

Voltage & PQ Management

Increasing electrification, changing customer usage patterns and rapid adoption of customer-sited distributed energy resources (DER) are causing major challenges for network operators in managing voltage stability and power quality (PQ) across the low voltage network. High and volatile voltages lead to increased customer complaints and regulatory compliance issues. High voltages also cause unnecessarily higher electricity consumption, higher CO² emissions and can lead directly to electrical equipment failure.

Traditional AMI infrastructure is inadequate in reporting network voltage data in real time or at the low voltage transformer level, which is the key data point for managing network PQ.

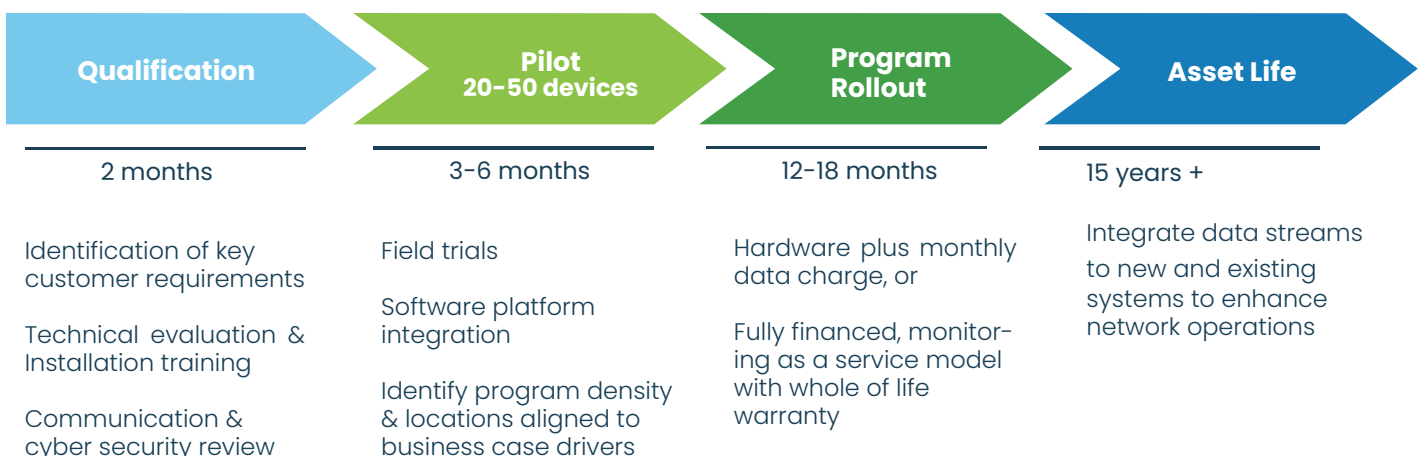
EDGE ZERO COMBINED BENEFITS

Edge Zero low voltage network monitoring leverages proprietary, low-cost transformer monitoring sensors that report detailed 1-minute data on voltage and PQ through our network software management platform, EdgeConnected™.

- **Real time data:** track live and historical PQ data against real time customer usage patterns
- **Operator alerts:** immediate reporting of fault and safety incidents to key network operators and management
- **Cost-benefit analysis:** automated calculation of high voltage costs and prioritization of asset management remediation actions
- **Network augmentation:** asset-level datasets to support targeted, least cost investment requirements
- **Regulatory reporting:** established reporting structure to support regulatory performance compliance

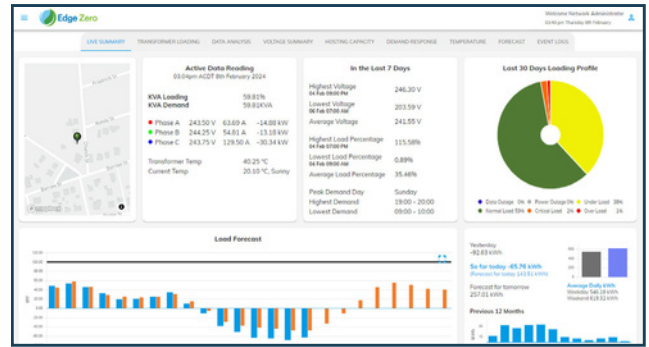


EDGE ZERO PROGRAM IMPLEMENTATION



EDGECONNECTED LOW VOLTAGE MONITORING PLATFORM

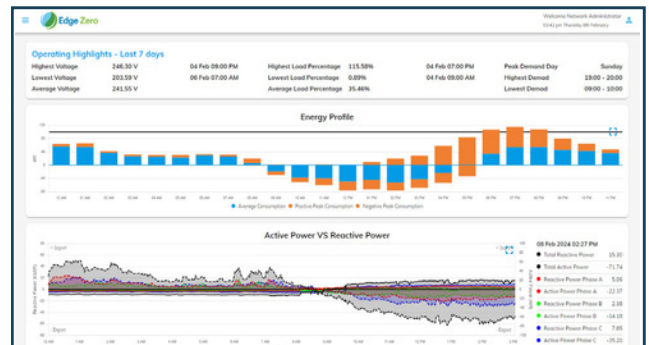
Edge Zero gives grid operators, distribution utilities and embedded network operators the tools to maintain reliability and PQ as customers adopt new DER technologies and electric vehicles at scale. Edge Zero's cloud-based monitoring platform means no on-premise infrastructure is required. The platform utilizes live data from low-cost, simple installation transformer monitoring instrumentation to provide a smart digital twin of network power flows and asset performance.



OPTIMIZE Real time analytics



MONITOR Real time awareness



CONTROL Real time response

OUT OF THE BOX-READY SCALABLE SOLUTION

No minimum deployment size is required.

LV Monitoring Hardware Features

- Fast, easy, live installation with no customer outages
- IP67 rated for pole top and pad mounting installation
- 15+ year asset life
- 100 - 520V rated voltage supply / Monitors 4000A RMS
- 1-minute PQ reporting interval
- Real time outage alerts with last gasp function
- 4G internal modem and LoRaWAN mesh

Data Integrations

- Operates as stand alone environment or integration with ADMS & GIS grid models
- RESTful API data to existing systems including, but not limited to:
 - Meter data management system (MDMS)
 - Demand response management system (DRMS)
 - Distributed energy resource management system (DERMS)
- DNP3 Virtual RTU environment for SCADA integration

PROVEN EXPERIENCE AND STRATEGIC PARTNERSHIPS

- Edge Zero low voltage network monitoring solutions are deployed at commercial scale across the 7 of the 11 major distribution networks in Australia, representing over 65% of the country's residential and commercial customers.
- Edge Zero provides network monitoring and platform deployments to utilities in the UK, South America, Southeast Asia.
- Edge Zero is proudly partnered with Parsons, Inc. for the deployment of low voltage network monitoring solutions in North America.

Get in contact or request a demo

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