Steel Pole Inspection and Risk Assessment

Wood-based utility poles have traditionally been used in the electric industry; however, steel poles now provide an attractive alternative. These poles are not susceptible to the same degradation as wood poles, such as rot, but they are vulnerable to corrosion, which can cause catastrophic failure and collapse. While operators have well-developed regimented wood utility pole inspection programs, long-term programs have not been widely developed for inspection of steel pole assets. As the number of steel assets have grown, so has the risk associated with corrosion-based failures. Individual assessment for each structure may not be feasible since the number of steel assets for an electric utility can be on the order of tens of thousands or more.

EN Engineering can assist operators with developing and implementing a programmatic approach to evaluate steel structures for corrosion risk. With vast experience in protection of valuable assets, our NACE Institute-certified corrosion experts represent one of the largest engineering and consulting teams dedicated to corrosion, integrity management, and metallurgy in the United States. Our steel pole inspection and risk assessment program involves multiple phases of evaluation including GIS-based risk mapping, inspection procedures, consequence of findings, and replacement/mitigation methods.

Services

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Step 1: GIS-based analysis and environmental risk factors
Step 2: Review of asset-based risk factors
Step 3: Calculation of asset risk
Step 4: Implementation of field-based inspection procedures
Step 5: Implementation of remediation, mitigation, and replacement matrix
Step 6: Continual monitoring and refinement