



Host Organization:



إحدى شركات مؤسسة البترول الكويتية  
A Subsidiary of Kuwait Petroleum Corporation

# 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**

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State of Kuwait**

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Energy Transition Series - Events POWERED BY:



**AEP**  
Association of Energy Professionals



# WELCOME

Dear Industry Colleagues,

It is our greatest pleasure and honor to chair the 1<sup>st</sup> 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



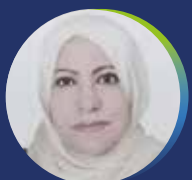
Program Committee Chair  
**ANDREY KROKHIN**  
Business Development Manager Halliburton



**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 ALBEJAN**  
Senior Planning Engineer  
KIPIC



**DR. KAMALJIT SINGH**  
Associate Professor Institute of  
GeoEnergy Engineering  
Herriot Watt University



**MOHAMMED AL-BISHARAH**  
Team Leader - Jurassic Operation  
Kuwait Oil Company



**DR. MOHAMMAD AL-SHAWAF**  
Environmental Scientist  
Kuwait University



**WAEEL HAMED A. MAOTI**  
Gas Industries Expert  
Organization of Arab Petroleum Exporting  
Countries "OAPEC"

# DAY 1

## TUESDAY 5<sup>TH</sup> MARCH, 2024

08:00 - 08:30

### ▶ Registration & Networking Coffee

08:30 - 08:40

### ▶ Opening & Welcoming Remarks

**ABDULLAH AL-MUTAIRI**  
Executive Committee Co-Chair

**PETER JENSEN**  
Executive Committee Co-Chair

**WALEED REFAAY**  
AEP Executive Director

08:40 - 09:20

### ▶ Opening Key notes

Regional decision-makers and top-ranking executives in policy, finance, technology, and industry will come together to deliver strategic keynote presentations that will drive Kuwait's future economy, offer advanced solutions to meet the energy demands of a growing population, and ensure sufficient fuel supplies and critical energy-related commodities at affordable prices, and the vision of hydrogen as an integrating force in the new global energy mix.

#### MODERATOR



**NADER SULTAN**  
Senior Energy Expert

#### SPEAKERS



**AMEENA RAJAB SALEH**  
Deputy CEO (Gas & Environment)  
Kuwait Oil Company



**DR. MARTHA CRAWFORD**  
Operating Partner at Macquarie  
Asset Management

# DAY 1

## TUESDAY 5<sup>TH</sup> MARCH, 2024

09:20 - 10:30

### ▶ 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 BERESTOS**  
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**  
Fellow - Utilities & Renewables  
KAPSARC

# DAY 1

TUESDAY 5<sup>TH</sup> MARCH, 2024

10:30 - 11:10

## ► Fireside Chat Session

### SPEAKERS



**LYNN AMMAR**

Partner

Cleary Gottlieb Steen & Hamilton - UAE

**Kuwait Hydrogen ascent,  
key issues and critical perspective**



**OLIVIA AZADEGAN**

Energy Transition Director

Clean Air Task Force Middle East, and North  
Africa (MENA)

11:10 - 11:20 | Sponsors Appreciation

11:20 - 11:45 | NETWORKING and COFFEE BREAK

# DAY 1

## TUESDAY 5<sup>TH</sup> MARCH, 2024

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 - Jurassic Operation  
Kuwait Oil Company



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

#### SPEAKERS



**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

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#### Clean Hydrogen Solutions for Kuwait's Power Generation Sector



**BASSEM ZAHER ELKADRI**  
Director Industry Value Advisory  
SAP



**JUSTIN SCHAEFFER**  
Licensing Technology Manager Gasification  
& Blue Hydrogen, Shell

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

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



# DAY 1

TUESDAY 5<sup>TH</sup> 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



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

### SPEAKERS



**WA'EL ALMAZEEDI**  
Chief Executive Officer  
Avance Labs

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The role of attribute tracking and certification in facilitating hydrogen trade



**DR. MICHAEL TSANG**  
Chief Carbon & Sustainability Accounting Officer  
Avance Labs

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Piloting the Hydrogen Passport- Case Study

# DAY 1

TUESDAY 5<sup>TH</sup> MARCH, 2024

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



**SAUSAN AL-RIYAMI**

Director  
Oman Hydrogen Center

### SPEAKERS



**WAEI A. MOATI**

Gas Industry Expert  
OAPÉC

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

# DAY 2

## WEDNESDAY 6<sup>TH</sup> MARCH, 2024

08:00 - 08:30

### ▶ Registration & Networking Coffee

08:30 - 09:45

### ▶ S5: Panel Discussion CCUS Challenges & Opportunities

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.

#### MODERATOR



**PETER JENSEN**  
ETSA Contract Manager  
North Kuwaiti Jurassic Gas - Shell

#### SPEAKERS



**ABDULLAH AL-MUTAIRI**  
Manager (Production & Projects - GAS)  
Kuwait Oil Company



**DR. MUHAMMAD MUHAMMADIEH**  
VP Large Industry  
Gulf Cryo



**OTMANE BENAMAR**  
Chief Technology Officer,  
Gas Power Europe, Middle East & Africa,  
GE Vernova



**SIDDARTH RAMADURAI**  
Senior Advisor Energy Transition  
Halliburton



**UWE ZWIEFELHOFER**  
Managing Director MENA  
Linde

# DAY 2

WEDNESDAY 6<sup>TH</sup> 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 6<sup>TH</sup> 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 ALBEJAN**  
Senior Planning Engineer  
KIPIC



**KAMALJIT SINGH**  
Asst. Professor GeoEnergy Engineering  
Heriot-Watt University

### ▶ SESSION KEYNOTE



**SIDDARTH RAMADURAI**  
Senior Advisor Energy Transition - Halliburton  
Envana Catalyst Emissions Management

#### SPEAKERS



**ENG. ABDUL HADI ALAJMI**  
Research & Analytical Director - Equate  
**Sustainable Energy: Powering Kuwait's  
Industries & Economy towards net-zero Emissions**



**HOSAM ABDULRASOUL JAMAL**  
Team Leader Environment - KPNC  
**The Energy Transition Initiatives by  
KNPC and our forward path**



**MOHAMMAD KHALED  
MOHAMMAD ALMOHTSEN**  
Senior Engineer Optimization & Capital Planning KIPIC  
**Viability of Low Carbon Methanol  
Production at Al-Zour Refinery**



**OLIVER HAGEN- SMITH**  
Chief Technology Officer (CTO) KNCC  
**Elevated Pressure (EP) - CCUS**



**EBERHART WUSTERHAUS GOMEZ**  
Commercial Director - Europe  
Carbon Clean

# DAY 2

WEDNESDAY 6<sup>TH</sup> MARCH, 2024

12:30 - 13:00

## ▶ Spotlight Presentation

### SPEAKER



**ELIE ADAIMY**

Group Director for Business Development,  
Technology & Innovation,  
Gulf Cryo

# DAY 2

## WEDNESDAY 6<sup>TH</sup> 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

**Navigating Regulatory Changes: Impacts on the African Bunker Market**



#### HASAN JAFAR

Engineer Process - Operations,  
Al-Zour LNG KIPIC

**Navigating the Green Horizon:  
Leveraging Past Success for Future Sustainability**



#### DR. MALEK AL-CHALABI

Senior Carbon Pricing Policy Advisor  
Shell



#### SHAHID HASAN

Research Fellow, Energy Transition  
KAPSARC



#### YURI MELNIKOV

Independent Hydrogen Policy Consultant  
UNECE Sustainable Energy Division

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

14:30 | CLOSING, NETWORKING AND LUNCH



## Taking a step forward with lower emissions and increased efficiency

Combining Carbon Storage with Enhanced Oil Recovery (EOR) utilizing Carbon Dioxide (CO<sub>2</sub>) injection has been significantly used to produce incremental oil while economically sequestering CO<sub>2</sub> and preserving oil wells. This process reinforces Gulf Cryo's contribution towards reducing carbon emissions.

Gulf Cryo brings an extensive experience spanned over 70 years in providing industrial gas solutions to the Oil & Gas industry. Our operational excellence comes from the distinct mobilization of energized CO<sub>2</sub> and our commitment to only provide CO<sub>2</sub> in a Clean form from our state-of-the-art Carbon Capture facilities, in a large and reliable manner.

If you are ready, our team of experts will help you shift to a greener and more efficient EOR.

UAE | KSA | KUWAIT | QATAR | BAHRAIN | OMAN | JORDAN | EGYPT | TURKEY | IRAQ



# We Accelerate the Energy Transition




## 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!

**Location:** D07, 11th floor, Al Sarab Tower ADGM Square, Al Maryah Island, Abu Dhabi, United Arab Emirates

## FOR MORE INFORMATION CONTACT US

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