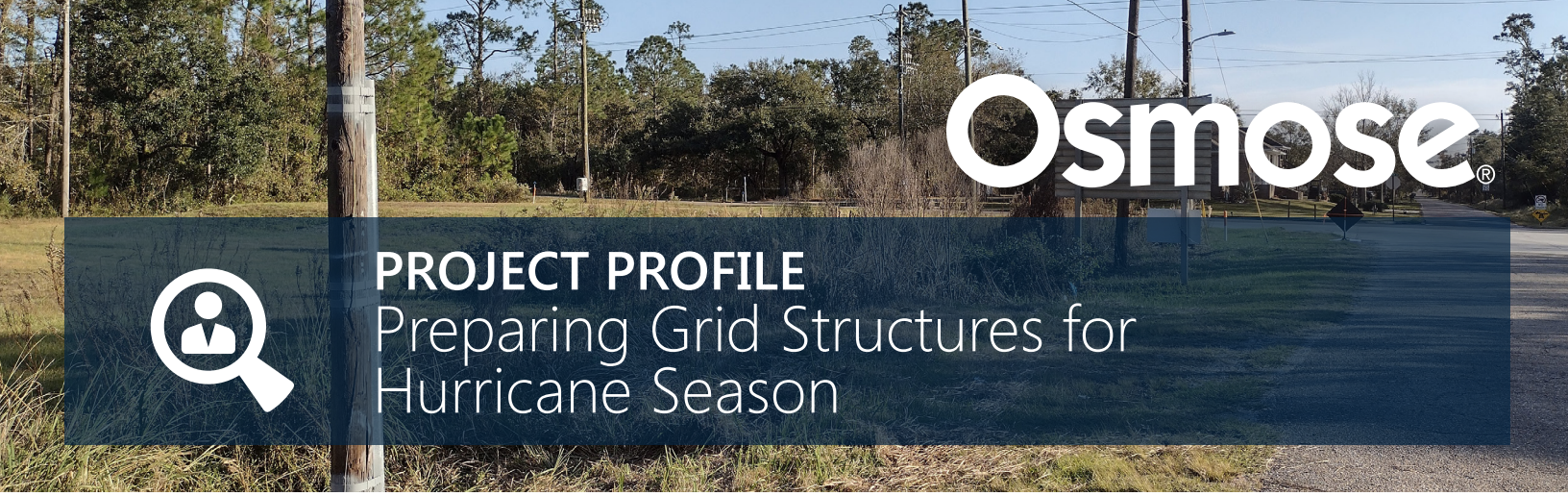

Osmose®

PROJECT PROFILE
Preparing Grid Structures for Hurricane Season

Structural Resiliency™ as a Service Enables Southeastern Utility to Weather the Storm

16,000 poles evaluated for targeted hardening during test phase

60,000 more poles identified for future hardening evaluations

The Situation

The growing number, frequency and severity of extreme weather events continue to make headlines. In 2021, America's Gulf Coast was pummeled by five major hurricanes. Nature's assault on that region's power grid creates many hardships for residents and businesses and enhancing the grid's structural resilience in that area is ever more essential.

The investor-owned utility knew it had to harden its power grid and had allocated funds to do so, but it needed a dependable and defendable plan to support the work. With over 150,000 power poles stretched across the state, to prioritize its spending the electric utility needed to identify which poles could withstand the most extreme weather conditions and which ones required remediation to ensure the best value for its investment.

The Solution

With years of inspection data on the utility company's grid infrastructure, Osmose was uniquely positioned to map a way forward. Using O-Calc® Pro, an advanced structural analysis tool, Osmose combined all available data for a designated geospatial area including communication attachments, conductor size, construction type, and pole condition to create baseline digital models of over 16,000 distribution poles in their coastal area. With digital models in hand, Osmose sent trained technicians into the field to collect additional detailed measurements on a sample of their estimates. They confirmed the digital model's validity with refined pole models using OsmoVision®, the company's digital system for efficiently collecting and processing structural details through a unique mix of artificial intelligence, image analysis, LiDAR, and other advanced technologies.

> Osmose has been a great partner to help us quickly identify weaknesses in our in-service pole plant. The results of their study are being used as the basis of our grid hardening initiative.

Understanding the level of correlation between the virtual load screen results and the sampling of field verified models, the electric utility company was able to prioritize which poles would benefit most from improved structural capacity through wood pole restoration and upgrading methods provided by Osmose's Tough Truss™ solutions, and which poles should be replaced.

Results

Osmose produced an actionable plan to harden a section of 16,000 poles. The pinpointed plan detailed which poles needed reinforcement and which needed replacement. Osmose presented a one-stop solution to bolster structural resiliency to the grid, offering evaluation, planning, and implementation in a complete package. The electric utility has since expanded the program to cover 60,000 poles, providing a targeted plan to be resilient in the face of nature's rising fury.

A southeastern electric utility needed to identify which poles could withstand the most extreme weather conditions and which ones required remediation to ensure the best value for the investment.

To learn more, contact your local Osmose professional, call 770.631.6995, or email resiliency@osmose.com