

CET

## **Argus Green Ammonia** Live – Virtual Conference

10:00 AM 11:00 AM

24-25 March 2021 | Day 1

8.00 AM



7:00 PM

6.00 PM

CET	3:00 AM	5:00 AM	8:00 AM	10:00 AM	11:30 AM	2:00 PM	4:00 PM	5:15 PM	6:00 PM	7:00 PM
SGT	10:00 AM	12:00 PM	3:00 PM	5:00 PM	6:30 PM	9:00 PM	11:00 PM	12:15 PM	1:00 AM	2:00 AM
CDT	9:00 PM	11:00 PM	2:00 AM	4:00 AM	5:30 AM	8:00 AM	10:00 AM	11:15 AM	12:00 PM	1:00 PM
\genda	Regulatory policies in Japan, Singapore and Australia: Creating viable pathways for green ammonia • What are the pos- sible pathways for green ammonia within carbon neu- traity goals? How will this impact market players? • Supporting scal- ability and price competitiveness for green ammonia market creation • How will regulatory framework for dis- ruptive technolo- gies allow them to compete with the incumbents? Shigeru Muraki, Representative Director, Clean Fuel Ammonia Association (formerly Green Ammonia Consortium) Matt Walden, Investment Director - Innovation, Technology and Talent Development, MPA - Singapore Moderator Andrea Valentini, Principal - Consulting Services, Argus	The market for ammonia today: an overview and where to next? • What is the potential size of the market for green ammonia and what is its development timeline? • What are the main challenges for green ammonia uptake? Renewable energy supply: regional hotspots for renewable energy • Potential trade flows for the future: new opportunities beyond fertilizers, towards energy and transportation? Andrea Valentini, Principal - Consulting Services, Argus	<ul> <li>Financing and Infrastructure for Green Ammonia Projects and Market Development: Key Questions</li> <li>What are the most likely green am- monia applications for investment in the medium term?</li> <li>What are the key regulatory require- ments to get invest- ments going?</li> <li>Who will be the first players active in green ammonia? Who will be the first players active in green ammonia? Who will finance them, how, when and under what terms?</li> <li>Tim Buckley, Director of Energy Finance Studies, Australia/ South Asia, Institute for Energy Economics and Financial Analysis</li> <li>Frederic Lucenet, Global Head of Industry, European Bank Reconstruction and Development (EBRD)</li> <li>Bert van der Toorn, Managing Director, Energy Sector - Global Lead Hydrogen, ING Bank Moderator</li> <li>Neil D'Souza, Principal - Projects Consulting Services, Argus</li> </ul>	Keynote Panel: Building a Green Ammonia Market fit for supporting the Energy Transition • What is the current state of the green ammonia supply chain? • Which sectors will drive the growth of green ammonia? • Cross-sector growth opportunities in a hydrogen economy Sacha Thacker, Chief Strategy Officer, InterContinental Energy Magnus Krogh Ankarstrand, President Yara Clean Ammonia, Yara International David Herrero Fuentes, Chief Operating Officer, Fertiberia Moderator Ruth Sharpe, Editor- Ammonia, Argus	Creating a level playing field using regulatory frameworks • Where is policy emerging? • How will Europe implement hydrogen and Green Deal strategies? What are the possible pathways for green ammonia? How will this impact market players? • Supporting scal- ability and price competitiveness for green ammonia mar- ket creation within a hydrogen economy framework • How will regula- tory framework for disruptive technolo- gies allow them to compete with the incumbents? Jacob Hansen, Director General, Fertilizers Europe Matthew Williams, Principal Specialist - Strategic Regula- tory Projects, Lloyd's Register Bart Biebuyck, Execu- tive Director, Fuel Cells and Hydrogen Joint Undertaking (FCH JU) Andrea Gentili, Acting Head of Low Emission Moderator	<ul> <li>Demand side Panel: What do buyers need to see to make the switch to green ammonia?</li> <li>What price might consumers pay for green products</li> <li>How will consumers be motivated to pay for this product? (regulatory pressure? Product price?)</li> <li>Offtake guarantees for projects: pathways for green ammonia use in single vs. multi- use applications - how will this be supported by regulatory frameworks?</li> <li>Berit Hinnemann, Senior Innovation, Project Manager, Technical Innovation, Maersk</li> <li>Attilio Pigneri, Founder &amp; CEO, Hydrogen Utility</li> <li>Renate Krammer, Head of Innovation, Uniper</li> <li>Moderator</li> <li>Oliver Hatfield, VP, Business Development, Argus</li> </ul>	Developing large scale water electrolysis - technologies for the advancement of the green hydrogen value chain • Improving operational ratio improving the economics to ensure commercialisation possibility for green ammonia Presentation Dr. Andrei Zschocke, Senior Business Development Manager, thyssenkrupp Panel discussion Andrew Dickson, Development Manager, Asian Renewable Energy Hub, CWP Renewables Dr. Franziska Blindow-Prettl, CEO, Planet Power Finance Cosma Panzacchi, Executive Vice President Hydrogen Business Unit, Snam Moderator	Roundtable with thyssenkrupp Contact the conferences team to find out more.	<ul> <li>Where to start? Adapting ammonia plants for green ammonia production vs. new builds</li> <li>Hybrid vs. new builds: the near term and long-term solutions</li> <li>Moves toward making green ammonia OPEX and CAPEX competitive: outlooks for renewable energy supply and electrolyser scalability</li> <li>Using artificial intelligence and big data analysis for an effective transition</li> <li>Denis Thomas, Global Business Development leader, Fuel Cell &amp; Hydrogen Technologies, Cummins</li> <li>Cedric Phillbert, Associate Research Fellow, Centre for Energy &amp; Climate, IFRI</li> <li>Nikolaj Knudsen, senior Director, Haldor Topsoe</li> <li>Moderator</li> <li>Ruth Sharpe, Editor - Ammonia, Argus</li> </ul>	<ul> <li>Blue ammonia's role in the transition toward green ammonia in a hydrogen economy</li> <li>Does blue ammoni have a place as a bridge between greand green ammonia?</li> <li>Is the shift to green inevitable? How low will the blue ammoni in a market last?</li> <li>Will the carbon credentials of blue ammonia incentivi people to use ammonia as a fuel?</li> <li>Tue Johannessen, Head of Maritime Application and Viability, Maersk McKinney Moller Cente for Zero Carbon Shipping</li> <li>Jitendra Roychoudhury, Research Fellow, Kir Abdullah Petroleum Studies and Researc Center (KAPSARC)</li> <li>Ashley Harris, Senior Director, Environmental Performance and Innovation, Nutrien Henrik Solgaard Andersen, Vice President Low Carbo Solutions, Equinor Moderator</li> <li>Stephen Crolius, President, AEA</li> </ul>

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Fertilizer Petroleum Power illuminating the markets



## **Argus Green Ammonia** Live – Virtual Conference

24-25 March 2021 | Day 2



CET	5:00 AM	9:00 AM	10:30 AM	12:00 PM	2:00 PM	4:00	6:00 PM	
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CDT	11:00 PM	3:00 AM	4:30 AM	6:00 AM	8:00 AM	10:00 AM		
CDT Agenda		Green Ammonia as Part of a Matrix solution for the Future of Marine Fuels • Standards for the market: a robust regulatory framework from the IMO for 2050 goals? • Realising economies of scale: creating an attractively priced solution for the maritime industry • Location, location, location: infrastructure and proximity to existing storage facilities – plans for expansion? Hugo De Stoop, CEO, Euronav Rob Stevens, Director Ammonia Energy and Shipping Fuel Climate Neutrality, Yara International Charles Haskell, Decarbonisation Programme Manager, Lloyd's Register Aoife O'Leary, Director - International Climate, Environmental Defense Fund Moderator Nicolas Ganas, Business Development Manager, Argus	4:30 AM Engine Technology Innovation for the Future: Designing an Engine in the 2020s for 2050 carbon-neutrality goals • What are the possibilities and options seen so far for ammonia engines? Two stroke vs ICE? • What are shipowners' considerations for converting to ammonia- powered engines? • Where will there be the most uptake in use of ammonia fuelled engines? Kield Aabo, Director New Technologies, MAN ES Kaj Portin, GM Sustainable Fuels & Decarbonisation, Wärtsilä Ulrik Andersen, CEO, Golden Ocean Management Moderator Will Collins, Editor - Freight, Argus	6:00 AM Market synergies for ammonia supply? Potential future interactions between the fuel, power and fertilizer sectors • Connecting supply and demand for hydrogen: The benefits of green ammonia as an energy carrier • Will ammonia producers? Is the fertilizer market a real market for green ammonia? • Which sector will develop fastest and in which part of the world? Hans Vrijenhoef, CEO, Proton Ventures Inti Serrano, Green Ammonia Project Manager, Trammo Moderator Andrea Valentini, Principal - Consulting Services, Argus	What is a European infrastructure that supports ammonia's		Roundtable Power-to-X: linking renewable energy into clean fuels Led by Tristan Chapman, Senior Vice President - Clean Energy, Lloyd's Register Contact the conferences team to find out more.	12:00 PM Round-up Panel: The strategic importance of green ammonia in the transition to a hydrogen economy and how might this be achieved? Trevor Brown, Executive Director, Ammonia Energy Association Grigorii L. Soloveichik, Program Director & Senior Advisor, ARPA-E & Hydrogen and Fuel Cell Technology Office, US Department of Energy Jitendra Roychoudhury, Research Fellow, King Abdullah Petroleum Studies and Research Center (KAPSARC) Dr Dolf Gielen, Director- Innovation and Technology Centre, IRENA Moderator Oliver Hatfield, VP Business Development, Argus
	Associate, Sumitomo Chemical (Innovation Strategy Coordinator, Energy Management, SIP) Akihiko Taniguchi, Executive Officer Global Partnerships, JERA Eiji Ohira, Director General, Fuel Cell and Hydrogen Office Advanced Battery and Hydrogen Technology Dept., NEDO Moderator: Andrea Valentini, Principal - Consulting Services, Argus					Joacim Christiansen, SVP Sustainable Food Ecosystem, Yara International Tobias Birwe, Head of Sales Fertilizer and Methanol, thyssenkrupp Jean-Luc Pradal, Director General, Fertiberia France Moderator Oliver Hatfield, VP, Business Development, Argus		

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