

HOW TO SOLVE SITE ACCESS CHALLENGES ON WIND PROJECTS



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INTRODUCTION

Wind installations are on the rise as utilities and corporations strive to increase their reliance on clean energy even when the sun doesn't shine. With wind farms trending larger and larger, developers and project managers look to complete construction as quickly and efficiently as possible. Reliable site access solutions play a key role, and finding the right [access partner](#) is essential for success.

Lack of safe and efficient site access can potentially lead to safety incidents, unexpected expenses and project delays. By anticipating challenges and understanding the optimal solutions, you can avoid setbacks and help ensure that your onshore wind project goes smoothly from initiation to restoration.

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PUT SAFETY FIRST

Wind project owners and managers juggle many responsibilities. The first and foremost is the responsibility to provide safe working conditions. Partnering with an experienced, turnkey access provider can help you mitigate risks and keep safety incidents to zero.

Creating safe access through challenging terrain

Hills, open plains, mountain gaps, wetlands—no two wind farm sites are the same. Some of the most advantageous locations are the least accessible.

Wind farm sites located on mountain slopes may have rough, uneven terrain, streams to cross and a wide variety of weather and ground conditions to contend with. Wind farms located in or near wide-open areas such as crop fields, deserts or plains may have soft soils and low-lying wet areas.

When the terrain is challenging, access mats are often the best way to boost safety while improving efficiency. Access matting can reduce the risk of vehicles and equipment getting stuck in soft soil, tipping over due to uneven or unstable terrain or slipping in wet conditions. The right mats provide safe, stable access even in the face of mud, rain, snow and spring melts.

When evaluating access matting companies, look for one that provides custom solutions. They can recommend and supply the right types of mats for the site.

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Supporting cranes and their loads

Transporting the massive cranes used to install turbines requires access roads that can safely support their weight. Often, because of a crane's large size and slow speed, it can't travel on public roads.

Once a crane reaches the turbine installation site, a suitable work platform is critical to preventing crane tip-overs and injury to personnel on the ground. The platform must be strong and stable enough to support, without shifting or buckling, the crane's weight plus the weight of heavy loads such as turbine blades as they are being moved. [Crane mats](#) are a go-to solution. To create these mats, the access partner may leverage extra-long, 12-inch-thick timber mats installed in layers and connected with steel bolts. Work platforms made of crane mats can be moved around the site the project progresses.



Heavy-duty hardwood crane mats can act as:

- Platforms for the heaviest equipment
- Work pads and staging areas
- Temporary roads for cranes and other equipment traveling over swamps, marshes and other areas with unstable ground



CREATE A SITE-SPECIFIC ACCESS PLAN

Well before project implementation, you'll need to create an access plan. Turnkey access providers such as [United Rentals Matting Solutions](#) will develop a plan for you. They get the lay of the land through site visits, aerial photos and videos, topographic maps, soil reports and other data. Next, they develop an access plan based on a host of factors, including:

- The soil and terrain
- Property lines and rights of way
- The type and size of equipment you plan to use
- The materials you will transport
- The frequency of temporary road use
- The length of the project
- Environmental regulations
- The presence of sensitive ecosystems



For long projects, temporary gravel engineered roads may be an option for vehicle traffic, but they are expensive and time-consuming to build and remove. Construction access mats can save time and money in comparison.

Benefits of construction access mats

Access mats protect the ground, reduce wear on heavy equipment, minimize the need for site restoration and are easy to remove—and reuse—after project completion.

For wind farms, 3-ply laminated mats and 12-inch-thick timber mats are common choices due to their extreme durability. When equipment must traverse wetlands or marshes, engineered hardwood mats that float are an excellent option. For lighter-duty work areas, composite mats or cross-laminated timber (CLT) mats may be used to optimize costs.

An access partner will choose the most appropriate and cost-effective matting and the best installation methods. They will also plan for and provide working platforms and material staging areas.

Access mat benefits

- Safety for equipment and people
- Ground protection
- Erosion control
- Easy installation and removal





TAILOR ACCESS SOLUTIONS FOR MAXIMUM SUSTAINABILITY

Developers may be responsible for avoiding damage to the environment and performing site restoration to reverse any damage that occurs. Minimizing disruption to the ground is often a high priority.

Wind farm projects must also comply with various state and federal regulations based on their location. Complying with environmental regulations helps you avoid costly lawsuits and hefty fines and preserve your reputation.

By planning for maximum sustainability from the outset, you not only practice environmental stewardship but also foster a positive public perception of your project. A full-service site access provider will create an access plan with sustainability in mind.

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Mats for increased sustainability

Mats used for temporary roadways and equipment platforms minimize damage to the ground. They distribute downward pressure to prevent soil compaction, which contributes to erosion. They also help protect delicate marshes and swampy areas and other sensitive ecosystems.

Maintaining SWPPP compliance

Most wind project owners are required to create and follow a Stormwater Pollution Prevention Plan (SWPPP). That document outlines how you intend to control erosion and prevent runoff from entering waterways.

Working with an access partner experienced in SWPPP compliance gives you a major advantage. These companies know how to mitigate stormwater pollution, meet reporting requirements and provide updates to the SWPPP as conditions evolve.

Limiting restoration costs

Returning the site to its original condition or as close as possible is often required by landowners or regulatory authorities. It may involve referencing original site surveys and photos from site visits, performing earthmoving work and replanting areas that were cleared of vegetation. A full-service matting provider can perform site restoration work for you.

Minimizing the impact on the environment at each stage of the project reduces the amount of restoration you'll need to do. Mats and other erosion control measures help. (These other measures include installing geotextiles, turbidity barriers, concrete blocks and silt fences.) Mats also make cleanup faster and easier in transitional areas by keeping tires and treads from tracking excessive dirt and debris around the worksite and beyond.

A full-service access provider can perform site restoration work for you.





PARTNER EARLY WITH A FULL-SERVICE MATTING PROVIDER

When it comes to site access, it's possible to overcome even the most challenging conditions with the right team, materials, equipment and expertise.

Early collaboration is key

Bringing in an access partner from the beginning of project planning sets you up for success. Unfortunately, access solutions are often left to the last minute.

The sooner you involve an experienced access partner, the better they can plan and forecast, and the more you can benefit from expert insights that could save you time and money. For example, they can reduce your matting costs with strategies such as leapfrogging mats, leveraging used mats where appropriate and using lighter mats for certain applications, which cuts freight costs.

With sufficient time to gather information about the site, create a site-specific access plan, acquire the necessary permits and perform inventory planning, the access solution provider can ensure that the right mats are used in the right places for safe, efficient and environmentally responsible access.

Early collaboration benefits

- Better access planning
- Accurate forecasting and budgeting
- Strategic inventory planning
- Cost savings opportunities

The value of choosing a turnkey partner

Some access matting companies provide mats but no services. A full-service partner with deep wind project experience will help you complete the project on time and on budget. These companies have the experience and knowledge needed to manage unexpected challenges and quickly adjust solutions based on changing circumstances.

Better forecasting through data

One major hidden advantage of choosing a seasoned turkey site access provider is data. A company such as United Rentals can use proprietary historical data from similar projects to accurately forecast your mat needs, which helps you budget appropriately and keeps your spending in check.

A partner with a mastery of forecasting and a huge inventory of mats can help ensure that the mats are available when it's time to install them. Otherwise, you may be subject to supply chain issues that delay the project.

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Professional installation, removal and restoration

A turnkey access company will alleviate the burden of installing and removing mats. At the end of the project, they will remove temporary roads, work platforms and bridges. A pro team can do this with minimal damage to mats, which saves you money. A full-service partner will also perform site restoration so you can move on to the next project sooner.

Help with permits and compliance

Look for a company that is deeply familiar with environmental regulations and will secure the necessary permits for you and create a compliant SWPPP. Taking these checklist items off your plate frees you up to focus on construction. Engaging vendors with a strong focus on SWPPP helps ensure that environmental sustainability remains a cornerstone of your operations.

What a turnkey access company offers

- Custom access plans
- Forecasting
- SWPPP development and compliance
- A robust selection of matting options
- Erosion control strategies
- Cost-savings opportunities
- Mat installation and removal
- Site restoration

READY TO PARTNER WITH A LEADING ACCESS MAT PROVIDER?

United Rentals Matting Solutions, formerly YAK ACCESS, has decades of experience providing custom access solutions for renewable energy projects. We offer turnkey service, best-in-class forecasting and one of the largest mat inventories in North America.

We care about your budget and schedule, not just our own scope of work, and will work with you from the start to create a cost-effective access plan that prioritizes safety, efficiency and sustainability. Our deep knowledge and our commitment to collaboration and communication allow us to respond quickly to changing needs and circumstances throughout the project.

If you have a wind project on the horizon, [reach out to our team](#) to schedule a consultation, get an estimate or learn more about how we can work together.

CONTACT US TODAY



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