

ENVIRONMENTAL JUSTICE FOR THE WIN

THE NEXT CLEAN-ENERGY PROJECT
HOTSPOTS IN THE U.S.

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kivvit  pivvot

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As states start competing for \$65 billion that the Biden Administration pledged for new energy infrastructure spending, a Kivvit and Pivvot analysis of socioeconomic data, energy grids, and state-by-state policymaker statements about environmental justice shows clear opportunities for successful clean-energy development. The focus must be on areas where political, equity, and energy-demand rationales overlap.

The U.S. Department of Energy defines **ENVIRONMENTAL JUSTICE** as, "...the fair treatment and meaningful involvement of all people, regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies."¹

Practically, this means it is now more important than ever to engage community stakeholders when planning energy projects. The following analysis of the geopolitical and environmental landscape delineates key factors for planning energy development projects.

Through our work with several clean energy companies on energy development projects, Kivvit increasingly helps them understand local implications and how they may impact your next energy project. Contact us to learn more.

INTRODUCTION

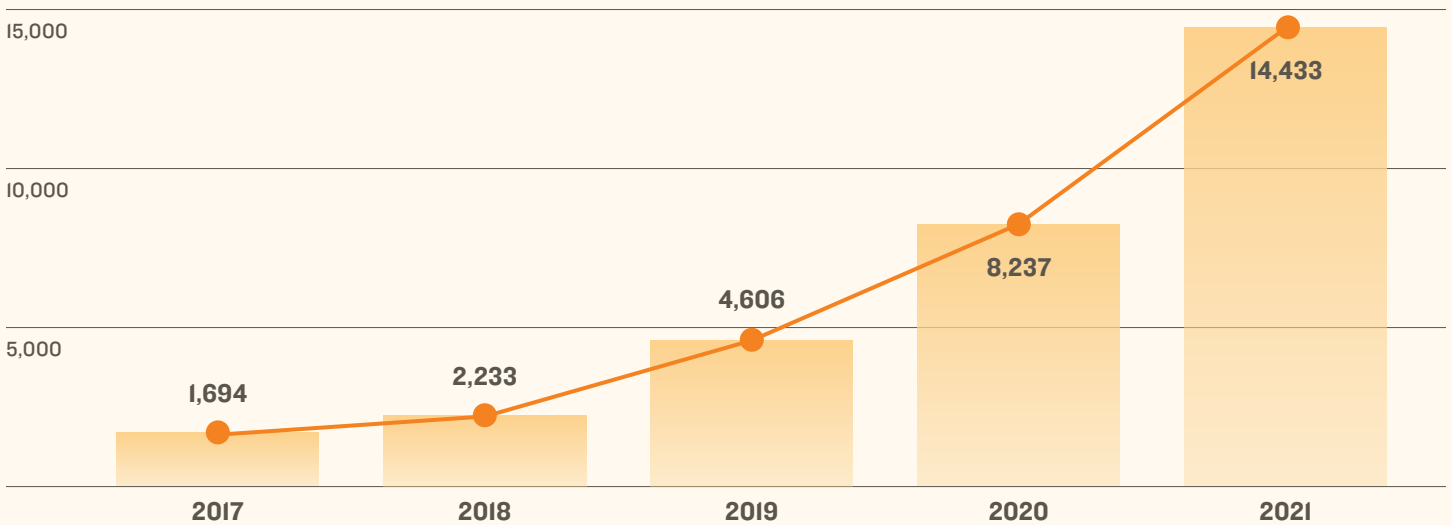
ENVIRONMENTAL JUSTICE WILL ANCHOR CLEAN-ENERGY DEVELOPMENT IN 2023... AND BEYOND

The Biden administration has touted the landmark infrastructure bill signed into law in late 2021 as the “largest investment in clean-energy transmission and EV infrastructure in history,” with \$65 billion dedicated to power infrastructure. In 2022, the Inflation Reduction Act doubles down on Environmental Justice commitments.

Environmental justice is likely to anchor decisions in this next generation of clean-energy development. According to an analysis of public statements by U.S. state and federal officials, mentions of environmental justice rose 750% over the past five years.

FIGURE I: ENVIRONMENTAL JUSTICE CONCERNS ARE ON THE RISE

Public statements by U.S. elected officials on the subject increased 750% in the past 5 years.



Includes press releases, constituent newsletters, transcripts, and social media posts from elected officials at federal, state, county, and municipal levels.

Kivvit partnered with location intelligence company Pivvot to map ideal locales for new clean-energy projects based on states and regions poised to host renewables projects that are commercially attractive, politically palatable, and calibrated to meet environmental justice concerns.

To do this, Kivvit and Pivvot overlaid thousands of data points in three major layers. Bringing together these perspectives on policy, industry, and community provides a comprehensive view of the country and where environmental justice should – and will – be a major force in shaping projects:



HOW FOCUSED ARE POLICYMAKERS ON ENVIRONMENTAL JUSTICE?

We looked at the volume of state and federal elected officials' public statements about environmental justice, including press releases, constituent newsletters, and social media posts.



HOW MANY PROJECTS ARE ALREADY UNDER WAY?

We also considered where renewable energy projects are under development, using Independent System Operator (ISO) data to see where project activity is going to encounter the current dynamics of environmental justice concerns.



HOW VULNERABLE ARE LOCAL COMMUNITIES?

A proxy for identifying environmental justice communities, the CDC's Social Vulnerability Index (SVI) uses up to 14 social factors, including employment, poverty rates, minority status and language, and housing type.



KEY FINDINGS

IDENTIFYING ENERGY DEVELOPMENT HOTSPOTS

To showcase differentiated insights for energy developers, we looked at different combinations of the data in the maps below. Our geographic findings identified groups of states and regions where developers will need to be especially focused on environmental justice.

EARLY ADOPTERS

● **California and a handful of other populous states – Connecticut, Illinois, Massachusetts, New York, Pennsylvania, Texas, and Virginia – have high energy development intensity, areas with higher social vulnerability, and high elected-official interest in environmental justice.** Because of the confluence of all three factors in these states, developers planning projects will need to be hyperaware of environmental justice. Additionally, given the still-evolving context around environmental justice issues, projects in these states are the most likely to be viewed as “test cases” for how projects should be developed. This dynamic will play out the most in densely populated areas where projects are sited, as reflected in Map 1.

REGIONAL FOCAL POINTS

● **On a regional level, parts of California, Maine, Texas, and Virginia also exhibit the “Early Adopters” characteristics of intense energy development activity as well as relatively high levels of socioeconomic vulnerability and mentions of environmental justice.** This includes places such as Los Angeles and San Diego counties, Southern Virginia, Texas border counties, and rural Maine. At the local and regional levels, projects in these areas will likely face outsized scrutiny through an environmental justice lens. This insight is derived from observations of both Maps 1 & 2.

THE NEXT GENERATION

● **Other states, including Arizona, Kentucky, Louisiana, New Mexico, North Carolina, and West Virginia, see some level of elected-official chatter about environmental justice, paired with areas of socioeconomic vulnerability.** Energy-project queues in these states are less congested, but local policy and community conditions mean future projects should expect to encounter a heightened environmental justice focus, particularly around balancing historically inequitable infrastructure development. This is also demonstrated on Map 1.

The above takeaways tease out high-level geographical insights made possible by combining our data. The next section focuses on the analysis that leads to these conclusions.

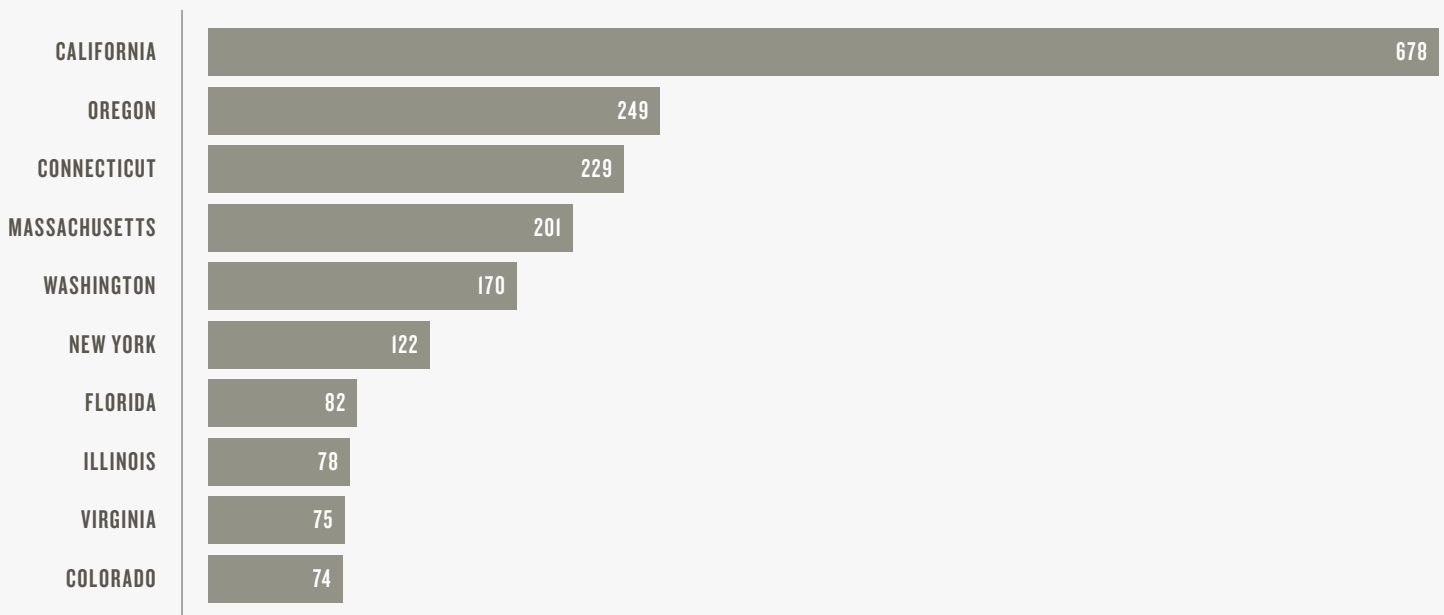
MAPPING

ENERGY DEVELOPMENT HOTSPOTS

Below is a look at the states where elected officials make the largest number of public statements on environmental justice (for details on the data, please see the Methodology).

FIGURE 2: WHERE DO ELECTED OFFICIALS SHOW THE MOST INTEREST?¹

Top 10 states for public statements on environmental justice by elected officials



But interest in environmental justice was only one layer used in zeroing in on clean-energy hotspots. We displayed the data in maps to pinpoint exactly where policymaker statements about environmental justice, socioeconomic vulnerability, and energy development activity coincide. The mapping shows how geographic analysis can point to more granular insights and guide energy planners working at the local level, illuminating key insights they might seek from the data.

If elected officials are interested in environmental justice, is that paired with healthy queues of clean-energy projects?

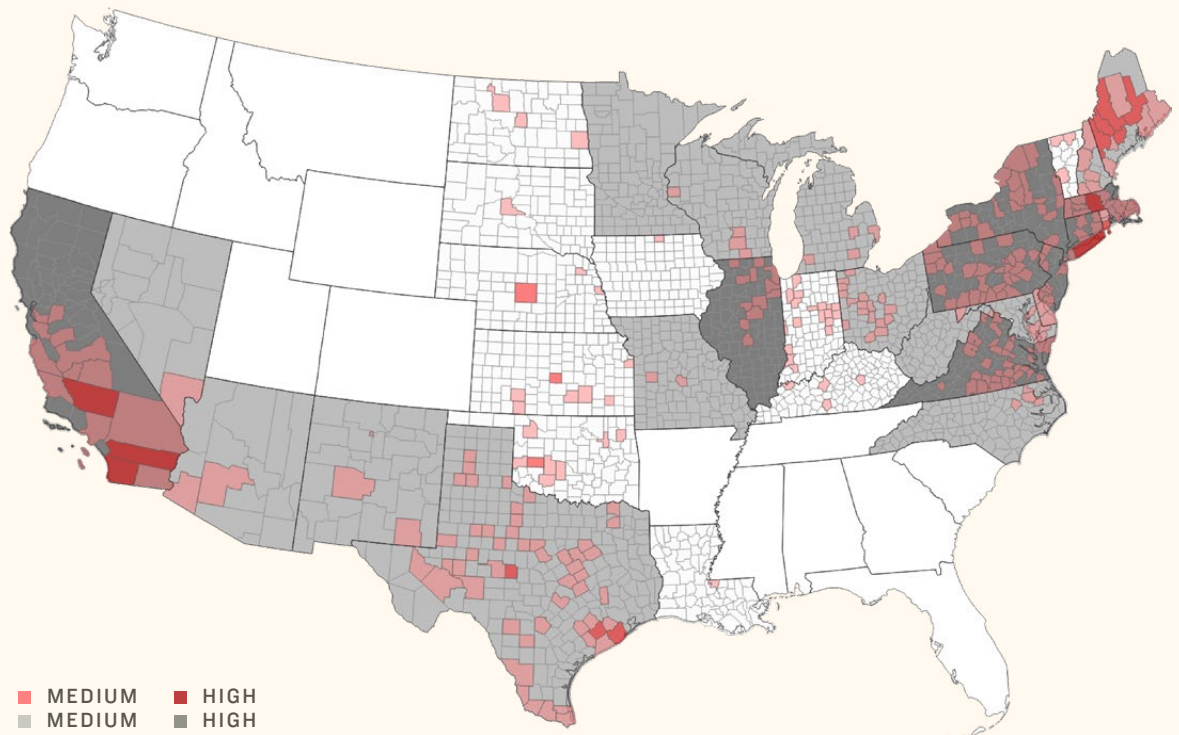
To answer this question, we have integrated elected officials’ public statements on environmental justice with data showing grid operators’ energy-permitting activity for clean and renewable energy projects. We continue to look specifically at the “queue depth,” or the number of such projects anticipating connection to the grid. (Sixteen states are not fully represented by regional grid operators and transmission organizations and are excluded from this analysis.) *The resulting map shows the following data sets:*

- The counties with a darker red shade indicate a higher queue depth and a higher intensity of energy development activity.
- The states with a darker gray shade indicate higher social media mentions of “environmental justice” and clean or renewable energy.

The areas where officials’ interest in environmental justice and energy development intensity coincide are indicated by the overlapping darker shades of red at the county level and states shaded in dark gray.

MAP 1: ENVIRONMENTAL JUSTICE MENTIONS & ISO QUEUE DEPTH²

States where officials are more vocal about environmental justice also have areas with deep energy queues for clean-energy products.



QUEUE DEPTH: ■ LOW ■ MEDIUM ■ HIGH
EJ MENTIONS: ■ LOW ■ MEDIUM ■ HIGH

²Source: Pivvot

Unsurprisingly, the trends overlap in states with large energy needs, such as California, Connecticut, Illinois, Massachusetts, New Jersey, New York, Pennsylvania, and Virginia.

There is also a noticeable layer of states such as Maine, Maryland, Ohio, and Texas, in which medium levels of environmental justice mentions coincide with areas of high energy development intensity as revealed by backed-up queues that are shaded darker red. These are states where environmental justice could become more relevant in energy-project development.

In other words, the presence of some interest in the topic might be leveraged to balance energy needs with equitable energy planning. Other states, including Arizona, Kentucky, Louisiana, New Mexico, North Carolina, and West Virginia, see a notable level of elected-official discourse about environmental justice, paired with areas of socioeconomic vulnerability.

Finally, and most obviously, the map highlights the states where environmental justice is a significant factor. Any developers looking to do work in states with relatively high mentions of environmental justice — the states in any shade of gray — should thoroughly evaluate their proposals and be sure to align with relevant community contexts around environment and equity.



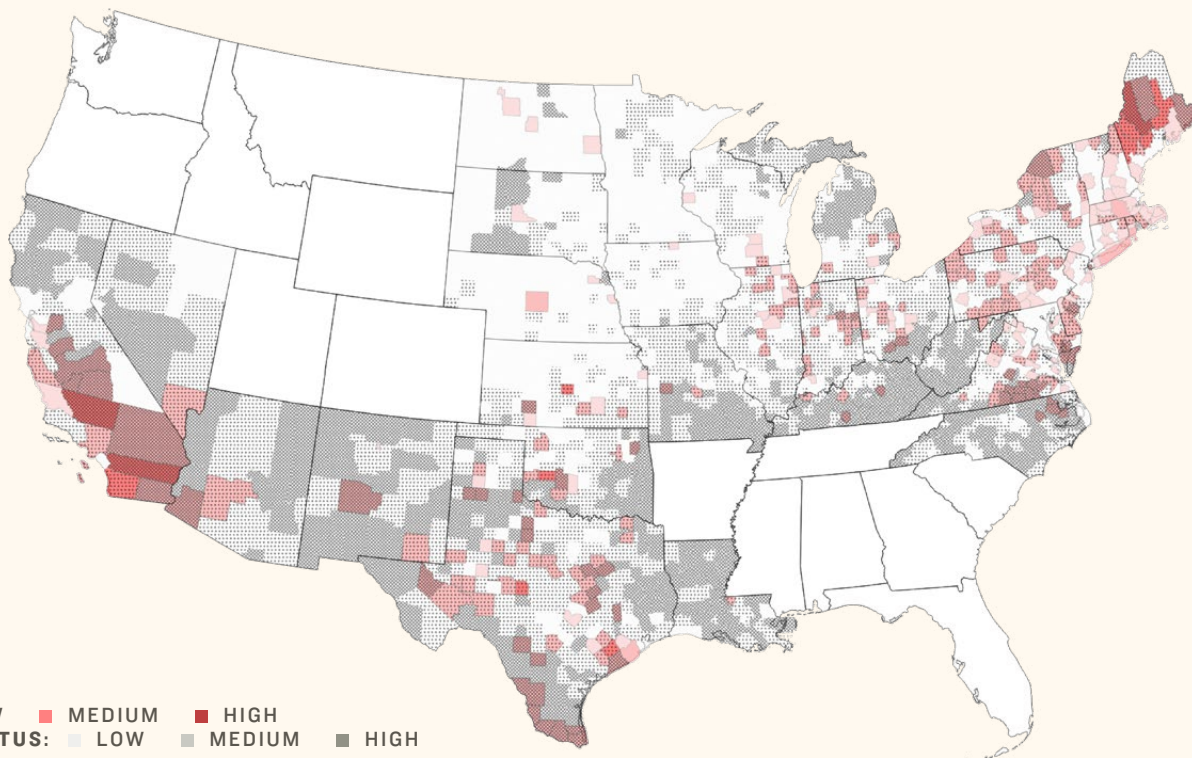
Can development location and environmental justice data lead to a more equitable distribution of clean-energy?

We use socioeconomic data to begin pinpointing vulnerable locales where a need for an environmental-justice lens in energy planning may be most pressing. In this analysis, we exclude local officials’ interest in the topic to see if socioeconomic data alone points to a need for environmental justice. *The resulting map shows the following data sets:*

- ➔ *As before, the counties with a darker red shade indicate a higher queue depth and a higher intensity of energy development activity.*
- ➔ *The counties in darker gray shade (with a denser dot pattern) indicate potentially socially vulnerable areas (here, we are considering select socioeconomic status factors from the CDC SVI such as poverty, unemployment, income, and education).*

MAP 2: SOCIOECONOMIC STATUS & ISO QUEUE DEPTH²

Most energy projects in the queue are located in areas with less social vulnerability risk, but there are still opportunities for planning with an environmental justice lens.



²Source: Pivvot

This map is important to consider if the benefits of clean and renewable energy are to be more fairly distributed. Areas in gray indicate a high percentage of socially vulnerable residents, so any of those areas that also have red shading are areas where energy developers should now be considering environmental justice in their projects. This map reveals specific locales of interest where equitable energy planning could have immediate impacts, given the relatively intense energy development taking place. *These areas include:*



SOUTHERN CALIFORNIA



SOUTHERN VIRGINIA



REGIONS OF MAINE & TEXAS



POCKETS OF ARIZONA, KENTUCKY, NEW MEXICO, & NORTH CAROLINA

The areas brought to the forefront by this map are arguably the most pressing hotspots. In these locales, energy queues are crowded and energy development is happening in the midst of socially vulnerable populations. This means developers and planners should be considering efforts for outreach and social responsibility, while also aligning their projects to have a positive impact on local communities through jobs, training, or other benefits. Kivvit has built a proven playbook for helping developers navigate community and stakeholder environments across the country. Contact us to learn more about how we can tailor a playbook for your organization. *Playbooks include:*

- **OBTAINING LOCAL CONTEXT:** *Understanding the history and legacies of past development in the area and how that will impact new projects.*
- **MAPPING STAKEHOLDERS:** *Pinpointing the elected officials, stakeholders, and advocates who will take interest in new projects and craft positions on them.*
- **OUTREACH & EDUCATION:** *Proactively embedding outreach and education in the earliest stages of engineering and project development.*
- **MESSAGE DEVELOPMENT:** *Refining your story and proactively addressing concerns and expectations of stakeholders.*
- **CORPORATE CITIZENSHIP:** *Building a long-term presence in the local community, supporting key causes, and joining key organizations.*

PLAYBOOK CONCLUSIONS

MOVING FORWARD WITH TOOLS FOR EQUITABLE ENERGY DEVELOPMENT

- Throughout the research, we note that **ELECTED OFFICIALS AND REGULATORS ARE PRIMED TO CONSIDER A SPECTRUM OF COMMUNITY CONTEXTS** — including environmental considerations — when evaluating new energy projects.
- The immediate and politically sensitive question developers must answer is: “**WHERE?**” They must propose specific locations for their projects that have unique community contexts. To do so, they should harness the power of location intelligence and data-driven analysis, as demonstrated in this paper.
- In the past, a barrier existed: **ENVIRONMENTAL JUSTICE HAS HISTORICALLY BEEN DIFFICULT TO MEASURE AND QUANTIFY**. Today, location intelligence opens the way to a careful consideration of environmental justice as a factor in energy planning.
- With so much data available, developers now have the opportunity and the tools to **ENSURE PROJECTS PROMOTE AN EQUITABLE DISTRIBUTION OF CLEAN ENERGY** without unfairly impacting historically marginalized communities.
- Mapping relevant factors allows energy developers to approach new projects with a more strategic lens. With data that help them triangulate political, energy, and socioeconomic factors, **THEY CAN BENEFIT COMMUNITIES AND PROMOTE ENVIRONMENTAL JUSTICE**.

METHODOLOGY

Most of this analysis relies on energy-project development data provided by regional entities governing energy distribution, known as Independent System Operators (ISO) and Regional Transmission Organizations (RTO).

Figures 1 and 2, as well as Maps 1 and 2 in this paper include data for the following states:

ARIZONA	CALIFORNIA	CONNECTICUT	DELAWARE
ILLINOIS	INDIANA	IOWA	KANSAS
KENTUCKY	LOUISIANA	MAINE	MARYLAND
MASSACHUSETTS	MICHIGAN	MINNESOTA	MISSOURI
NEBRASKA	NEVADA	NEW HAMPSHIRE	NEW JERSEY
NEW MEXICO	NEW YORK	NORTH CAROLINA	NORTH DAKOTA
OHIO	OKLAHOMA	PENNSYLVANIA	RHODE ISLAND
SOUTH DAKOTA	TEXAS	VERMONT	VIRGINIA
	WEST VIRGINIA	WISCONSIN	

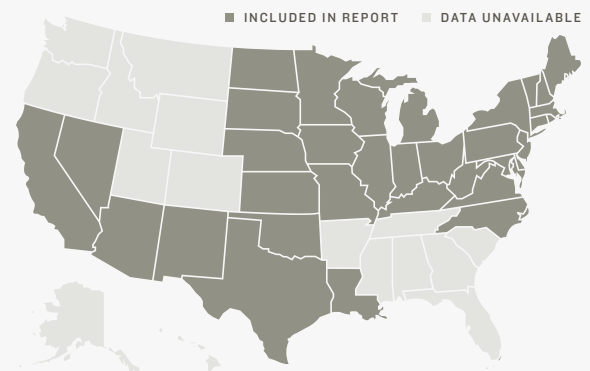


FIGURE 1 & 2: Public statements (including press releases, constituent newsletters, and social media posts) about environmental justice by elected officials at all levels of government (federal, state, and local) in each state, compiled by Kivvit, using communications and social media analysis tools. The period under analysis was January 1 to November 2 (Election Day), 2021.

MAPS 1 & 2: Over 2,000 counties in our sample were analyzed according to three inputs:

- Mentions of environmental justice in their state (the same data used for Figures 1 and 2)
- The number of clean energy projects in the queue locally
- Socioeconomic vulnerability data tabulated on a county-by-county level

The maps stratify counties according to factors already enumerated above, queue depth and socioeconomic vulnerability, as labeled on the maps. Environmental justice mentions are tracked only on the state level; for local-level tracking, please contact us.

ABOUT US

This paper demonstrates a high-level analysis of geopolitical and environmental justice factors that must be taken into consideration when planning energy development projects. To understand these factors at the local level and how they may impact your next energy project, please contact us.

ABOUT KIVVIT

Kivvit is a full-service strategic communications firm built to help organizations meet their moment and navigate their most complex issues. We identify, shape, and amplify ideas and issues to move critical audiences. We are over 150 professionals across multiple geographies working together as one team to serve Fortune 500 companies, entrepreneurs, nonprofits, advocacy groups, public agencies, and institutions.

TO LEARN MORE, VISIT [KIVVIT.COM](https://www.kivvit.com).

ABOUT PIVVOT

Pivvot provides location data and analytic software-as-a-service solutions. We streamline projects with location intelligence, including renewable energy siting and suitability, electric transmission and pipeline routing, and environmental impact analytics.

TO LEARN MORE, VISIT [PIVVOT.COM](https://www.pivvot.com).





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