Inspector™ Application note

Using INSPECTOR™ for ISO 50001

Energy Audit & Energy Management Systems

PW PowerWadi

INSPECTOR™ for ISO 50001

Energy Audit & Energy Management Systems

What is ISO 50001?

ISO 50001 requires organizations to establish, implement, maintain, and improve an Energy Management System (EnMS) based on accurate energy data, performance indicators, and continuous monitoring.

INSPECTOR™ is a powerful power quality monitoring platform that supports ISO 50001 requirements by enabling reliable energy audits, performance tracking, and data-driven decision making.

INSPECTOR™ Role in ISO 50001 Energy Audit

INSPECTOR™ acts as a core measurement and verification tool during energy audits by providing:

- Real-time and historical energy consumption data
- Detailed power quality analysis
- Load-level and system-level energy performance indicators (EnPIs)
- Continuous monitoring for baseline establishment and improvement verification

Key ISO 50001 Requirements Supported by INSPECTOR™

1. Energy Review & Baseline Definition

INSPECTOR™ measures and records:

- Active, reactive, and apparent energy (kWh, kVARh, kVAh)
- Demand profiles and load patterns
- Motor and equipment-level consumption

This enables accurate energy baseline establishment and identification of Significant Energy Uses (SEUs).

2. Energy Performance Indicators (EnPIs)

Using high-resolution data, INSPECTOR™ supports:

- Energy intensity analysis (kWh/unit, kWh/hour, etc.)
- Demand and load factor tracking
- Power factor and losses evaluation

These indicators are essential for ISO 50001 performance monitoring and continuous improvement.

3. Power Quality & Energy Efficiency

Poor power quality directly impacts energy efficiency. INSPECTOR™ monitors:

- Voltage dips, swells, interruptions
- Harmonics (THD), flicker, unbalance
- Transients and frequency variations

This helps identify hidden energy losses and supports corrective actions aligned with ISO 50001.

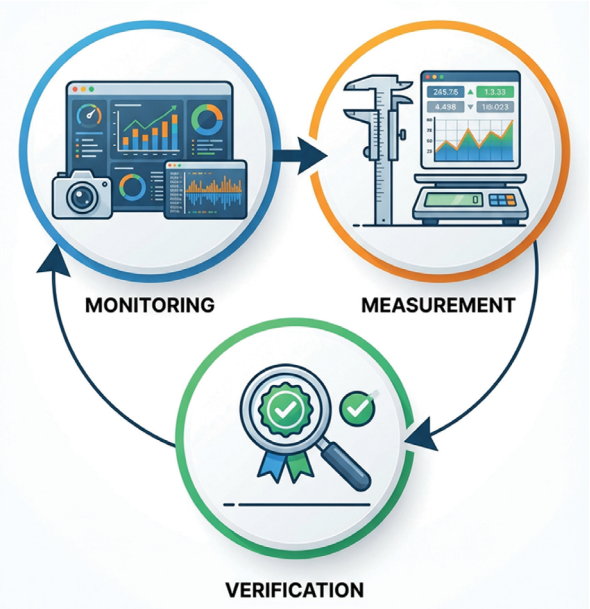
PowerWadi

4. Monitoring, Measurement & Verification (M&V)

INSPECTOR™ provides:

- Continuous real-time monitoring
- Trend analysis and event logging
- Automated data storage and export (CSV, PDF, JSON)

These features support measurement & verification of energy savings after improvement actions.



5. Operational Control & Awareness

With alarms and alerts:

- Abnormal energy consumption is detected instantly
- Equipment inefficiencies are highlighted
- Maintenance and operational actions can be triggered

This aligns with ISO 50001 requirements for operational control and staff awareness.

Key Benefits for ISO 50001 Implementation

Accurate & Reliable Energy Data

Clear Visibility Of Energy Performance

Improved Power Quality & Reduced Losses

Strong Technical Evidence For Audits And Certification

Continuous Improvement Based On Real Measurements

PowerWadi

Trivium Zayed-B207 First Al Sheikh Zayed, Giza, Egypt
P.O. 3244530

contactus@powerwadi.com
powerwadi.com

Phone: +20 100 630 0862