



24th annual

Machines & HV Assets 2026

9 - 11 June 2026

Melbourne Convention and Exhibition Centre | Australia

Part of:



Where transponders, data, and diagnostics are redefining reliability

Speakers include:



Katherine Richards
Chief Engineer
Engineers Australia



Mark Ragusa
Head of Asset,
Management and Planning
Ausgrid



Francisco Dutra
International Transformer
Expert
Sergi Transformer
Protector



Chris Dumbrell
Senior Manager -
Maintenance, Reliability
Engineering and Condition
Assessment
Sydney Water



Mladen Sasic
Manager of Rotating
Machines Technical
Services
Iris Power



Dr Shantanu Kumar
Associate Principal |
Energy - HV Substations
Technical Lead
Arup



Ravindra Siddachar
Principal Engineer
APA Group



Shaikat Debnath
BESS Engineering
Specialist
Potentia Energy



Mushfiq Rahman
Group CEO & Managing
Director
3C Energy



Milinda Senanayake
Principal Electrical
Engineer
Southeast Water



Nathan Bitsas
Head of Electricity
Network Safety
Energy Safe Victoria



Kellie Kininmont
Lead Engineering
Delivery Services
SA Water



Victor Edo
Senior Electrical Engineer -
Major Capital Projects
Alcoa



Praema Ranga
Product Services Manager
Boeing Defence Australia



Mitchell O'Shea
Reliability Engineer
Brisbane Airport
Corporation



REGISTER TODAY!

Book before **1 May** and save up to **\$300!** Generous group discounts apply.

+61 (0)2 9977 0565 info@questevents.com.au www.machinesconference.com.au

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Meet | Learn | Grow.

24th Machines & HV Assets 2026

Now in its 24th year, this conference brings together senior engineers, asset leaders and diagnostics specialists to examine what failure data, forensic investigations and real-world operating experience are revealing about modern HV operational excellence. Across two intensive days, delegates will move beyond generic reliability discussions to focus on failure precursors, hidden stress mechanisms, and the diagnostic blind spots that continue to catch organisations off guard.

You will explore how advanced condition-based maintenance, partial discharge analytics, vibration and thermal signatures and digital twins are being used to detect risk earlier, extend asset life and prevent high-impact outages, and where these tools still fall short without sound engineering judgement.

The program is deliberately technical, diagnostic and decision focused. Through real failure case studies, deep-dive technical sessions and high-intensity specialist roundtables, you will benchmark your approaches against peers facing the same pressures, test assumptions against emerging evidence, and leave with practical frameworks you can apply immediately across HV assets, substations and rotating machinery fleets.

This is a conference for engineers responsible for assets that cannot fail quietly, and for organisations that can no longer rely on yesterday's models to manage tomorrow's risk.

Reasons to attend



Understand why HV assets are failing with less warning, and the simple changes engineers can implement to combat sudden catastrophic outages



Learn from real failure investigations, diagnostics and operating decisions



Benchmark how industry leaders are adapting to DER, BESS and grid instability



Solve practical engineering challenges through intensive technical roundtables



Strengthen decision-making in a data-driven, resource-constrained asset environment

"So many great sessions to choose from! The most useful ones related to how technology is changing the way in which assets are being managed."

2025 attendee, **Ventia**

"Topics focused on case studies and learnings not marketing."

2025 attendee, **Monitra**

Continuing Professional Development (CPD)

This conference qualifies as Type II CPD under Engineers Australia's CPD framework. Delegates may claim the full number of hours attended as CPD, so please retain the program and any other relevant information for your personal CPD log. You will also receive a Certificate of Attendance from Machinemonitor via email after the event for your records.

Who Should Attend

- ✦ Electrical Engineers (HV and Power Systems)
- ✦ Asset Managers and Asset Strategy Leaders
- ✦ Reliability and Maintenance Engineers
- ✦ High Voltage Engineers and Substation Engineers
- ✦ Protection and Control Engineers
- ✦ Rotating Machinery and Generator Specialists
- ✦ Condition Monitoring and Diagnostics Engineers
- ✦ Engineering and Technical Managers (Utilities and Heavy Industry)
- ✦ Asset Performance and Operations Managers
- ✦ Project Engineers and Commissioning Engineers (HV Assets and Infrastructure)
- ✦ Network Planning and Power System Engineers
- ✦ Engineering Consultants and Technical Specialists supporting HV assets

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AGENDA DAY 1 | Wednesday, 10 June

08:15 Registration and welcome tea and coffee

08:50 Opening remarks from the Chair



Mushfiq Rahman
Group CEO & Managing Director
3C Energy

Australia's HV assets crisis

09:00 **Australia's HV asset turning point and why critical equipment is failing faster and what must change**



Dr Shantanu Kumar
Associate Principal | Energy - HV Substations Technical Lead
Arup

09:30 Partner Presentation

09:50 Panel discussion: **Reinventing HV asset strategy for a DER-heavy, BESS-driven future**



Mushfiq Rahman
Group CEO & Managing Director
3C Energy



Dr Shantanu Kumar
Associate Principal | Energy - HV Substations Technical Lead
Arup



Prof Mehdi Seyedmehmoudian
Director - Siemens Swinburne Energy Transition Hub
Professor & Major Discipline Coordinator - Electrical & Electronics - School of Engineering
Swinburne University of Technology

10:30 Morning Tea in the Energy Week expo hall

Advanced diagnostics & failure prevention

11:00 **Online monitoring of end-winding vibration and partial discharge in a 225 MVA generator**



Giacomo Ciotti
Divisional Manager - OptMonitor
MachineMonitor

11:30 **Protecting power transformers from catastrophic failure**
Reducing the consequences of internal transformer faults by deploying ultra-fast mechanical protection systems to limit tank rupture and collateral damage.



Francisco Dutra
Manager - International Operations
Sergi Transformer Protector (France)

12:00 **Managing renewable-driven load variability to improve rotating machinery reliability**



Ravindra Siddachar
Principal Engineer
APA Group

12:30 Lunch in the Energy Week expo hall

"The round tables were well run with interesting people chairing them."

2025 attendee, **Goulburn Valley Water**



13:30 **Ready for take-off: Effective spares management for operational resilience at Brisbane Airport**



Mitchell O'Shea
Reliability Engineer
Brisbane Airport Corporation

14:00 Partner Presentation

14:20 **Engineering HV and electrical systems for safety, reliability and long-life performance across essential services**



Milinda Senanayake
Principal Electrical Engineer
South East Water

14:50 Afternoon Tea in the Energy Week expo hall

Intensive engineering roundtables

Roundtables are informal 30 min discussions, each facilitated by a leader who will introduce the topic before inviting delegates to join the conversation. Delegates can attend three sessions of their choice from the following:

15:30	Discussion 1	16:00	Discussion 2	16:30	Discussion 3
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Roundtable 1 **Torsional stress on generator shafts - when is this an issue, why, and potential solutions**



Dr Elizabeth Ratnam
Associate Professor - Department of Electrical and Computer Systems Engineering
Monash University

Roundtable 2 **Vibration, cooling and fatigue clues that predict the worst**



Victor Edo
Senior Electrical Engineer - Major Capital Projects
Alcoa

Roundtable 3 **Transformer failure forensics and the early indicators that are easy to miss**



Francisco Dutra
International Transformer Expert
Sergi Transformer Protector (France)

Roundtable 4 **Separating noise from catastrophic signals**



Nathan Bitsas
Head of Electricity Network Safety
Energy Safe Victoria

Roundtable 5 **Arc-flash risk in modern HV systems: exposure pathways, protection gaps and practical mitigation**



Shantanu Kumar
Associate Principal | Energy - HV Substations Technical Lead
Arup

Roundtable 6 **Managing alert fatigue and false confidence in continuously monitored assets**



Mladen Sasic
Manager of Rotating Machines Technical Services
Iris Power (Canada)

17:00 Roundtables conclude

17:10 Networking Drinks in the Energy Week expo hall

The Official Machines & HV Assets Dinner - Elvis Edition

The legendary Machines & HV Assets Dinner is heading to Blue Hawaii this year. Swap your hi-vis for Hawaiian shirts and join your fellow engineers for a relaxed island-style evening after a full day of diagnostics and debate.

Expect great food, familiar faces, new connections and just enough Elvis flair to remind everyone that even HV engineers know how to shake, rattle and roll at the end of the day.

REGISTER TODAY!

Book before **1 May** and save up to **\$300!**

AGENDA DAY 2 | Thursday, 11 June

How failures propagate, and how engineers stop them

08:15 Registration opens

08:50 Introduction by Day 2 Chair



Dr Rui Li
Lecturer - Electrical Engineering
Victoria University

09:00 **Diagnosing HV incidents under pressure: From first alarm to defensible conclusions**



Katherine Richards AM CSC
Chief Engineer
Engineers Australia

09:30 **Understanding condition-based maintenance and when continuous monitoring becomes essential**



Mladen Sasic
Manager of Rotating Machines Technical Services
Iris Power (Canada)

10:00 Partner Presentation

10:30 Morning Tea in the Energy Week expo hall

In-conference workshop

11:00 **Reverse engineering and rewinding large HV stators: transitioning from GVPI to resin-rich insulation**



Vikas Bhandari
Senior Electrical Engineer
Machinemonitor

12:00 **Down-conductor detection and public safety**



Mark Ragusa
Head of Asset Management and Planning
Ausgrid

12:30 Lunch in the Energy Week expo hall

Engineering under constraint and uncertainty

13:30 **Panel discussion: Engineering leadership when assets age faster than budgets allow**

Moderator:



Dr Rui Li
Lecturer - Electrical Engineering
Victoria University



Chris Dumbrell
Senior Manager - Maintenance, Reliability Engineering & Condition Assessment
Sydney Water

Panellists:



Praema Ranga
Product Services Manager
Boeing Defence Australia



Myra Nolan
Technical Director
Clean Energy Finance Corporation

“The topics were my interests.”

2025 attendee, **Alinta**



14:00 **Maximising cable asset life: Predictive modelling, field analytics and real-world extension case studies**



Prof Mehdi Seyedmehmoudian
Director - Siemens Swinburne Energy Transition Hub, Professor & Major Discipline Coordinator - Electrical & Electronics - School of Engineering
Swinburne University of Technology

14:30 **Fire risk management for utility-scale BESS projects in Australia**



Shaikat Debnath
Battery Energy Storage System (BESS) Specialist
Potentia Energy

15:00 Afternoon Tea in the Energy Week expo hall

15:30 **Asset management, asset replacement and public private partnerships**



Jeremy Culberg
Senior Electrical Engineer
Watersure

16:00 **Brownfield Projects - Dealing with the complexities of legacy assets?**



Kellie Kininmont
Lead Engineering Delivery Services
SA Water

16:30 **Building the next-generation reliability workforce: Skills, systems and culture for data-driven asset performance**



Shantanu Bendre
Mechanical and Electrical Reliability Engineer
Yarra Valley Water

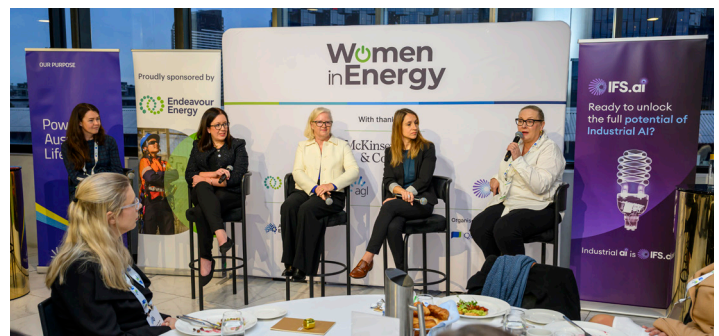
17:00 Closing remarks from the Chair

Back by popular demand: Australian Energy Week's Women in Energy Breakfast

Start your day with a thought-provoking discussion over breakfast. This exclusive event, an integral part of Australian Energy Week, offers you a chance to gain insights from industry leaders, and connect with like-minded professionals, all while supporting a great cause.

With last year's event selling out, early registration is recommended. Tickets (\$50) are available exclusively to Australian Energy Week and Machines & HV Assets attendees.

Registration opens at 7:00 am for a prompt 7:30 am start.



REGISTER TODAY! Book before **1 May** and save up to **\$300!**

Pre - conference Masterclass | Tuesday, 9 June

Pre-conference masterclass

Overcoming technology and operational challenges for Battery Energy Storage Systems



Specifically for engineers and technical specialists responsible for the installation, commissioning and ongoing maintenance of Battery Energy Storage Systems, this masterclass is designed to address the practical challenges of operating BESS assets in the Australian market. It is suited to BESS engineers working at utility-scale or large commercial installations who need to move beyond vendor manuals and understand how batteries actually perform in the field - under regulatory pressure, extreme conditions and evolving grid requirements. If you are grappling with degradation, safety obligations, inverter complexity or changing performance expectations, this masterclass is for you. Full description, including a detailed breakdown of the content, on the conference website.

Facilitators:



Steve Lilliss
Senior Manager Asset Management
Horizon Power



Claude Morris
National Sector Leader- BESS
GHD

"Giacomo was fantastic, it was very informative for the now and the future."

2025 attendee, Bob White, **Electrix**

Why sponsor & exhibit

Machines & HV Assets is firmly established as Australia's leading technical forum for engineers and asset leaders responsible for the reliability, safety and performance of high-voltage infrastructure and large rotating machinery. Now in its 24th year, the conference continues to attract a loyal and highly specialised audience of senior engineers, asset managers, reliability specialists and technical decision-makers from utilities, mining, water, transport and heavy industry.

Delegates attend each year to benchmark how their organisations are responding to accelerating asset ageing, evolving grid conditions and increasingly complex diagnostic and operational challenges. The program focuses on real engineering outcomes, from failure analysis and advanced diagnostics to asset strategy, protection performance and lifecycle decision-making, ensuring discussions remain practical, technical and immediately applicable.

The event attracts a senior, technically engaged audience responsible for specifying solutions, influencing investment decisions and managing critical infrastructure assets across Australia's HV networks and industrial operations.

Machines & HV Assets offers a focused platform to engage directly with the engineers and asset owners shaping reliability strategies across the energy and industrial sectors. We work closely with partners to develop consultative sponsorship programmes aligned to your business objectives before, during and after the event, whether through technical thought leadership, brand positioning, lead generation, targeted introductions, demonstrations or networking experiences.

Key benefits of sponsoring:

1

Engage directly with senior engineering decision-makers responsible for HV assets, reliability programs and capital investment priorities

2

Demonstrate technical capability and showcase solutions within a credible, engineering-led environment

3

Build relationships with asset owners and operators through two days of structured technical interaction and networking opportunities

4

Position your organisation as a trusted partner supporting safer, more reliable and future-ready HV infrastructure

For more information on ways to engage with delegates at **Machines & HV Assets 2026**, please contact



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Registration

🏆 Best value

9 - 11 June
3 day full-event package

\$3,095

Save \$300

Regular price \$3,395

- ✓ Full access to the 2-day main conference sessions
- ✓ Pre-conference masterclass (Overcoming technology and operational challenges for Battery Energy Storage Systems)
- ✓ All networking sessions, including the Machines & HV Assets dinner

Register on or before 1 May and SAVE \$300

Group Discounts:

- 3-6 delegates ▶ \$2,631 pp
- 7-10 delegates ▶ \$2,476 pp
- 11+ delegates ▶ \$2,322 pp

10 - 11 June
2 day full-event package

\$2,095

Save \$300

Regular price \$2,395

- ✓ Full access to the 2-day main conference sessions
- ✓ All networking sessions, including the Machines & HV Assets dinner

Register on or before 1 May and SAVE \$300

Group Discounts:

- 3-6 delegates ▶ \$1,781 pp
- 7-10 delegates ▶ \$1,676 pp
- 11+ delegates ▶ \$1,572 pp

11 June
Women in Energy Breakfast*

\$50

Not just for women! Enjoy breakfast, an engaging panel and networking. This is a shared activity between Australian Energy Week and Machines & HV Assets. Tickets sell out so please book early. Only available to registered delegates.

*Breakfast booking fee donated to Women and Children First

All prices are inclusive of GST

Important: Please familiarise yourself with our cancellation policy and all other terms and conditions before registering for the event. If you have any questions, please call the booking hotline on +61 (0)2 9977 0565.



Call our Account Executives with any questions or to discuss the best discount options for you.



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