

KUWAIT INT'L HYDROGEN TECHNOLOGY

SYMPOSIUM

The Kuwait Hydrogen Outlook from Vision to Action

THE EVENT IS UNDER THE PATRONAGE OF:



AMEENA RAJAB SALEH Deputy CEO - Kuwait Oil Company

5-6 MARCH, 2024

HILTON KUWAIT RESORT, State of Kuwait



Energy Transition Series - Events POWERED BY:



HYDROGEN

WELCOME

Dear Industry Colleagues,

It is our greatest pleasure and honor to chair the 1st Kuwait Int'l Hydrogen Technology Symposium and Exhibition, themed "The Kuwait Hydrogen Outlook from Vision to Action", 6-5 March 2024, at Hilton Resort Hotel, Kuwait City.

Now more than ever the World calls for energy evolution, affordability, and security, where Hydrogen could play a pivotal role in the transition towards a low-carbon economy and sustainable future. In response to the demand for cleaner energy, Kuwait possesses all vital resources for the production of both "blue" and "green" hydrogen.

Reaching a Net-zero economy will require the development of commercial-scaled hydrogen infrastructure that can facilitate both production and distribution, a prerequisite, which the country already works on. Putting Kuwait on the map of the world's leading Hydrogen players demands a wide range of tools - strategic, financial, and policy ones, along with adopting state-of-the-art production technologies.

Time and time again, our country leaders have strongly reconfirmed their long-term commitment to achieving carbon neutrality in the oil and gas sector by 2050, and in other sectors by 2060.

Held over two days, the symposium raises awareness and calls for action. It provides a platform to discuss the latest technological advancements, investment opportunities, and policy frameworks necessary for scaling up hydrogen infrastructure locally, regionally, and globally.

The time for action is now. Please come and join us on this exciting journey.

Executive Committee Co-Chair **Abdullah Al-Mutairi** Manager Production and Projects - GAS Kuwait Oil Company Executive Committee Co-Chair **Peter Jensen** ETSA Contract Manager North Kuwait Jurassic Gas Shell

EXECUTIVE COMMITTEE



Executive Committee Co-Chair **ABDULLAH AL-MUTAIRI** Manager (Production & Projects - GAS) Kuwait Oil Company



Executive Committee Co-Chair PETER JENSEN ETSA Contract Manager North Kuwaiti Jurassic Gas - Shell



ADNAN SHIHAB-ELDIN

Honorary Executive Advisor

MEMBERS



Program Committee Chair **ANDREY KROKHIN** Business Development Manager Halliburton



ENG. ABDUL HADI ALAJMI Research & Development Director Equate



BADER AL-ANZI Acting Vice Dean for Academic affairs Research and Graduate Studies, Kuwait University



BADRIA FARHAD Former Heavy Oil Manager - NK, KOC



DR. FOWZIA ABDULLA Professor Petroleum Geology Kuwait University



DR. MEENA MARAFI

Principal Research Scientist KISR

MUDASSAR NAZEER

Assistant Professor, Programme Director, MSc Reservoir Evaluation & Management Herriot Watt University

MOHAMED AL SHATTI

Expert on Energy, Pricing & OPEC Strategy - Kuwait



DR SAUSAN AL RIYAMI Director Oman Hydrogen Center

PROGRAMME COMMITTEE



Program Committee - Chair **ANDREY KROKHIN** Business Development Manager Halliburton



ABDULAZIZ JAMAL A/AZIZ ALBEAJAN Senior Planning Engineer KIPIC



DR. KAMALJIT SINGH Associate Professor Institute of

GeoEnergy Engineering Herriot Watt University



MOHAMMED AL-BISHARAH (JURASSIC OPERATION)

Team Leader Kuwait Oil Company



DR. MOHAMMAD AL-SHAWAF

Environmental Scientist Kuwait University



WAEL HAMED A. MAOTI

Gas Industries Expert Organization of Arab Petroleum Exporting Countries "OAPEC" KUWAII INTERNATIONAL HUROGEN TECHNICLOGY





09:30 - 10:45

 Regional GCC Plenary Session: Successful Progress, Implementations & Business Models

The potential of hydrogen to enable a net-zero future is enormous, but achieving that potential will require considerable investments and applying new strategies, and business models across the entire energy value chain. Unlocking opportunities through industry-wide collaboration in the race to bring hydrogen to commercial scale and economic viability will encompass cross-border collaboration, building viable infrastructure, and maturing of import-export markets.

MODERATOR



NADER SULTAN Senior Energy Expert

SPEAKERS



GEORGE BERETSOS Chief Commercial Officer Gulf Cryo



PRADEEP HANDA General Manager – Foreign Corporate, Oil and Trade Finance Group National Bank of Kuwait



SAUSAN AL-RIYAMI Director Oman Hydrogen Center



SHAHID HASAN Research Fellow, Energy Transition KAPSARC

DAY 1 TUESDAY 5TH MARCH, 2024

10:45 - 11:15

Spotlight Presentation

SPEAKER



LYNN AMMAR Partner Cleary Gottlieb Steen & Hamilton - UAE

Kuwait Hydrogen ascent, key issues and critical perspective

11:15 - 11:45 | NETWORKING and COFFEE BREAK



11:45 -13:00

S2: Hydrogen Potential Markets & Technology

The time is right to tap into hydrogen's potential to play a key role in a clean, secure, and affordable energy future. Hydrogen is currently enjoying unprecedented political and business momentum, with the number of policies and projects around the World and the GCC region, expanding rapidly.

- Selecting the right strategy
- Enabling technologies in place
- Employing innovation and collaboration

SESSION CHAIRS



MOHAMMED AL-BISHARAH Team Leader Kuwait Oil Company



SUAD AL RADHWAN Assistant Professor - Petroleum Engineering Australian University, Kuwait





DR. FOTOUH AL- RAGOM Research Scientist – EET Program, Kuwait Institute for Scientific Research (KISR)



DR. ALI H. ABDULRAHIM Associate Research Scientist, Energy & Building Research Center, KISR

Clean Hydrogen Solutions for Kuwait's Power Generation Sector



BASSEM ZAHER ELKADRI Director Industry Value Advisory SAP

Towards Sustainable Energy -Approach for sustainable success in the low carbon H2 market, and Digital Product Passport for Hydrogen



JUSTIN SCHAEFFER

Licensing Technology Manager Gasification & Blue Hydrogen, Shell

Innovating towards more cost-effective decarbonised (blue) hydrogen production

DAY 1 TUESDAY 5TH MARCH, 2024

13:00 - 13:45

S3: Key Risks & Opportunities

- Financial risks, market volatility, and technology uncertainties
- Infrastructure and supply chain challenges
- Missed opportunities "What if we don't do it now?"
- International Regulations changing with carbon tax introduction
- Hydrogen certification: contributing to the global industry standards

SESSION CHAIRS



DR. MEENA MARAFI Principal Research Scientist KISR

SPEAKERS



DR. WA'EL ALMAZEEDI Chief Executive Officer Advance Labs - UAE

The role of attribute tracking and certification in facilitating hydrogen trade



DR. MOHAMMAD SABTI Senior Gas Engineer | Gas Operations Group Kuwait Oil Company



DR. MICHAEL TSANG Chief Carbon Accounting Officer Avance Energy - Oman

Piloting the Hydrogen Passport- Case Study



13:45 - 14:30

S4: Hydrogen Infrastructure, Transportation and Export

The critical factor that will determine the cost-effectiveness of export and trade in hydrogen will be whether scale, technology, and efficiency gains can offset the cost of transporting the hydrogen from low-cost production areas to high-demand areas.

- Assessment of the existing energy Infrastructure
- Liquid and gaseous hydrogen scenarios for transporting
- Hydrogen exports and key projects within the Middle East

SESSION CHAIR



DR. SAUSAN AL-RIYAMI Director Oman Hydrogen Center

SPEAKERS



WAEL A. MOATI Gas Industry Expert OAPEC

Challenges and Opportunities of Hydrogen Export, and key Projects in the Arab region



DR. SULEIMAN M. SULEIMAN Associate Research Scientist KISR

Role & Challenges of the existing energy infrastructure for the hydrogen economy

14:30 | NETWORKING and LUNCH



08:00 -08:30

Registration & Networking Coffee

08:30 - 09:45

S5: Panel Discussion CCUS Challenges & Opprtunities

An engaging discussion panel designed to delve into the intricate realm of Carbon Capture, Utilization, and Storage (CCUS), unpacking the multi-layered obstacles present throughout its entire value chain. The discussion will center around opportunities and initiatives reinforcing the success of CCUS projects in Kuwait while focusing on establishing partnership models.

Embracing a collaborative stance among all parties involved and jointly tackling various challenges are essential for improving the economic viability of CCUS. Such a united effort is paramount in paving the way toward a future that is both decarbonized and sustainable.



DAY 2 WEDNESDAY 6TH MARCH, 2024

09:45 -10:15

> SPOTLIGHT PRESENTATION

SPEAKER



PROF. DR. - ING. MATTHIAS FRANKE

Director of Energy Transition Fraunhofer Institute for Environmental, Safety & Energy Technology

10:15 - 10:45 | NETWORKING COFFEE BREAK

DAY 2 WEDNESDAY 6TH MARCH, 2024

10:45 - 12:30

S6: Enabling Technology CCUS & Decarbonisation

CCUS uptake needs to grow 120 times over by 2050 for countries to achieve their net-zero commitments. CCUS has been recognized as an essential and relatively low-risk piece of the decarbonization puzzle, but is the technology moving fast enough to achieve a 1.5° or even 2.0° pathway?

- Managing emissions
- Technologies in use and emerging new ones Upstream and Downstream perspective (case studies, learnings, assumptions)
- Manufactures' perspective (case studies, learnings, assumptions)

SESSION CHAIRS



ABDULAZIZ JAMAL A/AZIZ ALBEAJAN Senior Planning Engineer

KIPIC

SESSION KEYNOTE



SIDDARTH RAMADURAI Senior Advisor Energy Transition - Halliburton

Emissions Management

SPEAKERS



ENG. ABDUL HADI ALAJMI Research & Analytical Director - Equate

Sustainable Energy: Powering Kuwait's Industries & Economy towards net-zero Emissions



MOHAMMAD KHAIFD MOHAMMAD ALMOHSEN Senior Engineer Optimization & Capital Planning KIPIC

> Viability of Low Carbon Methanol **Production at Al-Zour Refinery**



KAMALJIT SINGH Asst. Professor GeoEnergy Engineering Heriot-Watt University



HOSAM ABDULRASOUL JAMAN Senior Engineer Optimization KPNC

The Energy Transition Initiatives by KNPC and our forward path



OLIVER HAGEN- SMITH Chief Technology Officer (CTO) KNCC

Elevated Pressure (EP) - CCUS



EBERHART WUSTERHAUS GOMEZ

Commercial Director - Europe Crbon Clean

DAY 2 WEDNESDAY 6TH MARCH, 2024

12:30 - 13:00

Spotlight Presention

SPEAKER



ELIE ADAIMY Group Head Business Development, Technology & Innovation, Gulf Cryo

DAY 2 WEDNESDAY 6TH MARCH, 2024

13:00 - 14:30

> S7: What will be the business model

More and more countries are recognizing the value of Hydrogen and CCUS in meeting their climate and energy goals, but there still is a gap between intention and action. Global project announcements are growing exponentially, nevertheless, the commercial deployment has remained relatively flat in the last decade. Can the emerging business models open the door to new investments, or transform the government-subsidized scenarios into public-private partnerships?

- What has the World to say
- Scaling up for commercial operations -lessons learnt
- Choosing the right path for Kuwait

SESSION CHAIR



DR. MOHAMMAD SABTI Senior Gas Engineer | Gas Operations Group Kuwait Oil Company

SPEAKERS



DR. AWWAL BAMANGA Assistant Director Nigerian Maritime Administration& Safety Agency

Challenge of Rapidly Changing Energy Transformation to cushion the effects of climate change and its impact on Port, Maritime and Logistics Sustainability



SHAHID HASAN Research Fellow, Energy Transition KAPSARC



HASAN JAFAR Engineer Process - Operations, Al-Zour LNGI KIPIC

Navigating the Green Horizon: Leveraging Past Success for Future Sustainability



YURI MELNIKOV Independent Hydrogen Policy Consultant UNECE Sustainable Energy Division

Role of National Hydrogen Strategies in Hydrogen Deployment: MENA and Global Trends



DR. MALEK AL-CHALABI Senior Carbon Pricing Policy Advisor Shell

14:30 | CLOSING, NETWORKING AND LUNCH

ABOUT AEP



The Association for Energy Professionals (AEP) Established in 2016 under the Abu Dhabi Global Market Authority, Abu Dhabi Chamber of Commerce, the Association for Energy Professionals (AEP) is a diverse community dedicated to supporting professionals in the oil and gas industry in the Middle East and across the globe. Through connecting, networking, and collaborating, we strive to solve major challenges facing the energy industry. We take pride in uniting professionals in this field under one roof. Come join us!

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