

## GEOPIER® SOLUTIONS WIND TURBINES

### UNIQUE CHALLENGES

Wind turbine structures present unique design challenges, including high applied foundation bearing pressures resulting from significant overturning moments, minimum rotational/dynamic stiffness requirements, and total/different settlement design tolerances. Geopier® ground improvement provides site-specific solutions to address these challenges.

### IMPROVED BEARING PRESSURE

Geopier ground improvement systems provide high internal friction angles and soil improvement to allow significantly improved design bearing pressures of 5 to 10 ksf, depending on soil conditions. The improved bearing pressure provides support for the large foundation edge pressures and may also reduce footing sizes, saving time and money on your project.

### SUPERIOR SETTLEMENT CONTROL

Geopier systems are engineered to provide you with a cost-effective approach that meets your specific project requirements. Geopier design-build engineers are experienced in providing superior settlement control for thousands of projects. In addition, site specific modulus testing provides an unmatched level of support and reliability.



Wind Farm, Carroll & Crawford Counties, Iowa

### FOUNDATION STIFFNESS IMPROVEMENTS

The vertical energy imparted during construction results in piers with exceptional stiffness, delivering documented, proven settlement performance. The stiff Geopier elements improve the composite shear modulus beneath the tower foundation, increasing the rotational and dynamic stiffness to the reinforced soil for reliable foundation support. The Geopier design is specifically tailored to deliver the required rotational/dynamic stiffness values specified by tower designers.



Winnebago Wind Farm,  
Winnebago, Iowa



Farmers City,  
Atchison County, Missouri



Forward Wind Project,  
Brownsville, Wisconsin



Barton Wind Farm,  
Worth County, Iowa

Work with regional engineers worldwide to solve your ground improvement challenges.

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