


- Disaster recovery
- Sulphides in transformers
- The future of reliability

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Cigre Study Committee C1



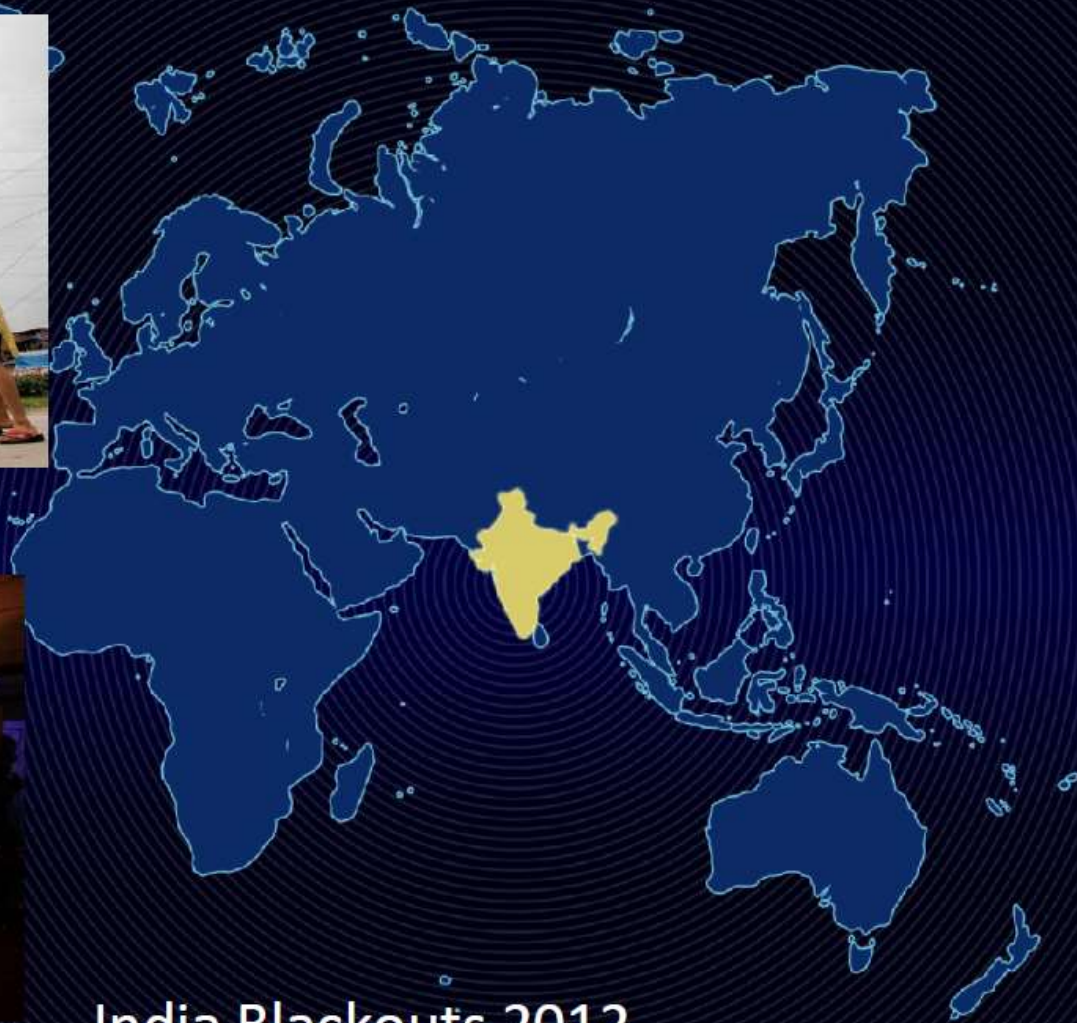
A world map with a dark blue background and a grid of concentric circles. The landmasses are outlined in a lighter blue. New Zealand is highlighted in yellow. The map is centered on the Pacific Ocean.

Disaster recovery:
Trends and future work



New Zealand - Christchurch Earthquake 2011





India Blackouts 2012





Japan
Tsunami 2011



USA
Hurricane Sandy



Microgrids ... New York City After Superstorm Sandy



Spain - Cyclone Klaus 2009



Queensland Floods - 2010/2011





Victoria Bushfires 2009



Key Findings:

- Each disaster response is different
- Each disaster is different: prepare for the worst
- People management
- Policy implications
- National cohesion and perception management
- Communication
- Empower middle management and local leaders
- Workforce trauma
- Long term resilience
- International assistance

A world map in shades of blue is centered in the background. The island of Japan is highlighted in a bright yellow color. A large, dark blue oval is superimposed over the map, containing a list of tasks.

To do:

- Strategic planning options
- Building resilience
- Measuring resilience
- Technological robustness
- External communications
- Human resources
- Cyber attacks

Cigre Study Committee A2

- Sulphides in transformers



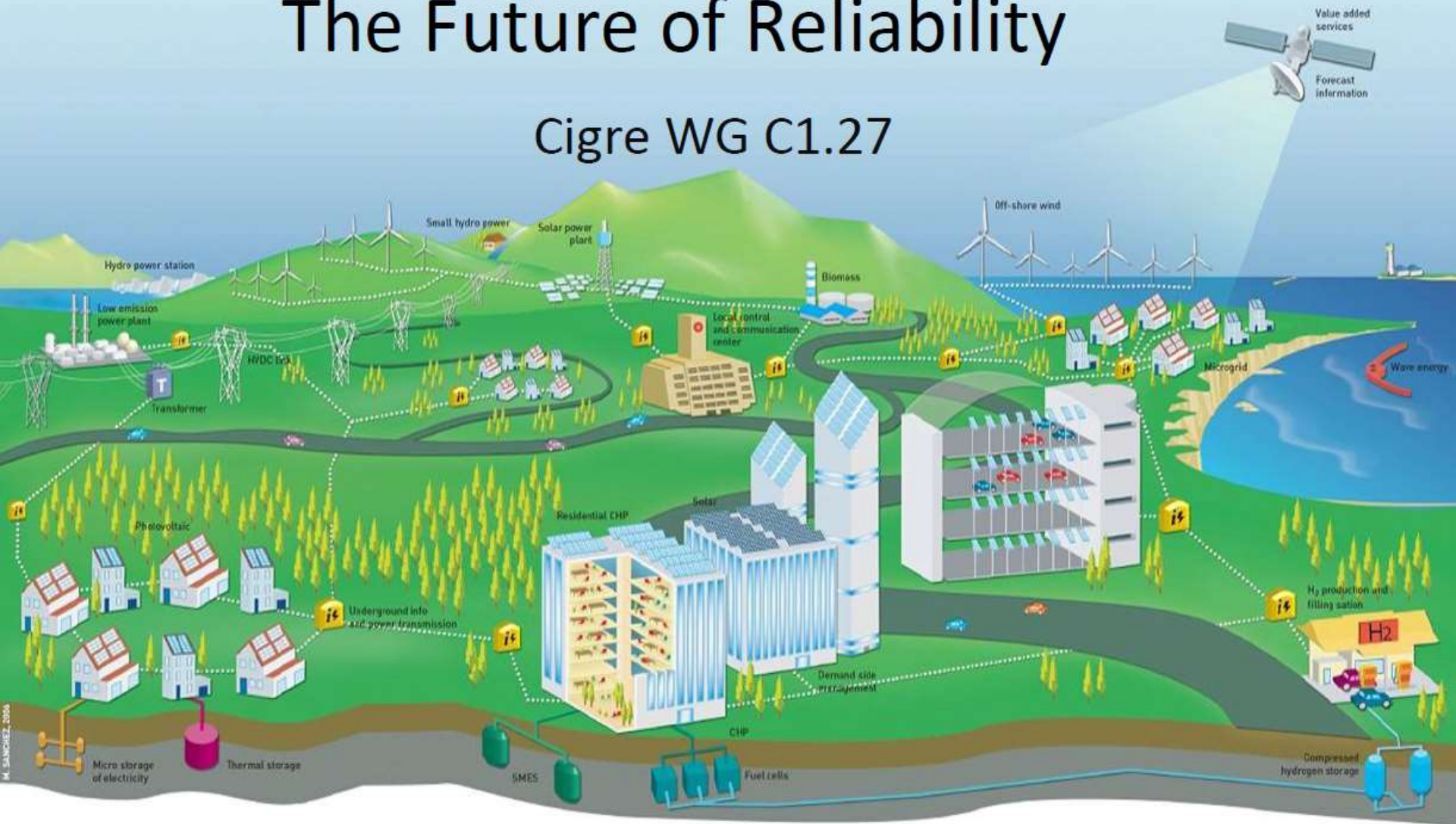
AgS on OLTC contacts and collector rings

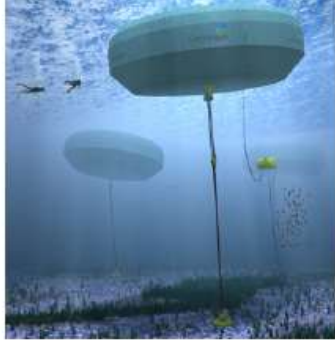
“Cigre publications 378 and 625 are a must read for anyone with responsibility for managing transformers,”
Arne Petersen.



The Future of Reliability

Cigre WG C1.27





Technology

Environment



Economics

Policy /
Regulations



A world map with a dark blue background and white outlines of continents. The map is centered on the Atlantic Ocean. A large, dark blue oval is superimposed over the center of the map, containing the text "Thank you". The country of New Zealand is highlighted in a bright yellow color.

Thank you