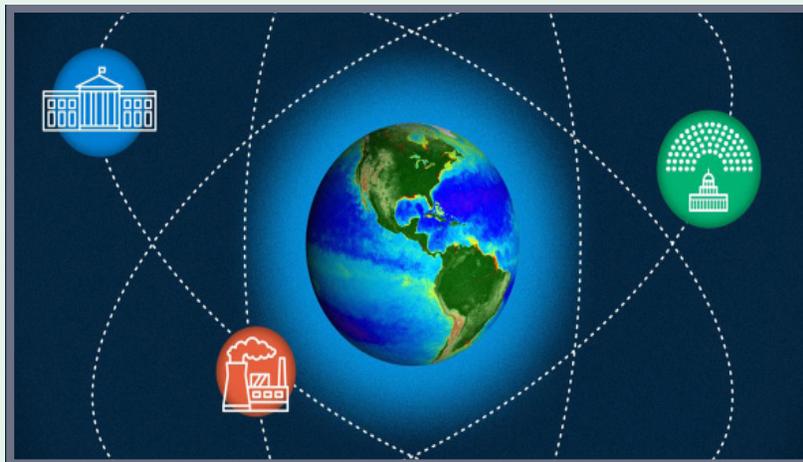


With the enactment of recent congressional legislation investing in clean energy, we expect to see a significant build-out of new clean energy infrastructure, including advanced nuclear power. While these energy projects have the potential to empower communities with clean electricity, they also have the potential to harm if project developers fail to have fair and just processes. Local opposition movements have been growing in response to almost all energy projects, including wind, nuclear, and solar. Nuclear energy has a particularly troubled history of siting decisions for power plants. These procedural injustices pose challenges for achieving successful, community-supported new infrastructure projects. Understanding these dynamics is important for communities and critical for project developers.

Nuclear energy in the U.S. was built from the top down, where decisions about siting locations were made with little input from the public. From the dawn of commercial reactors in the 1950s through the 1970s, the government and nuclear industry anticipated that communities would “trust the experts” when they decided where to build reactors and announced the locations without the opportunity for public input. As a result, the industry was not aware of the needs and desires of the host communities.

Congress enacted the National Environmental Policy Act (NEPA) in 1969 to require project developers and the government to identify the environmental impacts of major proposed infrastructure projects, such as nuclear plants, and to create a publicly reviewable record ahead of project decisions. The law has required nuclear project developers to undergo more comprehensive environmental analyses of their designs and site selections. This requirement could have increased community engagement, but sadly the industry chose to adopt a “decide, announce, defend” method of plant siting: The industry still picked facility locations without consulting locals. Utilities and project managers saw public engagement as a hoop to



jump through, they spent significant time and money fighting lawsuits and pushback from the community. Then, following the Calvert Cliffs decision in 1971, the Atomic Energy Commission extended its licensing review to cover environmental issues more broadly. This move opened the door to legal intervention on a diverse range of environmental impacts beyond standard safety and ra-

diological risks.

The Three Mile Island accident in 1979 eroded much of what public support remained for new nuclear power plants. While little changed from a legislative or regulatory standpoint, the incident had a significant impact on the public's view of new developments. In response to the accident, the industry emphasized safety and efficiency in operations, yet its approach still lacked honest engagement with the public about risks and benefits. This lack of inclusion likely contributed to a growing anti-nuclear public protest movement.

The top-down process of plant siting has been a defining quality of the industry. In a workshop readout from the National Academies, Todd Allen from the University of Michigan asked experts in the field for examples “in which the community was actually em-

powered to proactively decide what energy technologies it wanted to support.” There were no responses. Hierarchical decision-making has been the status quo in nuclear energy for too long, which is bad for all parties. Take the example of [Shoreham, New York](#), where a nuclear power plant was fully constructed and set to begin operation. The host county, adjacent communities, and a number of environmental groups had little confidence in the plant’s safety, protested, and entered into conflict with the project developers. During heavily publicized protests, more than 15,000 people rallied against the plant’s operation. The plant never went online and is just one example in which [communities won](#) their challenges to new nuclear developments. Developers abandoned other reactor projects, such as Surry 3 and 4 in Virginia and Marble Hill 1 and 2 in Indiana, partially due to community pushback.

As calls for new nuclear plants grow in response to climate concerns, the industry has two options: repeat past missteps and risk community pushback, or pave the way for a more equitable and engaged approach to siting by developing mutually beneficial relationships with host communities. No nuclear projects will go forward without strong community support, and project developers are going to need to dedicate meaningful resources to stakeholder engagement. Luckily, the industry has started to move toward adopting more just processes of community empowerment by seeking meaningful relationships with and early input from communities before selecting project locations. In siting of nuclear waste repository sites, a similar approach is referred to as consent-based siting. While consent will look different for every community and stakeholder, consent implies that the choice of a new energy project allows locals to determine whether they want to host these types of plants.

Successful local engagement will also often require project partners to make commitments to a community. For instance, a nuclear energy project could fund a local remediation program for legacy contamination to benefit the host community. It will be critical to consider local contexts and work with area residents to [mobilize their knowledge](#) while still recognizing imbalances in power and expertise.

By practicing just siting, the industry can work to regain public trust and support. Consent-based siting can help communities struggling in the clean energy transition: In some cases, nuclear developers are siting projects in areas traditionally reliant on fossil fuels for their energy and economies. In particular, [retiring coal plants](#) are an opportunity to repower and support interested host communities with infrastructure that has similar technical requirements and needs a capable workforce. One of the first demonstrations of advanced nuclear technologies is taking place in a community heavily dependent on coal. [TerraPower’s Sodium reactor](#) demonstration is set for construction in Kemmerer, Wyoming, near a re-

tiring coal plant. The project is expected to support thousands of construction jobs and hundreds of permanent, high-paying jobs in a community that previously relied on coal.

The industry will only succeed at the [speed of trust](#). By emphasizing community engagement, consultation, and consent, the nuclear industry could become a collaborative environment of clean power for all.

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