

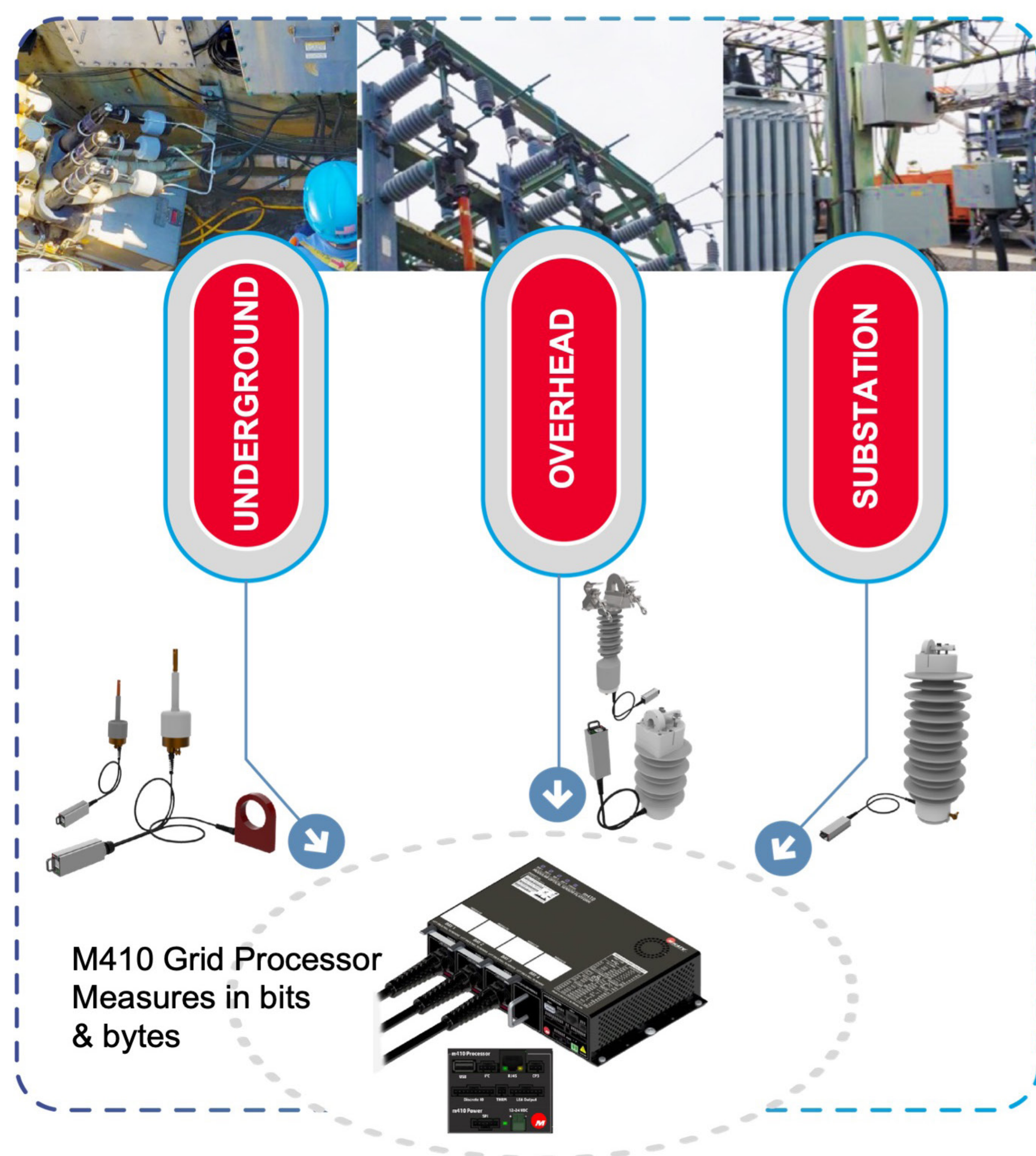


Optical Sensing Provides a
Better Way to Measure and
Modernize the Grid

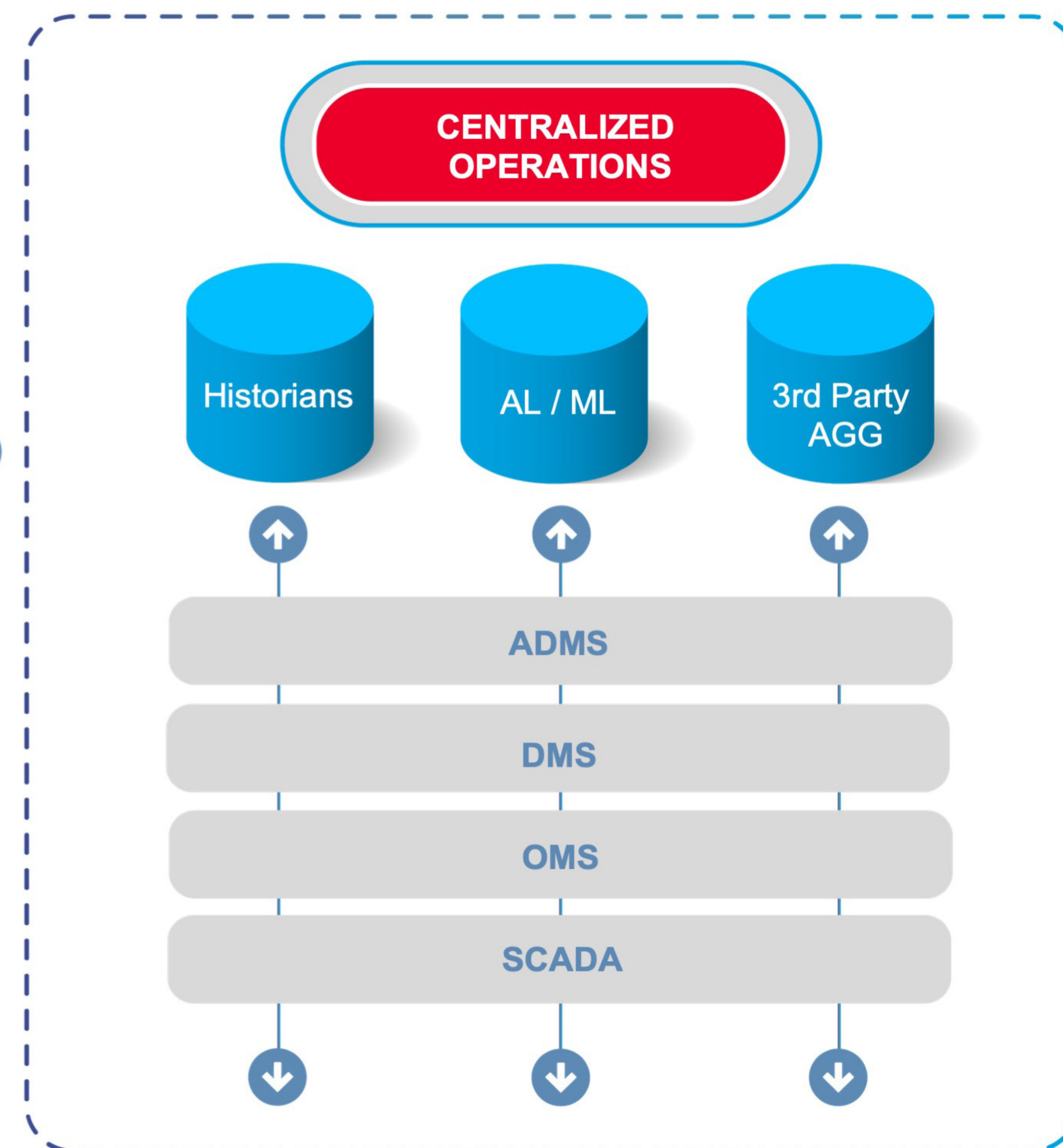
Micatu is driving the next generation of optical sensing technology that is changing how utility's measure the grid

The first to commercialize an optical sensing technology platform for the electric grid, Micatu provides utilities with a safer and more accurate way to measure with light passing through a crystal instead of the traditional way of measuring requiring electrons to

pass through the sensing device. Thanks to this breakthrough, the Micatu Gridview platform measures voltage, current, vibration, temperature, harmonics, phase angle with unprecedented accuracy and avoids becoming an ignition source on the grid.



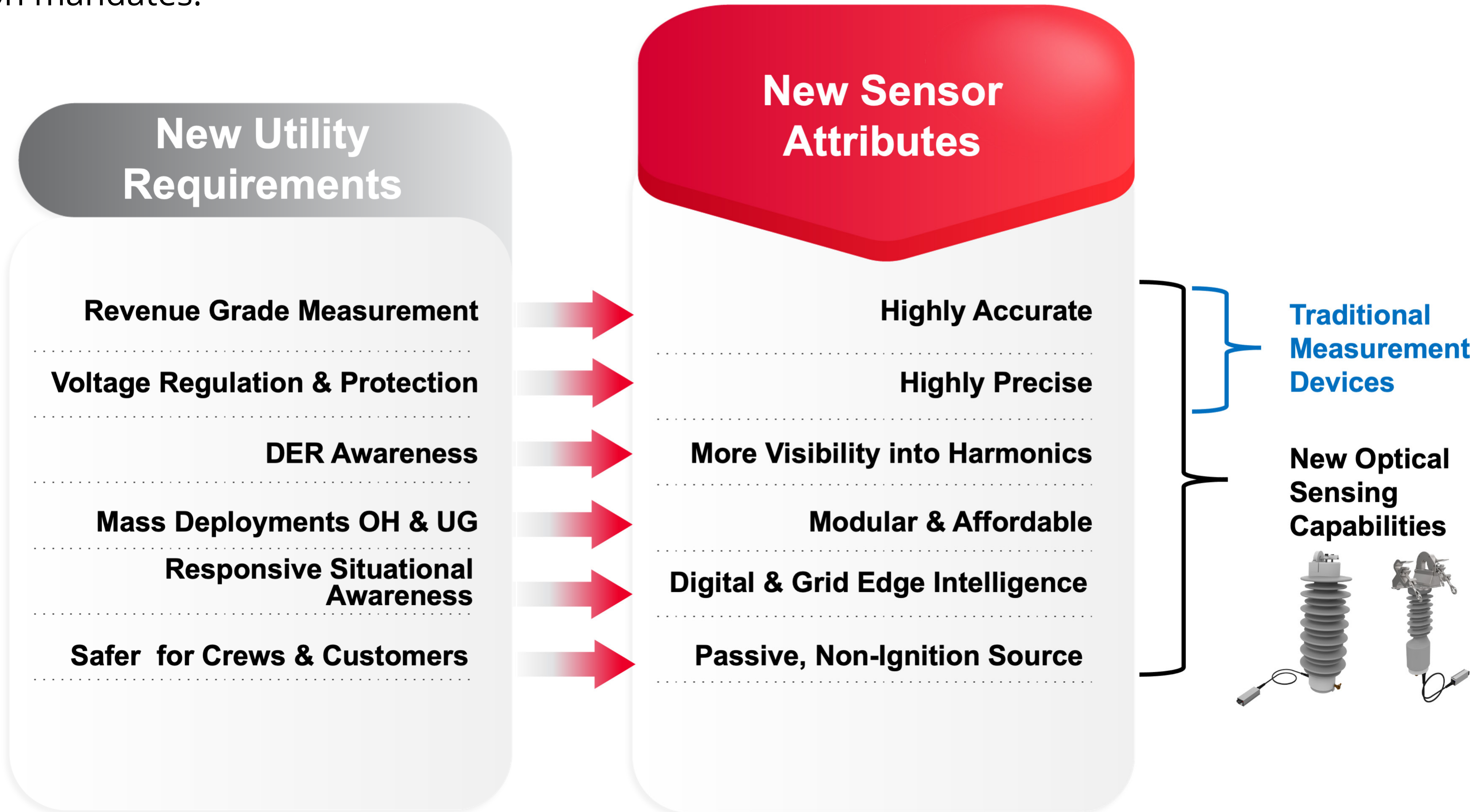
Data
DNP3



Utilities and other power generators are struggling with the demand for increased resiliency in the new normal of more intense storms and wildfires.

Stability, and safety are being stretched beyond the grid's outdated mechanical capability. The Micatu Gridview is an optical sensing platform that is digital-ready providing utilities with modern capabilities and accurately monitor to better predict and prevent outages, locate faults prior to grid disruption. It is a DER-aware solution that provides highly accurate harmonics and power quality readings allowing renewables to be seamlessly connected to the grid allowing businesses and utilities to meet aggressive decarbonization mandates.

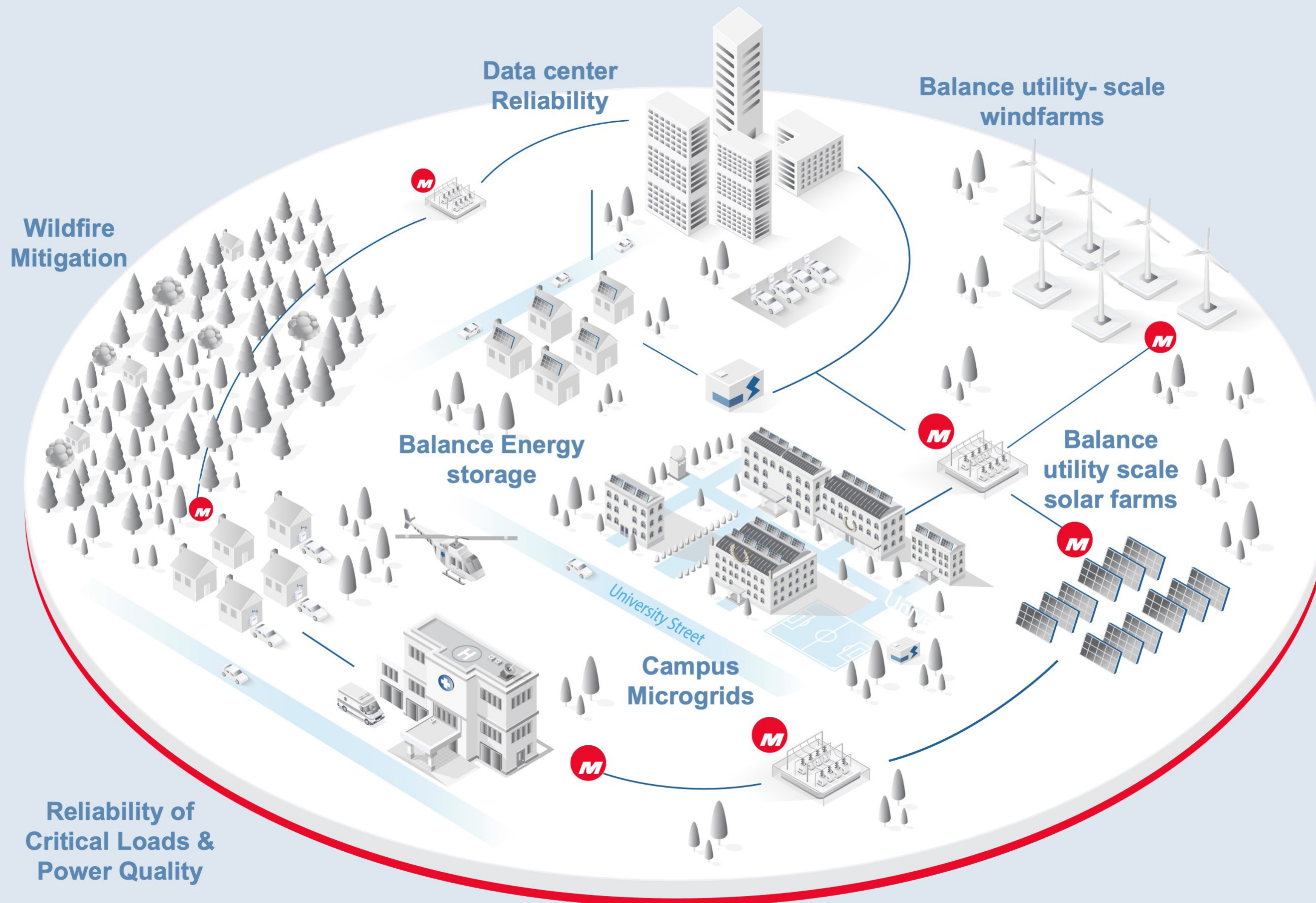
The ability to measure and monitor with light digitally allows utilities to troubleshoot once invisible problems that plagued their reliability efforts and caused long-term and devastatingly expensive failures to the system. While transitioning to optical and digital is a novel approach, Micatu's platform is not complex or mysterious. It's based on physics - the Pockels Effect to detect voltage and the Faraday Effect to detect current.



Micatu Digitizes the Modern Grid

As more intermittent renewables drive grid modernization, optical sensing provides the highest data fidelity, accuracy, precision, and next-level harmonics measurements for grid visibility, making the Micatu Gridview platform a compelling solution that bridges the gap between yesterday's one-way, analog grid and today's need for digital

two-way, real-time data. Micatu's Gridview is a modular platform requiring lower-cost deployments, making it affordable for utilities that need to maximize renewable integration and data awareness for grid resilience.



Micatu Gridview Platform

By not passing electrons, Micatu's optical sensors enable grid operators to avoid equipment overheating and violent, explosive failures. For example, Micatu's Gridview 69kV optical sensor has been tested and proven to withstand zero saturation damage up to 175kA. Additionally, Micatu Gridview optical sensors lead the industry in accuracy (up to +/- 0.5% accuracy).



Overhead Sensors

m410B Grid Processor

Underground Sensors

Groundless Voltage Sensor

Platform benefits

Increased accuracy. Providing up to +/- 0.5% accuracy on both voltage and current, the Micatu Gridview platform which is especially important when analyzing the technical impact of increased renewable energy sources on the grid.

More kinds of measurements. While many solutions provide voltage, current, and phase angle, Micatu's optical sensors can also provide power quality and harmonic distortion resulting from the renewable and non-linear loads of modern distributed energy resources (DERs).

Modularity of deployment. With Micatu Gridview, you can go deploy where others cannot - whether overhead, underground, and even groundless options available, Micatu can be easily deployed anywhere they are needed the most.

Future-proof. Micatu's optical sensing technology platform grows with the grid with firmware upgrades to leverage advances in chip and software designs, rather than needing to "rip and replace" with new equipment.

Easier installation. Smaller sizes compared to other options and no need for electrical reconfiguration in substation deployment, crews can deploy more quickly with less planning and training.

A safer way (Non-ignition source). Unlike traditional transformers (e.g. PTs and CTs) or non-optical smart grid sensors, Micatu is nonconductive and cannot be saturated, therefore eliminating the sensor as an ignition source.

Why Micatu?

By not passing electrons, grid operators, universities and businesses using Micatu can avoid equipment overheating and violent, explosive failures. Micatu works with every major utility in New York state, helping them better regulate their operations and reduce their energy use, and has pilot programs in DER-rich territories such as the southwestern US to demonstrate the accuracy and precision of optical sensors for managing the growing influx of renewable energy. Micatu is trusted by industry leaders such as Eaton who has integrated the Gridview optical sensing technology platform into its smart grid portfolio.



“Micatu’s Gridview Optical sensors can continually pick up and report back current harmonics, voltage harmonics, and total harmonic distortion... These sensors will bridge the gap between power quality and reliability.”

About Micatu

New York-based Micatu is a next-generation optical sensing solution provider for the measurement of voltage, current, vibration and temperature. Our solutions provide the highest data fidelity, accuracy, precision and next level harmonic measurements. Micatu's GridView utility platform solution enables lower cost deployments, maximizing integration of renewable energy and data awareness for grid resilience.

Connect with Micatu

Contact us at www.micatu.com/contact to learn more.

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