

Corona Times

JULY 2023
EDITION 41



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

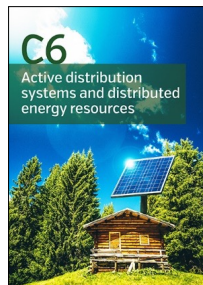


DISTRIBUTED ENERGY RESOURCE BENCHMARK MODELS FOR QUASI-STATIC TIME-SERIES POWER FLOW SIMULATIONS - TB 906

The rapid evolution of DER technologies and applications poses a challenge when modelling these technologies - including inconsistent terminology as well as multiple representations of specific DER types.

This technical brochure documents a DER benchmark model framework and a set of initial benchmark

models for quasi-static time-series (QSTS) power flow simulations, which are intended as a common reference to understand and verify the performance of existing models as well as support standardization in industry models.



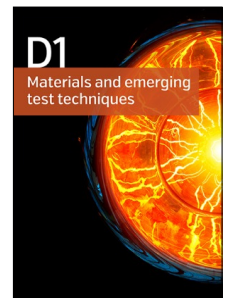
BASIC PRINCIPLES AND PRACTICAL METHODS TO MEASURE THE AC AND DC RESISTANCE OF CONDUCTORS OF POWER CABLES - TB 894

AC losses in power cables (such as skin effect and proximity effect) may play a non-negligible role in load capacity and hence dimensioning of the transmission lines.

The brochure provides a detailed technical description of the particularities linked to the measurements of the electrical linear resistance of conductors at power frequencies.

IMPACT OF CYCLING ON LARGE ELECTRICAL MOTORS - TB 890

Market conditions require power plants to operate frequently in cycling mode with frequent starting and stopping. Reliable operation of large electrical motors in this more arduous environment is crucial to success of the plant. The TB discusses the effects on the motors of cycling operation and makes recommendations for design, manufacture



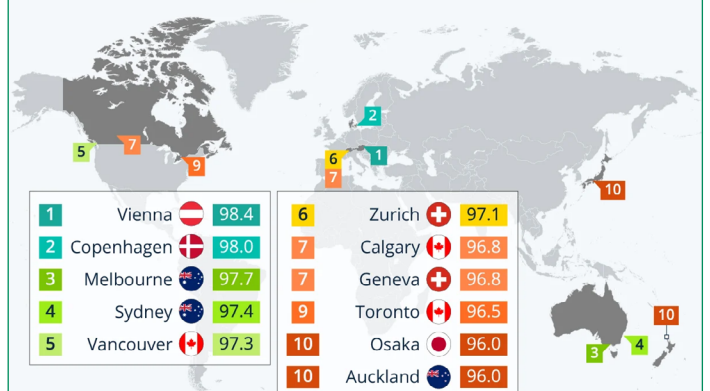
NGN NEWS

News from our Young Engineer Group (U 35yo)

In May the CIGRE Australia NGN hosted a multi-state, in person technical presentation & networking event. The telecast presentation brought industry leaders from AEMO, Ausgrid and Energy Queensland together to discuss The Growing Role of Battery Storage in the Australian Energy System and share their expertise on the elements required to enable more battery storage in the Australian electricity grid. The technical presentation is available up on the CIGRE Australia YouTube page if you're interested, otherwise keep an eye out for similar events later this year. We are excited to be hosting the NGN Forum and NGN Presentations at the upcoming Cairns Symposium. The forum shall bring together a panel of existing and emerging leaders from Australia and beyond to address the theme of "Enabling Knowledge Transfer; Energising Industry Transition". We will be running interactive break out groups and asking our audience take an active role in addressing some key challenge questions posed by our industry leaders. The afternoon will focus on technical presentations from our NGN national and international cohort. If you're in attendance at the Cairns Symposium, make sure you stop by and take part on the day!

The World's Most Liveable Cities

Global cities ranked by living conditions in 2023 (100=ideal)



The survey assess 173 cities, ranking them according to their stability, healthcare, culture and environment, education and infrastructure.

Source: The Global Liveability Index 2023 - The Economist Intelligence Unit



statista





**CAIRNS 2023
INTERNATIONAL
SYMPOSIUM
4TH - 7TH SEPTEMBER**

SEE GREAT
LEAVE GREATER

Hosted by the Study Committees C2 and C5
**THE END TO END
ELECTRICITY SYSTEM**
Transition, Development and Integration

UPCOMING WEBINAR:

**TRANSFORMER
BUSHING MONITORING**

Did you know 50% of bushing failures end in fires?

Join us for a webinar to discuss typical problems in bushings and the various diagnostic methods of bushing monitoring.

PDH Certificates are available upon completion of the webinar.



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Terry Killen
CEO, CIGRE Australia

This will be the last 'Corona Times' that I will produce. I will be handing the reins over to Peter McIntyre at the end of July and staying on in a part-time role to complete the organising and running of the Cairns Symposium. Thanks to all our contributors for the 41 Editions and I look forward to seeing you in Cairns. We have some great sponsors and exhibitors and will have more than 1000 delegates from 35 countries (so far !) - **See you There !**

COLLECTIVE MEMBERS PROFILE



Smarter Power Solutions

Smart Power Solutions (SPS) is an Australia-based engineering consultancy that specialises in power system modelling, simulation, and analysis. SPS has a deep understanding of the regulations, rules and requirements of the National Electricity Market and provides support to some of the world's largest renewable generators and battery energy storage projects. SPS support projects from pre-feasibility studies, connection applications, commissioning and testing all the way through to ongoing compliance. SPS is also working with transmission and distribution companies to support the transition to operation of high-renewable power grid. As well as working with regulators, market bodies and governments to provide technical advice to support changes.

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