

Improving the health of energy assets

Digital Engineering and MetraWeather partner to provide innovative, cost-effective solutions for the energy industry.

Managing ageing infrastructure is a challenge for most transmission and distribution companies and weather conditions play a critical role in infrastructure health.

The decision to repair or replace overhead lines is critical and impacts both network reliability and cost. Capturing data for assets installed decades ago can be both costly and time-consuming.

By using weather simulations and data analytics, Digital Engineering and MetraWeather are working in partnership to identify at risk overhead lines due to environmental damage from wind-induced wear and corrosion.

In providing asset condition data at a fraction of the cost and in much shorter timescales, the energy transmission and distribution sector can be better equipped to manage their assets.

The unique asset health solutions provided allow targeted asset inspections of overhead line spans and towers, ultimately increasing the life span of these vital assets

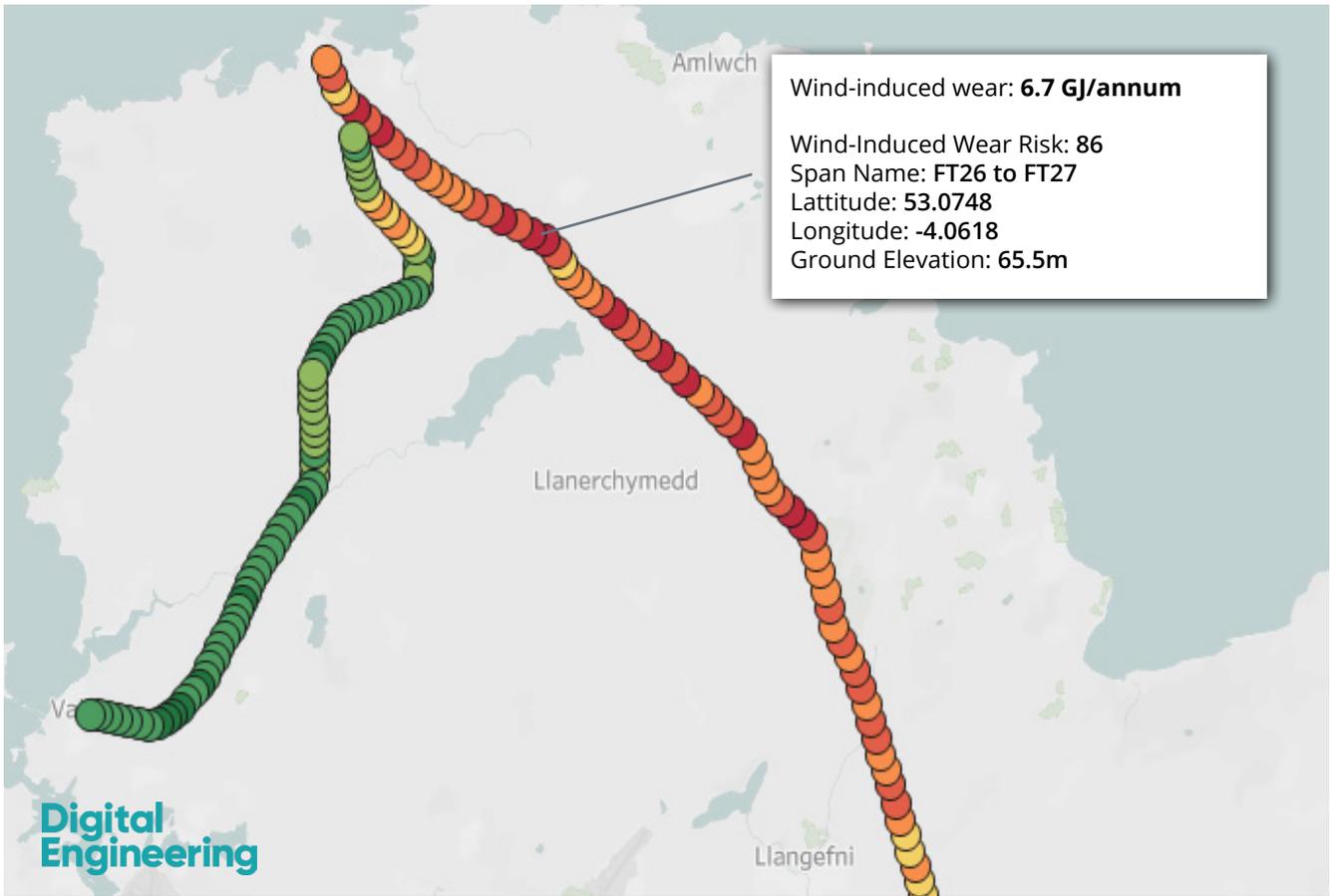
Key Benefits

- **Extend the life of an asset** - by identifying which spans are at lowest risk of defects
- **Extend maintenance windows** - through reducing operational expenses by using data to better identify low risk spans
- **Prioritise inspections** - through data analysis to determine high risk areas of the network that require more regular inspection



“National Grid worked with Digital Engineering who provided their services from the very beginning of our Asset Health project. Their involvement meant we were able to use a novel method to consistently map wind exposure and corrosion potential across individual overhead line spans and towers. Their input meant we were able to deliver the project on time and to budget.”

Jonathan Hennah - Asset Health and Condition Monitoring Manager, National Grid UK



Map output from Digital Engineering’s asset health assessment. Each dot represents an overhead line span. Red indicates high risk of aeolian vibration, galloping, corrosion and other weather related issues. If these spans have been in service for a long period of time, they are more likely to experience defects. Maintenance windows should be shortened on these type of lines. Green indicates a span with a lower risk of defects. Utilities can look at extending the life of these type of assets and increasing maintenance windows.

“At Digital Engineering we help companies by leveraging our understanding of both climate and power systems. We are delighted to team up with MetraWeather to provide services that support the Australasian energy sector to reduce costs, as we have in other parts of the globe”

Rob Sunderland - Managing Director, Digital Engineering.



“We are delighted to partner with Digital Engineering in Australasia. Combining our weather expertise, accredited meteorologists and in-depth technical support, with the work of Digital Engineering can only help enhance further efficiencies for the energy sector”

Lucy Batt - Australia General Manager, MetraWeather.



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