



HOSTED BY:



EWA
هيئة الكهرباء والماء
Electricity & Water Authority

GCC POWER 2024

11TH - 13TH NOVEMBER, 2024 | GULF HOTEL BAHRAIN



FOR MORE INFORMATION
WWW.CIGRE-GCCPOWER.COM



WELCOME MESSAGE

Welcome to the GCC POWER 2024 Conference & Exhibition! I am delighted to invite you to join us for the 20th edition of this esteemed international conference and the 30th exhibition dedicated to electrical equipment. Scheduled from November 11th to 13th, 2024, at the Gulf Hotel in Manama, Bahrain, this event is held under the patronage of His Excellency Kamal bin Ahmed Mohamed, President of the Electricity and Water Authority (EWA).

The conference provides an invaluable platform for industry professionals, researchers, and stakeholders to engage in discussions on the latest advancements and trends in the electricity and energy sectors. Attendees will have the opportunity to explore a wide range of topics, including system operation and control, system development and economics, electricity markets and regulation, distribution systems, and substations. We will also cover specialized topics such as transformer design, manufacturing, and performance, overhead lines and insulated cables, HVDC and FACTS technology, renewable and nuclear energy for the Gulf States, smart grids, and asset management for power systems. Exhibitors can look forward to connecting with a diverse audience and the potential for lucrative business opportunities, while attendees can enhance their knowledge through tutorials following the opening ceremony on November 11th.

GCC POWER 2024 promises to be an essential gathering for anyone involved in the electrical and energy industries. We look forward to welcoming you to an event that fosters innovation, collaboration, and growth in our field.

H.E. ENG.

AHMED NASER AL- NASER

GCC CIGRE Board Chairman

ABOUT GCC CIGRE



GCC-Cigre was established under the umbrella of the Gulf Cooperative Council in accordance with a recommendation from their Excellencies GCC Ministers of Electricity & Water during their second meeting held in Kuwait on 22nd April 1985 under the patronage and auspices of Gulf Cooperative Council.

The GCC's General Secretariat, together with the Secretary General, of the International Council for large Electric Systems "CIGRE" drafted the Committee's basic law. The Committee, a non-profit institution, is an affiliate of the International Council and is mainly devoted to encourage and develop scientific researches and studies in the field of Electricity Systems.

GCC CIGRE is one of the leading organizations on Electric Power Systems, covering their technical, economic, environmental, organizational and regulatory aspects. A permanent, Regional Committee based in Qatar, GCC-CIGRE aims to:

- Facilitate and develop the exchange of engineering knowledge and information, between engineering personnel and technical specialists in all GCC Countries as regards generation and high voltage transmission of electricity.
- Add value to the knowledge and information exchanged by synthesizing state-of-the-art and world practices.
- Make managers, decision-makers and regulators aware of the synthesis of GCC-CIGRE's work, in the area of electric power. More specifically, issues related to planning and operation of power systems, as well as design, construction, maintenance and disposal of HV equipment and plants are at the core of GCC-CIGRE's mission. Problems related to protection of power systems, telecontrol, telecommunication equipment and information systems are also part of GCC-CIGRE's area of concern.

► PURPOSE

Enable sustainable electricity for all through the development of power system expertise globally.

► MISSION

Contribute to the betterment of power systems and electricity by enhancing the community of power system expertise.

► VISION

The leading, most innovative global community for the sharing and development of electric power system expertise.

GCC CIGREE BOARD OF DIRECTORS



HE /ENG.

AHMED NASER AL- NASER

GCC CIGRE Board Chairman

State of Qatar



HE /ENG.

THANI BIN MOHAMMED AL-KHUSAIBI

GCC CIGRE Board Advisor

Sultanate of Oman



HE /DR.

MOHAMMAD FALAH AL RASHIDI

GCC CIGRE Board member and Representative of GCCGS

State of Kuwait



HE /ENG.

AHMED MOHAMED AL KAABI

GCC CIGRE Board Member and Representative of United Arab Emirates

United Arab Emirates



HE /ENG.

KAMEL ABDUL SAMAD AL SHEHABI

GCC CIGRE Board Member and Representative of Bahrain

Kingdom of Bahrain



HE /ENG.

MOHAMMED HUSSEIN AL-JUHANI

GCC CIGRE Board Member and Representative of Saudi Arabia
Saudi Arabia



ENG.

AHMED ABDULLAH AL RAHBI

GCC CIGRE Board Member and Representative of Oman
Corporate Affairs General Manager
Sultanate of Oman



HE /ENG.

AHMAD A A AL KUWARI

GCC CIGRE Board Member and Representative of Qatar
State of Qatar



HE /ENG.

ATHARI KHALIFA AL-MOHAMMED

GCC CIGRE Board Member and Representative of Kuwait
State of Kuwait



HE /ENG.

AHMED ALI AL-EBRAHIM

GCC CIGRE Board Member and Chairman of the Technical Committee
Kingdom of Bahrain



HE /ENG.

ABDUL AZIZ AL HAMMADI

GCC CIGRE Board Member

State of Qatar



HE /ENG.

MOHAMMED A. AL MUAILI

GCC CIGRE Board Member Chief Operating Officer (COO) - GCC LAB

Saudi Arabia



HE /ENG.

ABDULRAHMAN IBRAHIM ALSHABNAN

GCC CIGRE Board Member

Saudi Arabia



HE /ENG.

ABDULLA AL KHEMEIRI

GCC CIGRE Board Member - Executive Managing Director (CEO) Arabian Power Company

United Arab Emirates



HE /ENG.

MOHAMED AL-SHAIKH

GCC CIGRE Board Member - Chief Network Officer
GCC Interconnection Authority

Kingdom of Bahrain

HOST ORGANIZATION COMMITTEE

EWA, BAHRAIN



Ali AlNemah

Vice President, Electricity Affairs



Sayed Aqeel Alawi

Director, Electricity Planning &
Projects Directorate



**Mohammed AbdulAziz
Ali Al Atawi**

Director, Electricity Transmission



Salman Al Nakkal

Head, Electricity Transmission
Planning & Studies



Jaffar Mohammed Ali

Senior Electrical Engineer



Ali Abbas Al Hadad

International Organizations
Specialist



Hawra Abdulla Ahmed

International Organizations
Specialist

GCC CIGRE

TECHNICAL COMMITTEE



ENG.
AHMED ALI AL-EBRAHIM
TC Chairman and Representing
the GCC CIGRE Board
Kingdom of Bahrain



ENG.
ABDULLAH AL GHAMDI
Study Committee Member-B4
Saudi Arabia



ENG.
ABDUL RAHMAN AHLI
Study Committee Member-B3
United Arab Emirates



DR.
ABEER ALMAIMOUNI
Study Committee Member-C1
State of Kuwait



ENG.
ABDULAZIZ ALSHAFI
Study Committee Member-C6
State of Qatar



ENG.
ALAA RAHMA
Study Committee Member-D2
Kingdom of Bahrain



ENG.
AQEEL MOHAMED
AL AWADY - Study Committee
Member - B1
United Arab Emirates



ENG.
FAHAD AL-ZAHRANI
Study Committee Member-B2
Saudi Arabia



ENG.
HAIFAA ALMTEIRI
Study Committee Member-B5
United Arab Emirates



ENG.
HASHIM AL-ZAHRANI
Study Committee Member-A1
Saudi Arabia



ENG.
**KAMEL ABDUL SAMAD
AL SHEHABI**
Study Committee Member-C6
Kingdom of Bahrain



ENG.
MOHAMED AL-SHAIKH
Study Committee Member-C4
Kingdom of Bahrain



ENG.
MOHAMMAD AL-HAMAD
Study Committee Member - C5
Kingdom of Bahrain



ENG.
MOHAMMED A. AL MUAILI
Study Committee Member
Saudi Arabia



ENG.
NASSER ALSHAHRANI
Study Committee Member - C5
Saudi Arabia



ENG.
SANA AL-GHAREEB
Study Committee Member-C3
State of Kuwait



ENG.
TARIK AL-ABRI
Study Committee Member A2
Sultanate of Oman

GCC CIGREE GENERAL SECRETARIAT OFFICE



ENG.
WESAM AL ANQAR
Acting Secretary General of GCC
CIGRE
State of Qatar



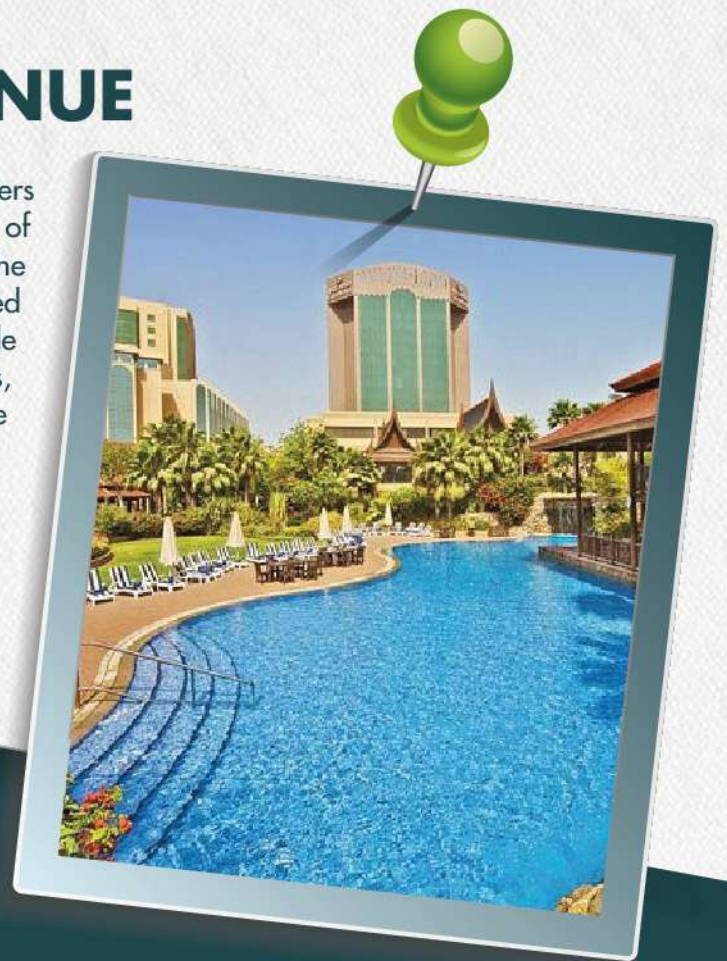
MR.
MOHAMED WASILA
Secretary of Technical Committee &
Activities in Charge of GCC CIGRE
State of Qatar



MR.
ASHRAF SHORMAN
Assistant Activities in charge of
GCC CIGRE
State of Qatar

CONFERENCE & VENUE

The Convention center of Gulf Hotel offers state-of-the-art meeting facilities and 4,780 sqm of flexible space to host almost any type of event. The contemporary surroundings are further enhanced by a team of professional staff who provide impeccable service for all sizes of gatherings, from intimate business meetings to theatre-style conferences for up to 2,200 delegates.



ACCOMMODATION INFORMATION

Hotel accommodations have been booked at nearby hotels for the conference and exhibition at a discounted rate. For more information on these special rates, please visit our website.

<https://bit.ly/4evmvHk>

Bahrain, an archipelago of 33 islands, is rich in history and ancient civilizations, and is situated in the Arabian Gulf, off the east coast of Saudi Arabia. The country offers a fascinating blend of eastern and western cultures. The capital Manama is quite modern cosmopolitan city, which boasts world class restaurants, shopping centers, and tourist attractions. The climate is hot in summer and mild in winter. From November to April, the weather is very pleasant, with temperatures ranging from 15 to 24 degree centigrade. Arabic is the official language, but English is widely used by most businesses..



SPONSORS

HOSTED BY



POWER SPONSOR



DIAMOND SPONSOR



GOLD SPONSORS



GE VERNOVA



SCHWEITZER
ENGINEERING
LABORATORIES

GALA DINNER SPONSOR



SILVER SPONSORS



Jeddah cables
COMPANY

OMEXOM

BRONZE SPONSORS



Sieyuan



شركة الخليج لصناعة البتروكيماويات
Gulf Petrochemical Industries Co. S.P.C.

LANYARD SPONSOR



REGISTRATION SPONSORS



CONFERENCE GIFT SPONSOR



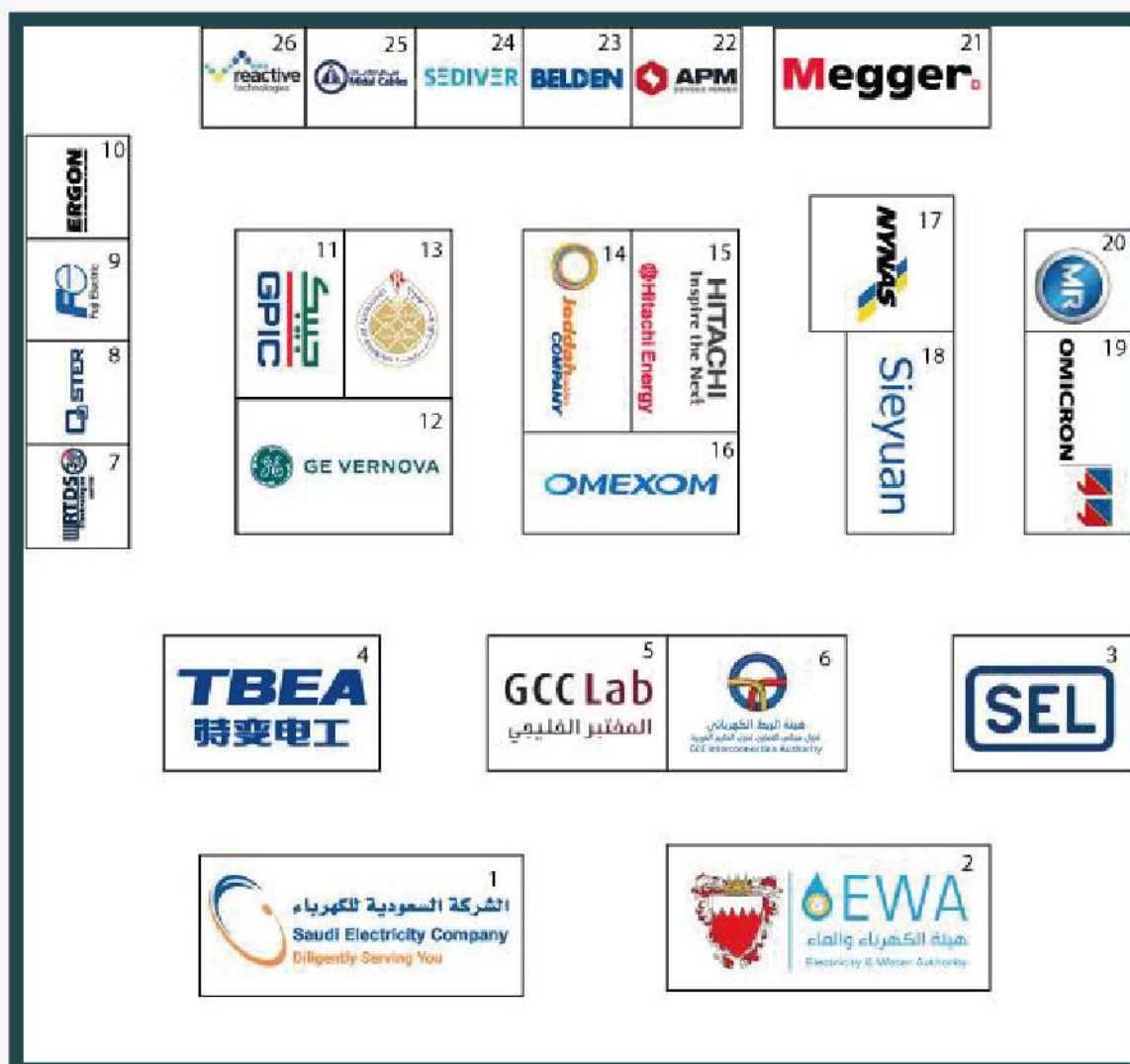
CORPORATE SUPPORTER



EXHIBITORS



GCC 2024 FLOOR PLAN

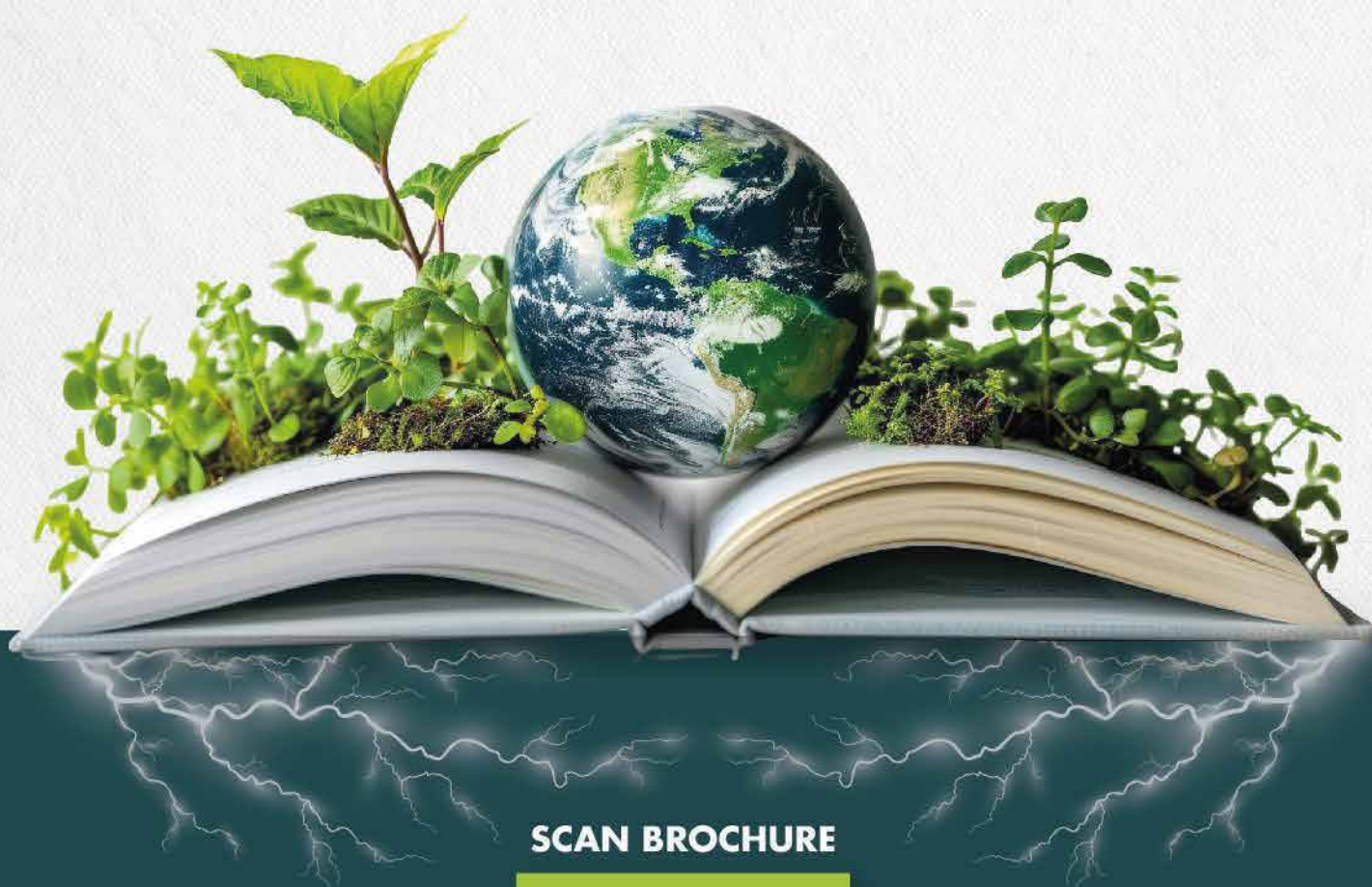


EXHIBITION ENTRANCE

TECHNICAL PROGRAM

GCC POWER 2024

11TH - 13TH NOVEMBER, 2024 | GULF HOTEL BAHRAIN



SCAN BROCHURE



FOR MORE INFORMATION
WWW.CIGRE-GCCPOWER.COM

AGENDA



DAY ONE

MONDAY 11TH NOVEMBER 2024
(29TH JUMADA-OLA 1446)

07:30 - 8:50

Conference Registration & Reception

OPENING CEREMONY

09:00 - 09:05

Official Opening Ceremony & Holy Quran

09:05 - 09:10

Welcome Address

H.E. ENG. Ahmed Naser Al-Naser
Chairman of GCC CIGRE Board of Directors

09:10 - 09:15

CIGRE Address

Prof. Dr. ENG. Konstantin O. Papailiou
CIGRE President, France

09:15 - 09:20

Short Film

09:20 - 09:45

Spotlight on Bahrain Electricity Sector with President of Electricity and Water Authority (EWA), Bahrain

H.E. ENG. Kamal Bin Ahmed Mohammed

Moderator by:

Dr. Lawrence Jones

09:45 - 10:00

Honoring VIPs and Sponsors

10:00 - 10:40

Exhibition Inauguration

Opening Panel Session

Towards NetZero Future Grids: Challenges, Opportunities and Solutions Framework

Moderators: Ahmed Al-Ebrahim - CEO GCCIA, Saudi Arabia

Dr. Lawrence Jones - Senior VP International Programs, Edison Electric Institute EEI, USA

10:40 - 12:00

Panelists

Eng. Waleed AlSaadi - CEO National Grid, Saudi Arabia

Eng. Yousif Al Ali - CEO Etihad WE, United Arab Emirates

Eng. Thorsten Schwarz, Managing Director of ENOWA Grid - NEOM, Saudi Arabia

Eng. Santiago Bañales - Managing Director, Iberdrola Innovation Middle East, Spain

Eng. Majed Al-Rasheedi - Research Scientist, Kuwait Institute for Scientific Research, Kuwait

12:00 - 12:20 | BREAK & EXHIBITION VISIT

12:20 - 13:20

Tutorial One:

Composite Insulators: Materials, Design, Applications

Konstantin Papailiou
President of CIGRE, France

Tutorial Two:

100% RES Based Grid, its Code & Standards

Dr. Syed R Mushtaque
Grid Codes and Standards Manager, ENOWA NEOM, Saudi Arabia



DAY ONE

13:20 - 14:50

MONDAY 11TH NOVEMBER 2024
(29TH JUMADA-OLA 1446)

TRACK
A

SESSION A1

Grid resiliency with integration of Renewable Energy & Energy Storage

Chaired. By: **Ali Ashoor**
Electricity & Water Authority (EWA), Bahrain.

- A101** ▶ Framework for Analysis and Evaluation of Energy Storage Policies By:
Ahmed Zayid AlShaqs
Nama Electricity Distribution Company, Oman
- A102** ▶ Impacts of Enhanced Integration of Renewable Energy Sources on GCCIA Power Grid Operations By:
Saleh Alotaibi
GCCIA, Saudi Arabia
- A103** ▶ Optimum Renewable Energy mix for industrial power load demand and the role of storage solutions for deep decarbonization and net zero emission target By:
Idris Al Siyabi
Petroleum Development Oman, Oman
- A104** ▶ Developing a "Desert Code" - Enhanced Photovoltaic Module Accreditation for Harsh Desert Environments: A Case Study for Bahrain (EWA) By:
Ali Salman
Electricity & Water Authority (EWA), Bahrain
- A105** ▶ KAHRAMAA New Solar Projects Impact on Generation Dispatching By:
Abdulla AL-Ali
Qatar General Electricity & Water Corporation - Qatar
- A106** ▶ Battery Energy Storage System-AC Power Grid integrated system; Protection state of Art and Future Trend By:
Mohammed Hussien Hassan Musa
Saudi Electricity Company, Saudi Arabia
- A107** ▶ Economic Assessment of Installing Pumped Hydro Storage versus OCGT in KSA. By:
Mohammed Bader Alshalawi,
NGrid, Saudi Arabia
- Q&A (15 min.) LIVE SESSION

TRACK
B

SESSION B1

System Operation & Control

Chaired. By: **Mohammed Al Atawi**
Electricity & Water Authority (EWA), Bahrain.

- B101** ◀ Minimum required number of conventional units to accommodate for renewables in Oman 2027 considering inertia requirements. By:
Anwar Al Mughazwi
OETC, Oman
- B102** ◀ Grid Balancing Reserves for System Frequency Control with High Renewable Penetration. By:
Abdulmalik Alghamdi
Saudi Electricity Company, Saudi Arabia
- B103** ◀ Measuring the regional inertia of a large interconnected power grid to secure and optimise system operation under high IBR penetration – The Australian NEM case study. By:
Antonio Enas
Reactive Technologies Ltd, United Kingdom
- B104** ◀ Sizing of 230 kV Shunt Reactors for a Long Submarine Cable. By:
Joe Letèf
Saudi Aramco, Saudi Arabia
- B105** ◀ Inertia Estimation of the Oman Power System Using Synchrophasor Measurements. By:
Ammar Saif Al Jardani
Oman Electricity Transmission Company, Oman
- B106** ◀ Adaptive solution for out-of step problem using phasor measurement units. By:
Mohamed Reda Elshahat Hamed
Al-Dhow Engineering General Trading & Constracting Company, Kuwait
- B107** ◀ DC Post-fault Recovery Strategies for NEOM Multi-terminal HVDC Grid. By:
Md Habibur Rahman
ENWOA.NEOM, Saudi Arabia
- Q&A (15 min.) LIVE SESSION

14:50 | LUNCH & End of DAY ONE

20:00 | Gala Dinner, Gulf Hotel



DAY TWO

09:00 - 10:30

TUESDAY 12TH NOVEMBER 2024
(30TH JUMADA-OLA 1446)

TRACK
A

SESSION A2

Electricity Markets and Clean Energy

Chaired. By: **FADHEL AL ANSARI**
Gulf Petrochemical, Bahrain

- A201** ▶ Transitioning Towards Renewable Energy And Market Liberalization: The Sultanate Of Oman's Journey Towards Oman Vision 2040. By:
Awf Saif Said Al-Mamari
Authority For Public Service Regulation, Oman
- A202** ▶ The Benefits From Regional Trading Of Ancillary Services In The GCC Region By:
Abdulraheem Al-Garni
GCCIA, Saudi Arabia
- A203** ▶ Fast Frequency Response Ancillary Services: A Global Review Of Technical, Procurement, And Market Integration Challenges. By:
Gergo Varhegyi
Siemens Energy LLC, United Arab Emirates
- A204** ▶ Energization Option Evaluation for Modular Multi-terminal HVDC of the NEOM Grid of the Future. By:
Peng Li
ENOWA.NEOM, Saudi Arabia.
- A205** ▶ Harnessing Solar Energy: A Model For Reducing Co2 Emissions And Carbon Footprints In Power Generation.By:
Isa Salman Qamber
Bahrain Society of Engineers, Bahrain.
- A206** ▶ Green Energy Applications Towards Carbo Emissions Reduction: A Case Study On Residential Buildings. By:
Mithaq Ateyatalla
Sustainable Energy Expert, Bahrain.
- Q&A (15 min.) LIVE SESSION

10:30 - 11:30 **Women in Energy**

Moderator: **Dr. Abeer Almaimouni**
Assistant Professor Electrical Engineering
Kuwait University, Kuwait

Speakers: **Eng. Mariam Ahmed Jamaan**
Member, Supreme Council for women &
Chair of the Board, Telecommunications
Regulatory Authority (TRA), Bahrain

Dr. Wafaa Al-Mansouri
Vice President of Institutional Effectiveness &
Accreditation at the America
University of Bahrain

Dr. Hiba Nayif Harara
Vice President, Electricity & Water Procurement,
Electricity & Water Authority (EWA), Bahrain

TRACK
B

SESSION B2

Transformer Design, Manufacturing, Life Cycle and Performance

Chaired. By: **Abdulla Hasan**
GCCIA, Saudi Arabia

- Critical Transformers Health Indexing Application ◀ **B201**
- Abdullah Misfer Algahtani**
Hadeed, Saudi Arabia
- Optimized approach of a cost-efficient method for monitoring on-load tap-changers with the use of machine learning. By: ◀ **B202**
- Dr. Karsten Viereck**
Maschinenfabrik Reinhausen, Germany
- A Review Study of Silver Sulfide Corrosion in On-Load Tap Changer of Oil-Filled Electrical Transformers. By: ◀ **B203**
- Dr. Ramsey Jadim**
GCCLAB, Saudi Arabia
- Power Transformer Health Index. By: ◀ **B204**
- Mansour Alturki**
Saudi Aramco, Saudi Arabia
- Power Transformers as potential bottleneck for grid expansions. By: ◀ **B205**
- Thomas Friedrich Kessler**
Siemens Energy Global GmbH & Co. KG, Germany
- Practical Interpretation and evaluation of OLTC Operation using dynamic resistance measurement Results By: ◀ **B206**
- Dr Diego Robalino**
Megger, Bahrain
- Q&A (15 min.) LIVE SESSION

10:30 - 11:30 **NGN Presentation**

Moderator:

Dr.Fadhel Abbas Albasri
Assistant Professor, Department of Electrical and Electronics
Engineering, College of Engineering, University of Bahrain

Investigating the impact of the Electric Vehicles integration on Bahrain distribution network.

Ebrahim Adel Al Saleh
Electricity & Water Authority (EWA), Bahrain.

Decarbonizing Bahrain electricity grid while ensuring the security of Supply.

Fatema Abdulwahed Ahmed
Electricity & Water Authority (EWA), Bahrain.

Load Modeling Impact on Voltage Stability: A Case Study

Jawaher Adel Al Banki
Electricity & Water Authority (EWA), Bahrain.

Advanced Controller Design for D-FACTS Device in Grid-connected Photovoltaic System Controller.

Ali Jaber Al Qattan
Aluminum Bahrain (Alba), Bahrain.

11:30 - 12:30 | BREAK & EXHIBITION VISIT & Product Showcase, and Poster Session 1&2

GCC CIGRE General Assembly Meeting



DAY TWO

12:30 - 14:00

TUESDAY 12TH NOVEMBER 2024
(30TH JUMADA-OLA 1446)

TRACK
A

SESSION A3

Development and innovations in Renewable Energy applications

Chaired. By: **Mohammed AlGhamdi**
GCC Labs, Saudi Arabia

- A301** ▶ Investigating Motivational Factors Affecting Residents' Decision of Shifting Towards Solar Energy Sources in Bahrain By:
Abdulla Madan
Electricity & Water Authority (EWA), Bahrain
- A302** ▶ Maximum Power Point Tracking Based Deep Reinforcement Learning Technique for Grid-Connected Photovoltaic Systems By:
Essam A. Al-Ammar
King Saud University, Saudi Arabia
- A303** ▶ Utilization of Renewable Energy Resource for Ancillary Services Provision towards Grid Stability Enhancement- A Review. By:
Akhillas Rashid Nasser AlWaaali
Oman Electricity Transmission Company, Oman
- A304** ▶ A techno-economic simulation model of wind turbines power plant in AlShegaya and Almutla area in Kuwait using RET screen program By:
Eng. Asma Sabah Alsallal
Ministry of Electricity and Water and Renewable Energy, Kuwait
- A305** ▶ Exploring Risk management methods for implementing renewable energy projects in Energy governmental sectors
Thanwa Alkaabi
Qatar General Electricity & Water Corporation, Qatar
- A306** ▶ Machine Learning Applications for Solar Energy Performance Prediction: Assessing Environmental Impacts in Bahrain By:
Abdulla Alabbasi
Bahrain Center for Strategic, International & Energy Studies, Bahrain
- A307** ▶ Development and Integration of Experimental Systems for Solar Power Projects By:
Mohamed Zayer
Bahrain Polytechnic, Bahrain
- Q&A (15 min.) LIVE SESSION

TRACK
B

SESSION B3

Overhead Lines and Insulated Cables

Chaired. By: **Eng. Yousef Nasser A Alfouzan**,
National Grid, Saudi Arabia

- Inspection Of Transmission Lines Using Drone Technology Instead Of Traditional Ways. By: **Abdulrahman Alresheedi**
National Grid SA, Saudi Arabia **◀ B301**
- Comparing the HV Cable Sheath Voltage Limiters (SVL) Voltage Stress Calculations with EMT Simulation Results. By: **Moayad Al Kadhem**
GCCIA, Saudi Arabia **◀ B302**
- Analysis of Sheath Circulating Current in Cross-bonded High Voltage Power Cable Systems to Evaluate Effect on Ampacity. By: **Thomas Sunny Paul**
Saudi Electricity Company - National Grid, Saudi Arabia **◀ B303**
- Deep water submarine cable systems for power transmission. By: **Alwin Paul**
Prysmian, United Arab Emirates **◀ B304**
- Technical Evaluation and Analysis of Underground Cable Metallic Sheath Materials. By: **Waseem H. Al-Ahmadi**
Saudi Electricity Project Development Company (SE-PDC) Saudi Arabia **◀ B305**
- Influence of Insulator Shed profile in OHTL Reliability – A Case Study for 380kv Lines in Desert areas of Saudi Arabia. By: **Elhindi Hatim Abdallah**
Saudi Electricity Project Development Company (SE-PDC) Saudi Arabia **◀ B306**
- Q&A (15 min.) LIVE SESSION

14:00 - 15:00 | BREAK & EXHIBITION VISIT & Product Showcase, and Poster Session 3

15:00 | Lunch and End of Day 2

17:00 | GCC CIGRE BOARD MEETING

AGENDA



DAY THREE

09:00 - 10:30

WEDNESDAY 13TH NOVEMBER 2024
(1ST JUMADA-OLA 1446)

TRACK

A

SESSION A4

Smart Grids

Chaired. By: **Hani Al Najar**
Electricity and Water Authority (EWA), Bahrain

A401 ► The Enhancement Of Electrical Grid Reliability In Arar City, Saudi Arabia Through The Creation Of A Modular Microgrid Optimized For Improved Reliability.. By:

Hamad Turki Alsubaie

Saudi Electricity Company/National Grid SA, Business Support Sector, Saudi Arabia

A402 ► Unleashing The Potential Of Energy Storage Systems For Virtual Power Lines In Sustainable Energy Systems – A Critical Review. By:

Mohamed Abido

King Fahd University of Petroleum & Minerals (KFUPM), Saudi Arabia

A403 ► Studying Different Cable Fault Location Detection Methods For Bahrain Electricity Distribution Network By:

Hussain Abbas Ali Ahmed Maki

Electricity and Water Authority (EWA), Bahrain

A404 ► Improving Bahrain's Electricity Distribution Network Using Distribution Automation. By:

Mahmood Abdul Nabi Khalaf

Electricity & Water Authority (EWA), Bahrain

A405 ► Smart Meter Implementation in Electricity & Water Authority of Bahrain: Overview. By:

Hasan Mohsen Ali Hasan

Electricity and Water Authority (EWA), Bahrain

A406 ► Smart Power Generation. By:

Bedour Al-Sharrah

Public Authority for Housing Welfare, Kuwait

Q&A (15 min.) LIVE SESSION

TRACK

B

SESSION B4

Substation Protection and Automation

Chaired. By: **Mohamed Elshair**
TAQA Transmission, United Arab Emirates

Ensuring Robust Interconnection Power Flow Management: A Qatar Case Study On Special Protection Schemes. By:

Mohamed Saleh A A Alashqar

Qatar General Electricity & Water Corporation, Qatar

Alternative Protection Solution For Cable Differential Protection. By:

Ahmad Ali Al Aali

Qatar General Electricity & Water Corporation, Qatar

Adaptive Transmission Line Autore Closing & Impact On Power System Stability. By:

Rajesh Ananth Kumaresapandian

General Electric (Grid Solutions SAS), United Arab Emirates

A Comparative Study Between Software Defined Networking And Traditional Ethernet Switches Applied To IEC 61850 GOOSE Messaging. By:

Tarek Kaddoura

Schweitzer Engineering Laboratories, Inc. Saudi Arabia

Innovative Testing Techniques For Protection And Substation Automation Systems.. By:

Dhanabal Mani Megger

Dallas, United States

Design, Studies, Testing, And Commissioning Experiences Of The First Statcom In Abu Dhabi Emirate. By:

Gaurav Bansal

Transco, - United Arab Emirates

Q&A (15 min.) LIVE SESSION

10:30 - 11:00 | Break for Exhibition Visit



DAY THREE

11:00 - 12:30

WEDNESDAY 13TH NOVEMBER 2024
(1ST JUMADA-OLA 1446)

TRACK
A

SESSION A5

Distribution Systems

Chaired. By: **Taieb bin Moahmmed Ounis**
Electricity and Water Authority (EWA), Bahrain

- A501** ▶ Modeling The Impact Of Underground Cables In Distribution Networks. By:
Faisal Mohamed Abdulraheem Alobeidli
Abu Dhabi Transmission and Dispatch Company (TRANSCO), United Arab Emirates
- A502** ▶ Electrodynamics Of Reactive Power In Low Voltage Network Of Residential & Commercial Loads. By:
Khalid Ayid Shatwi
Saudi Electricity Company, Saudi Arabia
- A503** ▶ A Planning Approach To Electrifying Electrical Submersible Pumps At Remote Oil Wells. By:
Tamer Youssef
Saudi Aramco, Saudi Arabia
- A504** ▶ Reduce Technical Losses In Kahramaa Low Voltage Distribution Network Using Optimization Techniques During Planning Stage.. By:
Moustafa Mohamed Mahmoud Amer
Qatar General Electricity & Water Corporation, Qatar
- A505** ▶ Innovative Technique For Testing Intermittent Earth Fault Protection With More Realistic Approach. By:
Mohamed Ali
OMICRON, Bahrain
- A506** ▶ Navigating Through Reliability Of Low Voltage Switchgears During Present Phase Of Energy Transition As A Key Element To Electric Mobility. By:
Sukant Bhattacharya (1) and Ashutosh Sharma (2) DNV, United Arab Emirates
- Q&A (15 min.) LIVE SESSION

TRACK
B

SESSION B5

Substations, Switchgear and HV Equipment

Chaired. By: **Eng. Waleed Mohammed Al-Ameer**,
Saudi Electricity Company, Saudia Arabia

- Failed Fat On 120 Mvar Shunt Reactor. By: **B501**
Mohammed Saeed Bazuhair
Saudi Aramco, Saudi Arabia
- Innovative Method For C- Divider Capacitance Measurements On Cvt. By: **B502**
Anas Abdulkhader
OMICRON, United Arab Emirates
- Proposed Failsafe Control Schemes For Medium Voltage Motor Feeders. By: **B503**
Abdulaziz Alhanani
Saudi Aramco, Saudi Arabia
- Optimum Utilization Of Transformer Monitoring Systems In Transmission Network (Kahramaa Approach). By: **B504**
Zuhair Abdulla Al Shaiba
Qatar General Electricity & Water Corporation, Qatar
- 'Smart Spares Consulting' - Maximum Operational Availability Of Gis Assets Achieved By A New Cost-, Risk- & Utilization-Optimized Approach For Strategic Spares. By: **B505**
Thomas A. Meier
Siemens Energy, Germany
- Q&A (15 min.) LIVE SESSION

12:30 - 13:30

Break for Exhibition Visit
Technical Team Meeting

13:30 - 13:35

13:35 - 13:45

13:45 - 14:15

14:15

Closing Session:

GCC CIGRE Chairman Closing Statement

GCC CIGRE Secretary General Announcements

Technical Committee Chairman Remarks & Recommendations

Closing and Lunch



TUESDAY 12TH NOVEMBER

11:30 - 12:30

POSTER SESSION 1

- P1 Coupling of DC and AC circuits of MMC based VSC HVDC transmissions and parallel AC lines
By: **Teja Bandaru**, Hitachi Energy - India.
- P1 Overvoltage Mitigation at the Point of common coupling (PCC) due to Distributed energy resources (DERs).
By: **Qutaibah Abdullah Alhazaimah**, Irbid District Electricity company - Jordan.
- P1 Dominant Factors in Transient Overvoltage Transfer and Amplification: Sensitivity Studies
By: **Selma Khalid Elhaj Awadallah**, Texas A&M University at Qatar - Qatar.
- P1 Leveraging Asset Management Strategies for Environmental Sustainability in India's Power Sector.
By: **Mani Sharma**, TATA POWER DDL - India.
- P1 Power Transformer Monitoring, Condition Assessment and AI: Keeping it Straightforward.
By: **Tony MCGRAIL**, Doble Engineering Company - United Arab Emirates.
- P1 Distribution automation technology using CDMA wireless communication in Power Plants
By: **Ezzat Mohamed Elshishiny**, Saudi Electricity Company - Saudi Arabia.
- P1 Exploring Contractual Arrangements for Electricity Trading in the Middle East.
By: **Marie PETITET**, KAPSARC- Saudi Arabia.
- P1 Technical Considerations for Implementing Three-Phase Transformers or Three Single-Phase Transformers Bank Utilized in Dynamic Reactive Power Compensators (DRPC) Projects
By: **Basem Mohammad ALSUHAIBANI**, Saudi Electricity Company- Saudi Arabia.
- P1 REVIEW OF CABLE FAULT LOCATING METHODS AND USAGE OF VLF FOR REAL CASES OF HIGH RESISTANCE FAULT LOCATING
By: **Saadat Ali**, DEWA- United Arab Emirates.
- P1 A Study on Propagation Characteristics Degradation of the High Voltage Power Cables Insulation
By: **Mostafa Mokhtar Hassanein Ahmed**, National Grid SA- Saudi Arabia.
- P1 Analysis of Failed 66 kV Cable Joint – A Case Study
By: **Dr. Nitin Shingne**, Electrical Research and Development Association (ERDA)- India.



TUESDAY 12TH NOVEMBER

11:30 - 12:30

POSTER SESSION 2

- P2 Feasibility Analysis of Solar Panels implementation within Residential Compounds "Ezbas".
By: **Thanwa Alkaabi**, Qatar General Electricity & Water Corporation - Qatar.
- P2 Modelling Wind Generation Stochastic Dependence Using Copulas.
By: **Alarwi, Nawaf Hamid**, Saudi Aramco - Saudi Arabia.
- P2 Geospatial decision-making approach for site selection of utility-scale solar PV power in Eastern Region of Saudi Arabia
By: **Mohamed Abido**, King Fahd University of Petroleum & Minerals - Saudi Arabia.
- P2 Carbon Dioxide Sequestration from Power Plant: Rule of Synergy.
By: **Dalal Alalawati**, University Of Bahrain - Bahrain.
- P2 Ensuring Grid Reliability in Renewable Energy Transitions: The Role of Pumped Storage Hydropower.
By: **Mohammad Saleh Almutairi**, National Grid SA - Saudi Arabia.
- P2 Methodology of Power Quality Management.
By: **Mohamed Ahmed Saad Elsayed**, Qatar General Electricity & Water Corporation - Qatar.
- P2 Design of PMU based Real Time Fuzzy Logic SVC Damping Controller To Enhance Inter- Area Oscillations Damping.
By: **Sami Suliman Abueida**, Qatar General Electricity & Water Corporation - Qatar.
- P2 GIS-Based Management System for Photovoltaic Customers.
By: **Taghreed A.Y. Alkadahat**, IDECO - Jordan.
- P2 Opportunities of Integrating Synchrophasors-based WAMS with EMS-SCADA
By: **Yaqoub**, Oman Electricity Transmission Company - Oman.
- P2 Low Voltage Ride Through feature in Solar Inverter for Smart Grid
By: **Asheesh Dhaneria**, Electrical Research and Development Association - India.

AGENDA



TUESDAY 12TH NOVEMBER

14:00 - 15:00

POSTER SESSION 3

- P3** The assessment of a conceptual high-voltage direct current (HVDC) interconnector project to connect the electricity networks of the United Arab Emirates and the Republic of India.
By: **Shane Moloney**, Rockboro Project Management LLC.- United Arab Emirates.
- P3** The Impact of Different Loading Profiles on The BESS Economic in Congestion Relief.
By: **SUHAYB KHALID A ALSULAIMANI**, University of Sheffield- Saudi Arabia.
- P3** ANN-PID-Based Online Wide Area Damping Controller for Interarea Oscillation Damping using PMU Signals and PSS Integration.
By: **Aamal Hussein**, IRBID DISTRICT ELECTRICITY COMPANY- Jordan.
- P3** 230kV Subsea Cable Network Challenges feeding offshore oil and gas facilities (A Case Study).
By: **Yogesh Murlidhar Patil**, SAUDI ARAMCO - Saudi Arabia.
- P3** Online condition monitoring technique for surge arresters based on analysis of leakage current components.
By: **Anil Khopkar (ERDA)**, Electrical Research And Development Association (ERDA)- India.
- P3** Unconventional Measurement Methods for Testing HV GIS Circuit Breakers.
By: **Mohamed Ebrahim Alsaif**, OMICRON electronics Middle East- Bahrain.
- P3** Mitigation Techniques of Zero Missing Phenomenon for (E)High Voltage Submarine cable with Variable shunt reactors during Fault Conditions.
By: **Nagaraj Neradhala**, DAR International for Engineering Consultancy- Saudi Arabia.
- P3** Detection and Separation Technics of multiple Partial Discharges sources on Power Transformers – Case Study.
By: **Sofiane BAKKAY**, OMICRON Electronics GmbH - Bahrain.
- P3** Adverse localized Electric Field concentration, as an effect of uncontrolled plus/minus regulation coils manufacturing tolerances in two complex geometry split-coil Power Transformer designs.
By: **Francesco**, SAUDI ARAMCO- Saudi Arabia.
- P3** Investigating of Gassing issues of Power Transformer (20MVA, 34.5/4.16 kV), Case Study.
By: **Murtada M. Abualrahi**, FARAD Trading Company - Saudi Arabia.
- P3** In-service data of synthetic ester transformers focusing on liquid breakdown voltage and dielectric dissipation factor.
By: **Muhammad Daghrah**, MIDEL and MIVOLT Fluids Ltd - United Kingdom.