

A photograph showing several tall, dark transmission poles standing in a field of tall grass. In the background, there are trees with autumn foliage and rolling hills under a cloudy sky.

# Hardening the Grid to Withstand Extremes

With the frequency and severity of natural disasters skyrocketing, the need for stronger, more sustainable infrastructure is more critical than ever. American Electric Power-Ohio (AEP-Ohio) chose Valmont® spun concrete poles to withstand extreme weather, as well as resist the corrosive forces of a flood plain.

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**PROJECT:**

American Electric Power-Ohio (AEP-Ohio) Friendship-Portsmouth Transmission Line Project

**LOCATION:**

Southern Ohio

**CHALLENGE:**

Corrosive environments, and increased frequency and severity of storms

**SOLUTION:**

Just under 100 spun concrete poles

In 2020, AEP-Ohio kicked off the Friendship-Portsmouth Transmission Line Project in southern Ohio. The project involved building approximately 8 miles of 69 kV transmission line, rebuilding 14 miles of 69 kV line and upgrading local substations. The area included a flood plain that experiences standing water and seasonal flooding. AEP-Ohio needed infrastructure that could withstand these wet, corrosive environments as well as survive severe weather. They called on Valmont, a partner AEP-Ohio has counted on for more than 25 years.

Valmont was the ideal partner for this project because of its commitment to conserving resources and improving life, putting it at the forefront of infrastructure modernization, providing reliable and eco-friendly options. As a result of the Friendship-Portsmouth Transmission Line Project, Valmont infrastructure helps supply reliable energy to AEP-Ohio customers.

Valmont provided just under 100 spun concrete poles for land along the flood plain. Spun concrete poles are ideally suited for environments that experience water, salt, coastal air, erosion, high winds and swampy conditions. In addition, these long-lasting structures are engineered to survive severe weather. Because of their durability, spun concrete poles reduce and eliminate downtime and costly recovery, making them an economically sound choice to harden the grid.

The Friendship-Portsmouth Transmission Line Project will be complete by the end of 2022. The new infrastructure and transmission line will increase electric reliability, reducing the frequency and length of outages for nearly 1.5 million AEP-Ohio customers.

The National Oceanic and Atmospheric Administration (NOAA) reported that the total cost of U.S. disaster recovery in 2021 was the third highest on record at \$145 billion. Twenty of those disasters cost over \$1 billion apiece in recovery.\*

\*usatoday.com, Rice, Doyle, "2021 was a deadly year for weather: 20 disasters killed more than 600 Americans."