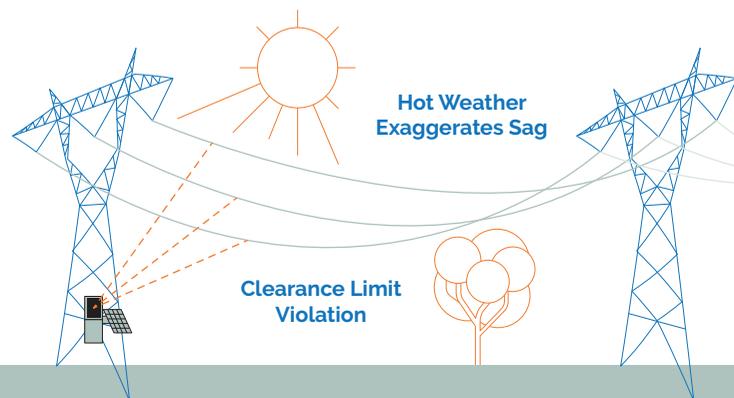


THE BENEFITS OF Overhead Line Monitoring



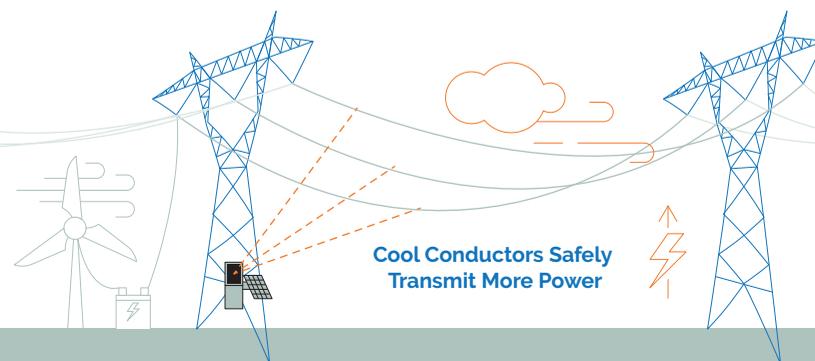
Situational Awareness

Improve system reliability and safety by collecting real-time data and alerting operators when line motion, temperature and electrical properties deviate from acceptable operating limits.



Increased Grid Capacity

Use actual operating conditions rather than static worst-case assumptions to increase line capacity, increase renewables integration and improve grid resiliency.



Informed Asset Health

Monitor each line's asset health and risk, by tracking conductor temperature, loading, vibration and sag behavior over time, and prioritize lines for inspection, repair or replacement, for more efficient use of scarce budget resources and increased system reliability.



Real-Time Alert System

Non-contact sensors automatically provide real-time alerts if conditions such as clearance violations, icing, or structural/storm damage occur.



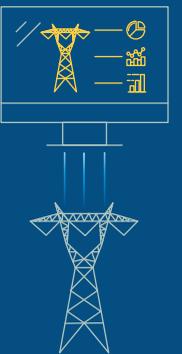
Dynamic Line Ratings

Enabled by wind speed and conductor temperature measurements, dynamic ratings allow utility operators to increase the capacity of their existing transmission lines by as much as 40%.



Digital Twin

The system integrates survey data, line parameters, operational history and weather data to maintain a digital twin of the expected position of the conductor. Actual monitor data is then continuously compared to the digital twin to detect anomalies indicative of damage or loss of asset health.



Powerful Data Portal

A secure web interface gives utilities visibility on all monitored lines with access to real-time data and charts, historical data and alerts.



Forecasted Line Ratings

Ratings are computed 1-48 hours ahead using weather forecast data and tuned by historical monitor data for high confidence.



Condition-Based Asset Management

The asset health model tracks conductor thermal history, loading events, vibration and sag behavior to calculate estimated residual lifetime of each line for operators to make condition-based maintenance and renewal decisions.

