

Assessing The Impacts Of Siting In Sensitive Areas

Siting a wind farm in a culturally sensitive area requires patience, a clear understanding of the law and constant communication with federal agencies.

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Imagine you are standing at the edge of the Grand Canyon, admiring the enormous expanse of rock and ravines. As your eyes explore the amazing view, you spy something in motion in the distance. You pick up your binoculars, and a cluster of wind turbines comes into focus. Does this ruin your experience of this natural wonder?

Or, say you are in the process of siting a wind farm, and the most optimal location for maximum energy generation has the potential to create background noise and vibration for a nearby memorial site. How do you address this issue?

The process of assessing wind turbine impacts generally has not been well defined at either the federal or state level. When trying to determine impacts specific to cultural resources, the guidelines go from unclear to downright murky.

If you examine the issue outside of the regulatory context, assessing the cultural-resource impacts of wind projects is simple – find out if the project will impact any cultural resources. If it will, work out reasonable solutions to avoid, eliminate or reduce those impacts. However, the regulatory landscape, or lack thereof, adds notable complexity to this process.

Perhaps the biggest obstacle to understanding the impacts to cultural resources is establishing a common definition. When the general public thinks of archaeological sites, the image that often comes to mind is one of scientists dusting off

bones somewhere in a desert. While archaeological sites are part of the picture, the full definition of cultural resources is much broader.

Just as natural resources can include wetlands, forests, mountains and other natural places, cultural resources include a wide range of places and things. They can be a structure, such as the Washington Monument, or a collection of structures, such as the National Mall in Washington, D.C. Or, a cultural resource can be something that gives a place its identity, such as the St. Louis Gateway Arch or Mount Rushmore. Simply put, a cultural resource is any place that has historic or cultural value.

Cultural resources impact assessment (CRIA) is the process of determining if a particular project will affect cultural resources, to what degree and how best to resolve these effects. While the concept is straightforward, the current reality of the situation is anything but.

Lack of uniformity

When discussing how to best regulate wind turbines, the thought is often to consider them in the same way as those other tall commercial structures that recently appeared in the landscape: cell towers. However, cell towers have the Federal Communications Commission to guide their siting process. To date, no single federal agency has the responsibility for regulating the siting of wind turbines and projects.

While there is no single federal agency in charge of wind facilities, there is federal involvement in the regulatory review of commercial wind farms in two cases: if federal funds, permits or licenses need to be obtained for the project, or if the project is sited on federally owned land.

In either case, the National Environmental Policy Act, Section 106 of the National Historic Preservation Act (NHPA), the Archaeological Resources Protection Act of 1979 and various environmental laws come into play.

But if federal funds or lands are not involved, then these federal laws may not apply. A recent issue of the Journal of the American Cultural Resources Association discussed the role federal agencies currently have with respect to wind farms and CRIA. In his article “Windmill Farms and CRM,” Al Tonetti compares the current status of federal involvement in wind farm impact review to that of the coal industry prior to the Surface Mining Control and Reclamation Act of 1977 (SMCRA).

Before SMCRA, a handful of states regulated surface mining, to varying degrees, but there were no specific federal guidelines. Similarly, wind farms today are regulated mainly on the state level, with the process varying by state.

The first step is to identify which agencies are involved. There may be one or more state-level agencies involved, agencies that focus specifically on rural utility issues, or an entity at a regional or sub-regional scale.

For example, the state-level Ohio Power Siting Board reviews and approves wind project applications. Conversely, in Illinois, these projects undergo a special-use permit process, which is issued at the county level.

For each state, it must be determined if there is a CRIA process in place. The American Wind Energy Association's (AWEA) Wind Energy Siting Handbook, which has information on federal-, state- and local-level requirements, says that state regulations "often establish a process that mirrors the federal Section 106 regulations: identification of historic properties; assessment of effect; and consultation among interested parties to avoid, minimize or mitigate any adverse effects." In addition, "the state agency will typically work closely with tribal and local communities" in this process.

Because the regulatory landscape on the state level is so varied, project developers should review the requirements and best practices of NHPA Section 106. But before undergoing a significant amount of work, check with the relevant state agencies to determine if a more specific process is required.

Identifying potential effects

While the prospect of determining the cultural impacts of a project as substantial as a 200 MW wind farm may seem quite daunting, think of CRIA as a process that requires certain steps to be taken, but that does not involve a specific product or outcome.

This contrasts with other laws such as the Clean Water Act, which requires mitigation if wetland impacts exceed a particular threshold. The purpose of the NHPA and other laws with CRIA requirements is to consider the value of preserving cultural resources, along with other project interests, not to place cultural resources above other project interests.

The first step is to figure out if the wind farm has the potential to affect cultural resources. During project planning, it may be unknown if there are cultural resources, but the fact that nothing has been found and documented does not mean that nothing is there.

So, while a developer may ask where the cultural resources are located, conducting a CRIA under this directive

would lead to a lot of effort in looking for properties, resources or sites in places that may not be affected at all by the wind farm. It is better to determine where the wind farm will have effects. This is called the area of potential effects (APE).

Wind farms have four different areas of APE:

- Direct physical impact, including the construction limits of turbines, underground lines, access roads and substations or other facilities;

- Temporary use, including construction staging areas or temporary access roads;

- Visual, which can include areas extending beyond the physical limits of the project; and

- Indirect, including any areas outside the project limits that may be reasonably expected to change indirectly as a result of the wind farm, such as road construction.

The height and number of towers, the extent of underground disturbance, surrounding topography, proximity to population centers and the potential for additional development are some examples of the variables that define the APE.

Once the APE is defined, the next step is to determine if any cultural resources are within it. This does not mean the project developer must scour every inch of the APE. The regulatory requirement is that a reasonable and good-faith effort be made to identify historic properties. To determine what constitutes a reasonable and good-faith effort, contact those who might be concerned about impacts to cultural resources.

In most cases, this is the State Historic Preservation Officer (SHPO), but it may also include Native American tribes, municipalities and local residents, among others. Work with the SHPO to identify these groups and involve them early in the process. Their participation can identify the cultural resources that are the most important to the community.

The techniques used will depend on what level of detail the project warrants. A more detailed method may be appropriate for a 10-acre project proposed adjacent to a densely populated area in New England, for example. Or, for a 30,000-acre wind farm on previously cultivated land in the Midwest, some base-

line research and review of high-priority areas may be the way to go.

The objective of this process is not to identify all the resources in the APE. Rather, the goals are to obtain sufficient information to know what resources are in the APE, understand the potential effects and determine whether the project, if it moves forward, will have a significant impact on the resource.

Understanding potential impacts

The third step is to determine if there are any impacts to cultural resources in the APE. Not all potential projects will affect cultural resources the same way. The setting, and the perception created by that setting, is what may be altered by indirect effects.

The perception of impacts resides with those who value these cultural resources. With the information collected from the surveys and stakeholder involvement, one of three decisions can result: no effect, no adverse effect and adverse effect.

The no effect determination means either there are no cultural resources present in the APE or, if there are, the project will not affect the area. This essentially brings the process to a close.

The no adverse effect determination means that the project will have effects on one or more resources, but these effects are not to the degree that they will affect the property's status. This also effectively ends the process.

Finally, the adverse effect determination means that the agency has decided the project will have adverse effects, meaning that if it is allowed to proceed, it will permanently change a significant cultural resource. For Section 106, this result triggers additional steps in the process to seek a resolution of any adverse effects. **SP**

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