



# BALANCING RENEWABLE ENERGY GOALS WITH COMMUNITY INTERESTS



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The push toward lower-carbon energy in the United States—particularly renewable energy—has heightened due to market forces and state policies that address climate change.<sup>1</sup> But the communities that host this energy development often vociferously oppose it and use local ordinances and state and federal environmental laws to stall or block it. Potential policy responses include removing local control entirely or substantially reducing environmental regulation of renewables to allow for rapid development. But a superior approach would balance national, state, and community interests without substantially slowing down renewable energy development.

## THE RAPID GROWTH OF U.S. RENEWABLE ENERGY

U.S. renewable energy development has skyrocketed in recent years. In 2020, the Energy Information Administration projected that U.S. solar generating capacity in 2019 and 2020 would increase by 65% from 2018 capacity (U.S. Energy Information Administration

2020a). And in 2020, approximately 44% of new U.S. electric generating capacity installed will be wind generation, and 32% will be solar photovoltaic<sup>2</sup> (U.S. Energy Information Administration 2020b).

Markets are responsible for much of this change. Wind and solar energy are simply cheaper than most other forms of electricity generation in some parts of the United States (U.S. Energy Information Administration 2020c). But states have also driven the rise of renewables through renewable portfolio standards, clean energy requirements, and carbon reduction goals. As the widespread, negative effects of climate change become more apparent, so, too, does the need for an even faster transition to low-carbon energy (NC Clean Energy Technology Center 2019; Center for Climate and Energy Solutions 2020).

Some states have accordingly called for a streamlined approach to the permitting of renewable energy that would reduce the regulatory burden on developers (Governor Andrew Cuomo 2020). And there is growing discussion in the broader scholarly and policy community to substantially exempt renewable projects from environmental regulation due to the urgency of the climate crisis—the largest environmental problem of our time.

<sup>1</sup> In recent years, renewable energy—particularly onshore wind energy—has generally outcompeted coal-fired energy in terms of price. Market forces are of course also pushing certain fossil prices down, however, as shown by the drop in oil prices caused by Russian-Saudi price wars and a major drop in demand due to COVID-19.

<sup>2</sup> Some of these projections are likely to change because COVID-19 is affecting the renewable energy industry, among many other industries. The Energy Information Administration has issued a new short-term energy outlook that addresses COVID-19. The EIA still projects that renewable energy will be the “fastest growing source of electricity generation in 2020,” with 5% less wind energy and 10% less solar energy capacity added than it previously projected. Energy Info. Admin., Short Term Energy Outlook (Apr. 2020), [https://www.eia.gov/outlooks/steo/pdf/steo\\_full.pdf](https://www.eia.gov/outlooks/steo/pdf/steo_full.pdf).



## COMMUNITY IMPACTS OF RENEWABLES

The drive to rapidly develop renewables conflicts directly with some community interests.<sup>3</sup> Many local governments and their constituents—even those that strongly support renewable energy in theory—vehemently oppose individual renewable projects sited within their communities (Roth 2019). This is understandable, given that renewable energy projects require large amounts of land and bring industrial development into previously sleepy, often rural communities (Trainor et al. 2016).

Large trucks rumble over local roads, carrying equipment for the project during the construction phase, and diesel equipment on site during this phase stirs up dust and produces air pollution. Once installed, wind towers and turbines have (Federal Aviation Administration-mandated) blinking lights that bother residents at night. Residents also complain of noise, shadow flicker (shadows cast by moving turbine blades), and visual impacts.

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Solar farms are often less visible than wind energy developments, which tend to be located at higher elevations, but communities sometimes object to the clearing of trees for solar farms or the displacement of farmland. When renewable energy development occurs in clusters—as it sometimes does in areas with particularly strong and consistent winds, for example—it can also overwhelm communities due to the sheer number of projects.

Residents' objections could be dismissed as typical “not in my backyard” (NIMBY) or “nowhere on planet earth” (NOPE) arguments—arguments that scholars and policymakers often refer to pejoratively (DuVivier and Witt 2017). But although certain communities tend to oppose any change whatsoever, certain local objections are valid and important. There are some good reasons for being NIMBYist. Residents are often attached to a treasured local landscape, or even a view from a particular part of town. These landscapes become part of people's identities and are sometimes intertwined with traditions shared across several generations, such as recreating in the local swimming hole, or climbing a mountain to watch fireworks on the Fourth of July.

Take one example from Antrim, New Hampshire—a town within a region that generally supports green, liberal causes but vehemently opposed a local wind project. In response to residents' concerns about marring the local landscape, the wind developer offered to reduce the number of turbines in the proposed project. One resident objected: “But one less turbine means we can still see nine turbines from the boat launch at Willard Pond,” a treasured, largely undeveloped water body popular for swimming, canoeing, kayaking, and wildlife viewing (Evans 2015).

The legitimate reactions that occur as part of NIMBYism can be helpful in revealing the unique local concerns that a developer or regulatory body might overlook. They can also potentially push development in a more positive direction. For example, opposition to large-scale renewable projects might encourage more rapid

<sup>3</sup> The community interests that I focus on here are the interests of residents in the communities in which renewable energy infrastructure is located. There are, of course, other community interests and broader interests that are important but are not the focus here. For example, renewable energy often brings cheaper electricity to communities. See, e.g., Illinois Commerce Comm'n. v. Fed. Energy Reg. Comm'n, 721 F.3d 764, 774 (7th Cir. 2013) (noting “cost savings of some \$297 million to \$423 million annually” due to transmission line upgrades that would import cheaper wind power to the region). But ambitious renewable energy requirements can increase the cost of electricity in some regions, thus causing higher energy prices for retail customers.

deployment of rooftop solar—which has the potential to provide at least 39% of this country’s electricity given the current locations of available rooftops (Gagnon 2016). Or energy efficiency projects could replace the need for new generation.

But when the choices are between a large-scale renewable plant built in a community that strongly objects or a natural gas plant built in a community that resists less vocally, what can a policymaker do? NIMBYism that blocks large renewable projects altogether, or that delays them for years on end, is problematic.

## ENVIRONMENTAL IMPACTS OF RENEWABLES

Renewable energy projects do not just affect local landscapes or roads during the construction phase. They also have environmental effects that fall at the local level and beyond. Wind farms kill bats, butterflies, and birds—although at a lower rate than many other forms of development (Sibley Guides 2010). Wind and solar farms, when built in certain locations, impact endangered species such as the desert tortoise, prairie chicken, and sage grouse (Murphy 2013). (Other studies, however, suggest that renewable projects and renewables can potentially co-exist.) (U.S. Geological Survey n.d.)

On a lifecycle basis, wind and some types of solar also require more land than natural gas, coal, geothermal, and nuclear power, and they therefore disrupt and fragment more habitat (McDonald et al. 2009). Further, like oil and gas and other industrial development, they cause soil erosion and can disrupt valuable topsoils during the construction phase. And if renewable farms are not properly decommissioned at the end of their useful life (approximately 20 years for wind, and 25 to 40 years for solar photovoltaics), they can leave dangerous infrastructure behind (National Renewable Energy Laboratory n.d.).

## REMOVING OR STREAMLINING LOCAL AND ENVIRONMENTAL REGULATIONS IN THE RENEWABLE ENERGY CONTEXT

Despite the community-based and environmental impacts of renewables, the effects of climate change are far broader and more serious, even ignoring the potentially catastrophic tipping point of climate change. The treasured local landscape protected by zoning laws could burn tomorrow, and the wildlife protected by the Endangered Species Act could die as a result of climate-caused drought, parasites, or changes in food availability.

In addition to the sweeping effects of climate change, coal and natural gas—the more dominant forms of energy in the United States—produce far more conventional air pollutants than renewables and therefore have negative health impacts (Caiazzo et al. 2013). There are accordingly compelling arguments to permit as many renewable projects as quickly as possible, and many would argue that this requires dispensing with a variety of environmental regulations that apply to renewables and preempting local zoning and other regulations that substantially delay renewable projects. But there are many ways to speed up review of industrial projects, and not all of them require such drastic approaches.

## CALIBRATED PREEMPTION OF LOCAL CONTROL

In attempting to hasten renewable energy project approvals, states can prevent the bad parts of local NIMBYism—opposition to anything that disrupts the status quo—yet preserve some of its legitimate pieces. They can do this through careful preemption that does not prohibit all local authority over renewables but only some of it.

Some states, for example, require a state energy siting committee rather than a local government to approve the location of a renewable project, but they give local governments meaningful input within the state siting processes. (This can still make local residents’ participation in the siting process more difficult than it is

with local control over siting, however, if residents have to travel to the state capital to voice concerns.) Or, as in Oregon, as part of the siting process, the state allows developers to obtain either local land use approval or approval from the state-wide siting council, which ensures compliance with local land use requirements, thus at least preserving the possibility that local governments will still retain input in the process (Oregon Statutes, Chapter 345).

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Other states place a legislative or regulatory ceiling on local control over renewables. These states, such as Connecticut, New Hampshire, and Ohio, set standards for acceptable noise levels, setbacks of infrastructure from buildings, and other issues (Heibel and Durkay 2016). They also prohibit local governments from implementing rules more stringent than the state requirements.

Some states, however, allow local deviation from the state ceiling in limited circumstances. For example, Wisconsin permits local governments to regulate more stringently than the ceiling if they can show that a more restrictive condition protects public health or safety, does not significantly increase the cost or

decrease the efficiency of the system, or “allows for an alternative system of comparable cost and efficiency” (Phillips 2012). Some states also preempt most local control over energy development but leave specific types of regulations—such as those addressing road damage, emergency response, traffic, lights, noise, and setbacks of energy infrastructure from houses—to local governments. Texas and Oklahoma do this in their preemption of local control over oil and gas development (Texas House Bill 40 2015–2016; Oklahoma Bill No. 809 2015).

### PAYING HOST COMMUNITIES

Beyond limiting local control while still allowing for meaningful local input, local buy-in for renewables can also grow when host communities receive benefits. Governments can require or strongly incentivize developers to negotiate with communities for agreements such as community benefits agreements or host community agreements, in which the energy project moves forward but developers commit to mitigating local impacts, donating land or money to offset the impacts, or otherwise addressing community concerns.<sup>4</sup>

The federal government has incentivized this type of negotiation for offshore wind by prioritizing bidders who can show that they have reached a community benefits agreement with the shoreline community that will be impacted (Bureau of Ocean Energy Management 2014). And New York State, in the governor’s proposed push to streamline renewable permitting, will give electricity bill discounts to residents in communities that host renewable development (Governor Andrew Cuomo 2020).

### EXEMPTING RENEWABLES OR APPLYING A LIGHTER VERSION OF ENVIRONMENTAL LAWS

In terms of lessening the environmental regulatory burden on renewables—for a variety of laws that apply to renewable energy projects—federal, state, and local governments can exempt these projects from laws

<sup>4</sup> A potential risk is that requiring or strongly incentivizing negotiation could give the community too much control, essentially allowing it to tie the hands of the developer unless the developer promised large sums of money to the community. Some legal doctrines, however, such as the federal takings doctrine for exactions, and limitations on “contract zoning,” help to constrain excessive community demands.

altogether. Indeed, the oil and gas industry operates under several major federal statutory exemptions.

For example, many wastes from oil and gas development—even wastes with hazardous characteristics—are exempted from the hazardous waste portion of the federal act that applies to land disposal of wastes, the Resource Conservation and Recovery Act (RCRA) (U.S. Environmental Protection Agency 1988). This allows oil and gas developers to store large volumes of liquid wastes in open pits at the surface of well sites—a practice that would not hold up under the hazardous waste portion of RCRA. And all hydraulic fracturing, with the exception of fracturing that uses diesel fuel, is exempted from the Safe Drinking Water Act, which requires an assurance that injection will not endanger underground sources of drinking water.

Other energy exemptions are more targeted. For example, some small hydropower projects are exempted from licensing under the Federal Power Act, although they still must comply with state and federal wildlife laws, among other laws (Federal Energy Regulatory Commission 2020).

Specific activities within an industry can also receive exemptions from environmental laws, such as categorical exemptions under the National Environmental Policy Act (NEPA), which requires review of the environmental impacts of federally-approved or federally-funded projects. Professor Jeff Thaler argues that certain aspects of renewable energy projects should receive these exemptions, such as “demonstration, testing, and small-scale projects” (Thaler 2012).

The justifications for exempting an entire industry from certain environmental laws are typically based on the high costs of compliance, which would make the development infeasible, and the importance of the industry. For example, when the EPA exempted many types of oil and gas wastes from the hazardous waste portion of RCRA, it cited the “serious economic impacts that regulation would create” for the industry and the concern that regulation would delay new oil and gas production, thus “disrupting the search for new oil and gas deposits,” which was viewed as a very important economic activity in 1988 (Environmental Protection Agency 1988). Similar justifications easily apply to

renewable development, which many states deem to be an essential means of slowing climate change.

In an extreme example of compliance costs, Cape Wind—an offshore wind project that never came to fruition—was proposed in 2001 and finally abandoned in 2017. In the years between, the company successfully defended more than 24 lawsuits, many of which addressed (ultimately unsuccessful) arguments that the company had failed to comply with various federal and state environmental statutes (Davidson 2018).

Despite the importance of renewables, renewable energy facilities do not operate under broad statutory exemptions. However, along with oil and gas operators and other industries and individuals, they enjoy (at least for now) agency promises of a “light touch” under certain environmental statutes. For example, the Migratory Bird Treaty Act is technically a strict liability statute with no safe harbor for developers, meaning that even if an oil or gas operator or wind energy company does not intentionally kill a bird, the company can be criminally liable for the death.

But several cases have interpreted the statute as requiring that an action be directed at birds in order to trigger liability, thus eliminating the strict liability nature of the statute (United States v. Citgo Petroleum Corporation 2015; United States v. Brigham Oil & Gas, L.P. 2012). And the Fish and Wildlife Service within the Department of the Interior, which is tasked with enforcing the statute, has issued a memorandum with a similar interpretation (U.S. Department of the Interior 2017). The Service has also proposed a rule that defines the MBTA as only applying to “conduct intentionally injuring birds” (U.S. Department of the Interior 2020).

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## REDUCING THE TRANSACTION COSTS OF REGULATION

Even when substantive laws remain in place at the local, state, and federal levels, and fully apply to renewable energy development, the costs to developers of complying with these laws, and regulatory officials' costs of designing and applying these laws, can be reduced. The administration of existing laws in a particular sector, such as the renewable energy sector, can be shifted to a regulatory agency that focuses nearly exclusively on that sector.

When an agency administers regulatory issues for just one sector it can build up expertise in this area, thus potentially reducing the time and effort needed to review permits and apply laws to projects. Relatedly, the agency can be assigned to administer all of the laws that apply to that sector, and to do so within one process, thus consolidating the review process. And the time limit for agency review of project compliance with all laws can be shortened.

Governor Andrew Cuomo proposed all of these steps in the Accelerated Renewable Energy Growth and Community Benefit Act in February 2020, arguing that this expedited review will be necessary to meet New York's aggressive climate goals (Governor Andrew Cuomo 2020). Specifically, he proposed to "consolidate the environmental review and permitting of major renewable energy facilities to provide a single forum" for reviewing large environmental projects. Under the proposed law, a new Office of Renewable Energy Permitting within the state's Department of Economic Development would conduct all environmental permitting for these projects under a shorter timeline of six months to one year (Governor Andrew Cuomo 2020). In contrast to this expedited timeline, renewable projects permitted at the state level sometimes face a 12- to 18-month permitting timeline, as in Oregon (Stoel Rives 2018).

In the fossil fuels context, Congress has imposed shorter timelines for NEPA review for certain favored energy projects. For example, it has required that public hearings and final decisions under NEPA be completed within a specified number of days following the project application (Thaler 2012).

Other, even simpler steps can make regulatory compliance easier for industrial actors. Agencies can post regulatory checklists that pull together and clearly summarize all requirements that apply to particular types of projects. Agencies can also hire staff whose sole function is to help developers navigate the regulatory process, or independent ombudsmen can play this role. Further, agencies and legislatures can streamline and clarify the text of laws to make requirements more understandable, reduce paperwork burdens by providing for e-filing and approval, and have multiple agencies that administer similar requirements jointly approve projects.

For example, renewable energy developers building generation or transmission in wet areas typically must obtain state approval for dredging and filling in wetlands in addition to a federal dredge and fill permit issued by the Army Corps of Engineers. When the state and Corps join forces and allow for one submission of project data to the state and the Corps and jointly process permit applications, this can save time and resources (U.S. Army Corps of Engineers n.d.). Oregon follows a similar joint permitting process for wind energy under a Memorandum of Understanding between the Oregon Energy Facility Siting Council and the Bureau of Land Management<sup>5</sup> (U.S. Department of the Interior, Oregon State Office 2009).

## PRE-SELECTING IDEAL PROJECT LOCATIONS

Another method of reducing regulatory burdens on renewable energy without wholly exempting these projects from environmental law is having a government agency assist in identifying sites that are likely to pose lower regulatory burdens—for example, sites with relatively few endangered or threatened species and no state- or federally-protected wetlands. Governor Cuomo has proposed this approach as part of the Accelerated Renewable Energy Growth and Community Benefit Act. The Act will encourage "Build-Ready" projects through which the New York State Energy Research and Development Authority (NYSERDA) will consult with other state agencies to conduct feasibility assessments

<sup>5</sup> Despite the seemingly obvious appeal of these types of streamlining, they are perhaps not more prevalent due to the difficulties of encouraging agency officials acting within separate "silos" to collaborate, and due to other bureaucratic inertia.



for sites and complete design and planning activities. It will then auction off these sites as a “fully de-risked package for private developers to construct and operate projects at these sites”<sup>6</sup> (Governor Andrew Cuomo 2020).

Under the Obama Administration, the federal government operated a similar program called “Smart from the Start” for renewable energy projects on federal lands (U.S. Department of the Interior 2016). Through this program, the Department of the Interior identified ideal renewable energy sites from the perspective of resource availability (adequate wind or sunlight) and minimal resource conflicts. It then incentivized developers to select these sites through a combination of financial incentives and streamlined leasing for developers.

The federal government and states have also engaged in broader projects that help developers more quickly select sites. These include, for example, programmatic environmental impact statements that broadly investigate environmental impacts in a large geographic area, large-scale identification of areas in which renewable energy resources are abundant and transmission corridors should (or will be guaranteed to) be built, and data acquisition that details the strength and persistence of wind and sunlight at particular locations (Argonne National Laboratory n.d.; National Renewable Energy Laboratory 2016).

## THE DANGERS OF STREAMLINING AND EXEMPTIONS

Approaches that limit the reach of environmental laws, make compliance less burdensome, and constrain communities from blocking or substantially delaying renewable energy development are imperative. Climate change is a massive problem, and the transition to renewables needs to be rapid and aggressive. Yet forcing thousands of new renewable energy projects on reluctant communities, and ignoring

all of the environmental impacts of these projects, would be hugely problematic.

[F]orcing thousands of new renewable energy projects on reluctant communities, and ignoring all of the environmental impacts of these projects, would be hugely problematic.

First of all, this approach would silence legitimate objections and concerns, some of which could be addressed without banning or even substantially delaying renewable energy projects. And in silencing objections, the approach threatens to stifle the voices that already have been heard too infrequently; it could therefore perpetuate and expand current, and serious, environmental justice problems.

Secondly, if the focus is on permitting large-scale projects, this forces one, singular vision of renewables on the United States. This marginalizes the importance of projects like rooftop solar and back-up home batteries, which, as noted above, could potentially provide 39% of the nation's electricity (Gagnon et al. 2016). Rooftop solar does not require any additional land, it avoids the need for massive new transmission lines or generation infrastructure, and it can provide a more secure and resilient form of electricity, particularly as storms become more frequent and severe. Centralized renewables are essential, too, but rooftop solar should not be forgotten, and states currently

<sup>6</sup> There is a potential risk that the state, in an effort to herd developers to these pre-selected sites, might over-regulate sites not selected by the state as priority sites, thus generating high prices within the auction. But if the state does an adequate job of focusing on priority sites that have few resource conflicts with other land uses, protected wildlife, and other important assets, then this herding might be beneficial, particularly if the auction pricing can be reasonably controlled through careful design and monitoring.



have very limited mandates for it (NC Clean Energy Technology Center 2017).

Third, and relatedly, pushing forward large new generation and transmission projects without public buy-in will entrench infrastructure for years to come, creating a sort of energy path dependence.

A final concern involves the challenge of “just transitions” in energy (Welton and Eisen 2018). Rapid energy transitions to renewables will effect large changes in communities that previously relied on fossil fuels; the economic bases of entire towns and states will change in the course of a few years. Support for the individual workers and communities impacted by this transition will be essential. And it is critical that the benefits of the new industry—in this case, renewables—flow to the communities that need the benefits the most, including low-income communities (Gallucci 2019).

Many of the states that have passed ambitious clean energy standards, such as New Mexico and Washington State, also have enacted important “energy transitions” legislation to address these concerns (New Mexico S.B. 489 2019; Washington S.B. 5116 2019). For example, New Mexico’s Energy Transition Bill creates a fund to support displaced workers, including, among other programs, paying for training and apprenticeships,

and an Economic Development Assistance Fund for communities that have lost their primary economic base. But if renewables are pushed through without adequate attention to the communities and people left behind, this will create negative economic and social disruptions.

There is no question that we need centralized renewables and massive investments in new transmission infrastructure to seriously tackle climate change. Yet this can be accomplished—and in relatively rapid fashion—with community input and some attention to the non-climate-related environmental impacts of renewables.

## A PATH FORWARD

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Finding a balance between rapidly transitioning to renewables and ensuring environmental and social protections is a challenging endeavor. But the answer likely does not lie in wholly preempting local control, or broadly exempting renewables from most environmental statutes. Partial, targeted statutory and regulatory exemptions; limits on local renewable development bans coupled with opportunities for local input; and carefully-designed just transitions statutes will be key.

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