

Energy Efficiency and Distributed Solar Energy Targeted to Underserved Communities: Perspectives on the Illinois Future Energy Jobs Act

LEROY C. (LEE) PADDOCK*

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I. INTRODUCTION

In the United States energy efficiency and distributed solar energy have often benefited middle and upper income citizens who own their own homes compared to low-income and underserved households and those who

* © 2020 LeRoy C. (Lee) Paddock. Associate Dean for Environmental Law Studies at The George Washington University Law School. Mr. Paddock is a member of the ABA Section on Environment, Energy and Resources Council. Dean Paddock has served as a senior consultant for the National Academy of Public Administration on several projects since 1999.

occupy multiple unit housing¹ who pay a substantially higher portion of their income for energy.² One study found that for “low-income households and for multifamily low-income households, bringing housing stock up to the efficiency of the median household would eliminate 35% of excess energy burden, reducing energy burden from 7.2% to 5.9%. For African-American, Latino, and renting households, 42%, 68%, and 97% of their excess energy burdens, respectively, could be eliminated by raising household efficiency to the median.”³

Similarly, the ability to deploy solar panels on homes has often depended upon factors such as home ownership, the availability of upfront capital, and credit ratings that result in fewer solar installations in low income communities’ ratings to attract vendors.⁴ As per a 2016 report:

To increase program impact in low-income single- and multifamily housing, energy efficiency program managers should design programs to meet the needs of diverse low-income communities, include a range of eligible measures and services, coordinate delivery with other services, align and add on to existing weatherization efforts, address health and safety, and incorporate energy efficiency education into program design. Low-income programs should also target multifamily customers, who are often underserved by energy efficiency programs. More than two-thirds of the multifamily rental market consists of households that have an annual household income of less than \$50,000 (NMHC 2015). Yet residential energy efficiency programs administered by states and utilities have historically focused on single-family, owner-occupied housing. Efficiency measures are far less likely to be installed in multifamily rentals than in any other type of housing, leaving significant energy savings unrealized. Examples of best practices in multifamily programs include integrating direct installation and rebate programs, streamlining

1. See Ariel Dreihobl & Lauren Ross, *Lifting the High Energy Burden in America’s Largest Cities: How Energy Efficiency Can Improve Low Income and Underserved Communities*, AM. COUNCIL FOR AN ENERGY-EFFICIENT ECON. 4 (2016), <https://aceee.org/sites/default/files/publications/researchreports/u1602.pdf> [<https://perma.cc/A63H-F86T>]. The study found that “The efficiency of housing stock is an important factor that influences a household’s energy burden. Low-income households, renters, African-American households, and Latino households paid more for utilities per square foot than the average household, indicating that they reside in less efficient housing. When we compared each group’s expenditures on energy per square foot with the median household expenditure, we were able to determine the extent to which home inefficiency contributed to energy burden as compared with lower incomes.

2. “In 17 cities—which is more than one-third of the cities studied—a quarter of low-income households experienced an energy burden greater than 14%, substantially higher than the 3.5% average for all households.” *Id.* at 6.

3. *Id.* at 4.

4. Nationally, low- and moderate-income households represent 40% of America’s population, but less than 5% of all solar customers. While low-income customers are contributing to the rebates for these solar panels through their bill payments, higher income customers receive the direct financial benefit. Victoria Mandell, *Environmental and Economic Justice in Distributed Solar Energy Investment*, GETCHES-WILKINSON CENTER (Jan. 16, 2019), <https://www.getches-wilkinsoncenter.cu.law/2019/01/16/environmental-and-economic-justice-in-distributed-solar-energy-investment/> [<https://perma.cc/8YDF-222F>].

rebates and incentives, offering multiple pathways to participation, and incorporating on-bill repayment or low-cost financing, among others.⁵

This Article focuses on one of the most comprehensive state laws adopted to date, aimed at significantly advancing energy efficiency and distributed solar generation in underserved communities, the Illinois Future Energy Jobs Act (FEJA). It begins by examining what constitutes energy justice and then discusses the disproportionate burdens and benefits related to energy production and use that underserved communities must deal with on a day-to-day basis. The Article then turns to a review of FEJA with a particular emphasis on the critical role community organizations played in designing, negotiating, and implementing the law. These efforts represent important development in both substantive and procedural energy justice. It then looks at the role of one particular community organization, Elevate Energy, in implementing the law with an emphasis on multi-family housing. FEJA, the engagement of community groups in the development and passage of FEJA, and the role of Elevate Energy all play a role in addressing critical issues of energy justice. The Article concludes by looking at new Illinois legislation that would build on FEJA to create more energy-related job opportunities for underserved communities.

II. ENERGY JUSTICE

Energy justice concerns arise when some communities are exposed to disproportionate burdens related to energy production and use and do not have access to the benefits associated with energy efficiency and renewable energy. The concept of energy justice is closely aligned with the issue of environmental justice which has been a critical issue in the design and implementation of environmental laws for more than 25 years. Environmental justice, like energy justice involves two essential elements: fair treatment and meaningful involvement.⁶ One of the causes of these

5. Drehobl & Ross, *supra* note 1, at 6.

6. The growing evidence of differential environmental impacts led President Clinton to issue Executive Order 12898 in 1994. Exec. Order No. 12898, 32 C.F.R. § 651.17 (2016). The Executive Order remains the basis for addressing environmental justice at the federal level today. The order provides in pertinent part:

To the greatest extent practicable and permitted by law. . .each federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority and low-income populations. . .

injustices is that underserved communities often have significant less political influence than wealthier communities and therefore may not have access to the same types of resources or environmental amenities as more affluent and politically-connected communities.⁷

Benjamin Sovacool and Michael Dworkin in their book *Global Energy Justice* define an “energy-just” world as “one that equitably shares both the benefits and the burdens involved in energy production and consumption of energy services, as well as one that is fair in how it treats people and communities in energy decision-making.”⁸ Sovacool has identified eight elements that in his view make up energy justice: availability, sustainability, affordability, due process, transparency and accountability, intra-generational equity, inter-generational equity and responsibility.⁹ He argues that if decision-makers of all types including government, non-profits, investors, consumers and others take these elements into account it will result in a more equitable energy future.¹⁰

A closely related concept is the ability of underserved communities to play a central role in solving the problems discussed above. These communities

(Executive Order 12898, § 1-101).

Based on the Executive Order, EPA defined 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.” U.S. Env’tl. Protection Agency, *Environmental Justice*, <https://www.epa.gov/environmentaljustice> [<https://perma.cc/HD2C-N69N>]. The “fair treatment” aspect of environmental justice can be thought of as the analogue to the equitable sharing of benefits and burdens in the context of energy justice. The ‘meaningful involvement’ provision is analogous to the procedural justice aspects of energy justice. In the context of environmental justice, meaningful involvement requires:

- People have an opportunity to participate in decisions about activities that may affect their environment and/or health;
- The public’s contribution can influence the regulatory agency’s decision;
- Community concerns will be considered in the decision making process; and
- Decision makers will seek out and facilitate the involvement of those potentially affected.

U.S. Env’tl. Prot. Agency, *Learn About Environmental Justice*, <https://www.epa.gov/environmentaljustice/learn-about-environmental-justice> [<https://perma.cc/UA36-SARX>].

7. See Marcia Coyle & Marianne Lavelle, *Unequal Protection: The Racial Divide In Environmental Law A Special Investigation*, 15:3 THE NAT’L L.J. (Sept. 21, 1992), <https://www.ejnet.org/ej/nlj.pdf> [<https://perma.cc/BUE8-BJUN>].

8. BENJAMIN K. SOVACOOOL & MICHAEL H. DWORKIN, *GLOBAL ENERGY JUSTICE 5* (Cambridge Univ. Press 2014).

9. Benjamin K. Sovacool et al., *Energy decisions reframed as justice and ethical concerns*, 1 NAT. ENERGY 1, 3 (2016). See also, Ryan Salter, Carmen G. Gonzalez & Elizabeth A. Kronk Warner, *Energy justice: frameworks for energy law and policy*, in RYAN SALTER, CARMEN G. GONZALEZ & ELIZBETH A. KRONK WARNER, *ENERGY JUSTICE: US AND INTERNATIONAL PERSPECTIVES 3* (Edward Elgar Pub. 2018).

10. Sovacool et al., *supra* note 9, at 3.

want to be part of the solution to concerns like climate change that are likely to increase risks to already vulnerable populations. One organization has defined energy democracy as meaning “community residents are innovators, planners, and decision-makers on how to use and create energy that is local and renewable.”¹¹ This issue is at least partially captured in the idea of “equitable development.” Equitable development “is driven by . . . clear expectations that the outcomes from development need to be responsive to underserved populations and vulnerable groups, in addition to using innovative design strategies and sustainable policies.”¹² The U.S. EPA points out that “[l]ower-income citizens and people of color are successfully guiding the changes that occur within their communities rather than reacting to them. This unique narrative is often missing from prevailing planning, design, and place-based discussions.”¹³ Another related idea is that of “energy democracy” or “energy sovereignty,” which “envisions a ‘right’ of peoples and communities to make their own decisions on energy systems that are in line with their own circumstances.”¹⁴

III. DISPROPORTIONATE BURDENS AND BENEFITS FROM ENERGY PRODUCTION AND USE

The residuals of energy production, especially from coal-fired power plants, include a suite of conventional pollutants such as sulfur dioxide, nitrogen oxides, and particulate matter that are known to cause serious health problems such as including pulmonary and cardiovascular disease.¹⁵ In addition, these power plants emit a variety of air toxics including heavy metals such as arsenic and mercury¹⁶ (mercury emissions from coal-fired power plants has contributed to the need to issuance fish advisories for many lakes and streams across the country, often having a disproportionate impact on subsistence

11. See Center for Social Inclusion, *Energy Democracy*, <https://www.centerforsocialinclusion.org/our-work/our-programs/energy-democracy/> [https://perma.cc/ZE4K-KDB9] (last visited May 28, 2020).

12. U.S. Env'tl. Protection Agency, *Equitable Development and Environmental Justice*, <https://www.epa.gov/environmentaljustice/equitable-development-and-environmental-justice> [https://perma.cc/2KYQ-DFU5].

13. *Id.*

14. Salter, *supra* note 9, at 9–10.

15. See, e.g., Duke Health, *News & Media* (Sept. 18, 2018), <https://corporate.dukehealth.org/news-listing/despite-studies-health-effects-coal-burning-power-plants-remain-unknown> [https://perma.cc/25ZW-X75U].

16. *Id.*

fisher folk).¹⁷ A study by the National Association for the Advancement of Colored People (NAACP) of 378 coal-fired power plants in the United States found:

People who live within three miles of a coal power plant have an average per capita income of \$18,400, which is lower than the U.S. average of \$21,587. Among those living within three miles of a coal power plant, 39 percent are people of color — a figure that is higher than the 36 percent proportion of people of color in the total U.S. population. Moreover, the coal plants that have been built within urban areas in the U.S. tend overwhelmingly to be located in communities of color.¹⁸

In 2012, the Natural Resources Defense Council reported that coal-fired power plants were by far the leading cause of mercury pollution in the lakes and rivers of the Great Lakes region.^{19,20}

Because of these impacts, energy justice advocates have argued for equitable access to and participation in distributed renewable generation programs to allow all communities to be “part of our national transition to

17. See, e.g., Noelle E. Selin & Amanda Giang, *Are tighter EPA controls on mercury pollution worth it*, THE CONVERSATION (Feb. 9, 2016), <https://theconversation.com/are-tighter-epa-controls-on-mercury-pollution-worth-it-53551> [<https://perma.cc/L44D-JEFH>].

18. NAACP, *Coal Blooded: Putting Profits before People* 15 (2012); https://www.naacp.org/wp-content/uploads/2016/04/Coal_Blooded_Executive_Summary_Update.pdf; [<https://perma.cc/3DWC-HHZ9>]. While a significant number of coal-fired power plants have closed in recent years, the study demonstrates that low income communities and communities of color have been disproportionately affected by pollution from energy production.

19. NAT. RES. DEF. COUNCIL, *Poisoning the Great Lakes: Mercury Emissions from Coal-Fired Power Plants in Great Lakes Region* 1–4 (2012). See also Roger Colton, *The Equities of Efficiency: Distributing Energy Use Reduction Dollars* 113 (in Salter, *supra* note 9).

20. In addition to the exposures from energy production, many underserved communities are disproportionately impacted by pollutants from motor vehicles. Diesel emissions, primarily from trucks along highway corridors, have proven to be the most serious source of air toxics in many low income and communities of color in major cities such as Los Angeles. See SOUTH COAST AIR QUALITY MGMT. DISTRICT, *Multiple Air Toxics Study III*, ES-7 (Sept. 2008), [http://www.aqmd.gov/docs/default-source/air-quality/air-toxic-studies/mates-iii/mates-iii-final-report-\(september-2008\)/final-report-executive-summary.pdf?sfvrsn=10](http://www.aqmd.gov/docs/default-source/air-quality/air-toxic-studies/mates-iii/mates-iii-final-report-(september-2008)/final-report-executive-summary.pdf?sfvrsn=10) [<https://perma.cc/RJ9S-L2DU>]. Other studies have revealed concerning demographic characteristics of these overburdened populations, with disproportionate exposure to traffic and air pollution among non-whites and those of lower socio-economic status leading to greater risks and incidence of health effects among these communities. Gregory C. Pratt, et al., *Traffic, Air Pollution, Minority and Socio-Economic Status: Addressing Inequities in Exposure and Risk*, 12 INT’L J OF ENVT’L RES. & PUB. HEALTH 5356, 5368 (2015), <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4454972/pdf/ijerph-12-05355.pdf> [<https://perma.cc/QLC9-NFC3>]. Prolonged exposure to air pollution from vehicle emissions can cause respiratory illness, headaches, and other ailments that make other impacts from energy generation and climate more difficult with which to cope.

clean energy.”²¹ They also seek “inclusive policies to afford relief to low-income families spending a ‘disproportionate amount’ of their household income on energy”.²²

The direct impact of pollution from power production and mobile sources are not the only environmental that can disproportionately affect underserved communities. These communities are also often among the most vulnerable to climate change. The impacts may include increased flooding resulting from erratic weather patterns because low income housing may be more common in flood plains,²³ excess heat exposure because the cost of air conditioning may be prohibitive, the storm vulnerability of some types of less expensive housing such as mobile homes, greater exposure to climate-influenced disease in part because of poor access to health care or nutrition, or reduced access to food crops because of draughts or other climate impacts on food production.²⁴

Further, energy costs for underserved communities can consume a disproportionately high percentage of their budget. The threshold for ‘affordable’ electricity in the United States is estimated to be about six percent of household income. While higher income families may spend as little as one percent of their income on energy, one study found that some lower income families spend as much as twenty percent of their income on energy.²⁵ The cost of electricity may be a factor in rising rental costs for

21. GRID ALTERNATIVES ET AL., *LOW-INCOME SOLAR POLICY GUIDE 7* (2016), https://www.lowincomesolar.org/wp-content/uploads/2016/03/Low-Income-Solar-Policy-Guide_3.11.16.pdf [<https://perma.cc/W32L-48XZ>].

22. Uma Outka, *Fairness in the Low-Carbon Shift: Learning from Environmental Justice*, 82 BROOK. L. REV. 789, 810 (2017), <https://brooklynworks.brooklaw.edu/cgi/viewcontent.cgi?article=1541&context=blr> [<https://perma.cc/S9HF-KYVR>].

23. See Sarah Mervosh, *Unsafe to Stay, Unable to Go: Half a Million Face Flooding Risk in Government Homes*, N.Y. TIMES (Apr. 11, 2019), <https://www.nytimes.com/2019/04/11/us/houston-flooding.html> [<https://perma.cc/XAL3-E3FT>].

24. See Kristie L. Ebi et al., *Human Health*, in IMPACTS, RISKS, AND ADAPTATION IN THE UNITED STATES: FOURTH NATIONAL CLIMATE ASSESSMENT, VOL. II (David D’Onofrio ed. 2018), https://nca2018.globalchange.gov/downloads/NCA4_Ch14_Human-Health_Full.pdf [<https://perma.cc/4Q62-PKVV>].

25. Adam Chandler, *Where the Poor Spend More Than 10 Percent of Their Income on Energy*, THE ATLANTIC (June 8, 2016), <https://www.theatlantic.com/business/archive/2016/06/energy-poverty-low-income-households/486197> [<https://perma.cc/52MN-BW42>]; See also Ellen L. Hoffman, *Preserving America’s Affordable Rental Housing: The CRA Case*, NAT’L HOUS. TR. (May 21, 2018), <https://www.nationalhousingtrust.org/news-article/preserving-america%E2%80%99s-affordable-rental-housing-cra-case> [<https://perma.cc/8MGX-T5XV>].

affordable housing.²⁶ As a result, it is important to find ways that underserved communities can both reduce cost of living and contribute to efforts to mitigate climate change to help minimize climate impacts on their communities. However, these communities face several obstacles to achieving this outcome. First, the communities often must deal with other critical challenges, such as access to health care, which can command more attention than climate challenges. Finding ways to reduce these obstacles while also supporting communities in addressing climate issues can reduce overall risk and make communities more resilient to climate risks.²⁷ Second, underserved communities may not have the assets needed to invest in energy efficiency measures, even though the investment may be quickly offset by cost savings. Third, many low-income residents do not own their own homes and therefore must rely on landlords to make the investments in energy efficiency without raising rent to the point where it is no longer affordable. Fourth, the communities may also lack political influence to shape programs that can provide the communities with the resources needed to contribute to climate change mitigation, to reduce energy costs, and bring new opportunities for employment to their communities. Finally, even in the context of energy efficiency and solar energy jobs, there have been disparate opportunities. Out of the 242,000 American solar jobs created, there is still high inequity in employment of women at 26 percent of the solar workforce as compared to the 47 percent of the overall U.S. workforce who are women, and employment of African Americans at 7.6 percent of the solar workforce as compared to 12 percent of the overall U.S. workforce.²⁸ Additionally, white men compose the vast majority of the leadership positions in the solar industry.²⁹

26. See generally Heather L. Schwartz, et al., *Energy Efficiency as a Tool for Preservation of Affordable Rental Housing: Evaluation of the Efficiency Emphasis in the MacArthur Foundation's Window of Opportunity Initiative*, RAND CORP. 5, 9–10 (Nov. 22, 2019), https://www.rand.org/content/dam/rand/pubs/research_reports/RR2200/RR2293/RAND_RR2293.pdf [<https://perma.cc/5RSC-QVEM>].

27. See Jamesine R. Gibson, *Why Climate Change and Equity Matter for Infrastructure: An Interview with Chione Flegal of PolicyLink*, UNION OF CONCERNED SCIENTISTS (Feb. 13, 2018, 9:46 AM), <https://blog.ucsusa.org/jamesine-rogers-gibson/why-climate-change-and-equity-matter-for-infrastructure-an-interview-with-chione-flegal-of-policylink> [<https://perma.cc/4ZZ7-4MJ2>].

28. THE SOLAR FOUND., U.S. SOLAR INDUSTRY DIVERSITY STUDY 2019 7, 25 (2019) <https://seia.org/sites/default/files/2019-05/Solar-Industry-Diversity-Study-2019.pdf> [<https://perma.cc/F9MX-RTRF>]. The same study shows that three of the solar industry's top recruitment methods rely on connections and professional networks, often creating an impediment for those of diverse backgrounds. *Id.* at 43.

29. See Kari Lydersen, *Can Legislation Help Diversify Solar Workforce? Illinois Hopes So.*, TRUTHOUT (May 26, 2019), <https://truthout.org/articles/can-legislation-help-diversify-solar-workforce-illinois-hopes-so/> [<https://perma.cc/63Z4-CT6M>].

On the benefits side of the equation, Roger Colton has argued that “Energy use reduction programs can and should be viewed as an environmental amenity that should be equitably distributed, not merely as a response to environmental burdens that should be avoided.”³⁰ Having the ability to make energy efficiency improvements bolsters a community’s ability to cope with climate change. As Professor Alice Kaswan has noted:

The capacity to cope is a function of such factors as a community’s financial and social resources, access to health care, and geographic mobility ... Decreasing social vulnerability requires adaptation measures to reduce the underlying sensitivity to harm and enhance the impacted communities’ resilience to harm after it has occurred.³¹

To achieve equity and enhance the ability of communities to cope with climate change may require differentiated treatment. Professor Kaswan has observed:

Adaptation policies that attempt to treat everyone the same, regardless of the underlying demographic characteristics, will result in substantial inequality given underlying differences. To achieve equitable adaptation, adaptation policies must explicitly address the demographics of affected populations and target interventions to address the needs of the most vulnerable populations ... Relevant characteristics include income, race, age, status as renters versus owners, and type employment.³²

Achieving energy justice requires a focus on whether outcomes are equitable rather than providing an equal amount of resources for all communities; some communities will need more resources than others to achieve a similar outcome.³³

30. See Colton, *supra* note 19, at 113.

31. Alice Kaswan, *Domestic Climate Change Adaptation and Equity in the United States*, 42 ENVTL. REP. NEWS & ANALYSIS 11125, 11126–27 (2012).

32. *Id.* at 11139–40.

33. See Colton, *supra* note 19, at 126. Colton has observed that “the principle of horizontal equity means that equals are treated equally. In the energy usage reduction arena, for example, horizontal equity results in an assertion that if multi-family housing represents X percent of all housing units, it should receive X percent of all residential energy efficiency funding. While simple in approach, because of the questionable assumptions about who constitutes ‘equals’ under horizontal equity doctrine, the vertical equity principles described below are not only more commonly used, but also more appropriately used, to determine the equity of funding distribution in non-energy arenas. These vertical equity principles should be applied to energy efficiency equity discussions as well.” *Id.* at 119. In contrast, he notes that Vertical equity recognizes that certain factors relating to the characteristics of the recipient of aid require additional resources to address. Education finance and energy usage reduction investments have much in common in this respect. In the education arena, for example, some students exhibit characteristics relating to special

IV. ILLINOIS FUTURE ENERGY JOBS ACT

The Illinois Future Energy Jobs Act is a unique attempt to address the energy justice issues discussed above. Illinois began its current focus on renewable energy and energy efficiency in 2007 with the Illinois Power Agency Act.³⁴ The Act established a Renewable Portfolio Standard (RPS) requiring large investor-owned utilities to source 25 percent of their energy from renewable energy by 2025.³⁵ The Act also created a Solar Energy for All program³⁶ and an Energy Efficiency Standard that required electric utilities to achieve a two percent reduction in energy use through energy efficiency each year beginning in 2015.³⁷ In 2011, the Illinois Energy Infrastructure Modernization Act allowed electric utilities to include in their rates, investments of \$2.6 billion in smart grid technology including the deployment of smart meters.³⁸ These laws set the stage for an innovative new energy program that would take into account the needs of underserved communities. The Illinois Future Energy Jobs Act³⁹ adopted in 2016 included in its “Findings” that the “state should encourage: the adoption and deployment of cost-effective distributed energy resource technology and devices”⁴⁰ and “provide incentives for electric utilities to achieve the [state’s] energy savings goals”⁴¹ The Act also directed that “low-income customers should be included within the state’s efforts to expand the use of distributed generation technologies and devices.”⁴²

Among the key elements of the Act are:

- An increased emphasis on energy efficiency requiring Illinois electric companies to reduce demand by as much as 21.5 percent by 2030;
- Performance bonuses to incentivize electricity companies to exceed annual energy savings targets so that utilities are no longer rewarded only for selling more electricity;

needs, English language learning needs, and poverty. “In the energy usage reduction arena, some households exhibit characteristics relating to poverty and tenant status. Similarly, some housing units exhibit characteristics relating to age and physical condition—Aldean equity framework must also accept that some unequal energy consumers, as well as housing units, should have access to unequal levels of resources.” *Id.* at 120.

34. Illinois Power Agency Act of 2007, P.A. 95-481.

35. *Id.* § 1-75(c)(1)(B).

36. *Id.* § 1-56.

37. 220 Ill. Comp. Stat. 5/8-103 (2017).

38. Illinois Public Act 097-0616, S.B. 1652 (2011).

39. Future Energy Jobs Act, Pub. Act No. 099-0906 (2017).

40. *Id.* § 1(a)(1).

41. *Id.* § 1(a)(2).

42. *Id.* § 1(b).

- A requirement that a minimum of \$25 million dollars be spent each year electric utilities exclusively on programs to increase energy efficiency of low-income households;
- Higher Renewable Portfolio Standards that include 45 percent by 2035 and 100 percent by 2050;
- The state’s first community solar program that includes \$750 million to support a Solar for All program in low-income communities that includes programs to train low-income community members to work in the solar industry;
- A zero-emissions credit program that will provide financial support to nuclear power plants to prevent their closure during the transition to renewable energy;
- Goals for workforce development targeted to underserved communities;
- Rate caps that ensure the cost of the energy efficiency, community solar and zero emissions credit programs do not significantly raise electricity costs for consumers.⁴³

The story of community involvement is a unique aspect of FEJA and important in understanding how historical energy injustices can be addressed. Anne McKibbin from Elevate Energy, one of the non-profit organizations that helped organize support for FEJA observed that “The main proponents of the energy efficiency and renewable energy operations of the Act was a coalition of stakeholders, advocates, and businesses calling itself the Illinois Clean Jobs Coalition.”⁴⁴ When advocates for underserved communities determined that the state’s largest electric utility would be proposing new legislation, they concluded that it would be possible to quash aspects of the legislation that they saw as undesirable but could not pass legislation that would meet their needs.⁴⁵ To deal with this situation the Illinois Clean

43. See Nick Magrisso, *Future Energy Jobs Bill: A Path for Illinois to a Bright Clean Energy Economy*, NRDC EXPERT BLOG (Dec. 5, 2016), <https://www.nrdc.org/experts/nick-magrisso/future-energy-jobs-bill-path-illinois-bright-clean-energy-economy> [https://perma.cc/TJT3-HEMG].

44. Laura Goldberg & Anne McKibbin, *Breakthroughs in Equity and Energy in Illinois*, AM. COUNCIL FOR AN ENERGY EFFICIENT ECON. 13-1, 13-2 (2018), <https://www.elevateenergy.org/wp/wp-content/uploads/Breakthroughs-in-Equity-and-Energy-in-Illinois.pdf> [https://perma.cc/48U7-G72W].

45. *Id.*

Jobs Coalition⁴⁶ decided to develop its own legislation, at the time referred to as the Illinois Clean Jobs Act, but work for a compromise with the more traditional forces behind Illinois energy legislation including the utilities.⁴⁷ In addition, the Coalition expanded to include members “who work very closely with frontline, environmental justice, and economically challenged communities”⁴⁸ that would bring “perspectives that had not been given a strong voice on energy legislation in the past.”⁴⁹ Involving this more diverse of supporters in lobbying and negotiations “strengthened the coalition’s negotiating position and attracted new legislative support.”⁵⁰ The result was a law that “contains several provisions aimed at correcting historical underinvestment in energy efficiency in Illinois’ environmental justice and economically disadvantaged communities.”⁵¹

The coalition helped create broad bi-partisan support for the Act in significant part because it resulted from a collaborative effort by a wide range of energy stakeholders.⁵² The Act addresses some of the critical distributional equity problems for underserved communities through the specific carve-out for low-income energy efficiency that doubled the spending required of the state’s two main public utilities and through the Solar for All program that includes incentives for community solar projects and job training programs for residents of underserved communities.⁵³ The Act also allows utilities to count energy efficiency savings from natural gas usage towards the energy efficiency goal prioritizing natural gas efficiency in low-income communities.⁵⁴ The process utilized in developing and passing the legislation also demonstrates important progress in procedural energy justice.

Anne McKibbin, Policy Director for Elevate Energy, observed that:

One mechanism for community input is explicitly included in the Act, a requirement that utilities convene a low-income energy efficiency advisory committee to “assist in the design and evaluation of the low-income energy efficiency programs” that includes “representatives from community-based organizations” (Public Act 99-906). According to Juliana, this advisory committee will help remedy a “procedural injustice” in how energy efficiency programs have been created and evaluated (Pino 2018). The committee, called the Income Qualified Energy Efficiency Advisory Committee, will serve as a forum for underserved communities to have input into ComEd’s and Ameren’s new low-income energy efficiency programs, providing

46. See ILL. CLEAN JOBS COALITION (2018), <https://ilcleanjobs.org/> [<https://perma.cc/YX2G-KXMD>].

47. Goldberg & McKibbin, *supra* note 44, at 13-3.

48. *Id.*

49. *Id.*

50. *Id.*

51. *Id.* at 13-1.

52. *See id.*

53. *Id.* at 13-1.

54. *Id.* at 13-8.

utilities with valuable insights into how their programs are working on the ground, and where changes may be needed to ensure program goals are fully realized.⁵⁵

She also pointed out that:

Coalition members are also deeply interested in workforce development and, specifically, ensuring that trained low-income and minority individuals are hired by contractors and that small, diverse contractors can grow their businesses, become utility trade allies, gain consistent business, and hire more members of their communities.⁵⁶

Elevate Energy helps connect trainees to local resources in order to be job ready beyond training in solar panel installation including getting drivers' licenses, childcare, healthcare, transportation, and professional development skills.⁵⁷ Elevate Energy also has an accelerator program for women and minority-owned contractors helping them secure financing and network in the solar industry which is funded by the FEJA.⁵⁸ Still, the workforce development issue has been particularly challenging. The FEJA does not contain workforce development provisions for energy efficiency work even though the Solar for All provisions of the Act do include workforce development language. The 2016 law is designed to create each year for four years 50 jobs among alumni of the Illinois foster care system, veterans, or people returning from incarceration with 25 jobs each year targeted for downstate Illinois and 25 jobs in the Chicago area.⁵⁹ The FEJA also funds training programs targeted at the communities with job loss in the coal industry.⁶⁰ The act helped create the Millennium Solar Electric Training Academy which trains diverse business owners and workers in skills needed for the renewable energy industry.⁶¹ Even for the Solar for All program there is concern that many of the early job opportunities have been in communities outside of the low-income areas that may be hard for members of the low-income communities to travel to, even though they have received the training in solar installation and maintenance.⁶² These workforce issues play a critical role in the energy justice/equitable development/energy democracy

55. *Id.* at 13-10.

56. *Id.*

57. *Id.* at 13-4, 10, 11.

58. *Id.* at 13-5.

59. *Id.* citing S.2814, 99th Gen. Assemb. (Ill. 2016).

60. *Id.* at 13-5.

61. *Future Energy Jobs Act Workforce Development Programs*, ISEA, <https://www.illinoissolar.org/FEJA-Workforce-Development-Programs> [<https://perma.cc/4HT5-ZVPU>].

62. Interviews with Elevate Energy Staff (Dec. 5, 2018) (on file with the author).

discussions, because the jobs allow a community to play a direct role in determining its energy future, and can provide the income needed to reduce multiple risks including inadequate health care and poor nutrition.⁶³

V. IMPLEMENTATION OF FEJA

A significant part of FEJA is being administered by Chicago-based non-profit organization, Elevate Energy. Elevate Energy traces its origins⁶⁴ to the work of the Center for Neighborhood Technology, an innovative non-profit whose goal is to advance urban sustainability.⁶⁵ Elevate Energy's stated mission is to provide "smarter energy use for all."⁶⁶ The organization focuses on designing and implementing programs "that reduce costs, protect people and the environment, and ensure the benefits of clean and efficient energy use reach those who need them most."⁶⁷ The intended focus on lower income communities is to "create a world in which everyone has clean and affordable heat, power, and water in their homes and communities—no matter who they are or where they live."⁶⁸ The organization expects that by conducting this focus it will "significantly mitigate the climate crisis and improve the economic health of communities."⁶⁹ The organization initially targeted energy efficiency and dynamic pricing as its principal areas of focus but added work on renewable energy because it was already working for buildings in underserved communities. Elevate Energy's portfolio now includes community solar projects.⁷⁰ Elevate Energy contracts with the utility companies to implement energy efficiency improvements, providing assistance both to private building owners and a wide range on non-profit organizations, including day care centers, community organizations and churches.⁷¹ The organization is the principal service provider for energy efficiency in the

63. *Id.*

64. *See Where We've Been: A Brief History of CNT Energy*, ELEVATE ENERGY (Nov. 21, 2019, 4:00PM), <https://www.elevateenergy.org/brief-history-cnt-energy/> [<https://perma.cc/UW4F-5EAL>].

65. *See Urban Sustainability*, CENTER FOR NEIGHBORHOOD TECHNOLOGY (Nov. 21, 2019, 4:00PM), <https://www.cnt.org/urban-sustainability/> [<https://perma.cc/YVG6-BXFF>] ("Our goal is to advance urban sustainability and shared prosperity through initiatives in transportation, water, climate, and public policy. We coach city leaders, advise decision makers, and find new ways to solve challenges.").

66. *See About Elevate Energy*, ELEVATE ENERGY (Dec. 27, 2019, 10:30AM), <https://www.elevateenergy.org/about/> [<https://perma.cc/4JU2-SPN5>].

67. *See Programs*, ELEVATE ENERGY, <https://www.elevateenergy.org/programs/> [<https://perma.cc/G7NH-UJCT>].

68. *About Elevate Energy*, *supra* note 66.

69. *Id.*

70. *Id.*

71. *See Interviews*, *supra* note 62.

Chicago area under FEJA, as well as the administrator of the FEJA “Solar for All” program.

Much of the focus of the organization’s work in Chicago deals with energy efficiency of small apartment buildings—typically four stories or less in height—which are “naturally affordable” according to Elevate Energy. The buildings make up a significant percentage of low-income housing in the city and have typically not received a great deal of attention since most are tenant-occupied and the landlords have not focused on energy efficiency improvements. Elevate Energy emphasizes working with landlords to increase energy efficient small apartment buildings. The buildings often use old, inefficient steam boilers for heating. A number of churches in Chicago low-income communities are in a similar situation. Energy efficiency work related to heating systems is particularly important in Chicago because of the comparatively high cost of natural gas and the cold winters.⁷²

Community-focused organizations like Elevate Energy play an important intermediary role in providing access to energy efficiency and alternative energy resources for underserved communities by advocating for legislation and programs that can meet the needs of underserved communities, and by providing the expertise needed to carry out programs once they have been created. The organizations employ a staff of 125, which range from community organizers, to technical experts, to program managers, to community development professionals. This broad expertise allows the organization to help coordinate coalitions to develop new legislation, manage low-income assistance programs for the state’s large electric utilities, work with communities to ensure they have a strong voice in implementing programs, integrate energy issues into local community development initiatives, conduct energy efficiency audits, contract for and manage implementation of programs, and conduct evaluations of programs.⁷³ By being a full service organization, Elevate Energy is able to support community efforts to improve energy efficiency and gain access to renewable energy that would otherwise be very difficult for other organizations or individuals to accomplish.

Elevate Energy is in the early stages of implementing the Illinois Solar for All program that provides grants for low-income households and nonprofit organizations in underserved communities, and government entities to help them access solar power. Illinois Solar for All also incentivizes community solar installations, including placing solar panels on old industrial “brownfields”

72. *Id.*

73. *Id.*

sites to allow low-income renters access to renewable energy.⁷⁴ Elevate Energy is also working outside of Chicago in Illinois' coal country to retrain out-of-work coal field workers, returning citizens, and foster-care alumni to install and maintain solar panels.⁷⁵

VI. THE FUTURE OF THE FUTURE ENERGY JOBS ACT

Staff at Elevate Energy⁷⁶ and other community-based organizations that were involved negotiations surrounding FEJA have raised significant concerns that the job training provisions in FEJA are inadequate to meet both social justice goals and workforce development needs.⁷⁷ These and other issues raised by community organizations and other stakeholders are being addressed as part of two bills that are currently before the state legislature that would create much larger and more organized programs to increase diversity in Illinois' solar workforce as the state accelerates its efforts to achieve 100 percent renewable energy by 2050: the Illinois Clean Energy Jobs Act⁷⁸ (CEJA) and the Path to 100 Act.⁷⁹ These bills are supported by a wide range of community and environmental organizations that make up the Illinois Clean Jobs Coalition.⁸⁰

CEJA would expand the state's Solar Renewable Energy Credit in order to create more jobs and would put in place a goal of 100% renewable energy in Illinois by 2050.⁸¹ CEJA is supported by labor unions and community organizations because the bill promises to quadruple the size of the Solar for All program and make community solar accessible to a more diverse customer base.⁸² CEJA would create Clean Energy Hubs to expand job opportunities⁸³ and create a Clean Jobs Workforce Hubs Network made of

74. *Id.*

75. *Id.*

76. Interviews, *supra* note 62. Staff from Elevate Energy expressed concern that many of the solar installations in the Chicago area were occurring in suburb locations making it difficult for central city residents who have been trained under the FEJA Solar Energy for All program to work on the projects.

77. See, e.g., Crystal Reed, *Advocates Press for Clean Energy Jobs Act*, ILLINOIS CLEAN JOBS COALITION (Sept. 4, 2019), <https://ilcleanjobs.org/2019/09/04/advocates-press-for-clean-energy-jobs-act/> [<https://perma.cc/9UJP-32FG>].

78. Clean Energy Jobs Act, SB 2132, HB 3624, 101st Gen. Assemb. (Ill. 2019).

79. HB 2966, SB 1781, 101st Gen. Assemb. (Ill. 2019).

80. See *Coalition Members*, ILLINOIS CLEAN JOBS COALITION, <https://ilcleanjobs.org/who-we-are/members/> [<https://perma.cc/4VUS-28KR>] (last visited Nov. 22, 2019).

81. See Clean Energy Jobs Act, *supra* note 78.

82. See Lydersen, *supra* note 29.

83. Clean Energy Jobs Act, *supra* note 78. The Hubs would provide “equitable access to quality jobs and economic opportunities (especially for residents of economically disadvantaged communities, environmental justice communities, communities of color, returning citizens, foster care communities, and other underserved communities who have

“frontline organizations” across the state.⁸⁴ The act would also “supporting small, disadvantaged clean energy businesses and contractors having equitable access to economic opportunities created by the growing clean energy sector in Illinois.”⁸⁵ The bill provides for the development of Community Energy and Climate Plans aimed at addressing environmental justice issues.⁸⁶ The Act includes provisions for Clean Energy Empowerment Zones to help coal-producing communities transition to jobs in the renewable energy field.⁸⁷ The bill also requires the Illinois Power Agency to prioritize projects in procurement which meet two or more “equity criteria” including: having a minority workforce, being a disadvantaged business, hiring training graduates, or creating community benefit agreements.⁸⁸

The “Path to 100 Act” seeks to create many more clean energy jobs associated with the state’s effort to achieve a 100% renewable energy goal.⁸⁹ The “Path to 100” legislation adjusts Illinois’s Renewable Energy Portfolio Standard (RPS) from the current 25% renewable energy requirement by 2025 to 40% renewable by 2030 to accelerate the path to 100 percent renewable generation by 2050.⁹⁰ The “Path to 100” Act also improves on FEJA by (1) removing technical barriers, (2) improving the interconnection process, (3) effective transitioning towards rooftop solar rebates, (4) communicating the value of community solar, (5) strengthening the utility-scale wind and solar contracts, and (6) developing energy storage to manage renewable development in the long term.⁹¹

had to bear the disproportionate burden of dirty fossil fuel pollution) across the entire clean energy sector in Illinois.” Art. 5, § 5-5.

84. *Id.* art. 5, § 5-20.

85. *Id.* art. 10, § 10-5.

86. *Id.* art. 15, § 15-15.

87. *Id.* art. 20, § 20-15.

88. *Id.* § 1-75(o)(7).

89. The Path to 100 provides that “All programs and procurements under this subsection (c) shall be designed to encourage participating projects to use a diverse and equitable workforce and a diverse set of contractors, including minority-owned businesses, disadvantaged businesses, trade unions, graduates of any workforce training programs administered under this Act, and small businesses.” Path to 100, *infra* note 91, § 1-75(c)(1)(P).

90. See Kelsey Misbrener, *Illinois introduces bill to increase solar development and achieve 100% clean energy*, SOLAR POWER WORLD (Feb. 6, 2019), <https://www.solarpowerworldonline.com/2019/02/illinois-path-to-100-act/> [<https://perma.cc/DWF3-CHHT>].

91. See *The Path to 100 Act Fact Sheet*, ISEA, https://www.illinoissolar.org/resources/Documents/Path%20to%20100%20Fact%20Sheet_Feb19.pdf [<https://perma.cc/AP6E-JZAJ>]. With FEJA, CEJA, and the Path to 100 Illinois has one of the most comprehensive approaches to clean energy that includes a focus on members of underserved communities.

VII. CONCLUSIONS

As states continue to set more and more aggressive greenhouse gas reduction 01 goals, the impact on underserved communities becomes increasingly important. Programs that simply support expanded energy efficiency programs and more distributed solar installation could increase rates and fail to do much to advance energy justice. However, the Illinois Future Energy Jobs Act provides an interesting model for addressing both substantive and procedural energy justice issues. Organizations from underserved communities were able to obtain a seat at the table in designing and lobbying for the legislation. This led to new approaches to energy efficiency that addressed the unique needs of underserved communities and began to provide new economic opportunities for residents in underserved communities. Including job training in FEJA was an important step but has not been able to adequately address the need for more opportunities in both center cities and in rural areas where coalmining operations are closing. As a result, new legislation in the form of the Clean Energy Jobs Act has been proposed and is on the verge of being adopted in Illinois. These developments are essential to assuring a more energy just future.

However, other states and a proposed new Federal program indicate that there is significant interest in strengthening the renewable energy workforce while also providing new job opportunities to residents of underserved communities. The Maryland Clean Energy Jobs Act (2019 Md. Laws ch. 757) passed in 2019 sets a goal of 50 percent renewable energy for the state by 2030 including 14.5 percent derived from solar energy. 2019 Md. Laws ch. 757, sec. 7-703(b)(25). The law also directs that training and other job development activities include a focus on local residents, women-owned enterprises and minorities. *See, e.g.*, 2019 Md. Laws sections 7-704.1(e)(1), 5-1501(d) and 11-708.1(C).

In the United States Senate, Senators Heinrich, Manchin and Booker have introduced Senate Bill 2393 (S.2393, 116th Congress, 1st session), the Clean Energy Jobs Act of 2019 that, among other things would require the Secretary of Energy to create a “comprehensive and nationwide program . . . to improve education and training in energy-related industries.” S.2393, § 3(a). The Secretary in carrying out the mandate must focus on the needs of minorities. S.2393, § 3(b). The proposed legislation also requires training on skills related to the energy efficiency industry, the renewable energy industry, community energy resilience, and the fuel cell and hydrogen industries. S.2393 § 3(j)(2). Finally, the bill would require specific outreach to displaced energy workers. S.2393 § 3(h).