



Energy Decarbonization

To Decarbonize, Let's Rethink Permitting for Large Infrastructure Projects

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In 2009, in the midst of the Great Recession, Congress passed an \$800 billion stimulus bill that included roughly \$90 billion for a suite of low-carbon energy, efficiency, and transit programs to facilitate decarbonization efforts. Unfortunately, building these projects on time and on budget was a struggle for developers. The reason? Projects were plagued by a burdensome permitting process that allowed local opposition — often in the name of the environment — to hold up new development indefinitely via lawsuits, changes to local zoning laws, and other long delay mechanisms.

This must not happen again. For the sake of the climate, we need a streamlined regulatory regime and an environmental ethic that weighs local environmental impacts against the urgent need for critical clean energy infrastructure.

The economic downturn wrought by the COVID-19 pandemic promises to be worse than the 2008 crisis, and while current policy conversations are understandably focused on the public health and unemployment crisis at hand, later recovery efforts will focus on opportunities for rebuilding the economy. Public works projects, and other publicly financed and subsidized projects, play an important role in these efforts, and to the greatest possible extent, these projects should boost labor demand and US productivity while also ensuring the big infrastructure projects we need to reduce emissions are built alongside the traditional roads, bridges, and water systems. That means new long distance, high-capacity transmission, large-scale wind and solar development, carbon dioxide pipelines, and much else.

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But in order to ensure these projects are shovel-ready, regulatory reform must be a component of any infrastructure stimulus package. However, many environmental organizations have a knee-jer reaction to any efforts to reform the nation's bedrock environmental laws, such as the National Environmental Policy Act (NEPA). While this law and others play a critical role in protecting the nation's natural resources and wildlife, it's also important to acknowledge that some form of regulatory reform will be necessary in order to decarbonize multiple sectors quickly. Across all federal agencies, the average Environmental Impact Statement (EIS) [completion time](#) between 2010 and 2017 was 4.5 years. Given the pressing need to stimulate the economy, build critical infrastructure, and decarbonize quickly, streamlining can't become a taboo topic in the conversation around economic recovery, especially not if that recovery incorporates efforts to build solar, wind, transmission, and CO2 pipelines. We need this infrastructure, and we need it to be developed quickly and in a cost effective manner.

While the current administration has not demonstrated many good faith efforts to compromise on regulatory reform with the environmental community, the seriousness of the economic downturn and the possibility of a new administration next January present opportunities for progress. Therefore, the environmental community must identify best practices for siting large-scale infrastructure and develop recommendations for the best way to reform the environmental review process and streamline these projects. While NEPA is a powerful environmental safeguard, it currently gives equal voice to NIMBYism and fringe environmental groups that oppose any impact on the environment, regardless of how those projects facilitate decarbonization within the broader context of climate change.

And those broader-scale climate benefits matter. Large-scale solar, geothermal, and onshore and offshore wind projects will be a critical component to decarbonizing the power sector and supporting increased electrification of other sectors.

Identifying project sites with low conflicts is an important first start. An example of smart landscape level planning is the [Desert Renewable Energy Conservation Plan](#), which facilitated renewable energy projects across 10.8 million acres of public lands in the desert regions of seven California counties, while also striving to balance wildlife and ecosystem conservation. This multi-

year project received input from the California Energy Commission, California Department of Fish and Wildlife, the U.S. Bureau of Land Management, the U.S. Fish and Wildlife Service, and local communities.

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Nonetheless, this plan was still opposed by local environmental groups, which generally opposed a large infrastructure projects on public lands. One group [stated that](#): “Instead of massive bulldozing of desert ecosystems and fragmentation of rural communities, we propose an alternative that utilizes the California Energy Efficiency Strategic Plan, which is already state law. Enough rooftop and parking lot sites exist to more than fulfill the California electricity need, as well as pushing for more energy efficiency to save energy.”

While many environmental groups argue for localized distributed generation over new large scale projects, this strategy is more of a hindrance than help in efforts to deploy clean energy. Large-scale projects benefit from economies of scale, are far more cost-competitive with fossil fuels, and can bring more megawatts of clean energy online on a much shorter timeline.

Fortunately, careful, collaborative planning was enough to cement the success of the DRECP, creating a model that should be replicated across all federal lands. Indeed, Senators McCally (R-AZ) and Heinrich (D-NM) have introduced the Public Land Renewable Energy Development Act of 2019 (S. 2666), which, like the DRECP, would identify priority areas for wind, solar and geothermal development on federal lands, while ensuring wildlands and wildlife are protected through smart planning and siting.

Offshore wind is another valuable source of new jobs and clean energy. But similar challenges have met efforts to develop large offshore wind farms along the east coast. The infamous Cape Wind Project, which was sited in the shallow waters of Nantucket Sound, met strong opposition from wealthy property owners and environmental groups. Opponents spent over a decade delaying the project by [repeatedly challenging](#) legal rulings that favored the developer. Luckily, modern technology allows offshore wind farms to be built further off the coast so that they don't impact

viewsheds, though opponents still list [potential impacts](#) to wildlife, the fishing industry, and recreation as top concerns.

In addition to large-scale renewable energy projects, policymakers also need to ensure the transmission to support variable wind and solar is developed. Within the US, lack of transmission and the resulting grid congestion is already limiting renewable energy development. Until we have affordable and scalable long-duration energy storage technologies to balance out the variable nature of wind and solar, we will need to balance demand and supply with existing transmission technologies. The cost of upgrading existing transmission, building new transmission, and the associated infrastructure has severely limited developers' ability to bring additional wind and solar farms online. According to the Clean Energy Alliance, out of the 5,000 MW of proposed wind and solar projects that were being analyzed for connection to MISO's western region, all but 250 MW had been withdrawn by the end of 2019 due to lack of transmission.

A proposed 120-mile high-voltage transmission line stretching from Iowa to central Wisconsin — the 345-kilovolt Cardinal-Hickory Creek line — has met opposition from the public because developers cannot guarantee that only clean energy would flow down the line. Opponents contend that under federal law all types of generation have equal access to the line, and it would also likely be used to transmit power from coal and other fossil fuels. The same concern has been voiced for the proposed New England Clean Energy Connect transmission line, which will transmit **hydropower** from Canada to the Northeast. Environmental groups also [strongly oppose](#) the line over concerns about the environmental impact of the line itself, even though 72% of the line will be built along existing transmission routes. [E&E News](#) notes that “Opponents say the project would create environmental damage and hurt homegrown solar, wind and biomass projects in Maine.” But such concerns fail to note that more transmission will be required to bring more clean energy online in the first place, and fossil fuel generation won't be displaced until cheaper sources are developed.

Another category supporting infrastructure is required for carbon removal technologies. Policymakers will need to examine opportunities for supporting emerging negative emissions technologies like Direct Air Capture Facilities (DAC) which will require a network of pipelines and storage basins. Unlike the grid in the case of renewable energy, and roadways in the case of EVs, there is little supporting infrastructure for negative emissions so far. Therefore, deploying this new system of infrastructure will require a new set of permits and a new process for environmental review.

All of these major infrastructure projects should be supported by a future infrastructure stimulus package, and to be shovel-ready, regulatory reform must accompany these investments. If the environmental movement is serious about rapidly decarbonizing the economy, they must accept that some form of streamlining for large infrastructure projects is necessary. Smart policy and careful planning can minimize environmental impacts, but it can't eliminate them.



Lauren Anderson



Lauren Anderson is a climate and energy analyst at Breakthrough.

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