



25TH
WPC ENERGY
CONGRESS
Riyadh, 26-30 April 2026



WPC
ENERGY

وزارة الطاقة
MINISTRY OF ENERGY



25TH WPC ENERGY CONGRESS

26-30 April 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

A square block with a dark green background featuring concentric, glowing green circles that create a ripple effect.

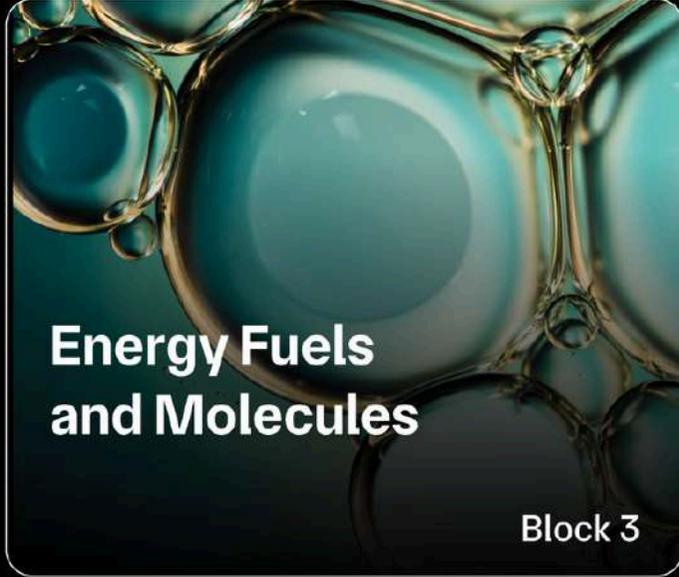
**Primary
Energy Supply**

Block 1

A square block with a purple background featuring abstract, glowing purple lines that swirl and flow across the frame.

**Energy
Infrastructure**

Block 2

A square block with a teal background featuring a close-up of several large, translucent bubbles with thin, golden-brown walls.

**Energy Fuels
and Molecules**

Block 3

A square block with a dark green background featuring several glowing, multi-colored lines (yellow, orange, green) that radiate from the bottom right towards the top left.

**Energy
Technologies**

Block 4

A square block with an orange background featuring a close-up of smooth, undulating sand dunes or rock formations.

**Energy
Leadership**

Block 5



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, 27 April 2026
13:00 - 13:30 | Technical Programme
Hall 1

BLOCK 1 Forum Keynote

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

Weiguo Shan

Head of Oil Market Research

CNPC ETRI
China

Silvio Konrad

Chief Operating Officer

TÜV NORD GROUP
Germany

Technical Papers

Day 1, Monday, 27 April 2026
| 13:30 - 15:00 | Technical Programme Hall 1

African oil in the new global energy order: Transition, sovereignty, diversification and diplomacy

Presenter: Mahaman Laouan Gaya, Consultant, Nigeria

A different perspective on global energy trends and the oil industry

Presenter: Oguzhan Akyener, Advisor, Turkish Petroleum, Turkey

Imagining a better tomorrow: Scenarios for renewable growth, grid stability, and the future of energy

Presenter: Pavan Kumar Pillalamarri, Market Insights Leader, 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, 27 April 2026
| 15:30 - 17:30 | Digital Poster Plaza 1

Leadership in transition: MENA NOCs and the future of global energy

Presenter: Aditya Saraswat, Research Director, MENA, Rystad Energy, Norway

Energy transformation in Nigeria: Pathways from petroleum dependence to a renewable energy future

Presenter: 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, Student, Deakin University, Saudi Arabia

Iran's position in the global oil market: A comparative analysis with Saudi Arabia and Iraq, lessons and future energy perspectives

Presenter: Amirhossein Ghasemi, Researcher in Energy Policy and Geopolitics, 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 national oil companies to international energy companies: Implications for global gas and LNG trade

Presenter: Siamak Adibi, Director, Global LNG Supply Analytics, and Head of ME Gas Research, FGE, Singapore

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

As the world continues to consume 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

Improved Recovery Team Lead,
Applied Reservoir Management

Chevron Americas Exploration & Production
United States of America

VICE CHAIRS

Dr. Fahd Alghunaimi

Technologist Team Lead

Saudi Aramco
Saudi Arabia

Adel Sarsenova

Lecturer

Kazakh British Technical University
Kazakhstan

Technical Papers

Day 2, Tuesday, 28 April 2026
| 10:00 - 11:30 | Technical Programme Hall 1

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

Presenter: Yushuo Zhang, Petroleum Engineer, Oil & Gas Technology Research Institute, PetroChina Changqing Oilfield Company, China

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

Presenter: Caroline Rodrigues, Sector Manager - Opportunities to Improve Recovery Factor, Petrobras, Brazil

New model of oil exploration in Cuba. The road to the discovery of new oil and gas fields

Presenter: Juan Guillermo López Rivera, Senior Consultant, Cupet, Cuba

Implementation of integrated renewable energy systems for sustainable water desalination in unconventional gas fracturing operations

Presenter: Mohammad Alkhonaifer, Student of Engineering, University of Texas at Austin, Saudi Arabia

Technical Posters

Day 2, Tuesday, 28 April 2026
| 12:30 - 14:30 | Digital Poster Plaza 1

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, Manager, TAQA, Norway

In Kingdom synthesized nanomaterials for upstream oil & gas applications

Presenter: Fatema Alelg, Reservoir Engineer, Saudi Aramco, Saudi Arabia

Integrating geophysical-engineering technology and innovation boost exploration and development of unconventional reservoirs

Presenter: Yongzhen Ji, Associate Researcher, Sinopec Geophysics Research Institute, China

Gas, oil, or both: Shifting perspectives from primarily gas-bearing to oil and gas reservoirs (conventional and unconventional) in the Middle East

Presenter: Payam Hassanzadeh, Senior Geochemist-Project Manager, National Iranian Oil Company-Exploration Directorate, Iran

Analysis of the EOR mechanisms of multi-component composite steam flooding based on image recognition algorithm

Presenter: Qingjing Hong, China University of Petroleum, China

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

Casing vent challenges into an opportunity: Thermal production wells safe venting solution

Presenter: Abdulaziz Al Farsi, Thermal Production Supervisor, Petroleum Development Oman (PDO), Oman

A new workflow to extract poroelastic coefficient for permeability in source rock samples

Presenter: Jilin Zhang, Petroleum Engineer, Aramco Americas, United States of America

Overcoming technical and performance challenges to maximize production from complex reservoirs in southern Algeria: Innovative strategies for a sustainable energy future

Presenter: Nadia Haddoum, CEO's Advisor, SONATRACH, Algeria

Production enhancement workflow unlocks the potential of tight carbonate Middle Murrat reservoir, South Kuwait

Presenter: Mosab Shamsaldeen, Senior Reservoir Engineer, Kuwait Oil Company, Kuwait

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, 28 April 2026
| 14:30 - 16:00 | Technical Programme Hall 1

New carbon insights into old dog reservoirs: Life-cycle assessment on global 140+ CO₂-EOR projects

Presenter: 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, Research Institute of Petroleum Exploration and Development, PetroChina, China

Leveraging legacy hydrocarbon infrastructure to accelerate energy transition

Presenter: Walid Hussein, Geologist, Saudi Aramco, Saudi Arabia

Internal Buzios field: Looking to the future of the world's largest ultra-deepwater oil field

Presenter: Fabiano Rosa, Buzios Field Reservoir Manager, Petrobras, Brazil

Technical Posters

Day 3, Wednesday, 29 April 2026
| 11:30 - 13:30 | 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

Comprehensive EOR screening framework and regional benchmarking in the MENA region

Presenter: Nasrin Sadeghi, Reservoir Engineer, Ofogh Energy, Iran

Integrated surface-subsurface microbial-enhanced oil recovery technology and pilot test in China

Presenter: Lina Yi, Petroleum Development Engineer, China National Petroleum Corporation, China

Nanoparticle-stabilized foams for enhanced oil recovery and CO₂ 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 reservoirs

Presenter: Lidong Mi, Chief, Sinopec, China

Porous nanocarbon-based approaches to geochemical exploration of hydrocarbon microseepage

Presenter: Vera Solivyyeva, Technology Thrust Champion, Aramco Innovations, Russia

CO₂ energized hydraulic fracturing: A new pathway for green and efficient development of unconventional resources

Presenter: Haizhu Wang, China University of Petroleum, China

Toward sustainable drilling: Biodegradable food waste additives for water-based mud systems

Presenter: Alanoud Al-Eid, Petroleum Engineer, Ministry of Kuwait, Kuwait

Heat generation by chemical reaction underground to assist steam towards heavy oil recovery enhancement

Presenter: Zheyu Liu, Associate Professor, China University of Petroleum, China

Development and application of Ti/Zr-USY containing hydrocracking catalysts in Aramco refineries

Presenter: Faisal Almulla, Team Leader, Saudi Aramco, Saudi Arabia

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, 29 April 2026
| 10:00 - 11:30 | Technical Programme Hall 1

Natural gas with carbon capture and storage can lower the cost of decarbonizing the power sector in Saudi Arabia

Presenter: 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: 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, Associate, Templars, Nigeria

Towards net zero with natural gas and thermocatalytic decomposition technology

Presenter: Kaisa Nikulainen, CEO, ROTOBOOST Finland Oy, Finland

Technical Posters

Day 3, Wednesday, 29 April 2026
| 14:00 - 16:00 | Digital Poster Plaza 1

Carbon intensity estimates for global liquefied natural gas supply chain

Presenter: 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: Jihong Hang, Engineer, China National Petroleum, China

Global route-level carbon intensity of liquefaction-shipping-regasification of liquefied natural gas supply chains

Presenter: Diego Moya, Scientist, Aramco, Saudi Arabia

Challenges and strategies for gas production from Iranian fields: Future outlook based on reserves, capabilities, and constraints

Presenter: Yasin Khalili, PhD Candidate of Petroleum Engineering, Department of Petroleum Engineering, Amirkabir University of Technology, Tehran, Iran

Natural gas in the energy transition: Evolving from transition fuel to system stabilizer

Presenter: Zhang Jianping, Deputy Director, Institute for Natural Gas Economics, PetroChina Southwest Operations, China

Advances in liquefied methane storage and transportation: Environmental impacts and technological innovations

Presenter: 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: Muhammad Javid, Senior Fellow, King Abdullah Petroleum Studies and Research Center, Saudi Arabia

A comprehensive analysis and multiple objectives optimization of five natural gas liquefaction (LNG production) processes and feasibility study of LNG production plant in Iran

Presenter: Hassan Aghdasinia, Associate Professor, University of Tabriz, Iran

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, 29 April 2026
| 14:30- 16:00 | Technical Programme Hall 1

Fiber and OBNs: Flexible monitoring approaches for coastal CCS

Presenter: 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 Geologist, Turkish Petroleum Corporation, Turkey

Digital transformation in geoscience: Leveraging technologies for new insights

Presenter: Ivan Dshenenkov, Geological Consultant - Digital Transformation Lead, Saudi Aramco, Saudi Arabia

Technical Posters

Day 4, Thursday, 30 April 2026
| 10:00 - 12:00 | Digital Poster Plaza 1

Enabling the energy transition: How robotics and artificial intelligence are reshaping the future of exploration

Presenter: Nouf Alsaad, Geophysicist, Saudi Aramco, Saudi Arabia

Exploration strategy development for Paleozoic clastic prospects in the Persian Gulf: A regional geological perspective

Presenter: 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

"Geo" (geoscience) and "mechanics" (engineering) controls of hydraulic fractures

Presenter: Gang Hani, Senior Consultant, Aramco Americas, United States of America

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 bore hole 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: Vahid Bolandi, Petrophysicist, Pasargad Energy Development Company (PEDC), Iran

A review of the innovative implementation of horizontal wells based on fine reservoir descriptions in marginal reservoirs which paves the way of enhanced oil recovery

Presenter: Hongfu Shi, Chief Reservoir Engineer, CNOOC, China

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 Szilasi

Co-founder
DeCarbon Energy
Hungary

VICE CHAIRS

Assoc Prof. Elena Hajekova

Deputy Head, Department of Organic Technology,
Catalysis & Petroleum Technology
Slovak University of Technology
Slovakia

Alena Kravtsova

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

Technical Papers

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

Biodiesel fuel production from algae 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: 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, Senior Manager, Engineers India Limited, India

Technical Posters

Day 4, Thursday, 30 April 2026
| 12:00 - 14:00 | Digital Poster Plaza 1

Innovative approaches in sustainable bioethanol purification for enhanced biofuel production

Presenter: Fatemeh Haghghatjoo, Researcher in Chemical Engineering, Department of Chemical Engineering, Shiraz University, Iran

Powering the future: How biogas and biomethane drive our energy revolution

Presenter: Luigi Crolla, Head of Energy Transition Technologies, Kent, United Kingdom

Novel heterogeneous catalysis in selective oxidation of H₂S to elemental S in bio-gas purification

Presenter: Ritesh Mittal, Asst. General Manager, Engineers India Limited, India

Harnessing bio-feedstocks' potential to decarbonize the chemical industry

Presenter: Claudio Brandao, Managing Director, Chemical Consulting, S&P Global, UAE

From waste to worth: Biochar-enabled circular economy in biogas production

Presenter: Mukul Gupta, Chief Manager, GAIL 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: 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

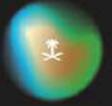
Presenter: Soheila Zandi Lak, Researcher in Chemical Engineering, Department of Chemical Engineering, Shiraz University, Iran

Microbial valorization of lignocellulosic waste: A sustainable route to next-generation materials

Presenter: 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



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, 27 April 2026
13:00 - 13:30 | Technical Programme
Hall 2

BLOCK 2 Forum Keynote

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, Catalysis & Petroleum Technology

China National Offshore Oil Corporation
China

Gholamali Rahimi

Head, Energy Economic Department

Institute for International Energy Studies (IIES)
Iran

Technical Papers

Day 1, Monday, 27 April 2026

| 13:30 - 15:00 | Technical Programme Hall 2

LNG peak-shaving plant for sustainable steel production in Iran: A case study

Presenter: 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: Li Xiao, Director of Research and Development Center, CNOOC Gas & Power Group Co, Ltd, China

Intrinsic versus extrinsic value in LNG asset valuation

Presenter: Matthias Pickl, Senior Investment Advisor, Saudi Aramco, Saudi Arabia

Optimizing LNG pretreatment: Honeywell UOP's hybrid solutions for enhanced contaminant removal

Presenter: Daryl Jensen, Senior Engineering Manager, Honeywell UOP, United States of America

Technical Posters

Day 1, Monday, 27 April 2026

| 15:30 - 17:30 | Digital Poster Plaza 2

FLNG in the South China Sea: A review of technical challenges and innovation pathways under harsh conditions

Presenter: Fangqiu Li, Engineer, CNOOC Gas & Power Group Co, Ltd, China

PEARL-LNG-RO: An open, voyage-level freight cost and routing optimization model

Presenter: Muhammad Yousuf Jabbar, Senior Scientist, Saudi Aramco, Saudi Arabia

Optimizing LNG regasification infrastructure through operational excellence to support a resilient energy transition

Presenter: Yosep Ismail Zulkarnain, Manager Gas Distribution & ORF Management Manager, Indonesia

Practice of helium extraction and liquefaction units in small LNG plants

Presenter: Hao Cheng, Head of Liquid Technology Institute, Iranian Research Organization for Science and Technology, 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

West Africa: Boosting the power supply of the OMVG member countries by new, cheap and clean LNG program in Guinea-Bissau

Presenter: Victor Mocanu, Vice President, Exploration, Tender Oil & Gas, Romania

Presenting a numerical approach to estimate boil-off rate and rollover in closed two-phase hydrocarbon (like LNG) storage tank: CFD simulation and experimental validation

Presenter: Mohammad Irani, Project Manager, Research Institute of Petroleum Industry, Iran

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 is undeniable, 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

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, 28 April 2026
| 10:00 - 11:30 | Technical Programme Hall 2

Reflective middleware for AI-augmented leak detection in oil and gas pipelines

Presenter: Mohammed Alnemari, Assistant Professor, University of Tabuk, Saudi Arabia

The establishment of a transnational integrated control and operation system ensures the efficient operation of the China-Kazakhstan natural gas pipeline

Presenter: Yang Jinwei, Asia Gas Pipeline LLP, China

Derisking future fuels pipelines

Presenter: Neil Gallon, Principal Engineer, ROSEN, United Kingdom

Construction challenges in India's largest underground rock cavern of 80,000 MT capacity for LPG strategic storage at HPCL, Mangalore

Presenter: K S L Satyanarayana, Chief General Manager - LPG Projects, Hindustan Petroleum Corporation Limited, India

Technical Posters

Day 2, Tuesday, 28 April 2026
| 12:30 - 14:30 | Digital Poster Plaza 2

A predictive AI-IoT framework for girth weld defect detection in strategic petroleum pipelines

Presenter: Ali Masoumi, Independent Researcher, MSc in HSE Engineering 2025, Iran

Investigation of rock property evolution and predictive methodologies through cyclic operating condition simulations in sandstone gas storage reservoirs

Presenter: Yajun Song, PhD Candidate, Production and Sand Co, China

Theoretical study on welding structure failure of high-grade steel pipelines for oil and gas transportation

Presenter: Lianshuang Dai, Deputy Director of Production Department, China Oil & Gas Pipeline Network Corporation, China

Functionalization of Fe₃O₄ nanoparticles by polyvinyl pyrrolidone as a recyclable and economical gas hydrate inhibitor

Presenter: Reyhaneh Pouryousef, Master Student, College of Engineering, University of Tehran, Iran

AI-integrated pipeline risk management: Cross-system coordination and intelligent decision support

Presenter: Fei Xiao, Senior Engineer, Southeast Oil China, China

Quantum magnetometers for pipeline integrity management systems

Presenter: Anupam Das, Deputy Chief Engineer (Telecom & Instrumentation), Oil India Limited, India

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

Large-scale underground energy storage solutions: Low-pressure liquids to high-pressurized gases

Presenter: Altaf Usmani, DGM Technical, Engineers India Limited, India

Enhancing oil-water pipeline flow with drag-reducing polymers: Impacts on flow dynamics and emulsion stability

Presenter: Mohammed Al-Yaari, Associate Professor, King Faisal University, Saudi Arabia

Enhanced underground hydrogen storage in salt caverns using microporous carbon materials

Presenter: Weiyao Yan, Research Geologist, Aramco Americas, United States of America

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 CHAIRS

Yu Matsuno

General Manager of Business Development Dept. II

Japan Petroleum Exploration Co., Ltd.
Japan

Technical Papers

Day 2, Tuesday, 28 April 2026
| 14:30 - 16:00 | Technical Programme Hall 2

Building global CCS hubs: Certified storage portfolios within the CSaaS model

Presenter: Pablo Zapico Palmero, Lead Geoscientist, Saudi Aramco, Saudi Arabia

Strategic development of CO₂-EOR-based CCS hubs in Iran: A technical and economic assessment

Presenter: Sohrab Fathi, Faculty Member, Kermanshah University of Technology, Iran

CO₂ 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

A comparative investigation on the CO₂ sequestration potential in a heavy oil reservoir and low-permeability reservoir

Presenter: Zheyu Liu, Associate Professor, China University of Petroleum Beijing, China

Technical Posters

Day 3, Wednesday, 29 April 2026
| 11:00 - 13:30 | Digital Poster Plaza 2

Advancing carbon capture and storage (CCS) technologies in hydrocarbon-producing countries: Infrastructure readiness and strategic deployment

Presenter: Weiyao Yan, Research Geologist, Aramco Americas, United States of America

Quantifying the potential for waste-to-energy to generate zero-carbon electricity and negative emissions in the Kingdom of Saudi Arabia

Presenter: 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: Mahdi Zeinali Hassanvand, Researcher and Academic Staff, Research Institute of Petroleum Industry, Iran

Where to store at scale: A comparative screening of Saudi fields for CCS hub development

Presenter: Alaa Alkhamis, Associate Engineer, Saudi Aramco, Saudi Arabia

Green tailings: Surface CO₂ 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: Fatemeh Kamraninia, 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: Sayeed Rushd, Associate Professor, King Faisal University, Saudi Arabia

Application of CO₂ foam in optimizing carbon storage (CCUS) processes: An effective solution for flow control and enhanced efficiency in heterogeneous reservoirs

Presenter: Amirhossein Molaei, Faculty Member, Sahand University, Iran

Towards net-zero: Comprehensive study on a large-scale CCS geological storage hub in Saudi Arabia

Presenter: Jinying Zhou, Lead Geologist, Saudi Aramco, Saudi Arabia

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 Al Marshed

Professor

Kuwait Institute for Scientific Research (KISR)
Kuwait

VICE CHAIRS

Prof. Stanislaw Nagy

Head of Gas Department

JAGH University of Krakow
Poland

Prof. ShaoHua Dong

Professor

China University of Petroleum
China

Technical Papers

Day 3, Wednesday, 29 April 2026
| 10:00 - 11:30 | Technical Programme Hall 2

Various underground storage techniques to store massive quantities of hydrogen

Presenter: Pascal Baylocq, CEO, Geostock, France

The influence of hydrogen on the long-term strength of special materials for HDPE gas pipelines

Presenter: Zhang Wei, 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, Italy

Hydrogen permeation testing of thermoplastic composite pipes

Presenter: Abderrazak Traidia, R&D Specialist, Saudi Aramco, Saudi Arabia

Technical Posters

Day 3, Wednesday, 29 April 2026
| 14:00 - 16:00 | Digital Poster Plaza 2

Technology and cost analysis of offshore wind power hydrogen production with liquid organic hydrogen carrier for transportation to land: A case study of Eastern Guangdong region

Presenter: Pengfei Song, Senior Engineer, CNOOC, China

Common regulatory frameworks for hydrogen transportation pipelines

Presenter: Roman Samsonov, Research Lead of the Youth Laboratory, Moscow State Construction University, Russia

Research on safety measures for hydrogen facilities and hydrogen transmission pipelines under the long-distance hydrogen transportation project

Presenter: Yuchen Wang, R&D Engineer, State Key Laboratory of Chemical Safety, Sinopec Research Institute of Safety Engineering Co., Ltd, China

Integrating hydrogen into our society: How to engineer solutions for hydrogen usage to enable decarbonization pathways

Presenter: Luigi Crolla, Head of Energy Transition Technologies, Kent, United Kingdom

Hydrogen blending in gas networks: Global challenges, best practices, and regulatory pathways for energy transition

Presenter: Khaled Khallaf, Technical Planning General Manager, Egyptian Gas Regulatory Authority, Egypt

Hydrogen energy systems: An integrated review of production, storage, transport, and utilization pathways

Presenter: Saeid Salimi, The First Author, Islamic Republic of Iran

Large-scale liquid hydrogen technologies enabling intercontinental hydrogen transportation: Techno-readiness & economic assessment

Presenter: David Ehlig, Hydrogen Liquefaction Product & Proposal Manager, Air Liquide Engineering & Construction, France

Leveraging oil and gas infrastructure for hydrogen transport: AI-assisted leak detection and monitoring

Presenter: Arman Aryanzadeh, Project Engineer, Nargan Amiris Energy Development Company, Iran

Enhancing hydrogen transportation and storage efficiency through advanced polymer-based infrastructure

Presenter: Yousef Alghassal, Student, Umm Al -Al-Qura University, Saudi Arabia

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 Victor

Executive Manager of Structural Programs

Petrobras
Brazil

Mohammad Ali Emadi

Secretary General

Iranian Petroleum Institute
Iran

Technical Papers

Day 3, Wednesday, 29 April 2026
| 14:30 - 16:00 | Technical Programme Hall 2

A layered strategy to counter phantom oil flows for a transparent energy future

Presenter: Fahad Alyahya, Oil & Gas Associate, KAPSARC, Saudi Arabia

Decarbonizing oil supply chains with blockchain-verified carbon credits

Presenter: 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, General Manager, Petrobras, Brazil

Technical Posters

Day 4, Thursday, 30 April 2026
| 10:00 - 12:00 | 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

Blockchain-driven transformation of natural gas supply chain finance: Architecture design and implementation pathways

Presenter: Zhang Jianping, Deputy Director, Institute for Natural Gas Economics, PetroChina Southwest Operations, China

Supply chain management and localization: A case study from hydraulic fracturing project in Saudi Arabia.

Presenter: Alexey Yudin, 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: Jinyang Zhao, 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: 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 (Bei jing), China

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 Alsaalem

Petroleum Engineer

Kuwait Gulf Oil
Kuwait

Michael Halliday

Principal

HKA
United Kingdom

Technical Papers

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

An environmentally friendly and low-cost technology for treating emulsified shale gas flowback fluid

Presenter: Jie Yang, Senior Engineer, Institute of PetroChina Southwest Oil & Gasfield Company, China

Optimizing asset integrity for a more resilient and sustainable energy future

Presenter: Abdulrahman Bahashwan, Assistant Professor, Sahand University of Technology, Iran

Performance and viability of capacitive deionization for sustainable water treatment

Presenter: Fatemeh Mianjian, Senior Civil Engineer, Ministry of Oil, Kuwait

Bio-electrochemical systems for produced water management in the oil sector: A Kuwaiti case study toward sustainable energy-water integration

Presenter: Roberta Nobre, General Manager, Petrobras, Brazil

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, 30 April 2026
| 12:00 - 14:00 | Digital Poster Plaza 2

Cleaning produced water with chemical-free plasma technology

Presenter: Sayeed Rushd, Associate Professor, King Faisal University, Al-Ahsa, Saudi Arabia

Modeling the hydrate-based desalination process of produced water using tree-based machine learning technique

Presenter: Maryam Sadi, Associate Professor, Research Institute of Petroleum Industry, Qatar

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

Sustainable water disposal management: Integration of reservoir geosciences and production technology to achieve zero overboarding in giant offshore field, Qatar

Presenter: Anthony Paul O'Connell, Head, UMO - Reservoir Management & Opportunities, North Oil Company, Algeria

Turning produced water into carbon stone: Global progress in CO₂ mineralization within oilfield brines

Presenter: 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: Mojtaba Moradi, Subsurface Engineering Manager, TAQA, United Arab Emirates

Advancing environmental sustainability in KNPC through wastewater and sludge management

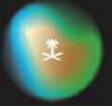
Presenter: Ritaj Boushehri, Senior Fellow, KAPSARC, Saudi Arabia

An experimental and simulation comparison investigations of water injection compatibility tests for managing the available resources

Presenter: Seyed Alireza Mostafavi, Ph.D Student, University of Tehran, Iran

A novel methodological approach for identifying the origin of produced water using ion-specification analysis

Presenter: Babak Dehghni, Ph.D Student, Petroleum University of Technology, Iran



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 16 -
Pathways to Net-Zero Refining and
Petrochemical Facilities

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

Forum 17 -
Helium, Lithium, and Trace Metals
Extraction

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

Day 1, Monday, 27 April 2026
13:00 - 13:30 | Technical Programme
Hall 3

BLOCK 3 Forum Keynote

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.

Under Review

CHAIR

Naif Makki
Director, New Energy Technologies

Ministry of Energy
Saudi Arabia

VICE CHAIRS

Thiago Guilherme Ferreira Prado
President

Empresa de Pesquisa Energética – EPE
Brazil

Nicola Caley
Partner

HKA
United Arab of Emirates

Technical Papers

Day 1, Monday, 27 April 2026
| 13:30 - 15:00 | Technical Programme Hall 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: Yushuo Zhang, Petroleum Engineer, Oil & Gas Technology Research Institute, PetroChina Changqing Oilfield Company, China

Blending renewable hydrogen into natural gas networks: Innovative solutions for future electricity grids and carbon reduction

Presenter: Sohrab Fathi, Faculty Member, Kermanshah University of Technology, Iran

Dynamic coupled THMC analysis of hydrogen injection–production cycles in depleted gas reservoirs

Presenter: Qingzhuo Liao, Professor, China University of Petroleum, China

Technical Posters

Day 2, Tuesday, 28 April 2026
| 10:00 - 12:00 | Digital Poster Plaza 3

A computational approach toward discovering H2S splitting catalyst

Presenter: Zainab Alaithan, Senior Research Engineer, Saudi Aramco, Saudi Arabia

Deepwater gas-to-power: Sustainable energy from FPSO-based combined cycle and supercritical CO₂ systems (A Questor-driven economic and environmental feasibility study for the Caspian offshore gas fields)

Presenter: Behrooz Golestani Khalilabad, Reservoir Engineering Expert, Khazar Exploration and Production Company, Iran

Intelligent solar–diesel hybrid energy system for remote oilfield operations using smart power prioritization

Presenter: Shores Shokoohi, Executive Director, Sanandaj Oil Pipelines and Telecommunication Terminal Facilities, Khazar Exploration and Production Company, Iranian Oil Pipelines and Telecommunication Company (IOPTC), Iran

Strategic integration of 200 MW utility–scale solar power in Nouri Petrochemical operations

Presenter: 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: Xiaoqi Wang, Senior Expert, 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, Biotechnology Research Center, Department of Chemical Engineering, Babol Noshirvani University of Technology, Iran

Solar, wind, and nuclear integration: Alternative energy sources to supplement oil and gas

Presenter: Abdullah Alatani, Technical Training Advisor, Technical Training Advisor, Saudi Arabia

Comparative analysis of mixing and steep-pressing methods for producing carboxymethyl cellulose (CMC): Reducing energy consumption in small-scale industries

Presenter: Shirin Shokoohi, Academic Staff, Research Institute of Petroleum Industry, Iran

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, 28 April 2026

| 10:00 - 11:30 | Technical Programme Hall 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 CO₂ conversion to methanol: Direct and indirect routes for sustainable production and their role in a low-carbon future

Presenter: Fatemeh Haghghatjoo, 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, 28 April 2026

| 12:00 - 14:30 | Digital Poster Plaza 3

Decentralized production of green hydrogen via modular electrolysis units: Flexibility, infrastructure and integration

Presenter: Marcos López Járrega, Strategy & Market Analysis eFuels, Moeve, Spain

Split-flow reactor: An innovative approach to optimize catalyst converters in high-capacity ammonia plants

Presenter: Shaikesh Mudaliar, Principal Technical Professional-Process, KBR, India

Optimization design for 10,000-ton/y-scale green ammonia production via water electrolysis and H-B process

Presenter: Yue Wang, Senior Engineer, CNPC, China

Electrolyzer technologies for green hydrogen production with reduced CAPEX and OPEX: In-house development and demonstration

Presenter: Bharati Panigrahy, Senior Scientist, HP Green R&D Center, Hindustan Petroleum Corporation Limited (HPCL), India

Techno-economic assessment of hydrogen production from upstream wastewater

Presenter: Mohammed Alyousef, Associate Petroleum Engineer, Saudi Aramco, Saudi Arabia

Hourly time-matching requirement for electrolytic hydrogen production: Is the added cost justifiable?

Presenter: 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 Engineer Specialist, Saudi Aramco, Saudi Arabia

Energising the future: The power of renewable ammonia in downstream operations

Presenter: Luigi Crolla, Head of Energy Transition Technologies, Kent, United Kingdom

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

Koopman Márton Takács

Group Aviation Products Manager

MOL Plc - EPE
Hungary

Dr. Ibraheam Al Shankiti

Advisor Clean Hydrogen

Ministry of Energy
Saudi Arabia

Technical Papers

Day 2, Tuesday, 28 April 2026
| 14:30 - 16:00 | Technical Programme Hall 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

Comparative evaluation of biomass- and CO₂-derived drop-in fuel pathways: Levelized costs, emissions, and the role of hydrogen

Presenter: Tareq Al-Attas, R&D Associate, University of Calgary, Canada

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, 29 April 2026
| 11:30 - 13:30 | Digital Poster Plaza 3

A modular solution for converting associated gas into low-carbon fuels

Presenter: Ali Mansouri, Technology Leader for Low Carbon Fuels, Baker Hughes, Germany

Techno-economic analysis of intensified E-kerosene production

Presenter: Mohsen Moradi, Researcher, Research Institute of Petroleum Industry, Iran

Advances and challenges in sustainable aviation fuel production: Focus on methanol-to-jet pathways

Presenter: Fatemeh Parvizi, Senior Research Scientist, Research Institute of Petroleum Industry, Iran

Photocatalytic reduction of CO₂ into short-chain hydrocarbons: A sustainable pathway to carbon utilization

Presenter: Mohamed Hamdy, Professor of Physical Chemistry and Catalysis, King Khalid University, Saudi Arabia

Direct CO₂ 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: Daniel Schwappach, Head of Sustainable Energy Systems MEA, Siemens Energy, Germany

Feasibility study of the optimal option for municipal waste disposal in Pars Special Economic Energy Zone, Iran

Presenter: 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: Martina Slezáčková, R&D Coordinator, VÚRUP, Slovakia

Enhancing energy security through diversification: Leveraging petrochemical synergies

Presenter: Geetali Kalita, DGM(ESG), M/s Numaligarh Refinery, India

Optimizing sustainable aviation fuels: Machine learning models for predicting and enhancing critical fuel properties

Presenter: Geetali Kalita, DGM(ESG), M/s Numaligarh Refinery, India

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

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, 29 April 2026
| 14:30 - 16:00 | Technical Programme Hall 3

Petrobras' experience about the use of renewable feedstocks at refining and petrochemical facilities

Presenter: Patricia Carneiro dos Santos, Manager, Petrobras, Brazil

Pathways for refinery decarbonization

Presenter: Ali Nakhaee, Associate Professor, University of Tehran, Iran

Towards net-zero refining with thermocatalytic decomposition technology

Presenter: Kaisa Nikulainen, CEO, ROTOBOOST Finland Oy, Finland

Integrating detailed petrochemical processes in global energy system models for robust decarbonization pathways

Presenter: Olivier Durand-Lasserve, Principal Fellow, KAPSARC, Saudi Arabia

Technical Posters

Day 4, Thursday, 30 April 2026
| 10:00 - 12:00 | Digital Poster Plaza 3

Research and application of low-carbon technologies in international cooperation natural gas development projects

Presenter: 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 A, Chief Manager - Technical, Hindustan Petroleum Corporation Limited, India

Valorization of waste plastics into light olefins through thermochemical routes

Presenter: Muhammed-Jamiu Umar, Student, King Fahd University of Petroleum and Minerals, Saudi Arabia

Pathways to decarbonize refining operations through process optimization and integrated carbon mitigation technologies

Presenter: Muhammed-Jamiu Umar, Student, King Fahd University of Petroleum and Minerals, Saudi Arabia

SASREF decarbonization journey

Presenter: Fuad Al-Arafat, Saudi Aramco, Saudi Arabia

Co-gasification of heavy fuel oil and plastic waste for low-carbon hydrogen: A techno-economic pathway to circular energy

Presenter: Ali Abdullah Al Qadri, Ph.D Student, King Fahd University of Petroleum and Minerals, Saudi Arabia

Optimizing refinery CO₂ 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: Sulaiman Al-Khattaf, Vice President, Technology & Innovation T&I, TASNEE, Saudi Arabia

Enhancing energy efficiency in lube oil refinery targeting energy saving and CO₂ emission reduction

Presenter: Mohamed Abdo, Senior Process Specialist, Saudi Aramco Base Oil Company (Luberef), Saudi Arabia

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

Christian Doornbos

President

E3 Lithium
Canada

VICE CHAIRS

Dr. Farzad Bahadoran

Project Manager-Scientific Staff,

Research Institute of Petroleum Industry
Iran

Technical Papers

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

Advancing helium separation: Multi-cycle PSA optimization for high-purity supply

Presenter: Sayed Alireza Hosseinzadeh Hejazi, Assistant Professor, Amirkabir University of Technology (Tehran Polytechnic), Iran

High-performance Mg²⁺/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: Sehms Ozden, Scientist, Aramco Americas, United States of America

Unlocking lithium from oilfield brines: High-efficiency extraction via ZIF-8-modified polyamide membranes

Presenter: Mariia Moshkova, Junior Research Fellow, ITMO University, Russia

Technical Posters

Day 4, Thursday, 30 April 2026
| 12:00 - 14:00 | Digital Poster Plaza 3

Research and field test of lithium extraction technology for low-grade lithium-containing gas field produced water

Presenter: Wei Ji, PetroChina Changqing Oilfield Company, China

Helium recovery from Iran's natural gas fields: Feasibility assessment, challenges, and strategic opportunities

Presenter: Farzad Bahadoran, Senior Researcher and Scientific Staff, Research Institute of Petroleum Industry (RIPI), Iran

Saline soils as an unconventional source of lithium

Presenter: Makar Silaev, Associate Petroleum Engineer, Aramco Research Center Aramco Innovations LLC, Russia

Prospective applications of high-power lasers in mineral extraction and geothermal energy

Presenter: Makar Silaev, Associate Petroleum Engineer, Aramco Research Center Aramco Innovations LLC, Russia

Sustainable approach to battery metal recycling: A green method for rare-earth elements recovery using deep eutectic solvents and biopolymeric hydrogel

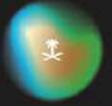
Presenter: Makar Silaev, Associate Petroleum Engineer, Aramco Research Center Aramco Innovations LLC, Russia

Laser-induced breakdown spectroscopy towards minerals exploration in sedimentary rocks

Presenter: Naif Rubaie, Supervisor Exploration and Unconventional Petrophysics Unit, Saudi 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



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(CO2, Methane) - Detection; CO2
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, 27 April 2026
13:00 - 13:30 | Technical Programme
Hall 4

BLOCK 4 Forum Keynote

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

Arseny Krichenko
Consultant

Energy Oil and Gas
Russia

VICE CHAIRS

Madi Alavi
Reservoir

National Iranian Oil Company
Iran

Technical Papers

Day 1, Monday, 27 April 2026
| 13:30 - 15:00 | Technical Programme Hall 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: Mariia Moshkova, Junior Research Fellow, ITMO University, Russia

Ruaa RoboEnergy

Presenter: Duaa Ibrahim, 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

Smart energy surveillance: AI-driven energy efficiency tool for smarter, leaner, and greener oil & gas operations

Presenter: Ahmed Al-Qasmi, Senior Energy Management Engineer, PDO, Oman

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

Presenter: David Macdonald, Senior Application Architect, GE Vernova, Spain

Technical Posters

Day 1, Monday, 27 April 2026
| 15:30 - 17:30 | 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, ENEOS Corporation, Japan

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

Integration of data and theory in digital twin technology for refining enterprises
Presenter: Tao Liu, Dalian West Pacific Petrochemical Co., Ltd, China

Maximizing renewable utilization on existing power transmission corridors with dynamic system rating
Presenter: Dr. Balakrishna Pamulaparthi, Senior Engineer, 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, Gubkin University, Russia

Machine learning model for predicting the top oil wells for well operations
Presenter: Ildar Saiapov, Leader Specialist Student, Russneft Skoltech, Russia

Tackling injection conformance issue in gas injection well with advanced outflow control device via thru-tubing deployment
Presenter: Raam Marimuthu, Reservoir Engineer, TAQA, Oman

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

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, 27 April 2026
| 15:00 - 16:30 | Technical Programme Hall 4

Reservoir simulation for underground LOHC storage using pore network-derived flow functions

Presenter: Mutaz Alsubhi, Ph.D Candidate, King Abdullah University of Science and Technology (KAUST), Saudi Arabia

Realizing efficiencies: Nanocomposite protective coatings for heat exchangers in downstream refineries

Presenter: Lucas Olson, Economist, Oceanit Laboratories, Inc., United States of America

Case study on the low-carbon transformation of China's oil and gas sector

Presenter: Baohua Zhao, Engineer, PetroChina Tarim Oilfield Company, China

Range anxiety gone: Portable, off-grid EV charging – anytime, anywhere

Presenter: Jayasurya Tsundurur, DGM-Business Development, Hindustan Petroleum Corporation Limited, India

Technical Posters

Day 1, Monday, 27 April 2026
| 15:30 - 17:00 | Digital Poster Plaza 4 4

Cobalt-engineered MnO₂ nanowires for high-performance aqueous zinc-ion batteries: A scalable electrodeposition strategy

Presenter: 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: Alexandru Turta, President, A T EOR Consulting, Inc., Canada

A novel approach to characterize and integrate the natural fractures in the development of a thin, carbonate reservoir of 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: Oleg Zhdaneev, Head, Technological Development Centre of the Fuel and Energy Complex, Russia

The energy transition and social transformation: The role of universities through the case of KBTU

Presenter: Abdulakhat Ismailov, Dean of the School of Energy & Petroleum Industry, Kazakh-British Technical University, Kazakhstan

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, Emerson, Egypt

Forum 20 - GHG emissions (Scope 1 & 2) abatement (CO₂, methane) detection; CO₂ 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 CO₂ and methane. Topics will cover advanced detection methods, CO₂ 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

Excellence of Carbon Research & The Center of Emissions Excellence

S&P Global
Canada

VICE CHAIRS

Suleyman Coskun

Manager GGG Emissions

Turkish Petroleum
Turkey

Rosalia Vazquez

Sr Energy Transition & Climate Change Advisor

Repsol
Spain

Technical Papers

Day 2, Tuesday, 28 April 2026
| 10:00 - 11:30 | Technical Programme Hall 4

Direct flue gas conversion to ethylene: A scalable solution for CO₂ emission reduction and carbon circularity

Presenter: Shariful Nabil, Ph.D Student, University of Calgary, Canada

Membrane-based tail gas treatment and CO₂ capture from tail gas of sulfur recovery plant

Presenter: Feras Hamad, Research Science Consultant, Saudi Aramco, Saudi Arabia

Revolutionizing thermal operations: Boosting HRSG efficiency and GHG mitigation in Oman's oil fields

Presenter: Mohamed Fazari, Thermal Production Lead, Petroleum Development Oman, Oman

Greenhouse gas management and reduction at the world's largest LNG company

Presenter: Afzal Subedar, Environmental Specialist, Qatar Energy LNG, Oman

An optical gas imaging (OGI) system enhanced for real-time flare efficiency monitoring

Presenter: Zhe Shen, Engineer Researcher, Ningbo Oiler Technology Co. Ltd, China

Technical Posters

Day 2, Tuesday, 28 April 2026
| 12:30 - 14:30 | Digital Poster Plaza 4

Seaward-dipping reflectors (SDR): New play for carbon sequestration

Presenter: Jakub Fedorik, SR Geologist, Saudi Aramco, Saudi Arabia

Accelerating methane abatement with satellite intelligence: Scalable solutions for oil & gas operations.

Presenter: Ryan Mattson, Vice President of Sales, Oil & Gas, GHGSAT INC., Canada

Brazilian Greenhouse Gas Emissions Trading System (SBCE)

Presenter: Alessandra Plaga, Regulatory Coordinator, Petrobras S.A., Brazil

Technical and economic assessment of CO₂ storage with enhanced oil recovery in Iran: Reservoir prospectivity for CCUS-EOR applications

Presenter: Milad Ghafouri, Petroleum Engineer, National Iranian South Oil Company (NISOC), Iran

Abatement of CO₂ 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 design to sustainable operations, featuring innovative improvements and optimization of existing CCUS technologies to maximize sustainability.

Presenter: Muhammad Farooq Fareed, Staff Engineer, SABIC, Saudi Arabia

High-resolution supercritical CO₂ flooding simulation and 4D seismic modeling of an outcrop-based reservoir model

Presenter: Andika Perbawa, Geologist, Saudi Aramco, Saudi Arabia

Hybrid energy solutions for off-grid oilfields: Powering operations where the grid can't reach

Presenter: Yagya Ahuja, CEO, GET Global Group, United Arab of Emirates

Real-time emissions tracking for smarter, compliant, and efficient gas processing

Presenter: Alberto Alva-Argaez, CEO, Engineering and Consulting, Canada

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. Hans Koopman

Executive Vice President, Clean Energy Solutions

TÜV Nord Group
Germany

Dr. Mubarak Alhajeri

Assistant Professor, Public Authority for Applied Education and Training

PAAET
Kuwait

Technical Papers

Day 2, Tuesday, 28 April 2026
| 14:30 - 16:00 | Technical Programme Hall 4

Compositional and interfacial engineering for highly efficient and stable indoor perovskite solar cells

Presenter: Faisal Alabdulkarem, Academic Researcher, KSU, Saudi Arabia

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

Advantages in integration of concentrated solar (thermal) technology (CST) & captive power plant (CPP)

Presenter: Anoop Dimri, General Manager, Engineers India Limited, India

Aging management of nuclear research reactors: A regulatory approach for sustainable integration

Presenter: Valéria Alves, Regulatory Specialist, Vale S.A., Brazil

Technical Posters

Day 3, Wednesday, 29 April 2026
| 11:30 - 13:30 | Digital Poster Plaza 4

Impact of high grid renewable penetration on industrial facilities in Saudi Arabia: Problem & solution

Presenter: Valéria Alves, Regulatory Specialist, Vale S.A., Brazil

Hybrid energy supply for onshore and offshore drilling rigs using wind power and regenerative drawworks

Presenter: Ali Gholami, Engineer, National Iranian Drilling Company, Iran

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

Overcoming Grid Dependence: A Cost-Efficient Framework for Solar-Powered Net-Zero Homes in Fossil Fuel Transition Economies

Presenter: Amir Khaledian, Assistant Professor, Technical and Vocational University (TVU), Iran

Continuous GHG emission monitoring and reporting systems using solar power: Advancing sustainability solutions in the oil & gas fields

Presenter: Raid Bukhamseen, Well Engineering, Sales & Geoscience Technical Director, TAQA, Saudi Arabia

Flexible operation of nuclear power plants for enhanced grid stability and renewable integration

Presenter: Abdulaziz Almatham, Assistant Research Professor, King Abdulaziz City for Science and Technology, Saudi Arabia

Design and optimization of hybrid smart microgrids for sustainable urban energy systems

Presenter: Abolfazl Nateghi, Assistant Professor, Kharazmi University, Iran

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 Abylkanov

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

Salisu Isihak

International Expert in Sustainable Energy Development

NNPC Ltd
Nigeria

Technical Papers

Day 3, Wednesday, 29 April 2026
| 10:00 - 11:30 | Technical Programme Hall 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: Saurabh Agarwala, Assistant General Manager, Engineers India Limited, India

Integrating life cycle assessment into refinery planning for low-carbon product development

Presenter: Jinyang Zhao, Engineer, PetroChina Planning and Engineering Institute, China National Petroleum Cooperation, China

Technical Posters

Day 3, Wednesday, 29 April 2026
| 14:00 - 14:00 | Digital Poster Plaza 4

Well-to-market carbon intensity and decarbonization cost curves for major Middle East oil and gas exports

Presenter: Hassan El-Houjeiri, Principal Fellow, KAPSARC, Saudi Arabia

Fuzzy MCDA method for surface system engineering of tight gas fields based on LCA-LCCA: A case study of Sulige gas field

Presenter: Hassan El-Houjeiri, Principal Fellow, KAPSARC, Saudi Arabia

Comparative eco-environmental assessment of energy supply for the Larestan water treatment system: Fossil fuels versus solar energy

Presenter: Mohsen Nowrouzi, Assistant Professor, Shiraz University, Iran

Evaluating the sustainability of SAF production from crude palm oil for NRL's proposed bio-ATF plant

Presenter: Geetali Kalita, Deputy General Manager (ESG), M/s Numaligarh Refinery, India

Advancing the circular economy through life cycle analysis of bioethanol production from rice straw

Presenter: Srivardhan Grandhi, Senior Manager, Engineers India Ltd, India

Application of circular economy framework within oil and gas construction project management

Presenter: Kurmanbek Yeshmagambetov, Head of Standards and Innovation Department 'R&D', 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: Nader Bahramifar, Associate Professor, Tarbiat Modares University, Iran

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

CTO, Strategic Business Advisor
Energy & Technology

Board of Various Startups,
Canada

VICE CHAIRS

Eszter Varga

Downstream Portfolio Evaluation &
Strategy Expert, Downstream Evaluation &
Long-term planning

MOL PLC
Saudi Arabia

Dr. Shaikha Al Ballam

Senior Petroleum Engineer

Kuwait Oil Company
Kuwait

Technical Papers

Day 3, Wednesday, 29 April 2026
| 14:30 - 16:00 | Technical Programme Hall 4

SOFFIA-AI: Leveraging digitalisation and AI for a sustainable energy transition

Presenter: Hector G. Lopez-Ruiz, Science Specialist, Aramco R&D, Saudi Arabia

From visibility to vulnerability: The role of asset management in cybersecurity

Presenter: Martine Chlela, Global Head of Delivery - Industrial Cybersecurity, Black & Veatch, Canada

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

Technical Posters

Day 4, Thursday, 30 April 2026
| 10:00 - 12:00 | Digital Poster Plaza 4

Large-scale benchmarking and deployment of subsurface graph network simulator

Presenter: Marko Maucec, PE Consultant, Saudi Aramco, Saudi Arabia

Leveraging AI-driven analytics to optimize oil field production and operational excellence

Presenter: Huda AL-Mutairi, Senior Systems Analyst, Kuwait Oil Company, Kuwait

AI-driven industrial diagrams automation

Presenter: Mona Alshahrani, AI Lead Scientist, Saudi Aramco, Saudi Arabia

Lead, digital governance and performance

Presenter: Mais Taha, Lead, Digital Governance and Performance, North Oil Company, Qatar

Rapid and comprehensive screening of sustainable aviation fuels using artificial intelligence

Presenter: Basem Eraqi, Ph.D Researcher, King Abdullah University of Science and Technology - KAUST, Saudi Arabia

Application of agentic artificial intelligence using estimated ultimate recovery best practices

Presenter: Arthur Hale, Senior Petroleum Engineering Consultant | Upstream Technical Support Chief, Aramco Americas, United States of America

Novel reservoir history matching workflow using Bayesian inversion and coarse-grid network models: Validation on 100-million COSTA model

Presenter: Xupeng He, Petroleum Engineer, Saudi Aramco (SAO), Saudi Arabia

Vision-language models for anomaly diagnosis in shale gas wells

Presenter: Di Tian, Student, China University of Petroleum, China

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
Technology Center
Japan

Technical Papers

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

Strategic evaluation of low-carbon trucking pathways

Presenter: 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: Abolfazl Nateghi, Assistant Professor, Kharazmi University, **Iran**

Enabling dendrite-free lithium metal batteries for electric vehicle applications: A constrained phase-field approach

Presenter: Guy Olivier Ngongang Ndjawa, Assistant Professor, King Fahd University of Petroleum and Minerals, **Saudi Arabia**

Technical Posters

Day 4, Thursday, 30 April 2026
| 12:00 - 14:00 | Digital Poster Plaza 4 4

Powering future e-mobility via development of high-voltage, fast-charging sodium-ion battery

Presenter: Binitha G, Manager, Hindustan Petroleum Green R&D Center, **India**

Comparative analysis of different alternate fuel powertrains for sustainability & future mobility options in India for heavy-duty vehicle

Presenter: Shyamsher Saroj, Research Manager, Indian Oil Corporation Limited, Research & Development Centre, **India**

Hydrogen internal combustion engine: Bridging the use of hydrogen in transport

Presenter: Abdullah Alramadan, Engine Combustion Group Lead, Aramco, **Saudi Arabia**

Carbon nanotubes for high-performance energy storage applications

Presenter: Sagar Kumar Pal, Assistant Manager (Research), Indian Oil Corporation Limited, **India**

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**

Powering green mobility with green fuels: A decentralized energy vision for sustainable mobility

Presenter: Srivardhan Grandhi, Senior Manager, Engineers India Ltd, **India**

From powder to power: Solid electrolyte hydrogel and date seed-based activated carbon electrode for supercapacitors

Presenter: Nujud Badawi, Assistant Professor, University of Hafr Al-Batin, **Saudi Arabia**

Resilience enhancement of cyber-physical power systems with mobile energy resources

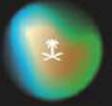
Presenter: Mohammad AlMuhaini, Associate Professor, King Fahd University of Petroleum and Minerals, **Saudi Arabia**

Design and techno-economic analysis of a supercapacitor-based solar train for low-carbon transport in Saudi Arabia

Presenter: 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/Co₃O₄ integrated N-doped carbon in hybrid Li-air battery

Presenter: Athika Mattah, Postdoctoral Fellow, King Fahd University of Petroleum and Minerals, **Saudi Arabia**



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, 27 April 2026

13:00 - 13:30 | Technical Programme

Hall 5

BLOCK 5 Forum Keynote

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

Abdulrahman M Alkadhi

Advisor, Energy Sustainability &
Technology Management

Oil Sustainability Program
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, 27 April 2026
| 13:30 - 15:00 | Technical Programme Hall 5

Financing clean cooking transitions in Africa: Unlocking carbon markets for universal energy access

Presenter: 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

Powering progress: A systems approach for universal, equitable energy access through multi-objective modelling

Presenter: Suman Raj, Ch Manager, Hindustan Petroleum Corporation Ltd, India

Sustainable energy transition: What are the technology options and cost of achieving universal electricity access in Nigeria

Presenter: Salisu Isihak, Senior Business Advisor to the Managing Director, Nigerian National Petroleum Company Ltd, Nigeria

Technical Posters

Day 1, Monday, 27 April 2026
| 15:30 - 17:30 | Digital Poster Plaza 5

Futuristic bio-fuel technologies: Addressing India's CO₂ footprint reduction, women health and energy poverty alleviation

Presenter: Ritesh Mittal, 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: 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, 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: 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, Master Researcher, Shahid Beheshti University, Iran

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, 27 April 2026
| 15:00 - 17:30 | Technical Programme Hall 5

Libyan national energy strategy: A roadmap for cost structure reform, renewable integration, and a low-carbon future

Presenter: Yakoub Mohamed Karnaf, Studies Superintendent / Planning Dept., Libyan National Oil Corporation, Libya

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

Boosting carbon competitiveness: Reimagining the trade-climate nexus in a turbulent era

Presenter: Joachim Monkelbaan, Senior Fellow, KAPSARC, Saudi Arabia

Technical Posters

Day 2, Tuesday, 28 April 2026
| 10:00 - 12:00 | Digital Poster Plaza 5

The economic costs of climate mitigation: Strategic pathways for Saudi Arabia's Vision 2030

Presenter: Hassan Alzain, Environmental Management Graduate, Yale University (Nationally Sponsored), United States of America

Navigating the energy trilemma: The role of corporate decarbonisation strategy in shaping public policy – Insights from Aramco's sustainability trajectory

Presenter: Murshad Habib, Sustainability Policy and Strategy Specialist, Saudi Aramco, Saudi Arabia

Global energy security evaluation: From a perspective of accessibility, sustainability, affordability and resilience

Presenter: Pengcheng Zhang, Senior Economist, 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

Trade policy and sustainable energy in Serbia: Overcoming tariff and non-tariff barriers to accelerate the green transition

Presenter: Jelena Zivic, Expert for Relations with Foreign Institutions, NIS a.d. Novi Sad, Serbia

Natural gas as a transition fuel: A policy and regulatory framework for West Africa's energy future

Presenter: Fredrick Sekle, Operations Manager, Oilmac Limited / StratFarmAfrica Limited, Ghana

The affect of world government policies on energy transition

Presenter: Tamer Al-ramahi, Industrial Technology Advisor, Canadian National Research Council - IRAP, Canada

Actor dynamics and transition pathways: A mapping of Iran's energy system

Presenter: Amirhossein Ghasemi, Researcher in Energy Policy and Geopolitics, Sharif University of Technology, Iran

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 Xiaoli Zhao

Business Analyst Planning &
Economics

NEO Energy
United Kingdom

Technical Papers

Day 1, Monday, 27 April 2026
| 10:00 - 11:30 | Technical Programme Hall 5

Balancing decarbonization and cost: Smart investment strategies for industrial energy transition

Presenter: Alexander Wimmer, Head of Technology and Sustainability, Aluminum Division, Constantia Flexibles, Austria

Transfer pricing in the hydrogen energy industry chain

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

Technical Posters

Day 2, Tuesday, 28 April 2026
| 10:00 - 11:30 | 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: Mohammad Alami Bayat, Head of American Countries Affairs, Ministry of Petroleum, Iran

Global oil industry investment outlook in 2050

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

A novel just transition financing framework for enhanced oil recovery (EOR) projects using CO₂ injection

Presenter: Mahdieh Askarian, Head of Technology Policy Making, Ministry of Petroleum, Iran

An innovative approach to energy security: Harnessing Brazil's mining legacy for a solar future

Presenter: Valéria Alves, Regulatory Specialist, Vale S.A., Brazil

Green financing for the global energy transition: Challenges and innovations

Presenter: Mohammad Sajjad Erfani Maharati, 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, China

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

Presenter: Srivardhan Grandhi, Senior Manager, Engineers India Limited, India

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

Chelsie Klassen

Founder & CEO

Neighbourly Advisory Inc
Canada

VICE CHAIRS

Dr. Alexander Lee

Partner

HKA
United Kingdom

Dr. Kairzhan Abdykhalykov

Professor

Kazakh British Technical University
Kazakhstan

Technical Papers

Day 1, Monday, 27 April 2026
| 14:30 - 16:00 | Technical Programme Hall 5

Understanding sustainable business models in the oil and gas industry: A case study in the Basque Country region (Spain)

Presenter: Jaime Menendez-Sanchez, Researcher, Orkestra - Basque Institute of Competitiveness, Spain

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

Sustainable energy transitions: Balancing economic viability with ESG commitments

Presenter: Andrew Brooks, President and CEO, Had To Holdings Ltd, Canada

Measuring the efficiency of energy start-ups: The role of venture capital and ESG

Presenter: Tarifa Almulhim, Associate Professor of Business Analytics, King Faisal University, Saudi Arabia

Technical Posters

Day 4, Wednesday, 29 April 2026
| 11:30 - 13:30 | 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: Ruhollah Nasrollahi, Associate Professor, Allameh Tabataba'i University, Iran

Business risk analysis and legal responses in Russian Arctic area: Case of an upstream oil project

Presenter: Li Ding, Senior Engineer Manager, PetroChina, China

Evaluating environmental governance and the need for stricter noise regulations in PSEEZ

Presenter: Mehdi Tanha Ziyarati, Head of Environmental Department, ParsSpecial 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: Morteza Heidariannoghondar, Author and Speaker, Maham-Vista Energy Consulting Engineers Group, Iran

Human reliability: The missing link in ESG and governance

Presenter: Nada Wentzel, CEO, Jonah Group, Australia

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
Japan

VICE CHAIRS

Vlada Streletskaia

Expert, UNESCO Center

Saint Petersburg Mining University
Russia

Gerda Koncz

Senior Project Manager, Human
Resources

MOL Plc
Hungary

Technical Papers

Day 3, Wednesday, 29 April 2026
| 10:00 - 11:30 | Technical Programme Hall 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 Women10x 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: Mariusz Wnuk, Chairman of Board of Directors, ORLEN Unipetrol, Poland

Strategic succession planning: Building resilient talent pipelines for the energy transition

Presenter: Nabil Elbazi, OD Advisor, SAMREF, Australia

Technical Posters

Day 3, Wednesday, 29 April 2026
| 14:30 - 16:00 | Digital Poster Plaza 5

Strategic talent development through a competency-driven approach

Presenter: Sapana Srikanth, Chief General Manager - Capability Building, 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: Jafar Shayan, CEO, Sustainova Tech, Netherlands

Psychological and social dimensions of energy literacy: Developing a framework for public trust and engagement

Presenter: Jafar Nejat, Sociologist, Pars Oil and Gas Company in Iran (POGC), Iran

Beyond the barrel: Winning the war for manager in oil & gas through strategic learning investments

Presenter: Elena Raevskaya, Training Efficiency Manager, LLC GazpromNeft, Russia

Large language model-driven scientific collaboration: A socio-technical intervention to break the prisoner's dilemma of knowledge sharing and accelerate energy research innovation

Presenter: Kun Tan, Head of the Information Service Technology Team, CNPC Research Institute of Safety & Environment Technology, China

Building the future workforce: Human rights and engagement in energy

Presenter: Isobel O'Connell, Strategic Partner, Metagnosis Consulting, Canada

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, Senior 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

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 Eduardo

Board

ANP
Brazil

Hamidreza Zolfkhani

Senior Environment Protection
Engineer

National Iranian Gas Co
Iran

Technical Papers

Day 3, Wednesday, 29 April 2026
| 14:30 - 16:00 | Technical Programme Hall 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: Mostafa Tasbandi, Head of Sustainability Development, Ministry of Petroleum, Iran

From national dialogue to global imperative: Reclaiming the power of stakeholder engagement in the energy transition

Presenter: Sean Trainor, CEO, SCG, United Kingdom

Turning satellite emission data into action: Stakeholder engagement for methane mitigation

Presenter: Irina Semykina, Senior Consultant, Carbon Limits AS, Norway

Technical Posters

Day 4, Thursday, 30 April 2026
| 10:30 - 11:30 | 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: Maryam Ghafouri, Climate Change Expert, Department of Environment Protection of Iran, Iran

Empowering the energy transition: Strategic stakeholder engagement and the role of digital technologies in building trust, enhancing ESG impact, and securing the social license to operate

Presenter: Suman Raj, Ch Manager, Hindustan Petroleum Corporation Ltd, India

Petrobras socio-environmental program: Regenerating ecosystems, empowering communities

Presenter: Gregorio da Cruz Araujo Maciel, Environmental Projects Manager, Petrobras, Brazil

Integrating stakeholders' perspective into project complexity assessment for oil and gas projects

Presenter: Tulio Quijada, Lead Engineer, Saudi Aramco, Saudi Arabia

Stakeholder engagement at HPCL – A key imperative for business continuity

Presenter: Paul Verma, 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: 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 Construction (IOEC), Iran

Commitment to decarbonization: Petrobras' strategy with suppliers

Presenter: Marcelo Barbosa Ferraz, Mechanical Engineer, 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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