

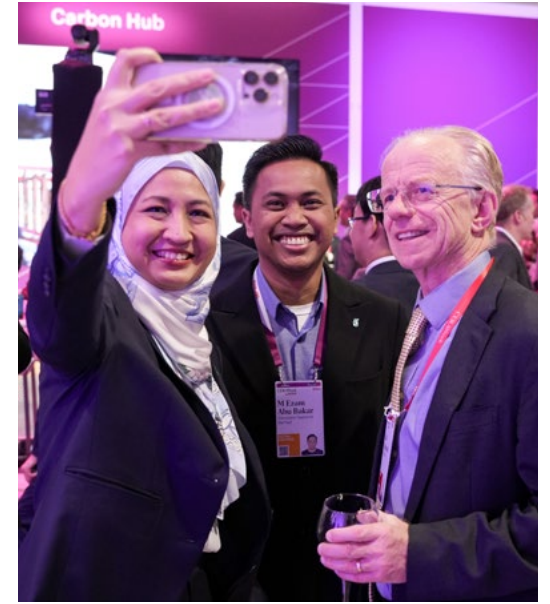
CERAWeek[®]
by S&P Global

innovation
agora

Multidimensional Energy Transition: Markets, climate, technology and geopolitics

Innovation Agora in Review

March 18–22, 2024



Innovation Agora @ CERAWeek

The Innovation Agora @ CERAWeek convened an energizing community of visionaries, technologists, startup entrepreneurs, VCs and investors, policy makers and corporate innovators—all dedicated to creating solutions to the greatest challenges facing our energy and environmental future.

Our focus is on showcasing and advancing transformational technologies—including those in AI and digital, renewables and e-mobility, hydrogen and CCS, advanced nuclear, decarbonization and electrification, quantum networks and computing, robotics and drones, advanced materials, smart cities and the built environment, workforce development and more.

The Agora is a vibrant marketplace of ideas on energy innovation, emerging technologies and solutions — with opportunities to learn, connect and ideate.

We offer many thanks to our Partners for their collaboration and commitment to the Innovation Agora and its mission. We are deeply thankful to our speakers, Partners and participants for their engagement—and their contributions to making Agora a unique and valuable gathering of the global energy community.

Sincerely,



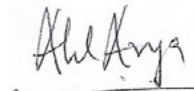
Ken Downey

Executive Director & Conductor,
Innovation Agora
S&P Global Commodity Insights



Jamey Rosenfield

CERAWeek Founder,
Co-Chair & Instigator;
Senior Advisor, S&P Global




Atul Arya


SVP & Global Energy Strategist,
S&P Global;
Agora Mastermind, CERAWeek
Steering Committee


CERAWeek 2024 Highlights

Speakers

 **1,400+**
Speakers
from **50** countries

 **80**
Ministers & Top Officials
from **25** countries

 **275+**
Women Speakers

 **450**
C-Suite Executives

 **250**
Startups




Scan or click here to
download the CERAWeek
in Review 2024.

Program

 **650+**
Sessions

 **50+**
Partner Forums & Summits

 **12**
S&P Global Expert Zones

 **3**
Book Signings

 **214**
Agora Pods

 **51**
Lyceum Labs

 **8**
Agora Houses

Community

 **10,000+**
Participants

 **2,650+**
Agora Pass Holders

 **400**
Government & Regulatory
Officials

 **2,500+**
Women Participants

 **80**
Countries

 **112**
Partners

 **2,050+**
Companies

About CERAWeek

CERAWeek is comprised of three mutually reinforcing platforms designed to share ideas and foster relationships.



The **Executive Conference** provides an integrated framework for understanding what's ahead for global energy markets and geopolitics. Sessions focus on the most relevant themes and topics for the energy industry addressed by the most prominent voices in the industry.



The **Innovation Agora** is an immersive and dynamic program advancing the energy innovation ecosystem and fostering solutions to the greatest challenges. The Agora utilizes creative interactive formats to foster an open marketplace for ideas, dialogue, experiences and connections.



Partner and Professional Development Programs include Leadership Circles—exclusive gatherings designed to promote high-level interaction among senior executives and officials; EPICs (Energy Partner Informal Dialogues)—dialogues with senior public officials; and programs that foster engagement by emerging leaders and communities.

Innovation Agora Highlights



10,000
CERAWeek
Participants
2,650+ Agora
Pass Holders



50
Agora Studios



8
Agora Houses



660
Speakers



10
Voices of
Innovation



5
Partner
Installations



440+
Sessions



109
Agora Hub
sessions



1,020+
Companies



250
Startups



214
Pods



85
Countries



45
Agora Partners



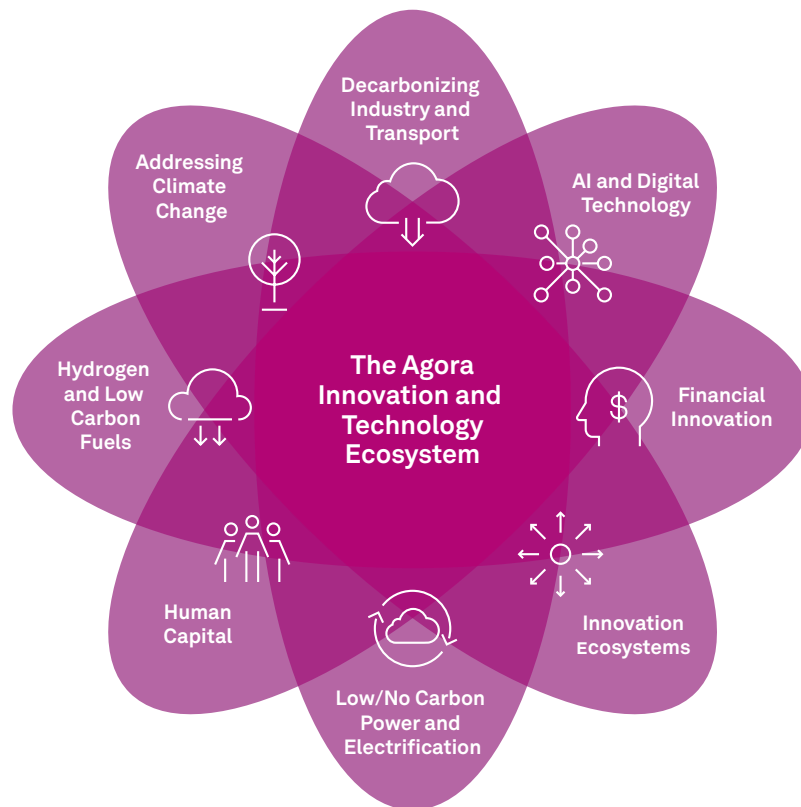
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Lyceum Labs

Innovation Agora Themes

The Innovation Agora @ CERAWeek fosters energy innovation and advances solutions to the world's greatest energy and sustainability challenges. The Agora is a marketplace for ideas, dialogue, new experiences and connections. This exciting community of startups, technologists, investors, academics, energy companies and government officials are all dedicated to shared learning and exploration.

The program features unique formats, interactive dialogue and conversations about global energy innovation and technology ecosystem.

Key themes and technology pathways featured across the Agora are rooted in innovation and energy transition solutions:



“I think the Agora format is really very effective. It gives a chance with a real exchange first of all, with colleagues... I think the circular stage format is a very effective one for having the audience feel part of the conversation.”

– Dr. Ernest Moniz, Founder & CEO, Energy Futures Initiative; 13th U.S. Secretary of Energy; & Founding Director, MIT Energy Initiative (MITEI)

Innovation Agora Formats

Agora Studios — interactive conversations and discussions on emerging and disruptive technologies and models of innovation.

Voices of Innovation — in-depth interviews highlighting journeys and insights by pioneers and thought leaders.

Agora Pods — deep-dive presentations, case studies and startup “pitches” in a close-up, relaxed setting.

Agora Hubs — dedicated Hydrogen, Carbon and Climate areas featuring interactive presentations and discussions, receptions and more.

Agora Houses — a glimpse of what’s ahead from some of the world’s preeminent energy and technology companies, offering remarkable experiences, engagements and connections.

Installations — Partner Installations in the Agora Atrium invited delegates to learn more about emerging technologies.

Lyceum Labs — seminars on key topics and technologies offering high-impact learning and engagement with experts.

Technology Corridor — Dedicated space for delegates to speak with a number of our Agora Pod presenters in a more relaxed and interactive setting.

Agora Café — perfect place to meet and exchange ideas over locally roasted coffee.

Clean Energy Commons — networking gathering space surrounded by innovative partner and Agora sessions.

Agora Car Show — an immersive experience for CERAWeek delegates to see and learn the narrative behind each Partner’s vehicle and its impact on the future of energy and mobility.

Book Talks and signings... and more!



Jennifer Granholm, U.S. Secretary of Energy

Speaker Highlights



Book Talk with **Antonia Bullard** (Chair), Climate and Energy Strategy Advisor, S&P Global and **Yasheng Huang**, Epoch Foundation Professor of International Management, MIT Sloan School of Management & author of *The Rise and Fall of the EAST: How Exams, Autocracy, Stability, and Technology Brought China Success, and Why They Might Lead to Its Decline*



Walter Isaacson, Leonard Lauder Professor of American History and Values, Tulane University & author



Evelyn N. Wang, Director, Advanced Research Projects Agency-Energy (ARPA-E), U.S. Department of Energy



Van Jones, CNN host, best-selling author & social entrepreneur, Dream Machine Innovation Lab



Barbara Burger, Senior Advisor, Lazard

Speaker Highlights



Jigar Shah, Director, Loan Programs Office, U.S. Department of Energy



Ernie Moniz, Founder & CEO, Energy Futures Initiative; 13th U.S. Secretary of Energy; & Founding Director, MIT Energy Initiative (MITEI)



Jennifer Holmgren, Chairman & CEO, LanzaTech



Hon. Mary Landrieu, Senior Policy Advisor, Van Ness Feldman LLP & former U.S. Senator, Louisiana



Maria Pope, President & CEO, Portland General Electric



Ramamoorthy Ramesh, VP, Research, Rice University



Lord Browne of Madingley, Chairman, BeyondNetZero, General Atlantic



H.E. Michał Kurtyka, President, COP24



Dr. Sama Bilbao y Leon, Director General, World Nuclear Association



Vicki Hollub, President & CEO, Oxy

AI and Digital Technology

Topics included:

- Breakthrough Applications of AI
- Role of AI in Achieving Net Zero
- AI's Expansion in Energy Sectors
- Digital Twin Technologies
- Robotics and Remote Operations
- Machine Learning Applications
- Scale and Security Through Data-driven Digital Technologies
- Predictive Analytics and Simulation
- AI and Large Language Models
- Blockchain Applications in Energy
- Quantum Computing Advancements
- Industrial IoT and Sensor Technologies
- Cybersecurity and Infrastructure Risk
- V/R, A/R and X/R
- Agile Design, Generative AI and New Materials
- 5G, Connected Cars and Mobility Technologies



Agora Studio **Robotics and Drones: Applications in automation and safety** with **Judson Jacobs** (Chair), Executive Director, Energy Technology & Innovation, S&P Global; **Troy Demmer** (back to camera), Co-Founder & CPO, Gecko Robotics; **James Bellingham**, Executive Director, Johns Hopkins Institute for Assured Autonomy, Johns Hopkins University; **Aziz Sulaiman Rahim**, Principal, Siemens Energy Ventures; and **John Gibson**, CEO, Nauticus



Agora Studio **Applying Digital Technologies Across the Energy Value Chain** with **Judson Jacobs** (Chair), Executive Director, Energy Technology & Innovation, S&P Global; **Gino Hernandez**, Head of Digital, ABB Energy Industries, ABB Inc.; **Rebecca Hofmann**, President & CEO, Blockchain For Energy; and **Patrick Raab**, Head of BD & Commercialization, Google X



Agora Studio **Quantum Technologies: A gamechanger for energy and climate?** with **Vijay Swarup** (Chair), Senior Director, Climate Strategy and Technology, ExxonMobil



Agora Studio **The Role of Digital and AI in Accelerating the Innovation Cycle** with **Arman Zaribafiyani**, Head of Product, SandboxAQ and **Judson Jacobs** (Chair), Executive Director, Energy Technology & Innovation, S&P Global



Learning Lyceum **B4E | Unlocking the Future: The convergence of IoT, AI and blockchain** with **Camilo Mejia**, CEO, Enovate AI, B4E Member



Agora Studio **Governance & Regulation of AI** with **Noel Phillips**, SVP, Americas, AVEVA Software LLC



Agora Studio **What Will Be the Power Demand for AI?** with **Brandon Marshall**, Global Marketing Manager, Immersion Cooling and Automotive, The Chemours Company

Hydrogen and Low-carbon Fuels

Topics

- Hydrogen, Sustainable Gas and Biofuels
- E-fuels and Synthetic Fuels
- Mobility and Freight with Hydrogen
- Low-carbon Fuel Solution Disruptors
- Financing Hydrogen Markets
- Hydrogen Economy Regionally/Local Hydrogen Hubs
- Decarbonizing Shipping, Ocean Freight and Aviation Fuels
- Meeting Climate Goals with Green Hydrogen Applications
- Hydrogen Solutions to transform Hard-to-abate Sectors
- Hydrogen as an Energy Carrier



Hydrogen Hub **To the Moon: Hydrogen and nuclear as space propulsion** with **Laurent Ruseckas** (Chair), Executive Director, Investing in Energy, S&P Global; **Franklin Chang Díaz**, CEO, Ad Astra Rocket Company; and **Paolo Venneri**, EVP, Advanced Technologies, Ultra Safe Nuclear



Accelerating the Energy Transition with Hydrogen. Pictured above **Naomi Boness**, Managing Director, Natural Gas Initiative; Co-Managing Director, Hydrogen Initiative, Stanford University



Hydrogen Hub **Green Molecules for the Refinery: The value chain of hydrogen** with **Brooke Vandygriff**, COO, HIF Global



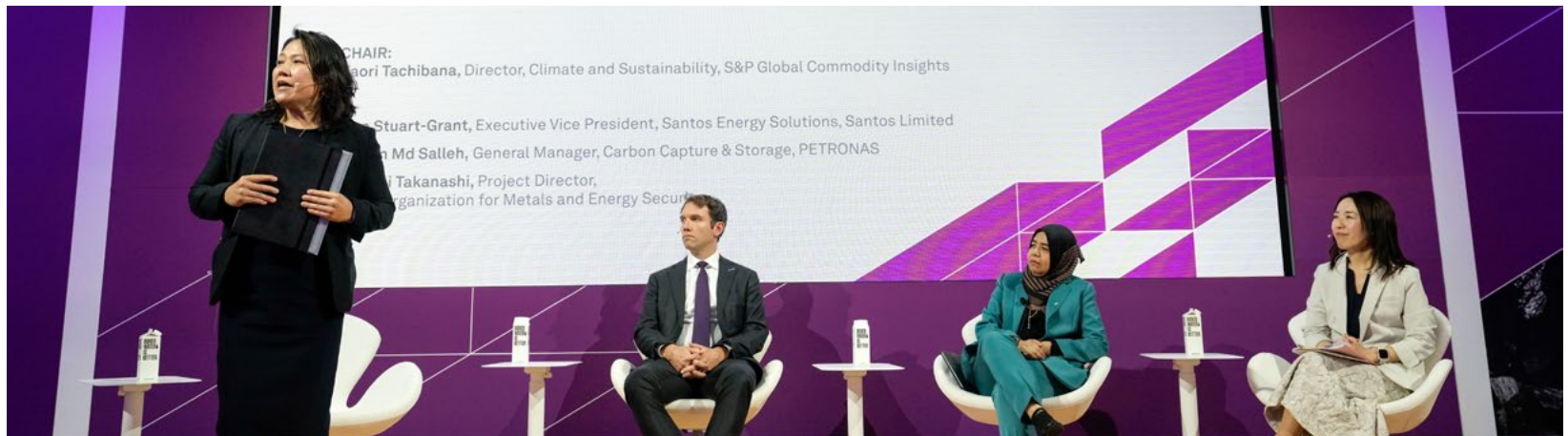
Hydrogen Hub **Innovative Hydrogen Financing** with **Anthony Omokha**, Managing Director, Ares Management Corporation



Hydrogen Hub **Hydrogen Technologies to Achieve Net Zero** with **Irina Gorbounova**, VP, M&A & Head of XCarb Innovation Fund, ArcelorMittal



Hydrogen Hub **Flying with Hydrogen** with **Ayesha Choudhury**, SVP, Head of Capital Markets, Infinium



Carbon Hub **Unlocking CCUS and Low-carbon Solutions in Asia** with **Kaori Tachibana** (Chair), Director, Climate and Sustainability, S&P Global Commodity Insights; **Alan Stuart-Grant**, EVP, Santos Energy Solutions, Santos Limited; **Nora'in Md Salleh**, General Manager, Carbon Capture & Storage, PETRONAS; and **Masumi Takanashi**, Project Director, Japan Organization for Metals and Energy Security

Hydrogen and Low-carbon Fuels



Making Low-carbon Gases: Ammonia, e-methane, e-NG with **Rebecca Boudreaux**, President & CEO, Oberon Fuels



Shipping with Hydrogen: Meeting IMO 2050 goals with **Jenny Yang** (Chair), Senior Director, S&P Global Commodity Insights; **Jeffrey Norman**, VP, Large Project Business Development for the Americas, Air Products & Chemicals, Inc.; and **Yves Vercaemmen**, Chief Corporate Officer, TES (Tree Energy Solutions)



Repurposing Infrastructure for Hydrogen with **Shankari Srinivasan** (Chair), VP & Global Lead of Gas, LNG and Hydrogen, S&P Global; **Zach Jones**, Co-Founder & CEO, C-Zero; **Ana Quelhas**, Managing Director for Hydrogen, EDP Renewables and **Yuri Freedman**, Senior Director, Business Development, Southern California Gas Company (SoCalGas)



Matchmaking with Hydrogen: Finding off-takers to secure financing with **Laurent Ruseckas** (Chair), Executive Director, Investing in Energy, S&P Global; **Andrew Stuart**, President & CEO, Hydrogen Optimized; **Mike Adams**, SVP, Capital Management, 8 Rivers; **Ahmed El Sherbiny**, VP, Energy Transition Fund, Copenhagen Infrastructure Partners



Creating Demand Market Mechanisms: Make or break for the hydrogen industry with **Eleonor Kramarz** (Chair), Global Head, Energy Transition Consulting, S&P Global; **Alex Kizer**, COO/Managing Director, EFI Foundation/Hydrogen Demand Initiative (H2DI); **Susana Moreira**, Executive Director, H2Global Stiftung; and **Leslie Biddle**, Senior Advisor to the Undersecretary for Infrastructure, U.S. Department of Energy

Decarbonizing Industry and Transport

Topics

- Carbon Capture, Utilization and Storage (CCUS)
- Methane Abatement in Practice
- Industrial Decarbonization Stories
- Carbon Removal: Technical and Natural Solutions
- Innovative Uses for Carbon and Waste Products
- Managing Supply Chains for Low Emissions
- EVs — Adoption, Charging and Batteries
- Electrification of Transport Beyond Passenger Cars
- Cities and Urban Centers of the Future
- The New Future of E-Mobility
- Innovations to Achieve Scale and Transform Hard-to-abate Sectors
- Innovative Materials and the Built Environment
- Energy-efficient Buildings and Facilities
- Autonomous Vehicles Technologies



Carbon Hub **Decarbonizing Shipping: Economics and risk considerations** with **Rahul Kapoor** (Chair), VP, Global Head of Shipping Analytics & Research, S&P Global; **Christopher Wiernicki**, Chairman & CEO, American Bureau of Shipping (ABS); **Seonghoon Woo**, CEO, Amogy; and **Hyoung-Seog Kim**, Head of Product and Technology Strategy, CTO, Hanwha Ocean



Carbon Hub **Solutions to Decarbonize Hard-to-abate Sectors** with **Kai Guo**, VP, Hydrogen Infrastructure Development, Mitsubishi Power



Agora Studio **Global Biofuel Policy** with **Corey Lavinsky** (Chair), Consulting Director, S&P Global Commodity Insights; **Donna Warndorf**, Head of Public Affairs, Americas, Neste; **Paola Rodriguez Masiu**, Head of Research and Trade Analytics, STX Commodities; and **Paula Kovarsky**, Chief Strategy, VP for M&A, Sustainability, Raízen



Agora Studio **Tripling Renewables by 2030: Supply chain challenges** with **Nathalie Oosterlinck**, Managing Executive Officer, Head of the Global Renewable Energy Division, JERA Co., Inc.



Carbon Hub **Accelerating CO₂ Transportation and Storage Solutions** with **Judson Jacobs** (Chair), Executive Director, Energy Technology & Innovation, S&P Global; **Daniela Abate**, VP, Carbon Capture, Utilization & Storage, Baker Hughes; **Sverre Brandsberg-Dahl**, Partner, Chief Technology Officer - MCI, Microsoft; and **Torgeir Stordal**, Director General, Norwegian Offshore Directorate

Low/No Carbon Power and Electrification

Topics

- Electrifying Everything: Low-carbon Initiatives
- Next Generation Solar and Wind
- Advanced Nuclear (SMR) Technology
- Battery Storage Technologies
- Commercial Fusion Power Generation
- Microgrids and Grid Integration
- Transitioning Clean Energy Supply Chains with New Materials
- Alternative Renewable Technologies
- Geothermal Energy for Power Generation
- Energy Storage Systems Beyond Batteries
- Energy Demand Management Solutions



Agora Studio **Women Leaders in Cleantech** with **Antonia Bullard**, Climate and Energy Strategy Advisor, S&P Global; **Jennifer Holmgren**, Chairman & CEO, LanzaTech; **Megan O'Connor**, Co-Founder & CEO, Nth Cycle; and **Dr. Sama Bilbao y Leon**, Director General, World Nuclear Association

“(At the Agora) you get to see a lot of technology, a lot of startups trying to do things, a lot of real creative innovation - both in business model and in technology that’s happening.”

– Anish Simon, VP, Carbon Removal, Equinor



Agora Studio **Advanced Nuclear, Microreactors and SMRs: Ready for deployment?** with **Sylvain Cognet-Dauphin** (Chair), Research & Analysis Executive Director, S&P Global; **Dr. Ernest Moniz**, Founder & CEO, Energy Futures Initiative; 13th U.S. Secretary of Energy; & Founding Director, MIT Energy Initiative (MITEI); and **Sandra Dykxhoorn** (back to camera), VP, New Nuclear Growth, OPG



Hydrogen Hub **Everything Is Bigger in Texas: Building hydrogen city** with **Brian Maxwell**, Founder & CEO, Green Hydrogen International



Agora Studio **Latest Developments in Smart Grid Technology Enabled by AI** with **Rashika Gupta** (Chair), Senior Director, S&P Global; **Rolf Gibbels**, Head of Worldwide Business Development, Energy & Utilities Industry, Amazon Web Services; **Rima Oueid**, Senior Commercialization Executive, U.S. Department of Energy; **Chris Dartnell**, SVP, Power Systems, Schneider Electric; and **Andrew Scobie**, Founder & Chief Technology & Product Officer, Enoda



Agora Studio **Geothermal: How big is it going to get?** with **Lauren Boyd**, Director, Geothermal Technologies Office, U.S. Department of Energy and **Andrei Utkin** (Chair), Associate Director, S&P Global



Hydrogen Hub **Port of Rotterdam: The European hydrogen hub** with **Simon Thorne**, Climate & Energy Transformation Lead, S&P Global and **Tim de Knecht**, Manager Strategic Finance & Treasurer, Port of Rotterdam



Hydrogen Hub **Hydrogen Goes Nuclear: Electrolyzers and reactors** with **Rick Beuttel**, VP, Global Hydrogen Business, Bloom Energy

Low/No Carbon Power and Electrification



Best Regulatory Practices for Reducing Methane Emissions with **Dr. Faye Gerard**, Energy Transition Director, Iogp



Shaping the Capital Stack Across Carbon Management Solutions with **Mahdi Aladel**, CEO, Aramco Ventures



Effectively Decarbonizing the Electricity Grid with **Hanna Grene**, Global Go-to-Market and Operations, Energy and Resources, Microsoft; **Rick Clark**, VP, Strategy and Product Solutions, NextEra Energy; **Alexina Jackson**, VP, Strategic Development, AES Corporation



Flying with Sustainable Aviation Fuel: The future is now with **Corey Lavinsky** (Chair), Consulting Director, S&P Global Commodity Insights; **Meg Whitty**, VP, Corporate Relations & Marketing, LanzaJet; **Pat Gruber**, CEO & Board Director, Gevo, Inc.; and **Patricia Ornst**, Managing Director, State and Local Government Affairs, Delta Air Lines



Innovations in Sustainable Steel with **Deb Ryan** (Chair), Head of Emissions Insight, S&P Global Commodity Insights; **Samantha Gross**, Director, Energy Security and Climate Initiative, The Brookings Institution; **José Fonrouge**, Global Sustainability Senior Director, Ternium; and **Irina Gorbounova**, VP, M&A & Head of XCarb Innovation Fund, ArcelorMittal

“The Agora does a fabulous job of giving everything from fundamental research to companies like ours an opportunity to participate not just in describing what they are doing today, but in formulating what the energy system of the future will look like.”

– Paul Domjan, Founder, Chief Policy & Global Affairs Officer, Enoda

Innovation Ecosystems

Topics

- Business Models for Innovation Advancement
- Energy Transition and Creating New Businesses and Industries
- Investment and Funding for Innovation
- Global Energy Innovation Ecosystems
- Strategies for Achieving Scale and Commercialization
- Innovation Incubation and Universities
- Government Innovation and the Energy Ecosystem
- The Power of National Labs in Energy Innovation
- Influence and Support from Corporate Technology Divisions



Agora Studio **Pilots to Projects: The road to customers and success** with **Daniel Goldman** (back to camera), Managing Partner, Clean Energy Ventures and **David Yeh**, Climate OG, Capitol Hill

“I found the Innovation Agora to be outstanding from a networking and knowledge leadership standpoint...Great, frank and honest dialogue of our challenges in this area across the ecosystem, and superb networking”

– Jeff Benoit, VP – Global Clean Energy Solutions, PSM – a Hanwha Company



Agora Studio **Advancements in Circularity and Mining** with **Mark Ferguson** (Chair), Research Director, Metals & Mining, S&P Global and **Gabi Knesel**, SVP, Locus Mining



Carbon Hub **Leadership and Mindset for Low-carbon Transformation** with **Sushil Purohit**, CEO, Gentari



Agora Studio **IRA at One and a Half Years: What is the impact?** with **Roman Kramarchuk** (Chair), Head – Climate Markets and Policy Analytics, S&P Global Commodity Insights and **Jigar Shah**, Director, Loan Programs Office, U.S. Department of Energy



Climate Hub **Innovation Odyssey: Evaluating the journey from lab to market** with **Vanessa Chan**, Chief Commercialization Officer & Director of the Office of Technology Transitions, U.S. Department of Energy; and **Ramamoorthy Ramesh**, VP, Research, Rice University



Agora Studio **Addressing Societal Concerns and Impact of Energy Transition** with **Annette O'Hanlon** (Chair), Chief Corporate Responsibility & Diversity Officer, S&P Global; **Juliana Garaizar**, Founding Partner, Energy Tech Nexus; **Cheryl Dacruz-Young**, Senior Client Partner, Global Energy & Sustainability, Korn Ferry; **Tze San Koh**, President China Natural Gas Business, ExxonMobil; and **Daniel Raimi**, Fellow - Director, Equity in the Energy Transition Initiative, Resources for the Future (RFF)

Addressing Climate Change

Topics

- Carbon Offsets and Markets
- Emissions Measurement Technologies
- Adaptation and Physical Risk
- Emissions Abatement Technologies
- Climate Change Mitigation
- Nature-based Solutions for Carbon Abatement
- Advanced Modeling and Climate Science
- Ocean Innovation and Sustainability
- Biodiversity Initiatives and Credits
- Geoengineering and Solar Radiation Management
- Practicalities of Emissions Measurement, Reporting and Verification (MRV)
- Agora Voices of Innovation



Climate Hub **VCM Evolution: Overcoming challenges and upholding integrity** with **Lord John Browne of Madingley**, Chairman, BeyondNetZero, General Atlantic and **Riham ElGizy**, CEO, Regional Voluntary Carbon Market Company, Saudi Arabia

“What inspires me are all the amazing leaders, the talks, and the new technologies that are coming to market. I think there is hope for our planet.”

- Nelly Geranton, Global Sales & Commercial Manager, SLB



Climate Hub **How to Make Electric Grids Resilient to Climate Change** with **Roger Kranenburg** (Chair), VP, Energy Strategy & Policy, Eversource Energy and **Maria Pope**, President & CEO, Portland General Electric



Climate Hub **Energy Titans: Navigating the climate transition** with **Daniel Evans** (Chair), VP, S&P Global; **Lisa Wee**, Global Head of Sustainability, AVEVA Software LLC; **Philip Nevels**, Director of Corporate Strategy, AES Corporation; and **Bruce Niven**, Head of Strategic Venturing, Aramco Ventures



Climate Hub **COP28 Chronicles: Achievements, implications and a way forward** with **H.E. Michał Kurtyka**, President, COP24 and **Jon Creyts**, CEO, Rocky Mountain Institute



Climate Hub **Modeling the Future: Unleashing the power of Gen-AI in climate science** with **Bob MacKnight** (Chair, back to camera), Managing Director, Climate Risk Solutions, S&P Global; **Hussein Shel**, Chief Technologist, Energy and Utilities, Amazon Web Services; **Josh Gilbert**, Founder & CEO, Sust Global; and **Justina Gallegos**, Deputy Director, Industrial Innovation, Office of Science and Technology Policy, The U.S. White House



Climate Hub **Energizing Tomorrow: Charting a successful path for Africa's energy transition** with **Olu Verheijen**, Special Adviser on Energy to President Bola Ahmed Tinubu, Office of the President of the Federal Republic of Nigeria and **Gracelin Baskaran**, Research Director & Senior Fellow, Energy Security and Climate Change Program, Center for Strategic and International Studies (CSIS)



Carbon Hub **The Potential of Soil Carbon Sequestration** with **Brian Jennings**, CEO, American Coalition for Ethanol



Climate Hub **Measuring Tomorrow's Risks: Quantifying physical risks in a warmer world** with **Lynda Clemmons**, CSO, NRG Energy

Addressing Climate Change



Future Forward: Harnessing the power of gen-AI in climate solutions with **Ashutosh Singh** (Chair), Head of Energy Transition, S&P Global Commodity Insights; **Vivek Chidambaram**, Senior Managing Director, Accenture Strategy; **Bobby Hollis**, VP, Energy, Microsoft; and **David Sandalow**, Inaugural Fellow, Center on Global Energy Policy, Columbia



Unveiling the Latest Breakthroughs in Climate Change Mitigation with **Atul Arya** (Chair), SVP & Chief Energy Strategist, S&P Global Commodity Insights; **Emmanouil Kakaras**, Executive VP, NEXT Energy Business, Mitsubishi Heavy Industries EMEA; **Hema Prapoo**, Worldwide Oil & Gas Leader, Microsoft; and **Jonathan Silver**, Chair, Global Climate Council, Apollo Global Management



Climate Engineering 360: Reversing climate change with geoeengineering. Pictured **Luke Iseman**, CEO, Make Sunsets



Beyond Silos: The rationale for merging compliance and VCM markets with **Roman Kramarchuk** (Chair), Head – Climate Markets and Policy Analytics, S&P Global Commodity Insights; **Hannah Hauman**, Global Head of Carbon Trading, Trafigura; **Dirk Forrister**, President & CEO, International Emissions Trading Association (IETA); **Tom Colebatch**, Managing Director, Macquarie



Building Tomorrow's Transmission Technologies Today with **Dan Brouillette** (Chair), Former U.S. Secretary of Energy & President & CEO, Edison Electric Institute; **Pedro J. Pizarro**, President & CEO, Edison International, EEI Chair; **Maria Pope**, President & CEO, Portland General Electric; **Robin Millican**, Senior Director, U.S. Policy and Advocacy, Breakthrough Energy; **Tim Heidel**, CEO, VEIR

Human Capital

Topics

- Innovations in the Workforce
- AI and the Workforce of the Future
- Changing Face of Executives in Energy and Clean Tech
- Diversity and Inclusion in Energy
- Leading with Integrity and Purpose
- Recruiting Talent to Energy and Academic Programs
- Re-skilling and Talent Re-deployment
- Social Impacts of Energy Transition: Global perspective
- Industry Transition and Attracting Younger Workers
- Leadership and Success in New Energy Industries
- Women in Leadership: What's the holdup?

“There's a lot of people (at the Agora) trying to solve what is the common problem, which is how do we continue to supply energy and reduce emissions. The more we look for the solutions and drive the synergies between the two sides of this conference, I think we're on the right track”

- Vijay Swarup, Senior Director, Climate Strategy and Technology, ExxonMobil



Agora Studio **How Can the Oil & Gas Industry Attract and Retain Talent?** with **Nikki Martin**, President & CEO, EnerGeo Alliance; **Natalie Wane**, Global Workforce Services Manager, Bechtel; and **Allison Weinberg**, Senior Manager, American Petroleum Institute



Agora Studio **Rethinking Work in the Age of Artificial Intelligence** with **Sally Holton** (Chair), Head of Business Operations, S&P Global; **Vivek Chidambaram**, Senior Managing Director, Accenture Strategy; **Chase Lochmiller**, Co-Founder & CEO, Crusoe Energy; and **Mike Bleadorn**, Senior Client Partner, Korn Ferry



Climate Hub **Eco-Equality: Charting a course toward climate justice** with **Sean Quirke** (Chair), Senior Director, S&P Global Commodity Insights; **Emmanuel Mugagga**, CFO, Uganda National Oil Company; **Hon. Mary Landrieu**, Former U.S. Senator, Louisiana & Senior Policy Advisor, Van Ness Feldman LLP; and **Emily Olson**, Chief Sustainability & Corporate Affairs Officer, Vale Base Metals



Agora Pod **Hispanics in Energy | Equity for Hispanics in America's Energy Sector** with **Janie Martinez Gonzalez**, Chairman, CPS Energy and President & CEO, Webhead; **Frederick Pfaeffle**, Senior Advisor to the General Counsel, U.S. Department of Energy; and **Jose Perez**, President & CEO, Hispanics In Energy



Agora Pod **Women's Energy Network | The Transformative Impact of Non-Profit Board Participation to the Workplace** with **Tai Prince**, Global Corporate Social Responsibility Manager, TechnipFMC and **Lidiya Deane**, Director, Valuation Advisory, Stout



Climate Hub **Talent Magnet: Building a robust workforce for climate action** with **Kiana Labuhn** (Chair, back to camera), People Partner, S&P Global; **Anish Patel**, Principal, Energy Transition & Infrastructure, Korn Ferry; **Amy Thompson**, EVP & Chief Human Resources Officer, Excelerate Energy; and **Aaron Padilla**, VP, Corporate Policy, American Petroleum Institute

Financial Innovation

Topics included:

- Role of Corporate VCs in Financing Low-carbon Businesses
- Clean Tech and Energy M&A
- Institutional Investing in Clean Technology
- Investment Models for Transitioning Power Grids
- Special Purpose Acquisition Corps (SPACs)
- Investments Trends in Energy Transition
- Crowdfunding Energy Startups



Agora Studio **Enabling Critical Technologies Through Public-Private Partnerships** with **Vyshi Suntharalingam**, Chief Technology & Engineering Officer, U.S. Department of Defense, Office of Strategic Capital and **Hans Kobler**, Founder & Managing Partner, Energy Impact Partners



Agora Studio **Capital Choices in Clean Energy: Thinking long, thinking short** with **Peter Gardett** (Chair), Executive Director, Financial and Capital Markets, S&P Global; **Matthew Lipton**, Co-Head of Infrastructure Investment Research, Partners Group; **Alfred Griffin**, Senior Managing Director & Head of Credit, Generate Capital; **Bobby Tudor**, CEO, Artemis Energy Partners & Chairman, Houston Energy Transition Initiative; and **Ana Carolina Oliveira**, Americas Head of Sustainable Finance, ING



Carbon Hub **Shaping the Capital Stack Across Carbon Management Solutions** with **Eli Aheto**, Managing Director, BeyondNetZero, General Atlantic

Voices of Innovation

Journeys and insights by pioneers and thought leaders



Dr. Ernest Moniz, Founder & CEO, Energy Futures Initiative; 13th U.S. Secretary of Energy; & Founding Director, MIT Energy Initiative (MITEI)



Dr. Sama Bilbao y Leon, Director General, World Nuclear Association



Barbara Burger, Senior Advisor, Lazard



Fred Krupp, President, Environmental Defense Fund (EDF)



Riham ElGizy, CEO, Regional Voluntary Carbon Market Company, Saudi Arabia



Cesar Norton, President & CEO, HIF Global



Maynard Holt, Founder & CEO, Veriten



Nicole Iseppi, Managing Director of Energy Innovation, Bezos Earth Fund



Mark Lundstrom, Founder & CEO, Radia



Chris Field, Perry L. McCarty Director, Stanford Woods Institute for the Environment & Melvin and Joan Lane Professor for Interdisciplinary Environmental Studies, Stanford University



Scott W. Tinker, CEO, Tinker Energy Associates; Director Emeritus, Bureau of Economic Geology; & Chairman, Switch Energy Alliance



Evelyn Wang, Director, Advanced Research Projects Agency-Energy (ARPA-E), U.S. Department of Energy

Agora Pods

Deep-dive presentations case studies, startup “pitches” in a close-up, relaxed setting

200+ Agora Pods featuring startups and new technology

- 8 Rivers | Delivering DAC at Gigaton Scale
- 8 Rivers | From Problem to Solution: How CO₂ enables affordable clean hydrogen
- AABE | Energy Transition Technologies and Diverse Community Impacts
- ABB | All Electric LNG for Sustainable Energy Systems
- Accenture | Reinvention of Refining in the Age of Generative AI
- Accenture | Strategies to Enable Technology Reinvention to Drive Energy Sector Innovation
- ACE Green Recycling
- Advanced Ionics | A New Class of Hydrogen Electrolyzer
- AE2C | The Role of Asian Americans, Native Hawaiians and Pacific Islanders in the Clean Energy Transition
- Air Products | Power and Steam Generation Innovations Using Hydrogen
- Aize | Visualize, Navigate, Collaborate: Power tools for your digital twins
- AlphaStruxure | "Hard to Decarbonize" Is the Long-term Endeavor: "Hard to energize" is here and now
- Ambient Fuels | Navigating 45V Guidance for Green Hydrogen
- Amogy | Ammonia Cracking: The key to enabling the hydrogen economy
- Ampd Energy | Creating an Emission-free Future for Industries, Today
- Amperon | Harnessing AI to Decarbonize Grids and Power 24/7 Matching
- Amplified Industries | The Promises of AI for the Digital Oilfield
- Anax Power | Clean Energy from Natural Gas, Without Combustion
- Antora Energy | Zero-emissions Industrial Heat, Cheaper than Fossil Fuels
- Aqua Membranes | Revolutionizing Resource Efficiency: The impact of printed spacers in reverse osmosis on energy, water and waste management
- Arolytics | Optimized Digital Methane Management in an Era of New Regulations
- AVEVA | New Decarbonization Technologies: Green hydrogen
- Avnos, Inc. | Water Positive Direct Air Capture of Carbon Dioxide
- AWS | Building Industry-standard Methane Emissions Management in Collaboration with Oxy
- AWS | E&P Business Transformation with iEnergy Cloud and DS365.ai
- AWS | ExxonMobil Digital Reality Ecosystem
- AWS | Generative AI for Energy with BPX
- AWS | How ExxonMobil Is Accelerating Its Goals to Net-zero GHG Emissions



Qube Technologies | Continuous Monitoring: 7 stages of grief and the evolution of usage presented by **Caitlan Capps**, SVP, US Operations, Qube Technologies

- Ayrton Energy | Revolutionizing H₂ Logistics with Multimodal LOHC Distribution
- Baker Hughes | De-risking Energy Transition Hydrogen Projects Through Integrated Technology Solutions
- Baker Hughes | Strategies to Maximize the Value of Mature Assets
- Baker Hughes | The Future of Work in an Era of Digital Transformation
- Bechtel | LEEDS: The revolutionary solution in water conservation technology
- Bedrock Energy | Geothermal Heating/Cooling to Decarbonize Real Estate
- BioSqueeze | An Efficient and Permanent Solution to Eliminate Fugitive Methane Emissions from Marginal Oil & Gas Wells
- Blaze Energy Technologies | Ammonia as a Decarbonization Fuel: Beyond its role as a hydrogen carrier
- Blue Energy | A Platform for Addressing the High Cost and Long Deployment Time of Nuclear Power
- Boston Materials | Entering a New Age of Material Productivity

- Boston Metal | Scaling Technology for Hard-to-abate Sectors
- Bridger Photonics | Bottom Line Growth in a New Era of Methane Management
- C-Motive | The Future of Electric Motors: Using static cling to deliver sustainability and efficiency
- Calcare | Decarbonizing Shipping with Limestone
- Capsol Technologies | Carbon Capture and Heat Recovery in One for Superior Efficiency
- Captura | Ocean CO₂ Capture and the Journey of Captura
- Capture6 | Water Positive Carbon Removal
- Carbon America
- Carbon Upcycling Technologies | Achieving 2030 Targets: Carbon mineralization as a scalable method to CCUS
- Celadyne Technologies | Materials for Durable Trucking and Cheap Green Hydrogen
- Cemvita Factory | Musings on the Transformation of the Energy Industry with Biotechnology
- Chariot Energy | Energy Transition & Grid Reliability
- Chemours | Two-phased Immersion Cooling: The future of data centers
- Chesapeake | Using Web3 Field Automation to Revolutionize Supply Chain Logistics Integration
- Chevron | Novel Geothermal Technologies: Heating up!



C-Motive | The Future of Electric Motors: Using static cling to deliver sustainability and efficiency presented by **Matt Maroon**, CEO, C-Motive Technologies

- ClearFlame Engines | Delivering Diesel Engine Performance with Ethanol or Methanol
- Climate Transition Development | Scaling Sustainable Infrastructure and Renewable Energy Solutions
- Context Labs | Accelerating Energy Transition with Contextual Asset Grade Data (AGD™)
- ControlRooms.AI | The AI Troubleshooting Assistant
- Copernic Catalysts | The Catalyst Behind the Second Ammonia Revolution
- Corva.AI | Driving Impact at Scale: Real-time sustainability analytics
- CQuesta | Carbon Is a Problem: Cquesta is running it into the ground
- Criterion Energy Partners
- Crusoe Energy | Reimagining Technology Strategies for an AI-powered and More Sustainable World
- Crusoe Energy | The U.S. EPA's New Methane Rule: A win-win for oil companies and the environment?
- Crux OCM | Use Automated Business Intelligence to Maximize Energy Value Chain Economics
- Cyclic Materials | Creating a Circular Supply Chain for Rare Earth Elements
- Daphne Technology
- Dersalis | Revolutionizing Industrial Safety
- DexMat | Advanced Carbon Materials bringing Carbon-negative Impact in Years, Not Decades
- Dimensional Energy | e-Fuels at the Right Price for the Economy Today
- DIOXYCLE | Breakthrough Electrolysis to Produce Sustainable Chemicals at Sustainable Costs
- DOE | Pathways to Commercial Liftoff: Next-generation geothermal



Women's Energy Network | The Transformative Impact of Non-Profit Board Participation to the Workplace with **Tai Prince**, Global Corporate Social Responsibility Manager, TechnipFMC and **Lidiya Deane**, Director, Valuation Advisory, Stout

“The Agora does a fabulous job of giving everything from fundamental research to companies like ours an opportunity to participate, not just in describing what they’re doing today, but in formulating what the energy system of the future will look like.”

– Paul Domjan, Founder, Chief Policy & Global Affairs Officer, Enoda

- Dsider | Catalyzing Energy Transition Decisions: Leveraging deterministic AI and LLM
- Eavor | Enabling Local Clean Energy Autonomy Everywhere
- Ebb Carbon | Harnessing the Ocean for Scalable Carbon Removal
- Eden GeoPower
- Eion
- Ekona Power
- Electra | Creating Clean Iron for Greener Steel Industry
- ElectricFish | Boundless Potential of Battery-backed DC Fast Chargers
- Electrified Thermal Solutions | Industry Electrified: Joule Hive(TM) technology for a fully electric industrial sector
- Electriq
- Embraer-X | Disrupting the World of Mobility
- Emrgy
- Enapter | Decentralized Hydrogen Production with AEM Electrolyzers
- Endolith | How the World's Smallest Roughnecks Are Mining the Future of the Energy Transition
- ENEC
- Enoda | This Is 2050
- Envana | Realizing Value from Emissions Data
- ev.energy
- Exxon Mobil | The Competitive Advantage of Supplier Diversity
- Fervo Energy
- Flexergy | More Bankable Projects and Faster First Hydrogen
- Focused Energy | How to Execute the Vision of Fusion Energy
- FuelCell Energy | Energy and Hydrogen Solutions for the Energy Transition
- FuelTrust | Innovation Navigation: Houston's energy port model
- Gecko Robotics | Artificial Intelligence and Robotics: Digital innovation for asset management
- Geowellex | Integrated Surface Logging and Real-time Data Analytics
- GHGSat | Satellite Data: Emission insights from space
- Gold H₂
- Granular Energy | Hourly Matching for All: Putting 24/7 clean energy within reach
- Gridmatic | How AI Forecasting Optimizes Operations and Profitability for Energy Buyers, Generators and Storage Owners
- Hanwha Power Systems | Innovative Waste Heat Recovery with sCO₂ Power System
- Heaten | High-temperature Heat Pumps: Cases to decarbonize industrial heat
- Heliogen | Helping Industry Achieve Net Zero Using an Enhanced Approach to Solar Energy
- Helix Earth Technologies | Advancing CO₂ Capture Technologies with Next-gen Liquid Gas Chemical Reactors
- HIF Global | Overcoming the 3 Pillars Challenge: Keys to success
- HIF Global | Powering e-Fuels
- Hispanics in Energy | Equity for Hispanics in America's Energy Sector

- Holocene | Removing Carbon Dioxide from the Atmosphere with a Novel Low-temperature and Continuous Process
- Hydromea | The Internet of Underwater Things
- Hydrostor | In Conversation with Richard Glick: The case for long-duration energy storage infrastructure
- INERATEC | Modular Power-to-liquid Technology for Commercial e-Fuel Production
- Infinium | e-Fuels Revolutionizing Sustainable Aviation
- IONATE | Building the Technology Backbone for Smart Grids
- Kanin Energy | Decarbonization Through Waste Heat to Power
- Li-Metal
- LineVision | Unlocking the Power of the Grid with Grid-enhancing Technologies
- M2X Energy | Innovation in Action: Moving from Stranded Methane to Low-carbon Methanol
- Make Sunsets | Erupting Change: How volcanic science can reset your carbon impact and cool the earth
- Mantel | The Material Solution to Carbon Capture
- Maple Materials | Turning CO₂ into Battery-grade Graphite
- Mars Materials
- Masdar | Ceres Imaging: Applications of AI in agriculture
- Mesa Solutions | The True Value of Reliability: Calculating the benefit of standby power systems
- Mesodyne | LightCell Power Generation
- MHI | Driving the Hydrogen Ecosystem
- MicroGrid Labs | Streamlining Fleet Electrification
- Microsoft | Accelerating Business Transformation and the Energy Transition with Real-world AI
- MIMiC Systems | Solid State Heating and Cooling
- Mitico | Carbon Capture 2.0: Unleashing the power and simplicity of metal carbonates
- Modern Hydrogen | Cutting Gas Emissions Without New Infrastructure
- Moleaer | Enabling the Energy Transition Through the Power of Nanobubbles
- Momentum Technologies | Recovering High-purity Critical Minerals and Metals
- Moonshot Hydrogen
- Mote Hydrogen | Recovering Clean Energy and Carbon from Wood Waste
- Muon Vision | Out of This World X-ray Powers for a Safer and More Efficient Processing of Critical Minerals
- Natural Allies for a Clean Energy Future | Methane Mitigation: How industry innovation is spearheading new climate solutions
- necoTECH | Decarbonizing the Asphalt Industry: Creating 100% recycled asphalt pavement
- NEDO | Cleantech Innovation: Japan's Green Transformation Policies and Projects
- NEI | Advancing Nuclear Energy in Texas



Radia | Onshore Wind: Successfully lowering cost while building capacity with **Nick Jenkins**, Director, Energy, Analytics, Economics, Radia

- Nesh | GenAI for the Chemical Manufacturing Value Chain
- NobleAI | Accelerating Decision Support in the Oil and Gas Industry Through Science-based AI
- Nth Cycle | Modernizing Metal Refining for a Circular Supply Chain
- Oberon Fuels | Catalyzing the Renewable Fuels Industry with Green Propane, Hydrogen and Methanol
- Oceanways | Accelerate Your CCS/ Hydrogen Projects with Virtual Pipelines Built with Low-cost Submarines
- Ohmium
- Oklo | Unlocking the Potential: Powering AI with Advanced Fission in the Modern Energy Landscape
- Oliasoft | Enabling Digital Value Chain for Drilling & Wells
- One Energy
- Orbio Earth | Risk Management in an Era of Real-time, Satellite-based Methane Monitoring
- Osmoses | Precise Industrial Gas Filtration to Unlock a Low-carbon Future
- OxCCU | Making Jet Fuel from CO₂ in One Step
- Pace CCS | The Case for CCS
- Pascal | Better Heating and Cooling with Solid Refrigerants
- Pathways Alliance | Fast-tracking Success: Identifying, nurturing and supporting cleantech startups
- Pathways Alliance | Solving Tough Industry Problems with Open Innovation and Collaboration



Natural Allies for a Clean Energy Future | Methane Mitigation: How industry innovation is spearheading new climate solutions with **Tom Jordan**, Chairman, CEO & President, Coterra Energy Inc., and **Chad Zamarin**, EVP, Corporate Strategic Development, Williams

- Pattern Energy | Lessons from Developing the Largest Clean Energy Project in U.S. History
- Pix Force | Changing the Game in Onshore and Offshore Safety Management with AI
- PolyJoule | Building Sustainable Downstream Supply Chains in Energy Storage
- Powin | Bankability in Energy Storage
- Prezerv | Advancing Energy Projects with Prezerv.ai's Disruptive Underground Mapping Technology
- Propeller | Investing in Carbon Removal and Decarbonization Across Ocean Industry
- Protium Dynamics | Hydrogen at the Helm: Hydrogen technologies for decarbonization of operations and existing assets

- Qube Technologies | Continuous Monitoring: 7 stages of grief and the evolution of usage
- Radia | Onshore Wind: Successfully lowering cost while building capacity
- Redshift Energy
- Relyion Energy | Disruptive Technology to Extend the Life of Battery Energy Storage Systems (BESS)
- ReSource Chemical Corp | Chemicals from CO₂, Sustainably
- Revterra
- Rice University | The Pride and Prejudice of Sustainability: Rethinking sustainability from a systems perspective
- Sage Geosystems | Building the Next Generation of Geothermal with "Underground Batteries"
- SeaDeep
- Senkron Energy Digital Services | Empowering Energy: Digitalization beyond buzzwords
- Senslytics | Bringing Explainability to AI
- SHINE Fusion | Used Nuclear Fuel Transmutation and Energy Production
- Shoals | How EBOS Is Enabling the Energy Transition
- Siemens Energy | Turning Power Plants into Long-duration Storage Hubs for a More Reliable Grid
- SLB | Unlocking New Opportunities in Production Operations Using AI
- Southern California Gas Company | A Vision for Building California's Hydrogen Economy
- Southern California Gas Company | How Hydrogen Microgrids Can Create Power Resiliency

- Spiritus | Pathway to Megaton Direct Air Capture
- Sublime Systems | True Zero Manufacturing for Low-carbon Cement
- Sunnova | Empowering a Reliable & Customer-centric Future with Adaptive Home
- SunnyBotics | Enhancing Solar Performance Through Automation, Robots and AI
- Svante | Monetizing CO₂: Key insights from Svante's President & CEO on the future of the CO₂ marketplace
- Synergetic
- Syzygy Plasmonics | Illuminating the Path Forward for Clean Molecules
- T4P Network
- TechEnergy Ventures | Using Tech Advancements to Make Geothermal Cheaper and More Available
- Ternium | Steel for the Future of Mobility
- TerraFixing | We All Scream for ... Carbon Removals?
- Terraform Industries | Cheap Synthetic Hydrocarbons from Sunlight and Air
- Terrament | Why We Need Underground Gravity Storage
- Teverra
- Texas Hydrogen | Turbocharging the Transition with Pipelines
- Thalo Labs | Leveraging the Built Environment on the Race to Net Zero
- The Debut Collective | The Talent Squeeze: Defining your employee value proposition for the next generation of energy leaders



Baker Hughes | De-Risking Energy Transition Hydrogen Projects through Integrated Technology Solutions with **Simone Corbo**, Hydrogen Platform Leader, Industrial & Energy Technology, Baker Hughes

- The Tank Tiger | Revolutionizing Commodity Storage
- Thea Energy | Reinventing Fusion and the World's Energy Supply with Programmable Magnets
- Trufigura & Palantir | Carbon Intensity in Energy Supply Chains
- Travertine Technologies, Inc. | Sustainable Critical Element Extraction with Circular Chemicals and Carbon Dioxide Removal
- TROES Corp.
- Twelve | A World Made from Air
- Ultra Safe Nuclear Corporation
- UT-Austin | Measurement Informed Inventories: Innovations in MMRV technologies and data analytics
- Vast | Back from the Dead: Why concentrated solar thermal is the hottest new renewable technology
- VEIR | Accelerating Transmission Capacity Growth Using Superconductors
- Verde Clean Fuels | The Low-carbon Car of the Future Is the One You're Already Driving
- Verdox | Electric Carbon Removal for Dilute CO₂ Emissions
- Verse | Accelerating Corporate Clean Energy Adoption
- Versogen | Green hydrogen at Scale by PiperION Membranes
- Via Separations | From Demonstration to Deployment
- Victory over Carbon | GigaDAC: Direct air capture for gigaton scale
- Vidya | Redefining Operation and Maintenance of Industrial Plants
- VyCarb | Revolutionizing Carbon Removal and Storage with a Fully Measured Water-based Approach
- Women's Energy Network | The Transformative Impact of Nonprofit Board Participation to the Workplace
- Xerion Advanced Battery Company
- XGS Energy | Solving Geothermal's Financing Problem
- Zero Emissions Industries | Hydrogen for the Real World

Agora Partner Houses

A glimpse of what's ahead from some of the world's preeminent energy and technology companies, offering remarkable experiences, engagements and connections.

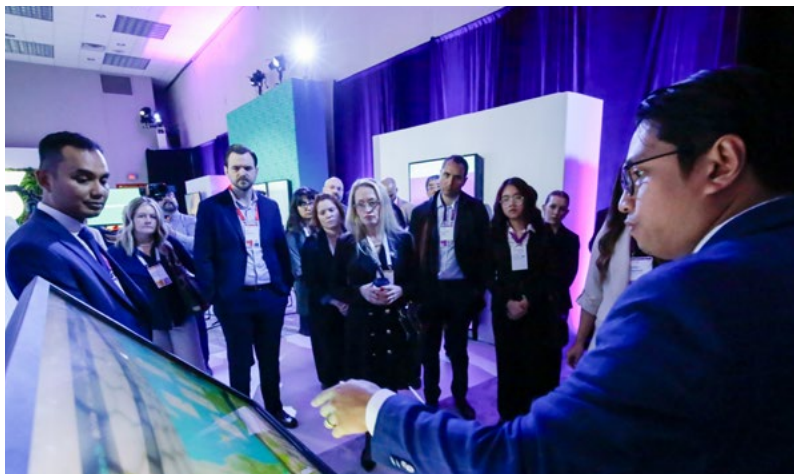




 Microsoft



 OXY



 PETRONAS



 S&P Global

Agora Partner Houses (continued)

By the numbers

8

Partner Houses

16

VIP and Partner tours

93

Delegate tours

Government Officials House Visitations*

- European Union | **Kadri Simson**, Commissioner for Energy, European Commission
- European Union | **Paula Pinho**, Director, Directorate-General for Energy, European Commission
- France | **Emmanuelle Wargon**, President Commission de régulation de l'énergie
- Japan | **Shin Hosaka**, Vice-Minister for International Affairs, Ministry of Economy, Trade and Industry (METI)
- Nigeria | Office of the President of Nigeria
- United States | **Hon. Jennifer M. Granholm**, Secretary of Energy, U.S. Department of Energy
- United States | **Vanessa Chan**, Chief Commercialization Officer & Director of the Office of Technology Transitions, U.S. Department of Energy
- United States | Members of the U.S. House of Representatives: **Rep. Lori Chavez-DeRemer**, **Rep. Lizzie Fletcher**, **Rep. Steven Horsford**, **Rep. Scott Peters**, **Rep. David Valadao**

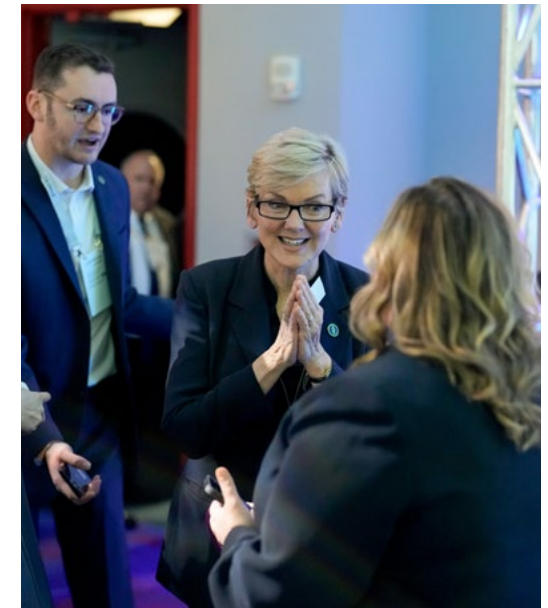
Partner & Professional Development Programs House Tours*

- Professional Development Programs
- Women in Energy
- Bechtel
- Chevron Technology Ventures
- ExxonMobil
- Google
- HIF Global
- Korn Ferry
- Kuwait Petroleum Corporation
- Siemens Energy

Agora Partner Houses video – scan or click

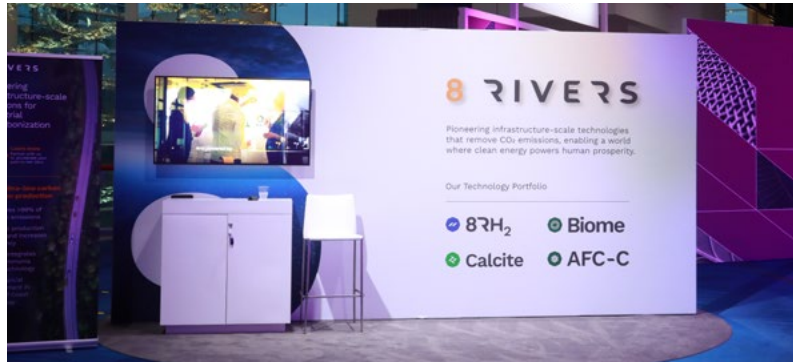


David Crane, Under Secretary for Infrastructure, U.S. Department of Energy; **Barbara Harrison**, VP, Offsets & Emerging, Chevron New Energies, Chevron; **Hon. Jennifer M. Granholm**, U.S. Secretary of Energy; **Jim Gable**, VP, Innovation & President, Chevron Technology Ventures, Chevron; **Karen Knutson**, VP & General Manager, Government Affairs, Chevron; **Vanessa Chan**, Chief Commercialization Officer & Director of the Office of Technology Transitions, U.S. Department of Energy; and **Louis Carranza**, Managing Director, Head of CERAWEEK, S&P Global



Agora Partner Installations

Partner Installations were stationed in the Agora Atrium and invited delegates to learn more about emerging technologies.



8 Rivers



AVEVA / Schneider Electric



Chevron



Context Labs



PETRONAS



Radia

Lyceum Labs

Interactive learning sessions and master classes with thought leaders and innovators (40+ sessions)



S&P Global | Insights on the SEC Climate Risk Reporting Rule with **Roman Kramarchuk**, Head – Climate Markets and Policy Analytics, S&P Global Commodity Insights; **Divya Mankikar**, Global Head of ESG Market Engagement, S&P Global; **Conway Irwin**, Research & Analysis Director, S&P Global Commodity Insights; and **Anna Mosby**, Principal Research Analyst, S&P Global



Blake Bonfanti, Head of Industrial Solutions, Gecko Robotics presents **Gecko Robotics | The Future Is Now: How AI and advanced robotics will choose the winners in the industrial space**



Chevron | A Pathway to Commercialization: Meet CEOs Babur Ozden of Aquanta Vision and **Karen Baert** of Ammobia, who started their respective journeys through Chevron Studio, a partnership between Chevron Technology Ventures and the National Renewable Energy Laboratory



Rice University | Electrochemical Approaches to Decarbonizing Fuels and Chemicals presented by **Haotian Wang**, Associate Professor, Rice University



Participants at SLB | Decarbonizing the Power Sector



Participants at Aramco | How Aramco's \$7.5 Billion Venture Capital Program Supports Aramco's Long-term Goals

Lyceum Labs

- Achieving Liftoff: Investing with DOE to Commercialize Clean Energy Technologies
- Aramco | How Aramco's \$7.5 Billion Venture Capital Program Supports Aramco's Long-term Goals
- B4E | Unlocking the Future: The convergence of IoT, AI and blockchain
- Chevron | A Pathway to Commercialization
- Crusoe Energy | An Energy-first Approach to AI and Digital Infrastructure
- Dartmouth University | New Ways to Approach Academic and Industry Partnerships
- DOE Continuum - Carbon Management
- DOE Continuum - Clean Hydrogen
- DOE Continuum - Geothermal Technology
- DOE Deploy Dialogue - Advanced Geothermal
- DOE Deploy Dialogue - Carbon Management
- DOE Deploy Dialogue - Clean Hydrogen
- DOE Deploy Dialogue - Next-generation Geothermal
- DOE Next-gen Geothermal: Technology
- DOE R&D Overview
- Enoda | The Economic Challenge with Renewable Energy
- ERIA | Transition Finance Toward Net Zero in Asia and Its Challenges
- Exxon Mobil | Using High-altitude Platforms to Monitor Methane
- Gecko Robotics | The Future Is Now: How AI and advanced robotics will choose the winners in the industrial space
- Green Li-On | Closing the Loop in the Lithium-ion Battery Industry
- Johns Hopkins | Safety and Risk Mitigation in the Age of AI
- Korn Ferry | Securing Tomorrow's Energy: Navigating the transition with cyber resilience
- LPO 201
- MHI | Decarbonizing the Industrial Sector with Cogen GT + CCS
- Microsoft | Empowering the Energy Industry to Achieve Net-zero Carbon Emissions with Data and AI
- MIT | Creating a New Energy Industry: An MIT case study for fusion
- NRG | The Joys and Trials of Reaching a 100% Fleet Vehicle Electrification Goal
- Open Hydrogen Initiative | Redefining How Global Markets Define Clean Hydrogen
- Oxy | CO₂ Storage in Saline Reservoirs: A look below the surface
- Oxy | Water Beyond Recycling: Desalination and beneficial use
- Palantir | Operational AI in Practice: Zero to value in one hour
- Rice University | Electrochemical Approaches to Decarbonizing Fuels and Chemicals
- S&P Global | Assessing Country-level Physical Risk
- S&P Global | Automotive and Supply Chain Sustainability
- S&P Global | Challenges in the Automotive Sector Laid Bare in Data
- S&P Global | Differentiating Natural Gas Based Upon Carbon Intensity
- S&P Global | Efficient Screening tools for CCUS and CCS: Identifying optimal reservoirs
- S&P Global | Insights on the SEC Climate Risk Reporting Rule
- S&P Global | Investment in the Energy Transition: Where will the money go?
- S&P Global | Mapping the Future: Generative AI, energy demand and data center expansion
- S&P Global | Nature-positive Decision Making
- S&P Global | Navigating the Narrative: Crafting authentic brands in the energy transition
- S&P Global | Pooling Multi-tenant Emissions and Abatement Data to Accelerate Decarbonization
- S&P Global | Real-time Energy Industry Data as Forward Indicators for Price Formation
- S&P Global | Revolutionizing CCS in the GOM: Leveraging AI innovation at scale for strategic advantage
- S&P Global | Tracking Net-zero Commitments
- S&P Global | Trends in ESG Regulation: Rise of the "S" in ESG
- S&P Global | Women in Leadership: What's the holdup?
- Schneider Electric | Accelerating Decarbonization Through the Electrification of Refining and Petrochemical Processes
- Siemens Energy | Decarbonized Road Maps: How energy system design can optimize your facility operations
- SLB | Decarbonizing the Power Sector
- Stanford | How Can Academia, Industry and Government Collaborate to Find Scalable Solutions to the Global Energy Challenge
- University of Oxford | Decarbonizing Fossil Fuels: The role of producers in achieving net zero
- WHOI | Eyes in the Ocean: Robots, gliders and the future of ocean observing

Energy Innovation Pioneers

The 19th annual Energy Innovation Pioneers (EIP) program featured many of the world's leading early-stage enterprises in energy and sustainability.

Pioneers were selected by a panel of S&P Global technology experts who identify companies—disruptive or enabling—that exemplify:

- Invention and creativity
- Scalability
- Feasibility and timeliness
- Superior management

Chosen from a field of over 500 candidates, this year's class of Pioneers was representative of the innovation occurring across the energy spectrum.

Representing a variety of emerging technologies and business models—advanced composite materials, carbon-free baseload power, carbon capture, cooling systems, distributed gas-to-liquids systems, energy recovery, hydrogen generation—these companies are leading innovators working to decarbonize the global energy system.

2024 Class of Energy Innovation Pioneers

- Bedrock Energy
- BioSqueeze
- C-Motive Technologies
- Cyclic Materials
- Ionate
- Modern Hydrogen
- Svante Inc.



Driving Decarbonization in Overlooked Areas with **Carolyn Seto** (Chair), Executive Director, Upstream Technology & Innovation, S&P Global Commodity Insights; **Mark Ranalli**, President & CEO, BioSqueeze; **Claude Letourneau**, President & CEO, Svante Inc.; and **Joselyn Lai**, Co-Founder & CEO, Bedrock Energy



Accelerating Decentralized, Resilient and Sustainable Energy Systems with **Carolyn Seto** (Chair), Executive Director, Upstream Technology & Innovation, S&P Global Commodity Insights; **Tony Pan**, Co-Founder & CEO, Modern Hydrogen; **Matthew Williams**, Founder & CEO, IONATE; **Matt Maroon**, CEO, C-Motive Technologies; and **Ahmad Ghahreman**, CEO, President & Co-Founder, Cyclic Materials

Agora Book Signings & Book Talks



Dr. Franklin Chang-Díaz, Chairman & CEO, Ad Astra Rocket Company; former NASA astronaut and veteran of 7 space missions; & author of *To Mars and Beyond, Fast!: How Plasma Propulsion Will Revolutionize Space Exploration*



Yasheng Huang, Epoch Foundation Professor of International Management, MIT Sloan School of Management & author of *The Rise and Fall of the EAST: How Exams, Autocracy, Stability, and Technology Brought China Success, and Why They Might Lead to Its Decline*



Walter Isaacson, Leonard Lauder Professor of American History and Values, Tulane University & author of *Elon Musk*

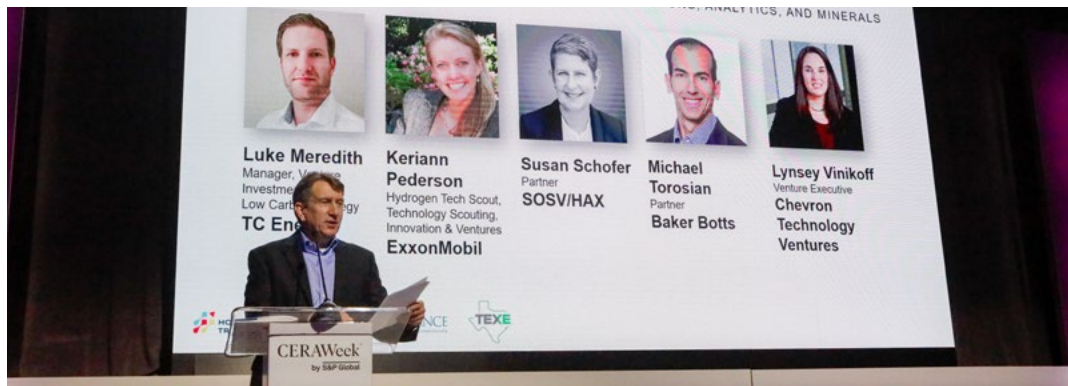


Houston Energy Transition Initiative (HETI) Energy Ventures Pitch Competition

Greater Houston Partnership's HETI, Rice University's Alliance for Technology and Entrepreneurship and TEX-E hosted the competition at CERAWeek where panels of judges consisting of investors and industry experts, listened to pitches by 40+ startups competing in one of three divisions, as well as a People's Choice award and the TEX-E prize for innovations by Texas student-led energy transition and climate change startups.



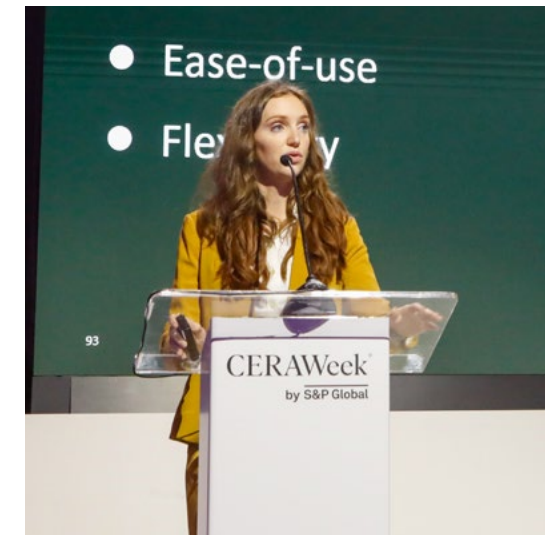
Welcome remarks by **Jane Stricker**, SVP & Greater Houston Partnership Executive Director, Houston Energy Transition Initiative



Judges of the CCUS, Oilfield Solutions, Analytics and Minerals: Opening remarks by **Brad Burke**, AVP for Industry and New Ventures, Rice University, Office of Innovation; Executive Director, Rice Alliance; & Chair, Executive Advisory Board, GCEC. **Judges:** **Luke Meredith** (Chair), Manager, Venture Investments & Low Carbon Strategy, TC Energy; **Kerriann Pederson**, Hydrogen Technology Scout, Technology Scouting, Innovation & Ventures, ExxonMobil; **Susan Schofer**, Partner, SOSV/HAX; **Mike Torosian**, Partner, Baker & Botts; and **Lynsey Vinikoff**, Venture Executive, Chevron Technology Ventures

CCUS, oilfield solutions, analytics and minerals

- **1st place:** Ardent
- **2nd place:** Vaulted Deep
- **3rd place:** Mitico
- ARIX Technologies
- Capwell Services
- Decimetrix
- Dersalis
- Mesodyne
- Novamera
- Pix Force
- Rocsole
- Tellevare Reservoir Services
- Xplorobot



Ardent: Winner CCUS, oilfield solutions, analytics and minerals category: represented by **Christine Parrish**, VP, Technology Solutions, Ardent (formerly Compact Membrane Systems)

Batteries, renewables, water and grid technologies

- **1st place:** SunGreenH₂
- **2nd place:** FeX Energy
- **3rd place:** Adena Power
- Mercurius Biorefining
- C-Power™
- Flux XII
- GridWrap
- New Sun Road
- Ozark Integrated Circuits
- Pani Clean
- Rhizome
- THEMES
- Vroom Solar



SunGreenH₂: Winner Batteries, renewables, water and grid technologies category: represented by **Tulika Raj**, Co-Founder & CEO, SunGreenH₂

Mobility, materials and hydrogen solutions

- **1st place:** Thiozen
- **2nd place:** Power to Hydrogen
- **3rd place:** Arolytics
- AtoMe
- GreenIRR
- Haffner Energy
- Lithium Harvest
- Litus
- MacroCycle Technologies
- Marel Power Solutions
- MITO Material Solutions
- Protium Dynamics



Thiozen: Winner Mobility, materials and hydrogen solutions category: represented by **Ryan Gillis**, President, Thiozen

TEX-E Prize: University clean tech startups

- **1st place:** Solidec
- **2nd place:** CoFlux
- **3rd place:** AirMax
- BeadBlocker
- Carvis



Solidec represented by **Ryan Duchanois**, Co-Founder & CEO

People's Choice Award



People's Choice Award for the company that the audience believes has the most promise. **Decimetrix** represented by **Alejandro Zotti**, Founder & CEO

Conference-wide evening reception held in the Agora Atrium



Agora Partner House reception



MOU signing between HETI and Argonne National Laboratory



Jane Stricker, SVP, Energy Transition & Greater Houston Partnership Executive Director, Houston Energy Transition Initiative (HETI) and **Paul Kearns**, Director, Argonne National Laboratory sign a Memorandum of Understanding (MOU) leveraging Houston's top research institutions, energy and industrial leadership, infrastructure and technical expertise to inspire the development of commercial-scale solutions for the energy transition

World Energy Cities Partnership Mayors reception



Mayors reception hosts **Christopher Olson**, Director, Trade and International Affairs, City of Houston Mayor's Office & Executive Director - Energy Transition, World Energy Cities Partnership (WECP); **Luca Zanotti**, President, USA, Tenaris; and **Hon. Jesper Frost Rasmussen**, Mayor, Esbjerg Municipality, Denmark

Technology Corridor



Future Vehicles NOW!

Partner's vehicle and its impact on the future of energy and mobility



Chevron's Renewable Gasoline Blend for the Toyota RAV4 Prime



Clara Bowman, COO, HIF Global



Jay Shah, Principal, Industry Marketing and Innovation Programs, Amazon Web Services



Kaustav Sinha, Director, Strategic Partnerships, Chevron



AWS showcases its collaboration with the Rivian Commercial Van



HIF Global car showcases e-Fuels and a Porsche 911

Cleantech Trailblazers Dinner



Leadership Circles

Leadership Circle Summits are invitation-only standing communities with focused, highly interactive discussions on key issues shaping the energy future.



Climate & Sustainability Summit



Global Hydrogen Summit



Low Carbon Summit



Oil & Gas Innovation Summit



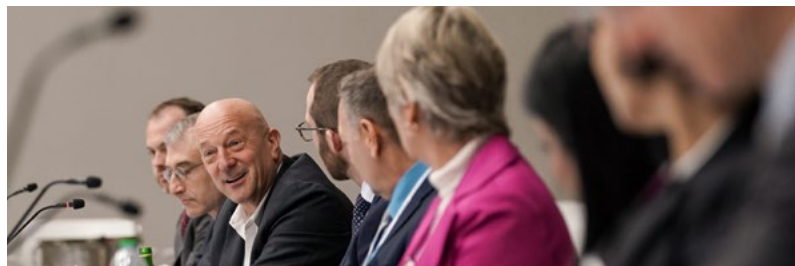
Technology & Innovation Summit

Industry Forums

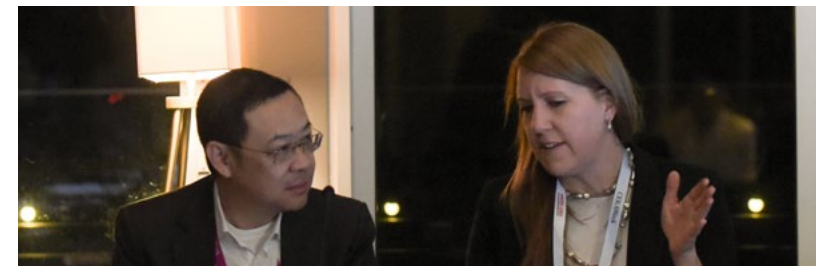
Leadership Circle Forums are invitation-only industry-topical sessions sessions that vary from year to year, focusing on emerging key developments.



Agribusiness & Biofuels Forum



Carbon Market Forum



Digital Forum



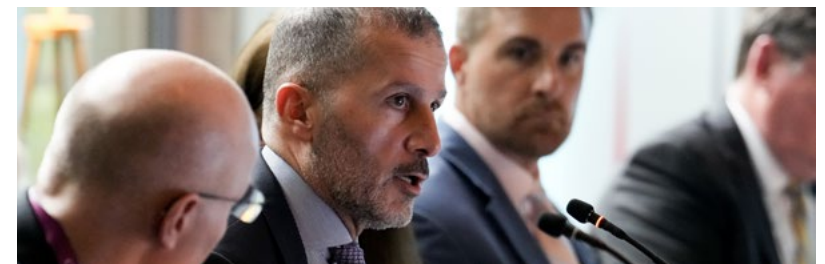
Financing Hydrogen Forum



Methane Forum



Mobility Forum



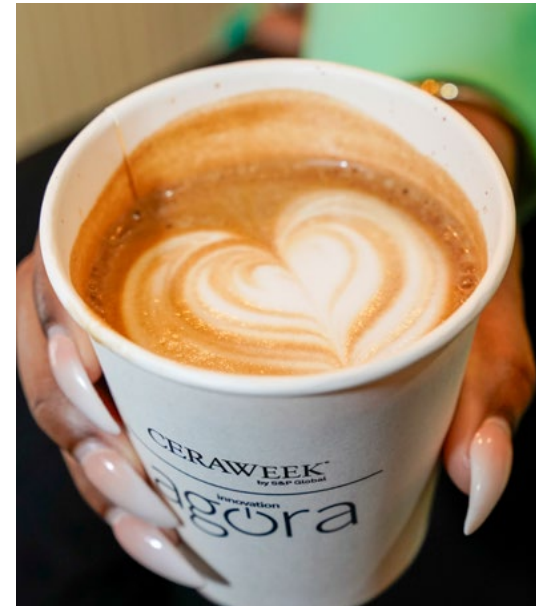
Nuclear Forum

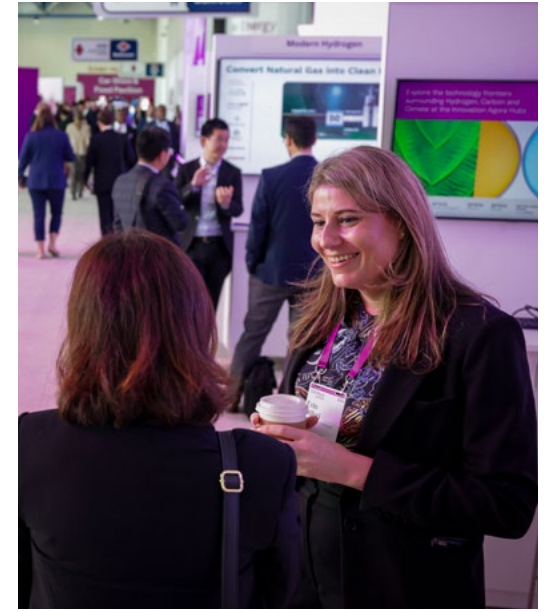
Engage

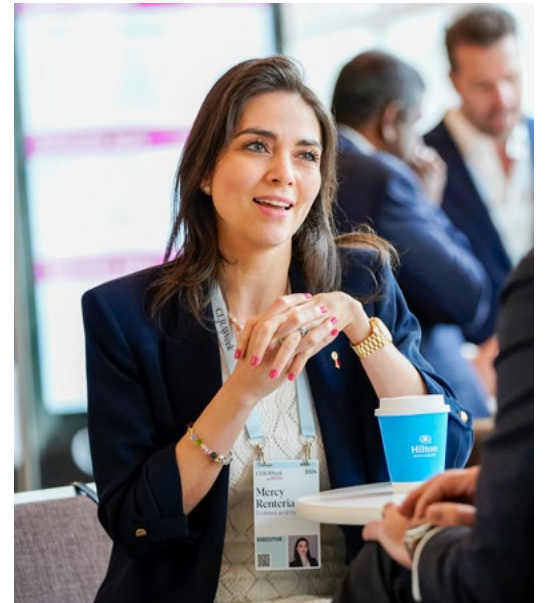




A group of men in business attire are engaged in a conversation in a busy exhibition hall. One man in a dark suit is pointing upwards while speaking to others. In the background, a large screen displays a list of partners and sponsors, including SAP, Microsoft, and others.







Agora Partnership

Innovation Agora Partners support the exciting global innovation and technology community dedicated to creating new pathways and solutions for the energy future, contributing their expertise and experiences to this immersive environment.

The program integrates branding, knowledge contribution, media support, delegation support, hosting and networking into a single, tailored strategy that supports the Partner's objectives.

Partner Benefits

- High-level engagement before, during and after the conference
- Maximized impact and experience of your executives' participation
- Access to Private Leadership Circles and Special Programs
- Support by the CERAWeek Executive Steering Committee and a team of dedicated CERAWeek Partner Liaison Managers

This unique platform creates an opportunity for Partners to deepen relationships with key stakeholders, developing and sharing ideas and thought leadership, while enhancing their visibility and profile. CERAWeek Partners also benefit from access to exclusive CERAWeek private programs, networking and meeting spaces. The former is reserved exclusively for CERAWeek's senior-most participants, providing an invitation-only track of designated professional communities. These interactive sessions draw on Partners' expertise and thought leadership contributions.



“Conversations that happen in the hallways continue into conversations the next year throughout our business that turn into new ideas of collaboration.”

—Anish Simon, VP, Carbon Removal, Equinor

Agora Partners

8 RIVERS

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BECHTEL

Chemours

the human energy company

Context Labs

Crusoe

The Arthur L. Irving Institute for Energy and Society at Dartmouth

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WHITING SCHOOL
of ENGINEERING

KRAKEN
PART OF THE octopusenergy group

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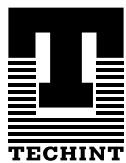
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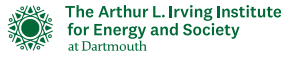
Microsoft

MITSUBISHI HEAVY INDUSTRIES
MITSUBISHI POWER

nationalgrid



Affiliate Partners



Precourt Institute
for Energy

“Having a presence in CERAWeek is really invaluable. You can walk up and down the hierarchy of a company walking through the halls of CERAWeek.”

– Damian Beauchamp, President & Chief Development Officer, 8 Rivers



2024 Innovation Agora Team

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Jamey Rosenfield, CERAWeek Founder and Co-Chair & Senior Advisor, S&P Global and **Daniel Yergin**, CERAWeek Chair & Vice Chairman, S&P Global

We look forward to seeing you at CERAWeek and the Innovation Agora 2025



March 10-14, 2025
Houston, Texas

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We are widely sought after by many of the world's leading organizations to provide credit ratings, benchmarks, analytics and workflow solutions in the global capital, commodity and automotive markets. With every one of our offerings, we help the world's leading organizations plan for tomorrow, today.

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