

**7<sup>th</sup> EUROPEAN  
CONFERENCE  
ON SUBSTATION  
EQUIPMENT**

[www.2023.matpost.org](http://www.2023.matpost.org)

**M A T 20  
P O S T 23**

**22<sup>TO</sup> 24  
NOVEMBER  
LYON**

# PROGRAM AT A GLANCE

22 - 24.11.2023 | 8 AM - 6 PM | DOUBLE MIXTE

Major infrastructure projects for a carbon-free world and their impact on Substation equipment

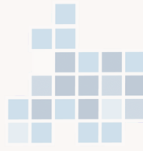


With the support of :



GE VERNOVA





22 TO 24  
NOVEMBER  
LYON  
DOUBLE MIXTE

# How to get there

The MatPost 2023 conference will take place at DOUBLE MIXTE, located in the heart of Lyon, close to station Gare Part Dieu.

## Address:

DOUBLE MIXTE  
19 Avenue Gaston Berger  
69100 Lyon Villeurbanne

## Accessibility:

**Airport:** Lyon-Saint Exupéry

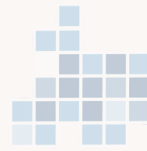
**Train Stations:** Lyon Part-Dieu (preferably) or Lyon Perrache

**Public transportation:** Tramways T1 & T4, station "Gaston Berger"

## Gala Dinner :

Cruise on the HERMES boat  
16 quai Claude Bernard, Lyon 7th ardt  
From 7:30pm\* to 11pm

**\*Please note that the boat will leave at 8pm, do not be late or you won't be able to access the cruise.**



22 TO 24  
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# PROGRAM - DAY 1

22.11.2023 | 8 AM - 6 PM | DOUBLE MIXTE

8:00 AM Registration desk

8:45 AM Opening Session by François GERIN, SEE President

8:55 AM Keynote speakers : Michel AUGONNET, CIGRE President and Khalid ABDALLAOUI, RTE Engineering Director

## SESSION 1 – GERALD SANCHIS (SEE) New solutions for new applications

9:35AM Distributed Energy Resources protection test challenges and solutions – Andrea Bonetti, Sonia Garcia, Stefan Larsson and Nicolas Wetterstrand

9:45 AM Evolutions of the HV grid Protection and Automation schemes in case of large DC generation sources – Bruno Andre and Yann-Eric Bouffard-Vercelli

9:55 AM New Modelling Requirements for Inverter Based Resources and Storage System connection on the French Transmission Grid – El-Mehdi Karmani, Elias Mberou, Yannick Vernay and Fabien Morretton

10:05 AM Power Transformer qualification for floating offshore applications – Tobias Stirl, Vivekkumar Chaubey, Rupesh Daripa, Oguzkan Senturk and Kenny Zhang

10:15 AM Long term smart grid interoperability: Standards based integration of E-Mobility, Prosumers, and Grid – Mayank Sharma and Tom Berry

10:25 AM Fire Safety of HVDC Transformers – Simon Ryder

10:30 AM Supporting the Energy System Transition to Renewables using Real Time Simulators – Paul Forsyth, Kati Sidwall and Cyprian Peters

10:45 – 11:45 AM Questions to authors and coffee break

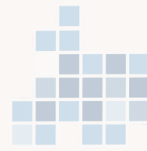


# PROGRAM - DAY 1

22.11.2023 | 8 AM - 6 PM | DOUBLE MIXTE

## SESSION 2 – OLIVIER MAZEROLLES (RTE FRANCE) Maintenance and life time extension

11:45AM	RTE Large Power Transformers (LPT) Maintenance policies and Asset management Strategy – Abasse Timera and Rudy Blanc
11:55 AM	Tarnishing of power contacts in MV/LV Switchgear- Reasons and Solutions – Keyur Tandel and Hani Modi
12:05 AM	Methodology to assess transformers electrical insulation condition associating different techniques of PD measurements and beyond – Sébastien Louise, Triomphant Ngnegueu, Christophe Perrier and Raphael Lebreton
12:15 AM	Health Index computation in Switchgear Monitoring Systems: providing Asset Performance Management crucial data straight from the primary equipment – Samuel Fifi, Nicolas Gadacz
12:25 AM	COLIBRI (COlmatage Lliaison BRIde): Sealing of the SF6 Gas Insulated Substations (GIS) in order to reduce or stop leaks, and thus plan heavy maintenance and increase the lifetime of the assets – Fabrice Durand, Samuel Nguéfeu and Aurélien Taureau
12:35 AM	Earth Fault Passage Indicators Using Phase Currents Only in Impedance Grounded and Isolated Distribution Networks – Torbjörn Karlsson and Martin Mellbin
12:45 AM	Verifying line differential protection with time synchronised, primary end-to-end testing using a standard secondary injection test equipment – Andrea Bonetti, Mauro Borielli and Niclas Wetterstrand
12:55 AM	Questions to authors
1:20 PM	Lunch buffet in the exhibition area



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# PROGRAM - DAY 1

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## SESSION 3 – LAURENT GAUTHIER (MASTERGRID) Condition monitoring

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**2:45 PM**      Advanced health monitoring for Vacuum Circuit Breaker – Vladislav Kraynov

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**2:55 PM**      RTE Oil-insulated Instrument Transformer (IT) Asset management Strategy – Sandra Griffon and Xavier Gilles

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**3:05 PM**      How to insure the reliability of testing of a modern power transformer protection with a system-based testing approach in the field – Frederic Dunet, Christopher Pritchard, Georgii Tishenin and Thomas Hensler

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**3:15 PM**      On-site dry-type power transformer condition assessment based on partial discharge measurement in wind farms, industrial and marine applications under constricted space conditions – Thomas-Henry Renaudin

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**3:25 PM**      Relations Between Environmental Performance And Data Handling Of High-Voltage Switchgear And Controlgear – Thierry Cormenier, François Trichon, Thierry Bardou, Roselyne Thai and Dominique Serve

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**3:35 PM**      Condition monitoring of switching transients on power transformers of pumped storage power plants – Antonin Fouré, Vincent Renouard, François-Xavier Zgainski and Benoit Bruchon

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**3:45 PM**      Ageing evaluation tools to support power transformers maintenance engineering : Diagnosis by Aging Markers – Mohamed Ryadi, Kim Lan Zappellini, Stephane Flet and Hervé Dumas

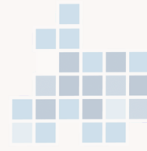
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**3:55 PM**      Questions to authors

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**4:20 PM**      Coffee break

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# PROGRAM - DAY 1

22.11.2023 | 8 AM - 7 PM | DOUBLE MIXTE

## SESSION 4 – PASCAL PEDRINELLI

### Advanced solutions for digital assessment

4:55 PM	Realising the potential of digital twin technology in power system protection – Opportunities and challenges for, closed loop testing, interoperability and standardisation – Niclas Wetterstrand, Andrea Bonetti, Cedric Harispuru, Ronald Kubelec and Mehdi Zeyeni
5:05 PM	Advanced supervision of high voltage equipment at RTE – Fabrice Martin, Malick Mouhamad and Guillaume Denis
5:15 PM	Catalogue Data Of High-Voltage Switchgear And Controlgear – Thierry Cormenier, François Trichon, Eros Stella, Jean-Luc Rayon, Mutlu Kizilelma, Utku Kalkanci, Gideon Fatunmbi and Ismaila Ayanda
5:25 PM	Innovant Densimeter for GIS Tank, Insensitive to Temperature Variation – Philippe Brun, Diego Alberto and Raimund Summer
5:35 PM	Combined accelerated aging test on digital MV circuit breaker for fault diagnosis and predictive maintenance – Jean-Pierre MELEY, Diana EL KHOURY, Patrick TORTOROLO, Cyril NICOLLE, Zoé BERNARD
5:45 PM	Preventive–Predictive–Proactive monitoring and diagnostics of switchgear using Artificial Intelligence and Machine Learning – Keyur Tandel and Ambrish Gandhi
5:55 PM	Insights and Lessons Learned from a Swedish DSO's Campaign on IEC 61850 Substations: Automating the Verification of SCD Documentation for Improved Maintenance – Anders Karlsson, Andrea Bonetti and Niclas Wetterstrand
6:05 PM	Questions to authors
7:30 PM	Gala Dinner on a boat cruise – 16 quai Claude Bernard, Lyon 7th ardt

\*The boat will leave at 8pm, do not be late!



# PROGRAM - DAY2

23.11.2023 | 8 AM - 5 PM | DOUBLE MIXTE

8:00 AM Registration desk

8:40 AM Keynote speaker : Yann FROMONT, Deputy President T&D Europe

## SESSION 5 - FRANÇOIS TRICHON (SCHNEIDER ELECTRIC) SF6-free alternatives - 1/2

9:00 AM SF6 & SF6-free dual gas compatibility of GIS products above 52 kV - Arnaud Ficheux, Tommie Barbe, Bertrand Portal, Samuel Souchal, Felix Bernard and Walter Chesneau

9:10 AM F-gas-free Natural Origin Gases for MV GIS, to manage a low carbon future - Thomas Duerr, Dirk Pohle, Klaus Kirchner and Patrick Schneider

9:20 AM AVOIDING UNCERTAINTIES ON SAFETY AND RELIABILITY IN 24 kV SF6-FREE SECONDARY DISTRIBUTION SWITCHGEAR - Jose Manuel Inchausti, Joseba Arostegui, Sergio Sebastian and Jean Pierre Gontier

9:30 AM Performance investigation of SF6 free Gas Insulated DC Systems - Caterina Toigo, Thanh Vu-Cong, Frank Jacquier and Alain Girodet

9:40 AM 24 kV RMU filled with pure air in test with Enedis - Christophe Preve and Jean-Pierre Gontier

9:50 AM Emission-free natural-origin gas alternative to SF6 for T&D equipment > 52 kV - Mark Kuschel, Bernhard Heil, Kyong-Hoe Kim, Shinsasku Imura, Jürgen Bernauer, Udo Prucker, Daniel Schiffbauer

10:00 AM Key Aspects of Today and Future Landscape of Insulating Liquids - Bruce Pahlavanpour and Edward Casserly

10:10 AM Questions to authors and coffee break



# PROGRAM - DAY2

23.11.2023 | 8 AM - 5 PM | DOUBLE MIXTE

10:40 AM- 12:30 PM

ROUND TABLE

## SF6 Alternatives and opportunities to accelerate their deployment and ensure a smooth transition

What are the challenges and opportunities in adopting SF6 alternatives in medium and high voltage switchgear, and how can we collaborate to accelerate their deployment and ensure a smooth transition?

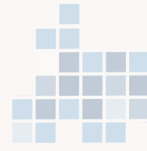
A talk with the participation of :

- **European Commission :**
  - Arno Kaschl, Policy Analyst
- **TSOs/DSOs :**
  - Aurélien TAUREAU, RTE
  - Guillaume LANGLET, ENEDIS
- **And many manufacturers :**
  - Bertrand PORTAL, GE Vernova
  - Christian OHLER, Hitachi-Energy
  - Enrique LOPEZ, Ormazabal
  - Marc KUSCHEL, Siemens-Energy
  - Christophe PREVE, Schneider-Electric



- Lunch break in the exhibition area from 12:30 pm to 2:00 pm -





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# PROGRAM - DAY2

23.11.2023 | 8 AM - 5 PM | DOUBLE MIXTE

## SESSION 6 – Elena Rodriguez Gonzales (ORMAZABAL) SF6-free alternatives – 2/2

2:00 PM

New 420 kV 63kA GIS switchgear using environment friendly C4-FN / O<sub>2</sub> / CO<sub>2</sub> gas mixture – Cyril Grégoire, Thomas Lacroix, Antoine Perret, Diana Leguizamon, Samuel Souchal and Félix Bernard

2:10 PM

How to meet the challenge to reduce SF<sub>6</sub> leakages from the high-voltage equipment installed base ? – Gaetan Busson

2:20 PM

Pressurized air and vacuum breaking as alternative to SF<sub>6</sub> – Daniel Piccoz, Christophe Preve and Romain Maladen

2:30 PM

Performance of High Voltage Circuit-Breakers using C<sub>4</sub>FN gas mixture on Shunt reactor applications – Cyril Grégoire, Marius Catala and Ludovic Darles

2:40 PM

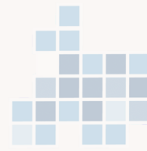
Testing, installation, and operation experience with pressurized air cables for 36 kV, 3000 A and 123 kV, 2500 A – Walter Holaus

2:50 PM

245kV Single Break capability for Air Insulated Switchgear SF<sub>6</sub>-free Circuit-Breaker – Blandine Revaud, Antonin Bobeau, David Berard and Joel Ozil

3:00 PM

Questions to authors



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# PROGRAM - DAY2

23.11.2023 | 8 AM - 6 PM | DOUBLE MIXTE

## SESSION 7 - Yannick Kieffel (GE VERNOVA) Sustainability and Life Cycle Assessment

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**3:10 PM** High Performance Power Distribution Transformers – Pablo Cirujano, Jean François Ricaud and Jean Pierre Gontier

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**3:20 PM** Life Cycle Assessment of Power Transformers – Christophe Perrier, Mathéo Chomel, Joerg Harthun and Tobias Stirl

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**3:30 PM** Evaluation of new insulation systems for resilient and greener transformers – Fabio Scatiggio, Giorgio Campi, Radoslaw Szewczyk, Evanne Wang and Jean-Claude Duart

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**3:40 PM** Influences on the Life Cycle Assessment of High Voltage Switchgear – Peter Gronbach, Kirsten Maciejczyk, Mark Kuschel, Andreas Mahnke, Thomas Rank and Catherine Dolt

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**3:50 PM** Applying circular value-chain principles to extend high-voltage equipment lifecycle – Guillaume Huguet and Olivier Mazerolles

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**4:00 PM** Application case of regenerated oil in large power transformer – Christophe Elleau and Gilles Jacques

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**4:10 PM** Taking steps toward sustainability – Thomas Norrby, Par Wedin and Meriam Gourine

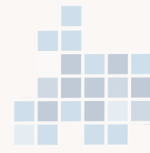
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**4:20 PM** Questions to authors

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**4:50 PM** Closing ceremony – Dominique SERVE

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# EXHIBITORS

22 - 24.11.2023 | 8 AM - 6 PM | DOUBLE MIXTE



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