Paying people to make the transition from one kind of economy—from one kind of job—to another . . . is not welfare. Those who work with toxic materials . . . to provide the world with the energy and the materials it needs, deserve a helping hand to make a new start in life.” Mazzocchi, *supra* note 29, at 41.

41. JUST TRANSITIONS: SOCIAL JUSTICE, *supra* note 21, at 10–11 (describing this “SuperFund for workers,” which would “provide full wages and benefits until the worker retires or until he or she finds a comparable job; two-up to four years of tuition stipends to attend vocational schools or colleges, plus full income while in school . . . ”).

42. See Jim Young, *Green-Collar Workers*, SIERRA MAGAZINE (July/Aug. 2003), https://vault.sierraclub.org/sierra/200307/labor_printable.asp [<https://perma.cc/4QT4-32R3>] (noting that it was Les Leopold, executive director of the Labor Institute, and Brian Kohler, a Canadian labor organizer, who floated the term “just transition” in the speech).

43. See LAB. NETWORK FOR SUSTAINABILITY ET AL., *supra* note 24, at 16:23.

resulting migration of manufacturing jobs overseas.⁴⁴ Strains of Mazzocchi's vision can be identified in the benefits provided to workers by the Trade Adjustment Act ("TAA"), including job counseling, relocation payments, continued education, and vocational training.⁴⁵ But many have observed that the TAA has done little to retrain and meaningfully place manufacturing workers into new industries.⁴⁶

In the decades that followed, the labor, environmental, and environmental justice movements were joined by climate justice activists, demanding action to reduce the carbon emissions now clearly responsible for warming the planet. Just transition became a global export, embraced by the International Labor Organization ("ILO") and the European trade union community, where it was declared an "imperative" in the 2015 Paris Climate Agreement.⁴⁷ With the goal of a just transition for workers impacted by the ratification of aggressive emission reduction targets, the ILO adopted guidelines to help governments and social partners (those "teamsters and turtles"⁴⁸ of globalization protest fame) manage the process of

44. See Munford Page Hall, II, *Remands in Trade Adjustment Assistance Cases*, 39 J. MARSHALL L. REV. 9, 9 (2005) (noting that NAFTA also had a "transitional adjustment assistance" provision, 19 U.S.C. § 2331 (repealed) ("NAFTA-TAA")). Congress reauthorized and revised the 1974 TAA program and consolidated it with NAFTA-TAA in the Trade Adjustment Assistance Reform Act of 2002.

45. See Trade Adjustment Act, 19 U.S.C. §§ 2271-233 (2002); see also Ann M. Eisenberg, *Just Transitions*, 92 S. CAL. L. REV. 273, 314–15 (2019) [hereinafter *Just Transitions* (Eisenberg)]. The Trade Act of 1962 established the Trade Adjustment Assistance Program, while the Trade Act of 1974 gave birth to the modern program that operates today. *Id.* "Individuals eligible under the program may file a petition to the U.S. Department of Labor within one year of losing work. Once certified, workers are then eligible to apply for TAA benefits, which are administered through state agencies. The benefits include 'weekly cash benefits, job retraining, and allowances for job searches or relocation.'" *Id.*

46. See, e.g., William J. Mateikis, *The Fair Track to Expanded Free Trade: Making TAA Benefits More Accessible to American Workers*, 30 Hous. J. INT'L L. 1, 5 (2007) (observing that inadequacies of the TAA program cast doubt on whether it truly assists workers and whether it is fair compensation to those hurt by the expansion of free trade). See also J. MIJIN CHA ET AL., A ROADMAP TO AN EQUITABLE LOW-CARBON FUTURE: FOUR PILLARS FOR A JUST TRANSITION 6 (Apr. 2019), https://dornsife.usc.edu/assets/sites/242/docs/JUST_TRANSITION_Report_FINAL_12-19.pdf [<https://perma.cc/7QP3-8HSE>] (noting that 40% of displaced workers did not find employment in two years after initial job loss and another 40% found work at lower wages with fewer benefits).

47. See INT'L LAB. ORG., *supra* note 7, at 3–4 (noting that "[s]ustainable development is only possible with the active engagement of the world of work"). The ILO's Governing Body endorsed the Guidelines in 2015. See *id.* (the Paris Climate Agreement takes into account "the imperatives of a just transition of the workforce and the creation of decent work and quality jobs with nationally defined development priorities").

48. See Dan Hamburg, *Of Turtles and Teamsters*, SF GATE (June 23, 2000), <https://www.sfgate.com/opinion/openforum/article/Of-Turtles-and-Teamsters-2753614.php> [<https://perma.cc/LKF9-Q8QC>] (explaining how "[t]elevised images of 'Turtles and Teamsters' marching in the streets together" during the anti-WTO protest in Seattle "became the symbol for a heightened level of opposition to corporate predations against both the global environment and the worldwide fortunes of working people").

decarbonization.⁴⁹ On the domestic stage, however, federal initiatives to compensate displaced energy workers or advance a just transition have failed to garner sufficient support, albeit with some success at the state and local levels.⁵⁰ As the idea of a just transition enters its fourth decade, much more is needed from a law and policy perspective to reckon with a fossil fuel industry that, as one ESG fund manager portends, “will have to disappear if we are to prevent catastrophic climate change.”⁵¹

B. Principles, Process, and Practice

Just Transition has been described as a principle, a process, and a practice.⁵² A review of the academic literature reveals no unified definition or framework.

49. See INT'L LAB. ORG., GUIDELINES FOR A JUST TRANSITION TOWARDS ENVIRONMENTALLY SUSTAINABLE ECONOMIES AND SOCIETY FOR ALL 4 (2015), https://www.ilo.org/wcmsp5/groups/public/---ed_emp/---emp_ent/documents/publication/wcms_432859.pdf [https://perma.cc/SQX9-M5VY] [hereinafter ILO GUIDELINES] (emphasizing that for the ILO, “a just transition for all towards an environmentally sustainable economy . . . needs to be well managed and contribute to the goals of decent work for all, social inclusion, and the eradication of poverty”). According to the ILO, a just transition cannot simply be an “add-on” to climate policy; it must be an integral part of the sustainable development policy framework. The ILO views the transition as having two primary functions: outcomes (defined as “decent work for all in an inclusive society with the eradication of poverty”) and a process (described as one that includes “meaningful social dialogue at all levels to make sure that burden-sharing is just and nobody is left behind”). See INT'L LAB. ORG., *supra* note 7, at 2–4. This “decent work” concept is consistent with the broader ILO agenda of “decent jobs with fair pay, respect for fundamental rights at work, including the effective exercise of the right to organize and bargain collectively, gender equality, and workplace democracy.” *Id.* at 2 n.4. See also CENT. ORG. OF FINNISH TRADE UNIONS SAK, A FAIR CLIMATE POLICY FOR WORKERS: IMPLEMENTING A JUST TRANSITION IN VARIOUS EUROPEAN COUNTRIES AND CANADA 6 (2019), https://www.ituc-csi.org/IMG/pdf/200513_-sak_-a_fair_climate_policy-for-workers.pdf [https://perma.cc/8NLA-SDMG].

50. *Transitions in Energy Communities*, *supra* note 15, at 105. The late Sen. Robert Byrd of West Virginia proposed amendments to the Clean Air Act akin to Mazzocchi’s vision of a Superfund for Workers. The amendments would have paid coal miners who lost their jobs due to increased environmental regulations of coal-fired power plants, but the proposal failed to pass the U.S. Senate in a vote of 50–49. Similar Congressional proposals made it through Congress in the 1990s, only to be repealed within a year or two of passage. *Id.* at 106.

51. See ESG Lab: *The Catch-22 of the Just Transition*, PAI PARTNERS (Jan. 7, 2022), <https://www.paipartners.com/mediaitem/esg-lab-the-catch-22-of-the-just-transition/> [https://perma.cc/C3CV-QTKP] (arguing that climate change and energy transition pose risks to businesses and their investors, as well as opportunity). As Professor Doorey observed, “climate change and climate change policies are likely to affect the distribution of jobs across sectors. Some industries will experience job losses (fossil fuels, winter tourism), others job gains (clean energy, renewable technologies). Workers displaced from high carbon industries will require re-training to find jobs in newer ‘greener industries.’ These adjustments may strain existing unemployment insurance and job adjustment and training schemes and influence the sorts of adjustments and severance language bargaining into collective bargaining agreements, for example.” *Just Transitions Law*, *supra* note 23, at 213.

52. See CLIMATE JUST. ALL., *supra* note 1, at 1. “Just Transition is a vision-led, unifying and place-based set of principles, processes, and practices that build economic and

Instead, Just Transition embodies a wide range of principles and proposals, from market-based investments in “green jobs” development, to demands for a more robust safety net for fossil fuel workers, to radical critiques of capitalism as the root cause of climate change.⁵³ Just Transition has attracted scholarly attention across multiple disciplines, from labor to climate to geography to political economy, but with few mentions in formal legal scholarship.⁵⁴ To develop a cohesive framework for developing and analyzing legal and policy approaches to climate change, we must first understand the overlapping and distinct ways academics and activists conceptualize Just Transition.⁵⁵

Like the environmental justice movement that preceded it, climate justice is concerned with underlying issues of marginalization and inequity created and

political power to shift from an extractive economy to a regenerative economy.” To be “just and equitable,” the transition itself must “redress[] past harms and create[] new relationships of power for the future through reparations.” *See also* ANNA ZINECKER ET AL., REAL PEOPLE, REAL CHANGE: STRATEGIES FOR JUST ENERGY TRANSITIONS, INT’L INST. FOR SUSTAINABLE DEV., at iv (Dec. 2018), <https://www.iisd.org/system/files/publications/real-people-change-strategies-just-energy-transitions.pdf> [<https://perma.cc/C29P-Q3EE>] (explaining that a just transition “is not a fixed set of rules, but a vision and a process based on dialogue and a tripartite agenda shared by workers, industry, and governments that need to be negotiated and implemented in its geographical, political, cultural and social context”); *see also* Just Transition, INT’L INST. FOR SUSTAINABLE DEV., <https://www.iisd.org/topics/just-transition> [<https://perma.cc/HPL2-EWEV>] (last visited Oct. 27, 2022) (noting that Just Transition is implemented with a set of guiding principles, such as the ILO Guidelines for a Just Transition).

53. *See* JUST TRANSITIONS: SOCIAL JUSTICE, *supra* note 21, at 8 (noting that there is a “possible convergence between just transitions and ‘design for transitions’ currents,” and that, “modes of antiracist, feminist and eco-socialist design” may help to create policies that go beyond existing “degrowth” binaries). Professors McCauley and Heffron define Just Transition much more broadly, as “a fair and equitable process of moving towards a post-carbon society.” This process must seek fairness and equity with regard to the major global justice concerns such as (but not limited to) ethnicity, income, gender within both developed and developing contexts. *See* McCauley & Heffron, *supra* note 37, at 2. The most comprehensive recent contribution is Professor Ann Eisenberg’s *Just Transitions*, *supra* note 45.

54. *See* JUST TRANSITIONS: SOCIAL JUSTICE, *supra* note 21, at 5–6 (contending that modern scholarship attempts to “de-historicize [Just Transition theory] and to conveniently separate it from the frontline communities and labour unions that originally developed it and continue to mobilise around it in their day-to-day struggles”). Such disregard by climate specialists and policymakers for the role that labor and fenceline communities played in the development of Just Transition theory, “empt[ies] it of its transformative, emancipatory and subversive potential that essentially comes from the fact that the just transition is both aspirational and grounded.” *Id.* at 5.

55. *See id.* at 8 (arguing that, by omitting meaningful acknowledgment of the origins of Just Transition, contemporary academics “run the risk of downgrading—and even omitting—grassroots and labour contributions to debates around low-carbon transitions and further reinforcing the misleading narrative that labour and nature do not mix”). *See also* Just Transitions (Eisenberg), *supra* note 45, at 277–78 (observing that while a recent spate of scholarship recognizes, and attempts to recenter, Just Transition theory as a labor strategy, not an environmental one, the “labor-driven” meaning makes more sense than one rooted in climate justice or energy justice).

reinforced by climate change.⁵⁶ Climate justice scholars and activists have called attention to the fact that marginalized and displaced communities “will suffer the most from the consequences of climate change, have the least amount of resources to mitigate the harms from climate change, and yet have contributed the least amount of carbon emissions.”⁵⁷ Social science scholarship on Just Transition has expanded to include workers and communities impacted by decarbonization, household energy consumers, and other stakeholders.⁵⁸ While environmental justice scholarship seeks to balance the social and ecological dimensions of a just transition, the field of climate justice is focused on the consequences of climate change for marginalized and vulnerable communities, especially as this tension plays out in the Global South.⁵⁹ Identifying the disparate impacts of carbonization is essential, but climate justice has paid less attention to the effects of *decarbonization* on those same stakeholders.⁶⁰ This is where Just Transition Theory, as reframed and envisioned by nonacademic NGOs, has helped articulate a clear set of principles to inform policy and practice.⁶¹

Comprised of 84 urban and rural frontline communities, organizations, and supporting networks rooted in the climate justice movement, the Climate Justice Alliance (“CJA”) defines just transition as a set of principles “that build economic

56. See, e.g., Simms, *supra* note 25, at 15 (reiterating that “the appeal of environmental justice advocates is merely that every community, including poor communities and communities of color, should be valued, respected, and extended the full consideration of environmental policy and the full protection of environmental laws”).

57. J. Mijin Cha, *From the Dirty Past to the Clean Future: Addressing Historic Energy Injustices with a Just Transition to a Low-Carbon Future*, in ROUTLEDGE HANDBOOK OF CLIMATE JUSTICE 211, 211 (Tahseen Jafrey ed., 2019) [hereinafter ROUTLEDGE HANDBOOK].

58. See, e.g., Fergus Green, *Transition Policy for Climate Change Mitigation: Who, What, Why and How* 1 (Ctr. for Climate & Energy Pol’y, Working Paper No. 1807, 2018), https://climatestrategies.org/wp-content/uploads/2019/09/Transition-Policy_Green_2018_FINAL.pdf [<https://perma.cc/85CT-PCDC>] [hereinafter CLIMATE CHANGE MITIGATION]; see also Noel Healy & John Barry, *Politicizing Energy Justice and Energy System Transitions: Fossil Fuel Divestment and a “Just Transition,”* 108 ENERGY POL’Y 451 (2017); Raphael J. Heffron & Darren McCauley, *What Is the “Just Transition”?*, 88 GEOFORUM 74 (2018); Peter Newell & Dustin Mulvaney, *The Political Economy of the “Just Transition,”* 179 GEOGRAPHICAL J. 132 (2013).

59. See Teea Korttämäki, *Is Broad the New Deep in Environmental Ethics? A Comparison of Broad Ecological Justice and Deep Ecology*, 21 ETHICS & ENV’T 89, 89–90 (2016) (advocating a multidimensional approach to justice rather than a narrower one focused on distributive justice).

60. See *id.* at 90.

61. While also focused on identifying disparities in the fossil fuel economy, energy justice scholarship focuses on the access or affordability of energy sources. See Stefan Bouzarovski & Neil Simcock, *Spatializing Energy Justice*, 107 ENERGY POL’Y 640, 641 (2018); Thomas Reames, *Targeting Energy Justice: Exploring Spatial, Racial/Ethnic and Socioeconomic Disparities in Urban Residential Heating Energy Efficiency*, 97 ENERGY POL’Y 549, 549 (2016); Diana Hernandez, *Sacrifice Along the Energy Continuum: A Call for Energy Justice*, 8 ENV’T JUST. 151, 151 (2015).

and political power to shift from an extractive economy to a regenerative economy.”⁶² These principles include:

- i. **Buen Vivir** (living well without living better at the expense of others)⁶³
- ii. **Meaningful Work** (develop the human potential for meaningful work)⁶⁴
- iii. **Self Determination** (participatory democracy in workplaces and communities)⁶⁵
- iv. **Equitable Redistribution of Resources and Power** (disrupt intersectional inequities and oppression and target areas where inequality is most pervasive)⁶⁶

62. *About*, CLIMATE JUST. ALL., <https://climatejusticealliance.org/about/> [<https://perma.cc/KM9A-SF2>] (last visited Feb. 9, 2022) (CJA members are “locally, tribally, and regionally-based racial and economic justice organizations of Indigenous Peoples, Black, Latinx, Asian Pacific Islander, and poor white communities who share legacies of racial and economic oppression and social justice organizing”). Front and Centered defines a regenerative economy as one “structured to prioritize sustainable living and work within ecological limits, eradicate inequality, ensure all basic needs are met, and foster individual and community well-being and health.” ACCELERATING A JUST TRANSITION, *infra* note 80, at 3.

63. *What We Do: Just Transition*, CLIMATE JUST. ALL., <https://climatejusticealliance.org/just-transition/> [<https://perma.cc/Z4NU-PSTY>] (last visited Oct. 27, 2022) (“Buen Vivir means that we can live well without living better at the expense of others. Workers, community residents, women and Indigenous Peoples around the world have a fundamental human right to clean, healthy and adequate air, water, land, food, education, and shelter. We must have just relationships with each other and with the natural world, of which we are a part. The rights of peoples, communities and nature must supersede the rights of the individual.”).

64. *Id.* (“A Just Transition centers on the development of human potential, creating opportunities for people to learn, grow, and develop to their full capacities and interests. We are all born leaders, and a regenerative economy supports and nurtures that leadership. In the process, we are transforming ourselves, each other, our communities, and our society as a whole. Meaningful work is life-affirming.”).

65. *Id.* (“All peoples have the right to participate in decisions that impact their lives. This requires democratic governance in our communities, including our workplaces. Communities must have the power to shape their economies, as producers, as consumers, and in our relationships with each other. Not only do we have the right to self-determination, but self-determination is one of our greatest tools to realize the world we need. The people who are most affected by the extractive economy—the frontline workers and the fenceline communities—have the resilience and expertise to be in the leadership of crafting solutions.”).

66. *Id.* (“We must work to build new systems that are good for all people, and not just a few. Just Transition must actively work against and transform current and historic social inequities based on race, class, gender, immigrant status and other forms of oppression. Just Transition fights to reclaim capital and resources for the regeneration of geographies and sectors of the economy where these inequities are most pervasive.”).

v. **Regenerative Ecological Economics** (advance ecological resilience through localized and sustainable production and consumption)⁶⁷

vi. **Culture and Tradition** (create inclusionary spaces for all traditions and cultures)⁶⁸

vii. **Solidarity** (local, regional, national, and global solidarity that knows no borders)⁶⁹

viii. **Builds What We Need Now** (begin on a small scale to meet communities' needs)⁷⁰

The contours of a just transition will look different in different places. CJA also notes that advancing these principles will require “redressing past harms and creating new relationships of power for the future through reparations.”⁷¹ To create those new relationships and redistribute power and resources, CJA developed a framework that requires governments at every level—global, national, and local.⁷²

The principles established by the Just Transition Alliance, an older coalition of environmental justice organizations and labor unions, are similar to those of the CJA, with an enhanced emphasis on worker power.⁷³ They embody rights to clean air, water, land, and food and standards for procedural justice, such as the right to challenge economic and environmental injustice. The JTA standards also mandate that fenceline communities and frontline workers be involved in law and policy development. Lastly, the standards integrate principles of distributive justice by requiring that the costs of decarbonization not be borne by the victims of economic or environmental injustice.⁷⁴

67. *Id.* (“Just Transition must advance ecological resilience, reduce resource consumption, restore biodiversity and traditional ways of life, and undermine extractive economies, including capitalism, that erode the ecological basis of our collective well-being. This requires a re-localization and democratization of primary production and consumption by building up local food systems, local clean energy, and small-scale production that are sustainable economically and ecologically. This also means producing to live well without living better at the expense of others.”).

68. *Id.* (“Capitalism has forced many communities to sacrifice culture and tradition for economic survival. It has also defaced and destroyed land held as sacred. Just Transition must create inclusionary spaces for all traditions and cultures, recognizing them as integral to a healthy and vibrant economy. It should also make reparations for land that has been stolen and/or destroyed by capitalism, colonialism, patriarchy, genocide, and slavery.”).

69. *Id.* (“A Just Transition must be liberatory and transformative. The impacts of the extractive economy know no borders. We recognize the interconnectedness of our communities as well as our issues. Therefore, our solutions call for local, regional, national and global solidarity that confronts imperialism and militarism.”).

70. *Id.* (“We must build the world we need now. This may begin at a local small scale and must expand to begin to displace extractive practices. We must build and flex the muscles needed to meet our communities’ needs.”).

71. *Id.*

72. *Id.*

73. See *What is Just Transition*, JUST TRANSITION ALL., <http://jtalliance.org/what-is-just-transition/> [<https://perma.cc/M2SC-K9XT>] (last visited Jan. 10, 2022).

74. *Id.*

Power—who has it and how it may be redistributed—is central to a recently published Just Transition framework that identifies three dimensions it is built on: conditions, capacities, and arenas.⁷⁵ *Conditions* are the demographic, economic, political, and geographic aspects that set the stage for social change.⁷⁶ These vary according to the local context in which a particular Just Transition strategy is pursued, such as the particular demographics of a state that may limit legislative pathways or strengthen organizing.⁷⁷ *Capacities* assess the organizations, alliances, leadership, and resources available to help “build power and push policy systems in a new direction.”⁷⁸ Lastly, *arenas* encompass the electoral, legislative, judicial, administrative, corporate, and cultural spaces “in which power is contested, and policy and practices are set.”⁷⁹ This dimension evaluates governance systems, public and private, and how policy strategies are framed and amplified. It aligns with this Article’s focus on how labor and environmental law and policy can create opportunities—or barriers—to building worker power, advancing racial equity, and achieving a just transition.

Community-led organizations have cited the widening racial disparities illuminated by the COVID-19 crisis and the Black Lives Matter movement as further evidence of the need to respond to climate change in transformative, not merely transactional, ways.⁸⁰ With a vision more expansive than even Mazzocchi’s “Superfund for Workers,” the United Nations describes a just transition as one that “maximize[s] opportunities for economic prosperity, social justice, rights, and social protection for all, leaving no one behind.”⁸¹ Such a process, explains Jacqui Patterson, Senior Director of the NAACP’s Environmental and Climate Justice Program, “involves moving away from a society functioning on extraction to one

75. J. Mijin Cha et al., *Just Transition/Transition to Justice: Power, Policy and Possibilities*, USC EQUITY RSCH. INST. 20–21 (June 2021), https://dornsife.usc.edu/assets/sites/1411/docs/New_Just_Transition_Report_v4_FINAL.pdf [hereinafter JUST TRANSITION/TRANSITION TO JUSTICE].

76. *Id.* at 9, 20.

77. *See id.* at 11, 20.

78. *Id.* at 9, 20.

79. *Id.*

80. See FRONT AND CENTERED, ACCELERATING A JUST TRANSITION IN WASHINGTON STATE: CLIMATE JUSTICE STRATEGIES FROM THE FRONLINES 12 (Sept. 2020), <https://frontandcentered.org/wp-content/uploads/2020/10/Front-and-Centered-Accelerating-Just-Transition-WAState.pdf> [https://perma.cc/SX6E-P52X] [hereinafter ACCELERATING A JUST TRANSITION]; see also John A. Powell, Stephen Menendian & Wendy Ake, *Targeted Universalism: Policy & Practice*, HAAS INST. 35 (May 2019), https://belonging.berkeley.edu/sites/default/files/targeted_universalism_primer.pdf [https://perma.cc/DTQ3-EZQV] (contrasting transactional change that works within an existing set of institutional and structural arrangements with transformative changes that restructure the system itself).

81. See UNFCCC Secretariat, *Just Transition of the Workforce, and the Creation of Decent Work and Quality Jobs*, U.N. Doc. FCCC/TP/2016/7 (Oct. 26, 2016), <https://unfccc.int/resource/docs/2016/tp/07.pdf> [https://perma.cc/Z832-KUVY].

rooted in deep democracy and to one integrating regenerative processes, cooperation, and acknowledgment of interdependence.”⁸²

C. Policy Applications

Over the past decade, cities and countries that vary considerably in size, resources, economic paradigms, and governance systems have created Just Transition policies and programs.⁸³ The underlying social movements compelling government action range from youth-led climate strikers angry at the slow pace of decarbonization to French “yellow vests” angry that the “increasingly cash-strapped and precarious” working and middle classes were being made to pay it.⁸⁴ Just Transition policies can be classified into three categories: (a) compensation policies that seek to mitigate the immediate economic impacts on workers displaced by the transition to decarbonization, such as unemployment benefits or early pension eligibility; (b) adaptive support policies, which take the form of education and retraining, green energy workforce development, and funding for communities that are economically dependent on the fossil fuel economy; and (c) comprehensive adjustment policies, which combine both approaches and add wrap-around, “holistic” social services to build sustainability, and cultural and regional vitality.⁸⁵ While this Article considers in greater depth an application of Just Transition in Section IV, examples of each type of classification can be found in the global and domestic law and policy arenas.

Transitioning away from fossil fuels has been a 50-year process for the Ruhr region in Germany, the historic center of European coal mining and steel production.⁸⁶ The coal and steel industry began to experience a decline well before the first alarms of climate change, as cheaper means of production took hold on a global scale.⁸⁷ With few other viable options for employment and few resources for education and retraining in the area, however, unemployment rates in the Ruhr region began to increase as early as the 1970s.⁸⁸ In response, the federal government invested heavily in creating an educational infrastructure that could prepare workers for alternative careers.⁸⁹ Notably, this vision was not limited to training workers for green energy careers.⁹⁰ Instead, the government sought to attract and retain

82. #OurSolutions: Conversation with Jacqui Patterson (NAACP), WEDO (Jan. 8, 2018) <https://wedo.org/oursolutions-conversation-jacqui-patterson-naacp/> [<https://perma.cc/T8QN-FFDS>].

83. See INT’L LAB. ORG., *supra* note 7, at 5 (providing as an example of Just Transition policy in international practice the labor-climate partnership forged in South Africa).

84. See JUST TRANSITIONS: SOCIAL JUSTICE, *supra* note 21, at 3 (noting that the Yellow Vest movement highlighted the gap between political rhetoric and the reality of French climate policies).

85. See CLIMATE CHANGE MITIGATION, *supra* note 58, at 9–10 (noting that governments have a wide range of options to mitigate transition losses, including grants, loans, cash payments, and the provision of public goods and services).

86. See CHA ET AL., *supra* note 46, at 17.

87. *Id.*

88. *Id.* at 17–18.

89. *Id.* at 18.

90. *Id.*

employers across a broad range of sectors, creating economic diversity where there had once been a powerful yet solitary industry.⁹¹ The development and maintenance of Ruhr's Just Transition plan to completely phase out coal are directed by a commission comprised of multiple stakeholders, including industry, governmental ministries, environmental organizations, and trade unions.⁹²

Here in the United States, a comparable federal plan to counteract job losses and economic decline in a move away from coal production in Appalachia achieved more limited success.⁹³ Funds allocated by the Obama Administration support job retraining and development projects for displaced coal miners and their communities.⁹⁴ However, Congress rejected a proposal to provide income and retirement support to miners.⁹⁵ The Marshall Plan for Coal Country Act, introduced by Senator Tammy Duckworth of Illinois, would have provided full tuition assistance for coal miners and their families, extended Medicare coverage to coal miners who lose their jobs, and required coal companies to pay workers' health care and pension costs even upon bankruptcy.⁹⁶ The proposal, endorsed by the United Mine Workers Association, failed to make it out of Committee.⁹⁷

As with most workplace protections and legislative experiments, more promising programs and policies are emerging at the state level. Utah developed a Coal Country Strike Team public-private partnership that engages academics and experts to help its most distressed counties as they transition away from coal.⁹⁸ In addition to supporting education and training for workers, the plan focuses heavily on economic diversification, such as attracting remote workers in the tech industry, expanding the outdoor recreation and tourism sectors, and investing in affordable housing.⁹⁹

Other state governments have enacted a range of proposals designed to incentivize green energy production and ease the transition for workers and communities. Some, like Washington, created tax incentives for clean energy targets

91. *Id.* (noting that the region "looked to attract investment from high-tech and knowledge-based firms, expand the service sector, and promote local entrepreneurship" as well as invest in the creation of new technical institutions and universities).

92. *See id.* at 18–19.

93. For a bill to invest in workers and jobs, address important legacy costs in coal country, and drive the development of advanced manufacturing and technologies, *see* Marshall Plan for Coal Country Act, S.4306, 116th Cong. (2019–2020).

94. CHA ET AL., *supra* note 46, at 28.

95. *See* S.4306.

96. *See id.* §§ 101, 303, 402(b).

97. *See id.*

98. *See* Utah Coal Country Strike Team, *Executive Summary* 1–5 (June 14, 2019), <https://coalcountrystriketeam.com/wp-content/uploads/2020/01/CC-ExecSum.pdf> [<https://perma.cc/K3B2-NP6L>] (describing its mission to diversify the economies of coal-dependent communities and retrain their workforce so they can "avoid material poverty and psychological despair." The Strike Team "brings multi-disciplinary, mission-focused, and data-driven expertise to Utah's coal country and will help raise the incomes of 10,000 households by 10 percent by the end of 2020.").

99. *See id.*

and job creation.¹⁰⁰ Those policies aim to create higher-paying, sustainable union jobs by developing renewable energy employers.¹⁰¹ Other legislative approaches include requiring labor peace agreements, project labor agreements, and the payment of prevailing wages as conditions for renewable energy credits and development permits.¹⁰² Such prevailing wages are necessary to ensure green wage parity with those of the extractive energy sector, where wages reflect a century of union organizing.¹⁰³ Still, other states, such as Maine, have forged a policy approach modeled on the federal Green New Deal, creating a comprehensive package of tax incentives, worker training, retraining, apprenticeship programs, and ambitious carbon reduction standards in partnership with labor unions.¹⁰⁴

100. See Rita Cliffton et al., *The Clean Economy Revolution Will Be Unionized: A Road Map from States on Creating Good, Union Jobs To Build the Clean Energy Economy*, CTR. FOR AM. PROGRESS (July 2021), <https://www.americanprogress.org/wp-content/uploads/2021/06/Clean-Economy-Revolution.pdf> [https://perma.cc/ZD26-XG2L]; see also David Roberts, *A Closer Look at Washington's Superb New 100% Clean Electricity Bill*, VOX (Apr. 18, 2019, 9:30 AM), <https://www.vox.com/energy-and-environment/2019/4/18/18363292/washington-clean-energy-bill> [https://perma.cc/W5Q2-YT8Y].

101. Cliffton et al., *supra* note 100, at 8. Washington State established a clean electricity standard in 2019, which creates incentives for utilities to invest in projects that will generate at least 80% “clean energy” by 2030 (with an eventual target of 100% carbon-free energy). These standards were developed through a coalition of state labor unions and climate advocates to pursue a feasible program to generate union jobs through public investment in clean energy. *Id.* Virginia’s “Clean Economy Act,” passed in 2020, includes directives to public utility companies to develop offshore wind plants and a requirement that opportunities for hiring and apprenticeship be prioritized for local workers, veterans, and historically low-income communities. *Id.* at 9.

102. *Id.* at 8. New York requires that developers of renewable energy projects enter into Project Labor Agreements to be eligible for state renewable energy credits. Renewable energy system owners must similarly enter into labor peace agreements for operations and maintenance work. As an added requirement, all public utilities procuring clean energy must use domestically produced steel and iron in their projects. Neighboring New Jersey requires that developers of solar energy projects pay prevailing wages to construction workers to be eligible to receive state tax credits. *Id.* at 8–9.

103. See Stephen Singer, *Gov. Ned. Lamont Rejects Veto Plea from Solar Industry, Signs Labor-Backed Legislation for Higher Wages and Benefits*, HARTFORD COURANT (June 14, 2021, 2:40 PM), <https://www.courant.com/business/hc-biz-energy-jobs-legislation-20210614-umx4g7dy55aftgb74eq6ixwizi-story.html> [https://perma.cc/NA59-JNFQ] (noting that central to why fossil fuel sector jobs pay higher than average wages and significantly higher than jobs in the renewable energy sector is that workers in this industry spent over a century building and strengthening their unions). See, e.g., Jonathan Grossman, *The Coal Strike of 1902: Turning Point in U.S. Policy*, U.S. DEP’T OF LAB., <https://www.dol.gov/general/aboutdol/history/coalstrike> [https://perma.cc/R8FC-2RMG] (last visited Oct. 27, 2022).

104. See Sam Ricketts et al., *States Are Laying a Road Map for Climate Leadership*, CTR. FOR AM. PROGRESS 3, 5–6 (Apr. 30, 2020), <https://www.americanprogress.org/wp-content/uploads/2020/04/StatesClimate-brief.pdf> [https://perma.cc/65TP-YA4Y] (citing the lack of federal climate action as a motivation for states and local governments to lead the way in creating just and inclusive clean energy policy).

II. LAW & POLICY LIMITATIONS

*We are talking about a “just transition” for working people as we address the climate crisis—but here is the challenge of building a “just transition”; we’ve never seen one before.*¹⁰⁵

History is replete with unjust transitions. From Reconstruction to the rise of the gig economy, those with the least power in society bear the brunt of change.¹⁰⁶ Moreover, those with the power to enact, enforce, and amend environmental law and policy do not reflect the diversity of those who must live with its limitations.¹⁰⁷ Just transition requires an equitable redistribution of that power, in which law can and must play a critical role. To determine how law and policy might promote justice in an era of decarbonization, we must first understand how these arenas have historically reinforced injustice.¹⁰⁸ The town of Norco, Louisiana provides a case study for how structural and institutional racism supported the growth of the fossil fuel economy and how labor and environmental law has failed to prevent and redress

105. Liz Shuler, *Shuler at COP26: We Cannot Leave Workers Behind*, AFL-CIO (Nov. 10, 2021), <https://aflcio.org/speeches/shuler-cop26-we-cannot-leave-workers-behind> [<https://perma.cc/6MFF-ELUS>]. AFL-CIO President Shuler continued:

We’ve seen transitions for short-term gain. We’ve seen transitions that have created enormous wealth for a few, and widespread hardship for working people. We don’t want to repeat the bad policy choices of the past that left communities stranded. Free trade, deregulation, outsourcing, precarious work, the rise of the gig economy . . . working people have been short-changed. It can’t be like that in the fight against climate change—the stakes are too high.

See id.

106. See Rachel Nass, *Dangerously Wrong: How the Gig Economy Is a Structurally Racist System of Work*, NAT’L EMP. L. PROJECT (Apr. 23, 2021), <https://www.nelp.org/blog/racist-gig-economy/> [<https://perma.cc/F8NH-HKUU>] (noting that workers of color are overrepresented in “exploitative industries” such as ride-share and that while “today’s app-based or ‘gig’ economy is frequently dressed up in talk about ‘modern innovation’ and the ‘21st century of work,’ in reality, this type of precarious, contingent work is nothing new”). Likewise, the history of automation provides a cautionary precedent for what happens in transitions when solutions are not, in this way, targeted. In that case, “millions of people—mostly people of color—[were] effectively locked out of well-paying jobs because of a lack of access to quality education, training, racism, gender-based discrimination, and other structural barriers.” ACCELERATING A JUST TRANSITION, *supra* note 80, at 63.

107. Simms, *supra* note 25, at 14 (asserting that “the environmental movement and the institutions responsible for environmental policymaking have been historically and overwhelmingly the province of the white middle class . . . And the ongoing homogeneity of the environmental policy leadership continues to stand as a significant barrier to the important objectives of current environmental justice efforts.”).

108. For an excellent overview of the inadequacy of legal remedies available for low-income communities of color that have suffered environmental injustices, see Catherine Millas Kaiman, *Environmental Justice and Community-Based Reparations*, 39 SEATTLE U. L. REV. 1327 (2016) (proposing community-based reparations as a remedy).

harm.¹⁰⁹ Only by attending to this legal history and the case of Norco do we stand a chance of not repeating it.

A. Fenceline and Frontline Barriers to Justice

The opening moments of Slawomir Grunberg's documentary *Fenceline: A Company Town* introduces us to two women, each driving alone through Norco, raindrops batting their car windows as a towering open flame—a “flare” in industry terms—burns against the backdrop of their separate neighborhoods.¹¹⁰ Both women have spent their lives in Norco, one the daughter and spouse of frontline refinery workers living in a white company town, the other a retired schoolteacher living on the refinery's fenceline in a Black neighborhood named for the sugar plantation where her ancestors had once been enslaved.¹¹¹ Staring out at a horizon obscured by smoke and flame, the Black woman furrows her brow and tells us, “When that black smoke come and meet with the dark cloud, you don't know what's a cloud and what's smoke. How can you not help but be in fear?”¹¹² Signifying a sharply different lived experience, her white neighbor smiles and says, “Actually, I kind of like to look out at the plant, and if there's a flare going, it brightens everything. I don't think anything bad at all. The flares are really not bad, and people don't seem to understand that.”¹¹³

Fenceline continually weaves these conflicting and racialized fenceline and frontline perspectives on the fossil fuel industry. However, only one—that of the Shell workers—reflects the dominant narrative repeated in Just Transition theory, policy, and practice. Consider the three examples of Just Transition programs presented in Section II: the Ruhr region of Germany, Appalachia, and Utah. All three programs prioritized the needs of frontline coal mining and steel production workers over Black, Latinx, and Indigenous people of color, as well as white women. Understanding the history of slavery, oppression, and extraction and the legacies of structural racism experienced by the Diamond community is critical to developing and advancing a just transition.

109. It is important to note that the casualties of this extractive economy transcend borders and generations. As Professor Eisenberg notes, from

“a child developing asthma in rural Australia, to executions of community advocates in Nigeria, to fishermen's damaged livelihoods in the U.S. Gulf, to victims of geopolitical machinations, including war. People of color, indigenous communities, and people living in poverty have borne the worst burdens of the fossil fuel economy, in large part because of energy production. The ultimate ‘externality’ is, of course, climate change, the impacts of which we are already beginning to feel.”

Just Transitions (Eisenberg), *supra* note 45, at 281 (internal citations omitted).

110. FENCELINE: A COMPANY TOWN DIVIDED (LogTV Films 2002) [hereinafter FENCELINE].

111. See *id.*; see also *Environmental Racism in Louisiana's 'Cancer Alley', Must End, Say UN Human Rights Experts*, UN NEWS (Mar. 2, 2021), <https://news.un.org/en/story/2021/03/1086172> [<https://perma.cc/5ZL6-84Q5>] (“The African American descendants of the enslaved people who once worked the land are today the primary victims of deadly environmental pollution that these petrochemical plants in their neighbourhoods have caused.”).

112. FENCELINE, *supra* note 110.

113. *Id.*

Norco is a 50-mile stretch of land along Louisiana's "cancer alley," referring to the extraordinary rates of that disease (among others) attributed to the toxic emissions released by a massive concentration of petrochemical facilities.¹¹⁴ Named for an oil refinery in the twentieth century and deemed a "sacrifice zone" in the twenty-first, a study of Norco's geography reveals a much longer history as a contested space: Indigenous expropriation by Spanish colonists, a sugar plantation economy powered by enslaved labor, uprisings and rebellions by those enslaved people, the creation by newly freed people of a Reconstruction community, and the sharecropping economy for which they labored.¹¹⁵ The discovery of oil in the early 1900s birthed a booming petrochemical industry, which would radically reshape the region.¹¹⁶ While the New Orleans Refining Company (Norco's namesake), owned by the Royal Dutch Shell Oil Company ("Shell"), created significant economic opportunity, Black residents were barred from working in or otherwise benefiting from oil production.¹¹⁷ Meanwhile, the white refinery workers and their families were "quickly tethered to the oil industry," living in a company town that provided housing and community amenities like a pool, movie theater, and company picnics.¹¹⁸ Professor Pelot-Hobbs describes these as "twinned practices of exclusion and entanglement," which made the white workers increasingly dependent upon an employer from which their Black neighbors became increasingly estranged.¹¹⁹

Over the following decades, Shell repeatedly expanded the footprint of its Norco refinery, transforming distanced Black neighborhoods like Diamond into fenceline communities.¹²⁰ Concerns raised by residents of Diamond of worsening air pollution and increasing rates of asthma, allergies, and skin disorders were consistently ignored by federal regulators, denied by Shell, and disparaged by white

114. See Lydia Pelot-Hobbs, *Life and Death in Louisiana's Petrochemical Industrial Complex*, 7 GEOHUMANITIES 625, 625 (2021) [hereinafter LIFE AND DEATH] (analyzing the role that capitalism and racial oppression have played in the geography of Norco).

115. See *id.* at 626–28; see, e.g., Thom Davies, *Toxic Space and Time: Slow Violence, Necropolitics, and Petrochemical Pollution*, 108 ANNALS OF THE AM. ASS'N OF GEOGRAPHERS 1537 (2018) (examining the racialized, uneven, and attritional experience of petrochemical pollution in the former plantation landscape); see also Thom Davies, *Slow Violence and Toxic Geographies: "Out of Sight" to Whom?*, 40 ENV'T & PLAN. C: POL. & SPACE 409, 416 (2019) (emphasizing intimate connections between structural and slow forms of harm in the context of Louisiana's "cancer alley").

116. See LIFE AND DEATH, *supra* note 114, at 628–29. In 1911, the New Orleans Refinery Company purchased two former plantations upon which it built its first refinery. The "extensive violence of the plantation economy" would be "overlaid with the extractive violence" of the industrial petrochemical economy. *Id.* at 629.

117. See *id.* at 629 ("While [B]lack residents hoped they would be hired at the plants, they quickly learned that the Jim Crow regime extended to the petrochemical industry. The few jobs available to Black Louisianans were in custodian and other menial jobs.").

118. *Id.*

119. *Id.* at 629–30 (noting that the racial partitioning of Norco endured even after the National Labor Relations Act outlawed such company towns and Norco implemented residential and industrial zoning).

120. See *id.* at 630 (clarifying that these fenceline boundaries were allowed to remain out of compliance with later EPA regulations requiring much greater buffer zones between industrial and residential areas).

residents of Norco.¹²¹ The white Shell workers were reluctant to enforce health and safety standards, such as those mandated by OSHA, fearing the effects on their job security and company town.¹²² The Black residents were workplace safety stakeholders, but as nonworkers, they were stakeholders without standing.¹²³ The result was a white community economically dependent upon the continued operation of a toxic and dangerous workplace and a Black fenceline community with few legal or political means of protecting itself.¹²⁴

A fiery blast from the Shell pipeline killed two fenceline residents in 1973—an older woman whose home was burned to the ground and a teenage boy mowing the lawn nearby—prompting the relocation of the fenceline a short distance away.¹²⁵ Even in the new location, residents were subject to “significant toxic pollution and recurring industrial accidents that threatened the lives and health of residents.”¹²⁶ It is important to note that while Black residents of Diamond disproportionately shouldered the burdens of oil production, the white Norco workers and community were not immune to the harmful effects of Shell’s operations. A series of explosions in the 1970s and 1980s fatally or severely injured dozens of white workers, the most significant killing seven employees in an overnight blast that “shattered windows, blew doors off their hinges, and detached roofs as far as five miles away.”¹²⁷ Our dependence on fossil fuel extraction has

121. See FENCELINE, *supra* note 110; see also LIFE AND DEATH, *supra*, note 114, at 631 (“In response to a proposed polypropylene plant in 1977, the EPA merely regurgitated Shell’s talking points on the economic benefits of the plant at the expense of a robust examination of the harmful impacts the plant would have on the surrounding land, water, and air.”); Emily Bazelon, *Bad Neighbors*, LEGAL AFFS. (May/June 2003), https://legalaffairs.org/issues/May-June-2003/story_bazelon_mayjun03.msp [https://perma.cc/DSB5-YFGH] (noting that Norco produces ethylene and propylene, building blocks of common plastics, and methyl ethyl ketone “MEK” a solvent used in paints and medicines).

122. See LIFE AND DEATH, *supra* note 114, at 632.

123. See *Just Transitions Law*, *supra* note 23, at 221 (citing Dimitris Stevis, *Unions and the Environment: Pathways to Global Labor Environmentalism*, 14 J. LABOR & SOC. 145 (2011) (calling attention to less obvious ways that labor and environmental law overlap, such as when “new regulations limiting emissions . . . affect production systems in ways that impact working conditions, cause layoffs, or create downward pressure on labour costs”). Though legal scholars have observed such overlap “when [deleterious substances in work settings] are also harmful to the environment,” workplace laws themselves do not provide for community enforcement. *Id.* at 220–21.

124. See Bazelon, *supra* note 121 (noting that forty years after the passage of the Civil Rights Act, the Norco plant and refinery still had few Black employees among their 1,400 workers. Moreover, the town remains segregated: Diamond is entirely Black, while the rest of Norco, which has about 3,300 residents, is overwhelmingly white).

125. See *id.*

126. See Monique Harden, *The Human Right to a Healthy and Safe Environment: The Right of Displaced Hurricane Katrina Survivors to Return Home with Dignity and Justice*, 101 AM. SOC’Y INT’L L. PROC. 85, 86 (2007).

127. LIFE AND DEATH, *supra* note 114, at 632–33. The economic status of the white community, which was sited further away from the plant’s emissions and whose residents had access to private health insurance, helped mitigate—but not eliminate—these health impacts.

shaped our collective tolerance for the hazardous conditions under which frontline workers—coal miners, oil riggers, or plant operators—labor.¹²⁸

This last blast proved to be a tipping point for the Diamond community.¹²⁹ A core group of mostly Black women in the Diamond community, led by retired schoolteacher Margie Richard, began voicing public concerns about the impacts of Norco's operations, industrial accidents, chemical leaks, and air quality.¹³⁰ Convinced that Shell would neither self-regulate nor be meaningfully regulated by the state, Margie and her neighbors filed a lawsuit to demand that Shell pay for their relocation out of Norco.¹³¹ Organizing as Concerned Citizens of Norco (“CCN”), the residents partnered with environmental justice and legal advocacy organizations, including the Louisiana Bucket Brigade, the Deep South Center for Environmental Justice, and Advocates for Environmental Human Rights (“AEHR”), and expanded their capacities for organizing, identifying environmental racism, and understanding the regulatory landscape and its limitations.¹³²

The story of Norco is not unique.¹³³ Frontline workers and fenceline communities frequently encounter systemic barriers to environmental justice. The agencies that enforce environmental standards are chronically underfunded, and the litigation process is costly and lengthy.¹³⁴ Without assistance from either the Louisiana Department of Environmental Quality (“DEQ”) or the federal EPA, despite collected evidence demonstrating that Shell’s emissions surpassed federal

128. Attempts to create or enforce more rigorous health and safety standards have been resisted because such regulation will make more significant consumer costs while ignoring the collective costs of worker precarity.

129. See LIFE AND DEATH, *supra* note 114, at 633.

130. *Id.*

131. *See id.*

132. See FENCELINE, *supra* note 110. Monitors created with the assistance of the Louisiana Bucket Brigade were EPA-certified. Through vigilant deployment in the wake of accidental chemical releases, CCN used the collected data to place public pressure on Shell in the wake of chemical releases and flares. AEHR sponsored Margie Richard on a trip to Geneva, where she connected Shell Oil’s role in the violent suppression of the Ogoni people in Nigeria and the company’s treatment of those in the Diamond community. *See* Harden, *supra* note 126, at 86.

133. For a thorough examination and detailed case studies of similar “sacrifice zones,” see STEVE LERNER, SACRIFICE ZONES: THE FRONT LINES OF TOXIC CHEMICAL EXPOSURE IN THE UNITED STATES 3 (2010) (repurposing the Cold War term to describe areas contaminated with nuclear waste to low-income neighborhoods disproportionately exposed to high levels of chemical pollution from industrial plants and military bases); *see also* DORCETA E. TAYLOR, TOXIC COMMUNITIES: ENVIRONMENTAL RACISM, INDUSTRIAL POLLUTION, AND RESIDENTIAL MOBILITY (2014) (examining connection between residential segregation, zoning, and exposure to environmental hazards).

134. See David F. Coursen, *The Terrible Environmental Costs of Stagnant EPA Funding*, THE HILL (May 24, 2021), <https://thehill.com/opinion/energy-environment/555145-the-terrible-environmental-costs-of-stagnant-epa-funding/> [https://perma.cc/7CD6-7GUL] (detailing two decades of chronic underfunding); *see also* Kaiman, *supra* note 108, at 1341–42 (noting that while federal regulations may be applied in environmental justice cases, “these citizen suits only allow for litigation costs and attorney’s fees to be recovered and do not provide for private monetary awards for successful plaintiffs”).

guidelines, CCN lost its relocation lawsuit in 1997.¹³⁵ Drawing a stark comparison, the human rights lawyers working with Margie noted that, while the United States had “enacted volumes of environmental laws more than thirty years ago that established an extensive bureaucratic system,” the polluted environmental conditions in Louisiana were no different from those in other countries in which it worked, like South Africa, which had no national environmental legislation.¹³⁶

With litigation and regulatory enforcement paths foreclosed, CCN leveraged their collective power for community organizing, staging press conferences, circulating petitions, and holding marches demanding a “fair and just relocation.”¹³⁷ Shell offered to purchase half of the Diamond community at “market value,” an amount made artificially low by the presence of their toxic-chemical-emitting neighbor.¹³⁸ CCN organized the community to resist the offer and then leveraged an opportunity to confront Shell executives at the 1999 United Nations Commission on Human Rights.¹³⁹ In the Hague and before the world press, Margie hand-delivered a bag of Norco air, hoping to shame Shell into negotiating fairly.¹⁴⁰ Shell finally agreed to the Diamond community’s demands in 2002, a victory that would inspire other fenceline communities worldwide, from Sao Paolo to the Niger Delta to Port Arthur, Texas.¹⁴¹

If fenceline residents and frontline workers encounter barriers in enforcing environmental laws in a fossil fuel economy, what does that portend for the role of law in a just transition? Environmental law has struggled to adapt as the focus on environmental issues has shifted from specific instances of industrial pollution to more generalized problems related to global climate change.¹⁴² Climate justice advocates have pushed for the evolution of traditional environmental law from a

135. See *LIFE AND DEATH*, *supra* note 114, at 634; see also Bazelon, *supra* note 121 (receiving no response from either state or federal regulators despite recurring and illegal levels of toxic emissions and other industrial accidents). Shell contended that none of its emissions exceeded the federal ambient air standard. *Id.*

136. See Harden, *supra* note 126, at 85, 86–87 (noting that existing environmental laws and regulations facilitate and perpetuate environmental racism). For example, because current regulations require industrial facilities to use a specific pollution control device that is already in use elsewhere in the sector, the government concludes (falsely) that such use is “presumptively protective of human health and the environment,” a presumption belied by the lived experience of communities of color. *Id.* AEHR argues that the government’s continued approval of pollution permits in communities of color constitutes a violation of residents’ fundamental human rights, an argument they have raised in multiple (successful and unsuccessful) lawsuits over the past 20 years. *Id.*

137. See *FENCELINE*, *supra* note 110.

138. See *LIFE AND DEATH*, *supra* note 114, at 634.

139. See *id.*

140. See *FENCELINE*, *supra* note 110.

141. See *Concerned Citizens of Norco Reach Agreement with Shell Chemical*, CORPWATCH (June 20, 2002), <https://www.corpwatch.org/article/concerned-citizens-norco-reach-agreement-shell-chemical> [https://perma.cc/3YBS-7PWP]; see also Harden, *supra* note 126, at 86.

142. See J.B. Ruhl, *Climate Change Adaptation and the Structural Transformation of Environmental Law*, 40 ENV. L. J. 363, 364 (2010) (examining the context and policy dynamics of climate change adaptation and its normative and structural impacts on environmental law).

“command and control”¹⁴³ regulation system to a more democratic process of community participation, policy, and decision-making.¹⁴⁴ As Professor Ruhl has observed, the “path of environmental law has come to a cliff called climate change, and there is no turning around.”¹⁴⁵ Scholars interested in understanding how the law can best respond to climate change have noted that the fields of environmental law and labor law are ill-equipped to aid in a just transition.¹⁴⁶ At best, existing legal vehicles for regulating the environment and the workplace are insufficient; at worst, they reinforce barriers over which frontline workers and fenceline communities are incapable of hurdling.

Just Transition efforts focusing solely on the predominately white fossil fuel workforce result in a missed opportunity to make the renewable energy economy more equitable. Achieving a just transition will require revising labor and environmental law and policy through a process that directly engages those fenceline workers and frontline communities most affected by climate change and economic restructuring.¹⁴⁷ Professor Doorey, in his pioneering scholarship on labor law for a just transition, considered the viability of a new field of “Just Transition Law” that would combine insights from environmental law,¹⁴⁸ environmental justice,¹⁴⁹

143. *Command-and-Control Legislation*, BRITANNICA, <https://www.britannica.com/topic/command-and-control-legislation> [https://perma.cc/S99D-XF8R] (last visited Oct. 14, 2022).

144. See *A Framework for Defining Equity*, REDD-NET (Oct. 2011), <https://www.espa.ac.uk/files/espa/A%20Framework%20For%20Defining%20Equity.pdf> [https://perma.cc/PKW5-N9K3].

145. See Ruhl, *supra* note 142, at 363, 366 n.2 (defining climate change adaptation as “changes made to better respond to present or future climatic and other environmental conditions, thereby reducing harm or taking advantage of opportunity”).

146. See *Just Transitions Law*, *supra* note 23, at 206 (“The economic transition towards a lower carbon economy will introduce new challenges to existing legal models, new pressures will be brought to bear on unemployment, adjustment, and training strategies, legal models designed to regulate high carbon industrial workplaces may prove ill-suited to new lower carbon industries and workplaces, and labour market patterns and practices may be affected in unpredictable ways as the key industrial relations actors (governments, employers, workers, and unions) adapt and adjust to environment-related changes.”).

147. See David J. Doorey, *The Contested Boundaries of Just Transitions Law*, L. & POL. ECON. PROJECT (Dec. 14, 2021) <https://lpeproject.org/blog/the-contested-boundaries-of-just-transitions-law/> [https://perma.cc/6HFY-PNU7] [hereinafter *Contested Boundaries*] (cautioning that “the potential for conflict between different justice movements—e.g., labor justice, climate justice, energy justice, intergenerational justice, restorative justice, migration justice—is readily apparent”).

148. See John C. Dernbach & Seema Kakade, *Climate Change Law: An Introduction*, 29 ENERGY L.J. 1 (2008) (explaining that where the principles of environmental law rested on traditional notions of tort and contract law, emerging disciplines such as “climate change law,” “climate adaptation law,” and “environmental justice law” embrace broader concepts of justice and equity in light of unprecedented environmental challenges).

149. Front and Centered defines environmental justice as, “the right of all people to healthy places to live, work, learn, play, and pray, regardless of race, class, religion, or national origin. Environmental justice is a lived reality when all people and communities can achieve their highest potential without interruption by environmental racism, climate injustice, or inequity.” See ACCELERATING A JUST TRANSITION, *supra* note 80, at 14.

climate justice,¹⁵⁰ and labor law.¹⁵¹ Just Transition Law would include “transitional” legal strategies to encourage and guide the decarbonization process, and laws that seek to ensure that transition is a “just” one.¹⁵² Doorey argues that governments should seek through law and policy to distribute the harms and benefits of climate change equitably.¹⁵³ Doorey’s vision of a separate field of Just Transition Law would include environmental laws designed to regulate carbon emissions and industrial practices and policies governing energy transition that provide protections for adversely impacted workers and communities.¹⁵⁴ Integrating law and justice within existing laws or a new legal field will be necessary to close the legal and policy gaps into which the Diamond community has fallen.

B. Structural Racism Perpetuates Inequity

As Norco exemplifies, frontline workers and communities of color are not disproportionately burdened by fossil fuel pollution and climate change by accident.¹⁵⁵ Tracing the history, effectiveness, and evolution of legal protections for

150. See J.B. Ruhl, *What is Climate Change Law?*, OUPBLOG (Aug. 22, 2015), <http://blog.oup.com/2015/08/what-is-climate-change-law> [https://perma.cc/GY6S-V7H8] (considering the creation of a new field of climate adaptation law); see also Robin Kundis Craig, *Stationarity is Dead-Long Live Transformation: Five Principles for Climate Change Adaptation Law*, 34 HARV. ENV’T L. REV. 9, 9 (2010) (arguing for a principled flexibility model of climate change adaptation law to pursue goals of increasing the resilience and adaptive capacity of social-ecological systems).

151. Doorey explains that one reason the two fields do not interact is that labor law and environmental law are each trying to strike different balances. Labor law seeks to balance competing interests of productivity and profitability with workers’ interest in decent jobs within a system that is marked by inequality of bargaining power. Environmental law seeks to balance the protection of the environment from human activity, “while recognizing the economic and social need for decent jobs and a productive economy.” Both strive to mitigate some of the worst harms of unchecked economic activity. *Just Transitions Law*, *supra* note 23, at 221.

152. *Contested Boundaries*, *supra* note 147.

153. See *Just Transitions Law*, *supra* note 23, at 206 (considering whether a new field of law called “Just Transitions Law” should be created to “combine insights from environmental law, environmental justice, and labour law”).

154. *Id.* at 219. However, caution must be taken that the concept of “Just Transition law” does not become so broad as to render it pointless. In recent years, the rapid adoption of “just transition” policies by governments, NGOs, corporations, academics, and think tanks has raised the concern, articulated by Doorey and others, that a generic application of the term to “describe the policy objective of every conceivable climate-related justice movement,” potentially undermines its utility as a tool for guiding policy and practice. See *Contested Boundaries*, *supra* note 147.

155. Framing climate change as a civil rights issue with disparate impacts on Black communities, the NAACP’s Environmental and Climate Justice Program (“ECJP”) director Jacqueline Patterson explains in a 2012 report:

Whether it is sea-level rise causing dislocation; severe storms taking homes, lives and communities; black children and families starving or sick from respiratory illness or exposure to carcinogenic toxins; children missing school or performing poorly due to resulting illnesses; or heat exposure resulting in illness or death; African-American communities are

fenceline communities and frontline workers in Norco reveals the pernicious ways that the fossil fuel economy used race and racism.¹⁵⁶ However, while the geography of Norco lays bare a history of colonization, Indigenous land expropriation, chattel slavery, residential segregation, and employment discrimination, the Just Transition literature is surprisingly silent on the roles that systemic racism, intersectional oppression, and legal systems have played in perpetuating barriers to climate justice.¹⁵⁷ Little attention is paid to how Just Transition laws, policies, and practices might serve to dismantle the structural racism that both helped create and was perpetuated by the fossil fuel industry. Race and gender are invoked obliquely, referring to “marginalized” or “vulnerable” communities. Indeed, as Edouard Morena observed, just transition is often a “rigid, ahistorical concept for policy-makers.”¹⁵⁸ Yet as Norco clarifies, *supra* Section II, the legal system—from legalized slavery to workplace discrimination to racialized patterns of environmental protection—has played a pivotal role in allocating benefits and burdens in a fossil fuel economy.

Past policies and practices that undergird structural racism perpetuate racial inequity and, unless intentionally dismantled, may replicate that inequity in the energy transition. The Federal Housing Administration (“FHA”), established in 1934, played a crucial role in developing what Richard Rothstein calls a “state-

often starting from a place of substandard school systems, compromised access to quality health care, as well as job, housing or other vulnerability which makes facing these challenges even more impactful than they would be on a person or community with more resources and access to quality services.

Brandon Dermon, *Climate Change Is About Us: Fence-line Communities, the NAACP and the Grounding of Climate Justice*, in ROUTLEDGE HANDBOOK 407, 413 (citing Jacqueline Patterson, *Your Take: Climate Change Is a Civil Rights Issue*, THE ROOT (Apr. 23, 2014, 6:07 AM), <https://www.theroot.com/your-take-climate-change-is-a-civil-rights-issue-1790879295> [https://perma.cc/XL8T-EYGN]).

156. See Cha, *supra* note 57, at 211. While the disparate impacts of extraction on marginalized communities are clear, the effects of a transition to green energy are not:

[T]he impact of moving away from fossil fuels on communities and workers is less well-established as a part of climate justice. The move away from fossil fuels is rightly seen as a positive step, and certainly decreasing fossil fuel use and extraction has many environmental, health, and climate benefits. Yet it is also true that the shift to a low-carbon economy, though necessary, will cause economic distress to regions and workers that rely upon fossil fuel extraction for economic security.

Id. Cha notes that frontline workers and fenceline communities have a long history of, “sacrificing life and livelihood to provide the fuel for global economic growth.” For the transition to a low-carbon economy to be just, therefore, those pushing for climate change policy must address the ways in which this transition will impact those communities and workers. *Id.*

157. One notable exception is the work of J. Mijin Cha, whose work and research partnerships in academic and policy spaces consistently include race in the analysis of climate inequities and recommendations for a just transition. *Id.*

158. See JUST TRANSITIONS: SOCIAL JUSTICE, *supra* note 21, at 6.

sponsored system of segregation.”¹⁵⁹ By refusing to insure mortgages on homes in neighborhoods with high concentrations of African Americans, immigrants, and other people of color through a rating system that reflected and reinforced racial residential housing laws, the FHA caused a massive devaluation of property in neighborhoods of color and fortified barriers to homeownership for African Americans, a significant cause of the contemporary racial wealth gap.¹⁶⁰

While it is not surprising to learn that redlining perpetuates racial inequities that extend far beyond homeownership, affecting education, health, transportation, employment, policing, and incarceration, its direct connection to climate change precarity is just as pervasive. Last year, after analyzing the “flood potential” of properties in its database, the real estate listing company Redfin shared its discovery that homes in formerly redlined neighborhoods were at a disproportionately high risk of future flooding.¹⁶¹ Given the enduring nature of structural racism, people of color are still more likely to live in those neighborhoods, which, in a double blow, are less equipped to prepare for the increasing number of storms that climate change will produce.¹⁶²

Sacramento’s Gardenland neighborhood is one such community. Classified in the 1930s as a “declining” neighborhood, today its residents are primarily people of color whose homes are more likely to flood on a warming planet increasingly prone to heavy rain.¹⁶³ In sharing that the risk of future flooding correlated with past redlining, Redfin acknowledged what fenceline communities have argued for decades: *de facto* climate inequity is a product of centuries of *de jure*

159. See *A ‘Forgotten History’ of How the U.S. Government Segregated America*, NPR (May 3, 2017), <https://www.npr.org/transcripts/526655831> [<https://perma.cc/6FKZ-T233>]; see, e.g., Angela Hanks et al., *Systemic Inequality: How America’s Structural Racism Helped Create the Black-White Wealth Gap*, CTR. FOR AM. PROGRESS (Feb. 21, 2018), <https://www.americanprogress.org/article/systematic-inequality/> [<https://perma.cc/SH75-34DB>].

160. Hanks et. al., *supra* note 159.

161. Lily Katz, *A Racist Past, a Flooded Future: Formerly Redlined Areas Have \$107 Billion Worth of Homes Facing High Flood Risk—25% More Than Non-Redlined Areas*, REDFIN (Mar. 15, 2021), <https://www.prnewswire.com/news-releases/a-racist-past-a-flooded-future-formerly-redlined-areas-have-107-billion-worth-of-homes-facing-high-flood-risk—25-more-than-non-redlined-areas-301246714.html> [<https://perma.cc/95HD-SANP>] (explaining that the company decided to share flood potential data with its users based on scientific consensus that as climate changes accelerate, those areas currently prone to flooding will experience more significant and more frequent flooding).

162. *Id.*

163. Alexandra Yoon-Hendricks, *When It Rains in Sacramento, These Neighborhoods Face Greater Flood Risk*, THE SACRAMENTO BEE (Dec. 25, 2021). “In Sacramento, about 20% of homes in redlined and yellow-lined areas—neighborhoods that were deemed by the FHA ‘hazardous’ or ‘definitely declining,’ respectively—face high risk of flooding today. That’s compared to about 12% of homes in green-lined and blue-lined neighborhoods that were considered desirable. Nearly half of the households in Sacramento’s redlined and yellow-lined areas today are occupied by people of color, compared to a third of households in green-lined and blue-lined areas, according to Redfin.” *Id.*

discrimination.¹⁶⁴ Racial residential restrictions and private racial covenants historically forced Black residents into the least valuable areas, often those proximate to tidal flooding.¹⁶⁵ Decades of devaluation, divestment, and degradation have prevented these communities from making the kinds of infrastructure investments needed to guard against the effects of damaging storms and rising seas.¹⁶⁶ Law and policy devalued these communities, pushing residents figuratively underwater, where they live on the brink of becoming submerged.¹⁶⁷

Since the effects of fossil fuel extraction and climate change are not race neutral, the policies for transitioning to noncarbon energy cannot be either. Yet our existing legal frameworks do not intentionally and aggressively seek to reverse persistent racial inequity, and our civil rights laws are cleaved into separate legal arenas.¹⁶⁸ Professor Kaiman noted this inadequacy:

164. See Jeremy S. Hoffman et al., *The Effects of Historical Housing Policies on Resident Exposure to Intra-Urban Heat: A Study of 108 US Urban Areas*, 8 CLIMATE 1, 1 (Jan. 13, 2020) (finding that the formerly redlined neighborhoods of nearly every of the 108 cities studied nationwide were hotter than the non-redlined neighborhoods); see also Meg Anderson, *Racist Housing Practices from the 1930s Linked to Hotter Neighborhoods Today*, NPR (Jan. 14, 2020, 2:38 PM), <https://www.npr.org/2020/01/14/795961381/racist-housing-practices-from-the-1930s-linked-to-hotter-neighborhoods-today> [https://perma.cc/FD5G-5RMC] (“Research on environmental justice has yet to really try to understand how systems are at work that may cause inequities,’ says Morgan Grove, a research scientist at the Forest Service’s Baltimore Field Station and co-author of the service’s study. ‘There are these explanations that require understanding history to understand why we see what we see today in cities.”).

165. See Jessica Corbett, *Study Finds Redlined Areas Face Greater Flood Risk from Climate Crisis*, COMMON DREAMS (Mar. 15, 2021), <https://www.commondreams.org/news/2021/03/15/study-finds-redlined-areas-face-greater-flood-risk-climate-crisis> [https://perma.cc/4PTH-BKFX]; see also Clare Trapasso, *‘Legacy of Shame’: How Racist Clauses in Housing Deeds Divided America*, REALTOR.COM (June 16, 2020), <https://www.realtor.com/news/trends/racial-covenants-systemic-racism/> [https://perma.cc/Q3RR-LLLX] (noting that Black Americans “were restricted to buying homes in less desirable neighborhoods, with fewer resources”).

166. Katz, *supra* note 161. As Redfin senior economist Sheharyar Bokhari explains, “Redlining kept home values in Black neighborhoods depressed, which in turn meant there was less money invested and reinvested in those neighborhoods for decades to come.” *Id.*

167. See Thomas Frank, *Flooding Disproportionately Harms Black Neighborhoods*, SCI. AM. (June 2, 2020), <https://www.scientificamerican.com/article/flooding-disproportionately-harms-black-neighborhoods/> [https://perma.cc/QXK3-ML6U].

168. See Kaiman, *supra* note 108, at 1354–56 (observing that environmental justice cases have had little success through Equal Protection Challenges, and that “those who suffer environmental injustices have little recourse under the Fifth or Fourteenth Amendments of the U.S. Constitution, and that the burdens for proving environmental siting decisions of environmental inequities . . . is often too high or simply not attainable”). Likewise, a reliance on 42 U.S.C. § 1983 to enforce environmental injustice is also often foiled due to statutes of limitations. *Id.* at 1356. Accordingly, “§ 1983 actions very rarely apply in historic environmental injustice matters.” *Id.* Moreover, the ability of citizens to bring suit under Title VI was seriously curtailed following the *Alexander v. Sandoval* decision, which prohibits private individual or organizations from filing disparate impact discrimination claims under

Not only is it that current and ongoing environmental injustices face a tremendous uphill battle in the courts using either environmental laws, civil rights law, or administrative laws, but . . . since the dawn of the environmental justice movement, it has been obvious that there are only inadequate legal solutions to providing justice for affected communities.¹⁶⁹

While increased flooding, along with increased drought, wildfires, and “mutant monster storms,” are problems that will impact all on our shared planet, the data make clear that while we may all be in the same climate-change-induced storm, we are most certainly not in the same boat.¹⁷⁰

C. Systemic Weakening of Labor Law

It would be politically expedient for Shell to frame the story of Norco as a town that is simply “racially divided,” pitting Black fenceline residents against their white neighbors in a binary equation of haves and have-nots. However, the injustices that the Black residents of Norco experienced should not be measured solely against the experience of their white Norco neighbors. To do so would ignore the stark imbalance of power Shell workers experience working in one of America’s most

§ 602 of Title VI, “effectively forcing communities to prove intentional discrimination.” *Id.* at 1356–57. See also Maxine Burkett, *Litigating Separate and Equal: Climate Justice and the Fourth Branch*, 72 STAN. L. REV. ONLINE 145, 145–46 (May 2020) (assessing viability of “carbon tort” and “Youth v. Gov” climate cases and observing that the lack of judicial acceptance of either litigation strategy has meant that “all three branches are hastening our approach to points of no return in our climate system.” Burkett argues that pursuing “separate but equal” arguments in the legacy of *Brown* may be a more effective “fourth branch” solution.).

169. See Kaiman, *supra* note 108, at 1357–58 (proposing community-based reparations as a remedy that could “serve as a source of funding for neighborhood associations, community-based entities, community groups, or individuals living within a specific community or zip code that have suffered historic environmental injustices”). Another vital history to be incorporated in crafting law and policy for transition is that these laws we hope to harness as bases for justice were, themselves, exclusionary and unjust. The National Labor Relations Act, while ostensibly race neutral, “ultimately reinforced the racialized and gendered hierarchy of the 1930s labor market.” It did this in multiple ways, including by excluding domestic workers and agricultural laborers from its protections—two low-wage sectors dominated by women and people of color. See Sharon Block & Benjamin Sachs, *Clean Slate for Worker Power: Building a Just Economy and Democracy*, in CLEAN STATE FOR WORKER POWER 1, 17 (2020), https://uploads-ssl.webflow.com/5fa42ded15984eaa002a7ef2/5fa42ded15984ea6a72a806b_CleanSlate_SinglePages_ForWeb_noemptyspace.pdf [<https://perma.cc/TLL6-4A9F>] [hereinafter CLEAN SLATE] (reminding us that 90% of Black women worked either in the domestic or agricultural industry in the 1930s). Today, these exclusions are responsible for the widening racial wealth gap. Failing to account for this history and understand how intersectional oppression was embedded into the legal systems that govern workplaces will replicate this history in a regenerative economy.

170. See *We Are Not All in the Same Boat. We Are All in the Same Storm. Some Are on Super-Yachts. Some Have Just the One Oar.* DAMIAN BARR (May 30, 2020), <https://www.damianbarr.com/latest/https/we-are-not-all-in-the-same-boat> [<https://perma.cc/PH64-G58D>].

dangerous and deadly industries.¹⁷¹ While white residents may have publicly dismissed the health and safety concerns of their Diamond neighbors, *supra* Section II, they undoubtedly mourned the losses of the lives, limbs, and livelihoods their community endured with each industrial explosion.¹⁷² The ambient concentrations of carcinogens captured by Diamond's EPA monitors, *supra* Section II, did not respect the boundaries of residential segregation; the white residents of Norco may have lived further from the fenceline, but they were still residents of Cancer Alley.¹⁷³

We know from the issues they raised as a union that health and safety were a primary concern—and often out of reach—for the Shell refinery workers. The United Steelworkers union (“USW”) represents roughly 30,000 workers in the oil and petrochemical industry at 230 facilities, including 65 refineries and dozens of terminals, pipelines, and petrochemical plants.¹⁷⁴ In 2015, Norco members of the USW voted to strike—the first nationwide oil refinery strike since 1980—after Shell refused to concede to their demands for more robust health and safety protections.¹⁷⁵

171. See, e.g., Lorrain Boissoneault, *The Coal Mining Massacre America Forgot*, SMITHSONIAN (Apr. 25, 2017), <https://www.smithsonianmag.com/history/forgotten-matewan-massacre-was-epicenter-20th-century-mine-wars-180963026/> [https://perma.cc/GGA7-SA6A] (describing the violent suppression by private militias and national guard of thousands of coal miners in the 19th century); Tyler Priest & Michael Botson, *Bucking the Odd: Organized Labor in Gulf Coast Oil Refining*, 99 J. AM. HIST. 100, 102 (2012) (describing a racially segregated refinery workplace in which “explosions and fires were all-too-common”).

172. See *Death Toll Up to 6 in Blast*, N.Y. TIMES (May 7, 1988), <https://www.nytimes.com/1988/05/07/us/death-toll-up-to-6-in-blast.html> [https://perma.cc/ST4T-ABZQ] (“In Louisiana, the air was still heavy with fumes as members of the Shell plant emergency crew crawled through the maze of hot, twisted metal. The three bodies found last night were so badly burned they could not immediately be identified. The bodies of Joey Poierer, 28 years old, of Reserve, and Ernie Carrillo, 44, of Kenner, were found earlier in the control room for the gasoline-processing unit. The body of a 20-year Shell employee, Lloyd Gregoire, 39, of Paulina, was found shortly after the explosion . . . [r]esidents of Norco, on the heavily industrialized, 75 mile petrochemical corridor near New Orleans, said they were fed up over recurring emergencies that have forced them to evacuate their homes eight times in 12 years.”).

173. See Mark Schleifstein, *Louisiana Refineries Measured Excessively High Levels of Cancer-Causing Chemical in 2021*, NOLA (May 13, 2022, 4:00 AM), https://www.nola.com/news/environment/article_abc6493a-d230-11ec-b70b-33d441c4873.html [https://perma.cc/Q9KC-TVXC] (The Shell Norco refinery was the second-highest emitter of benzene, a known carcinogen.).

174. *USW Rejects Marathon’s Most Recent Proposal, Offers 24-Hour Rolling Extensions of Current Oil Agreement*, UNITED STEELWORKERS (Feb. 1, 2022), <https://m.usw.org/news/media-center/releases/2022/usw-rejects-marathons-most-recent-proposal-offers-24-hour-rolling-extensions-of-current-oil-agreements> [https://perma.cc/ATZ2-KM8K]. See also *California Refinery Explosion Provides Further Evidence of Need for Safety Improvements*, UNITED STEELWORKERS (Feb. 18, 2015), <https://m.usw.org/news/media-center/releases/2015/usw-california-refinery-explosion-provides-further-evidence-of-need-for-safety-improvements> [https://perma.cc/BV8B-J8PF].

175. See Jennifer Larino, *United Steelworkers Agree to ‘Tentative’ Deal to End Refinery Strikes*, THE TIMES-PICAYUNE (Mar. 13, 2015, 1:54 AM), https://www.nola.com/news/business/article_d8945c1b-dafa-5d18-8fce-91986d986d96.html

Margie Richard was not the only Norco resident to travel to the Netherlands with health and safety demands for Shell; members of the Norco USW traveled to Rijswijk in 2017, joining other trade unionists from among the ranks of the 90,000 Shell Oil workers worldwide.¹⁷⁶ There, they shared concerns about toxic exposure, company intimidation, and Shell's increasing reliance on independent contractors.¹⁷⁷

Strong frontline worker power is necessary for any equitable and sustainable economic system despite the intensely racialized Norco workforce. In addition to improving wages, benefits, health outcomes, and safe working conditions, collective worker power can help dismantle racist and sexist policies and redistribute inequitable concentrations of wealth. However, assessing the current capacity of unions to influence an energy transition in Louisiana reveals that "organized labor is a huge gap."¹⁷⁸ Louisiana passed a so-called right-to-work law in 1976, dealing a sharp blow to the union's ability to organize workers across all industries, resulting in a stark decline in statewide union membership.¹⁷⁹ These actions and outcomes mirror national trends.¹⁸⁰ Diminishing unionization rates have resulted in an overall decrease in the collective power of frontline workers in the fossil fuel economy and are expected to trend even lower in the green energy industry.¹⁸¹ Starting wages in the wind and solar sectors are significantly lower than

[<https://perma.cc/696C-H5KC>] (more than 5,000 workers at 15 refineries and chemical plants went on strike). Notably, the union rejected seven separate contract offers before ending the strike, and each of those offers contained wage hikes, corroborating the workers' arguments that health and safety was their core concern.

176. United Steelworkers, *Shell Global Union Network Creates Action Plan*, THE OIL WORKER, <https://www.usw.org/news/publications/oilworker/the-oil> [<https://perma.cc/V2L8-SCSY>]. See also *Shell Oil Workers Form Global Coalition*, UNITED STEELWORKERS (Nov. 18, 2015), <https://www.usw.org/news/media-center/articles/2015/shell-oil-workers-form-global-coalition> [<https://perma.cc/TCB4-2PP3>].

177. *Id.*

178. JUST TRANSITION/TRANSITION TO JUSTICE, *supra* note 75, at 44 (reporting that interviewees observed a lack of statewide, coordinated movement infrastructure for labor).

179. See, e.g., Sudheer Chava, et al., *The Economic Impact of Right-to-Work Laws: Evidence from Collective Bargaining Agreements and Corporate Policies*, 137 J. FIN. ECON. 451, 451 (finding right-to-work laws correlated with a significant decrease in union bargaining power); see also Ted Van Green, *Majorities of Adults See Decline of Union Membership as Bad for the U.S. and Working People*, PEW RSCH. CTR. (Feb. 18, 2022) (reporting that the percentage of U.S. workers who belong to a union has fallen from 20% in 1983 to 10.3% in 2021).

180. See Elizabeth J. Kennedy & Michael B. Runnels, *Bringing New Governance Home: The Need for Regulation in the Domestic Workplace*, 81 UMKC L. REV. 899, 901 (2013). In the absence of collective bargaining, most workers are left only with a patchwork of employment law protections. With the rise in nonstandard work arrangements, such as independent contractors and "gig workers," "the twentieth century employment law paradigm has left many low-wage workers in a 'representation gap,' unable to improve their working conditions or enjoy the protection of universal and enforceable labor standards." *Id.*

181. See Eric Wolff & Rebecca Rainey, *Biden Squeezed Between Promises to Go Green and Bolster Unions*, POLITICO (Feb. 21, 2021) (reporting that "[t]he renewables workforce is about half as unionized as the power industry overall, according to the 2020 U.S.

those in the fossil fuel industry where wages reflect a century of labor struggle for which workers lost their lives in mines and on picket lines.¹⁸²

Like their Diamond community neighbors a decade before, the Norco refinery workers secured their health and safety demands not through OSHA regulation or litigation but with collective union power—precisely as the National Labor Relations Act (“NLRA”) is designed to function.¹⁸³ Yet while the NLRA is a tool that workers can wield to improve wages and safety, it can be a blunt instrument when applied to climate change and transition issues. Though labor law is designed to provide workers with a voice on issues vital to them and their co-workers, it narrowly defines the issues that may be negotiated.¹⁸⁴ Excluded from “mandatory” subjects of bargaining would include the company’s commitment to decarbonization, the impact of its operations on climate change, and the health and safety concerns of fenceline residents.¹⁸⁵ In this way, labor law narrows what it means to be a worker and strips that worker of their larger community context. The NLRA ostensibly gives workers the right to “engage in other concerted activities for collective bargaining or other mutual aid or protection.”¹⁸⁶ While reducing or eliminating the risks to health and safety that come from a warming planet should arguably fall within this broad category, workers have found little success in advocating for employer-driven changes to advance a just transition.¹⁸⁷

What does that forecast for labor law’s role in transitioning from fossil fuel jobs such as oil refining and careers in a renewable energy economy? Is labor law a barrier or an opportunity for creating a more equitable clean energy workforce? The intersections of climate change and labor law remain largely unexamined.¹⁸⁸ Alternative vehicles for building union power, such as community benefits

Energy Employment Report,” and that “[w]ind technicians and solar installers earn on average \$30,000 to \$40,000 less per year than power plant operators, according to the Bureau of Labor Statistics”).

182. Ella Nilsen, *Why Major Unions are Wary of the Move to Wind and Solar Jobs*, VOX (Mar. 19, 2021, 9:00 AM), <https://www.vox.com/22301534/major-unions-worried-about-wind-solar-jobs> [https://perma.cc/A5HU-83JK] (quoting labor historian Erik Loomis, “Not only is the work horrible, and you have mass death, but these coal companies were killing workers; they were murdering organizers.”).

183. See NATIONAL LABOR RELATIONS ACT, 29 U.S.C. §§ 151–169, § 151 (finding that protecting the right of workers to bargain collectively over working conditions can serve to, inter alia, “safeguard . . . commerce from injury . . . ”)

184. See *id.* § 159 (providing that a duly elected representative, i.e., union, shall be the exclusive representative for purposes of collective bargaining in respect to “rates of pay, wages, hours of employment, or other conditions of employment”).

185. CLEAN SLATE, *supra* note 169, at 5 (arguing that the collective bargaining obligation under current law treats issues with the greatest and most direct impact on workers’ lives as “off-limits” for bargaining).

186. 29 U.S.C. § 157.

187. See *Just Transitions Law*, *supra* note 23, at 230–31.

188. *Id.* (noting that “legal scholars leading the charge for a new legal field around climate change have largely ignored labor law while considering a broad range of other fields, including energy law, water law, maritime law, immigration law, environmental law, land planning law, insurance law, disaster law, even military law, and securities law”).

agreements, European-style “works councils,” and other forms of “co-regulation,” are discussed in Part III.

III. EQUITY, JUSTICE, AND POWER: AN INTEGRATIVE FRAMEWORK

Scholars of environmental justice, climate justice, and energy justice—each keyed to separate social movements—invoke distributional, structural, and procedural justice to frame their analysis.¹⁸⁹ Yet as Professor Doorey cautions, each justice movement “tells a story about distributive and participatory injustice related to and arising from environmental harm and climate change as perceived through a critical lens.”¹⁹⁰ While these movements share a desire to “push back on prevailing social and economic power structures,” they do not always share the same goals or vision of justice; indeed, sometimes those visions conflict.¹⁹¹ For example, in California, while labor unions lobbied to develop utility-scale solar energy systems (to maximize job creation), they mobilized *against* the demands of some environmental justice advocates for rooftop solar programs (to make energy more affordable to low-income communities).¹⁹² Still, other environmental justice advocates decried racial disparities created by many rooftop solar programs.¹⁹³

189. See CLIMATE CHANGE MITIGATION, *supra* note 58; see also Healy, *supra* note 58, at 457; Heffron, *supra* note 58, at 77; Newell and Mulvaney, *supra* note 58, at 133.

190. *Contested Boundaries*, *supra* note 147.

191. *Id.* Doorey provides as an example one of the recommendations by the Canadian government with respect to a just transition for coal power workers and communities, noting that government policy that centered on aiding coal miners in the transition to “green” jobs, central to the labor movement’s frame of justice, would be viewed by others as an unjust centering of predominately white, male coal workers over more marginalized workers of color outside the coal industry. *Id.*

192. See Ivan Penn, *A Fight Over Rooftop Solar Threatens California’s Climate Goals*, N.Y. TIMES (Jan. 24, 2022), <https://www.nytimes.com/2022/01/24/business/energy-environment/california-rooftop-solar-utilities.html> [<https://perma.cc/Q2SS-6BDY>]. See also Sammy Roth, *California Proposes Big Changes to Rooftop Solar Incentives*, L.A. TIMES (Dec. 13, 2021), <https://www.latimes.com/business/story/2021-12-13/california-proposes-big-changes-to-rooftop-solar-incentives> (noting that labor unions representing electric utility workers have a “vested interest in protecting the monopoly utility business model”). In another example of this disconnect between visions of justice, when California adopted a cap-and-trade program, environmental justice advocates sued to stop the program because of the negative impact cap-and-trade would have on environmental justice communities. See Alice Kaswan, *Climate Change & Environmental Justice: Lessons from the California Lawsuits*, 5 SAN DIEGO J. CLIMATE & ENERGY L. 1, 6, 9–10 (2014). The lawsuits were ultimately unsuccessful, and the organizations that brought the suits received considerable backlash from traditional environmental organizations. A recent evaluation of the cap-and-trade program found that the environmental justice concerns were well-founded, and that localized pollution had increased in vulnerable communities since cap-and-trade was implemented. See Lara Cushing et al., *Carbon Trading, Co-pollutants, and Environmental Equity: Evidence from California’s Cap-and-Trade Program (2011–2015)*, PLOS MED. (July 10, 2018), <https://doi.org/10.1371/journal.pmed.1002604> [<https://perma.cc/LRP4-JMJG>].

193. See Colby Bermel, *California’s Rooftop Solar Program Collides with Equity Concerns*, POLITICO (Mar. 31, 2021, 8:01 AM), <https://www.politico.com/states/california/story/2021/03/31/californias-rooftop-solar-program-collides-with-equity-concerns-1369173> [<https://perma.cc/5FWL-RG5N>]

Should the “just” approach to solar energy transition focus on those workers *directly impacted* by the phasing out of fossil fuel jobs that precede it?¹⁹⁴ Should it focus on those individuals and communities currently furthest from energy justice, neither employed by the energy industry nor able to afford it? Or should it focus much more broadly on *all* individuals and communities?¹⁹⁵ As Professor Eisenberg observed, this “broad concept of just transition . . . calls for a grand restructuring of social inequality.”¹⁹⁶

Though a grand restructuring is necessary for a just transition, the purpose of this Article is to more narrowly guide the development and enforcement of law and policy that is practical, targeted, and inclusive. This Part offers an integrative framework for addressing equity, power, and justice. Vague references to “marginalized” communities in the literature obscure the particular and pressing issues facing workers and communities of color. This framework integrates the environmental justice movement’s structural, procedural, and distributional equity concerns with a racial justice lens and emphasis on building collective power.¹⁹⁷ When evaluating any law, policy, or program intended to address fossil fuel transition, this integrative framework asks five questions:

1. Does it attempt to rebalance power, voice, and agency to frontline workers and fenceline communities disproportionately burdened by climate change? (*structural*)
2. Are frontline workers and fenceline communities directly and meaningfully involved in developing, implementing, and enforcing the law, policy, or program? (*procedural*)

(explaining that organizations advocating for fenceline communities were “torn between wanting to increase access to renewable energy—and the resulting jobs for solar installers” and eliminating inequitable benefits to the wealthy in the form of higher payments for wealthier homeowners selling power back to the grid). See also Deborah A. Sunter et al., *Disparities in Rooftop Photovoltaics Deployment in the United States by Race and Ethnicity*, 2 NATURE SUSTAINABILITY 71–76 (2009) (finding that, when correcting for home ownership, black- and Hispanic-majority census tracts have installed less rooftop solar panels compared to no-majority tracts by 61% and 45%, respectively, while white-majority census tracts installed 37% more).

194. See *Contested Boundaries*, *supra* note 147.

195. See *id.*

196. *Just Transitions* (Eisenberg), *supra* note 45, at 286.

197. The phrase “environmental injustice” refers to the situation where people of color “are forced, through their lack of access to decision-making and policymaking processes, to live with a disproportionate share of environmental harms.” Cha, *supra* note 57, at 212 (citing J. Agyeman et al., *Exploring the Nexus: Bringing Together Sustainability, Environmental Justice and Equity*, 6 SPACE & POLITY 77–90 (2002)). “Also like labour law, environmental justice has roots in a bottom-up resistance movement critical of a dominant legal system that benefits economically and politically powerful, privileged segments of society. The emphasis in environmental justice is on distributive and political justice, particularly along racial and socio-economic lines, across a variety of legal fields, principally environmental law, land use and planning law, water law, and energy law. Labour law too is concerned with distributive and political justice, its focus being on those laws that intersect at the worksite.” *Just Transitions Law*, *supra* note 23, at 225.

3. Does it use targeted universalism to prioritize workers and communities furthest from climate justice in education, training, hiring, and other economic opportunities? (*distributional*)
4. Does it require that demographic data be collected, disaggregated, analyzed to identify disparities, and made public? (*racial equity*)
5. Does it strengthen the ability of frontline workers and fenceline communities to build collective power through collective bargaining or co-governance? (*collective power*)

A. Equity Dimensions

Arising in direct response to the resistance by many environmental and conservation groups to acknowledge the role that intersectional oppression played in environmental injustice, the environmental justice (“EJ”) movement called attention to the disproportionate ecological burdens experienced by communities of color, as well as the barriers they faced to any meaningful and democratic participation in decision-making.¹⁹⁸ Environmental justice principles include:

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; with a focus on the equitable distribution of resources, benefits, and burdens in a manner that prioritizes communities that experience the most significant inequities, disproportionate impacts, and has the greatest unmet needs.¹⁹⁹

These principles require policymakers and stakeholders to analyze transition law and policy along three equity dimensions: structural, procedural, and distributional. *Structural equity* refers to whether rules, policies, and programs are developed and enforced with a recognition of how historical, cultural, and institutional structures have created inequitable outcomes along intersectional lines of difference.²⁰⁰ *Procedural equity* concerns whether all people have an equal opportunity to meaningfully and equitably participate in developing, implementing, and enforcing laws, policies, and programs.²⁰¹ *Distributional equity* describes the

198. Agyeman, *supra* note 197, at 82.

199. See *Environmental Justice*, ENV’T PROT. AGENCY <https://www.epa.gov/environmentaljustice> [<https://perma.cc/2ZPJ-XY94>] (last visited Feb 10, 2022) (defining environmental justice as “the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies” and noting that the goal of EJ will be achieved when “everyone enjoys: the same degree of protection from environmental and health hazards, and equal access to the decision-making process to have a healthy environment in which to live, learn, and work”).

200. National Resource Defense Council, *Definitions of Equity, Inclusion, Equality and Related Terms*, BROWARD CNTY. GOV’T 1 (July 2019) https://www.broward.org/Climate/Documents/EquityHandout_082019.pdf [<https://perma.cc/VP2T-M9LJ>].

201. *Id.*

allocation of burdens and benefits among communities.²⁰² Though, as in Norco, frontline workers and fencepline communities encounter frequent legal barriers in their pursuit of justice, the system of EJ is described as “both a social justice and resistance movement and a strategy of legal engagement.”²⁰³ This Section addresses each equity dimension and identifies how it may be advanced through specific legal and policy approaches to Just Transition.²⁰⁴

1. Structural Equity

Structural equity recognizes that “racially neutral policies are rarely race neutral” and can perpetuate inequitable outcomes.²⁰⁵ However, strategies to advance racial equity must be systemic, race-explicit, and outcome-oriented to succeed.²⁰⁶ By contrast, “universalist” policies that are silent about the inequities created by past law and policy embrace a false hope of what Professor Kimberlé Crenshaw has called “trickle-down social justice.”²⁰⁷ By contrast, a structural equity analysis makes intersectional equity a starting point for the discussion. Creating policy with a structural equity lens requires that we name race and racism when analyzing the disparate impacts of the energy transition on frontline workers and fencepline communities.²⁰⁸ Applying a racial equity lens also means naming race and racism explicitly when developing and analyzing climate transition programs, policies, and practices. As noted above, the Just Transition literature largely fails to acknowledge the history of structural racism that excluded workers of color, the labor history of the fossil fuel industry, and the ongoing resistance of fencepline communities to their hazardous living conditions.

Structural equity requires an explicit acknowledgment of those histories and a stated commitment to an equitable distribution of burdens and benefits in a new economy. We cannot plan for a regenerative economy without understanding how the fossil fuel economy used racism and sexism to marginalize workers and communities, and then developing targeted strategies to prevent their replication. Through an approach called “targeted universalism,” universal goals are established, and data is collected, disaggregated, and analyzed to determine how various groups

202. Anna Funfgeld, *Just Energy? Structures of Energy (In)Justice and the Indonesian Coal Sector*, in ROUTLEDGE HANDBOOK OF CLIMATE JUSTICE 222, 225 (2018).

203. See *Just Transitions Law*, *supra* note 23, at 225.

204. McCauley & Heffron, *supra* note 37, at 2–3. Professors McCauley and Heffron have identified the “two dominant frames of analysis” used by all three justice scholarships (environmental justice, climate justice, and energy justice) as distributional and procedural justice. They also propose a third frame: restorative justice. *Id.*

205. ACCELERATING A JUST TRANSITION, *supra* note 80, at 14 (explaining that without an acknowledgment that past policies maintain inequitable outcomes, race-neutral policies disproportionately hurt people of color and Indigenous people).

206. See, e.g., Elizabeth Kennedy, *Desert in the Deluge: Using Data to Drive Racial Equity*, 69 CATH. U. L. REV. 23, 46 (2020) (explaining that a racial equity framework requires naming race explicitly when talking about disparities).

207. Nkechi Ikem, *Kimberlé Crenshaw, Coiner of ‘Intersectionality,’ Speaks at Campbell, THE BOTTOM LINE* (May 1, 2018), <https://thebottomline.as.ucsb.edu/2018/05/kimberle-crenshaw-coiner-of-intersectionality-speaks-at-campbell> [https://perma.cc/C3DA-3Z2T].

208. *Id.*

relate to that goal. Existing structures are analyzed to decide whether they support or impede each group from achieving that goal. Differentiated strategies are then targeted to each group.²⁰⁹

Recognizing that the fossil fuel economy has an enduring history of racial and gender discrimination, a universal goal for a just transition might be that “everyone has the opportunity for meaningful paid participation in the green energy sector.” In pursuit of that goal, demographic data would be collected and disaggregated, intersectional disparities identified, and specific solutions to eliminate those disparities crafted.²¹⁰ Such solutions may include affirmative action programs, K–12 curricular revision and educational supports, community-engaged mentorship, and training programs. A prevailing wage framework should be established for jobs in the green energy industry to ensure that occupational pathways are paid at rates commensurate with the work. In the case of Norco, measuring where each group falls along the continuum of a goal of workplace safety, for example, would make visible worker precarity as measured against that goal of *universal security* rather than only the security of, say, members of the Diamond community. Instead of artificially low benchmarks that reflect racism and sexism, this approach sets a common standard and directs resources to eliminate disparities across intersectional lines of difference.²¹¹

2. Procedural Equity

*If the process of transition is not just, the outcome will never be.*²¹²

Procedural equity describes a political process or system of workplace governance in which all stakeholders are equally and fairly represented, recognized, included, and welcome to participate in decision-making and dispute resolution.²¹³ Central to the tenets of a just transition, procedural equity requires that those fenceline communities and frontline workers most affected by pollution, ecological damage, and economic restructuring be included in developing the laws, policies, and programs that will shape a new economy. Governments play a direct role in

209. Failing to disaggregate data by race creates critical gaps in understanding and undermines the utility of the analysis. For example, the oil industry giant Brunel released a report on the industry which found, based on a survey of its 22,000 energy workers worldwide, that 25% of its North American workers experienced racial discrimination. *See, e.g.*, BRUNEL, ENERGY OUTLOOK: 2021/22 REPORT 4, 33, 37 (2021), https://hiring.oilandgasjobsearch.com/hubfs/OGJS_Outlook_Guide_2022.pdf?hsLang=en [<https://perma.cc/5RRV-4DFC>]. Yet the report omits overall racial demographic data on those workers (i.e., what percentage of its North American workforce is African American, Latino, White, Native American, Asian). Further, it fails to disaggregate those survey responses by race. In other words, we need to determine whether the 25% of workers reporting racial discrimination are 100% of workers of color, an even graver statistic. The report does include demographic data on gender and age, making the omission of data related to race and ethnicity even more glaring. *Id.* at 27, 37, 72.

210. *See, e.g.*, powell et al., *supra* note 80.

211. *See id.* at 15 (explaining that a system of targeted universalism is outcome-oriented, and the processes are directed in services of the explicit, universal goal).

212. CLIMATE JUST. ALL., *supra* note 1.

213. REDD-NET, *supra* note 144, at 3–4.

ensuring procedural equity.²¹⁴ As Professor Doorey implores, “a just transition envisions an active state using the law to tame market forces, which if left unchecked, could produce environmental and economic catastrophe,” a perspective described as “environmental Keynesianism.”²¹⁵ However, governmental policymakers must “follow the leadership, knowledge, and expertise of communities disproportionately impacted.”²¹⁶

Regarding racial equity, procedural equity recognizes that “people who experience racism and sexism know best how to move toward an equitable and resilient workplace and economy.”²¹⁷ This includes ensuring that workers and residents of color have “the capacity and opportunity to fully engage, at the outset, in policy design and implementation,” as well as mechanisms to ensure public “oversight, transparency, and accountability.”²¹⁸ This can take the form of systems that encourage and support the ability of frontline workers and fenceline communities to challenge governmental and corporate action (and inaction). Yet this cannot simply be an invitation to participate; much more is needed to ensure such participation is equal, informed, and meaningful.

One compelling example of procedural equity is the ILO’s system of “tripartite social dialogue in the development and implementation of international labour standards,” or as referred to in shorthand, “social dialogue.”²¹⁹ Believing that sustainable development is only possible if those in “the world of work”—

214. See, e.g., Georgetown Climate Center, *Procedural Equity: Tools for Planning, Engagement, and Governance*, GEO. L. https://www.georgetownclimate.org/adaptation/toolkits/equitable-adaptation-toolkit/procedural-equity.html [https://perma.cc/RX4J-RUG8] (noting the need for governments to engage community and create governance and data collection strategies that ensure procedural equity when planning for climate transition).

215. *Just Transitions Law*, *supra* note 23, at 234.

216. See *About Us*, FRONT AND CENTERED, https://frontandcentered.org/about-us/ [https://perma.cc/5LJ9-ZKVL] (last visited Oct. 27, 2022).

217. See Kendra Bozarth, et al., *Black Women Best: The Framework We Need for an Equitable Economy*, ROOSEVELT INST. 3, 16 (2020), https://rooseveltinstitute.org/publications/black-women-best-the-framework-we-need-for-an-equitable-economy/ [https://perma.cc/XU9F-DHK4] (proposing an equity framework based on the “economic principle that argues that if Black women—who, since our nation’s founding, have been among the most excluded and exploited by rules that structure our society—can one day thrive in the economy then it must finally be working for everyone”).

218. ACCELERATING A JUST TRANSITION, *supra* note 80, at 14.

219. See *Social Dialogue*, INT’L LAB. ORG., https://www.ilo.org/ifpdial/areas-of-work/social-dialogue/lang--en/index.htm [https://perma.cc/2DGV-PLEA] (last visited Jan. 10, 2022) (citing Tripartite Consultation (International Labour Standards) Convention, 1976, No. 144). The ILO defines social dialogue as “to include all types of negotiation, consultation or simply an exchange of information between, or among, representatives of governments, employers and workers, on issues of common interest relating to economic and social policy.” *Id.* Social dialogue can take many forms, such as a tripartite process that includes government (federal, state, or local) or merely labor and management negotiations. *Id.* This process can take place at an industry or enterprise level, either formally or informally. *Id.* The process is intended to advance democratic consensus-building among stakeholders, which will ideally help to, “resolve important economic and social issues, encourage good governance, advance social and industrial peace and stability and boost economic progress.” *Id.*

employees and employers—are active “agents of change, able to develop new pathways to sustainability,” the ILO uses social dialogue to promote its sustainability and Just Transition plan.²²⁰ Social dialogue is regarded as critical to a just transition.²²¹ However, the ILO also recognizes that certain conditions must exist for such dialogue to be meaningful.²²² They include strong unions and respect for the fundamental rights of freedom of association and collective bargaining.²²³

Lastly, restorative justice is another dimension of procedural equity, which predates the idea of a just transition but is squarely within its ambitions.²²⁴ While typically associated with criminal law, principles of restorative justice seek to repair the harm done to an individual or, as in the case of climate change, entire communities.²²⁵ While environmental law is primarily oriented to remediating environmental damages to air, soil, and water, restorative environmental justice aims to “rectify or ameliorate situations that disenfranchised or harmed particular communities in the past.”²²⁶

3. Distributional Equity

Distributional equity is central to Just Transition theory, has roots in Rawls, and intersects with sustainable development and environmental justice.²²⁷

220. ILO GUIDELINES, *supra* note 49, at 4–5.

221. *Id.* at 3. In 2013, the ILO adopted a resolution and set of conclusions related to sustainable development, decent work, and green jobs that articulated a “framework for a just transition.” *Id.*

222. See INT’L LAB. ORG., *supra* note 219 (noting that “for social dialogue to take place, the following must exist:

- Strong, independent workers’ and employers’ organizations with the technical capacity and the access to relevant information to participate in social dialogue;
- Political will and commitment to engage in social dialogue on the part of all the parties;
- Respect for the fundamental rights of freedom of association and collective bargaining;
- and Appropriate institutional support.”).

223. See *id.* The UN Climate Convention recognizes that safeguarding workers’ rights is a “key principle” of just transition and that an equitable climate policy requires dialogue with labor unions.

224. See Tom R. Tyler, *Restorative Justice and Procedural Justice: Dealing with Rule Breaking*, 62 J. OF SOC. ISSUES 307, 315 (2006) (noting that “the procedural justice approach shares a core similarity with the restorative justice approach”); see also Kaiman, *supra* note 108, at 1339–40 (arguing that the goals of restorative justice are not met in the existing environmental justice legal frameworks).

225. See Kaiman, *supra* note 108, at 1339–40.

226. McCauley& Heffron, *supra* note 37, at 5.

227. *Just Transitions* (Eisenberg), *supra* note 45, at 292–93 (internal citations omitted) (“Environmental injustice was originally known as environmental racism, calling attention to the fact that communities of color bear a disproportionate burden of environmental hazards. Sustainable development . . . is a forward-looking decision-making paradigm that seeks to harmonize conservation priorities with economic considerations as well as social equity. While environmental justice adds a civil rights component to environmentalism, sustainable development aims to mitigate standard development by incorporating historically overlooked priorities into development decisions.”).

Distributional equity requires that transitional benefits be prioritized for those fenceline communities that have historically shouldered a disproportionate burden of fossil fuel extraction and climate change.²²⁸ To redistribute these benefits and burdens, Front and Centered, a broad coalition of labor and environmental advocates in the Pacific Northwest, calls for “targeted strategies to create net environmental and economic outcomes for people of color and Indigenous people” as a means of ensuring distributional equity.²²⁹

One such targeted approach to economic policymaking is “Black Women Best.”²³⁰ Coined by Janelle Jones in response to the COVID-19 pandemic, Black Women Best is an economic principle that holds that “if black women—who since our nation’s founding have been among the most excluded and exploited by the rules that structure our society—can one day thrive in the economy, then it must finally be working for everyone.”²³¹ Taken in the context of decarbonization, approaching policymaking through the lens of making a sustainable energy economy accessible to and supportive of Black women’s full participation would “safeguard everyone else, too.”²³² Centering race and racial equity—whether through a targeted universalism approach or a race-explicit approach like Black Women Best—is necessary to craft effective “solutions to centuries of systemic exclusion, extraction, and exploitation that have continually undermined economic potential in the U.S.”²³³ By directing resources to those with the greatest need, a central principle of distributional equity, this kind of targeted strategy can help to create a sustainable and just economy.²³⁴

228. See Funfgeld, *supra* note 202, at 225 (describing a justice of recognition that includes an appreciation that the diversity of those affected by or involved in energy-related processes including their experiences, patterns of disrespect and misrecognition may differ); see also Uma Outka, *Environmental Justice Issues in Sustainable Development: Environmental Justice in the Renewable Energy Transition*, 19 J. ENV’T. & SUSTAINABILITY L. 60, 64–65 (2012) (discussing impacts on “poor and minority” communities).

229. See ACCELERATING A JUST TRANSITION, *supra* note 80, at 2 (noting that its framework was developed “to move from a position of responding to proposals developed by large, historically white-led environmental organizations and policymakers to developing our own priorities and approach to climate policy”).

230. See generally Bozarth, *supra* note 217.

231. *Id.* at 3 (elaborating that “‘Black women best’ refers to both cis and trans women and femme-identified people, which includes anyone who is not a cis or trans woman but who identifies as feminine or is typically read as feminine by others, including those among them who are nonbinary and/or gender-nonconforming.”).

232. *Id.* at 16 (noting that “[i]t is only through an equitable distribution of power—in which Black women have a platform—that harmful and racist practices can stop and our collective economy can thrive. An economy stratified across race and gender will never be a strong economy because it limits economic potential and undermines economic stability.”).

233. *See id.* at 9.

234. *Principles*, FRONT AND CENTERED, <https://frontandcentered.org/principles/> [<https://perma.cc/R33M-CSTT>] (last visited Oct. 27, 2022). Revenues generated under “polluter pays” programs should be first used to “offset any additional economic burden placed on people with lower incomes and fewer resources, and then should support strategies that reduce pollution.” *Id.*

B. Collective Power Dimensions

Strengthening the power of frontline workers improves outcomes across all equity dimensions and will be critical to ensuring a just transition. At a structural level, worker power can help to remediate past harms, disrupt ongoing systems of intersectional oppression, enforce workplace standards, and set the agenda for identifying and measuring universal goals for the clean energy workforce.²³⁵ From a procedural standpoint, increasing worker power can yield better representation and participation in decision-making.²³⁶ It can also enable workers to more effectively—and securely—challenge the actions of government and corporations.²³⁷ And at a distributive level, collective bargaining is crucial for an equitable distribution of wealth in the renewable energy economy and to act as a check on increasing concentrations of corporate power.²³⁸

As Doorey contends, the labor relationships “demands a theory of justice,” as human labor should not be treated as “just another mundane market transaction.”²³⁹ While labor law may be a useful starting point for building collective power, as discussed *supra* Section II-C, it has failed to produce a fossil fuel workplace that is racially equitable, safe, and organized. Without significant legal and policy changes, we will find it even more challenging to do so in a low-carbon future. Pursuing a just transition will require labor law and policy to reign in the widening inequality of bargaining power between frontline workers and energy sector employers.²⁴⁰ There are clear law and policy pathways that can help to build workers’ capacity to (1) organize, (2) negotiate, and (3) collaborate with other stakeholders to advance a just transition.

1. Power to Organize

Just look at the numbers to understand what frontline workers stand to lose in a transition from fossil fuel extraction to renewable energy. While 10–12% of the

235. See Bozarth, *supra* note 217, at 8.

236. See, e.g., National Labor Relations Board, *Employer/Union Rights and Obligations*, <https://www.nlrb.gov/about-nlrb/rights-we-protect/your-rights/employer-union-rights-and-obligations> [https://perma.cc/YT9H-52ZA] (last visited Oct. 27, 2022) (“After employees choose a union as a bargaining representative, the employer and union are required to meet at reasonable times to bargain in good faith about wages, hours, vacation time, insurance, safety practices and other mandatory subjects. Some managerial decisions such as subcontracting, relocation, and other operational changes may not be mandatory subjects of bargaining, but the employer must bargain about the decision’s effects on unit employees.”).

237. See, e.g., Josh Bivens et al., *How Today’s Unions Help Working People*, ECON. POL’Y INST. 6 (Aug. 24, 2017), <https://www.epi.org/publication/how-todays-unions-help-working-people-giving-workers-the-power-to-improve-their-jobs-and-unrig-the-economy/> [https://perma.cc/9YQA-RCZA] (noting that unions, like chambers of commerce and employer associations, give workers a voice in policy debates).

238. *Id.* at 10.

239. *Just Transitions Law*, *supra* note 23, at 215 (citing David Beatty, *Labor is Not a Commodity*, in STUDIES IN CONTRACT LAW 313 (J. Wan & B. Reiter eds., 1980)).

240. *Id.* at 215 n.66 (explaining that labor law is primarily regarded as a set of labor market interventions in contract negotiations to ensure that workers who would otherwise suffer from an inequality of bargaining power have access to justice).

fossil fuel workforce is unionized—indeed not tremendous, but nearly double the unionization rate in the non-fossil-fuel private sector²⁴¹—only about 4% of solar industry workers and 6% of wind workers are unionized.²⁴² As a result, average salaries for workers in fossil fuel industries are significantly higher than in solar or wind energy.²⁴³ Eliminating the barriers workers face when forming unions will be critical for closing the racial wealth gap, keeping renewable energy sector workers safe, and advancing economic justice.²⁴⁴ Strengthening workers’ collective bargaining rights is imperative for a just transition. Professors Block and Sachs propose a panoply of alternative forms of worker organizing, ranging from workplace monitors to disciplinary representation by request to “works councils,” members-only unions (with a minimum of 25% of workers voting to join), traditional unions (when at least a simple majority of workers vote to join), and sectoral bargaining (when at least 10% or 5,000 members in an industry vote to join the union).²⁴⁵

Sectoral bargaining—organizing and bargaining across an entire industry, such as wind, solar, and electric vehicles—has perhaps the most significant potential to counteract the inequitable wage structure in the renewable energy industry.

241. Bureau of Labor Statistics, *Union Members—2021*, U.S. DEP’T OF LAB. (Jan. 20, 2022), <https://www.bls.gov/news.release/pdf/union2.pdf> [https://perma.cc/W44UY-WFDF].

242. Nilsen, *supra* note 182 (in transportation, distribution, and storage jobs—which exist largely in the fossil fuel sector—about 17% of the jobs are unionized).

243. See Valerie Volcovici & Laura Sanicola, *Analysis: Biden’s Clean-Energy ‘Revolution’ Faces Challenge to Match Fossil-Fuel Jobs, Pay*, REUTERS (Oct. 30, 2020), <https://www.reuters.com/article/us-usa-election-labor-renewables-analysis-idUKKBN27F1KN> [https://perma.cc/2CPC-456K] (noting that fossil fuel salaries range from \$70,310 to \$81,460, compared with \$46,850 to \$64,330 for jobs in solar and wind generation, and are significantly less likely to have employer-provided health insurance).

244. See ACCELERATING A JUST TRANSITION, *supra* note 80, at 63.

245. CLEAN SLATE, *supra* note 169, at 29 tbl. 1. See also David Madland & Malkie Wall, *American Ghent: Designing Programs to Strengthen Unions and Improve Government Services*, CTR. FOR AM. PROGRESS (Sept. 18, 2019), <https://www.americanprogress.org/article/american-ghent/> [https://perma.cc/MR5M-HZ4P] (proposing a co-enforcement model in which governments partner with unions and worker organizations, which can serve as trusted intermediaries and provide guidance to workers seeking to challenge violations of workplace protections). Co-enforcers also contact “workers in more workplaces than even well-resourced government inspectors are likely to reach. The benefits of co-enforcement are numerous. Literature notes that co-enforcement initiatives improve short-term ‘compliance and enforcement’; generate ‘professional development, sophistication, and commitment of enforcement officials’; and produce ‘modest revenue increases, better legitimacy, and a strengthened institutional framework for groups working with, and composed of, low-wage workers most vulnerable to wage theft and other substandard working conditions.’” *Id.* Studies have also found that “when a union represents employees, . . . compliance with Fair Labor Standards Act overtime regulations is increased.” *Id.* Another step toward an equitable redistribution of power in a just transition would be expanding the number of seats that workers and their representatives have on corporate boards. CLEAN SLATE, *supra* note 169, at 73–75 (recommending that no less than 40% of board seats be held by workers and their representatives, with a supermajority vote on any issue that significantly impacts workers; creation of a corporate fiduciary duty to workers; and managerial and entrepreneurial decision be made mandatory subjects of bargaining).

Expanding sectoral bargaining, as is the custom in many other countries, could yield much greater union density, reduce income inequality, and address racial and gender wage disparities more effectively.²⁴⁶ Such a strategy would establish green industry-wide “floors” for wages and other benefits while permitting enterprise-level negotiations above that floor.²⁴⁷ In addition to frontline energy workers, this strategy may also benefit those aspiring “high road” energy employers, as the floor could eliminate the “race to the bottom” on wages and benefits to remain competitive in an emerging industry.²⁴⁸ On the other hand, such a floor could help guard against an oil company pivoting to green energy, laying off their long-term oil riggers, and immediately rehiring them into photovoltaic installer positions. Without strong worker power and established standards, the employer would reap significant cost savings by paying their “new” workforce a fraction of what they previously earned.²⁴⁹

Though its application to the private sector employment relationship may have dwindled, labor law can still be helpful for economic justice and harnessing worker power. Amendments to fortify workers’ rights under the NLRA and expand sectoral bargaining and alternative governance structures will be necessary to ensure an equitable distribution of power, resources, and opportunity in an era of decarbonization.

246. See CLEAN SLATE, *supra* note 169, at 37–45 (recommending a system of sectoral bargaining in which whenever a worker organization has a membership of 5,000 workers in a sector or 10% of the workers in a sector (whichever number is lower), the Secretary of Labor will establish a sectoral bargaining panel for the sector).

247. See Cliffton, *supra* note 100, at 20, 131–32 (advocating for the use of sectoral strategies such as workers’ boards, to increase worker power in regions and industries with low union density). “Workers’ boards are tripartite bodies that bring together workers, employers, and the public to establish minimum wage rates, benefits, and other workplace standards, including paid leave policies and benefit contribution rates. Engaging labor representatives in board activities helps ensure those resulting standards are responsive to workers’ needs while also potentially building union visibility and strength. Governments have commonly used these workers’ boards in the service sector, including fast-food workers in New York and domestic workers in Seattle. However, more state and local policymakers could also use this approach to establish standards in clean energy sectors with low unionization rates.” *Id.*

248. See Elizabeth Kennedy, *Building a Top Workplace Starts with a Sustainable Workforce*, BALT. SUN (Nov. 30, 2017, 7:30 PM), <https://www.baltimoresun.com/business/topworkplaces-bs-bz-tw-building-top-workplaces-column-20171026-story.html> [https://perma.cc/BQU6-AZ6S].

249. Nilsen, *supra* note 182. (“The 2019 median annual wage for solar photovoltaic installers was \$44,890, while the median annual wage for wind turbine service technicians was \$52,910. Comparatively, fossil fuel power sector jobs pay between \$70,310 and \$81,460. Of the 28 utility-scale wind projects currently under construction in the US, just seven are union projects, and 21 are non-union. And of the 61 utility-scale solar projects under construction, 40 projects are non-union, 21 are using contractors that are both union and non-union, and just six reported they’re using all-union labor. Of course, wages and jobs range depending on the type of work being done. Someone laying solar panels on the roof of a home or residential buildings will likely make less than someone constructing an offshore wind turbine.”).

2. Power to Negotiate

Creating a safe and equitable renewable energy sector will require its frontline workforce's active and engaged participation. As climate change accelerates, so must workplace standards adapt to a warming planet. Current labor law regards many issues critical to workers—the ethics of employers' business practices, the consequences that firms have on our shared environment, and how employers' decisions impact broader community conditions, such as affordable housing availability—as outside the scope of collective bargaining.²⁵⁰ Building worker power requires amending the NLRA to allow for a more expansive range of issues over which employers must negotiate. Further amendments permitting the inclusion of community groups and other stakeholders at the bargaining table could also help bridge gaps between frontline workers and fenceline communities.

3. Power to Collaborate

As the Norco case, *supra* Section II, reminds us, not all workplace stakeholders are workers. We need to revise laws such as OSHA to include affected community stakeholders in its enforcement and application. Moreover, when bargaining over issues that impact the community, unions should have the right to bring community organizations with members and expertise to the bargaining table.²⁵¹ Such worker organizations, for example, could include fenceline community members and frontline workers, so long as the organization has a mission dedicated to building worker power, is not dominated by the employer, and has other safeguards. Amplifying the voices of workers and community residents in the process of collective bargaining is just one step in assuring structural, procedural, and distributional equity.

Some scholars have advocated using community benefits agreements (“CBAs”) at the local level, a long-standing tool for community voice and labor power in development projects.²⁵² Such contracts could address community concerns about job creation, living wages, education, and health services during transitions.²⁵³ However, observers note that such agreements must typically be demanded by communities and have had a decidedly mixed track record for building legitimate community power.²⁵⁴ While the sense of urgency underlying much of climate change activism is understandable, a precise understanding of the history of

250. Under the Supreme Court's interpretation of the NLRA bargaining mandate, many questions with the most significant and most direct impact on workers' lives are excluded from the employer's obligation to bargain. *See Fibreboard Paper Prods. Corp. v. NLRB*, 379 U.S. 203, 223 (1964) (Stewart, J., concurring) (distinguishing between mandatory subjects of bargaining that relate to the terms and conditions of employment and permissive subjects of bargaining (entrepreneurial decisions)).

251. *See CLEAN SLATE*, *supra* note 169, at 69. Importantly, Block and Sachs choose to refer to “worker organizations,” which take on a broader definition than current “labor organizations.” *Id.*

252. *See generally* Chadé Severin, *We Built this City: The Legality of Community Benefits for Big Box Construction Under Title VII and The Equal Protection Clause*, 3 COLUM. J. RACE & L. 215 (2013) (examining seven CBAs established to eradicate discrimination and racial segregation in development projects).

253. *Id.*

254. *Just Transitions* (Eisenberg), *supra* note 45, at 110.

fossil fuel development affirms the risks to communities of any rapid transition. Preserving the autonomy of local communities in decision-making and risk assessment is an essential precondition for an equitable distribution of burdens and benefits of a regenerative economy.

IV. INTEGRATIVE APPLICATION: COLORADO

Twenty years ago, over three-quarters of the electricity consumed in Colorado was generated by burning coal; today, that number has dwindled to less than 44% as it has shifted toward more regenerative sources like wind and solar.²⁵⁵ Following a series of closures, all but one of the remaining eight coal-fired plants in operation—employing close to 2,000 people—are slated to shut down by 2030.²⁵⁶ In addition to the loss of mining jobs (and others in the coal supply chain), the transition will impact local communities where commercial properties associated with the coal industry historically comprised much of their tax bases.²⁵⁷ While transitioning from fossil fuel to green energy production is required to respond to the climate crisis, Colorado lawmakers needed to respond to the challenges that the transition would bring to workers and communities.²⁵⁸ In 2019, the Colorado General Assembly passed HB19-1314, which created an Office of Just Transition (“OJT”) and a Just Transition Advisory Committee (“JTAC”) to create a Just Transition Plan.²⁵⁹ Though at the time of its passage, many Republicans in the legislature decried the bill as “laughable,” “egregious,” “offensive,” and “Orwellian,” two years later, House Bill 21-1290—which allocated \$8 million to a

255. See *Coal in Colorado*, COLO. DEP’T OF LAB. & EMP., <https://cdle.colorado.gov/offices/the-office-of-just-transition/coal-in-colorado> [https://perma.cc/VR23-9HUA]. See also Chase Woodruff, *Republicans Called Colorado’s Transition Office for Coal Workers ‘Orwellian.’ Now They Want to Boost Its Funding*, COLO. NEWSLINE (May 10, 2021, 5:00 AM), <https://coloradonewsline.com/2021/05/10/republicans-called-colorados-just-transition-office-for-coal-workers-orwellian-now-they-want-to-boost-its-funding/> [https://perma.cc/5M2A-KLDC].

256. *Id.* Colorado Governor Polis has set an ambitious target of achieving 100% renewable energy by 2040. See *Polis Administration’s: Roadmap to 100% Renewable Energy by 2040 and Bold Climate Action*, COLO. ENERGY OFF., <https://energyoffice.colorado.gov/sites/energyoffice/files/documents/ROADMAPTO100%20RENEWABLE.pdf> [https://perma.cc/W7P6-ZMD2]. While outside the scope of this paper, Colorado SB-236 (2019), which provides for the securitization of uneconomic coal-fired plants, was a precedent-setting and interesting approach to hasten the closure of coal plants while generating cost savings to taxpayers. The proposal was supported by labor and environmental groups.

257. See Woodruff, *supra* note 255.

258. See *Coal in Colorado*, *supra* note 255.

259. H.B. 19-1314, 72d Gen. Assemb., Reg. Sess. (Colo. 2019) [adding part 5 to article 83 of title 8]; see also COLORADO JUST TRANSITION ACTION PLAN, COLO. DEP’T OF LAB. AND EMP. 1 (Dec. 31, 2020), <https://cdle.colorado.gov/sites/cdle/files/documents/Colorado%20Just%20Transition%20Action%20Plan.pdf> [https://perma.cc/9RKH-2ASB] [hereinafter ACTION PLAN] (explaining that the plan was approved by the executive directors of the Colorado Department of Labor and Employment (“CDLE”) and the Colorado Department of Local Affairs (“DOLA”) and is based in large part on the draft Colorado Just Transition Plan prepared after a year of extensive study and deliberation by the Colorado JTAC (also created by legislation), and it reflects input from a wide range of stakeholders, issue experts, state agencies, and members of the public)

Just Transition cash fund and \$7 million to a newly created coal transition worker assistance program account—passed with bipartisan support.²⁶⁰ As an early leader in Just Transition, we can expect to see other states follow Colorado’s lead. Applying the integrative framework, how does Colorado’s program measure up?

1. Does it attempt to rebalance power, voice, and agency to frontline workers and fenceline communities disproportionately burdened by climate change?

The legislation states that it is morally committed to the “workers and communities who have powered Colorado for generations,” as well as “the disproportionately impacted communities who have borne the costs of coal power pollution for decades.”²⁶¹ The JTAC released a draft Just Transaction Action Plan in August 2020 and a final plan on December 31, 2020.²⁶² The draft plan made 11 significant policy recommendations, the first 5 of which were to provide impacted coal workers with temporary income and benefits; career and financial counseling; training and other services like those provided by the TAA; and wage and health differentials for workers accepting lower-paying jobs with a new employer.²⁶³ The remaining six recommendations were for community investments in industries and infrastructure, including a request to “provid[e] funding and technical assistance for the development of community-driven plans which are broad-based, collaborative, have community buy-in and are attentive to the needs of disproportionately impacted communities.”²⁶⁴

As drafted, these individual benefits and community investments address Colorado’s “moral commitment” to the generations of frontline coal miners who have “powered Colorado for generations.”²⁶⁵ Designing economic development plans for those in communities like Diamond, who may not have benefited as coal plant employees but have been disproportionately burdened by their operation, would likewise advance structural equity. However, these initial recommendations were dropped in the final Just Transition Action Plan and replaced with four tenuous commitments to “empower workers” by notifying them early of their pending job loss;²⁶⁶ “encourage the federal government” to create a national strategy for transition;²⁶⁷ “prepare, for future consideration,” a program to help workers “build skills, find good jobs, or start businesses”;²⁶⁸ and “explore strategies” through policies such as a wage differential, which it is not comfortable providing now.²⁶⁹

260. See Woodruff, *supra* note 255.

261. Colo. Rev. Stat. Ann. § 8-83-501(c)(II).

262. See COLO. JUST TRANSITION ADVISORY COMM., DRAFT COLORADO JUST TRANSITION PLAN 1 (Aug. 1, 2020), https://cdle.colorado.gov/sites/cdle/files/2020-09/draft_colorado_just_transition_plan_08.03.2020.pdf [https://perma.cc/33EH-AKPL] [hereinafter DRAFT ACTION PLAN]; ACTION PLAN, *supra* note 259, at 15–16.

263. See DRAFT ACTION PLAN, *supra* note 262, at 20–35.

264. *Id.* at 27.

265. H.B. 19-1314, 72d Gen. Assemb., Reg. Sess. (Colo. 2019).

266. ACTION PLAN, *supra* note 259, at 12.

267. *Id.* at 12–14.

268. *Id.* at 14.

269. *Id.* at 14–15.

Though the legislative text appeared to address the first prong of the integrated framework, in its execution, it does not.

The bill defines “disproportionately impacted community” as any “community of color, low-to-middle income community, or [I]ndigenous community that is or has been directly impacted by coal pollution.”²⁷⁰ These impacts may include exposure to pollution and other environmental hazards.²⁷¹ While this legislative language is promising, the Just Transition Action Plan, which contains detailed policy goals for coal workers and communities, offers no specific recommendations for how the government plans to benefit or assist disproportionately burdened Indigenous or other communities of color.²⁷² Acknowledging that HB-1314 included specific language regarding disproportionately impacted communities, the JTAC argues that the legislation provided “no further guidance” to it or the OJT on addressing those issues.²⁷³ Therefore, the JTAC concludes that what the legislature meant when it said it “wanted [disproportionately impacted] voices and their lived experience to be centered in our work” was simply that they should “keep a close eye on issues of environmental justice.”²⁷⁴

Having a committee comprised of elected state representatives “keep a close eye” on an issue that it separately describes as beyond the scope of its charge strongly suggests that the work of the committee, its recommendations, and any specific policy and funding that flows from the enabling legislation, will prioritize workers currently employed by the coal industry, and those communities whose tax revenues will suffer when coal-fired plants are shuttered. This plan would benefit workers like those in Norco while leaving communities like Diamond in the literal and figurative dust.²⁷⁵

2. *Are frontline workers and fenceline communities directly and meaningfully involved in developing, implementing, and enforcing the law, policy, or program?*

While challenging to corroborate from academic research, HB 19-1314 was reportedly developed through a “diverse coalition,” including labor unions and environmental groups. The Just Transition Action Plan “reflects input from a wide range of stakeholders.”²⁷⁶ Given that most of the recommendations responsive to the concerns of workers and environmental justice advocates were ultimately removed from the final action plan, it raises questions about the relative weight those stakeholders were afforded. Moreover, the statement by the JTAC that it would “keep a close eye” on environmental justice issues does not suggest meaningful engagement with fenceline communities.²⁷⁷ And finally, relegating justice issues to

270. Colo. Rev. Stat. Ann. § 8-83-502(4).

271. See ACTION PLAN, *supra* note 259, at 15–16.

272. *See id.*

273. *Id.* at 15.

274. *Id.* at 15–16.

275. *See id.*

276. ACTION PLAN, *supra* note 259, at 1.

277. *Id.* at 16.

a newly created “Subcommittee on Disproportionately Impacted Communities” potentially further removes those stakeholders from the process.²⁷⁸

Taking the following two elements of the framework together:

3. *Does it use targeted universalism to prioritize workers and communities furthest from climate justice in education, training, hiring, and other economic opportunities?*
4. *Does it require that demographic data be collected, disaggregated, analyzed to identify disparities, and made public?*

Nothing in the enabling legislation, the more recent funding allocation, the draft Just Transition Plan, or the final Just Transition Action Plan mandates the collection, disaggregation, and analysis of demographic data to measure disparate outcomes or relative progress for targeted groups along with a set of universal goals.²⁷⁹ This is particularly problematic since, without disaggregated demographic data, it will be impossible to measure progress for all groups toward the goals established by the JTAC and the OJT. And lastly,

5. *Does it strengthen the ability of frontline workers and fenceline communities to build collective power through collective bargaining or co-governance?*

None of JTAC’s recommendations reference or address the impacts of transition on workers’ ability to build collective power.²⁸⁰ Though the legislation makes a moral commitment to the miners, there is no mention of unions or other worker organizations, nor is there a plan to engage them in creating and implementing a just transition.²⁸¹ While they acknowledge that coal workers will likely require “differentials” to achieve wage parity with their fossil fuel jobs, there is no acknowledgment that those current wages reflect a century of union organizing and labor struggle.²⁸² In dropping its recommendations for wage differentials for coal workers who accept lower-paying jobs, the JTAC explained that such a benefit would be prohibitively expensive for the state.²⁸³ This is precisely why prevailing wages and sectoral bargaining could help shift the economic burden from the public (who include, as taxpayers, the very coal workers who would receive these differentials) to the private sector green energy (and other) employers. Raising the floor for wages (through prevailing wage rates) and making it easier for workers to

278. See *id.*

279. See generally H.B. 19-1314, 72d Gen. Assemb., Reg. Sess. (Colo. 2019); ACTION PLAN, *supra* note 259; H.B. 21-1290, 73d Gen. Assemb., Reg. Sess. (Colo. 2021).

280. See ACTION PLAN, *supra* note 259, at 1–2.

281. See H.B. 19-1314, 72d Gen. Assemb., Reg. Sess. (Colo. 2019).

282. See *id.*; see, e.g., Gregory Dehler, *Ludlow Massacre*, BRITANNICA, <https://www.britannica.com/event/Ludlow-Massacre> [<https://perma.cc/SLP8-MU22>] (last visited Oct. 27, 2022) (describing Colorado’s use of National Guard troops to violently suppress a strike against John D. Rockefeller’s company by members of the United Mine Workers of American over “low pay and abysmal working conditions in the coalfields of Colorado.” On April 20, 1914, in what would be known as the Ludlow Massacre, guardsmen attacked miners and their families with machine guns and torches, leaving 25 people dead, including 11 children).

283. See ACTION PLAN, *supra* note 259, at 3, 14–15.

organize across industrial sectors would help to ensure more significant distributional equity and build worker power.

V. CONCLUSION

The climate disasters that claimed the lives of Darlene Lee, Gueta Vargas, and those who worked alongside Kyanna Parsons-Perez may have felt sudden, but they were not without warning. These effects of climate change are accelerating, impacting us all, but not all of us equally. Unfortunately, those already marginalized in basement apartments, agricultural fields, and factory floors in a carbon-based economy may still find themselves underwater in a regenerative one. Dire as these warnings may be, the transition from fossil fuel extraction offers an opportunity to create an economy that prioritizes the well-being of those farthest from environmental justice. However, as the Colorado example instructs, advancing such a transition will require more than legislative intent. Applying this Article's integrative framework to emerging energy transition laws, policies, and programs can help ensure a more equitable distribution of the risks of climate change and the economic and social opportunities that lay ahead. Centering racial equity, building worker power, and integrating principles of environmental justice will be necessary to meet the needs of frontline workers and fenceline communities in transitioning to an equitable, sustainable, and just economy.