

Under the patronage of

وزارة الطاقة والمعادن
Ministry of Energy and Minerals



**GREEN
HYDROGEN
SUMMIT**
OMAN

The future of energy

Green Hydrogen – From Vision to Action

Dec 12-15, 2023

Oman Convention & Exhibition Centre
Muscat, Sultanate of Oman



850 Billion

The estimated value of the Green
Hydrogen market in 2050

– Re-Think Energy

Connecting global leaders

GHSO 2023 is the largest Green Hydrogen event in the MENA region. Global decision makers in policy, finance, tech and industry will come together for discussions geared towards driving economies of the future and advancing energy solutions that can sustainably meet the energy demands of our growing population.

Ensuring uninterrupted and reliable fuel supplies and critical energy related commodities at affordable prices remains a fundamental goal. Governments and senior executives will highlight the critical role of Energy and how we can cooperate globally to achieve sustainable energy systems.

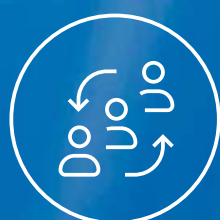


THIS EVENT IS BROUGHT TO YOU BY **BIRBA**

Uniting for a sustainable future



6000+
Visitors



3000+
Delegates



500+
Companies



100+
Speakers



50+
Exhibitors



100+
Countries

The renewable energy revolution has enabled a green hydrogen economy to come into focus. A hydrogen economy could compensate for the limitations of renewables as Hydrogen makes it feasible to imagine a complete energy transition.

With over 131 countries including Oman, committed to Net Zero by 2050, the Green Hydrogen industry is set to play a key role in shaping the energy industry. Learn how you can play a role in shaping this new industry.



THIS EVENT IS BROUGHT TO YOU BY **BIRBA**

5 strategic objectives to move into H₂



Ensure
energy
security



Diversify economies,
connect industries
and create new jobs



Decarbonize to
safeguard a
sustainable future



Create Green H₂ sectors
with a competitive LCOH
for export markets



Support innovation
and capabilities
development

6day event program

DECEMBER

10

11

12

13

14

15

BMW H₂ Driving tour
Dubai – Muscat

Exhibition

Exhibition

Exhibition

Field Visits

Masterclass Workshops

Conference

Conference

OCEC

Women in
Future
Energies

Energy
Executive
Circle

Gala
Dinner

KEMPINSKI

2day_{conference}

Join 100+ speakers from around the globe as they highlight opportunities green hydrogen presents in a Net-Zero world.

Held over two days, the conference raises awareness and inspires action in support of a sustainable energy future. It provides a platform to discuss the latest technological advancements, investment opportunities, and policy frameworks necessary for scaling up hydrogen infrastructure globally.

Through the conference program, stakeholders can unite to share success stories and ideas for collectively working towards reducing greenhouse gas emissions, raising new sustainable economies, and creating clean and resilient energy systems needed to power our world.



THIS EVENT IS BROUGHT TO YOU BY **BIRBA**

Conference themes

- Global H₂ Review
- Oman's Green Hydrogen Mission: From Vision to Action
- The challenge: Hydrogen production at scale
- Green Hydrogen Markets
- Hydrogen Supply Chain
- Policies, regulations & certification
- The role of hydrogen in the energy trilemma
- In country value: Hydrogen driving a green economy
- Green financing
- Sustainable H₂ mobility: Auto shipping & aviation
- Green Hydrogen innovation and start ups



Guided by our aspirations and empowered by strategic advantages, the Sultanate of Oman is poised, with the grace of Allah Almighty, to emerge as a premier global producer of green hydrogen by 2030. Our strategic vision aligns harmoniously with Oman Vision 2040, encompassing economic diversification, the advancement of renewable energy, and a resolute commitment to carbon emissions reductions on our path towards carbon neutrality by 2050. The momentum behind our newly announced projects and comprehensive hydrogen initiatives stands as a testament to both the allure of our investment landscape and our steadfast dedication to establishing Oman as a leading hydrogen hub and our ambitious energy transition strategy.

Firas Al-Abduwani PhD

*Director General of Renewable Energy and Hydrogen
Ministry of Energy and Minerals
Sultanate of Oman*



GHISO23 Conference program

DAY 1 WED 13 DEC		OCEC HALL 3
8:00 – 8:30		Registration & Opening Ceremony
KEYNOTE	8:30 – 9:00	
	Keynote	
	With an industry-leading regulatory framework and a first-of-its-kind public auction system for land blocks, Oman is clearly a frontrunner in the global green hydrogen race. As an emerging green hydrogen hub, Oman will be well-positioned to supply clean energy to support decarbonizing economies globally. For green steel and other hard-to-abate industries, Oman is ideal for investment.	
SESSION 1	Attendee insights	
	With over 131 countries, including Oman, committed to Net Zero by 2050, the Green Hydrogen industry is set to play a key role in shaping the energy industry.	
	9:00 – 10:05	
	Oman's Green Hydrogen Mission: From Vision to Action	EXECUTIVE PANEL
	Oman is on its way to becoming the Hydrogen hub of the Gulf. The Sultanate’s notable efforts in supporting hydrogen are showcased through strategic signings that have transitioned plans into action, driving progress and rallying support for hydrogen projects within the country.	
	Video by Ministry of Energy & Minerals and Hydrom	
10:05 – 10:30		Coffee Break
SESSION 2	10:30 – 11:30	
	Global H ₂ review	SESSION
	The hydrogen industry is set to play a key role in the future of global sustainable energy. Governments and industries are rallying behind Green Hydrogen as it enables the decarbonization of sectors like transportation, industry, and power generation, fostering economic growth and energy security while supporting the mitigation of climate change.Showcasing the latest updates from a regional and international perspective, lessons learned and good case practices.	
SESSION 3	11:30 – 12:30	
	The challenge: Hydrogen Production at Scale	SESSION
	Rolling out renewable hydrogen at scale entails the deployment of gigawatt electrolyzers to ensure sufficient resources. Additionally, integrating desalination at scale, renewables, and a robust grid infrastructure are crucial components. Overcoming these challenges is the key to realizing the full potential of hydrogen at scale.	
12:30 – 14:00		Lunch Break
SESSION 4	14:00 – 15:00	
	Green Hydrogen Markets	PANEL DISCUSSION
	This session offers a concise and informative exploration of the rapidly evolving market for green hydrogen. As governments and industries worldwide seek clean energy alternatives, green hydrogen is gaining traction as a versatile solution. In this session, experts and market analysts will discuss the current state of the green hydrogen market, including supply, demand, pricing trends, and emerging investment opportunities.	
SESSION 5	15:00 – 16:00	
	Policies, Regulations and Certification	PANEL DISCUSSION
	Developing effective policies, regulations, and methodologies is paramount for the widespread adoption of green hydrogen. Identifying and addressing gaps while leveraging global best practices ensures a supportive framework that incentivizes investment, fosters innovation, and promotes sustainability, driving the growth of the green hydrogen sector.	
16:00 – 17:30		Networking and exhibition

DAY 2 THURS 14 DEC		OCEC HALL 3
8:00 – 8:30		Welcome and introduction
SESSION 6	9:00 – 10:00	
	The Role of Hydrogen in the Energy Trilemma	PANEL DISCUSSION
	The growing demand for green hydrogen necessitates the active involvement of developers, deployment off-takers, and market shapers. Their collaborative efforts drive the affordability and scalability of green hydrogen solutions, unlocking its potential as a sustainable energy source for a wide range of applications.	
SESSION 7	10:00 – 11:00	
	Green Financing	SESSION
	This session focuses on the pivotal connection between green financing and national incentives, key components in driving sustainable initiatives. We will also emphasize the critical role of governments and policymakers in promoting sustainability through national incentives and Financial Institutions' Role in Sustainable Investments.	
11:00 – 11:30		Coffee Break
SESSION 8	11:30 – 12:30	
	Hydrogen Supply Chain	SESSION
	This session will delve into the intricacies of the hydrogen supply chain : the production, transportation, storage, and distribution of hydrogen, as well as the challenges and opportunities that lie along the supply chain. Experts will highlight the importance of developing domestic capabilities, creating jobs, and promoting technology transfer through strategies in support of 'In Country Value'.	
SESSION 9	12:30 – 13:30	
	Sustainable H ₂ Mobility: Auto Shipping & Aviation	SESSION
	Governments worldwide are actively implementing regulations to support low emissions vehicles. Hydrogen plays a significant role in decarbonizing the transport sector, offering zero-emission options with longer ranges and faster refuelling times. Its potential impact lies in enabling sustainable, clean transportation and reducing greenhouse gas emissions on a large scale.	
13:30 – 15:00		Lunch Break
SESSION 10	15:00 – 16:00	
	Green Hydrogen Innovation and Start Ups	EXECUTIVE PANEL
	Experts will shed light on various innovative processes, including electrolysis, water desalination technologies, and advanced storage methods, all of which contribute to the efficient and cost-effective generation of green hydrogen. The discussion will highlight the pivotal role of innovation in scaling up green hydrogen applications across diverse sectors.	
16:00 – 17:30		Networking and exhibition

GHSO23 Workshops

TUES 12 DEC

OCEC

8:00 – 8:30 Registration & Opening

WELCOME

8:30–9:00

Master class workshop – Icebreaker

For an engaging Masterclass, we will start the day with an icebreaker activity: GH2 Fact or Fiction: Each group will come up with 3 facts, two of which are true and one that is false. Each group will share their statement and the rest will guess which one is the false statement.

WORKSHOP 1

9:00–10:30

Hydrogen 101

The Green Hydrogen 101 workshop, where we'll explore the fundamentals of green hydrogen. Learn about the Hydrogen Rainbow, the production of Green Hydrogen through electrolysis using renewable energy sources. Discover its versatile applications in transportation, industry, and energy storage. Gain insights into the challenges and future potential of green hydrogen.

10:30 – 11:00 Coffee Break

WORKSHOP 2

11:00 – 12:30

Project Feasibility (Case Study)

In this in-depth session, we'll delve into the practical aspects of implementing green hydrogen projects. Using a real-life case study, we'll examine the feasibility factors, including resource availability, infrastructure requirements, GH2 Technico-economics...

12:30 – 14:00 Lunch Break

WORKSHOP 3

14:00–15:30

Green Hydrogen Certification Schemes

Certification mechanisms, challenges, and considerations for international hydrogen trade and its impact. Explore the various certification frameworks and standards that ensure the sustainability and traceability of green hydrogen production and use. Discover the key components of certification, including lifecycle analysis and carbon footprint.

WORKSHOP 4

15:30–16:00

In Country Value – Hydrogen driving a green economy

Green hydrogen offers transformative potential by generating in-country value through local production, reducing dependency on fossil fuels. This fosters job creation across the supply chain, from production to infrastructure development. Diversification is achieved by leveraging renewable resources, enhancing energy security, and paving the way for a sustainable new green economy.

16:00 – 17:30 Networking and exhibition

Gain in-depth insights into the field of Green Hydrogen and its value chain

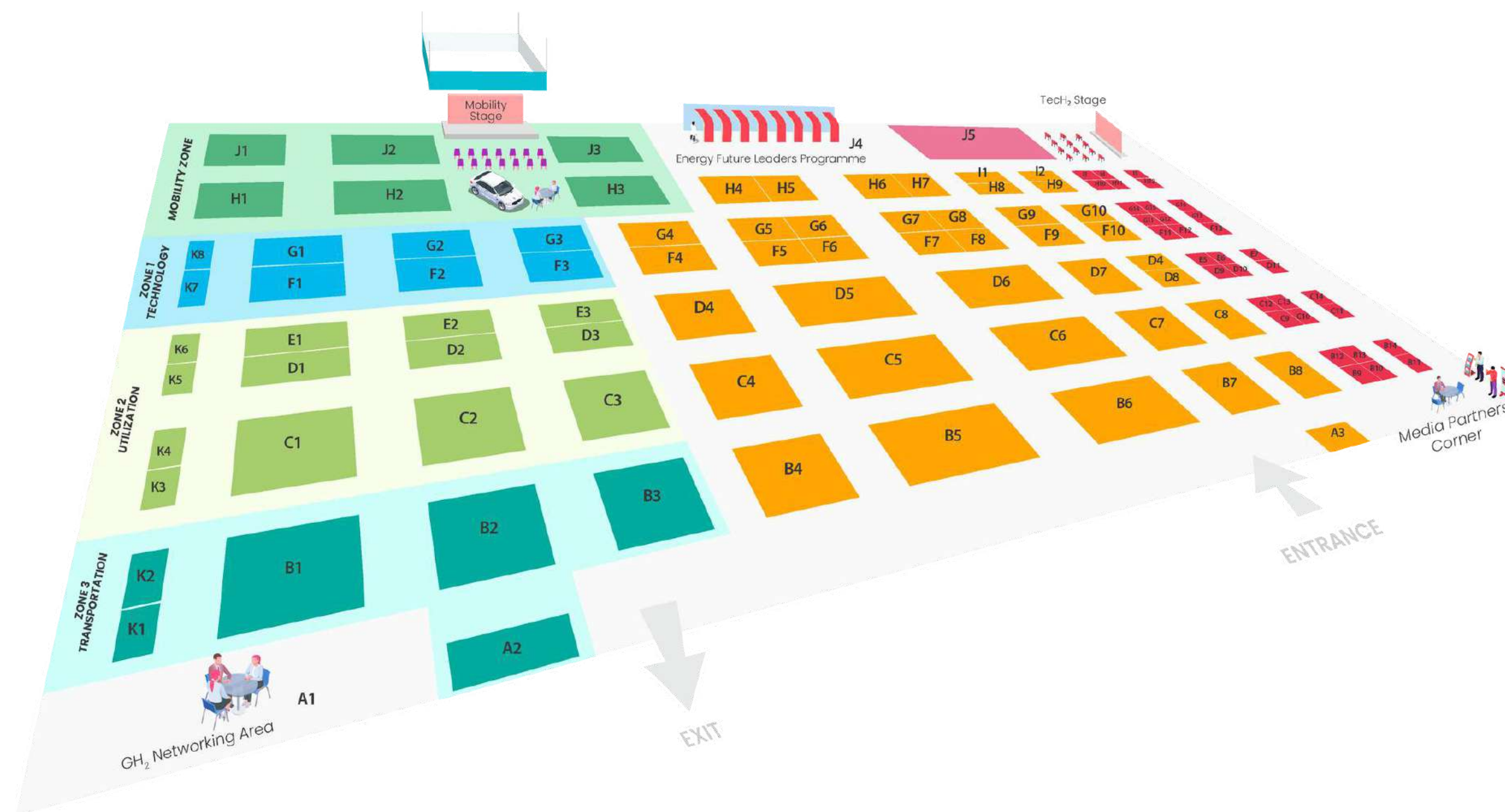
Connect and actively engage in practical exercises and collaborative activities with leaders from the industry. Learn from pioneers as they share their knowledge, experiences, best practices and provide cutting-edge insights.

3day_{exhibition}

Drive business growth and
connect with new customers

Action-packed and vibrant, the GH20 exhibition shares the latest solutions energy decision makers, industry experts, potential customers, media and offers an opportunity to generate widespread visibility for your products and services.

It serves as a powerful platform to showcase technology and promote innovations for sustainable energy. Through effective branding and presentation, exhibitions enhance brand recognition, build trust, and create a lasting impression.



GHSO23 Side events

ROAD SHOW	DEC 10	BMW Ultimate H₂ Driving Tour	DUBAI-MUSCAT	TALKS	DEC 12-14	Low Emissions Mobility Showcase	OCEC – EXPO
	Get revved up to embark on the ultimate driving tour powered by hydrogen! Swapping the sparkling skyscrapers of Dubai for the majestic mountains of Muscat, join our drivers as we set out to showcase the vehicles set to revolutionise cars as we know them. Our journey is a symbol of hope, demonstrating that a greener, carbon-neutral future is within reach.				Taking place within the expo area, this captivating series of talks takes the mobility stage. Experts and visionaries share their solutions, presenting revolutionary breakthroughs that could reshape mobility. From fuel cell technology, H ₂ as a fuel, utilisation and the latest developments in H ₂ vehicles, these talks explore the limitless potential of renewable hydrogen.		
NETWORKING	DEC 11	Women in Future Energies	OCEC	TALKS	DEC 12-14	TechH₂ Innovation Stage	OCEC – EXPO
	Women have a vital role to play in driving an equitable, safe and abundant future for our present and future generations. By nurturing a pipeline of women leaders, ‘Women in Future Energies’ seeks to foster inclusive and sustainable development, inviting women to unite, and harness their collective vision to promote progress and build a resilient future for all.				The TechH ₂ stage is located inside the expo area and is accessible to all visitors. Here, you will hear from start ups, students and inventors to learn what makes these tech pioneers tick and how their latest innovations work. Visionaries will present their challenges and ideas as we re-think the energy landscape and re-imagine a sustainable future.		
VI EVENT	DEC 12	Energy Executives Circle	KEMPINSKI	COMPETITION	DEC 12-14	Future Energy Leaders	OCEC – EXPO
	The Circle will come together from all corners of the globe in reflection on COP28 and what comes next. Bringing together the global leaders making an impact and accelerating the deployment of sustainable energy. They will share their thoughts on the current state and outlook of energy, the challenges and opportunities that will help drive progress.				Students compete to solve the world’s toughest energy challenges in the Energy Future Leaders competition. Students participating will share their solutions in support of green hydrogen. Challengers present their solutions to industry leaders, collaborate with like-minded peers, and compete for a chance to make a global impact.		
GALA	DEC 12-14	Gala Dinner + Awards	OCEC	FIELD VISITS	DEC 15	Field Visits	TO BE CONFIRMED
	Distinguished delegates will come together to network and celebrate a greener future, as they turn vision into action. Commitments are being made, new friendships are forged and global businesses are connected. Awards will be presented to visionary students whose ideas showcased a potent blend of sustainability and creativity in the Future Energy Leaders challenge.				Delegates explore the Sultanate while discussing ideas for harnessing renewable energy and unlocking new opportunities. They visit Oman’s centers for innovation and hubs of ingenuity to see groundbreaking technologies, disruptive ideas, and visionary projects under development.		

Executive committee



CHAIRMAN



H.E. Eng. Mohsin Al Hadhrami
Undersecretary
Ministry of Energy and Minerals



EXECUTIVE DIRECTOR



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Director General of Renewable
Energy and Hydrogen
Ministry of Energy and Minerals



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Founder and President
SVB Energy International
SVB Green Access



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Consultant
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Guy De Kort
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Oman Shell



Adithya Bhashyam
Associate
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BloombergNEF



Essam Al Sheibany
Group Vice President QHSSE
& Sustainability
ASYAD



Atsushi Suzuki
Chief Executive Officer
Marubeni
Middle East & Africa Power Limited



Technical committee



HEAD



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Senior Energy Renewal Advisor
Petroleum Development Oman
National Hydrogen Alliance
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Nasser Al Rizeiqi
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Oman LNG



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Turkey Baker Hughes



Olav Carlsen
Founder & Chief Executive
Officer
Hydrogen Rise



Organising committee



HEAD



Saif Al Salmani
Technical Director,
CC Energy Development



Alhaitham Al Mushefri
Director of
Communication & Media



Mohammed Al-Ghareebi
External Affairs &
Communications Manager at PDO



Rumaitha Al Busaidi
Business Development
Manager



Abdullah Al Harthi
Executive Chairman &
Founder



Tickets

Exhibition DEC 12-14

FREE for visitors

Masterclass workshop DEC 12

200 OMR
1 Masterclass
Coffee Break

Conference DEC 13-14

300 OMR

2 Day Conference pass
Coffee Breaks, Lunch
Conference Networking Area

Women in Future Energies DEC 11

50 OMR
Networking dinner

Field Trips DEC 15

Field trip locations
and events to be
confirmed



Exhibition booth prices

Space per SQM

150 OMR / SQM

Minimum 10.5 sqm

Includes complimentary delegate pass

Shell Scheme booth

2500 OMR

3x3m

- 3x3m floor area
- x1 Reception Table
- x1 Meeting Table
- x3 Chairs
- x1 – 40 inch LED TV
- x1 Plant

Branding specifications

- Wall area: 2.4m x 2.4m
- Header logo area: 2m x 0.6m
- Reception : 0.5m x 0.3m
- Pillar area: 0.6m x 1.2m

- * Utilities must be paid by the exhibitor
- * Exclusive of VAT





Everyone can play a role in building a better future. We believe in challenging the status quo, to build and innovate for a better world. At Birba we bring change makers together, through future focused events, media and intelligence. Our team are driven, solutions focused and inspired to shine a light on the industries and innovations which will shape the economies of the future. Supporting a better world through our events, media and intelligence.

Abdullah Al Harthy

Executive Chairman & Founder
Birba

Keep up to date with the latest event news by following us on social media or contact one of our experts for more information.

Sponsorship

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