

NGN and WiE Australia Update

CIGRE NZ Inaugural Conference 2020

General NGN Australia Update

- 223 NGN members
 - 26 members on NGN committee
 - 4 online meetings per year as a group
 - Bi-monthly individual catch-ups with co-chairs
 - Co-chairs attend board meetings
- Corona Times Newsletter contributions
- Continued relationship with NGN NZ, NGN Japan, active participation in International NGN committee
- CIGRE Paris scholarship positions



NGN Australia Webinars

- 4 webinars so far this year
 - STATCOMs
 - VSC HVDC
 - Control Strategies Addressing Inverter Impacts on the System
 - Regulating Distribution Transformers for Greater Rooftop PV Integration
- 2 more planned
 - Synchronous Condensers (August)
 - Fibre Optic and Network Fundamentals (September)



REGULATING DISTRIBUTION TRANSFORMERS FOR MORE ROOFTOP SOLAR PV GRID INTEGRATION



July 2020
Reinhausen Australia, Dr Thomas Smolka



Introduction to VSC HVDC Transmission

Les Brand, Amplitude Consultants



cigré
For power system expertise

21 May 2020

Wide Area Synchronous Machine and Inverter Control

Prof Gerard Ledwich

QUT



STATCOM – STATic synchronous COMpensator

How does a STATCOM work?



The reactive power output at the terminals of a STATCOM depends on the amplitude of the voltage source

If the terminal voltage of the STATCOM is higher than the voltage at the point of connection, the STATCOM generates a capacitive current

If the terminal voltage of the STATCOM is lower than the voltage at the point of connection, the STATCOM absorbs an inductive current

$$P = \frac{V_t V_{PC} \sin(\theta)}{X}$$

$$Q = \frac{V_t V_{PC} \cos(\theta)}{X} - \frac{V_{PC}^2}{X}$$



Future Goals

- Comfortable with size of membership pool, committee
- Focus on outreach and collaboration activities
- Once travel restrictions lift, looking to continue progress regional visits and catch-ups
- Looking to continue facilitating webinars next year on a bi-monthly basis
- Looking to develop new ways to engage the NGN, such as energy trivia nights, think tanks and e-learning events in 2021



Australia Women in CIGRE Group

- CIGRE Australia and the NGN are keen to start a CIGRE WiE Group
- This mirrors groups established by other CIGRE national committees
- The group will be announced at this year's online Paris WiE Forum



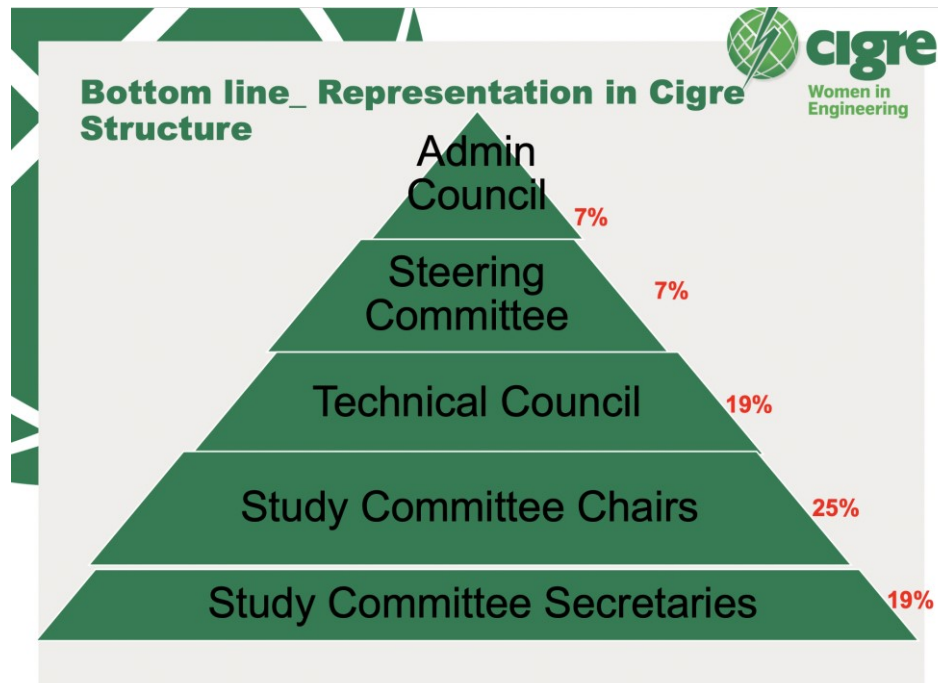
CIGRE Australia Diversity Stats

Representation in CIGRE	# F/M	%
Executive Board	2/10	20%
AU National Committee Conveners	1/16	6.25%
Panel membership	14/290	4.9%



Global CIGRE Statistics

- Global CIGRE female participation is at 8%



List of National Committees with a Women in Engineering network:

National Committee	Name of WiE chair
Brazil	Carla DAMASCENO PEIXOTO
Bosnia and Herzegovina	Maja MUFTIC DEDOVIC
Canada	Robyn KOROPATNICK
Croatia	Ivana DAMJANOVIC
France	Alexia VENET-JALADE
GCC	Alaa ALKIYUMI
India	Seema GUPTA
Iran	Nasim NEMATOLLAHI
Kosovo	Pranvera DOBRUNA KRYEZIU
Netherlands	Luis HURTADO
New Zealand	Rebecca MARX
Romania	Mihai MARCOLT
Russia	Frolova OLGA
Slovenia	Ana LOVRENCIC
South Africa	Khayakazi DIOKA
Sweden	Susanne OLAUSSON
United Kingdom	Biljana STOJKOVSKA

Women in CIGRE Finger Down Challenge



NGN Australia Website

- New separate website for NGN Australia
- Drive new memberships, streamline sign-up process and information sharing
- Host range of new WiE content and initiatives
 - Profiles page
 - Opportunities page
 - Mentoring program
 - Links events





empowering
networking
global know-how



Thanks for Listening!