

ASK THE EXPERT

By Jeff Forsythe, Principal, McCallum Sweeney Consulting

Putting the Wind in Your Sails

Wind turbine manufacturing facilities present huge opportunities in a developing market, but also large challenges due to the size of the components. Make sure you can meet them.

Q I have to find a suitable site for our first U.S. wind turbine component manufacturing facility. How do I start?"

The Expert Says: Facility location decisions are extremely complex and the wrong choice can impact a company well into the future, so be thorough. I recommend that you consider numerous factors in your decision-making process. The evaluation criteria below can be measured for all types of projects or industries, but wind turbine component projects require a much deeper dive into logistics and labor.

One of the most important criteria is proximity to wind farms, since components are enormous and are both difficult and expensive to transport. Assuming that you have determined the likely locations that your product will be deployed, you next need to solicit property proposals

and begin your in-depth evaluation. Target a property with adequate acreage for current and future growth, ample outside storage, and enough room for onsite rail infrastructure. Port proximity will need to be considered if you plan to ship internationally.

Wind towers, rotor blades, and nacelles are increasing in size, so the

difficulty with transporting equipment over-the-road or on rail is escalating. Trucking oversized loads will require permits in each state traversed, and the permit requirements differ by state (acceptable time of day, weather restrictions, etc). Also, routes may be limited due to traffic congestion or obstacles.

Though most of your product will likely depart by truck, rail access is important if you need to ship well outside of the immediate region. Rail use is typically more cost efficient when heavy equipment must be transported more than 500 miles. Keep in mind that a rail carrier may not be willing or able to serve the property even if an existing rail siding is adjacent. The service provider must first confirm that the equipment will have unimpeded access to their mainline, and then identify a suitable route to an available rail siding close to the wind farm to unload.

An adequate labor pool is important. Whether you are seeking welders for towers, mechatronics specialists for nacelle assembly, or molders/grinders for rotor blades, it is critical that you identify locations where those proficiencies adequately exist, and qualified training institutions are present to upgrade skills as necessary.

Be sure to work with local agencies offering recruiting and screening assistance to identify and hire qualified candidates. Experienced agencies can support your HR department during your growth phases. 



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Property conditions

- Location
- Configuration
- Topography
- Zoning/neighboring land use
- Ownership/cost
- Construction feasibility/cost
- Ingress/egress
- Utility infrastructure
- Environmental

Operating conditions

- Labor market/cost
- Training resources
- Education resources
- Logistics
- Utility services/cost
- Taxes
- Leadership
- Community acceptance
- Incentives

Living conditions

- Attractiveness
- Housing
- Recreation
- Social/cultural
- Education
- Health care
- Shopping
- Hotel/meeting space
- Congestion