



# LineVue<sup>®</sup> Inspection Tools

Advanced Technology for Non-Destructive In Situ  
Conductor Assessment



Kinectrics' inspection tools can help utilities make informed asset management decisions on aged lines, leading to improved system reliability, safety, and reduced replacement costs.

## DO YOU KNOW THE CONDITION OF YOUR LINES?



Many transmission and distribution lines are very old. Some conductors and shield wires have been in service for more than 70 years—well past their design life—with rates of deterioration largely unknown.

As lines continue to age, it becomes increasingly important for utilities to know the existing physical condition of conductors to optimize management of these important assets.

Knowledge of actual conductor steel core condition is important for utilities in determining whether the conductor needs replacement or, if utilities need to commit to expensive capital programs.

Kinectrics LineVue® is a cost-effective inspection tool used to collect information about conductor condition. LineVue® helps utilities better manage these key assets, address safety concerns, increase infrastructure reliability, and reduce replacement costs.

## KINECTRICS' LINEVUE® TRANSMISSION INSPECTION TOOL



- Non-destructive testing of energized and de-energized lines
- Rapidly obtain data on steel core condition
- Establish Accurate Health Index to support better capital spending decisions
- Reduce safety concerns
- LineVue® can be used on live lines up to 500 kV with no outage requirements
- Easy to transport and install on the conductor by line crew personnel
- Proven technology—used worldwide

“We are satisfied that LineVue® is capable of providing acceptable and accurate data. The tool provides a viable method to assess our conductors without cutting out samples. Most importantly, using LineVue® eliminates the need for Hydro One to schedule an outage when we assess the condition of our conductors.”

— Hydro One Networks

## CEATI DISTRIBUTION LINE INSPECTION UNIT



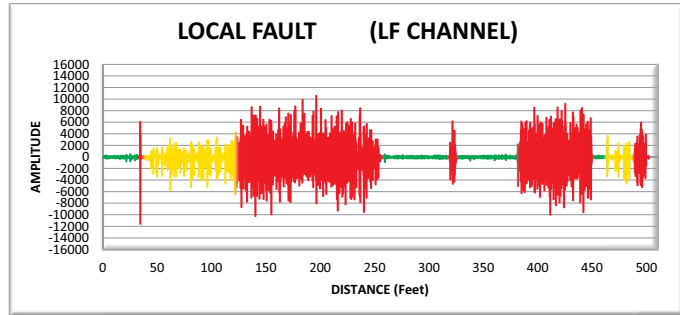
Kinectrics and CEATI have jointly developed an inspection device to inspect distribution class conductors.

The CEATI Distribution Line Inspection Unit offers many new features including: reduced dimensions and weight (~40 lbs. for the new unit vs. ~70 lbs. for the LineVue® transmission tool), an accurate sensor head designed for distribution conductors, and an on-board camera to view exterior conductor condition.

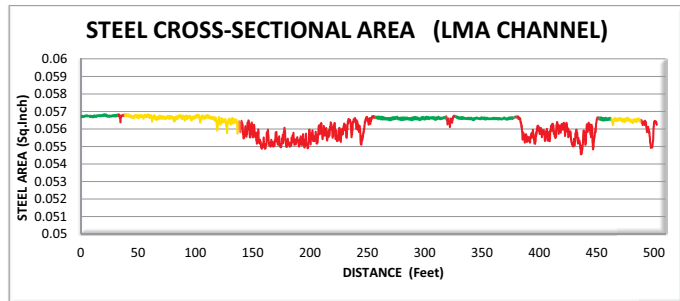
# LINEVUE® DATA – LF AND LMA GRAPHS ANALYSIS



The pictures above indicate the amount of deterioration on the transmission line at the specific distances displayed.



Local Fault (LF) - Indicator which detects local faults such as severe pitting or broken steel wires



Loss of Metallic Area (LMA) - Measures average of the remaining cross-sectional area of all metallic core wires over an approximate length of 2-3 ft. with better than +/-5% accuracy

LineVue® is a non-destructive device for measuring the remaining cross-sectional area of the steel core wires in conductors. The LineVue® tool can also detect any local breaks and deep pits in the steel core wires, all accomplished in the field, on both energized and de-energized conductors.

## SPECIFICATIONS

	Kinectrics LineVue®	CEATI Distribution Line Inspection Unit
Dimensions	L=90 cm, W=35 cm, H=53 cm (L=35 in, W=14 in, H=21 in)	L=61 cm, W=38 cm, H=32 cm (L=24 in, W=15 in, H=13 in)
Weight	28 kg (62 lb)	18 kg (40 lb)
Diameter of Conductor	15 mm-45 mm (0.59 in-1.77 in)	6 mm-19 mm (0.24 in-0.75 in)
Voltage	Designed Voltage - to 765 kV Tested Voltage - to 500 kV	Designed and tested to 120 kV
Operating Environment	-10° C to 45° C (14°F to 113°F)	-10° C to 45° C (14°F to 113°F)
Speed	Approximately 40 m/min (130 ft/min)	Approximately 40 m/min (130 ft/min)
Max. Line Inclination (Dependent on environmental conditions)	Max. line inclination is 20 to 30 degrees	Max. line inclination is 20 to 30 degrees
*Battery Run Time (Continuous use)	Computer battery - Up to 4 hrs Motor battery - Up to 12,000 ft or 3,600 m	Computer battery - Up to 4 hrs Motor battery - Up to 12,000 ft or 3,600 m

\*Depending on field conditions - Multiple battery packs may be used during the inspection day.

Kinectrics LineVue® inspection reports provided clear, immediate information on the condition of the conductors—an effective, efficient process from start to finish!  
— NB Power

Watch the LiveVue® Video at [YouTube.com](https://www.youtube.com)



**KINECTRICS**

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