



EASY 4-STEP PROCESS FOR CONTINUOUS ELECTRICAL ASSET RELIABILITY.

1. Building a Knowledge Repository
2. Learning from Experience
3. Real-Time Insights for Confident Decision-Making
4. Expert Collaboration

A COMPREHENSIVE APPROACH

# 4 Steps to Confidence in the Health of Your Critical Assets

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Where we are  
**TODAY**

*Will disappearing expertise limit the reliability and lifespan of your valuable electrical asset?*

## EXTENDING THE LIFESPAN OF ELECTRICAL ASSETS

In the ever-evolving landscape of electrical asset engineering, where the pressure to extend the life of critical assets is constant, engineers and asset managers find themselves in a challenging position. You are expected to make decisions that could impact not just the efficiency of operations but the safety and reliability of entire systems.

The analogy of entrusting an old car for a long journey holds true - you would not drive it without a mechanic's thorough assessment.

Likewise, the assessment of critical assets demands a meticulous approach, where confidence is not just a buzzword but an absolute necessity.

### **WILL DISAPPEARING EXPERTISE LIMIT THE RELIABILITY AND LIFESPAN OF YOUR VALUABLE ELECTRICAL ASSET?**

While you would never trust your valuable vintage car to a second-rate mechanic, unfortunately, that is how many asset managers are treating their valuable, often critical high voltage electrical assets.

However, like that prized vintage car which has been driven thousands of kilometres, your prized electrical asset has been operating and producing for years – even decades – as long as you maintain it effectively.

What's more, the expert mechanic who spent decades on site working on a range of vehicles is now replaced by a rotating crew of contractors with little experience and even less interest in the longevity and care of your valuable vintage machine.

As with vintage cars, we've found that while asset managers are interested in extending the life of their assets, this may be at odds with the maintenance support they're receiving. In fact, organisations are trying to extend the life of their assets well beyond the designed life, while at the same time pushing to maximise productivity and reduce planned outages.

Nevertheless, genuine expertise and care for assets is disappearing as experienced engineers retire and take their valuable lifetime of field experience with them.

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#### **NO MORE TIME: THE MODERN ASSET MANAGERS AND ENGINEER'S ROLE HAS DRASTICALLY CHANGED.**

As an asset manager, plant manager or engineer working with machines, you no longer have the luxury of time to lovingly tinker with that vintage motor. You're involved in multiple tasks, juggling multiple responsibilities and often you or your team has moved between roles or organisations, effectively reducing the experience available to previous engineering generations in your position.

The upside to our professional mobility is a broader experience that expands our individual careers. However, the downside is that we may find ourselves less confident in managing our valuable electrical assets, especially those heading towards, and even past their intended lifespan.

Your accountability however has not changed. The decision of whether to shut down, to maintain, replace or repair has never been harder or more important.



Your time is  
**VALUED**



—  
experience vs  
DATA

*New technology leading to data overload and lower understanding.*

## NEW TECHNOLOGY LEADS TO DATA OVERLOAD

The technological advancements in our industry have led to an abundance of asset reliability data. However, this influx of data, ranging from insulation resistance to vibration and partial discharge, has created a new challenge. Despite having access to gigabytes of data, many asset managers and engineers find themselves lacking the necessary skills and knowledge to interpret it confidently.

Whereas we may have had our decades of experience to rely on, we now instead have gigabytes of data without the skills and knowledge to interpret it confidently. Additionally, many plants now rely on external contractors to conduct critical testing and inspections using ever-changing technologies and instruments.

The question arises – are these external contractors, equipped with ever-changing technologies, conduct critical testing and inspections, raising questions about the accuracy and applicability of the data obtained?

Returning to the analogy of the vintage car; today's modern mechanics have sophisticated testing equipment and protocols to provide you with data about the engine, tires and alignment. However, whether it's a vintage car or your own body, more data does not directly correlate with a better understanding of your asset, improved decision making or a longer asset lifespan.

The engineers and asset managers we speak to every day have told us that while they have more data, they have less knowledge and consequently less confidence in making reliable decisions about their asset maintenance and operational strategy.

#### WHERE DOES THE BUCK STOP REALLY?

The upshot is that your valuable vintage assets are now operating in a world with fewer genuine engineering experts, managed by an itinerant team of inhouse and external teams trained in a different time, using different technologies, and producing reams of data that few can interpret accurately to benefit your planning.

The consequences can be catastrophic. It is not uncommon for an asset to fail without warning, despite the terabytes of data available that should have sounded the alarm.

The costly unscheduled shutdown, maintenance and loss of production keeps asset manager up at night.

*The buck stops with you, despite the availability of data or engineering advice.*

There is no easy answer on how to solve the problem of aging electrical assets, asset reliability, productivity, modern data analytics and asset longevity. However, there is a successful system that has proven to ensure your assets maintain reliability and production.

#### A SOLUTION: THE COMPREHENSIVE APPROACH

Addressing these challenges requires a strategic framework that combines human expertise, continuous monitoring, and contemporary data analytics while upholding stringent security protocols.

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***This 4-step framework is outlined below.***

A close-up photograph of a person's hands. One hand holds a black pen, and the other is positioned over a calculator. In the background, a laptop keyboard is visible. The scene is set on a wooden desk with a laptop and some papers.

reliable HV  
ASSETS

## ORGANISING INFORMATION: Building a Knowledge Repository

One of the fundamental steps toward bolstering confidence in asset assessments is the organized management of information. The data collected from various diagnostic tests, historical performance records, and maintenance logs need to be systematically structured. Implementing advanced data management systems can help engineers easily access, analyze, and interpret the vast array of information associated with critical assets. By organizing this data, engineers can gain a clearer understanding of asset health, making informed decisions based on structured insights.

## RETAINING HISTORICAL DATA: Learning from Experience

History is a valuable teacher. Maintaining a comprehensive record of past condition assessments and the subsequent outcomes is akin to preserving the collective wisdom of the organization. This historical database serves as a guide for future assessments, offering a rich context that informs decision-making. Engineers can learn from both successful evaluations and any shortcomings, ensuring that the organization benefits from past experiences and avoids repeating mistakes.

## CONTINUOUS MONITORING: Real-Time Insights for Confident Decision-Making

The advent of continuous monitoring technologies has revolutionized asset management. Real-time data streaming in from sensors and monitoring devices provide invaluable insights into the current state of critical assets. By embracing continuous monitoring, engineers gain access to immediate benchmarks for critical failure modes. These real-time insights act as an early warning system, allowing for proactive measures before potential issues escalate. This constant vigilance not only provides confidence in the current condition of assets but also empowers engineers to make data-driven decisions promptly.

## EXPERT COLLABORATION: Augmenting Internal Expertise

In situations where internal expertise might be limited, collaborating with external specialists can fill the knowledge gaps. These experts bring years of industry-specific experience and a deep understanding of intricate asset behaviors.

Their insights, combined with internal data, create a synergy that enhances the overall confidence in assessments. Whether it's interpreting complex diagnostic reports or offering nuanced recommendations, expert collaboration can significantly augment the organization's capabilities.

Incorporating this comprehensive approach into your asset management strategy ensures confident decision-making grounded in structured data, historical insights, real-time monitoring, and expert wisdom.

In a landscape where decisions profoundly impact operations, this blend of expertise and advanced technology guarantees the longevity and reliability of critical assets.

For an even more comprehensive deep-dive into asset reliability, longevity and continuous monitoring solutions, please join our latest expert webinar.



# Asset Strategy WEBINAR

