

Wind by Rail



Union Pacific's **rail network** consists of over **32,000** miles spanning across **23** states, providing the most **reliable and efficient** mode of transportation for wind components including towers, blades, nacelles and hubs.

In order to support the **future growth** of wind energy, Union Pacific is **investing** in furthering our knowledge, experience, and reach to provide customers with the **best** wind component transportation options.

Safety & Clearance

Union Pacific has more than **7,000** **wayside detection devices** monitoring the condition of freight cars and locomotives in **real time**, with more than **16 million** data points sent **every day**.

Union Pacific offers **dynamic and damage-free** shipping of wind components through our **state-of-the-art** clearance technology, **iClear**. Our methods allow for the **safest, most efficient** route planning among the industry.

iClear provides clearance accuracy for every **1/100th** of an inch.

Service Solutions

Union Pacific offers tailored service solutions designed to provide **efficient, reliable and specialized** transportation of wind turbine components. Our wholly owned subsidiary, **Loup Logistics**, makes it **easy** to ship by rail - getting you closer to projects, maximizing your component deliveries and **minimizing costs**.

- Distribution Center **Access**
- **Specialized Rail Car** Availability
- Full-Service Project Scheduling
- **Real-Time** Inventory Reporting
- Train Management
- **In-Transit** Visibility
- Problem **Resolution**
- **24/7** Customer Support



Wind Distribution Centers

Moving Sustainably

We've committed to spending more than **\$1 billion** on **modernizing** an additional **600 locomotives** through 2025. These changes should provide approximately **350 tons** of carbon reduction **per locomotive per year** and is expected to realize approximately **210,000 tons** in annual emission reduction.

Rail shipping is **75%** more fuel efficient than trucking. **In fact**, in 2022, our customers saved **22.9 million metric tons** of greenhouse gas emissions by **choosing rail over truck**.

By choosing rail over truck to transport a **400MW wind project**, you can reduce your carbon footprint by **3,720 tons** of CO₂.

