

Asset Management Forum – Welcome

2 November 2023, Christchurch

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EEA.CO.NZ

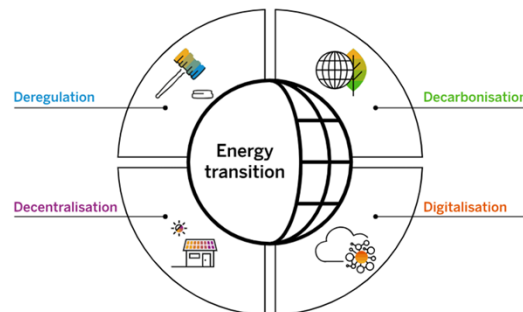


Welcome

Site and evacuation information

Industry Challenges

- Security, reliability and safety
- Transition
- Customer centric
- Technology and Data
- Climate response and resilience
- People - capability and capacity



Who are we?

- ❖ EEA – established in 1927

“The chief objects of all concerned in the industry is to distribute electricity as cheaply as safety permits, and it is only by close cooperation between all parties that this can be done.” (Electric Supply Authority Engineers’ Association, Chairman’s Report, H F Toogood, 1928).”

- ❖ **Provide an engineering and technical lens for industry, regulators and policy makers.**

- ❖ The objects haven’t change but the context for delivery has...

“ By 2050 the EEA and its members will have contributed to the realisation of a world where human activity is no longer having a significant negative impact on the planet’s climate and ecosystem. The EEA and its members are fully engaged in the planet’s challenges with respect to climate change, decarbonisation, energy supply resilience, environmental rehabilitation, economic circularity, secure energy systems, and a balanced and equitable world.”

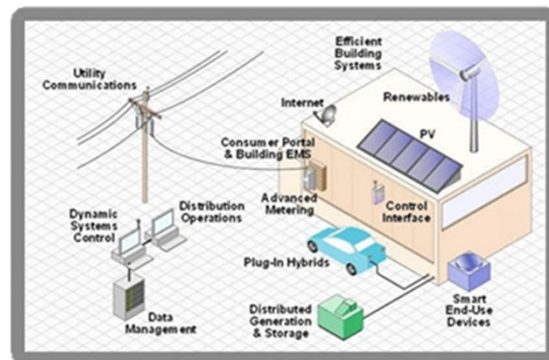


What do we do?

EEA is a focal point for collaboration and thought leadership in engineering, asset management and safety across the electricity sector.

EEA are:

- ❖ Navigators
- ❖ Connectors
- ❖ Leaders
- ❖ Experts
- ❖ Capability builders
- ❖ Growing collective understanding and risk management
- ❖ Supporting delivery and implementation of policy



Future Industry Challenges

Aotearoa's power system is set to become more dynamic and distributed with more DER (i.e., EVs, solar PV, batteries etc) embedded into the grid & distribution networks and behind-the-meter which will make demand/supply more flexible and potentially less predictable.

Key Challenges to Consider - DER/EVs/New Technologies

- Leveraging DER to build and operate the future grid
- Leveraging new technology to enhance ancillary services
- Visibility and observability of DER

Key Challenges to Consider - System

- System Performance
 - Balancing renewable generation
 - Managing reducing system inertia
 - Operating with low system strength
 - Accommodating future changes within technical requirements/Performance Standards
- Power system modelling
- Forecasting

Key Challenges to Consider - General

- Cyber security
- Coordination of increased connections and changing/less predictable customer behaviour
- Growing skills and capabilities of the workforce
- Social license



Key EEA Activities

Asset Management Group

EEA work with members, regulators and industry partners on standardization and key technical issues such as safety, security of supply, reliability and power quality, the management of energy demand, energy efficiency and sustainable energy.

❖ EEA produces well utilised Industry Guidelines such as:

- EEA Asset Information Maturity Framework; Asset Criticality Guide; Asset Health Indicators; Asset Management Maturity Assessment Tool (AMMAT) - (ISO 55001 Asset Management)
- Resilience Guide (resilience planning to support effective management of issues arising from major emergency events)
- Safety in Design Guide
- Risk Based Vegetation Management Guide

❖ EEAs current work programme for guidelines includes:

- Resilience Guide (update) ; Power Quality Guide (update); DER Connection Guidelines (new)

❖ Knowledge sharing - Asset management forums, events, and webinars ; EEA Conference 10-12 Sept 2024 (Chch)

❖ National Equipment Defect Reporting System NEDeRS® - Provides access to international database on electrical equipment defects

❖ Engagement and input into relevant international standards (IEC, ISO, AS/NZS, IEEE, CIGRE)



Priorities

Key Priorities

- ❖ **Define and establish minimum technical requirements (short/medium)**
 - Enable the efficient and secure integration of new technologies – work with the Authority to update the Code, connection guidelines, technical standards, grid and distribution operation processes and procedures whilst ensuring continued system security and reliability, and safety.
- ❖ **Resilience (medium/long-term)**
- ❖ **Develop pathway to ensure future skills and capabilities of the workforce (medium/long-term)**
 - Update the skills and capabilities of the current workforce; and train future engineers and technical staff with the relevant skills for our evolving energy landscape



Thank you

