

# Security and Reliability

For today and tomorrow's decision makers and strategists.



Learn how to balance the demands of delivering an increasingly complex and flexible power system whilst maintaining reliability and security.



This course gives deeper insights into the complex interconnected power system, which is increasingly accommodating more and different technologies, each of which have security and reliability implications. We show how to balance competing tensions where the traditional is generally safe but the new and innovative is cheaper; and why electricity is so political. We provide attendees with the knowledge and tools to make more effective decisions and understand the likely impacts of their strategies.

## Course overview



### 9 - 10 hours of preparatory material

Upon registration participants gain access to the online resource centre where they can access 10-15 minute videos, plus read case studies about the 1992 Supply Crisis and 1998 Auckland CBD blackout.



### 2 full day in-class sessions

With everyone up to speed on the basics, these sessions consist of group discussions, case studies, simulations and demonstrations delivered by our two expert industry trainers.



### 12 months access to the Online Resource Centre

Plus, all attendees are automatically registered for the Whiteboard Alumni to get regular newsletters and invites to exclusive networking events.

## Development outcomes

- ✓ Appreciate the different aspects and practical application of security and reliability.
- ✓ Appreciate how we can invest in and build secure and reliable systems.
- ✓ Understand how to balance delivered energy price with security and reliability.
- ✓ Develop critical thinking skills to apply to the real world problems that threaten electricity markets.
- ✓ Understand in more detail how a secure and reliable power system evolves with new technology.

## Upcoming course details

IN-CLASS COURSE

LOCATION

Wellington

PRICE

\$3,450 + gst

A 10% discount can be applied for each additional attendee.

## Register online

REGISTER AT

<http://whiteboardenergy.co.nz/course/security-and-reliability/>

or email us at [admin@whiteboardenergy.co.nz](mailto:admin@whiteboardenergy.co.nz) or call 027 225 1983.

REGISTER  
NOW



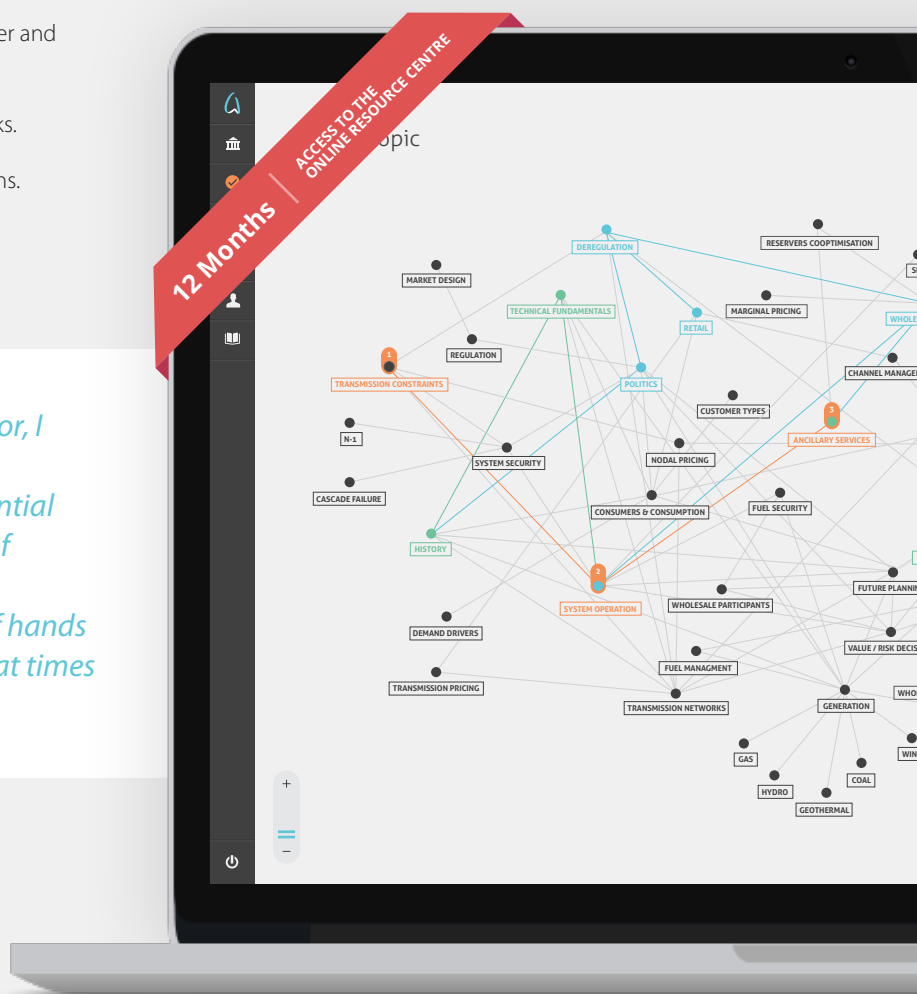
## This two day course covers

- **The increasing demand for security**, how attitudes to reliability have changed and why electricity is so political.
- **Hydrology influence on supply balance**, including using the hydro simulator.
- **Providing redundancy**, and introduction to system operation, including Minicitiopolis demonstration - n-1, voltage, cascade failure and economics of capacity and reliability.
- **System operation** – frequency, stability, reactive power and power quality, loop flows, with demonstrations.
- **Distribution**, moving from the mesh to radial networks.
- **The influence of technology** – problems and solutions.

*As someone from outside the energy sector, I found the course hugely beneficial and informative. The course covered a substantial amount of detail of this important area of infrastructure. It was taught in a very comprehensive manner that made use of hands on demonstrations and discussions that at times were robust.*

Eric Walshe, Pricemaker

*This course investigates how investment affects security and reliability and the different roles played by lines, generation and demand. It also explores how we operate assets in order to balance the delivered energy price and acceptable levels of security and reliability.*



## Why Whiteboard Energy?

Trainers Steve Batstone and David Reeve have worked in senior roles at the heart of this industry for many years and have an exceptional level of knowledge and passion for this industry. They remain involved in the industry keeping up to date with the latest developments, including the technical and economic aspects. Both have intimate experience of the 'statecraft' that influencers need in order to be effective in the whole

industry and with regulators and politicians.

Both Stephen and David are passionate about mentoring, developing critical thinking skills and encouraging robust discussions to develop clarity of thought. This, with a network of fellow participants and regular updates, gives you the best start in the industry.

## Contact us

Read more [www.whiteboardenergy.co.nz](http://www.whiteboardenergy.co.nz)

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