### **Presented by Graeme Ancell- Convener**

Brisbane – 20/11/2019

**CIGGIC** For power system expertise Power system development and economics

2015 2016-20 2021-30 2031-40

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Energy Suppl

inergy Demand

## SC C1 Overview

#### **Study Committee Scope**

The scope of Study Committee C1 is to study economics and system analysis methods for the development of power systems in order to support electricity system planners worldwide

#### **Specific Activities of SC C1:**

System planning

Asset management

Business management

Interconnections - horizontal, vertical







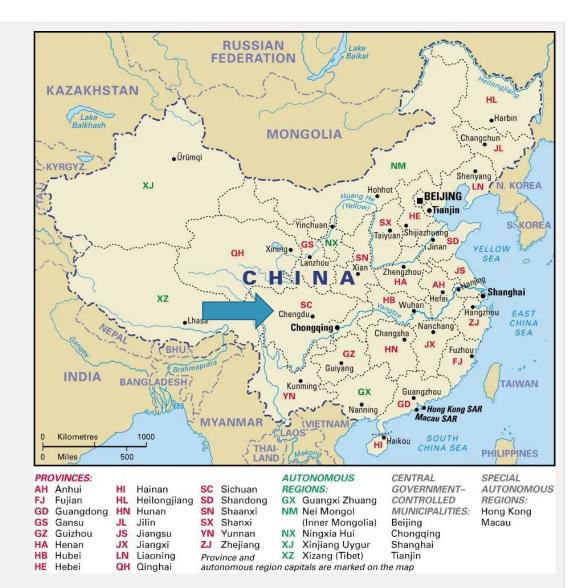
## 2019 Chengdu Symposium 20-25 September 2019

#### **PREFERENCE SUBJECTS**

PS1 - Planning for a future sustainable grid

PS2 - Integrating distributed energy resources to build a sustainable future and integrating renewable

PS3 - Technology solutions for a future sustainable power system





## Chengdu Symposium

20-25 September 2019

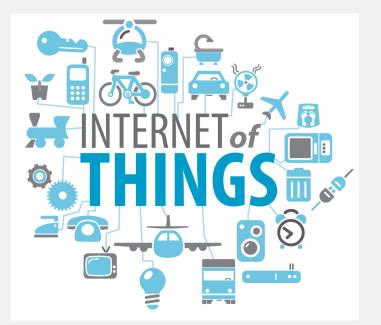
Towards active, sustainable digital networks that are resilient and integrated from UHV to distribution

#### Keynote Speakers

"Technology and Applications of **IOT** in Electricity Power", Kunlun Gao, Global Energy Interconnection Research Institute

"Three Issues in the Application of **Electric Internet of Things** for Energy Transition", Junyong Liu, Professor of Sichuan University

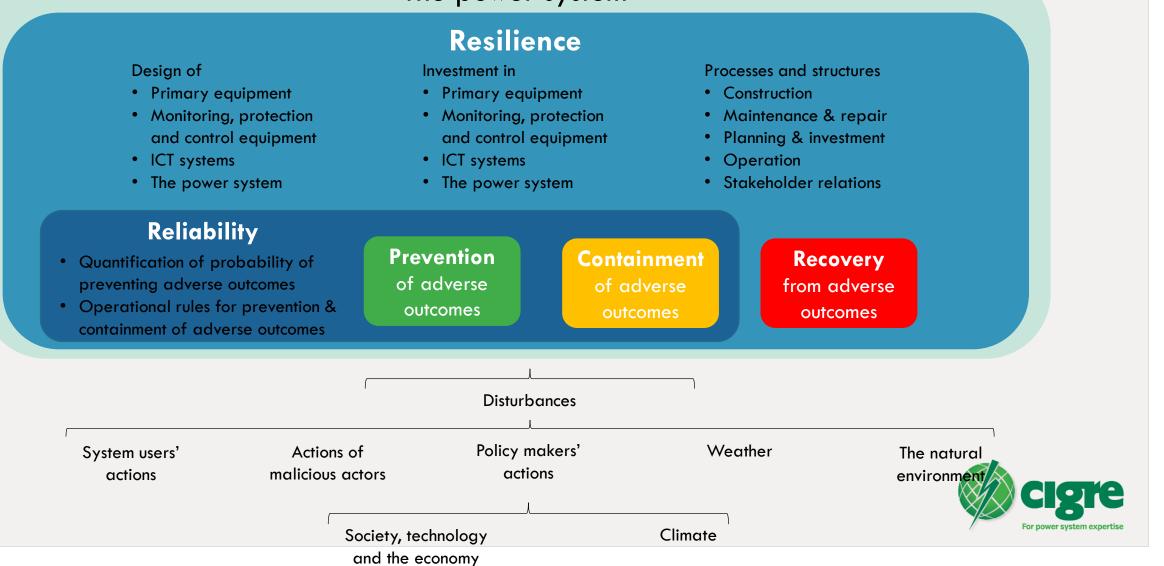
"Potential Effects of **IoT** Devices on Electricity Demand Functions under Sector Coupling Scenarios", Konstantin Staschus, Chair of C1





### Reliability' and 'resilience'. A holistic view

#### The power system



### **Relevance to Australia**

SC C1 has produced many Technical Brochures with very high relevance to the Australian electrical industry.

TB 775 Global electricity network - Feasibility study

TB 715 The future of reliability - Definition of reliability in light of new developments in various devices and services which offer customers and system operators new levels of flexibility

TB 701 Review of drivers for transmission investment decisions

TB 681 Planning criteria for future transmission networks in the presence of a greater variability of power exchange with distribution systems

TB 670 Establishing best practice approaches for developing credible electricity demand and energy forecasts for network planning

TB 666 Technical risks and solutions from periodic, large surpluses or deficits of available renewable generation





# **2019 Deliverables**

TBs published in 2019

TB 775 Global electricity network - Feasibility study

WGs nearing completion with a TB expected late 2019 or 2020

C1.34 ISO SERIES 55000 STANDARDS: IMPLEMENTATION AND INFORMATION GUIDELINES FOR UTILITIES

C1.38 Valuation as a comprehensive approach to asset management in view of emerging developments

Other WG of interest C1.44 Global Interconnected and sustainable electricity system Effects of storage, demand response and trading rules

C1.41 "Closing the Gap in Understanding between Stakeholders and Electrical Energy Specialists"

