



# SITE WIND RIGHT

Accelerating a Clean, Low-Impact Energy Future



## THE PROMISE

Wind energy is cost-effective, sustainable and clean. Along with improving energy efficiency and supporting a portfolio of clean energy options, developing low-impact wind energy is critical to tackling climate change.

## THE CHALLENGE

Achieving the ambitious targets for wind energy development necessary to meet our climate goals will require quadrupling current capacity in the United States by 2050. Much of the new wind development is likely to occur in the ecologically-rich Great Plains region, home to many of our best remaining native grasslands and associated wildlife found nowhere else in the world, such as prairie chickens, pronghorn and bison.

When poorly sited, wind development can negatively impact at-risk species and important ecosystems in part because it requires large areas of land. These projects can also expect to face more environmental conflicts, which can lead to project delays, higher costs, and even project abandonment, wasting limited resources and time.<sup>1</sup> Through our Site Wind Right strategy, we can reduce the risk associated with these projects and accelerate a clean, low-impact energy future.

## THE OPPORTUNITY



The good news is climate change can be addressed without irreparably impacting treasured landscapes and critical wildlife habitat. In the Central U.S. alone, which accounts for almost 80 percent of the country's current and planned onshore wind capacity, there are more than 1,000 gigawatts development. That is more than 10 times that which is generated today.

Well-sited wind energy can provide a clean, low-impact energy alternative.

## IF POORLY SITED, WIND DEVELOPMENT CAN CAUSE OR CONTRIBUTE TO:

- ➔ **Loss and degradation of habitat** from wind turbines and related infrastructure development, including access roads and transmission lines, which can displace wildlife and cause behavioral changes.
- ➔ **Fragmentation of large habitat areas** that interferes with sensitive species migration, feeding, breeding and other activities. For example, loss and fragmentation of prairie - one of the world's most threatened habitats.
- ➔ **Indirect effects** such as increased predator populations or introduction of nonnative plants.<sup>1</sup>
- ➔ **Bat and bird collisions** caused by wind turbines and their associated infrastructure — notably power lines and towers. Hundreds of thousands of birds and bats are killed annually by colliding with wind turbines in the U.S while millions are killed by transmission lines.<sup>1</sup>

# The Nature Conservancy's Site Wind Right Strategy

Promoting policies and incentives for low-impact wind energy deployment

Advancing the science of low-impact siting

Providing the wind industry and the public with data to support low-impact sitings

Pursuing opportunities to work with the renewable energy sector to advance good siting practices

## THE SOLUTION

Choosing appropriate sites at the outset reduces regulatory and due diligence burdens that arise when projects have significant wildlife impacts. Proactively siting wind development in areas of relatively low conservation impact can accelerate deployment by helping to reduce project approval timelines and project costs.

The good news is climate change can be addressed without irreparably impacting treasured landscapes and critical wildlife habitat. In the Central U.S. alone, which accounts for almost 80 percent of the country's current and planned onshore wind capacity, there are more than 1,000 gigawatts of low-impact wind potential available for development. That is more than 10 times that which is generated today.

By planning and investing wisely, we have more than enough land for wind energy to help meet our renewable energy goals while protecting our most critical lands and wildlife habitat.

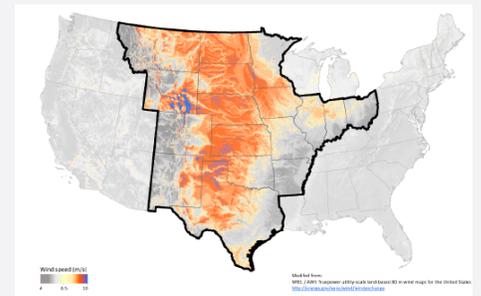
## ONLINE RESOURCES

Using the best available science, The Nature Conservancy created the **Site Wind Right Map** to support early screening and informed siting decisions in 17 states across the Central U.S. It is one source of information developers and power purchasers can consider when making decisions about where to locate wind projects or which projects to invest in. The Site Wind Right Map and data files can be downloaded and used by interested parties. These resources are available at [nature.org/sitewindright](https://www.nature.org/sitewindright).

By planning and investing wisely,  
we can build a prosperous, clean energy future  
in which nature and people thrive.

### What does The Nature Conservancy mean by low-impact or "good" siting?

Our Site Wind Right strategy helps identify areas that are suitable for wind development and that are not known to have high conservation values. We support rigorous application of the U.S. Fish and Wildlife Service's Wind Energy Guidelines and our Site Wind Right Map can serve as one source of information to inform the analysis undertaken when the Wind Energy Guidelines are used.



We also support further refinement of current siting practices and improvements to the science around the effects of wind energy development on species and habitat, including cumulative impacts.

<sup>1</sup> Tegan, Suzanne, Eric Lantz, Trieu Mai, Donna Heimiller, Maureen Hand, and Eduardo Ibanez. July 2016. "An Initial Evaluation of Siting Considerations on Current and Future Wind Deployment." National Renewable Energy Laboratory. Technical Report NREL/TP-5000-61750. <https://www.nrel.gov/docs/fy16osti/61750.pdf>. Loss, S. R., Will, T., and Marra, P. P. 2014. Refining estimates of bird collision and electrocution mortality at power lines in the United States. PLoS ONE 9(7): e101565. doi:10.1371/journal.pone.0101565 ([link](#)).