

# Corona Times

2nd DEC. 2021  
EDITION 28



empowering  
networking  
globalknow-how

**CORONA:** “a luminous, audible discharge brought on by the ionization of a fluid such as air surrounding a conductor that is electrically charged”.



A MONTHLY NEWS-SHEET TO PROVIDE INFORMATION AND UPDATES TO CIGRE MEMBERS

## TECH TALK

A series of links to CIGRE Technical documents



### ELECTRIC PERFORMANCE OF NEW NON-SF6 GASES AND GAS MIXTURES FOR GAS-INSULATED SYSTEMS - TB849

SF6 gas is today's preferred solution for compact and reliable gas-insulated systems. As SF6 gas has an extremely high global warming potential, the demand for alternative solutions is increasing. Recent developments for medium-voltage applications presented alternatives based gaseous, liquid or solid insulation materials. For high-voltage applications, recently presented alternative gaseous insulation concepts are based on gases of natural origin or mixtures of these with fluorinated components. This brochure summarizes the work of group D1.67 to investigate the electric properties of these novel gaseous mixtures.



### HARMONISED TEST FOR THE MEASUREMENT OF RESIDUAL METHANE IN INSULATING MATERIALS - TB850

In this Technical Brochure, a harmonised test method for measuring methane content in XLPE power cable insulation systems is presented. The WG has performed round robin testing and found that the method is reliable and that it can be adapted to some extent to fit available lab resources if care is taken to avoid certain pitfalls.



### ACCURACY AND CALIBRATION OF INSTRUMENT TRANSFORMERS WITH DIGITAL OUTPUT - WGR\_319\_2

Issues related to the accuracy and calibration of instrument transformers with digital output are presented, addressing both laboratory and field calibration. Both IEC and IEEE accuracy definitions are considered, and appropriate circuits for high-accuracy calibration are reviewed. An update on EURAMET EMPIR Futuregrid II project is provided, showing the latest efforts in enabling deployment of digital voltage and current sensors in the evolving grid. Finally, examples of the use of digital low power instrument transformers for practical field calibration of other instrument transformers are presented.

Merry Christmas

to all our Members and Subscribers

This will be our last edition for 2021.

It seems as though we will be continuing to live in 'Corona Times' into 2022, so we look forward to continuing to bring more interesting content and information to you.

Thank you for subscribing and we wish you and your families all the best for the Festive Season.

*The CIGRE Santa has given his reindeer a spell this year and opted for a Solar powered delivery vehicle? We all hope the sun keeps shining and he has a good BESS system on board !*



## NGN NEWS

News from our Young Engineer Group (U 35yo)  
Latest Webinars - October/November

The NGN recently facilitated another technical webinar for 2021: **Introduction to LCC HVDC** on the 13th October. It was another successful webinar with over 60 people attending.

Additionally, the **Women in Energy group** hosted their first webinar: **Oscillatory Stability in the NEM**, on November 17th.

All NGN/WiE webinar and event details are posted on the NGN website, and past NGN webinars are posted in the NGN KMS space and on YouTube.

Please click on the link for further information:  
<https://ngn.org.au>



## AUSTRALIAN TECHNICAL PANEL PRESENTATIONS

The 2021 Australian Technical Panel presentations are now available on the CIGRE Australia You Tube site.

These presentations are from the recent event and present a summary of CIGRE work, an activity in each of the sixteen technical panel areas.

Access the recordings on our **YouTube** site [HERE](#).

## CIGRE PARIS SESSION 2020 MATERIALS



The papers and proceedings from 2020 e-session are now available on e-cigre for download.

This download gives access to all the proceedings and papers from the 2020 online session.

It is free to members and €80 to non-members.

Download from [e-cigre](#)

## WEBINARS - FREE



### NETWORK PROTECTION PERFORMANCE AUDITS - WBN035

Considering the rapid changes to which transmission and distribution networks are subjected, and the ever-shorter expected useful life of numeric protection relays, the requirement for network protection performance audits as part of the lifetime management of protection systems is becoming a necessity. The capability and availability of steady state single frequency phasor-based power system and protection analysis software packages now make it possible to undertake “wide-area” protection performance audits.

The scope of the working group was to cover the possibilities, advantages and requirements for utilising proprietary power system and protection analysis software for undertaking protection performance audits of transmission and distribution systems involving hundreds or thousands of protection devices.

## COLLECTIVE MEMBERS PROFILE



FUTURE GRID CONNECT CONSULTING PTY LTD

Future Grid Connect (FGC) Consulting Pty Ltd is a Perth based consultancy Company which aims to provide end to end solutions for conventional and renewable energy projects throughout Australia and the Asia-Pacific region. Our range of services spans all stages of a project life cycle, from pre- feasibility and development stage, concept design, GPS studies, project implementation and owner’s engineering, commissioning, Technical Rules compliance assessment and site testing.

Over the years FGC consultant advisors have established themselves as leading specialists in their field of expertise, and have engineered, specified, designed and delivered some of the most complex and integrated power projects in the renewable energy sector, oil & gas, power utilities and mining industries in Australia and the Asia-Pacific. FGC’s consultants deep understanding of the regulatory environment means that we can help to support your long-term project planning needs and priorities to develop and complete new grid connection projects.

For further information on FGC Consulting capabilities please follow us or contact us at the following link: [www.fgcconsulting.com.au](http://www.fgcconsulting.com.au)

This Member summary is provided as general information and is not an endorsement of the members services or products.

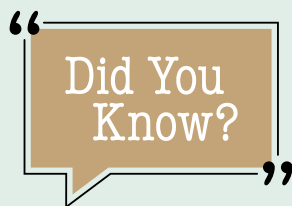
### Australian Technical panel presentations:

These can now be found on our [YouTube](#) channel and summarise the work being carried out in each of our 16 Technical fields of work.

**e-cigre:** The go to site for all CIGRE documentation and Technical Brochures.

Through e-cigre you can search the vast technical database of 14,000 + items, order Green books or view a range of Webinars and search for past Electra editions.

<https://e-cigre.org/>



Did You Know?

#### Social Media:

CIGRE Australia has several social media channels where we post updates and items of interest.

#### Follow us to keep up-to-date:

- [Linkedin](#)
- [Twitter](#)
- [YouTube](#)