

Conference Program

The First Day: Sunday 11th November 2018 (3rd Rabi Al-Awwal 1440)

Conference Registration & Reception

8:00 - 9:00

Opening Ceremony:

9:00 – 11:00

The First Day: Sunday 11th November 2018 (3rd Rabi Al-Awwal 1440)

11:00-11:20	Keynote Presentation: Monken, “Grid Resiliency”	
11 TH November 2018 11:20 – 12:45	Panel Discussion - Energy Storage: An Enabler for Renewables and Efficient Energy Demand Management	
	Panel Moderator: Dr. Osamah Alsayeg Executive Director Energy & Building Research Center – Kuwait Institute for Scientific Research	
	Panelists : <ul style="list-style-type: none">• Dr. Naif Alabbadi , Undersecretary- Electricity Affairs, Ministry of EIM - KSA• Dr. Salem Al-Hajraf, Deputy Director General, Kuwait Foundation for the Advancement of Sciences• Dr. Dirk Biermann, Chief Markets & System Operations Officer (CMO), EGI	
12:45 – 13:15	Prayer and Tea Break for Exhibition Visit and Product Showcase 1	
11 TH November 2018 13:15 – 14:45	Session A1: Electricity Markets and Regulation Chaired by: Nayef Al-Haddad, Kuwait Authority for Partnership Projects (KAPP)	Tutorial
	A101 Renewables and the Flexibility Gap in Power Systems-Lessons Learnt From Europe, Engr. Ali Al Ebrahim, GCCIA	Tutorial 1: Capacity Credit – Contribution of Renewable Energies to Reliability in The Power System of the Future. Presented by: Dr. Florian Klumpp – “Industrial Collaboration Coordinator” of the EU GCC Clean Energy Technology Network, FICHTNER GmbH & Co. KG
	A102 System Operator Challenges in Spot Market , Mr. AWF Al-Mamari, Oman Electricity Transmission Company	
	A103 Wholesale Market Design with Increasing Penetrations of Renewable Energy Resources: Resource Adequacy and Revenue Sufficiency, Dr. Kwok Cheung, GE	Tutorial 2: Cyber Security in the Age of Digitalization of Power Presented by: Akilur Rahman, Chief Technology Officer, ABB, India
	A104 How Bilateral Market Developed in GCC Region: Lessons Learned and Future Needs, Dr. Mohamed Al Hamad, GCCIA	
	A105 Evaluate Development of Electricity Markets in the GCC Region, Mr. SALMAN MOHAMMED A ALOWAIFI, Saudi Electricity Company	
	A106 Pricing Of Transmission Capacity On The GCC Interconnector – Review Of The Current Practices, Challenges Ahead And Suggested Way Forward, Mr. Yousef Almarwan, GCC Interconnection Authority	
14:45	Close of Day and Lunch	

Second Day: Monday 12 th November 2018 (4 th Rabi Al-Awwal 1440)		
12 th Nov. 2018 09:00 – 10:30	TRACK – A	TRACK - B
	Session A2: System Planning, Development & Economics Chaired by: Fahad Al-Saho, NGRID SA	Session B1: Transformers and Reactors, Switchgear and HV Equipment Chaired by: Hamad-Al-Fayez, GCC LAB
	A201 Techno-Economic Evaluation of Reactive Dynamic Compensation Requirements in the Main Interconnected Transmission System in Oman, <i>Mr. Musabah Al Siyabi, Oman Electricity Transmission Company</i>	B101 New Developments In Testing Of Reactive Load-Current Interruption Capability Of High-Voltage Circuit-Breakers, <i>Prof. Rene Smeets, K E M A Laboratories, DNV GL</i>
	A202 Techno-Economic Evaluation of the First Coal Fired Power Plant Connection to Oman Grid Network, <i>Mr. Ahmed Al-Nadabi, Oman Electricity Transmission Company</i>	B102 SF6-Free Development In HV GIS And GIL, Feedback On The First Energized 145 Kv GIS And 420 Kv GIL Operated With A Fluoronitrile Based CO2 Mixture, <i>Mr. Bertrand Portal, General Electric</i>
	A203 Stacked Benefits of Bulk Energy Storage for Different Jurisdictions in North America, <i>Dr. Mohamed Ahmed, SNC-Lavalin</i>	B103 Power Transformers From The Asset Management Perspective, <i>Mr. Thomas Friedrich Kessler, Siemens AG</i>
	A204 Validating the Power System Simulation Model of the Main Interconnected System of Saudi Arabia, <i>Mr. AHMAD ALMUTAIRI, Saudi Electricity Company</i>	B104 HV Performance And Key Aspects Of Insulating Fluids, <i>Mr. Carl Wolmarans, Nynas AB Middle East</i>
	A205 Economic & Ecological Aspects of gas saving in Oman power Sector, <i>Mr. Mohammed Al shukaili, Oman Electricity Transmission Company</i>	B105 Full condition Assessment of HV Circuit-Breaker with non-intrusive inspection methods, <i>Mr. Thibaut MAUFFREY, General Electric</i>
	A206 A Novel development of an automated process for unit wise economic despatch scheduling via AGC functionalities, <i>Mr. Ehtesham Iftikhar, Abu Dhabi transmission and despatch company</i>	B106 Tap Changer Testing Using Drm With New Open Secondary Technique, <i>Mr. Jaafar Husain, Megger</i>
		B107 Building up a laboratory for transformer oil testing according to international standards, <i>Eng. May Alhendi, Ministry of Electricity and Water, Kuwait</i>
10:30 – 11:30 GCC Cigre General Assembly meeting		
10:00-11:15 POSTERS TRACK A		
10:30 – 11:15 Tea Break for Exhibition Visit , Poster Session 1, and Product Showcase 2		
12 th Nov. 2018 11:15 – 12:45	TRACK - A	TRACK - B
	Session A3: Renewable Energy and Nuclear Power for the Gulf States Chaired by: Saleh Al-Amri, GCC LAB	Session B2: Substations Protection and Automation Chaired by: Salem Al-Mazrui, TRANSCO UAE
	A301 Extraction of Solar Photovoltaic Cell Parameters Using Metaheuristic Algorithm, <i>Dr. Mohamad AlHajri, PAAET</i>	B201 An evaluation of distance protection behaviour in AC power system at converter-interface substations, <i>Mr. Ahmed Alzahrani , National Grid SA</i>
	A302 Planning Studies for Connection of 500 MW Photovoltaic Power Plant to Oman Grid at Ibri, <i>Mr. Mohamed Hamood Al Hasni, Oman Electricity Transmission Company</i>	B202 Virtualization – A key enabler for new substation automation architectures and engineering approaches, <i>Mr. Thomas Rudolph, Schneider Electric GmbH</i>
	A303 A reliability model for photovoltaic module failures using Markov Process, <i>Mr. Mohamed Khalil, Doble Engineering Company</i>	B203 IEC 61850 real-time communication between digital substations enabling new protection and automation concepts, <i>Mr. Ramon Baechli , ABB</i>
	A304 Sweihan Solar 935 MW photovoltaic (PV) power plant for future sustainable energy of Abu Dhabi Power Network, <i>Mr. Mahmoud Hassan, ADWEA - TRANSCO</i>	B204 New Possibilities for Testing Superimposed Quantities and Traveling-Wave based Protection, <i>Mr. Thomas Hensler, OMICRON electronics GmbH</i>
	A305 Analysis of impact on India's Southern Region grid operation with High Renewable Penetration– A case study, <i>Mr. Rushikesh Deshpande, General Electric</i>	B205 Cyber Security implementation in Smart Digital Substation, <i>Mr. Jérôme Arnaud, GE</i> B206 Reference Test Approach for Testing of Protection IEDs to improve Field Testing Quality, <i>Mr. Michael Albert, OMICRON</i>

12:00-13:30 POSTERS TRACK B		
12:45 – 13:30 Prayer and Tea Break for Exhibition Visit and Product Showcase 3		
12th Nov, 2018 13:30 – 14:45	TRACK - A	TRACK - B
	Session A4: System Operations and Control Chaired by: Abdulaziz Al-Mahmoud, KAHRAMAA	Session B3: SMART GRIDS and Distribution System Chaired by: Abdulaziz Al-Sultan, NGRID SA
	A401 Implementation of WAMS project in Oman Electricity Transmission System, Mr. Ali Almaamari, OETC	B301 Smart Grids, Miss. Bedour Al-Sharrah, Public Authority for Housing Welfare
	A402 Maximizing the Utilization of GCC Interconnection Capacity, Mr. Talal M. Al-Shaikh, GCCIA	B303 KAHRAMAA 11kV Distribution Network Technical Losses Study Using PSS®SINCAL, Miss. May Abdulla Al Nasser, KAHRAMAA
	A403 TRANSCO Compliance Monitoring Real-time tool for enhanced Scheduling and Dispatch, Mr. Mahmoud Hassan, ADWEA - TRANSCO	B304 Improving cyber security of operational communication network by applying wire speed encryption suitable for real time applications, Mr. Ramon Bächli, ABB
	A404 Techno-Economic Assessment of Battery Energy Storage for System Operation and Control, Dr. Jerry Chua Liang Su, GE	B305 Solar Park Converter Grid Connection with OLTC, Mr. Franco Pizzutto, Maschinenfabrik Reinhausen GmbH
	A405 Realizing Role-based Access Control in the Digital Grid, Mr. Deepak Ramachandran, SIEMENS LLC	B306 Key Aspects of Smart Grid Design for Distribution System with wireless Sensor Network Applications in Smart Grid: Recent Trends and Challenges., Mr. VENUGOPAL RAJAMANICKAM, DAR ENGINEERING
	A406 GCCIA WAMS-EMS Interface Enhanced Network Monitoring, Mr. Ossama Ahmad, GCCIA	B306 Key Aspects of Smart Grid Design for Distribution System with wireless Sensor Network Applications in Smart Grid: Recent Trends and Challenges., Mr. VENUGOPAL RAJAMANICKAM, DAR ENGINEERING
17:00 – 19:00 GCC Cigre Board of Directors meeting		

Third Day: Tuesday 13 th November 2018 (5 th Rabi Al-Awwal 1440)		
	TRACK - A	TRACK - B
13 th Nov. 2018 09:00 – 10:30	Session A5: HVDC and FACTS Technology, Challenges for Existing Substations, New Trends for Substation Chaired by: Ahmed Al-Mubarak, NGRID SA	Session B4: Insulated Cables, Overhead Lines Chaired by: Kamel Al-Shehabi, EWA
	A501 Return of experience from maintenance of GCCIA Al Fadhili HVDC, <i>Engr. Abdullah Al-Ghamdi, GCCIA</i>	B401 RTV Coated Insulators in Harsh Desert Environment. Part I: Optimization of Coating Thickness & Assessment Of Sand Blasting Impact., <i>Mr. Ahmad Althagafi, GCCIA</i>
	A502 HVDC Harmonics Mitigation Using a Self-tuned Passive Filter-Study Case on Saudi Arabia Network, <i>Mr. Naif Makki, Saudi Electricity Company/ National Grid</i>	B402 Simulation and Evaluation the Effects of EMF Produced by 380kV Over Head Transmission Line on Linemen in Kingdom of Saudi Arabia , <i>Mr. Amer ashammari, Saudi Electricity Company</i>
	A503 Alternative Testing Technologies for Field Testing of Protection Class Current Transformers, <i>Mr. Murtada Abualrahi, Megger</i>	B403 Standardization of Insulator String (V or I) for 380kV, <i>Mr. Mofareh Al-Otaibi, National Grid SA</i>
	A504 Impact of increasing short-circuit current on T&D equipment, <i>Prof. Rene Smeets, KEMA Laboratories, DNV GL</i>	B404 THE USE OF ALUMINUM AS CONDUCTOR IN HIGH VOLTAGE AND EXTRA-HIGH VOLTAGE POWER CABLES, <i>Mr. ABDULLAH ALDHUWAIAN , Saudi Electricity Company</i>
	A505 VOLTAGE AMPLIFICATION DURING COMBINED SWITCHING OF EHV CABLE AND POWER TRANSFORMER, <i>Mr. Rajesh Umrao Nighot, DAR Engineering</i>	B405 EXPERIENCE IN THE MONITORING OF HV CABLE SYSTEMS, <i>Dr. Wojciech Koltunowicz, OMICRON ENERGY SOLUTIONS GmbH</i>
	A506 380 KV Mobile Substation, <i>Mr. Bashir Alabduljabbar, Saudi Electricity Company</i>	B406 Pollution mitigation solutions for overhead line insulators, <i>Mr. Fabien Virlogeux, Sediver</i>
	A507 Digitalizing Brownfield Substations Using 3D Audits, <i>Dr. Roberto Bianchi, Siemens AG</i>	B407 HVDC cable application in regions characterized by hot weather – case studies., <i>Mr. Simone Ballare, Prysmian Group</i>
10:30 – 11:15	Tea Break for Exhibition Visit and Product Showcase 4	
13 th Nov. 2018 11:15 – 12:15	Session A6: Asset Management for Power Systems Chaired by: Dr. Adil Al-Busaidi, OETC	
	A601 OPEX benchmarking exercise amongst GCC Transmission Utilities, <i>Mr. Abdulla Hasan, GCCIA</i>	
	A602 Optimizing maintenance of grid equipment: the benefits of long term coordination and outage planning , <i>Mr. Christophe Rennotte, Elia Grid International</i>	
	A603 Big Data, Analytics, and Cybersecurity – The Challenges Utilities Face with Data Management, <i>Mr. Stefan Schlichting, OMICRON electronics GmbH</i>	
	A604 Partial Discharge Diagnostics on Medium Voltage Distribution Cables using different type of Excitation Voltages, <i>Mr. Daniel Salathe, Megger Limited</i>	
12:15 – 13:00	A605 Proven Power System Reliability with Special Protection Systems with Aid of Smart Systems., <i>Mr. Ramesh Venkatasamy, SEC</i>	
	Prayer and Tea Break	
13 th Nov. 2018 13:00 – 14:00	CLOSING SESSION	
	• GCC Cigre Chairman Closing Statement	13:00 – 13:05
	• GCC Cigre Secretary General Announcements	13:05 – 13:15
	• Technical Committee Chairman Remarks & Recommendations	13:15 – 13:30
	• Open Discussion and final Remarks	13:30 – 13:45
	• Closing and Group Photos	13:45 – 14:00
14:00	Conference Close and Lunch	

POSTER SESSIONS

Second Day: Monday 12th November 2018 (4th Rabi Al-Awwal 1440)

POSTERS TRACK A :- 12th Nov. 2018 10:00 – 11:15

Theme: Asset Management for Power Systems

- PPS101** GCCIA Experience in implementation of Asset Health Center, *Mr. ALAA RAHMA GCCIA*
- PPS102** Strategic Spare Stock of Transformers in NG, *Mr. Abdulmohsin AL-Qattan, Saudi Electricity Company*
- PPS103** Geographical Information System Roles Within Oman Electricity Transmission Company, *Mr. Khalil Masoud Said Al Shukaili, Oman Electricity Transmission Company*
- PPS104** Integration of Replacement needs into CAPEX plan in National Grid SA, *Mr. NASSER ALTOAIMI, SAUDI ELECTRICITY COMPANY*
- PPS105** Techno-Economic Evaluation of Partial Discharge Measurements of Medium Voltage (MV) Switchgear in Transmission Network - Experience of KAHRAMAA, *Mr. CHITTRANJAN BHATNAGAR, KAHRAMAA*
- PPS106** Reliability Centred Maintenance: A Pragmatic Implementation Approach, *Mr. Christophe Rennotte, Elia Grid International*
- PPS107** RETURN ON EXPERIENCE ON ASSET MANAGEMENT IMPLEMENTATION IN HIGH VOLTAGE GIS SWITCHGEARS, *Mr. Jean-Louis COULLON, GE*

Theme: HVDC and FACTS Technology

- PPS108** STUDY OF VOLTAGE AND CURRENT MODE CONTROL OF BUCK-BOOST CONVERTER, *Mr. Basem Alsuhaibani, Saudi Electric Company*
- PPS109** Developments in HVDC transformers for LCC and VSC, *Mr. Lars Henriksson, ABB*
- PPS110** Technical and Financial Study of Using TCSC for Improvement of Transient Stability, *Mr. Rahim zeinali, Monenco Iran*
- PPS111** High-Voltage Direct Current (HVDC) Overhead Transmission Line Lattice Steel Structures Used in the Kingdom of Saudi Arabia and GCC, *Mr. ELMER GABINETE, SAUDI ELECTRICITY COMPANY*

Theme: Challenges for Existing Substations

- PPS112** Ferroresonance phenomena experienced in EHV network - Case Studies involving proposal of countermeasures, *Miss. Haifa Al Mteiri, TRANSCO*

Theme: Distribution Systems

- PPS113** On-Line Partial Discharge Monitoring(MONThER), *Mr. Yusuf Al-Ghammas, Saudi Electricity Company*
- PPS114** Load flow based short-circuit calculation program for evaluating the blinding of protection, *Mr. Boris Deneuville, EDF*
- PPS117** Wirless Power Transmission, *Mr. Rashid Al-Rahimi, Kahramaa*
- PPS119** HARD AND SOFT APPLICATIONS OF VALUE ENGINEERIGN TOOL IN THE ELECTRICITY DISTRIBUTION ACTIVITY, *Mr. Mohammed Tiro, Saudi Electricity Company*

Theme: Smart Grids

- PPS116** Modelling of Microgrid Demands and Controllable Loads for Highly Reliable Systems, *Mr. Ahmed Alahmed, King Fahd University of Petroleum and Minerals*
- PPS118** Dealing with electromagnetic disturbances caused by new inverter technologies and pre-sizing power quality mitigation solutions, *Mr. Xavier YANG, EDF*

Theme: System Operation and Control

- PPS120** Artificial Neural Network based Load Flow Solution of Saudi National Grid, *Mr. Wael Alsulami, Saudi Electricity Company*
- PPS121** Power System Control and Operation Black Start and System Restoration In The Kingdom of Saudi Arabia, *Mr. Abdullah Matar Alharbi, Saudi Electricity Company*
- PPS122** Superconducting fault current limiter (SFCL) for short circuit limitation, *Mr. Mohamed Fathy El Sayed Genedi, Kahramaa*
- PPS123** TRANSCO Utilization of Dispatcher Training Simulator (DTS), *Mr. Mahmoud Samir, Transco*

12th Nov. 2018
10:00 – 11:15

12th Nov. 2018 10:00 – 11:15	PPS124 Designing Reactive Power Compensation for Oil and Gas Offshore Power Network: A Case Study, Mr. Waqas sabir, Saudi Aramco
	PPS125 Voltage control in Oman power system using minimal tap-changing transformers, Dr. Abdelsalam Elhaffar, Sultan Qaboos University
	PPS126 Treatment Of Transmission System Losses Under Abu Dhabi Transmission & Dispatch Company (TRANSCO), Eng. Issa Sleehat, Abu Dhabi transmission & dispatch co. TRANSCO
	PPS127 Cloud Service for ICS Historian Database, Miss. Hebah Alshuhail, GCCIA
	PPS128 Reactive Power compensation at off peak of winter period, Mr. Malik Al Shabibi, Oman Electricity Transmission Company
	PPS130 Field experiences with online condition monitoring: from DGA to monitoring of the whole transformer to fleet assessment, Mr. Bartlomiej Dolata, GE
	PPS131 Enhancement of Power System Quality Using Automatic Capacitor Control Scheme (ACCS), Mr. Amer Nasr A. Elghaffar, Alfanar Co.

Second Day: Monday 12th November 2018 (4th Rabi Al-Awwal 1440)

12th Nov. 2018 12:00 – 13:30	POSTERS TRACK B :- 12th Nov. 2018 12:00 – 13:30	
	Theme: Renewable Energy and Nuclear Power for the Gulf States	
	PPS201 Future Power System Architecture characteristics, Mr. Hamidullah Siddiqui, Transco	
	PPS202 MARINE RENEWABLE ENERGY RESOURCES IN KUWAIT, Dr. Neelamani Subramaniam, Kuwait Institute for Scientific Research	
	PPS203 Paving the way towards Renewable Energy integration in the State of Qatar, Mrs. Wadha Alhelal, Kahramaa	
	PPS226 Role of GCC Interconnector in the RES Integration Challenge, Mr. Ahmed Al-Jaafari, GCCIA	
	Theme: Substation Protection and Automation	
	PPS204 Practical aspects of using precise time synchronization in digital substations, Mr. Peter Kreutzer, ABB	
	PPS205 Modern Testing based on Real Simulations, Mr. Mohamed Ali, OMICRON	
	PPS206 Protection Coordination Analysis in AADC Network and their Impact on System Design, Mr. Mohamed Rayees Ahamed, AADC	
	PPS207 Improving maintainability of Substation Control and Monitoring Systems: Lessons learned from maintaining Abu Dhabi's transmission grid, Mr. Vinay Sardana, Abu Dhabi Transmission & Despatch Company (TRANSCO)	
	Theme: System Development & Economics	
	PPS208 Assessment of Maximum Power Transfer limits of Oman North to South 400 kV Interconnector Transmission Project, Mr. Hilal Mohammed Hilal Al Zadjali, Oman Electricity Transmission Company	
	PPS209 Evacuation Assessment of 1000MW Misfah Power Station to Oman Grid, Mr. Abdullah Al Habsi Oman Electricity Transmission Company	
	PPS210 ECONOMIC ANALYSIS OF ELECTRICAL CONNECTION PROJECT FOR ISOLATED GENERATION PLANT USING LIFE CYCLE COSTING, Mr. Ahmed Al-Rajeh, Saudi Electricity Company	
	PPS211 Structuring techno commercial mechanisms to incentivize IPWP fuel efficiency in the GCC, Mr. Manohar Rao, KAHRAMAA	
	PPS212 A Population, GDP or Combined Model for Forecasting Qatar Domestic Electricity Peak Demand, Mr. Omar Jouma ElHafez, KAHRAMAA	
	PPS213 KAHRAMAA Economic Dispatching Difficulties and Qatar Gas Optimization New Strategy, Mr. ABDULLA SAAD AL-ALI, KAHRAMAA	

12 th Nov, 2018 12:00 – 13:30	Theme: Transformer and Reactor Life Cycle
	PPS214 Dielectric Frequency Response and Temperature Dependence of Power Factor, <i>Mr. Mohammad Tariq, MEGGER LIMITED</i>
	Theme: Transformer and Reactor Mechanical Protection
	PPS215 Ester-based Liquids for Reduced Risk in T&D Networks: The Kuwait MEW Experience, <i>Mr. Muhammad Daghrh, M&I Materials Ltd</i>
	Theme: Transformer and Reactor Performance
	PPS216 Study on Disturbance Causes of National Grid Power Transformers in KSA, <i>Mr. ANAS ALRWOILI, SEC</i>
	Theme: Overhead Lines
	PPS218 Tower Leg Foundation Corrosion Causes and Solutions, <i>Mr. Khalil alsubaie, National Grid SA</i>
	PPS224 Selection of High Temperature Low Sag (HTLS) Conductor, <i>Mr. Stefan Curcic, Energoprojekt Entel</i>
	Theme: Insulated Cables
	PPS219 Expanding Variable Frequency Testing, <i>Mr. Konstantin Meglin, Mohaupt High Voltage GmbH</i>
	PPS220 STUDY FOR MITIGATION OF FAULT EFFECTS ON CABLE FEEDER WITH GIS BODY DURING THE POWER SYSTEM OPERATION, <i>Mr. RAED ALSUHAIBANI, SAUDI ELECTRICITY COMPANY</i>
	PPS221 Performance of the portable Partial discharge equipment and the future of online monitoring system in National Grid SA cables network, <i>Mr. Abdullah Almalki, National Grid SA</i>
	PPS222 Enhance Circulating Current Rating Between Parallel Single-Core Cables of same 380 kV Circuit Due to Unequal Phases' Spaces: Case Study, <i>Mr. MAEEN ABREEN, Saudi Electricity Company</i>
	PPS223 Unification of High Voltage Underground Cable Design, <i>Mr. Ali Al-Saihati, Saudi Electricity Company</i>
	PPS225 Economic Optimization of Power Cables and the Most Suitable Cable Size to be installed in a Power Network, <i>Mr. MAHDI ABDELKHALEK, Oman Cables Industry</i>
	Theme: Challenges for Existing Substations
	PPS227 Fault Analysis and Recovery in the Optical fiber Network, <i>Mr. Hussain Almakrami, Saudi Electricity Company</i>
	PPS228 Environmental Impacts in Power Generation Stations and Innovative Methods to Control Impacts, <i>Mr. Ramesh Venkatasamy, SEC</i>