JUSTICE WITHOUT DEMOCRACY? UNDERSTANDING THE FUTURE OF ENERGY THROUGH THE INFLATION REDUCTION ACT

Lara Briggs[*] & Zack Bowersox[**]

ABSTRACT

The Inflation Reduction Act ("IRA") is, to-date, the US' largest climate-related policy, and, as such, is influential in determining the trajectory of future policies. Consequently, the IRA has caused a reconceptualization of energy justice (EJ) and energy democracy (ED) from theoretical concepts to guiding ideologies for assessing climate policy and challenging the status quo. This essay argues that the IRA focuses on distributional energy justice outcomes at the expense of procedural energy justice and energy democracy. To solve this issue, this essay asserts that future climate policy must specifically encourage "prosumer" involvement in energy distribution and decision-making, such as community solar projects, to increase the democratic nature of the energy transition process. Ultimately, it cannot be taken as a given that energy justice and democracy automatically lead to the other, as normative assertions have previously claimed; it is up to scholars and policymakers to actively create a democratic and just energy future.

* Lara Briggs is a Robert H. Salisbury Prize winner and a dual environmental analysis and political science major at Washington University in St. Louis.

** Zack Bowersox is a lecturer in political science at Washington University in St. Louis.

INTRODUCTION

The transition from traditional fossil fuels to renewables in the energy sector is moving at a rapid pace. According to the National Renewable Energy Laboratory, by 2035, most energy in the United States could be produced by renewables.[1] While this is welcome news, the process of transitioning remains contentious, not least of all because of the inequality with which it is unfolding. The extraction of resources to create new renewable energy systems, and the pollution communities without the financial means to decarbonize continually face, are just some examples of inequality associated with the energy transition. It is still the case that race is a significant contributing factor to unequal experiences with pollution.[2] Racial minorities in the U.S. are exposed to levels of air pollution nearly 14% higher than that of whites.[3] The Biden Administration issued Executive Order 14096 in April of 2023, reaffirming the United States government's commitment to environmental justice.[4] It directs federal agencies to engage with communities on environmental issues. Yet, what measures of justice are employed and who decides what outcome is just are not articulated.

Commented [LB1]: Suggestion accepted

The United States legal and political traditions are the progeny of enlightenment thinking, especially the works of John Locke, Jean-Jacques Rousseau, and Adam Smith.[5] It is a body of thought that understands property as a right and has existed long before the articulation of human

1. Madeline Geocaris, *Exploring the Big Challenge Ahead: Insights on the Path to a Net-Zero Power Sector by 2035*, NATIONAL RENEWABLE ENERGY LABORATORY (2022), https://www.nrel.gov/news/program/2022/exploring-the-big-challenge-ahead-insights-on-the-path-to-a-net-zero-power-sector-by-2035.html [https://perma.cc/SYK3-9QLU].

2. Spencer Banzhaf, Lala Ma & Christopher Timmins, *Environmental Justice*: *The Economics of Race, Place, and Pollution*, 33 J. ECON. PERSP. 185, 189 (2019); Abdulrahman Jbaily et al., *Air Pollution Exposure Disparities Across U.S. Population And Income Groups*. NATURE 228, 228–33 (2022), https://www.nature.com/articles/s41586-021-04190-y [https://perma.cc/3RQM-K5L4];

3. Abdulrahman Jbaily et al., *supra* note 4.

4. Exec. Order no. 14,096,88 Fed. Reg. 25251 (Apr. 26, 2023), https://www.whitehouse.gov/briefing-room/presidential-actions/2023/04/21/executive-order-on-revitalizing-our-nations-commitment-to-environmental-justice-for-all/ [https://perma.cc/9TS9-KN8W].

5. Harvey M. Jacobs, *Eighteenth-Century Property Rights for Twenty-First Century Environmental Conditions? in* PROPERTY RIGHTS AND CLIMATE CHANGE: LAND USE UNDER CHANGING ENVIRONMENTAL CONDITIONS 41, 42 (Fennie van Straalen et al. eds., 2018); *See also* West, *Property Rights In The History Of Economic Thought: From Locke to J. S. Mill, in* PROPERTY RIGHTS: COOPERATION, CONFLICT, AND LAW 20 (Terry L. Anderson & Fred S. McChesney eds., 2003) which summarizes each of these actors' central tenants.

rights as we know them today.[6] Needless to say, its development long preceded the current climate crisis and the debates about what solutions we pursue to address it.

Justice, especially as articulated by Rawls, was understood as fairness and never meant to be cosmopolitan and applicable across different regimes. It treated "the world not as a network of interdependent biomes but as a patchwork of sovereign states,"[7] with the belief being that actors in each of these states would behave rationally and with the foresight to seek out justice in their independent polities through the democratic process.[8] Yet these actors were always occupying a place in *property-owning* democracies, where the institutions and socio-economic structure of life centered on property rights.[9] The individual and their property were conceived of as separate from society, deserving of special consideration.[10] However, the climate crisis has upended our understanding of property rights, especially since so much climate policy is based on common-pool resources.[11] Can we then expect the traditional, Western conceits of democracy and justice to carry us through the climate crisis?

Energy justice ("EJ") and energy democracy ("ED") are two re-conceptions of these Western democratic property-centric traditions that directly challenge the status quo. While each term is centered on the production and consumption of energy, both seek to answer for different shortcomings of the existing energy hierarchy. Whereas ED focuses on increasing citizen control of energy production and consumption, EJ is

6. See Pablo Solón, *The Rights of Mother Earth*, SYSTEMIC ALTERNATIVES, https://systemicalternatives.org/2017/03/29/the-rights-of-mother-earth/ [https://perma.cc/P9TC-H46D], for an ecological examination of the consequences.

7. John Töns, JOHN RAWLS AND ENVIRONMENTAL JUSTICE: IMPLEMENTING A SUSTAINABLE AND SOCIALLY JUST FUTURE 32 (2021).

8. *Id.* at 76; *See also* John Rawls, A THEORY OF JUSTICE, Ch. 1 (1971).

9. *See* Fennie van Straaten, Thomas Hartman, & John Sheehan*, Introduction: Changing Environmental Conditions, Property Rights, and Land Use Planning, in* PROPERTY RIGHTS AND CLIMATE CHANGE: LAND USE UNDER CHANGING ENVIRONMENTAL CONDITIONS 1, 3 (Fennie van Straalen et al. Eds., 2018).

10. *See generally* John Locke, THE SECOND TREATISE OF GOVERNMENT, Chapter 5 (1690) in which Locke argues that property rights are natural rights and therefore preceded the creation of governments or social ordering. Individuals, he argued, formed governments in line with their need to protect property not to grant property rights.

11. For a more detailed examination of common-pool resources in environmental policy, see Elinor Ostrom, *The Challenge of Common-Pool Resources*, 50 ENV'T. SCI. & POL'Y SUSTAINABLE DEV. 4 (2008).

meant to address issues of inequality, such as energy poverty and the energy gap.[12] That both carry the sheen of social good should not be an excuse for actors to assume either as naturally serving the other. In fact, there is a great danger in making such assumptions, as they may produce antithetical outcomes.

This essay evaluates energy democracy and energy justice in practice through the Inflation Reduction Act ("IRA"). As energy policies continue to evolve, ED and EJ are moving from theoretical concepts to guiding ideologies and frameworks for assessing policy.[13] The IRA is the Biden Administration's strongest effort to advance the energy transition in the United States, referred to by the U.S. Department of Energy as "the single largest investment in climate and energy in American history."[14] As such, its consequences for the future of ED and EJ could be substantial. The main takeaway is that federal efforts at justice are primarily concerned with the distribution of environmental hazards, which reduces the ability for wider participation in energy democratic processes. From this effort, scholars, policymakers, and community members can better understand how the disparate missions of ED and EJ affect policy outcomes.

This essay proceeds in four parts. After introducing the relevant literature on scholarly conceptions of energy democracy and justice, we present our case study of the IRA. We offer a fuller analysis of its merits and shortcomings, concluding that the IRA is focused too narrowly on distributional energy justice outcomes at the expense of procedural EJ and ED. In the future, an increased effort to encourage projects like community solar and the creation of prosumers could increase the democratic nature of the energy transition process.

---

12. Madeleine Wahlund & Jenny Palm, *The Role of Energy Democracy and Energy Citizenship for Participatory Energy Transitions: A Comprehensive Review*, 1 ENERGY RSCH. & SOC. SCI. 87, 6 (2022); Kirsten Jenkins et al., Energy Justice: A Conceptual Review, 11 Energy Rsch. & Soc. Sci. 174, 175 (2016); Darren McCauley et al., *Advancing Energy Justice: The Triumvirate of Tenets*, 32 Int'l. Energy L. Rev. 107 (2013).

13. Benjamin K. Sovacool & Michael H. Dworkin, *Energy Justice: Conceptual Insights and Practical Applications*, 142 Applied Energy 435, (2015); Kacper Szulecki, *Conceptualizing Energy Democracy*, 27 ENV'T. POL. 21 (2017). Each build these frameworks for EJ and ED respectively. *See also* Sufyan Droubi, Raphael J. Heffron & Darren McCauley, *A Critical Review of Energy Democracy: A Failure to Deliver Justice?*, 102 Energy Rcsh. & Soc. Sci. 444 (Apr. 2022).

14. *Inflation Reduction Act of 2022*, DEPT. OF ENERGY, https://www.energy.gov/lpo/inflation-reduction-act-2022 [https://perma.cc/2UED-HTRK] (last updated Sept. 22, 2023).

I. LITERATURE REVIEW

Energy policy occupies a unique, if mostly unstated, place in our daily lives.[15] Energy is a necessity, and with increased urbanization, we, as a global society, require more of it.[16] For instance, the transport of food and other goods to cities (often requiring extended periods of cold storage), the maintenance of public lighting for health and safety reasons, and the continued functioning of industry all require energy.[17] Energy is also essential to most heating and cooling systems, and in an era of extreme temperatures caused by climate change, energy access can be life-or-death.[18] As society transitions to renewables, energy policy will be a salient issue for citizens and policy makers alike.[19]

Currently, energy policy governance in the U.S. is largely managed at the state level.[20]This has meant that there is a great deal of variance across time and policy type amongst the U.S. states in their adoption of, and level of commitment to, renewable energy.[21] Local issues such as air pollution and resource availability, as well as intrastate and international trade, can lead states to adopt particular energy policies, such as states with high wind energy potential adopting renewable portfolio standards to increase wind energy production.[22] The presence of entrenched interests, mostly from actors like the fossil fuel industry and interest groups who directly benefit from the continued use of carbon intensive energy production, also influences state-by-state policy adaptation.[23]

ED and EJ both stem from the concept of environmental justice, which

15. *See* Joseph P. Tomain's *Ending Dirty Energy Policy: Prelude to Climate Change, 52* (2011).

16. Id., at 122; Donald W. Jones, *Urbanization and Energy Use In Economic Development*, 10 ENERGY J. 29, 30–31 (1989).

17. *Id.*

18. See Joshua W. Busby et al., Cascading Risks: Understanding the 2021 Winter Blackout in Texas, 77 Energy Res. Soc. Sci. 102106, at 1 (2021) for example, in which the February 2021 failure of Texas' power grid in the face of a winter storm led to over 100 deaths.

19. *See* Ankit Kumar, Auke Pols & Johanna Hoffken, *Urgency vs Justice: A Politics of Energy Transitions in the Age of the Anthropocene, in* DILEMMAS OF ENERGY TRANSITIONS IN THE GLOBAL SOUTH: BALANCING URGENCY AND JUSTICE 1, 8 (Ankit Kumar, et al. eds., 2021).

20. LEAH CARDAMORE STOKES, SHORT CIRCUITING POLICY: INTEREST GROUPS AND THE BATTLE OVER CLEAN ENERGY AND CLIMATE POLICY IN THE AMERICAN STATES 16 (2020).

21. Sanya Carley, *The Era of State Energy Policy Innovation: A Review of Policy Instruments*, 28 REV. POL'Y RSCH. 265, 267 (2011).

22. Sanya Carley & Tyler R. Browne, *Innovative US Energy Policy: A Review of States' Policy Experiences*, 2 WIREs ENERGY ENV'T. 488, 491 (2013).

23. Stokes, *supra* note 22, 2-3; Sarah B. Pralle, BRANCHING OUT, DIGGING IN 7 (2006).

is "grounded in larger socio-political issues of representation [and] economic relations between the state, firms and social groups."[24] The environmental justice movement in the United States started as a response to these interests and their continued abuses of marginalized communities.[25] From the 1982 Warren County protests in North Carolina,[26] to the Standing Rock Pipeline encampments of 2017,[27] the environmental justice movement has asked the State to re-evaluate its support of private projects that distribute the environmental "goods" and "bads" unequally across different communities.[28] Environmental justice takes a broader view of environmental impacts than EJ by, for instance, including intergenerational[29] as well as international[30] justice. Though both ED and EJ have origins in environmental justice, defining ED and EJ involves a bit more than just suggesting that these concepts are diminutives of a more general antecedent.

Several scholars have proposed definitions and applications of ED, but at its most distilled, ED is concerned with who controls energy and through what means this control is exercised.[31] Generally, ED argues for "the people" to control energy, either through physical ownership of energy resources as "prosumers,"[32] or through direct control in the decision-making

24. Michael Carnegie LaBelle, *In Pursuit of Energy Justice*, 107 ENERGY POL'Y 615, 615 (2017).

25. Though "EJ" is often used to refer to environmental justice, in this essay, we use "EJ" to mean energy justice.

26. *See* ENVIRONMENTAL JUSTICE IN POSTWAR AMERICA: A DOCUMENTARY READER (Christopher W. Wells ed., 2018) for a summary history of the EJ movement in postwar America.

27. Elizabeth Ann Kronk Warner, *The Indigeneity of Environmental Justice: A Dakota Access Pipeline Case Study*, *in* THE CAMBRIDGE HANDBOOK OF ENVIRONMENTAL JUSTICE AND SUSTAINABLE DEVELOPMENT 354 (Carmen G. Gonzalez et al. eds., 2021).

28. David Schlosberg, *Theorizing Environmental Justice: The Expanding Sphere of Discourse*, 22 Environmental Politics 37, 47–49 (2013); Roman Sidortsov, and Darren McCauley, *Energy Justice*, *in* THEORISING JUSTICE: A PRIMER FOR SOCIAL SCIENTISTS 171–90, (Stephen Przybylinski & Johanna Ohlsson eds., 1st ed. 2023), https://doi.org/10.2307/jj.7941370.18.

29. Mona Pare, Children's Rights or Intergenerational Equity? Exploring Children's Place in Environmental Justice, in The Cambridge Handbook of Environmental Justice and Sustainable Development 152 (Carmen G. Gonzalez et al. eds., 2021).

30. Joshua Mousie, *Global Environmental Justice and Postcolonial Critique*, 9 ENV'T PHIL. 2 (2012).

31. Wahlund & Palm, *supra* note 14, at 4.

32. See the following for an in-depth explanation of prosumers and an example of governance approaches with a prosumer model: Campos Inês et al., *Regulatory Challenges and Opportunities for Collective Renewable Energy Prosumers in the EU*, 138 ENERGY POL'Y 111212, Mar. 2020; Sharon B. Jacobs, *The Energy Prosumer*, 43 Ecology L.Q. 519 (2016).

process through a participatory governance model.[33] But is ED a process of increasing citizen control, a desirable outcome, or something else? One view of ED is that it is a process, whereby social change—power placed in the hands of citizens instead of corporate or government interests—leads to technological change.[34] A dominant framework for this process is called "resist/reclaim/restructure," which was put forward by Burke and Stephens, who argue that ED calls for an energy transition "in ways that resist the dominant fossil-fuel energy agenda, reclaim social and public control over the energy sector, and restructure the energy sector to better support democratic process, social justice and inclusion, and environmental sustainability."[35] Within this framework, Burke and Stephens claim that ED will lead to energy being treated as a common-pool resource with citizen engagement for governance, instead of entrenched fossil fuel interests, which will (at least in the minds of Burke and Stephens) bring about just outcomes.[36,] It is important to note that these energy-democracy-as-process arguments contain intrinsic assumptions that citizens all have common interests in energy decisions: however, increasing energy democratization may not lead to more just outcomes and renewable energy procurement.[37]

The reflexive frame of ED is the outcome approach, in which technological change leads to social change. In this argument, decarbonizing the energy sector will lead to increased decentralization, as renewable energy technology lends itself more to decentralized systems than fossil fuels.[38] This decentralization will drive technological change and increase the prevalence of citizens as prosumers,[39] which will create social

33. Szulecki, *supra* note 15, at 23; Kacper Szulecki & Indra Overland, *Energy Democracy as a Process, an Outcome and a Goal: A Conceptual Review*, 69 ENERGY RSCH. & SOC. SCI., Nov. 2020, at 4–5; Bregje van Veelen & Dan van der Horst, *What Is Energy Democracy? Connecting Social Science Energy Research and Political Theory*, 46 ENERGY RSCH. & SOC. SCI., Dec. 2018, at 20; Wahlund & Palm, supra note 14, at 6.

34. Szulecki, *supra* note 15, at 22; *See also* Shelley Welton, *Grasping for Energy Democracy*, 116 MICH. L. REV. 581, 585-586 (2018).

35. Matthew J. Burke & Jennie C. Stephens, *Energy Democracy: Goals and Policy Instruments for Sociotechnical Transitions*, 33 ENERGY RSCH. & SOC. SCI. 35, 37 (2017).

36. *Id.*

37. Szulecki & Overland*, supra* note *35,* at 6–8; Wahlund & Palm, *supra* note 14, at 11.

38. Szulecki & Overland, *supra* note 35, at 2.

39. An energy "prosumer" both consumes energy generated by others, typically large-scale utilities, and produces energy themselves, often through home solar PV or other methods of renewable energy generation. For a more detailed examination of the energy prosumer concept, see Jacobs *supra* note 34.

change: as energy systems transfer more physical assets to citizens, the governance of these systems will become more democratic (in accordance with the ED-as-process argument put forward by Szulecki and Overland).[40] An alternate interpretation of this view is that ED is a desirable end state in which decentralized systems create EJ, but, as with the energy-democracy-as-process view, EJ may not naturally result from ED.[41] A third view posits ED as a measurable target used to gauge energy transitions: energy is considered democratic based on sovereignty of systems, degrees of participatory governance, and civic ownership.[42]

Like energy democracy, energy justice, which predates ED as a scholarly concept,[43] has several interpretations. EJ, like ED, can also be viewed as a process or an outcome. EJ as a process involves evaluations of where injustice exists, who is affected, and the best mechanisms for remediating or reducing injustice.[44] The three dominant types of justice considered here are procedural, distributional, and recognition justice.[45] For an example of EJ-as-process, actors may ask: are all stakeholders given a fair amount of input in energy decision-making (advancing procedural justice)? Or, are the externalities associated with energy, both positive and negative, causing or contributing to inequality (advancing distributional justice)? Of these types of justice, procedural EJ is most similar to ED in that it involves the public as energy decision-makers.

In contrast, EJ as an outcome seeks to "provide all individuals across all areas with safe, affordable, sustainable energy," or, sometimes simultaneously, equitably distribute costs and benefits of energy systems.[46] This can take the form of policy assessing energy poverty, generally defined as lacking access to, or unable to, afford energy for necessities.[47] On a global

40. Szulecki & Overland, *supra* note 35, at 4; Van Veelen & Van der Horst, supra note 35, at 22.
41. Wahlund & Palm, *supra* note 14, at 4.
42. Szulecki, *supra* note 15, at 25; Szulecki & Overland, supra note 35, at 5.
43. Szulecki, *supra* note 15, at 25.
44. Jenkins et al., supra note 14, at 175; Schlosberg *supra* note 30 at 47; Sidortsov and McCauley, *supra* note 30.
45. Jenkins et al., *supra* note 14, at 176–78; Giuseppe Pellegrini-Masini, Alberto Pirni & Stefano Maran, *Energy Justice Revisited: A Critical Review on the Philosophical and Political Origins of Equality*, 50 ENERGY RESCH. & SOC. SCI. 101310, 101312 (Jan. 2020). Giuseppe Pellegrini-Masini, Alberto Pirni & Stefano Maran, Energy Justice Revisited: A Critical Review on the Philosophical and Political Origins of Equality, 50 Energy Resch. & Soc. Sci. 101310, #101312 (Jan. 2020).
46. Darren McCauley et al., *Advancing Energy Justice: The Triumvirate of Tenets*, 32 INT'L. ENERGY L. R. 107, at 1 (2013); See also Sovacool & Dworkin, *supra* note 14.
47. LaBelle, *supra* note 26, at 618; THE CAMBRIDGE HANDBOOK OF ENV'T JUST. AND

scale, those facing the most extreme energy poverty predominantly live in rural areas in developing Asian and sub-Saharan African countries, and much of the worst effects of energy poverty fall onto women, who are often responsible for cooking and collecting water.[48] In the United States, energy poverty is most visible in the affordability of energy, which varies across social, economic, and location-based groups. A 2016 report from the American Council for an Energy-Efficient Economy analyzing median household energy burdens (defined as the percentage of a household's income used to pay for energy) found that while the median household energy burden for all households was 3.5%, low-income households, low-income multifamily households, renters, African-American heads of households, and Latino heads of households all faced higher median household energy burdens.[49] Energy poverty can also apply to renewables, as many programs financially incentivizing renewable energy and energy efficiency technologies are inaccessible to low-income people.[50]

Energy democracy and energy justice may seem complementary in theory, and several scholars make arguments that ED will lead to EJ, or vice versa.[51] However, that ED and EJ will work together is not a foregone conclusion. There are several ways in which these ideas are at odds, leading to just, yet undemocratic, or democratic, yet unjust, outcomes. One of these key conflicts, especially in the context of renewable energy systems, is whether energy systems should be centralized or decentralized. ED tends to rely on emerging decentralized (and largely renewable) systems, as opposed

SUSTAINABLE DEV., 368, 368–82 (Sumudu A. Atapattu et al., eds 2021).

48. Lakshman Guruswamy, *Energy Poverty, Justice, and Women*, *in* THE CAMBRIDGE HANDBOOK OF ENVIRONMENTAL JUSTICE AND SUSTAINABLE DEVELOPMENT 368–82 (Sumudu A. Atapattu, Carmen G. Gonzalez, & Sarah L. Seck, eds., 2021). doi: 10.1017/9781108555791.027.

49. Ariel Drebhol & Lauren Ross, *Lifting the High Energy Burden in America's Largest Cities: How Energy Efficiency Can Improve Low Income and Underserved Communities* (2016), https://www-new.energyefficiencyforall.org/resources/lifting-the-high-energy-burden-in-americas-largest-cities-how-energy/ [https://perma.cc/M7Y8-78MB] (The median household energy for the above groups is as follows: low-income–7.2%, low-income multifamily–5.0%, renters–4.0%, African-American head of household–5.4%, Latino head of household–4.1%).

50. Marilyn A. Brown et al., *High Energy Burden and Low-Income Energy Affordability: Conclusions from a Literature Review*, PROGRESS ENERGY, Oct. 2020, at 24–25.

51. *See* Burke & Stephens, *supra* note 37 (conceive of ED as the bridge between policy and EJ); Van Veelen & Van der Horst, *supra* note 35, at 20 (question the lack of distinction between the two); Szulecki & Overland, supra *note* 35, at 3, (note in their summary of the use of ED its operationalization as a component of EJ); Droubi et al., *supra* note 15 (argue that specifically ED scholars need to reconcile their efforts to justice).

to democratizing existing centralized (fossil fuel dominant) systems.[52] This is because recent advances in renewable technology open up possibilities for decentralization that were largely nonexistent with fossil fuel energy systems. Renewable energy can be generated at a much smaller scale, such as rooftop solar panels, while fossil fuel energy systems rely on centralized energy generation at large-scale fossil fuel-powered plants.

However, it is unclear whether decentralization will ultimately help or hurt environmental justice outcomes. For instance, not all participants in energy governance have the ability to invest in new technology or change their energy practices; these individual differences have greater implications in decentralized systems versus centralized systems.[53] In this way, the distribution of energy in a decentralized system can lead to inequality. EJ may benefit more from a top-down, centralized approach, even if this hurts ED, because this may better ensure equitable energy access.

ED and EJ also conflict with regards to whether private versus public control of energy systems is ideal. Public ownership of energy systems can increase elite entrenchment, especially with existing barriers to governmental participation.[54] As previously stated, the normative argument in ED that more public control will lead to equitable outcomes may not hold because of these existing participation barriers, and the same can be said for EJ arguments for public ownership.[55] In contrast, the ED prosumer model is generally pro-private ownership, which may be unjust.[56] ED presumes equal opportunity for participation, but existing barriers to participation can create injustice and enforce the status quo.[57]At an even broader level, ideas of local control of energy systems found in both ED and EJ can be inherently exclusive: how does one define "local?"[58]

Also conflicting is the notion of distributional justice, or who receives the positive and negative externalities of energy decisions; ED and EJ may come to different conclusions when it comes to distributing these

52. Wahlund & Palm, supra note 14, at 9. See also Burke & Stephens, supra note 37, at 39; Szulecki & Overland, supra note 35, at 7.

53. Wahlund & Palm, *Supra* note 14, at 5.

54. See Joseph P. Tomain, *The Democratization of Energy*, 48 VAND J. TRANAT'L L. 1125, 1129 (2015) for a discussion of these barriers and their consequences.

55. Szulecki & Overland, *Supra* note 35, at 8.

56. Szulecki & Overland, *supra* note 35 at 5.

57. Wahlund & Palm, *supra* note 14, at 6.

58. Van Veelen & Van der Horst, *supra* note 35 at 21–22.

externalities. ED and EJ even differ on if distributional justice is as crucial as procedural justice; for example, do distributional benefits from renewables outweigh procedural justice if the community does not want renewables? Even with increased public participation and procedural justice, communities may not want renewable energy and decarbonization, as was the case with the 2018 *gilets jaunes* (yellow vests) protests in France over a diesel tax, which working-class French citizens argued would disproportionately affect lower–income people who needed personal automobiles to drive to work, while higher-income people could rely on lower-emitting vehicles or public transportation.[59] In terms of specific policy, ED policies like feed-in tariffs (FITs), used to promote decentralized systems, are often regressive and can create unjust outcomes.[60]

The ways in which ED and EJ are at odds with each other are especially important when considering how these concepts are put in practice. As energy policy evolves into a decarbonized era and justice and democracy are at the forefront of federal policymaking agendas, it is necessary for scholars to assess how ED and EJ manifest in proposed and existing policy, both how the ideas coexist and how they may lead to different outcomes: democracy without justice or justice without democracy.

II. CASE STUDY: INFLATION REDUCTION ACT

The history of environmental justice in U.S. policy has largely been realized at the federal level, and then mostly through executive prerogative. Successive presidential administrations, from Reagan through George W. Bush, have characterized environmental policies as economic and regulatory issues.[61] In 1994, President Bill Clinton issued Executive Order 12898, directing federal agencies to develop strategies for implementing policy and observing environmental justice relative to minority populations. Known as the Environmental Justice Act, it directed federal agencies to create environmental justice guidelines for the implementation of federal policies.[62] However, since the Environmental Justice Act, the U.S.'

59. Szulecki & Overland, *supra* note 35, at 8.
60. Burke & Stephens, *supra* note 37, at 40.
61. CHRISTOPHER MCGRORY KLYZA & DAVID J. SOUSA, AMERICAN ENVIRONMENTAL POLICY, 1990-2006: BEYOND GRIDLOCK Ch. 2 (2008).
62. Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations, 59 Fed. Reg. 32 (Feb. 16, 1994).

environmental and energy policy has stalled as evidenced by the lack of legislation in these areas. Though some actors have attempted to encourage a clean energy tradition, such as the Obama Administration's American Clean Energy and Security Act[63] (also known as the Waxman-Markey Bill), it is only recently that a U.S. climate plan has become a reality with the near-passage of Build Back Better, and later the Inflation Reduction Act.[64]

In August 2022, President Biden signed into law the Inflation Reduction Act, or IRA.[65] The passage of the IRA followed a monthslong partisan gridlock over Biden's Build Back Better plan, a framework from the Biden Administration with policies on childcare, healthcare, climate policy and price reductions.[66] Though the IRA is an abbreviated version of Build Back Better, it is still expansive, with policies for corporate tax rates, Affordable Care Act expansion, and prescription drug pricing, among others.[67] Another component of the IRA that was a major source of tension in negotiations for the bill's passage was funding for climate mitigation and clean energy.[68] In total, the IRA invests around $370 billion in clean energy and climate change projects.[69]

63. For the text of the American Clean Energy and Security Act American Clean Energy and Security Act of 2009, see H.R. 2454, 111th CONG. (2009).

64. While the IRA is not a climate bill *per se*, it does create the largest federal investment in clean and renewable energy in U.S. history. See The Economic Policy Institute's *The Inflation Reduction Act finally gave the U.S. a real climate change policy* for a summary of this point and the bills. Josh Bivens, *The Inflation Reduction Act finally gave the U.S. a real climate change policy*, ECONOMIC POLICY INSTITUTE (Aug. 14, 2023), https://www.epi.org/blog/the-inflation-reduction-act-finally-gave-the-u-s-a-real-climate-change-policy/ [https://perma.cc/9M8X-KQUB].

65. Inflation Reduction Act of 2022, Pub, L. No. 117-169, 136 Stat. 1818.

66. *The Build Back Better Framework*, THE WHITE HOUSE, https://www.whitehouse.gov/build-back-better/ [https://perma.cc/3FTC-8A49] (last visited November 25, 2023).

67. Candace Vahlsing, *New OMB Analysis: The Inflation Reduction Act Will Significantly Cut the Social Costs of Climate Change*, THE WHITE HOUSE: OFFICE OF MANAGEMENT AND BUDGET BLOG (Aug. 23, 2022), https://www.whitehouse.gov/omb/briefing-room/2022/08/23/new-omb-analysis-the-inflation-reduction-act-will-significantly-cut-the-social-costs-of-climate-change/ [https://perma.cc/R596-DRN6]; 136 Stat. 1818.

68. For a discussion of how clean energy provisions derailed Build Back Better, the antecedent to the IRA, see Arnie Seipel & Joe Hernandez, Joe Manchin Says He Won't Support President Biden's Build Back Better Plan, NPR, Dec. 19, 2021, https://www.npr.org/2021/12/19/1065636709/joe-manchin-says-he-cannot-support-bidens-build-back-better-plan (last visited Nov. 27, 2023).

69. THE WHITE HOUSE, BUILDING A CLEAN ENERGY ECONOMY: A GUIDEBOOK TO THE INFLATION REDUCTION ACT'S INVESTMENTS IN CLEAN ENERGY AND CLIMATE ACTION, 5 (2nd ed. 2023), https://www.whitehouse.gov/cleanenergy/inflation-reduction-act-guidebook/ [https://perma.cc/U86D-CMZ].

A major focus of the Inflation Reduction Act is environmental and energy justice. In a guidebook created by the White House summarizing key provisions of the IRA, discussions of environmental justice appear as early as the executive summary, and throughout the guidebook, the Biden Administration's commitment to environmental justice is reiterated.[70] Though environmental justice is a broader concept and does not always overlap with EJ, it is easy to see that much of the environmental justice discussed in the IRA is also EJ, represented as both a process and an outcome. Similar to the framework put forward by Kirsten Jenkins and her co-authors to understand EJ, several programs within the IRA focus on investigating which communities are most at-risk from environmental hazards and finding just solutions.[71] These programs range from Funding to Address Air Pollution at Schools to programs meant to improve pollution monitoring and tracking, including EPA fenceline air monitoring, multipoint monitoring, air quality sensors in at-risk communities, and methane monitoring.[72] In terms of EJ as an outcome, the IRA focuses mostly on distributional and procedural EJ, including programs designed to help populations disproportionately affected by pollution, harmed by past government policy, or located in "energy communities."[73] Programs targeting these populations range from pollution minimization to funding for rural and tribal communities to job opportunities for low-income and historical energy communities.[74] The largest EJ component is financial assistance, with the IRA's expanded investment tax credits (ITCs) and production tax credits (PTCs), along with other clean energy programs, structured to most assist lower-income taxpayers.[75]

70. *Id.*
71. THE WHITE HOUSE, *supra* note 71, at 7–8.
72. *Id.* at 97–101.
73. "Energy communities" as defined by the IRA are "areas in which a coal mine or coal-fired power plant has closed or that have been economically reliant on the extraction, processing, transport, or storage of coal, oil, or natural gas but now face higher-than-average unemployment." *Id.* at 8.
74. This is specifically known as the IRA Community Change Grants Program. *Inflation Reduction Act Community Grants Program*, EPA, https://www.epa.gov/inflation-reduction-act/inflation-reduction-act-community-change-grants-program [https://perma.cc/RKL8-4FFZ] (Last visited December 17, 2023).
75. For a summary of these programs see *Summary of Inflation Reduction Act provisions related to renewable energy,* EPA, https://www.epa.gov/green-power-markets/summary-inflation-reduction-act-provisions-related-renewable-energy. [https://perma.cc/99MX-RJ9V] (Last visited December 17, 2023).

Less prominent, though still present, in the IRA's EJ vision is procedural justice, which mainly ensures that communities have a say in energy decision-making processes.[76] Programs like the Environmental and Climate Justice Block Grants and Neighborhood Access and Equity Grant Program focus on building capacity for community organizations, while other programs like Interregional and Offshore Wind Electricity Transmission Planning, Modeling and Analysis broadly seek to "convene relevant stakeholders," which, returning to different interpretations in ED and EJ, leaves room for exclusion by determining who is considered a "relevant" stakeholder.[77] However, other components of the IRA, such as grants for interstate electricity transmission siting, focus on accelerating the regulatory process.[78] Will these goals of faster deployment come at the expense of communities having their voices heard? And in terms of financial opportunities for underserved communities, who is actually deciding what projects are deployed, and are these decisions in line with the community's interests?

These are just some of the ways in which the IRA's focus on EJ may lead to ED coming up short. Many of the largest programs in the IRA are directed towards large-scale energy production, such as the renewable ITC and PTC with provisions for eligibility that prioritize utility-scale projects.[79] From a justice perspective, procedural justice efforts to engage communities may not stand up to the regulatory might of entrenched utilities that may not act in the interests of community members, especially communities that may be politically disenfranchised. As previously discussed, if barriers to political participation persist, the energy status quo may be reinforced, and the IRA may not go far enough to ensure democratic participation. For instance, what if residents of a town are opposed to a renewable energy

76. *See Inflation Reduction Act of 2022 supra* note 16; *see also IRA Environmental and Climate Justice Program*, EPA, *https://www.epa.gov/inflation-reduction-act/inflation-reduction-act-environmental-and-climate-justice-program*. [https://perma.cc/6VES-C858] (Last visited December 17, 2023).

77. *Id.*

78. Specifically, *Inflation Reduction Act of 2022 supra* note 16, at Section 50152.

79. For example, see the Department of Energy's Office of Energy Efficiency and Renewable Energy resources for large scale wind and water projects.*Production Tax Credit and Investment Tax Credit for Wind Energy*, DEPT. OF ENERGY, https://windexchange.energy.gov/projects/tax-credits [https://perma.cc/37XB-EU8M] (last visited December 16, 2023); *Inflation Reduction Act Tax Credit Opportunities for Hydropower and Marine Energy*, DEPT. OF ENERGY https://www.energy.gov/eere/water/inflation-reduction-act-tax-credit-opportunities-hydropower-and-marine-energy [https://perma.cc/Z6A3-7V4P] (last visited December 16, 2023) respectively.

project because of potential environmental externalities, but more powerful entities like utilities are keen on receiving funding through the IRA? The programs for large-scale recipients, including the renewable energy ITC and PTC, not only have the potential to maintain utility dominance in politics but in the way energy itself is conceptualized. This is because programs that disproportionately assist large-scale energy, even if this energy is renewable, keep the centralized energy system model that favors large utilities; programs like renewable portfolio standards and tax incentives "require such high levels of market expertise and financial acumen that they prove similarly exclusive."[80]

Other than changes in the source of generation and more interstate connections, too little has changed, from an ED perspective, in terms of citizens and communities as prosumers and active agents in the energy process. In fact, this prioritization of centralization may even prolong the lifespan of non-renewable fuels, potentially delaying an effective renewable transition.[81] Certain programs within the IRA act as a lifeline for centralized non-renewable resources, as evidenced by what the IRA considers to be "clean";[82] while maintaining old infrastructure is necessary to undergo a transition, at what point does maintenance of this infrastructure harm the clean energy effort?

Programs like the Nuclear Power Credit, High-Assay Low-Enriched Uranium (HALEU) Advanced Reactors, and a "technology-neutral" Clean Energy Production Tax Credit all promote non-renewable nuclear and even fossil fuels, as the "clean energy" eligible recipients are defined as "facilities generating electricity for which the GHG (greenhouse gas) emissions rate is not greater than zero," which can include non-renewable resources.[83] This opens the door to continued fossil fuel use at the expense of renewables. The renewable energy PTC, considered one of the IRA's marquis programs, gives a tax credit at 0.3 cents/kWh (inflation adjusted), which is the same tax credit rate for the Nuclear Power Credit (0.3 cents/kWh inflation adjusted after 2024) and the Clean Energy Production

80. Ekundayo Shittu & Carmen Weigelt, *Accessibility in Sustainability Transitions: U.S. Electric Utilities' Deployment of Solar*, 165 ENERGY POL'Y 112942,112944 (June 2022) (citing Zachary Liscow & Quentin Karpilow, *Innovation Snowballing and Climate Law*, 95 Wash. U. L. Rev. 387 (2017)).

81. *See* Wahlund & Palm, *supra* note 14, 9–10.

82. 82 Id.

83. THE WHITE HOUSE, *supra* note 71, at 18.

Tax Credit (0.3 cents/kW inflation adjusted)[84]. Investing in non-renewable technologies, particularly where the only consideration for an energy source to be "clean" is for GHG emissions to not exceed zero, could lead to counterproductive outcomes. These include utility investment in carbon offsets (with less-than-enthusiastic results about their effectiveness at climate mitigation) or "net-zero" technologies that prolong the lifespan of fossil fuels while making them (theoretically) carbon-free, with little acknowledgement of the other environmental harms associated with fossil fuels beyond GHG emissions.[85] The decentralized programs that do exist in the IRA are few and far between; programs including the low-income added ITC, Greenhouse Gas Reduction Fund (with rooftop solar provisions), and the Residential Clean Energy Credit do address the potential of decentralized energy systems, but these are mostly supplementary to a centralized focus.[86]

III. DISCUSSION

What does this say about the Inflation Reduction Act and the U.S.'s clean energy policy trajectory? Firstly, the administrative focus on EJ (specifically distributive EJ) is commendable and well-integrated throughout the plan. Justice is central to the IRA and expands beyond just those harmed by negative environmental externalities to also apply to energy communities and those previously harmed by governmental policy.[87] But in terms of ED and even procedural EJ, the IRA is lacking. The marquis programs of the IRA, like the renewable ITC and PTC, all point to a centralized renewable future, potentially limiting the power of renewables, and with it, citizens as prosumers.[88] And, if past and present barriers to participation are not adequately addressed, maintaining a

84. *Id. at 9*.

85. Raphael Calel et al., *Do Carbon Offsets Offset Carbon?* (Grantham Rsch. Inst. On Climate Change and the Env't., Working Paper No. 371, 2021), https://www.lse.ac.uk/granthaminstitute/publication/do-carbon-offsets-offset-carbon/ [https://perma.cc/H6LT-4Q58] offers a fuller exploration of the misuse of carbon offsets; Xiaochun Zhang et al., Climate Benefits of Natural Gas as a Bridge Fuel and Potential Delay of Near-Zero Energy Systems, 167 Applied Energy 317, (2016) argue that the use of certain bridge fuels, specifically natural gas, slow the transition away from carbon intensive fuels.

86. THE WHITE HOUSE, *supra* note 71.

87. *Id.* at 12.

88. *Id.*

centralized energy focus can lead to both undemocratic and unjust outcomes, in terms of participatory justice.

Even with the IRA's focus on EJ, what is largely missing is attention paid to procedural justice in addition to distributive justice. Some programs of the IRA, as discussed above, do consider procedural justice in efforts to implement all stakeholder views in energy projects.[89] This is a start, but future energy policy must do more for citizen participation, especially beyond just political participation, which is where procedural EJ mostly ends, and ED thrives.[90] A truly democratized energy system would allow its citizens to fully engage in planning and governing energy generation and distribution,[91] but, thanks to renewables' ability for small-scale, decentralized usage,[92] citizens can move beyond merely being political participants in energy systems and become physical participants by generating electricity and using it, or selling it back to the grid.[93]

Programs that incentivize homeowners to install home solar and energy storage systems and sell excess electricity back to the grid both democratize energy generation and solve some grid management issues with renewable intermittency. One such example includes the German government's introduction of measures to the German Renewable Energy Act (*Erneuerbare Energien Gesetz*) to incentivize home solar generation and the selling of electricity back to the grid to improve grid stability.[94] Other programs like community solar, [95] wherein citizens can subscribe to a community-owned solar farm and receive a discount on energy bills, bring ED and EJ closer together, since solar panel access becomes more accessible as homeownership does not need to be a prerequisite to obtain the benefits of renewable energy.

More generally, there should be an ongoing scholarly dialogue about contradictions inherent in the energy justice and democracy frames, which are not always readily apparent. Justice might be operationalized as a

89. *Id.* at 5.
90. Szulecki, *supra* note 15, at 32.
91. Kristen van de Biezenbos, *Negotiating Energy Democracy*, 33 J. LAND USE & ENV'T. L. 331, 336–37 (2018).
92. Szulecki, supra note 15, at 32.
93. Jacobs, *supra* note 34 at 521.
94. European Commission Press Release IP/22/5811, State Aid: Commission Approves Additional German Measures to Support Electricity Production from Renewable Energy Sources (Sept. 27, 2022) (on file with authors).
95. For instance, through community based solar, Shittu & Weigelt, *supra* note 82, at 2.

synonym for democracy and vice versa because the concepts share similar, though not identical, goals. It will be important for scholars to explicitly identify where policies and actions are meant to serve either concept. This should be seen as especially important, as many of those who are most negatively impacted could pay a double penalty: first by experiencing unjust energy practices—having endured and continuing to endure a greater share of the environmental pollution as "sacrifice zones,"[96] and secondly, facing undemocratic energy systems, being shut out of the decision-making processes of the transition and potentially being denied their fair share of the benefits.[97]

The present approach to justice emphasized by the Biden Administration does not do enough to explicitly demonstrate how efficacy among formerly underrepresented populations will be supported. Being consulted as targets is not the same as participation, nor does it empower actors in the decision-making process. We argue that there are two divergent paths the administration could pursue: a centralized path of using federal authority to create meaningful ED, or a decentralized path in which the government empowers non-centralized, non-entrenched interests to participate in the energy decision-making process.

A centralized approach would redefine federal environmental enforcement. Current environmental and energy policy is mostly structured as federal mandates with state-level enforcement,[98] but a centralized ED and EJ tactic would give more detailed enforcement power to federal agencies. While the Federal Energy Regulatory Commission (FERC) has national-level authority, states maintain authority at the local level.[99] An extension

96. Sacrifice zones are those places or geographic regions which have borne the heaviest environmental burdens perhaps best addressed in Steve Lerner, SACRIFICE ZONES: THE FRONT LINES OF TOXIC CHEMICAL EXPOSURE IN THE UNITED STATES (2010); *see also* Thomas J. Burns, Tom W. Boyd & Carrie M. Leslie, *Regenerative Development and Environmental Ethics: Healing Mismatch between Culture and Environment in the Third Millennium*, *in* REGENERATIVE URBAN DEVELOPMENT, CLIMATE CHANGE AND THE COMMON GOOD (Caniglia et al., eds., 2019); Robin M. Collin. & Robert W. Collin,. *Environmental Justice and Sustainability: The United States Experience," in* THE CAMBRIDGE HANDBOOK OF ENVIRONMENTAL JUSTICE AND SUSTAINABLE DEVELOPMENT 115–32 (Sumudu A. Atapattu, Carmen G. Gonzalez, & Sarah L.Seck, eds., 2021).

97. Frances A. Marlin-Tackie, Shurraya A. Polunci & Jessica M. Smith, *Fracking Controversies: Enhancing Public Trust in Local Government through Energy Justice*, 65 Energy Res. Soc. Sci. 101440, Jan. 2020, at 8–9.

98. For a critical examination of this relationship see Roger Karapin, *Federalism as a Double-Edged Sword: The Slow Energy Transition in the United States*, 29 J.ENV'T & DEV. 26, 30 (2020).

99. *Id.*

of FERC's authority into this level could allow for national uniformity in grid access to both energy consumption and production. This could encourage the increased prevalence of energy prosumers and microgrid expansion.

A legal challenge to such a scheme would likely be that FERC's authority expressly excludes regulating retail energy.[100] A court would need to decide whether FERC would be affecting the sale of energy to consumers. An immediate tactic might be to argue this as an issue of civil rights, that the Commerce Clause might actually empower the federal government to redefine FERC's role. Certainly, as has been repeatedly demonstrated, negative environmental impacts have collected around communities of color.[101] The Environmental Justice Act of 1994 directs the federal government to ensure, where federal monies are used, these negative impacts do not harm groups based on race, color, or nationality,[102] in keeping with Title VI (Sec. 601) of the Civil Rights Act of 1964.[103] Given FERC's mission for just and reasonable energy governance,[104] one could argue that expanding FERC's authority is necessary to keep energy access just in markets that so heavily prioritize entrenched interests and disproportionately place negative externalities on disadvantaged communities.

Alternatively, if this failure is not viewed as a systemic issue with federal-state distribution of powers, then a decentralized approach might be

100. United States Code: Federal Power Act, Section 212.g https://www.ferc.gov/sites/default/files/2021-04/federal_power_act.pdf [https://perma.cc/MS4U-87KC] (Last visited December 18, 2023); A fuller summary of FERC's powers and authority may be found here, see *Overview of FERC*, FED. ENERGY REGUL. COMM'N, https://www.ferc.gov/what-ferc/overview-ferc [https://perma.cc/QFU7-UW7E] (last visited November 23, 2022).

101. See generally, Banzhaf et al., supra note 4; Abdulrahman Jbaily et al, supra note 4; Collin & Collin supra note 97.

102. Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations, 59 Fed. Reg 32 (Feb. 26, 1994), https://www.archives.gov/files/federal-register/executive-orders/pdf/12898.pdf.

103. Which states: "No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance." *See* Civil Rights Act of 1964, 42 U.S.C. § 2000d; for an online version see https://www.archives.gov/milestone-documents/civil-rights-act [https://perma.cc/B3NX-JZAZ] (Last visited December 18, 2023).

104. *About FERC,* FED. ENERGY REGUL. COMM'N, https://www.ferc.gov/what-ferc#:~:text=Learn%20more%20about%20FERC%20and,consumers%20at%20a%20reasonable%20cost. [https://perma.cc/CZS2-UVCL] (last visited November 25, 2023).

preferable. The entrenched fossil fuel interests or other actors with similar (if not synonymous) interests are better able to take advantage of policy and path dependence that does not require overcoming the initial entry costs.[105] These costs may be as much political as they are material, and renewable energy has been facing both as its supporters push to hasten the transition.[106] The government could encourage increased access for renewable interests by implementing campaign finance reform to dilute the powers of entrenched interests, which presently have far greater access to the policymaking process. Greater democratization could also arise from extending public comment periods beyond the common 30 days during the rulemaking process. Increased public comment opportunities for energy have been shown to make citizens more trusting in their government.[107] In either case, the opportunity for emerging interest groups to participate in regulatory processes, and their efficacy in the energy transition, can increase.

CONCLUSION

This essay has provided an analysis of energy justice and democracy, both in theory and in practice. These concepts are both attractive challenges to the status quo, and they are goals to be pursued. Yet, when treated as interchangeable, there is a great risk in weakening either or both in practice. The Biden Administration's focus on justice, as expressed in the IRA, does little to encourage the strengthening of energy democracy. As such it runs the risk of what has been previously described as "retrenching" existing power asymmetries between communities and established energy interests.[108]

The administration should not only encourage increased consultation with communities during the transition from fossil fuels but also increase the ability for citizen energy production at the community level. The ability for households to select into emerging pools of renewable energy is predictably unequal.[109] The rewards within the current power hierarchy for

105. Tomain, *supra* note 17, starting at 126.
106. *Id.*
107. Marlin-Tackie et al, *supra* note 97, at 8.
108. For a description of retrenchment in environmental policymaking, see Stokes, *supra* note 22, at 7–8.
109. Shittu & Weigelt, *supra* note 82, at 1.

extending renewables into low-income communities are not sufficient to attract energy providers, nor to justify diversifying the grid out of hand.[110] The Biden Administration's goals relative to environmental justice could be at risk were they do not recognize injustice inherent in existing energy systems as a risk to their goals of justice.

Future research in energy democracy and energy justice should keep in mind lessons from the IRA when assessing emerging policies. Other policies and other governments may choose different priorities when considering the democratization and justice of energy;[111] most importantly, these ideas may come into sharp conflict, as we have illustrated here. The case study of the IRA shows that the normative assertions underpinning many scholarly definitions of energy justice and democracy—that one automatically leads to the other, or that democratization creates justice or justice promotes democracy—should not be taken as a given. It is up to scholars and policymakers to actively create a democratic and just energy future.

110. *Id.*

111. *See, e.g.*, Paola Villavicencio-Calzadilla & Romain Mauger, *Bolivia's Energy Transition in Harmony with Nature* in Dilemmas of Energy Transitions in the Global South 55 (Kumar et al, eds. 2021); Pablo Solon, Rights of Mother Earth in The Climate Crisis: South African and Global Democratic Eco-Socialist Alternatives 107 (Vishwas Satgar, ed. 2018) for articulations that include justice for non-human actors.