



FERC Technical Conference Sept. 10, 2019



Introduction to LineVision



LineVision is focused on serving the needs of transmission line owner/operators worldwide

Founded as a spin-out from Genscape, LineVision leverages 18 years of expertise in transmission line monitoring with over 5,000 monitors deployed worldwide

LineVision's transmission line monitoring solutions combine patented non-contact sensors and advanced analytics to improve the reliability, capacity and flexibility of transmission lines



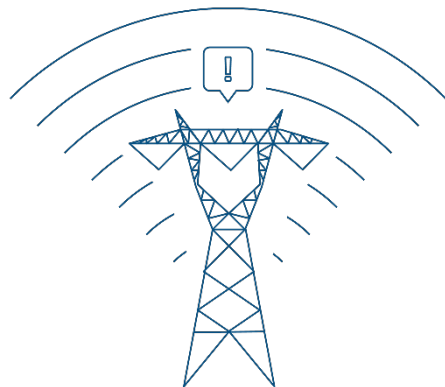
Applications for Utilities



LineAware™

Inform operators with clearances and horizontal motion data, triggering alerts on exceedances

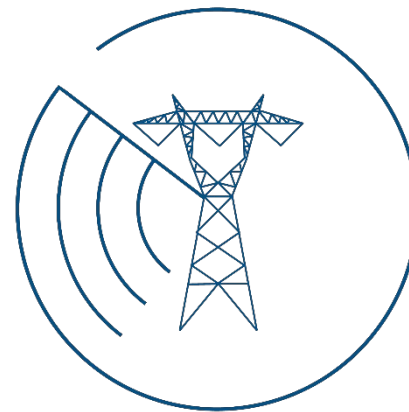
SITUATIONAL AWARENESS



LineRate™

Increase the capacity on lines with Forecasted and Real-Time Dynamic Line Ratings (DLR)

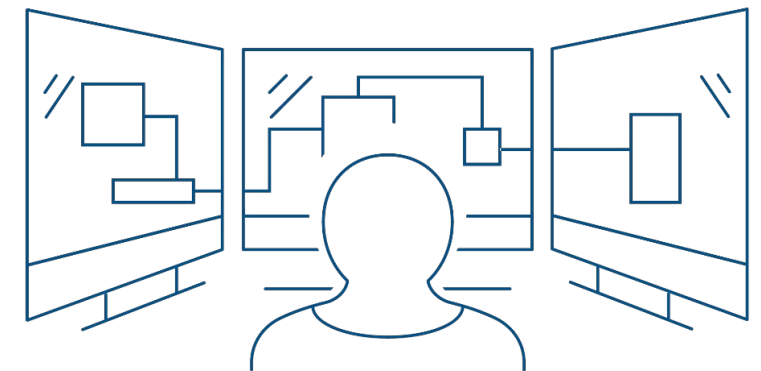
DYNAMIC LINE RATINGS



LineHealth™

Improve maintenance strategies by creating a digital twin using historical & real-time data to determine conductor health

ASSET HEALTH MONITORING



The LineVision V3 System



Non-contact, tower-mounted transmission line monitoring system consisting of:

- **EMF sensor** monitors electrical properties of line
- **Optical sensor** monitors conductor position
- **Advanced analytics** for line ratings, anomaly detection/alerting and asset health monitoring
- **Secure web interface** and datafeed for EMS and historian integration



Comparing AARs and DLRs



	AARs	DLRs
Low Cost	√√	√
Incremental Capacity	√	√√
Situational Awareness	X	√*
Asset Health Monitoring	X	√*
* requires direct monitoring of conductor(s)		

“An additional benefit of implementing DLR is increased situational awareness of the transmission system and the potential for condition-based monitoring of transmission lines.”

Source – DOE Dynamic Line Rating Report to Congress June, 2019

