25TH
WPC ENERGY
CONGRESS
Riyadh, 11-15 October 2026

WPC ENERGY | وزارة الطاقة MINISTRY OF ENERGY

25TH WPC ENERGY CONGRESS

11-15 October 2026, Riyadh, Saudi Arabia

TECHNICAL PROGRAMME

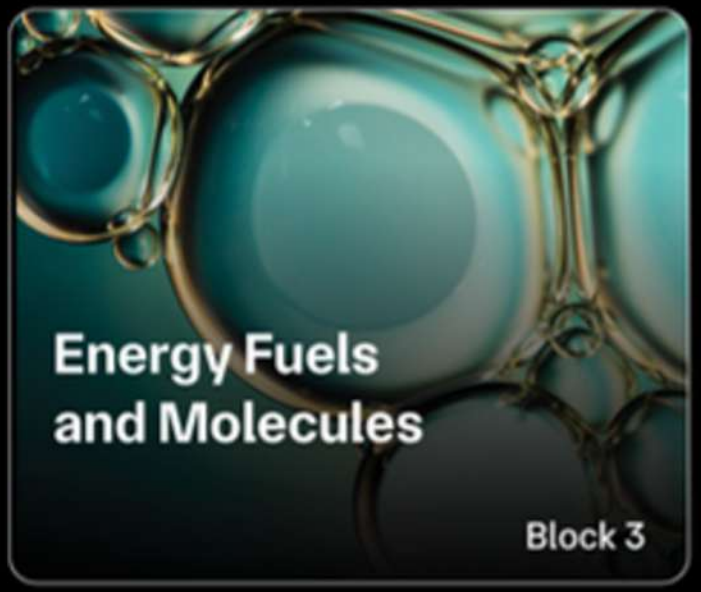
wpcenergy2026.org

Pathways to an Energy Future for All

In a rapidly evolving world, the need for sustainable, equitable, and innovative energy solutions has never been more urgent. “Pathways to an Energy Future for All” is a Congress that brings together leaders, industry experts, policymakers, and innovators to explore the challenges and opportunities of transitioning to a global energy system that is accessible, reliable, and environmentally responsible. The Congress will delve into the latest advancements in all energy technologies, while addressing critical issues such as energy equity, climate change, and policy frameworks. Participants will engage in dynamic discussions, collaborative workshops, and insightful keynote presentations, all aimed at forging a clear and inclusive path towards a sustainable energy future.

Technical Blocks

Future Pathways to



25TH WPC ENERGY CONGRESS
Riyadh, 11-15 October 2026

WPC ENERGY | وزارة الطاقة MINISTRY OF ENERGY

BLOCK 1

Primary Energy Supply - Future Pathways

The global energy landscape is at a critical juncture, with the need to balance growing energy demands, environmental sustainability, energy security and energy affordability This block will explore the future pathways for primary energy supply, focusing on the future mix of energy supply sources, including the growth in renewables in the transition to a lower carbon energy system, the role of emerging technologies, and the implications for global energy markets.

Forum 01
Energy Supply and Demand Outlook: Navigating the Future

Forum 02
Opportunities for Oil & Gas Supply Growth - Shales, Oil Sands, New Basins Other Unconventionals

Forum 03
New Exploration & Production Technologies to Extend Supply

Forum 04
Natural Gas as a Transition Fuel

Forum 05
Advances in Geoscience

Forum 06
The Role of Biofuels as a Feedstock

Day 1, Monday, 12 October 2026
13:30 - 14:00 | Hall 9 - Technical Programme 1

BLOCK 1 Forum Keynote

BLOCK 1

Forum 01 - Energy Supply and Demand Outlook: Navigating the Future

An exploration of the latest trends, challenges, and opportunities in the energy sector, including the impact of geopolitical tensions, the transition to an energy sector with lower GHG emissions, and the economic factors shaping the market The implications of these dynamics on achieving climate goals and ensuring a sustainable energy future and topics to gain a deeper understanding of the evolving energy landscape.

CHAIR

Abdullah Al Jarboua
Senior Fellow,
Energy Macro & Microeconomics
KAPSARC
Saudi Arabia

VICE CHAIRS

Prof. Weiguo Shan
Head of Oil Market Research
CNPC ETRI
China

Silvio Konrad
Chief Operating Officer
TÜV NORD GROUP
Germany

Technical Papers

Day 1, Monday, 12 October 2026
| 14:00 - 15:00 | Hall 9 -Technical Programme 1

African oil in the new global energy order: Transition, sovereignty, diversification and diplomacy
Presenter: **Eng. Mahaman Laouan Gaya,** Consultant, **Niger**

A different perspective on global energy trends and the oil industry
Presenter: **Oguzhan Akyener,** Advisor, Turkish Petroleum, **Türkiye**

Imagining a better tomorrow: Scenarios for renewable growth, grid stability, and the future of energy
Presenter: **Pavan Kumar Pillalamarri,** Director, Marketing Insights, GE Vernova, **India**

Deepening strategic competition among major powers jeopardizes the global energy transition
Presenter: **Mouyuan Wu,** Vice President, CNPC Economic & Technology Research Institute, **China**

Technical Posters

Day 1, Monday, 12 October 2026
| 15:30 - 17:30 | Hall 5 - Digital Poster Plaza 1

Leadership in transition: MENA NOCs and the future of global energy
Presenter: **Aditya Saraswat,** Research Director, MENA, Rystad Energy, **United Arab Emirates**

Energy transformation in Nigeria: Pathways from petroleum dependence to a renewable energy future
Presenter: **Dr. Ismaila Haliru Zarma,** Secretary General, World Energy Council - Nigeria National Committee, **Nigeria**

Integrating small modular reactors, renewables, and digital grids: A Saudi pathway to net zero 2060
Presenter: **Abdulelah Alqahtani,** Researcher | Sustainability & Energy Systems, Deakin University, **Australia**

Iran's position in the global oil market: A comparative analysis with Saudi Arabia and Iraq, lessons and future energy perspectives
Presenter: **Amirhossein Ghasemi,** Master's in Chemical Engineering, Sharif University of Technology, **Iran**

Energy transition and China's pivotal role
Presenter: **Jiawei Gao,** Reservoir Engineer, CNOOC International Limited, **China**

Toward an integrated hydrogen supply chain: Lessons from the NEOM project
Presenter: **Reem Alhethlain,** Project Management Specialist, Ministry of Culture, **Saudi Arabia**

Transformation of NOCs to IOCs: Implications for global gas & LNG trade
Presenter: **Siamak Adibi,** Director, Global LNG Supply Analytics, and Head of ME Gas, FGE, **Singapore**

Creating Clean Energy Solutions For A Sustainable Future By Addressing The Intersection Of Energy Transition And Social Justice
Presenter: **Aniekeme Edet,** Young Professional, Oil Quest International Limited, **Nigeria**

BLOCK 1

Forum 02 - Opportunities for Oil & Gas Supply Growth-Shales, Oil Sands, New Basins, other Unconventionals

As the world continues to consumes oil and natural gas as a critical component of energy supply to fuel economic growth, improve standards of living, and support the development of ever-cleaner energy technologies, there remains a need to offset production reduction from existing sources Where do we find these new oil and natural gas resources? Which basins have remaining exploration potential? How do we tap the remaining potential in shales, oil sands, and other unconventional petroleum resources?

CHAIR

Dr. Johannes Alvarez
Enhanced Oil Recovery Manager
Shale & Tight Business
Chevron Upstream
United States of America

VICE CHAIRS

Dr. Fahd Alghunaimi
Manager of Production Chemicals & Advanced Materials Division
Saudi Aramco
Saudi Arabia

Adel Sarsenova
Lecturer
Kazakh British Technical University
Kazakhstan

Technical Papers

Day 2, Tuesday, 13 October 2026
| 10:00 - 11:30 | Hall 9 - Technical Programme 1

Integrated technical applications for production enhancement and recovery improvement in mature low-permeability oilfields of the Ordos Basin

Presenter: **Dr. Yushuo Zhang,** Petroleum Engineer, Oil & Gas Technology Research Institute, PetroChina Changqing Oilfield Company, **Canada**

Petrobras' reserve replacement program: Enhancing recovery and unlocking asset value

Presenter: **Rafael Leone Da Cunha ,** Corporate Reservoir Manager, Petrobras, **Brazil**

Optimized decision-making in critical fracturing operations based on a comprehensive workflow of friction pressure calibration. A case study from Saudi Arabia

Presenter: **Alexey Yudin,** Senior Technical Manager, TAQA, **Saudi Arabia**

Coalbed Methane Development and Prospects in China: Insights from a Multi-Basin Comparative Study

Presenter: **Yuewei Pan,** Land and Reserve Supervisor, Oil, Gas and New Energies Company, PetroChina, **China**

Technical Posters

Day 2, Tuesday, 13 October 2026
| 12:30 - 14:30 | Hall 5 - Digital Poster Plaza 1

In Kingdom synthesized nanomaterials for upstream oil & gas applications
Presenter: **Eng. Fatema Alelg,** Reservoir Engineer, Saudi Aramco, **Saudi Arabia**

Integrating geophysical-engineering technology and innovation boost exploration and development of unconventional reservoirs
Presenter: **Dr. Yongzhen Ji,** Associate Researcher, Sinopec Geophysics Research Institute, **China**

Gas-Bearing to Oil and Gas Reservoirs (Conventional and Unconventional) in the Middle East
Presenter: **Dr. Payam Hassanzadeh,** Senior Geochemistry Specialist-Project Manager, National Iranian Oil Company-Exploration Directorate, **Iran**

Application of proppant high-efficiency placement technology in wells deeper than 7000 m: A case study of ultra-deep fractured tight sandstone reservoirs in the Kuqa Foreland Basin, Tarim, China
Presenter: **Xinggui Yang,** Doctoral Student, Southwest Petroleum University, **China**

Production enhancement workflow unlocks the potential of tight carbonate Middle Marrat reservoir, South Kuwait
Presenter: **Eng. Mosab Shamsaldeen,** Senior Reservoir Engineer, Kuwait Oil Company, **Kuwait**

A new workflow to extract poroelastic coefficient for permeability in source rock samples
Presenter: **Eng. Fatema Alelg,** Reservoir Engineer, Saudi Aramco, **Saudi Arabia**

BLOCK 1

Forum 03 - New Exploration and Production Technologies to Extend Supply

New exploration and production technologies are revolutionising the oil and gas industry, enabling access to previously untapped resources, improving efficiency, and reducing the environmental impact of exploration and production activities By leveraging these advancements, the industry can extend the supply of hydrocarbons while addressing environmental and sustainability concerns.

CHAIR

Yoshiyuki Okano

General Manager, Subsurface Evaluation

Japan Petroleum Exploration Co, Ltd.
Japan

VICE CHAIR

Dr. Yongqiang Fu

Vice President

RIPED, CNPC
China

Technical Papers

Day 2, Tuesday, 13 October 2026
| 14:30 - 16:00 | Hall 9 - Technical Programme 1

New carbon insights into old dog reservoirs: Life-cycle assessment on global 140+ CO_2-EOR projects
Presenter: **Dr. Bo Ren,** Scientist, Aramco Americas, **United States of America**

A comprehensive development mode for a heterogenous super-tight carbonate reservoir in the Middle East
Presenter: **Chenji Wei,** Deputy Director of the Development Planning Department, RIPED, PetroChina, **China**

Leveraging legacy hydrocarbon infrastructure to accelerate energy transition
Presenter: **Walid Hussein,** Geologist, Saudi Aramco, **Saudi Arabia**

Buzios field: Looking to the future of the world's largest ultra-deepwater oil field
Presenter: **Carlos Abreu** , Senior Advisor, Petrobras, **Brazil**

Technical Posters

Day 3, Wednesday, 14 October 2026
| 11:30 - 13:30 | Hall 5 - Digital Poster Plaza 1

A systematic artificial intelligent based decision-making framework for selecting optimal pilot areas: A case study in a giant sandstone heavy oil reservoir
Presenter: **Mohammad Chahardowli,** Associate Professor, Amirkabir University of Technology, **Iran**

Integrated surface-subsurface microbial-enhanced oil recovery technology and pilot test in China
Presenter: **Dr. Lina Yi,** Petroleum Development Engineer, China National Petroleum Corporation, **China**

Nanoparticle-stabilized foams for enhanced oil recovery and CO_2 sequestration in carbonate reservoirs: A multivariable experimental perspective
Presenter: **Seyed Mojtaba Hosseini Nasab,** Assistant Professor, Iran University of Science and Technology, **Iran**

AI-based optimization approach for co-management of gas storage and EOR in depleted gas condensate
Presenter: **Dr. Lidong Mi,** Senior Engineer, Sinopec Petroleum Exploration and Production Research Institute, **China**

Porous nanocarbon-based approaches to geochemical exploration of hydrocarbon microseepage
Presenter: **Dr. Vera Solivyeva,** Technology Thrust Champion, Aramco Innovations, **Russia**

CO_2 energized hydraulic fracturing: A new pathway for green and efficient development of unconventional resources
Presenter: **Xuhao Fan,** Phd Student, China University of Petroleum, State Key Laboratory of Petroleum Resources and Engineering, Waterjet Drilling & Completion Lab, **China**

Toward sustainable drilling: Biodegradable food waste additives for water-based mud systems
Presenter: **Eng. Alanoud Al-Eid,** Petroleum Engineer, Ministry of Oil, **Kuwait**

Heat generation by chemical reaction underground to assist steam towards heavy oil recovery enhancement
Presenter: **Dr. Zheyu Liu,** Associate Professor, China University of Petroleum, **China**

Development and application of Ti/Zr-USY containing hydrocracking catalysts in Aramco refineries
Presenter: **Dr. Faisal Almulla,** Team Leader, Saudi Aramco, **Saudi Arabia**

BLOCK 1

Forum 04 - Natural Gas as a Transition Fuel

Natural gas holds a pivotal role in the transition to a lower-carbon energy landscape due to its lower GHG emissions, when compared with other fossil fuels It is a reliable, abundant and adaptable energy resource, and can also support the growth in electricity production from wind and solar by bolstering grid stability and energy security Moreover, technological advancements and infrastructure development, such as liquefied natural gas (LNG) and pipeline networks, enhance the accessibility and efficiency of natural gas utilization This session will delve into the potential of natural gas in facilitating a sustainable energy future The exploration of opportunities to expand natural gas applications for technological purposes, including the production of renewable energy, will also be a focal point of discussion.

CHAIR

Dr. Fahd Al-Ghanem
Manager Operations Support (GAS)
Kuwait Oil Company
Kuwait

VICE CHAIRS

Dr. He Liu
Academician
RIPED, CNPC
China

Dr. Shahab Gerami
Senior Researcher
Research Institute of Petroleum Industry
Iran

Technical Papers

Day 3, Wednesday, 14 October 2026
| 10:00 - 11:30 | Hall 9 - Technical Programme 1

Natural gas with carbon capture and storage can lower the cost of decarbonizing the power sector in Saudi Arabia
Presenter: **Dr. Nixon Sunny,** Senior Research Scientist, Saudi Aramco, **Saudi Arabia**

The changing role and development strategy of natural gas in China's energy transition towards a low-carbon future
Presenter: **Dr. Jinze Li,** Engineer, China National Petroleum Corporation, **China**

Harnessing natural gas for a low-carbon future: Balancing short-term gains and long-term risks
Presenter: **Collins Chukwuonye,** Research Fellow, Institute of Oil, Gas, Energy, Environment and Sustainable Development (OGEES), **Nigeria**

Towards net zero with natural gas and thermocatalytic decomposition technology
Presenter: **Kaisa Nikulainen,** CEO, ROTOBOOST Finland Oy, **Finland**

Technical Posters

Day 3, Wednesday, 14 October 2026
| 14:00 - 16:00 | Hall 5 - Digital Poster Plaza 1

Carbon intensity estimates for global liquefied natural gas supply chain
Presenter: **Dr. Liang Jing,** Head of Energy Sustainability Analysis, Saudi Aramco, **Saudi Arabia**

Optimization and feasibility analysis of an integrated solar-wind-natural gas energy system in oil and gas industry: A case study of China
Presenter: **Eng. Jihong Hang,** Engineer, Research Institute of Petroleum Exploration and Development (RIPED), PetroChina Co Ltd., **China**

Global route-level carbon intensity of liquefaction-shipping-regasification of liquefied natural gas supply chains
Presenter: **Dr. Diego Moya,** Scientist, Aramco, **Saudi Arabia**

Challenges and strategic pathways for natural gas production in Iran and the Persian Gulf: Reserves, constraints, and energy transition outlook
Presenter: **Dr. Saeed Abbasi,** Assistant Professor, RIPI (Research Institute of Petroleum Industry)-NIOC, **Iran**

Natural gas in the energy transition: Evolving from transition fuel to system stabilizer
Presenter: **Dr. Zhang Jianping,** Senior Economist, PetroChina, **China**

Advances in liquefied methane storage and transportation: Environmental impacts and technological innovations
Presenter: **Dr. Soheila Zandi Lak,** Researcher in Chemical Engineering, Department of Chemical Engineering, Shiraz University, **Iran**

Elasticity of energy substitution in Saudi Arabia's industrial sector
Presenter: **Dr. Muhammad Javid,** Senior Fellow, King Abdullah Petroleum Studies and Research Center, **Saudi Arabia**

Comprehensive 4E analysis and multiple objectives optimization of five LNG production processes and feasibility study of LNG plant in Iran
Presenter: **Dr. Hassan Aghdasinia,** Associate Professor, University of Tabriz, **Iran**

HP-HCNG Technology: Making Natural Gas Cleaner, Greener, and Future-Ready Fue
Presenter: **Arun Kuniyil,** Senior Manager R&D, Hindustan Petroleum Corporation Limited, **India**

BLOCK 1

Forum 05 - Advances in Geoscience

Advances in geoscience are pivotal in revolutionising energy supply, improving resource management, and addressing environmental challenges By integrating cutting-edge technologies and innovative methods, geoscientists are paving the way for a more sustainable and efficient future in energy production and resource utilisation.

CHAIR

Andrea Crook
CEO and Co-Founder
OPTISEIS
Canada

VICE CHAIRS

Dr. Susan Nash
Director of Innovation and Emerging Science/Technology
American Association of Petroleum Geologists
United States of America

Dr. Vasily Bogoyavlensky
Deputy Director, Science
Oil & Gas Research Institute of the Russian Academy of Sciences (OGRI RAS)
Russia

Technical Papers

Day 3, Wednesday, 14 October 2026
| 14:30- 16:00 | Hall 9 - Technical Programme 1

Fiber and OBNs: Flexible monitoring approaches for coastal CCS
Presenter: **Dr. Takao Nibe,** Manager, JAPEX, **Japan**

The future of seismic monitoring over a supergiant oilfield: Buzios challenges & opportunities
Presenter: **Carlos Abreu,** Senior Advisor, PETROBRAS Petróleo Brasileiro SA, **Brazil**

Assessment of 3D virtual core plug acquisition as a tool for predicting porosity in reservoir cores
Presenter: **Ibrahim Olgun Ugurlu,** Senior Sedimentologist & Whole-Core CT Rock Imaging Lead, Turkish Petroleum Corporation, **Türkiye**

Digital transformation in geoscience: Leveraging technologies for new insights
Presenter: **Dr. Ivan Deshenenkov,** Geological Consultant - Digital Transformation Lead, Saudi Aramco, **Saudi Arabia**

Technical Posters

Day 4, Thursday, 15 October 2026
| 10:00 - 12:00 | Hall 5 - Digital Poster Plaza 1

Enabling the energy transition: How robotics and artificial intelligence are reshaping the future of exploration
Presenter: **Dr. Ezzedeen Alfataierge,** Manager of Geosciences Automation & Imaging Division at Upstream Advanced Research Center, Saudi Aramco, **Saudi Arabia**

Exploration strategy development for Paleozoic clastic prospects in the Persian Gulf: A regional geological perspective
Presenter: **Dr. Mehrangiz Naderi Khujina,** Head of Research and Technology, Pars Oil and Gas Company, **Iran**

Shaly-sand analysis for optimal well placement in deep gas sandstone reservoirs
Presenter: **Mohd Azizi Ibrahim,** Senior Petrophysicist Consultant, Saudi Aramco, **Saudi Arabia**

Advanced logging while drilling and surface data logging solutions enable real-time formation evaluation in high-temperature drilling environments and ultra-slim hole
Presenter: **Mohamed Hashem,** Lead Petroleum Engineer, Saudi Aramco, **Saudi Arabia**

AI assisted borehole image interpretation case study
Presenter: **Sharon Finlay,** Technology & Innovation Advisor, North Oil Company, **Qatar**

Best practices in characterizing carbonate reservoirs using thru-the-bit imaging technology
Presenter: **Mustafa Al Mubarak,** Geology Domain Champion, SLB, **Saudi Arabia**

A novel DSI waveform-based attribute for improved permeability estimation using joint analysis with NMR log data
Presenter: **Eng. Vahid Bolandi,** Petrophysicist, Pasargad Energy Development Company (PEDC), **Iran**

A review of the innovative implementation of horizontal wells in marginal reservoirs which paves the way of enhanced oil recovery
Presenter: **Hongfu Shi,** Senior Reservoir Engineer, CNOOC, **China**

BLOCK 1

Forum 06 - The Role of Biofuels as a Feedstock

This session delves into the innovative use of biofuels as a feedstock in various industries, emphasising their potential to contribute to sustainable production processes The session will explore the latest advancements in biofuel technologies, feedstock optimisation, and the role of biofuels in reducing greenhouse gas emissions, with insights into the scientific principles, engineering challenges, and economic considerations involved in the utilisation of biofuels as a versatile feedstock

CHAIR

András Huba Szilasi
Co-founder
DeCarbon Energy
Hungary

VICE CHAIR

Alena Kravtsova
Director - Financial Advisory, Energy, Resources & Industrials
Deloitte
United Kingdom

Dr. Martina Slezáčková
R&D Coordinator
VÚRUP
Slovakia

Technical Papers

Day 4, Thursday, 15 October 2026
| 10:00 - 11:30 | Hall 9 - Technical Forum 1

Biodiesel fuel production from algaes as a renewable, environmentally friendly and fast-growth feedstock: A comparison study
Presenter: **Seyyed Hadi Pourhoseini Hesari,** Faculty Member (Associate Professor of Mechanical Engineering), University of Gonabad, **Iran**

Circular economy in the oil and gas sector: Scaling up waste-based biofuels for sustainable energy
Presenter: **Dr. Altaf Albaho,** Senior Civil Engineer, Ministry of Oil, **Kuwait**

Gas-to-biomethane transformation index: A conceptual framework for repurposing residual gas fields into biomethane hubs
Presenter: **Kamil Klejna,** Plenipotentiary for Biomethane, SITPNiG, **Poland**

Optimizing petroleum refineries with biogas integration: Leveraging biofuels as a sustainable feedstock
Presenter: **Srivardhan Grandhi,** Assistant General Manager, Engineers India Limited, **India**

Technical Posters

Day 4, Thursday, 15 October 2026
| 12:00 - 14:00 | Hall 5 - Digital Poster Plaza 1

Innovative approaches in sustainable bioethanol purification for enhanced biofuel production
Presenter: **Dr. Fatemeh Haghighatjoo,** Researcher in Chemical Engineering, Department of Chemical Engineering, Shiraz University, **Iran**

Novel heterogeneous catalysis in selective oxidation of H2S to elemental S in bio-gas purification
Presenter: **Dr. Ritesh Mittal,** Assistant General Manager, Engineers India Limited, **India**

Advancements in syngas conversion for biofuel production and catalytic pathways
Presenter: **Mohammad Reza Rahimpour,** Professor of Chemical Engineering, Department of Chemical Engineering, Shiraz University, **Iran**

Clean energy policies for India: The case of second-generation ethanol
Presenter: **Dr. Gaurav Kumar,** Senior Manager, Hindustan Petroleum Corporation Limited, **India**

Advancements in bioenergy conversion through microbial fuel cells: Efficient approaches for wastewater treatment and biohydrogen production
Presenter: **Dr. Soheila Zandi Lak,** Researcher in Chemical Engineering, Department of Chemical Engineering, Shiraz University, **Iran**

Microbial valorization of lignocellulosic waste: A sustainable route to next-generation materials
Presenter: **Dr. Sharareh Harirchi,** Assistant Professor, Iranian Research Organization for Science and Technology, **Iran**

Untapped potential of agro-waste in India towards affordable & clean energy.
Presenter: **Kiran Kothari,** Senior Manager-Biofuel Operations, Hindustan Petroleum Corporation Limited, **India**

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BLOCK 2

Energy Infrastructure - Future Pathways

The energy sector is undergoing a transformation, driven by the increasing contributions from lower carbon energy sources, the decentralisation of energy systems, and the integration of new technologies. This block will explore the critical role of energy infrastructure in this transition, examining the challenges and opportunities in modernising and expanding the infrastructure to support a sustainable, reliable, and resilient energy future.

Forum 07
Navigating the Future: Innovations & Market Dynamics in LNG, FLNG, & CNG

Forum 08
Pipelines, Storage and SPRs

Forum 09
CCS Hub Facilities

Forum 10
Hydrogen Transportation

Forum 11
Supply Chain Management

Forum 12
Water Management in the Energy Industry: Innovations for Sustainability & Efficiency

Day 1, Monday, 12 October 2026
13:30- 14:00 | Hall 9 - Technical Programme 2

BLOCK 2 Forum Keynote

BLOCK 2

Forum 07 - Navigating the Future: Innovations & Market Dynamics in LNG, FLNG and CNG

This session aims to explore the evolving landscape of natural gas, focusing on the future prospects of LNG, FLNG, and CNG technologies. As the global energy market shifts towards cleaner alternatives, natural gas is poised to play a pivotal role in the energy transition. The session will bring together discussions on the latest technological advancements, market opportunities, and challenges in the LNG, FLNG, and CNG sectors.

CHAIR

Prof. Elena Fedorova
Head of Department
National University of Oil and Gas
Gubkin University
Russia

VICE CHAIRS

Tongwen Shan
General Manager, Science & Information Technology Department
China National Offshore Oil Corporation
China

Gholamali Rahimi
Faculty Member and Head of the Energy Economic Department
Institute for International Energy Studies (IIES)
Ministry of Petroleum
Iran

Technical Papers

Day 1, Monday, 12 October 2026
| 14:00 - 15:00 | Hall 9 - Technical Programme 2

LNG peak-shaving plant for sustainable steel production in Iran: A case study
Presenter: **Dr. Laleh Shirazi,** Assistant Professor, Research Institute of Petroleum Industry (RIPI), **Iran**

Application research on key technologies of large-diameter and super-long energy pile of LNG storage tank
Presenter: **Dr. Li Xiao,** Director of Research and Development Center, CNOOC Gas & Power Group Co, Ltd, **China**

Intrinsic versus extrinsic value in LNG asset valuation
Presenter: **Dr. Matthias Pickl,** Senior Investment Advisor, Saudi Aramco, **Saudi Arabia**

Optimizing LNG pretreatment: Honeywell UOP's hybrid solutions for enhanced contaminant removal
Presenter: **Anindita Sharda,** Process Specialist, Adsorbent/Membrane Technologies, Honeywell UOP, **India**

Technical Posters

Day 1, Monday, 12 October 2026
| 15:30 - 17:30 | Hall 5 - Digital Poster Plaza 2

FLNG in the South China Sea: A review of technical challenges and innovation pathways under harsh conditions
Presenter: **Dr. Fangqiu Li,** PhD/Engineer, CNOOC Gas & Power Group, **China**

Global LNG shipping costs: voyage-level benchmarking and cost-minimising reallocations
Presenter: **Dr. Muhammad Yousuf Jabbar,** Senior Scientist, Saudi Aramco, **Saudi Arabia**

Innovative research and engineering practice of CNOOC's gas-liquid helium co-production unit
Presenter: **Hao Cheng,** President of the Liquid Technology Research Institute, CNOOC Gas & Power Group, **China**

Comparative studies of deep-drying adsorbents for natural gas in LNG production
Presenter: **Eliza Gafarova,** Associate Professor of the Department of Oil and Gas Processing Equipment, National University of Oil and Gas (Gubkin University), **Russia**

Presenting a numerical approach to estimate boil-off and rollover in closed two-phase hydrocarbon (like LNG) storage tank: CFD simulation and experimental validation
Presenter: **Dr. Mohammad Irani,** Project Manager, Research Institute of Petroleum Industry, **Iran**

Optimizing LNG regasification infrastructure through operational excellence to support a resilient energy transition
Presenter: **Fendy Yuseva Pratama,** Senior Engineer I Piping & Mechanical Engineering, PT Nusantara Regas, **Indonesia**

The impact of deglobalization processes on the Russian energy sector: A case study of liquefied natural gas (LNG)
Presenter: **Jehad Abogsysa,** PhD Student, National Research University Higher School of Economics, **Russia**

BLOCK 2

Forum 08 - Pipelines, Storage and SPRs

Effective management of pipelines, storage facilities, and Strategic Petroleum Reserves (SPRs) is paramount for ensuring energy security and market stability As global energy demand exhibits fluctuations, the infrastructure required for oil transportation and storage must adapt to guarantee a reliable supply This forum will examine advancements in pipeline technology,storage solutions, and the strategic significance of SPRs in mitigating supply disruptions Key areas of discussion encompass enhancing pipeline safety, optimising storage capacity, and the role of SPRs in emergency response and market stabilisation, thereby contributing to a resilient energy system within a dynamic global context The geopolitical relevance of this topic isundeniable, as the diversification of pipeline routes emerges as a cornerstone of energy security for entire regions

CHAIR

Julian von Gramatzki
Executive Vice President Process Technology
TÜV NORD Systems GmbH & Co KG
Germany

VICE CHAIRS

Dr. Qingshan Feng
General Manager, Production Department
China Oil & Gas Pipeline Network Corporation
China

Brima M. Baluwa Koroma
Director General
National Petroleum Regulatory Agency (PRA)
Sierra Leone

Technical Papers

Day 2, Tuesday, 13 October 2026
| 10:00 - 11:30 | Hall 9 - Technical Programme 2

Reflective middleware for AI-augmented leak detection in oil and gas pipelines
Presenter: **Dr. Mohammed Alnemari,** Assistant Professor, University of Tabuk, **Saudi Arabia**

Derisking future fuels pipelines
Presenter: **Razwan Arshad,** Business Development Manager E&C. ROSEN, **United Kingdom**

Large-scale underground energy storage solutions: Low-pressure liquids to high-pressurized gases
Presenter: **Dr. Altaf Usmani,** DGM - Technical, Engineers India Limited, **India**

AI-integrated pipeline risk management: Cross-system coordination and intelligent decision support
Presenter: **Dr. Fei Xiao,** Senior Engineer, Southeast Oil & Gas Field Company, PetroChina, **China**

Technical Posters

Day 2, Tuesday, 13 October 2026
| 12:30 - 14:30 | Hall 5 - Digital Poster Plaza 2

A predictive AI-IoT framework for girth weld defect detection in strategic petroleum pipelines
Presenter: **Eng. Ali Masoumi,** MSc Student in Health, Safety & Environment Engineering, Tabnak Higher Education Institute, **Iran**

Investigation of rock property evolution and predictive methodologies through cyclic operating condition simulations in sandstone gas storage reservoirs
Presenter: **Yajun Song,** PhD Candidate, School of Petroleum Engineering, China University of Petroleum (East China), **China**

Theoretical study on welding structure failure of high-grade steel pipelines for oil and gas transportation
Presenter: **Dr. Lianshuang Dai,** Deputy Director of Production Department, China Oil & Gas Pipeline Network Corporation, **China**

Functionalization of Fe_3O_4 nanoparticles by polyvinyl pyrrolidone as a recyclable and economical gas hydrate inhibitor
Presenter: **Reyhaneh Pouryousef,** Master of Science Student, College of Engineering, University of Tehran, **Iran**

Damage detection in fuel transfer pipelines caused by ground subsidence using electro-mechanical impedance method
Presenter: **Mahnaz Shamshirsaz,** Professor, Amirkabir University of Technology (Tehran Polytechnic), **Iran**

Enhanced underground hydrogen storage in salt caverns using microporous carbon materials
Presenter: **Rajesh Goteti,** Geological Resources Team Lead, Aramco Americas, **United States of America**

BLOCK 2

Forum 09: CCS Hub Facilities

As industry and governments pursue the technology of carbon capture and storage to reduce the emission of CO2 into the atmosphere, a growing number of nations and jurisdictions are establishing CCS hubs to support industrial scale deployment of these technologies. These hubs are specific geographic regions with the geological, technological, and regulatory regimes in-place to support the capture and storage of anthropogenic carbon emissions. The purpose of this session is to present case-studies, highlight challenges and opportunities, and identify pathways to accelerate CCS activities worldwide.

CHAIR

Bassam Bakalh
Expert, National Program for Circular Carbon Economy
Ministry of Energy
Saudi Arabia

VICE CHAIR

Yu Matsuno
General Manager of Business Development Dept. II
Japan Petroleum Exploration Co., Ltd.
Japan

Technical Papers

Day 2, Tuesday, 13 October 2026
| 14:30 - 16:00 | Hall 9 - Technical Programme 2

Strategic development of CO_2-EOR-based CCS hubs in Iran: A technical and economic assessment
Presenter: **Dr. Sohrab Fathi,** Faculty Member, Kermanshah University of Technology, **Iran**

A Comparative Investigation on the CO_2 Sequestration Potential in a Heavy Oil Reservoir and Low-Permeability Reservoir
Presenter: **Dr. Zheyu Liu,** Associate Professor, China University of Petroleum Beijing, **China**

Pioneering a Global CCS Hub: A Vision for Secure Carbon Storage in Saudi Arabia
Presenter: **Nizam Din,** Geological Consultant, Saudi Aramco, **Saudi Arabia**

CO_2 injection at QatarEnergy LNG: A case study on performance, challenges, and lessons learned from a landmark CCS project
Presenter: **Eng. Julius Bacani,** Lead of Environmental Operations, QatarEnergy LNG, **Qatar**

Technical Posters

Day 3, Wednesday, 14 October 2026
| 11:30 - 13:30 | Hall 5 - Digital Poster Plaza 2

Advancing carbon capture and storage (CCS) technologies in hydrocarbon-producing countries: Infrastructure readiness and strategic deployment
Presenter: **Dr. Afshin Emamikhah,** Research and Technology Specialist, Iranian Gas Engineering and Development Company (IGEDC), **Iran**

Quantifying the potential for waste-to-energy to generate zero-carbon electricity and negative emissions in the Kingdom of Saudi Arabia
Presenter: **Dr. Nixon Sunny,** Senior Research Scientist, Saudi Aramco, **Saudi Arabia**

From power plants to oil reservoirs: Engineering flue gas purification for enhanced recovery and sustainability
Presenter: **Dr. Mahdi Zeinali Hassanvand,** Researcher and Academic Staff, Research Institute of Petroleum Industry, **Iran**

Green tailings: Surface CO_2 mineralization into industrial wastes for residual minerals recovery
Presenter: **Egor Vasilchenko,** Geochemical Scientist, Aramco Innovations LLC, **Russia**

A review of net-zero carbon initiatives and energy efficiency enhancement projects across continents: Evidence of their effectiveness in reducing greenhouse gas emissions
Presenter: **Dr. Abbas Bahreini,** Senior Oil Consultant, Pars Special Economic Energy Zone (PSEEZ), National Iranian Oil Company (NIOC), **Iran**

Integrating seaweed-based carbon capture and utilization (CCU) into petroleum industry: A scalable photobioreactor system
Presenter: **Dr. Sayeed Rushd,** Associate Professor, King Faisal University, **Saudi Arabia**

Application of CO_2 foam in optimizing carbon storage (CCUS) processes: An effective solution for flow control and enhanced efficiency in heterogeneous reservoirs
Presenter: **Mohammad Simjoo,** Associate Professor of Petroleum Engineering, Sahand University of Technology, **Iran**

Towards net-zero: Comprehensive study on a large-scale CCS geological storage hub in Saudi Arabia
Presenter: **Moaath Alghamdi,** Geophysicist, Saudi Aramco, **Saudi Arabia**

BLOCK 2

Forum 10: Hydrogen Transportation

Hydrogen is an energy source to become the key for the carbon neutral. Since its utilisation and application are expanding out not only as fuel but also as a raw material, hydrogen is expected to be utilised in the wide industrial fields. For promoting the utilisation of hydrogen, construction of the hydrogen supply chain is indispensable, and in recent years the development of marine transportation technology to enable a long-distance and mass transit, various techniques about pipelines and trailers delivering hydrogen to the demand place, and technologies for storage of a large quantity of hydrogen are attracting attention. This forum is focused on the current situation of technologies and the infrastructure necessary for hydrogen transportation and future challenges.

CHAIR

Dr. Abdullah Faisal Al Marshed
Professor
Kuwait Institute for Scientific Research (KISR)
Kuwait

VICE CHAIRS

Prof. Stanislaw Nagy
Head of Gas Department
AGH University of Krakow
Poland

Prof. ShaoHua Dong
Director of the Pipeline Technology and Safety Research Center
China University of Petroleum
China

Technical Papers

Day 3, Wednesday, 14 October 2026
| 10:00 - 11:30 | Hall 9 - Technical Programme 2

Various underground storage techniques to store massive quantities of hydrogen
Presenter: **Pascal Baylocq,** President and CEO, Geostock, **France**

The influence of hydrogen on the long-term strength of special materials for HDPE gas pipelines
Presenter: **Dr. Zhang Wei,** Senior Engineer, Sinopec Research Institute of Chemical Industry Co Ltd, **China**

Honeywell LOHC – Unlocking Middle East's role in the global hydrogen economy
Presenter: **Valentina Di Mauro,** Global Director Business Development LOHC, Honeywell UOP, **United Kingdom**

Hydrogen permeation testing of thermoplastic composite pipes
Presenter: **Dr. Abderrazak Traidia,** R&D Specialist, Saudi Aramco, **Saudi Arabia**

Technical Posters

Day 3, Wednesday, 14 October 2026
| 14:00 - 16:00 | Hall 5 - Digital Poster Plaza 2

Technology and Cost Analysis of offshore wind-to-hydrogen with LOHC for Transportation to Land: A Case Study of Eastern Guangdong Region
Presenter: **Pengfei Song,** Senior Engineer, CNOOC Gas and Power Group, **China**

Common regulatory frameworks for hydrogen transportation pipelines
Presenter: **Dr. Roman Samsonov,** Research Lead of the Youth Laboratory, Moscow State Construction University, **Russia**

West-to-east hydrogen transmission: Bridging the energy gap
Presenter: **Yuchen Wang,** Techincal Engineer, Sinopec Research Institute of Safety Engineering Co., Ltd, **China**

Hydrogen energy systems: An integrated review of production, storage, transport, and utilization pathways
Presenter: **Eng. Saeid Salimi,** Process Engineer, Persian Gulf Star Oil Company (PGSOC), **Iran**

Leveraging oil and gas infrastructure for hydrogen transport: AI-assisted leak detection and monitoring
Presenter: **Arman Aryanzadeh,** Project Engineer, Nargan Amitis Energy Development Company, **Iran**

Hydrogen blending in gas networks: Global challenges, best practices, and regulatory pathways for energy transition
Presenter: **Eng.Khaled Khallaf,** Technical Planning General Manager, Egyptian Gas Regulatory Authority, **Egypt**

BLOCK 2

Forum 11: Supply Chain Management

In the context of global energy landscape reshaping and energy transition acceleration, it is important that oil and gas companies manage their supply chain smarter and greener with digital technology and artificial intelligence. Better infrastructure, optimal process and closer partnership is also essential. This forum will discuss the latest research and best practices on supply chain management, including strategic planning, infrastructure, process management, partnership, risk management and artificial intelligence.

CHAIR

Yan Yang
Director, Department of Energy Technology
CNPC Economics & Technology Research Institute
China

VICE CHAIRS

Wagner Granja Victer
Executive Manager of Structural Programs
Petrobras
Brazil

Dr. Mohammad Ali Emadi
Secretary General
Iranian Petroleum Institute
Iran

Technical Papers

Day 3, Wednesday, 14 October 2026
| 14:30 - 16:00 | Hall 9 - Technical Programme 2

Decarbonizing oil supply chains with blockchain-verified carbon credits
Presenter: **Dr. Erfan Afazeli,** Secretary General, Iranian Federation of Petroleum Industry, **Iran**

Driving sustainability through vendor management transformation at Pertamina
Presenter: **Hilma Martha,** Expert of Change Management Transition & Implementation, PT Pertamina (Persero), **Indonesia**

Digital transformation in procurement and its impacts at Petrobras
Presenter: **Roberta Nobre Damiani Pereira,** General Manager, Petrobras, **Brazil**

Blockchain-driven transformation of natural gas supply chain finance: Architecture design and implementation pathways
Presenter: **Dr. Zhang Jianping,** Senior Economist, PetroChina, **China**

Technical Posters

Day 4, Thursday, 15 October 2026
| 10:00 - 12:00 | Hall 5 - Digital Poster Plaza 2

Dynamic scheduling and automation system (DSAS) for the best Pertamina supply chain
Presenter: **Fitria Lisdiyanti,** Sr. Analyst III IT System Solution, PT Pertamina (Persero), **Indonesia**

Supply chain management and localization: A case study from hydraulic fracturing project in Saudi Arabia.
Presenter: **Alexey Yudin,** Senior Technical Manager, TAQA, **Saudi Arabia**

Optimizing shipping efficiency & accuracy with Integrated Logistics Optimization (ILO) mobile
Presenter: **Fitria Lisdiyanti,** Sr. Analyst III IT System Solution, PT Pertamina (Persero), **Indonesia**

Towards a low-carbon petrochemical product supply chain: A multi-refinery optimization framework for integrated energy enterprises
Presenter: **Dr. Qing Li,** Senior Engineer, PetroChina Planning and Engineering Institute, China National Petroleum Cooperation, **China**

An IoT-based greenhouse gas emissions assessment system with a focus on carbon tax in the oil, gas, and petrochemical industries
Presenter: **Abbas Ahmadi,** Professor, Amirkabir University of Technology (Tehran Polytechnic), **Iran**

Smart and sustainable supply chain management in the oil and gas industry using quality infrastructure data and artificial intelligence
Presenter: **Mojtaba Babaei,** Director, Iranian Petroleum Institute Accreditation Body (IPIAB), **Iran**

Research on the operation optimization of domestic-receiving terminals under the uncertainty of LNG trade caused by global energy turmoil
Presenter: **Dr. Kai Wen,** Associate Professor, China University of Petroleum (Beijing), **China**

Research on the evaluation of industrial chain resilience of international oil companies and its impact on stock price
Presenter: **Jiajia Du,** Master's Student, China University of Petroleum (Beijing), **China**

BLOCK 2

Forum 12: Water Management in the Energy Industry:Innovations for Sustainability and Efficiency

As the petroleum industry focuses on sustainable and efficient operations, effective water management remains a critical priority. This forum will explore the latest technologies and strategies for handling produced water, with the aim of minimising environmental impact and optimising water usage in extraction and refining processes. Key topics will include advanced water treatment, reuse, and disposal methods, as well as regulatory compliance. Industry experts will discuss innovative solutions for reducing the water footprint, presenting case studies and best practices to provide valuable insights into the current state of water management and the future advancements essential for sustainable operations.

CHAIR

Sarah Al Subaie
Senior Specialist Upstream Affairs
Ministry of Energy
Saudi Arabia

VICE CHAIRS

Dr. Feras Alsalem
Petroleum Engineer
Kuwait Gulf Oil Company
Kuwait

Michael Halliday
Prncipal
HKA
United Kingdom

Technical Papers

Day 4, Thursday, 15 October 2026
| 10:00 - 11:30 | Hall 9 - Technical Programme 2

An environmentally friendly and low-cost technology for treating emulsified shale gas flowback fluid
Presenter: **Dr. Jie Yang,** Senior Engineer, Safety, Environment, and Technology Supervision Research Institute of PetroChina Southwest Oil & Gasfield Company, **China**

Optimizing asset integrity for a more resilient and sustainable energy future
Presenter: **Eng. Abdulrahman Bahashwan,** Maintenance Engineer, Saudi Aramco**, Saudi Arabia**

Performance and viability of capacitive deionization for sustainable water treatment
Presenter: **Dr. Reza Khoshbouy,** Assistant Professor, Green Carbon Research Center, Faculty of Chemical Engineering, Sahand University of Technology, **Iran**

Bio-electrochemical systems for produced water management in the oil sector: A Kuwaiti case study toward sustainable energy-water integration
Presenter: **Dr. Altaf Albaho,** Senior Civil Engineer, Ministry of Oil, **Kuwait**

Electrochemical desalination pretreatment: A green innovation for water and energy challenges
Presenter: **Miquel Blasi Roma,** CEO, e-Watts Technologies, **Spain**

Technical Posters

Day 4, Thursday, 15 October 2026
| 12:00 - 14:00 | Hall 5 - Digital Poster Plaza 2

Cleaning produced water with chemical-free plasma technology
Presenter: **Dr. Sayeed Rushd,** Associate Professor, King Faisal University, **Saudi Arabia**

Modeling the hydrate-based desalination process of produced water using tree-based machine learning technique
Presenter: **Dr. Maryam Sadi,** Associate Professor, Research Institute of Petroleum Industry, **Iran**

Produced water treatment in the oil and gas industry: The potential of MXene membranes
Presenter: **Isam Aljundi,** Director, King Fahd University of Petroleum and Minerals, **Saudi Arabia**

Integration of Reservoir Geosciences and Production Technology to Achieve Zero Overboarding in Giant Offshore Field, Qatar
Presenter: **Anthony Paul O'Connell,** Head Reservoir Management & Opportunities, North Oil Company, **Qatar**

Turning produced water into carbon stone: Global progress in CO_2 mineralization within oilfield brines
Presenter: **Eng. Mohammed Alyousef,** Associate Petroleum Engineer, Saudi Aramco, **Saudi Arabia**

Achieving effective water control in low-viscosity oil reservoirs: A case study with RCP AICDs in offshore China
Presenter: **Dr. Mojtaba Moradi,** Global Subsurface Engineering Manager, TAQA, **United Arab Emirates**

An experimental and simulation comparison investigations of water injection compatibility tests for managing the available resources
Presenter: **Seyed Alireza Mostafavi,** Reservoir Engineer, NIOC, **Iran**

Advanced Industrial Wastewater Treatment Using Solar-Based Zero Liquid Discharge (ZLD) Technology
Presenter: **Dr. Elham Heydari,** PhD Student in Chemical Engineering, Islamic Azad University, Yazd Branch, **Iran**

A novel methodological approach for identifying the origin of produced water using ion-specification analysis
Presenter: **Eng. Babak Dehghani,** Petroleum Engineer, National Iranian Oil Company, **Iran**

Advancing environmental sustainability in KNPC through wastewater and sludge management
Presenter: **Eng. Ritaj Boushehri,** Environment Engineer, Kuwait National Petroleum Company (KNPC), **Kuwait**

25TH WPC ENERGY CONGRESS
Riyadh, 11-15 October 2026

WPC ENERGY | وزارة الطاقة MINISTRY OF ENERGY

BLOCK 3

Energy Fuels & Molecules - Future Pathways

The energy transition is driving the need for innovative energy fuels and molecules that can replace or complement traditional fossil fuels. This block will examine the various pathways for developing and integrating these new energy carriers, focusing on their technological, economic, and environmental aspects.

Forum 13 -
Fueling the Future: Innovations & Strategies for Tomorrow's Electricity Supply

Forum 14 -
Hydrogen (green and blue); Ammonia; Methanol

Forum 15 -
Alternative Fuels - E fuels, Biofuels and SAF

Forum 16 -
Pathways to Net-Zero Refining and Petrochemical Facilities

Forum 17 -
Helium, Lithium, and Trace Metals Extraction

Day 1, Monday, 12 October 2026
15:30 - 16:30 | Hall 9 - Technical Programme 3

BLOCK 3 Forum Keynote

BLOCK 3

Forum 13 - Fueling the Future: Innovations & Strategies for Tomorrow's Electricity Supply

As the world transitions to a lower carbon energy future, the electricity supply system is undergoing significant changes. This session will explore the key trends, technologies, and challenges in ensuring a reliable and sustainable electricity supply. Topics will include renewable energy integration, advancements in grid technology, energy storage solutions, and the role of emerging technologies like hydrogen and CCS. The session will look at how different energy sources and technologies can work together to fuel the future of electricity.

CHAIR

Abdulrahman Al-Yemni
Acting Director for Policy
Development Affairs Department
Ministry of Energy
Saudi Arabia

VICE CHAIRS

Dr. Thiago Guilherme Ferreira Prado
President
Empresa de Pesquisa Energética – EPE
Brazil

Nicola Caley
Partner
HKA
United Arab of Emirates

Technical Papers

Day 1, Monday, 12 October 2026
| 15:30 - 16:30 | Hall 9 - Technical Programme 3

Subsurface hydrogen storage in depleted reservoirs: A strategic framework
Presenter: **Ali Alshuwaikhat,** Research Engineer, Saudi Aramco, **Saudi Arabia**

Sustainable electricity generation in the Ordos Basin: Cold water injection in enhanced geothermal systems (EGS) using abandoned gas wells
Presenter: **Dr. Yushuo Zhang,** Petroleum Engineer, Oil & Gas Technology Research Institute, PetroChina Changqing Oilfield Company, **Canada**

Blending renewable hydrogen into natural gas networks: Innovative solutions for future electricity grids and carbon reduction
Presenter: **Dr. Sohrab Fathi,** Faculty Member, Kermanshah University of Technology, **Iran**

Dynamic coupled THMC analysis of hydrogen injection–production cycles in depleted gas reservoirs
Presenter: **Dr. Qingzhuo Liao,** Professor, China University of Petroleum, **China**

Technical Posters

Day 2, Tuesday, 13 October 2026
| 10:00 - 12:00 | Hall 5 - Digital Poster Plaza 3

Deepwater gas-to-power: Sustainable energy from FPSO-based combined cycle and supercritical CO_2 systems
Presenter: **Behrooz Golestani Khalilabad,** Reservoir Engineering Expert, Khazar Exploration and Production Company (Subsidiary of NIOC), **Iran**

Intelligent solar-diesel hybrid energy system for remote oilfield operations using smart power prioritization
Presenter: **Dr. Shoresh Shokoohi,** Executive Director of Sanandaj Oil Pipelines and Telecommunication Terminal Facilities, National Iranian Oil Company (NIOC), **Iran**

Novel PANI-based composite solid electrolytes for room-temperature sodium-sulfur battery
Presenter: **Hind Al-Amri,** Lecturer, College of Engineering , King Khalid University, **Saudi Arabia**

Strategic integration of 200 MW utility-scale solar power in Nouri Petrochemical operations
Presenter: **Dr. Gholamreza Jamshidi,** CEO, Nouri Petrochemical Company, **Iran**

High-power, low-temperature tolerant, long-life, and high-safety electrochemical energy storage systems at oilfield well sites in the oil and gas industry
Presenter: **Dr. Xiaoqi Wang,** Senior Expert for Advanced Material, Research Institute of Petroleum Exploration and Development (RIPED), CNPC, **China**

Dual functionality of microbial fuel cells: Leveraging oil and petrochemical wastewater for renewable energy production
Presenter: **Mostafa Rahimnejad,** Professor, Babol Noshirvani University of Technology, **Iran**

Solar, wind, and nuclear integration: Alternative energy sources to supplement oil and gas
Presenter: **Eng. Abdullah Alatani,** Technical Training Advisor, National Power Academy, **Saudi Arabia**

Comparative analysis of mixing and steep-pressing methods for producing carboxymethyl cellulose (CMC): Reducing energy consumption in small-scale industries
Presenter: **Dr. Shirin Shokoohi,** Assistant Professor, Research Institute of Petroleum Industry, **Iran**

Solid-state sodium–sulfur batteries with PANI–PEG composite electrolytes: Toward safer and efficient energy storage
Presenter: **Dr. Basem Al Alwan,** Associate Professor , King Khalid University, **Saudi Arabia**

BLOCK 3

Forum 14 - Hydrogen (Green and Blue); Ammonia, Methanol

This forum will explore the evolving landscape of hydrogen production, focusing on green (renewable) and blue (low-carbon) hydrogen technologies. It will delve into the role of ammonia and methanol as hydrogen carriers and their applications in energy storage, transportation, and industrial processes. The session will also cover the latest advancements in production methods, infrastructure development, and the integration of these fuels into existing energy systems. Participants will gain insights into the economic, environmental, and technological aspects of these key components in the transition to a lower carbon energy future.

CHAIR

Daulet Zhakupov
Acting Director,
Department of Alternative Energy
KMG Engineering LLP
Kazakhstan

VICE CHAIRS

Dr. Nobuyasu Chikamatsu
Senior Deputy Manager
JGC Holdings Corporation
Japan

Dr. Geoffrey Ellis
Research Geologist & Project Chief
U.S. Geological Survey
United States of America

Technical Papers

Day 2, Tuesday, 13 October 2026
| 10:00 - 11:30 | Hall 9 - Technical Programme 3

Catalyzing ammonia cracking: Enhancing efficiency and sustainability
Presenter: **Rajesh Inder Singh,** Principal Technical Professional, KBR, **India**

A novel electrolysis technology for a green hydrogen supply chain using methylcyclohexane
Presenter: **Koki Yamada,** Chief Staff, ENEOS Corporation, **Japan**

Exploring CO_2 conversion to methanol: Direct and indirect routes for sustainable production and their role in a low-carbon future
Presenter: **Dr. Fatemeh Haghighatjoo,** Researcher in Chemical Engineering, Department of Chemical Engineering, Shiraz University, **Iran**

Technology developments for green ammonia production and cracking by JGC
Presenter: **Yohei Shimada,** Manager, Digital Solutions, Sustainability Co-Creation Unit, JGC Holding Corporation, **Japan**

Technical Posters

Day 2, Tuesday, 13 October 2026
| 12:30 - 14:30 | Hall 5 - Digital Poster Plaza 3

Decentralized production of green hydrogen via modular electrolysis units: Flexibility, infrastructure and integration
Presenter: **Marcos López Járrega,** Andalusian Green Hydrogen Valley Project Development, Moeve, **Spain**

Split-flow reactor: Optimized catalyst converters for high-capacity ammonia plants
Presenter: **Shailesh Mudaliar,** Technical Advisor, KBR, **India**

Optimization design for 10,000-ton/y-scale green ammonia production via water electrolysis and H-B process
Presenter: **Dr. Yue Wang,** Senior Engineer, PetroChina Company Limited, **China**

Electrolyzer technologies for green hydrogen production with reduced CAPEX and OPEX: In-house development and demonstration
Presenter: **Dr. Bharati Panigrahy,** Senior Scientist, HP Green R&D Center, Hindustan Petroleum Corporation Limited (HPCL), **India**

The future of upstream technologies: Techno-economic assessment of hydrogen production from upstream wastewater
Presenter: **Dr. Hassan Alqahtani,** Hydrogen Program Lead, EXPEC ARC/Saudi Aramco, **Saudi Arabia**

Hourly time-matching requirement for electrolytic hydrogen production: Is the added cost justifiable?
Presenter: **Dr. Marwan Sendi,** Senior Engineer, Life Cycle Assessment Group, Technology Strategy & Planning Department, Saudi Aramco, **Saudi Arabia**

Ammonia as an alternative to store hydrogen: Toxic hazards from large storage accidental releases
Presenter: **Leonardo Cotrufo,** Operations Specialist Engineer, Saudi Aramco, **Saudi Arabia**

BLOCK 3

Forum 15 - Alternative Fuels - E fuels, Biofuels and SAF

Alternative fuels such as e-fuels, biofuels and SAF are attracting attention as a sustainable energy source for the future. Efforts to improve the production efficiency of these alternative fuels and reduce their carbon intensity will be an important part of realising a lower carbon energy system. This forum will introduce economically rational production technologies that apply innovative and existing technologies, the contribution of low-carbon fuels to achieving net zero, and the status of preparations for fuel standards and certification for practical use. It will also discuss cooperation with local communities and stakeholders, and the building of mutually beneficial relationships

CHAIR

Leif-Erik Schulte
Executive Vice President, IFM - Institute for Vehicle Technology and Mobility
TÜV NORD Mobilität GmbH & Co KG
Germany

VICE CHAIRS

Márton Takács
Group Aviation Products Manager
MOL PLC
Hungary

Dr. Ibraheam Al Shankiti
Advisor, Clean Hydrogen
Ministry of Energy
Saudi Arabia

Technical Papers

Day 2, Tuesday, 13 October 2026
| 14:30 - 16:00 | Hall 9 - Technical Programme 3

Brazilian experience with alternative fuels: Achievements from Petrobras
Presenter: **Patricia Carneiro dos Santos,** Manager, Petrobras, **Brazil**

HP-TriJet: Revolutionizing waste-to-fuel with a single-step SAF & green diesel process
Presenter: **Srinivasa Rao Ganagalla,** Senior Manager- R&D, Hindustan Petroleum Corporation Limited, **India**

Designing market-based mechanisms to accelerate the uptake of alternative drop-in fuels in Saudi Arabia's aviation sector
Presenter: **Ahmed AlJameel,** Energy & Climate Policy Researcher, Centre for Environmental Policy, Imperial College London, **United Kingdom**

Eco-friendly skies and roads: Practical insights into SAF and biodiesel production through hydrocracking units
Presenter: **Filip Stancl,** Subject Matter Expert, MOL, **Slovakia**

Technical Posters

Day 3, Wednesday, 14 October 2026
| 11:30 - 13:30 | Hall 5 - Digital Poster Plaza 3

A modular solution for converting associated gas into low-carbon fuels
Presenter: **Dr. Ali Mansouri,** Technology Leader for Low Carbon Fuels, Baker Hughes, **Germany**

Techno-economic analysis of intensified E-kerosene production
Presenter: **Ali Ghaffari,** Head of the Department of Engineering and Refining Technologies, Research Institute of Petroleum Industry, **Iran**

Advances and challenges in sustainable aviation fuel production: Focus on methanol-to-jet pathways
Presenter: **Dr. Fatemeh Parvizi,** Senior Technologist, Research Institute of Petroleum Industry, **Iran**

Direct CO_2 Fischer–Tropsch synthesis using water-selective ZSM-5 type-zeolite membrane
Presenter: **Masahiko Matsukata,** Professor, Waseda University, **Japan**

Scaling e-fuels: Deep decarbonization of the mobility sector
Presenter: **Martin Hablutzel,** Head of Sustainable Energy Systems Middle East, Africa, and Asia Pacific, Siemens Energy, **Australia**

Feasibility study of the optimal option for municipal waste disposal in Pars Special Economic Energy Zone, Iran
Presenter: **Dr. Mehdi Tanha Ziyarati,** Head of Environmental Department, Pars Special Economic Energy Zone, National Iranian Oil Company, **Iran**

Comparison of portfolio non-edible feedstock for HVO co-processing production
Presenter: **Dr. Martina Slezáčková,** R&D Coordinator, VÚRUP, **Slovakia**

NRL diversifying energy basket by integration with nearby petrochemical and fertilizer plant - Building future growth through dimethylamine
Presenter: **Geetali Kalita**, Head (ESG), Numaligarh Refinery Limited, **India**

Optimizing sustainable aviation fuels: Machine learning models for predicting and enhancing critical fuel properties
Presenter: **Dr. Balaji Mohan,** Lead Scientist, Saudi Aramco, **Saudi Arabia**

BLOCK 3

Forum 16 - Pathways to Net-Zero Refining and Petrochemical Facilities

Work towards achieving net-zero emissions at assets by discovering leading-edge technologies and processes. As the refining and petrochemical sector responds to emerging carbon policies and regulations around the world, learn how to integrate renewable energy, carbon capture and storage (CCS), and process optimisations to reduce environmental impacts. Conversations will also highlight successful case studies, opportunities and challenges to enhancing operations, and balancing both economic and environmental interests.

CHAIR

Dr. Ivan Soucek
Director
Association of Chemical Industry
Czech Republic

VICE CHAIRS

Hadeel Al Aradi
Safety Controller
Ministry of Oil
Kuwait

Pieter-Jan Provoost
Director
Energy TECH
Belgium

Technical Papers

Day 3, Wednesday, 14 October 2026
| 14:30 - 16:00 | Hall 9 - Technical Programme 3

Petrobras' experience about the use of renewable feedstocks at refining and petrochemical facilities
Presenter: **Patricia Carneiro dos Santos,** Manager, Petrobras, **Brazil**

Towards net-zero refining with thermocatalytic decomposition technology
Presenter: **Wei Wang,** Director, ROTOBOOST Finland Oy, **Finland**

Integrating detailed petrochemical processes in global energy system models for robust decarbonization pathways
Presenter: **Dr. Olivier Durand-Lasserve,** Principal Fellow, KAPSARC, **Saudi Arabia**

Decarbonization of refining and petrochemical processes through advanced molecular composition control
Presenter: **Dr. Ryuzo Tanaka,** Chief Associate, Idemitsu Kosan Co., Ltd., **Japan**

Technical Posters

Day 4, Thursday, 15 October 2026
| 10:00 - 12:00 | Hall 5 - Digital Poster Plaza 3

Research and application of low-carbon technologies in international cooperation natural gas development projects
Presenter: **Eng. Ze liang Li,** Engineer, South Sulige Operating Company of CNPC Changqing Oilfield, **China**

From waste to wealth: The economic and environmental case for plastic recycling in the GCC
Presenter: **Julio Arboleda,** Senior Fellow, KAPSARC, **Saudi Arabia**

Transforming plastic waste into fuel by demonstration of plastic pyrolysis oil co-processing in FCCU with environmental gains
Presenter: **Ramanathan Arunachalam,** Chief Manager - Technical, Hindustan Petroleum Corporation Limited, **India**

Valorization of waste plastics into light olefins through thermochemical routes
Presenter: **Muhammed-Jamiu Umar,** Master's Student, King Fahd University of Petroleum and Minerals, **Saudi Arabia**

Pathways to decarbonize refining operations through process optimization and integrated carbon mitigation technologies
Presenter: **Forouzan Arash Nezhad,** PhD Candidate, Department of Chemistry, Shahid Chamran University of Ahvaz, **Iran**

SASREF decarbonization strategy
Presenter: **Abdulrahman Nasser Alhatlani,** Advanced Process Control Engineer, Saudi Aramco Jubail Refinery (SASREF), **Saudi Arabia**

Innovative HFO–Plastic co-gasification for cost-competitive hydrogen: A technoeconomic study
Presenter: **Ali Abdullah Al Qadri,** Ph.D Candidate, King Fahd University of Petroleum and Minerals, **Saudi Arabia**

Optimizing refinery CO_2 emissions
Presenter: **Prerana Saha,** Assistant General Manager, Engineers India Limited, **India**

TASNEE's phased decarbonization and circular economy strategies toward Saudi Arabia's net zero 2060 target
Presenter: **Dr. Sulaiman Al-Khattaf,** Vice President, Technology & Innovation (T&I), TASNEE, **Saudi Arabia**

Enhancing energy efficiency in lube oil refinery targeting energy saving and CO_2 emission reduction
Presenter: **Dr. Mohamed Abdo,** Senior Process Specialist, Saudi Aramco Base Oil Company (Luberef), **Saudi Arabia**

BLOCK 3

Forum 17 - Helium, Lithium and Trace Metals Extraction

The evolution of global energy systems toward renewable and clean energy technologies, as well as the continued electrification of many industry sectors, particularly transportation, are creating significant new demand for helium, lithium, and trace metals. This session will explore the global resource base of these elements and the current and emerging technologies to extract these resources.

CHAIR

Chris Doornbos
CEO, Director

E3 Lithium
Canada

VICE CHAIR

Dr. Farzad Bahadoran
Senior Researcher and Scientific Staff

Research Institute of Petroleum Industry
Iran

Technical Papers

Day 4, Thursday, 15 October 2026
| 10:00 - 11:30 | Hall 9 - Technical Programme 3

Advancing helium separation: Multi-cycle PSA optimization for high-purity supply
Presenter: **Dr. Sayed Alireza Hosseinzadeh Hejazi,** Assistant Professor, Amirkabir University of Technology (Tehran Polytechnic), **Iran**

High-performance Mg^{2+}/Li^{+} separation membrane: Overcoming critical technical barriers in lithium extraction from oilfield-associated brines
Presenter: **Guoke Zhao,** Associate Professor, Sinopec, **China**

Mineral extraction from produced water
Presenter: **Dr. Sehmus Ozden,** Scientist, Aramco Americas, **United Statest of America**

Technical Posters

Day 4, Thursday, 15 October 2026
| 12:00 - 14:00 | Hall 5 - Digital Poster Plaza 3

Research and field test of lithium extraction technology for low-grade lithium-containing gas field produced water
Presenter: **Wei Ji,** Senior Engineer, PetroChina Changqing Oilfield Company, **China**

Helium recovery from Iran's natural gas fields: Feasibility assessment, challenges, and strategic opportunities
Presenter: **Dr. Farzad Bahadoran,** Senior Researcher and Scientific Staff, Research Institute of Petroleum Industry (RIPI), **Iran**

Saline soils as an unconventional source of lithium
Presenter: **Andrey Kovalskii,** Research Science Specialist, Aramco Innovations LLC (Aramco Research Center – Moscow), **Russia**

Prospective applications of high-power lasers in mineral extraction and geothermal energy
Presenter: **Dr. Damian San Roman Alerigi,** Research Science Specialist, Aramco , **Saudi Arabia**

Sustainable approach to battery metal recycling: A green method for rare-earth elements recovery using deep eutectic solvents and biopolymeric hydrogel
Presenter: **Anahita Kazemi Kia,** Research Assistant, Chemistry & Chemical Engineering Research Center of Iran, **Iran**

Laser-induced breakdown spectroscopy towards minerals exploration in sedimentary rocks
Presenter: **Khalid AlQubaisi,** SME Mud Logging and PE Specialist, Aramco, **Saudi Arabia**

Benchmarking machine learning algorithms for lithium-bearing alteration mapping using remote sensing and legacy geological data
Presenter: **Zahra Al Mualem,** Associate Geophysicist, Saudi Aramco, **Saudi Arabia**

Helium Enrichment Mechanism and Favorable Exploration Direction in the Peripheral Rift of Ancient Craton
Presenter: **Dr. Yiping Wu,** Senior Geologist, Research Institute of Petroleum Exploration and Development (RIPED), PetroChina, **China**

Two decades of QatarEnergy LNG helium recovery: Operational challenges, solutions and learnings
Presenter: **Yudi Siswadi,** Lead of Process Engineering - South LNG, QatarEnergy LNG, **Qatar**

25TH WPC ENERGY CONGRESS
Riyadh, 11-15 October 2026

WPC ENERGY | وزارة الطاقة MINISTRY OF ENERGY

BLOCK 4

Energy Technologies – Future Pathways

This block will explore the technologies that are enabling the energy transition, from renewable energy generation and storage solutions to advancements in energy efficiency and smart grids. Focused expert panels will provide insights into current trends, emerging innovations, and strategic pathways for accelerating the adoption of these technologies.

Forum 18 -
Smart Infrastructure for the Future Energy Industry: Digitalisation & Innovation

Forum 19 -
Research, Technology Start-ups and Funding

Forum 20 -
GHG Emissions (Scope 1&2) Abatement (CO_2, Methane) - Detection; CO_2 Capture; CCUS; DAC; Carbon Products

Forum 21 -
Solar, Wind and Nuclear Integration

Forum 22 -
Advancing the Circular Economy & Value of Life Cycle Analyses

Forum 23 -
The Energy Transition: The Role of Digitalisation, AI, and Cybersecurity

Forum 24 -
Powering Mobility: The Energy Transition and the Future of Transportation

Day 1, Monday, 12 October 2026
13:30 - 14:00 | Hall 10 - Technical Programme 4

BLOCK 4 Forum Keynote

BLOCK 4

Forum 18 - Smart Infrastructure for the Future Energy Industry: Digitalisation & Innovation

As the energy industry evolves to meet the demands of a sustainable future, smart infrastructure is playing a crucial role in transforming the sector. This session will explore the cutting-edge technologies and strategies that are enabling smarter, more resilient, and adaptive energy systems. It will cover the latest developments in smart grids, intelligent energy management systems, IoT applications, AI-driven analytics, and the role of big data in optimising energy infrastructure. The session will bring together experts to discuss the challenges, opportunities, and future trends in smart energy infrastructure.

CHAIR

Arseniy Kirichenko
Consultant, M&A, Valuation, Business Development, Energy, Oil & Gas Projects

Energy Oil and Gas
Russia

VICE CHAIR

Mahdi Alavi
Reservoir Engineer

National Iranian Oil Company
Iran

Technical Papers

Day 1, Monday, 12 October 2026
| 14:00 - 15:00 | Hall 10 - Technical Programme 4

Designing a data-driven blockchain-based business model for smart energy management and efficiency: A generalizable solution for energy transition and creating an inclusive innovation ecosystem

Presenter: **Amir Abedpour,** Innovation & Institutional Transformation Strategist | Doctoral Researcher, University of Tehran | Advisor to CEO, National Iranian Oil Company, **Iran**

Ruaa RoboEnergy (an intelligent electric robotic system designed to autonomously monitor, inspect, and maintain renewable energy installations, enhancing operational efficiency and reducing maintenance costs)

Presenter: **Duaa Ibrahem Alluwaimi,** Electrical Engineer, KBR AMCDE, **Saudi Arabia**

Real-time 4E optimization framework for energy-intensive industries: An integrated digital twin approach for simultaneous energy, exergy, economic, and environmental performance enhancement

Presenter: **Reza Azin,** Academic, Persian Gulf University, **Iran**

Experience of secure interoperable routable goose communication at the UCA international users group interoperability tests

Presenter: **Supratik Pathak,** Senior Product Manager, OT Cybersecurity, GE Vernova, **UAE**

Technical Posters

Day 1, Monday, 12 October 2026
| 15:30 - 17:30 | Hall 5 - Digital Poster Plaza 4

A geothermal screening model for closed-loop systems: Enabling early-stage techno-economic assessment
Presenter: **Meshal Alshalan,** Research Engineer, Saudi Aramco, **Saudi Arabia**

AI-based autonomous operation of crude distillation unit
Presenter: **Masayoshi Kinoshita,** Deputy General Manager, Engineering & Capital Planning Department, ENEOS Corporation, **Japan**

Case analysis: The pilot test of wellbore wireless communication of pumping unit well (WWCTP) in high water cut oil field
Presenter: **Dr. Zhongxian Hao,** Manager, Research Institute of Petroleum Exploration & Development, PetroChina, **China**

Data and mechanism-driven real-time closed-loop optimization method for crude distillation unit
Presenter: **Dr. Tao Liu,** Technology Planning Coordinator, Dalian West Pacific Petrochemical Co., Ltd, **China**

Maximizing renewable utilization on existing power transmission corridors with dynamic system rating
Presenter: **Dr. Balakrishna Pamulaparthy,** Senior Engineer – Emerging Technologies, GE Vernova, **India**

The digital edge: Virtual flow metering vs. conventional flow measurement systems in gas wells – a QatarEnergy LNG case study
Presenter: **Meshaal Ahmed Al-Rashid,** Senior Production Engineer, QatarEnergy LNG, **Qatar**

Transforming stranded gas into adaptable digital infrastructure through smart gas-to-power and hydro-cooled data centers
Presenter: **Thi Nhut Suong Le,** Ph.D Student/Business Development Manager, Gubkin University/Winchain Group, **Russia**

Caspian Offshore Energy: A Strategic Nexus for Security, Transition and Sustainable Innovation
Presenter: **Majid Sajadian,** Senior Drilling Engineering Executive, Strategic Scenario Architect, Khazar Exploration & Production Company, **Iran**

Transforming Sustainable Oil and Gas Operations through Digitalization and Nanotechnology
Presenter: **Majid Sajadian,** Senior Drilling Engineering Executive, Strategic Scenario Architect, Khazar Exploration & Production Company, **Iran**

BLOCK 4

Forum 19 – Research Technology Start-ups and Funding

Technology and innovation are the key to energy transition. Significant advancements have been achieved for conventional energies production in terms of efficiency and emission reductions. New energies such as solar, wind, hydrogen, nuclear, hydro, biomass etc. together with energy storage and complementary technologies, have boomed and are playing more and more important roles in energy transition. This forum will discuss the latest progress and achievements including research, experiments, applications, management and investment, with a particular focus on the roles of start-ups and venture capitals in projects initiation, planning and commercialisation.

CHAIR

Qun Li
Senior Specialist, Standard and Cooperation Division, R&D Department
China National Petroleum Corporation
China

VICE CHAIRS

Prof. Abdulakhat Ismailov
Dean, School of Energy and Petroleum Industry
Kazakh British Technical University
Kazakhstan

Katerina Yared
Global Energy Portfolio Leader - O&G, Carbon Capture, Geothermal
3M
United States of America

Technical Papers

Day 1, Monday, 12 October 2026
| 15:00 - 16:30 | Hall 10 - Technical Programme 4

Reservoir simulation for underground LOHC storage using pore network-derived flow functions
Presenter: **Eng. Mutaz Alsubhi,** Ph.D Candidate, King Abdullah University of Science and Technology (KAUST), **Saudi Arabia**

Case study on the low-carbon transformation of China's oil and gas sector
Presenter: **Dr. Baohua Zhao,** Engineer, PetroChina Tarim Oilfield Company, **China**

Range anxiety gone: Portable, off-grid EV charging – anytime, anywhere
Presenter: **Jayasurya Tsunduru,** DGM-Business Development, Hindustan Petroleum Corporation Limited, **India**

Technical Posters

Day 2, Tuesday, 13 October 2026
| 10:00 - 12:00 | Hall 5 - Digital Poster Plaza 4

Cobalt-engineered MnO_2 nanowires for high-performance aqueous zinc-ion batteries: A scalable electrodeposition strategy
Presenter: **Dr. Bayan Baatiyah,** Ph.D Student, King Fahad University for Petroleum and Minerals, **Saudi Arabia**

Production of hydrogen and in-situ upgraded oil from heavy oil reservoirs: Status and future pathways
Presenter: **Dr. Alexandru Turta,** CEO, A T EOR Consulting, Inc., **Canada**

Unlocking potential for Mauddud Carbonate Formation in the Greater Burgan Field, Kuwait
Presenter: **Huda Al-Enezi,** Senior Reservoir Engineer, Kuwait Oil Company, **Kuwait**

Progress in stimulation technologies for ultra-deep, HTHP reservoirs in Tarim
Presenter: **Zhanwei Yang,** Engineer, Research Institute of Petroleum Exploration & Development, PetroChina, **China**

Value of information and the degradation of the mineral resource base in the context of the optimal management model of the company
Presenter: **Dr. Oleg Zhdaneev,** Head, Technological Development Centre of the Fuel and Energy Complex, **Russia**

Well completion and production strategies for natural hydrogen: Technical considerations and operational pathways
Presenter: **Anand Kumar,** Production Engineer, ONGC, **India**

Energy saving & combustion optimization achieved by Emerson analyzers
Presenter: **Remon Anwar,** Business Development Manager, Emerson, **Saudi Arabia**

Biomass Derived cellulosic nanofibers & nanocrystals: Decarbonizing Oil & Gas Industry
Presenter: **Dr. Ritesh Mittal,** Assistant General Manager, Engineers India Limuted, **India**

Beyond the Barrel: The Future of Petrochemical complex in an Electrified world
Presenter: **Dr. Mohammed Al-Hazmi,** Director, Science Advisory and Partnership, SABIC, **Saudi Arabia**

BLOCK 4

Forum 20 - GHG Emissions (Scope 1 & 2) Abatement (CO_2, methane) Detection; CO_2 Capture; CCUS; DAC; Carbon Products

This forum will explore innovative approaches and technologies for the detection and abatement of Scope 1 and 2 greenhouse gas emissions, including CO_2 and methane. Topics will cover advanced detection methods, CO_2 capture techniques, and carbon capture, utilisation, and storage (CCUS) strategies. Additionally, the forum will delve into direct air capture (DAC) technologies and the development of carbon products. Attendees will gain insights into the latest advancements and practical applications in reducing greenhouse gas emissions.

CHAIR

Kevin Birn
Head of Carbon Research & The Center of Emissions Excellence
S&P Global Commodity Insights
Canada

VICE CHAIRS

Suleyman Coskun
Programme Director
WPC Energy
Türkiye

Rosalía Vázquez
Sr. Energy Transition & Climate Change Advisor
Repsol
Spain

Technical Papers

Day 2, Tuesday, 13 October 2026
| 10:00 - 11:30 | Hall 10 - Technical Programme 4

Membrane-based tail gas treatment and CO_2 capture from tail gas of sulfur recovery plant
Presenter: **Ahmed Ameen,** Lead Engineer, Saudi Aramco, **Saudi Arabia**

Greenhouse gas management and reduction at the world's largest LNG company
Presenter: **Afzal Subedar,** Environmental Specialist, Qatar Energy LNG, **Qatar**

An optical gas imaging (OGI) system enhanced for real-time flare efficiency monitoring
Presenter: **Bryan Chao,** VP of International Commercialization, Oiler.ai, **United States of America**

SO2 Adsorption-Based Tail Gas Treatment
Presenter: **Georgios Lithoxoos,** Lead Scientist , Saudi Arabian Oil Company**, Saudi Arabia**

Technical Posters

Day 2, Tuesday, 13 October 2026
| 12:30 - 14:30 | Hall 5 - Digital Poster Plaza 4

Miniaturizing the carbon capture technology through process intensification
Presenter: **Madan Kumar Kumaravelan,** Chief Manager - R&D, Hindustan Petroleum Corporation Limited, **India**

Seaward-dipping reflectors (SDR): New play for carbon sequestration
Presenter: **Dr. Jakub Fedorik,** Senior Structural Geologist, Saudi Aramco, **Saudi Arabia**

Brazilian Greenhouse Gas Emissions Trading System (SBCE)
Presenter: **Alessandra Plaga,** Regulatory Affairs Coordinator, Petrobras S.A., **Brazil**

Technical and economic assessment of CO_2 storage with enhanced oil recovery in Iran: Reservoir prospectivity for CCUS-EOR applications
Presenter: **Eng. Milad Ghafoori,** Petroleum Engineer, National Iranian South Oil Company (NISOC), **Iran**

Abatement of CO_2 emissions in 'integrated VGO & diesel hydrotreater' with energy reduction strategies & innovations
Presenter: **Neeraj Singh,** Chief Manager, Hindustan Petroleum Corporation Ltd, **India**

World's leading CCUS to food-grade product: Lessons learned from concept to sustainable operations, featuring innovative improvements and optimization of existing CCUS technologies to maximize sustainability.
Presenter: **Eng. Muhammad Farooq Fareed,** Process Engineer, SABIC, **Saudi Arabia**

High-resolution supercritical CO_2 flooding simulation and 4D seismic modeling of an outcrop-based reservoir model
Presenter: **Dr. Andika Perbawa,** Geologist, Aramco, **Saudi Arabia**

Hybrid energy solutions for off-grid oilfields: Powering operations where the grid can't reach
Presenter: **Eng. Yagya Ahuja,** CEO, GET Global Group, **United Arab of Emirates**

BLOCK 4

Forum 21 - Solar, Wind and Nuclear Integration

This forum will delve into challenges and opportunities of integrating these diverse energy sources into a cohesive power supply system. It will explore the latest advancements in grid technology, storage solutions, and policy frameworks that enable seamless integration. Participants will learn about the roles of solar and wind in complementing nuclear energy, the importance of balancing supply and demand, and strategies for maximising efficiency and reliability. The session will also address the environmental impacts and regulatory considerations associated with each energy source, offering a comprehensive overview of their synergistic potential in a sustainable energy future.

CHAIR

Prof. Xiaoli Zhao
Vice Dean, Professor, Doctoral Supervisor, School of Economics and Management
China University of Petroleum
China

VICE CHAIRS

Dr. Thomas Riekert
Head of Nuclear Safety
TÜV Nord Group
Germany

Dr. Mubarak Alhajeri
Assistant Professor
Public Authority for Applied Education and Training (PAAET)
Kuwait

Technical Papers

Day 2, Tuesday, 13 October 2026
| 14:30 - 16:00 | Hall 10 - Technical Programme 4

Compositional and interfacial engineering for highly efficient and stable indoor perovskite solar cells
Presenter: **Faisal Alabdulkarem**, Academic Researcher, KSU, **Saudi Arabia**

Advantages in integration of concentrated solar (thermal) technology (CST) & captive power plant (CPP)
Presenter: **Anoop Dimri**, General Manager, Engineers India Limited, **India**

Enhancing OTEC Efficiency through Thermal Integration with Nuclear Power Plant Effluents: Turkey Point Case Study
Presenter: **Ahmad Alshloul**, Graduated Researcher, MERG (Material and Energy Research Group), **Jordan**

Synergizing Renewables and Nuclear Energy: Pathways to a Resilient, Low-Carbon Grid in Türkiye and the Gulf Region
Presenter: **Okan Yildiz**, Secretary, Nuclear Industry Association - NIATR, **Turkey**

Energy supply for onshore and offshore drilling rigs using wind & recycled energy from drawworks
Presenter: **Dr. Ali Gholami,** Principal Engineering Specialist (PhD), National Iranian Oil Company (NIOC), **Iran**

Technical Posters

Day 3, Wednesday, 14 October 2026
| 11:30 - 13:30 | Hall 5 - Digital Poster Plaza 4

Advantages of integration of concentrated solar thermal (CST) & photovoltaic (PV) for RTC power generation
Presenter: **Sampada Bajaj,** Deputy General Manager, Engineers India Limited, **India**

Hybrid wind and hydropower systems for integrated renewable energy generation
Presenter: **Mohammad Reza Rahimpour,** Professor of Chemical Engineering, Department of Chemical Engineering, Shiraz University, **Iran**

UccUS Energy- A Triple Synergies Integration in Aquifer for Underground-Carbon-Capture, Energy Storage and Liquid Mining for Trilemma
Presenter: **Jinfang Wang,** Deputy Director, Research Institute of Petroleum Exploration & Development, China National Petroleum Corporation, **China**

Continuous GHG emission monitoring and reporting systems using solar power: Advancing sustainability solutions in the oil & gas fields
Presenter: **Raid BuKhamseen,** Geosciences & Engineering Director, TAQA Well Solutions, **Saudi Arabia**

Flexible operation of nuclear power plants for enhanced grid stability and renewable integration
Presenter: **Dr. Abdulaziz Almathami,** Senior Researcher, King Abdulaziz City for Science and Technology, **Saudi Arabia**

Design and optimization of hybrid smart microgrids for sustainable urban energy systems
Presenter: **Dr. Abolfazl Nateghi,** Assistant Professor, Kharazmi University, **Iran**

BLOCK 4

Forum 22 - Advancing the Circular Economy and Value of Life Cycle Analyses

Life Cycle Analyses (LCA) are an essential step in designing more sustainable products and processes, which begin at resource extraction and reach end-of-life disposal. Experts will explore how LCAs inform sustainable decision-making and promote efficiencies to reduce waste. The forum will address innovative strategies for designing products and other benefits of transitioning to circular models with the support of LCAs.

CHAIR

Yerzhan Abylkhanov
Oil and Gas Production Department Director
KazMunaiGas National Oil & Gas Company
Kazakhstan

VICE CHAIRS

Xiaoxiao Liu
Vice Chief Engineer
SINOPEC Economics & Development Research Institute Company Limited
China

Dr. Salisu Isihak
Senior Technical Assistant to the Managing Director, NNPC Retail,
NNPC Ltd
Nigeria

Technical Papers

Day 3, Wednesday, 14 October 2026
| 10:00 - 11:30 | Hall 10 - Technical Programme 4

Innovative sustainability: Utilizing a local volcanic ash for cement substitution and carbon footprinting reduction
Presenter: **Ahmad Atef Hashmi,** Lead Drilling Engineer, Saudi Aramco, **Saudi Arabia**

A novel process for maximizing efficiency and eliminating irreversible degradation in caustic sweetening units
Presenter: **Saurabh Agarwala,** Assistant General Manager, Engineers India Limited, **India**

Pioneering circular economy in LNG industry
Presenter: **Nassersami Alawan,** Waste Management Analysis, QatarEnergy LNG, **Qatar**

Integrating life cycle assessment into refinery planning for low-carbon product development
Presenter: **Dr. Jinyang Zhao,** Engineer, PetroChina Planning and Engineering Institute, China National Petroleum Cooperation, **China**

Technical Posters

Day 3, Wednesday, 14 October 2026
| 14:00 - 16:00 | Hall 5 - Digital Poster Plaza 4

Fuzzy MCDA method for surface system engineering of tight gas fields based on LCA-LCCA: A case study of Sulige gas field
Presenter: **Bo Feng,** Deputy Director, Changqing Engineering Design Co., Ltd., Changqing Oilfield, China National Petroleum Corporation (CNPC), **China**

Comparative eco-environmental assessment of energy supply for the Larestan water treatment system: Fossil fuels versus solar energy
Presenter: **Dr. Mohsen Nowrouzi,** Associate Professor, Shiraz University, **Iran**

Evaluating the sustainability of SAF production from crude palm oil for NRL's proposed bio-ATF plant
Presenter: **Geetali Kalita,** Head (ESG), Numaligarh Refinery Limited, **India**

Advancing the circular economy through life cycle analysis of bioethanol production from rice straw
Presenter: **Srivardhan Grandhi,** Assistant General Manager, Engineers India Ltd, **India**

Application of circular economy framework within oil and gas construction project management
Presenter: **Dr. Kurmanbek Yeshmagambetov,** Head of Standards and Innovation Department, KazTransOil JSC, **Kazakhstan**

Innovative anaerobic digestion of sludge and municipal waste for sustainable energy production
Presenter: **Murad Attiah,** Chemical Engineering, Saudi Aramco, **Saudi Arabia**

Refinery transformation strategies from the perspective of product carbon footprint
Presenter: **Wenjia Xu,** Senior Engineer, CNPC Research Institute of Safety & Environment Technology, **China**

Recycling of industrial titanium dioxide waste from Claus process of gas refineries for development of a sustainable hybrid nano-photocatalyst for chromium(VI) reduction in wastewater: A life cycle assessment approach
Presenter: **Dr. Nader Bahramifar,** Professor, Tarbiat Modares University, **Iran**

BLOCK 4

Forum 23 - Digitalisation, AI and Cyber Security

Digitalisation, AI, and cybersecurity are key enablers of this transition, providing the tools and frameworks needed to manage complex energy systems, optimise operations, and protect against cyber threats. AI offers a broad scope including the creation of virtual replicas of physical assets, processes and systems, using real-time data and simulations and can help to automate complex and repetitive tasks, such as drilling and production, which improves the efficiency, quality, and consistency of operations and reduces costs. This session will explore the latest advancements in these areas and discuss how they are transforming the energy industry to meet future challenges.

CHAIR

David Smethurst
Oil and Gas Production Department Director
Board of Various Startups
Canada

VICE CHAIRS

Eszter Varga
Downstream Portfolio Evaluation & Strategy Expert, Downstream Evaluation & Long-Term Planning
MOL PLC
Hungary

Dr. Shaikha Al Ballam
Senior Petroleum Engineer
Kuwait Oil Company
Kuwait

Technical Papers

Day 3, Wednesday, 14 October 2026
| 14:30 - 16:00 | Hall 10 - Technical Programme 4

AI-assisted borehole image interpretation
Presenter: **Sharon Finlay,** Technology & Innovation Advisor, North Oil Company, **Qatar**

Powering tomorrow: The future of energy generation and storage
Presenter: **Jard van Ingen,** CEO & Co-Founder, GetFocus, **Netherlands**

Unlocking new frontiers for operational excellence: Quantum machine learning applications in the oil and gas industrymaly diagnosis in shale gas wells
Presenter: **Norah Alsunaidi,** Petroleum Engineering Systems Analyst, Saudi Aramco**, Saudi Arabia**

Technical Posters

Day 4, Thursday, 15 October 2026
| 10:00 - 12:00 | Hall 5 - Digital Poster Plaza 4

Large-scale benchmarking and deployment of subsurface graph network simulator
Presenter: **Dr. Marko Maucec,** PE Consultant, Saudi Aramco, **Saudi Arabia**

Leveraging AI-driven analytics to optimize oil field production and operational excellence
Presenter: **Dr. Huda Al-Mutairi,** Senior Systems Analyst, Kuwait Oil Company, **Kuwait**

Multi-faceted AI Approach to Digitizing Industrial Diagrams
Presenter: **Omar Aljefri,** Associate AI Scientist, Saudi Aramco, **Saudi Arabia**

AI-Augmented Fiber-Optic Sensing for Real-Time Fracture Monitoring: A Transformative Approach to Advancing Sustainable Energy Transitions
Presenter: **Dr. Jin Tang,** Senior Engineer, Research Institute of Petroleum Exploration and Development, PetroChina, **China**

Novel reservoir history matching workflow using Bayesian inversion and coarse-grid network models: Validation on 100-million COSTA model
Presenter: **Dr. Xupeng He,** Petroleum Engineer, Saudi Aramco, **Saudi Arabia**

Leading the Governance & Performance of Digital Programs
Presenter: **Eng. Mais Taha,** DBS Digital, Governance & Performance Lead, North Oil Company, **Qatar**

BLOCK 4

Forum 24 - Powering Mobility: The Energy Transition and Future of Transportation

The energy transition is fundamentally changing the landscape of mobility, with a growing focus on reducing GHG emissions and improving energy efficiency in transportation. This session will examine the critical role of sustainable energy sources, electric vehicles, and alternative fuels in driving the future of mobility. Experts will discuss the latest technologies, infrastructure developments, and policy frameworks that are shaping a new era of transportation, where energy and mobility intersect more closely than ever before.

CHAIR

Dr. Abdulrahman Al Anazi
Director
Ministry of Energy
Saudi Arabia

VICE CHAIRS

Aleksandra Aleksić
Environmental Consultant, Development Department
NIS
Serbia

Kenichi Okamoto
Director
Japan Petroleum & Carbon Neutral Fuels Energy Center
Japan

Technical Papers

Day 4, Thursday, 15 October 2026
| 10:00 - 11:30 | Hall 10 - Technical Programme 4

Strategic evaluation of low-carbon trucking pathways
Presenter: **Dr. Ziming Yan,** Research Scientist, Aramco Americas, **United States of America**

Expectations for CNF (synthetic fuels, biofuels) in achieving a CN (carbon-neutral) society
Presenter: **Hitoshi Hayashi,** Chair of Fuel & Lubricant Sub-Committee, Japan Automobile Manufacturers Association (JAMA), **Japan**

Assessment of hybrid renewable-powered EV charging infrastructure in urban areas: Technical, economic, and environmental perspectives
Presenter: **Dr. Abolfazl Nateghi,** Assistant Professor, Kharazmi University, **Iran**

Transforming land transport in Saudi Arabia: Modeling energy, emissions, and policy futures to 2060
Presenter: **Yagyavalk Bhatt,** Fellow, King Abdullah Petroleum Studies and Research Center, **Saudi Arabia**

Technical Posters

Day 4, Thursday, 15 October 2026
| 12:00 - 14:00 | Hall 5 - Digital Poster Plaza 4

Powering future e-mobility via development of high-voltage, fast-charging sodium-ion battery
Presenter: **Dr. Binitha G,** Manager, Hindustan Petroleum Green R&D Center, **India**

Comparative analysis of different alternate fuel powertrains with differentiated products (Green Combo Solution) for sustainability & future mobility options in India for heavy duty vehicle
Presenter: **Dr. Prashant Kumar,** Chief Research Manager, Research & Development Centre, Indian Oil Corporation Limited, **India**

Hydrogen internal combustion engine: Bridging the use of hydrogen in transport
Presenter: **Dr. Abdullah Alramadan,** Engine Combustion Group Lead, Aramco, **Saudi Arabia**

Carbon nanotubes for high-performance energy storage applications
Presenter: **Abhishek Bansal,** Assistant Manager (Research), Indian Oil Corporation Limited, **India**

Powering green mobility with green fuels: A decentralized energy vision for sustainable mobility
Presenter: **Srivardhan Grandhi,** Assistant General Manager, Engineers India Ltd, **India**

Powering mobility: The energy transition and the future of transportation
Presenter: **Dr. Nujud Badawi,** Assistant Professor, University of Hafr Al–Batin, **Saudi Arabia**

Design and techno-economic analysis of a supercapacitor-based solar train for low-carbon transport in Saudi Arabia
Presenter: **Eng. Mussab Aleraij,** Chief Industrial Engineer, Ministry of Industry and Mineral Resources, **Saudi Arabia**

A combination of hydrophobic gel-organic electrolyte improved the practical cycle life and bifunctional activity of Co/Co_3O_4 integrated N-doped carbon in hybrid Li-air battery
Presenter: **Dr. Athika Mattah,** Postdoctoral Fellow, King Fahd University of Petroleum and Minerals, **Saudi Arabia**

Modes of Transport and Climate Change
Presenter: **Dr. Laib Ismail,** Lecturer, ISFF, Institut Supérieur De Formation Ferroviaire, **Algeria**

25TH WPC ENERGY CONGRESS
Riyadh, 11-15 October 2026

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Block 5

Energy Leadership - Future Pathways

This block focuses on the role of leadership in driving the global energy transition towards a more sustainable energy future. It will explore how leaders across various sectors— government, industry, academia, and finance —can guide and accelerate the shift from traditional energy systems to innovative, lower carbon energy solutions. It would address the strategies, challenges, and opportunities for effective leadership in this transformative period.

Forum 25 -
Energy Access for All

Forum 26 -
Public Policy (Global and Local) - Climate Change, Transition Management, Supply Security and Energy Affordability

Forum 27 -
Financing the Future Energy Supply

Forum 28 -
ESG and Governance

Forum 30 -
Human Capital - Attracting, Training and Retaining

Forum 31 -
Stakeholder Engagement

Day 1, Monday, 12 October 2026
13:30 - 14:00 | Hall 10 - Technical Programme 5

BLOCK 5 Forum Keynote

BLOCK 5

Forum 25 - Energy Access for All

Through the continued expectation of increased energy demand on a worldwide scale in the next few decades, the challenge of providing reliable, sustainable, affordable energy for everyone is growing. On the one side the world is transitioning to a lower carbon energy future, on the other side, the cost of new energy sources and new energy supply channels face the challenge of affordability. Balancing these in the future will require additional effort to ensure access to energy for all by 2030. With the added consideration of geopolitical developments we will have to reconsider energy strategies worldwide to achieve this.

CHAIR

Eng. Zainab Nasif
Innovation & Technology Lead
Oil Sustainability Program (OSP)
Saudi Arabia

VICE CHAIRS

Jerzy Stopa
Senior Reservoir Engineer
AGH University of Krakow
Poland

Khorlan Ayazbekova
Head of Strategy Management Office
(Deputy Head, Expert)
KazMunayGas
Kazakhstan

Technical Papers

Day 1, Monday, 12 October 2026
| 13:30 - 15:00 | Hall 10 - Technical Programme 5

Financing clean cooking transitions in Africa: Unlocking carbon markets for universal energy access
Presenter: **Dr. Aayushi Awasthy,** Fellow, KAPSARC, **Saudi Arabia**

Biomethane in Brazil: Opportunities, challenges, and policy pathways for a just energy transition
Presenter: **Rodrigo Cabral,** Regulatory Affairs Coordinator, Petrobras, **Brazil**

Sustainable energy transition: What are the technology options and cost of achieving universal electricity access in Nigeria
Presenter: **Dr. Salisu Isihak,** Senior Technical Assistant to the Managing Director, NNPC Retail, Nigerian National Petroleum Company Ltd., **Nigeria**

Bridging fossil fuels with the future: Insights into sustainability roadblocks for UAE's oil and gas service providers.
Presenter: **Dr. Shihab Alkattab,** Operations Support Manager, TAQA, **UAE**

Technical Posters

Day 1, Monday, 12 October 2026
| 15:30 - 17:30 | Hall 5 - Digital Poster Plaza 5

Futuristic bio-fuel technologies: Addressing India's CO_2 footprint reduction, women health and energy poverty alleviation
Presenter: **Dr. Ritesh Mittal,** Asst. General Manager, Engineers India Ltd, **India**

Independent energy village: Enhancing livelihood of rural communities through empowerment in sustainable and cleaner energy sources
Presenter: **Ahmad Adi Suhendra,** Officer I CSR & SMEPP, PT Kilang Pertamina Internasional, **Indonesia**

Cooling-first energy access: Designing microgrids around "safe-sleep hours" to protect vulnerable communities in hot climates
Presenter: **Eng. Hatim Altarteer,** Associate Drilling Engineer, Saudi Aramco, **Saudi Arabia**

Affordable energy for all: Lessons from transition economies in Southeast Europe
Presenter: **Goran Radosavljevic,** Vice Dean, FEFA Faculty, Metropolitan University, **Serbia**

Optimising upstream gas production: An integrated approach to enhancing LNG supply reliability and operational efficiency
Presenter: **Muhsen Elhaddad,** Head of Upstream Gas Production, QatarEnergy LNG, **Qatar**

Priced watt: Energy as the ultimate global currency
Presenter: **Eng. Abdullah Alshehri,** Founder, Mutoon Technology, **Saudi Arabia**

The energy transition pattern and the impact on environment security and quality of life
Presenter: **Valentina Vasile,** Director, Institute of National Economy - Romanian Academy, **Romania**

The impact of net-zero policies on energy access in developing countries
Presenter: **Seyed Ali Alenabi,** Researcher, National Iranian Oil Company, **Iran**

From Remote Villages to a Sustainable Future: PT KPI's Renewable Energy Program for Empowered Communities
Presenter: **Edward Siahaan,** Manager CSR & SMEEP Management, PT Kilang Pertamina Internasional, **Indonesia**

Determinants of Adoption of Electric Cooking Appliances in Lusaka, Zambia
Presenter: **Dr. Salisu Isihak,** Senior Technical Assistant to the Managing Director, NNPC Retail, Nigerian National Petroleum Company Ltd., **Nigeria**

BLOCK 5

Forum 26 - Public Policy (Global & Local) - Climate Change, Transition Management, Supply Security and Energy Affordability

The energy trilemma – the balance of energy sustainability, energy affordability, and energy security – is a challenge facing policy makers across the globe at both the national and local levels. The challenge is rooted in a reality that shifting any of these elements require difficult trade-offs in the others. This challenge is compounded by the fact that the impact of these decisions are not evenly distributed for stakeholders in a local community, nation, or planet, and the stakeholders have varying degrees of understanding of the issues. Providing leadership in these situations is difficult, and this session will explore case studies of what has worked or not worked and what skills and knowledge policy makers need to be effective in these situations.

CHAIR

Walter R. Hufford
Vice President, Government Affairs and Regulatory Coordination
REPSOL
United States of America

VICE CHAIRS

Aisha Turebayeva
Director of Strategy and Portfolio Management
JSC NC KazMunayGas
Kazakhstan

Rufaydah Alyamani
Sustainability and Climate Change Professional Engineer
Ministry of Energy
Saudi Arabia

Technical Papers

Day 1, Monday, 12 October 2026
| 15:00 - 16:30 | Hall 10 - Technical Programme 5

A matter of sensitivity: Maximising the impact of energy transition policy
Presenter: **Oliver Iskandar Banks,** Energy Transition Policy Researcher, Peking University, **China**

Leading strategic capital and public policy to accelerate a just global energy transition
Presenter: **Kira Negron,** CEO, GLTRCORE, **Spain**

Decarbonizing the Brazilian O&G sector: Integrating biofuels, co-processing, low-carbon fuel and national policies
Presenter: **Rodrigo Cabral,** Regulatory Affairs Coordinator, Petrobras, **Brazil**

Technical Posters

Day 2, Tuesday, 13 October 2026
| 10:00 - 12:00 | Hall 5 - Digital Poster Plaza 5

The economic costs of climate mitigation: Strategic pathways for Saudi Arabia's Vision 2030
Presenter: **Hassan Alzain,** Professional Graduate, Yale University (Nationally Sponsored), **United States of America**

Global energy security evaluation: From a perspective of accessibility, sustainability, affordability and resilience
Presenter: **Pengcheng Zhang,** Senior Analyst, Economics and Technology Research Institute of China National Petroleum Corporation, **China**

Enabling cost-effective emissions policy implementation through site-level measurement and operational intelligence
Presenter: **Marwa Hassan,** Chief Growth Officer, Aeromon, **Egypt**

Natural gas as a transition fuel: A policy and regulatory framework for West Africa's energy future
Presenter: **Fredrick Sekle,** Executive Director, Oilmac Limited, **Ghana**

Actor dynamics and transition pathways: A mapping of Iran's energy system
Presenter: **Amirhossein Ghasemi,** Master's in Chemical Engineering, Sharif University of Technology, **Iran**

BLOCK 5

Forum 27 - Financing the Future Energy Supply

Experts will discuss investment trends, risk management, and the role of public and private sectors in an evolving energy industry amidst a dynamic global transition. The panel will also address challenges in financing the energy transition, policy and market uncertainties, and adaptation to technological advancements. Join us to gain insights into innovative financing models, opportunities for growth, and how to ensure a stable and sustainable energy future.

CHAIR

Dr. Mohammad Al Zamanan
Senior Accountant
Kuwait Oil Company
Kuwait

VICE CHAIRS

Nurgul Akhmetbekova
Head of Division, Budgeting & Planning Department
KazMunayGas
Kazakhstan

Jing Xiao
Senior Corporate Planning Analyst
NEO NEXT+
United Kingdom

Technical Papers

Day 2, Tuesday, 13 October 2026
| 10:00 - 11:30 | Hall 10 - Technical Programme 5

Transfer pricing in the hydrogen energy industry chain

Presenter: **Dr. Xiangying Zhang,** Associate Consultant, Sinopec Economics & Development Research Institute Company Limited, **China**

Virtual barrels and real markets: Bridging physical trading and financial speculation in oil and LNG markets through system dynamics and machine learning

Presenter: **Fabian Vera,** Corporate Reserves Consultant, Mire Petroleum Consultant, **United States of America**

Stablecoins in motion: A digital catalyst for financing the energy transition

Presenter: **Dr. Jin Tang,** Senior Engineer, Research Institute of Petroleum Exploration and Development, PetroChina, **China**

Technical Posters

Day 2, Tuesday, 13 October 2026
| 12:30 - 14:30 | Hall 5 - Digital Poster Plaza 5

Green hydrogen economics in India: Strategies for cost reduction & market growth

Presenter: **Harshal Talele,** Deputy General Manager, Bharat Petroleum Corporation Limited, **India**

Enhancing strategic investment decisions in the petroleum sector with AI

Presenter: **Dr. Mohammad Alami Bayat**, Head of the Office of American Countries Affairs, Ministry of Petroleum, **Iran**

Global oil industry investment outlook in 2050

Presenter: **Eng. Mohsen Haerinejad,** CEO, Axone Operation & Maintenance Company, **Iran**

A novel just transition financing framework for enhanced oil recovery (EOR) projects using CO_2 injection

Presenter: **Dr. Mahdieh Askarian,** Head of Technology Policy Making, Ministry of Petroleum, NIOC, **Iran**

Green financing for the global energy transition: Challenges and innovations

Presenter: **Mohammad Sajjad Erfani,** Senior Expert of the Research and Development, Iran Energy Exchange (IEE), **Iran**

Identification of connected fractures and gas layers with resonant Stoneley waves

Presenter: **Yongjin Shen,** Engineer, China University of Petroleum, **United States of America**

Empowering sustainable futures: Company-managed sustainability investment platforms (CMSIP) for inclusive innovation and community development

Presenter: **Srivardhan Grandhi,** Assistant General Manager, Engineers India Limited, **India**

BLOCK 5

Forum 28 - ESG and Governance

This forum will delve into the integration of Environmental, Social, and Governance (ESG) criteria into corporate governance frameworks. Discussions will cover the importance of ESG factors in driving sustainable business practices and long-term value creation. The panel will explore best practices for ESG reporting, stakeholder engagement, and the role of governance in ensuring transparency and accountability. The forum will also highlight case studies demonstrating successful ESG implementation and its impact on corporate reputation and performance.

CHAIR

Dr. Kairzhan Abdykhalykov
Professor, KBTU Business School

Kazakh British Technical University
Kazakhstan

VICE CHAIRS

Dr. Alexander Lee
Partner

HKA
United Kingdom

Technical Papers

Day 2, Tuesday, 13 October 2026
| 14:30 - 16:00 | Hall 10 - Technical Programme 5

Synergizing energy law and global ESG standards: A behavioral game theory approach to ESG risk management in emerging markets

Presenter: **Ye Xiong,** Deputy Director of the Business Management Research Office, PetroChina Southwest Oil & Gasfield Company, Research Institute of Natural Gas Economy, **China**

Pricing Sustainability: What ESG Performance Is Worth to a Hydrocarbon Company's Cost of Capital

Presenter: **Claudia Belahmidi,** Senior Research Fellow, King Abdullah Petroleum Studies and Research Center (KAPSARC)**, China**

Technical Posters

Day 3, Wednesday, 14 October 2026
| 11:30 - 13:30 | Hall 5 - Digital Poster Plaza 5

Evaluating the integration of environmental, social, and governance (ESG) factors into the Iran petroleum contract (IPC): Legal frameworks for sustainable energy development
Presenter: **Dr. Ruhollah Nasrollahi,** Assistant Professor, Allameh Tabataba'i University, **Iran**

Business risk analysis and legal responses in Russian Arctic area: Case from an upstream oil project
Presenter: **Li Ding,** Senior Engineer, China National Petroleum & Gas Corporation, **China**

Evaluating Environmental Governance: The Need For Stricter Noise Regulations In PSEEZ
Presenter: **Dr. Mehdi Tanha Ziyarati,** Head of Environment Department, Pars Special Economic Energy Zone, National Iranian Oil Company, **Iran**

Advanced blockchain-enabled architecture for carbon management and tokenization: Integrating federated learning for microgrid carbon accounting
Presenter: **Dr. Morteza Heidariannoghondar,** Author and Speaker, Maham-Vista Energy Consulting Engineers Group, **Iran**

Strategic foresight and ESG integration: Building resilient pathways in the global energy transition
Presenter: **Muhammad Waqas Hamid,** Senior Manager, SG, **Saudi Arabia**

Embedding ESG into corporate governance strengthening FOCUS board decision-making quality in the energy sector
Presenter: **Isobel O'Connell,** Strategic Partner and ESG Expert, Metagnosis Consulting, **Canada**

Tailoring ESG governance for impact: Balancing standardization with company-specific strategy
Presenter: **Alireza Taheri,** Sustainability Specialist, Pasargad Energy Development Company, **Iran**

Renewable Energy and ESG Metrics in U.S. E&P Companies: Strategic Implications for MENA Oil Producers
Presenter: **Lamyaa AlGhofaili ,** Student, Aston University, **United Kingdom**

BLOCK 5

Forum 30 - Human Capital – Attracting Training and Retaining

Our industry is working on strategies in harsh markets to attract the best talent, in competition with other key industries striving for the same goal. The main aim of this forum is to discuss the practices and solutions required to attract the best talent and ensure we develop and retain that talent in our industry. How can we make the oil, gas and energy sector more attractive for talent development? What are the tools required to provide the best training is a question we must regularly consider. Demonstrating that we are focused on talent management is essential in this competitive market to guarantee development of the next generation.

CHAIR

Momoyo Yuki
Head Research & Analysis
Japan Petroleum Exploration Co., Ltd.
Japan

VICE CHAIRS

Vlada Streletskaya
Expert, UNESCO Center
Saint Petersburg Mining University
Russia

Gerda Koncz
Senior Project Manager, Human Resources
MOL PLC
Hungary

Technical Papers

Day 3, Wednesday, 14 October 2026
| 14:30 - 16:00 | Hall 10 - Technical Programme 5

Investing in people: Leadership and human performance development as a catalyst for talent attraction and retention across the energy sector
Presenter: **Leo Luft,** Vice President of Business Development, CAVU International, **Germany**

Women in energy: Leveraging the Women 10x ecosystem to attract, train, and retain talent in the energy sector
Presenter: **Yuka Abe,** Business Planner, Japan Petroleum Exploration Co, Ltd, **Japan**

Attracting and developing talent in the oil, gas, and energy sector: A strategic imperative
Presenter: **Maroš Čunta,** Director of Crude Oil & Gas Purchase, ORLEN Unipetrol, **Czech Republic**

Technical Posters

Day 4, Thursday, 15 October 2026
| 10:00 - 12:00 | Hall 5 - Digital Poster Plaza 5

Strategic talent development through a competency-driven approach
Presenter: **Kapil Gakhar,** Deputy General Manager (Vigilance), HPCL, **India**

From missed opportunities to inclusive pipelines: Attracting women graduates to the energy sector in Japan
Presenter: **Moeko Sakata,** Project Coordinator, Japan Petroleum Exploration Co, Ltd, **Japan**

AI-enhanced learning ecosystem for the energy transition
Presenter: **Dr. Jafar Shayan,** CEO, Sustainova Tech, **Netherlands**

Psychological and social dimensions of energy literacy: A framework for public trust and engagement
Presenter: **Jafar Nejat,** Industrial Psychology Expert, Iran-Pars Oil and Gas Company, **Iran**

Beyond the barrel: Winning the war for manager in oil & gas through strategic learning investments
Presenter: **Elena Raevskaya,** Training Efficiency Manager, Gazprom Neft, **Russia**

LLM-driven research collaboration: A socio-technical intervention to solve the prisoner's dilemma of knowledge sharing
Presenter: **Eng. Kun Tan,** Ph.D. Candidate in Oil and Gas Engineering, China University of Petroleum (East China) | Senior Engineer, CNPC Research Institute of Safety & Environment Technology, **China**

Optimizations on new hire onboarding program utilizing mass data analysis
Presenter: **Abdulaziz Al Humood,** Senior HSE Officer, Quality Health Safety and Environment, TAQA, **Saudi Arabia**

Human Intelligent (HI) 5.0: Innovation, AI, and inclusion in talent development for the energy industry
Presenter: **Srivardhan Grandhi,** Assistant General Manager, Engineers India Ltd, **India**

Fueling the future: Transforming oil wealth into global human capital
Presenter: **Aysel Sadigli,** Senior Specialist, State Oil Fund of the Republic of Azerbaijan, **Azerbaijan**

Transforming the energy landscape: Saudi women's leadership in innovation and safety
Presenter: **Dr. Ibtesam Badhrees,** Chief Researcher, Nuclear Technology Institute, King Abdulaziz City for Science and Technology (KACST), **Saudi Arabia**

BLOCK 5

Forum 31 - Stakeholder Engagement

Stakeholder engagement is an expectation of responsible business conduct. While the energy industry provides critical benefits to society, it can have a significant social and environmental footprint and often risks causing or contributing to adverse impacts. Laws and regulations place obligations on industry and other stakeholders but going beyond these and meaningfully engaging with stakeholders to understand issues and opportunities makes good business sense and is a key to attaining and retaining a "social licence to operate". This forum will explore best practices and benefits of effective stakeholder engagement, including case studies in diverse jurisdictions.

CHAIR

Aigul Barmenkulova
Head of Corporate Relations
Shell Kazakhstan
Kazakhstan

VICE CHAIRS

Guilherme Papaterra
Senior Oil and Gas Regulator | Policy and Strategy Expert
Brazilian National Agency for Petroleum, Natural Gas, and Biofuels
Brazil

Hamidreza Zolfkhani
Senior Environment Engineer
National Iranian Gas Co
Iran

Technical Papers

Day 4, Thursday, 15 October 2026
| 10:00 - 11:30 | Hall 10 - Technical Programme 5

Securing the social license to operate: Centering stakeholder & indigenous voices in joint venture agreement
Presenter: **Isobel O'Connell,** Strategic Partner, Metagnosis Consulting, **Canada**

Integrating stakeholder perspectives in EIA processes: A pathway to sustainable petroleum industry operations in Iran
Presenter: **Eng. Mostafa Tasbandi,** Head of Sustainable Development and Climate Change, Ministry of Petroleum, **Iran**

From national dialogue to global imperative: Reclaiming the power of stakeholder engagement in the energy transition
Presenter: **Eng. Sean Trainor,** CEO, SCG, **United Arab Emirates**

Turning satellite emission data into action: Stakeholder engagement for methane mitigation
Presenter: **Dr. Irina Semykina,** Senior Consultant, Carbon Limits AS, **Norway**

Technical Posters

Day 4, Thursday, 15 October 2026
| 12:00 - 14:00 | Hall 5 - Digital Poster Plaza 5

A review of legal and experiential gaps in stakeholder participation: In the context of climate change and the transition to clean energy
Presenter: **Eng. Maryam Ghafouri,** Climate Change Expert, Department of Environment of Iran, **Iran**

Petrobras socio-environmental program: Regenerating ecosystems, empowering communities
Presenter: **Dr. Gregorio da Cruz Araujo Maciel,** Environmental Projects Manager, Petrobras, **Brazil**

Integrating stakeholders' perspective into complexity assessment for oil & gas projects
Presenter: **Eng. Tulio Quijada,** Lead Engineer, Saudi Aramco, **Saudi Arabia**

Stakeholder engagement at HPCL – A key imperative for business continuity
Presenter: **Gopi Krishna Morathoti,** Deputy General Manager - Human Resources, Hindustan Petroleum Corporation Limited, **India**

Long-term stakeholder engagement for ocean conservation: The Biomar network as a strategic pathway for the UN Decade of Ocean Science
Presenter: **Dr. Gregorio da Cruz Araujo Maciel,** Environmental Projects Manager, Petrobras, **Brazil**

Legal frameworks for future energy transition – Focus on low-carbon energy systems (case study: Hydrogen storage in Iranian law)
Presenter: **Delara Heidari,** Oil and Gas Lawyer, Iranian Offshore, Engineering and Consruction (IOEC), **Iran**

Commitment to decarbonization: Petrobras' strategy with suppliers
Presenter: **Marcelo Barbosa Ferraz,** Sustainable Procurement Consultant, Petróleo Brasileiro S/A - Petrobras, **Brazil**

Stakeholders dispute avoidance strategies in upstream petroleum contracts
Presenter: **Ensieh Mohajeri,** Legal Directorate, MAPNA Group Co., **Iran**

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