

## Workshops and panel summaries – Edition 1 17 June

Study Committee	Time (CEST)	Title of the workshop or panel	Workshop or panel Chair	Chair' email address	Abstract of the workshop or panel
<b>TC</b>	<b>1300 – 1600 Friday 20 August</b>	<b>Opening panel</b>	<b>Marcio SZECHTMAN, CIGRE Technical Council Chair</b> <b>Moderator : Konstantin STASCHUS, former CIGRE Study Committee C1 Chair (Power systems development and economics)</b>	<a href="mailto:marcio.szechtman@cigre.org">marcio.szechtman@cigre.org</a>	<p><b>Welcome and introduction</b> by Marcio SZECHTMAN, CIGRE Technical Council Chair</p> <p><b>Invited speech</b> on the “Energy Internet for Clean Energy Transition”, by Baoan XIN, Executive Chairman, State Grid Corporation of China</p> <p><b>Keynote speech</b> on global energy transition: main challenges, solutions and education requirements for electrification and renewable energy system integration on all continents</p> <p><b>Reactions</b> to keynote speech and view from distinguished representatives of Asia, Africa, North America, Europe, South America and Middle East.</p> <p><i>Please note: The opening panel is still being finalised, further information will be added to this in coming editions of this document.</i></p>
<b>A3 &amp; B3</b>	<b>1300 – 1600 Friday 20 August</b>	<b>Workshop: The impact of SF6- free alternatives in T&amp;D substations and its switchgear</b>	<b>Rene Smeets (A3) Piet Knoll (B3)</b>	Lead: <a href="mailto:Rene.Smeets@kema.com">Rene.Smeets@kema.com</a>	<p>Efforts are ongoing in industry to develop SF6-free switching equipment with media for insulation and interruption having considerably lower global warming potential than SF6. Mixtures of natural and synthetic gases are now introduced in new switchgear, as well as combined with vacuum for interruption.</p> <p>The workshop is focused on the impact on TSO/DSO applications. Members of CIGRE WG A3.41 [with contributions from CIGRE WGs B3.45 and D1.67] will highlight the following aspects:</p> <ul style="list-style-type: none"> <li>• Relevant features of the new media and performance comparison with SF6</li> <li>• Pilot projects demonstrating new products in transmission and distribution applications, including switches and high-voltage vacuum switchgear</li> <li>• Asset management guidelines for the [potential] users of SF6-free switchgear</li> <li>• Lifetime considerations, including HSE aspects</li> <li>• Implications for standardization and testing</li> </ul> <p>Latest technology: status and outlook</p>

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<b>C6 &amp; C1</b>	<b>1200 – 1600 Monday 23 August</b>	<b>Hydrogen supporting the energy transition</b>	<b>Antonio Iliceto (C1) Christine Schwaegerl (C6)</b>	<a href="mailto:christine.schwaegerl@hs-augsburg.de">christine.schwaegerl@hs-augsburg.de</a>	<p>Hydrogen is gaining rapidly growing attention around the world. It can be used as a fuel, as storage or as a carrier, and has many possible applications not only in electricity supply but also across industry, transport, power and buildings sectors without any CO2 emissions, provided it is produced from RES.</p> <p>Thus, green hydrogen is essential to support commitment to reach carbon neutrality and for the global effort to implement the Paris Agreement while working towards zero pollution.</p> <p>This workshop will focus on strategies, pilot projects as well as commercial and technical feasibility of how a future energy system with hydrogen could look like.</p>
<b>C4</b>	<b>1200 – 1600 Monday 23 August</b>	<b>EMT analysis for large-scale system impact studies in power systems having a high penetration of inverter connected generation</b>	<b>Babak BADRZADEH</b>	<a href="mailto:Babak.Badrzadeh@aemo.com.au">Babak.Badrzadeh@aemo.com.au</a>	<p>This workshop will focus on the following topics:</p> <ul style="list-style-type: none"> <li>• Electromagnetic transient (EMT) models vs phasor-domain models</li> <li>• Importance of EMT modelling in power systems with high share of inverter-based resources</li> <li>• The role of screening methods to reduce the number of EMT studies required</li> <li>• Level of details required for accurate modelling of inverter-based resources</li> <li>• Systematic development of wide-area network models in EMT tools</li> <li>• Network equivalencing</li> <li>• Co-simulation techniques</li> <li>• Wide-area real-time EMT simulation</li> <li>• Acceptance testing and validation of wide-area EMT models</li> <li>• International case studies in the use of wide-area EMT models and phenomena uncovered</li> </ul>
<b>C2 &amp; C5</b>	<b>1200 – 1600 Monday 23 August</b>	<b>Large Disturbances Workshop</b>	<b>Greg Thorpe (C5) Jayme Darriba Macêdo (C2)</b>	<a href="mailto:gthorpe@oakleygreenwood.com.au">gthorpe@oakleygreenwood.com.au</a> <a href="mailto:jayme@ons.org.br">jayme@ons.org.br</a>	<p>The Workshop aims to present significant events considered as disturbances regarding the Operation of Electrical Systems and the Electricity Markets.</p> <p>The experience with this Workshop showed the interconnection of causes and consequences that these two aspects (Operation and Market) have in some cases of disturbances, which leads us to the search for some of the cases presented to have this characteristic. The main objective is the technical discussion, based on the cases presented and the lessons learned that are the main legacy for the participants.</p>