

# More intelligent approach to EV infrastructure and smart grids

## Simple way to get the visibility and data needed to manage EV growth

### Electric Vehicles Are an Opportunity and Challenge

# 13%

Additional generation capacity required.  
*International Energy Agency 2023*

# \$190B

Projected market for electricity for EV charging in 2023.  
*International Energy Agency 2023*

# \$5B

IIJA funding under the National Electric Vehicle Infrastructure Formula Program.



### Utilities Have Limited Grid Visibility into the Impact of EV's

Unlike other electric load growth, EV load growth is largely 'unplanned' which makes it hard for a utility to understand when and where these new loads will appear on the grid. Without visibility and detectability, it is difficult to support these new loads in a reliable way.

### A Smart Grid Sensor Designed to Address Challenges of EV Infrastructure



#### Monitor and Manage Capacity with Simple Visual Tool

- Historical and real-time reporting on load.
- Alerts on physical and electrical parameters.



#### Understand Transformer Electrical Properties

- Track and analyze key electrical properties that impact power quality including harmonic distortion, phase imbalance, and load variability in real-time.



#### Mitigate Asset Failures and Circuit Load Disturbances

- Unique fault signatures to get ahead of grid and transformer concerns, before they occur.
- Alerts when voltage, current or kVA consumption thresholds are reached.



#### Monitor and Account for EV Charging Loads

- Understand charging duration, cycles, and transformer capacity utilization.
- Differentiate charger characteristics.
- Identify under utilized asset.
- Optimize loading and generation patterns.

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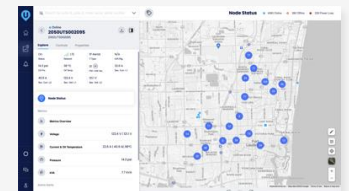
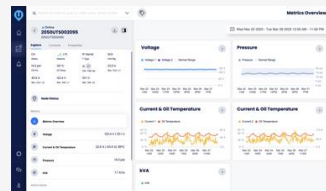
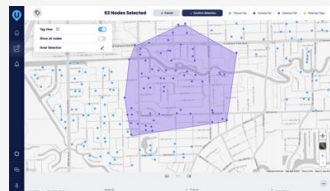
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### Introducing the UbiGrid DTM+

The Ubicquia UbiGrid DTM+ is a smart grid sensor that is mounted on single/3 phase, pole or pad mounted, transformers. It collects vital transformer and grid performance data and sends it over an LTE network into UbiVu, a powerful cloud-based asset management system with predictive analytics, reporting and visualization.



### UbiVu: Cloud Based Asset Management System



### Built with open APIs that allow you to integrate data into existing Grid Operations and OSS systems

*"We need to plan for the future and ensure that our electric grid can handle the increased demand that will come with widespread adoption of electric vehicles."*

**Gina McCarthy**  
Former Administrator of the  
Environmental Protection  
Agency (EPA)

### About Ubicquia

Ubicquia creates intelligent infrastructure platforms that are compatible with 360 million streetlights and over 1 billion transformers that line our streets. While they were designed to be nearly invisible from the street, they deliver a big impact in reduced energy consumption, enhanced public safety, simpler 5G and FWA deployments, and more resilient grids. Ubicquia products are deployed by more than 700 customers including some of the largest cities, utilities, and mobile operators across North America.

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