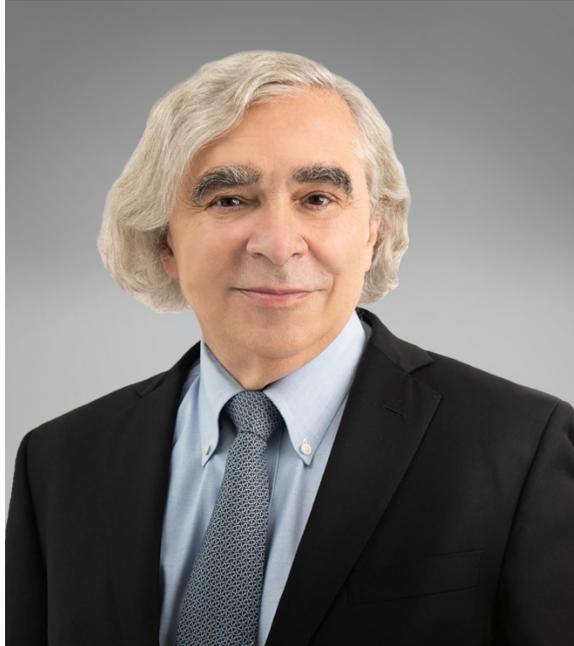


EFI-KAPSARC Workshop Bios

September 29, 2022

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Ernest J. Moniz

President, CEO of Energy Futures Initiative
and EJM Associates
Workshop Speaker & Host

Ernest J. Moniz (Pronounced MO-nee-z) is the CEO of EJM Associates and the Energy Futures Initiative. He served as the thirteenth United States Secretary of Energy from 2013 to January 2017. As Secretary, he advanced energy technology innovation, nuclear security and strategic stability, cutting-edge capabilities for the American scientific research community, and environmental stewardship.

He strengthened the Department of Energy (DOE) strategic partnership with its seventeen national laboratories and with the Department of Defense and the broader national security establishment. Specific accomplishments included producing analytically based energy policy proposals that attracted bipartisan support, implementing legislation, leading an international initiative that placed energy science and technology innovation at the center of the global response to climate change, and negotiating the historic Iran nuclear agreement alongside the Secretary of State. He reorganized several DOE program elements, elevated sound project and risk management, and strengthened enterprise-wide management to improve mission outcomes.

Professor Moniz previously served as Under Secretary of Energy from 1997 until January 2001 with science, energy, and nuclear security responsibilities. Before that, he was the Associate Director for Science in the Office of Science and Technology Policy from 1995 to 1997, with responsibility for the physical, life, and social sciences.

Professor Moniz was a member of the Massachusetts Institute of Technology faculty from 1973 until 2013 when he was appointed Secretary of Energy. At MIT, Moniz was the Founding Director of the MIT Energy Initiative (MITEI) and Director of the Laboratory for Energy and the Environment. Moniz was also Head of the MIT Department of Physics during 1991-1995 and 1997 and Director of the Bates Linear Accelerator Center from 1983-1991. His physics research centered on the development of a theoretical framework for understanding intermediate energy electron and meson interactions with atomic nuclei.

He received a Bachelor of Science degree summa cum laude in physics from Boston College, a doctorate in theoretical physics from Stanford University, and several honorary doctorates, with some from European universities.



Fahad Alajlan

President of King Abdullah Petroleum
Studies and Research Center (KAPSARC)

Workshop Speaker & Host

Engineer Fahad Alajlan was appointed as the president of the King Abdullah Petroleum Studies and Research Center (KAPSARC) in August 2021. Prior to joining KAPSARC, Fahad was the director of the Hydrocarbon Sustainability Program at the Ministry of Energy. He was responsible for looking at

the long-term energy trends and their impact on energy markets including global demand for oil and gas. Additionally, he oversees the Circular Carbon Economy National Program, which aims to utilize a comprehensive framework to manage emissions while furthering the socioeconomic development of the Kingdom.

Fahad also worked at the Ministry of Economy and Planning in Saudi Arabia, advising on energy markets, policy, and trends, as well as the industry and petrochemical sector. Before that, he served for more than 15 years at Saudi Aramco, where he held senior positions working across operations, corporate strategy, and investment planning, as well as mergers and acquisitions.

He holds a B.Sc. in Mechanical Engineering from North Carolina State University and an MBA from Stanford University in California.



Jonathan Pershing

Program Director of Environment at
William and Flora Hewlett Foundation

Workshop Speaker

Jonathan Pershing is the Program Director of Environment at the William and Flora Hewlett Foundation. He leads a team of grant-makers focused on climate change in the United States, China, India, Europe, and Latin America, and conserving the North American West. Jonathan served as Hewlett's Environment Program director

from 2017 to 2021 and returned to lead the program in 2022.

From 2021 to 2022, Pershing supported Special Presidential Envoy for Climate John Kerry in advancing various international commitments over the past year. These include the conclusion of the Glasgow Climate Pact at the UN Climate Convention, adoption of a Global Methane Pledge by over 100 countries, a joint declaration between China and the U.S. on enhancing climate action, and a commitment by nations representing over half of the world's economy to reduce their emissions.

Previously, Jonathan served as Special Envoy for Climate Change at the U.S. Department of State and lead U.S. negotiator to the U.N. Framework Convention on Climate Change. He was instrumental in securing the 2015 Paris climate agreement, and subsequently, as senior international climate advisor to the White House and Secretary of State, was charged with overseeing its early implementation. Prior to that, Jonathan served as the Senior Climate Advisor to the U.S. Secretary of Energy and the Principal Deputy Director of the Office of Energy Policy and Systems Analysis at the Department of Energy.

Jonathan spent six years as the director of the Climate, Energy and Pollution Program at the World Resources Institute; five years as the Head of the Environment Division at the International Energy Agency in Paris; and for nearly a decade in the 1990s, he served the Science Advisor and Deputy Director of the Office of Global Change in the U.S. Department of State.

He holds a Ph.D. in geology and geophysics from the University of Minnesota. A scientist by training, he served as a lead author, review editor and contributor for reports of the Nobel-prize-winning Intergovernmental Panel on Climate Change. He has taught at the University of Minnesota and at American University, and he has published and lectured widely on climate and energy issues. In addition, he lived and worked for several years in Alaska in the energy and mining industry.



Melanie Kenderdine

Principal, Executive Vice President of
Energy Futures Initiative (EFI)
Workshop Moderator

Melanie Kenderdine joined former Secretary of Energy Ernest J. Moniz and fellow Principal Joseph S. Hezir in founding the Energy Futures Initiative (EFI), a non-profit organization dedicated to driving innovation in energy technology, policy, and business models.

Kenderdine worked in the Administration of President Barack Obama at the Department of Energy (DOE) from May 2013 to January 2017. She served concurrently as Energy Counselor to the Secretary and as the Director of DOE's Office of Energy Policy and Systems Analysis. Her 100-person office was responsible for analysis and policy development in areas that included: DOE's role in the annual review of the Renewable Fuel Standard Program requirements, energy innovation, and climate change. Her office produced two installments of the Quadrennial Energy Review and helped conceive and develop the Energy Security Principles adopted by G-7 leaders in 2014. In her capacity as Energy Counselor to the Secretary, Kenderdine helped create Mission Innovation, now a 24-country/European Union initiative that supports transformational clean energy RD&D; North American grid integration and security; and the modernization of the Strategic Petroleum Reserve.

Prior to her service at DOE, Kenderdine helped establish the MIT Energy Initiative (MITEI) and served there as Executive Director. Before joining MITEI, she was Vice President of Washington Operations for the Gas Technology Institute (GTI) from 2001 to 2007. From 1993 to 2001, Kenderdine was an appointee in President Bill Clinton's administration, where she served in several key posts at DOE, including Senior Policy Advisor to the Secretary, Bill Richardson, Director of the Office of Policy, and Deputy Assistant Secretary for Congressional and Intergovernmental Affairs. She was a primary architect of the SPR oil exchange of 2000, the creation of the Northeast Home Heating Oil Reserve, and the return of the Naval Oil Shale Reserve No. 2 to the Ute tribe in Utah, the largest land transfer back to Native Americans in the lower 48 in over 100 years. Prior to joining DOE, Kenderdine was Chief of Staff and Legislative Director for then-New Mexico Congressman Richardson.

Melanie is a graduate of the University of New Mexico, has homes in New Mexico and Hawaii, and is an avid global traveler and enthusiast of fly fishing.



Adam Sieminski

Senior Advisor to the Board of King
Abdullah Petroleum Studies and Research
Center (KAPSARC)
Workshop Panelist

Adam Sieminski is the Senior Advisor to the Board of King Abdullah Petroleum Studies and Research Center. KAPSARC is a leading think tank located in Riyadh. Its mission is to advance Saudi Arabia's energy sector and inform global policies on energy, economics, and the environment.

He served as the President of KAPSARC from April 2018 to August 2021, and before that held the Schlesinger Chair for Energy & Geopolitics at CSIS. From 2012 through 2016 he served as head of the U.S. Energy Information Administration (EIA). While awaiting Senate confirmation for EIA, he was Senior Director for Energy and Environment at the U.S. National Security Council. Earlier, he was Deutsche Bank's chief energy economist and integrated oil company analyst, working in Baltimore, London, New York, and Washington.

Sieminski holds the CFA designation and earned a BS degree in Civil Engineering and a Master's in Public Administration, both from Cornell University.



Martin Wilhelm

Founder and Managing Partner of
Geopolis Energy Partners
Distinguished Associate at EFI
Workshop Panelist

Martin Wilhelm is a strategic advisor to corporations, financial institutions, investors, and policymakers on innovation and risk management in global energy markets. His role includes actively managing and hedging clients' energy market positions from physical assets as well as technological ventures, based on assessment of global market and technology drivers and risks.

With a Chicago-based team of MIT and University of Chicago trained engineers he developed large-scale software systems for energy trading, portfolio management and risk controlling for electric utilities in Germany and Luxembourg.

Wilhelm was part of the leadership team in the post 9/11 'Competitiveness and Security Initiative', funded by DOE and DTRA, where he was responsible for all electric power, oil, and natural gas industry activities. He has also served as an advisor to energy industry groups, including Edison Electric Institute in Washington, D.C., and VDEW/BDEW. In the context of German 'Energiewende', he has worked for German utilities, the European Energy Exchange and government on issues including necessary changes in EU electricity market architecture to deal with intermittent renewables generation; risk management for physical generation assets in global energy markets; competitiveness challenges for European/German energy, and climate policy from US shale gas.

Wilhelm was a research fellow at Cologne Institute of Energy Economics in Germany and, as Krupp Scholar at MIT Energy Laboratory, authoring two books on regulatory economics and power generation as well as numerous articles and working papers on energy policy and industry issues.

He studied economics, management science, and electrical engineering at the Universities of Cologne and Bonn, Germany, Ecole des Hautes Etudes Commerciales (HEC), Paris, and MIT. He also holds a M.S. in economics from Cologne University and an international management degree from HEC. He is a recipient of the Theodor-Wessels Prize in Energy Economics.



Han Phoumin

Senior Energy Economist at the Economic Research Institute for ASEAN and East Asia
Workshop Panelist – Virtual Participant

Han Phoumin has more than 20 years of professional experience working at various international and inter-governmental organizations and multi-disciplinary research consortiums related to energy markets and technologies, environment, integrated water resource management, governance, and economic development in the region of ASEAN and East Asia. He specialized in economic development and policy and applied econometrics. Much of his career in the past 12 years revolved around power sectors, especially with sustainable hydropower development, renewable energy policy research (i.e., biomass power generation competitiveness studies, solar and wind), energy efficiency and conservation, clean coal technology, energy security, and energy demand and supply forecasting. He has been serving as an expert for APEC on energy security for oil and gas emergency responses since 2013 until now. He is also one of the peer review experts for Peru's energy subsidy removal commissioned by USAID in 2015. He also has led several projects in the EAS region related to energy policy and planning and contributed articles and special issues for academic journals. In 2022, he joined Elsevier as a member of the International Advisory Board for Energy Policy.



Alex Kizer

Senior Vice President of Research and
Analysis at the Energy Futures Initiative
Workshop Speaker

Alex Kizer is the Senior Vice President of Research and Analysis at the Energy Futures Initiative (EFI). He develops and manages projects on cross-cutting issues related to technology, policy, and innovation in energy sectors at home and abroad. An expert in developing and managing major analytical initiatives, Kizer supports funders and sponsoring organizations with advice on navigating the interaction between technology disruptions and legacy markets and systems.

At EFI, Kizer (pronounced KI-zer) oversees all qualitative and quantitative analysis for EFI reports, including “Optionality, Flexibility & Innovation: Pathways for Deep Decarbonization in California;” “Advancing the Landscape of Clean Energy innovation,” for Bill Gates’ Breakthrough Energy; “Investing in Natural Gas for Africans,” a project sponsored by the Africa50 infrastructure fund; and white papers on blockchain technology applications for energy, an examination of the U.S. nuclear enterprise and the role it plays in national security, studies on large-scale carbon management, and a variety of budgetary analyses.

Kizer brings over fifteen years of experience advising clients at institutions such as Sandia National Laboratories, the National Infrastructure Simulation and Analysis Center, the U.S. Department of Energy, the U.S. Department of Defense, as well as energy companies that operate in the Middle East and Europe.

At EFI, he designs and manages projects that focus on investment strategies for accelerating clean energy innovation, oversees cost-benefit analyses of electric sector cyber security, develops methods for valuing U.S. energy security, and examines techniques for evaluating the emission savings from the at-scale deployment of all clean technologies.

Kizer holds a B.A. in Public Policy from Ohio University and an M.A. In International Security studies from American University.



Mason Hamilton

Special Assistant to the Secretary General
at International Energy Forum (IEF)

Workshop Speaker

Mason Hamilton is the Special Assistant to the Secretary General at the International Energy Forum. In this role, Hamilton has hosted two workshops on Hydrogen Market Pathways in addition to conducting analysis, and mapping findings, to communicate and explain energy markets. He has gained expertise in several key areas including Global and U.S. liquid fuel and

petroleum markets, international energy policy, energy infrastructure mapping, and the global natural gas industry.

Prior to joining IEF, Hamilton worked as a Senior Economic and Policy Advisor at the U.S. Department of Energy (DOE) Office of Oil & Natural Gas. He assisted and advised the Deputy Assistant Secretary of Oil and Natural Gas and senior DOE leadership with petroleum and natural gas market analysis and expertise. Furthermore, he managed, coordinated, and provided expertise and guidance on analytical studies for the office.

Hamilton served the U.S. Energy Information Agency for seven years, first as a Senior Petroleum Markets Analyst before being promoted to Lead Petroleum Markets Analyst. In this role he led, planned, developed, and performed quantitative and qualitative analysis required to write published analytical reports of current petroleum and liquid fuel market trends. Hamilton provided technical expertise and guidance on petroleum markets to Department of Energy leadership, and other government agencies, and advised senior management on matters pertaining to petroleum markets for EIA publications

Hamilton earned a B.A. in Global Politics from Longwood University and an MPA in Energy Policy from the American University of Paris.



Rami Shabaneh

Fellow in the Oil and Gas Program at King
Abdullah Petroleum Studies and Research
Center

Workshop Speaker

Rami Shabaneh is a fellow in the Oil and Gas program at KAPSARC, with a focus on global gas and hydrogen markets. Rami has over 15 years of research and industry experience analyzing energy markets and energy policies. Before joining KAPSARC, Rami worked at Cenovus Energy as a market fundamentals analyst, providing analytic support for specific issues affecting North American gas, natural gas liquids, and condensate markets. His work informed the company's hedging strategies. Before working at Cenovus Energy, Rami spent three years working as a research economist at the Canadian Energy Research Institute.

Rami holds an M.Sc. in Sustainable Energy Development and a B.Sc. in Actuarial Science from the University of Calgary.



Kenneth B. Medlock III

James A. Baker, III, and Susan G. Baker
Fellow in Energy and Resource Economics
Senior Director, Center for Energy Studies
***Moderator – Regulatory and Policy
Breakout Session***

Dr. Medlock is also the director of the Masters of Energy Economics program and holds adjunct professor appointments in the Department of Economics and the Department of Civil and Environmental Engineering at Rice University. Medlock is also a Distinguished Fellow at the

Institute of Energy Economics, Japan, and is a member of the Advisory Board of the Payne Institute at Colorado School of Mines. In 2012-2013, Medlock held the prestigious Haydn Williams Fellowship at Curtin University in Perth, Australia. He teaches advanced courses in energy economics and supervises Ph.D. students in energy economics. Medlock has published numerous scholarly articles in his primary areas of interest, including: natural gas markets, electricity markets, energy commodity price relationships, transportation, national oil company behavior, economic development and energy demand, energy use and the environment, and various energy transitions topics ranging from engineered and nature-based carbon capture to hydrogen to the economic drivers of technology adoption. He has testified multiple times on Capitol Hill on U.S. energy exports and electricity market evolution, has spoken at OPEC, and is frequently asked to speak about global and domestic energy issues.

Medlock is the past vice president for conferences for the United States Association for Energy Economics (USAEE), and previously served as vice president for academic affairs. In 2001, he won (joint with Ron Soligo) the International Association for Energy Economics Award for Best Paper of the Year in the Energy Journal. In 2011, he was given the USAEE's Senior Fellow Award, and in 2013 he accepted on behalf of the Center for Energy Studies the USAEE's Adelman-Frankel Award. In 2019, Medlock was awarded the Lifetime Achievement Award for the Advancement of the Education of Future Energy Leaders by the Abdullah Bin Hamad Al-Attiyah Foundation. He is also an active member of the American Economic Association and an academic member of the National Petroleum Council. Medlock has served as an advisor to the U.S. Department of Energy and the California Energy Commission in their respective energy modeling efforts.

Medlock received his Ph.D. in economics from Rice University in May 2000.



Peter Fazio

Managing Director – Sustainable & Impact
Banking at Barclays Capital
**Moderator – Financing a Hydrogen
Future Breakout Session**

Peter Fazio helps corporations optimize financial strategy by providing exceptional technical financial advice and analysis, with domain expertise in mergers and acquisitions in the sustainability and energy industries.

With more than a decade of investment banking experience, most recently as a Mergers and Acquisitions Director at Barclays, Fazio led or managed the execution of more than 40 mergers, acquisitions, divestiture, special purpose acquisition company business combination, like-kind exchange, and joint venture transactions with a total deal value greater than \$240 billion in the sustainability, energy, chemical, and industrial industries.

Fazio began his career as an officer in the United States Army, serving in leadership positions on numerous combat missions during multiple deployments across the Middle East and Southeast Asia. During more than 20 years of service, he has commanded tactical units and cross-functional teams consisting of as few as 12 soldiers to as many as 500. He has served on and led functional staff supporting the planning, resourcing, coordinating, and oversight of military operations with tactical, operational, and strategic impacts.

Fazio holds an MBA in Corporate and Investment Finance from Duke University and a B.A. in Economics from New York University.



Jane Nakano

Senior Fellow in the Energy Security and Climate Change Program at the Center for Strategic and International Studies (CSIS)

***Moderator - The Value Chain
Breakout Session***

Jane Nakano is a senior fellow in the Energy Security and Climate Change Program at the Center for Strategic and International Studies. Her research interests include U.S. energy policy; global market and policy developments concerning natural gas, hydrogen and nuclear energy; the security of supply chains for clean energy technology and critical minerals; and energy security and climate issues in Asia-Pacific. She has testified before Congress on China's competitiveness in energy technology manufacturing and exports as well as U.S. LNG exports. Prior to joining CSIS in 2010, Nakano worked in the Office of International Affairs in the U.S. Department of Energy. From 2001 to 2002, she served at the U.S. embassy in Tokyo as a special assistant to the energy attaché. Nakano graduated from Georgetown University's School of Foreign Service and holds a master's degree from Columbia University's School of International and Public Affairs.



Richard Westerdale II

Energy Futures Initiative, Executive
Director, KAPSARC
Workshop Moderator / Director

With more than thirty years of international business experience, Richard (Rick) W. Westerdale II is a highly entrepreneurial, global, C-Level executive with a proven track record of success in both the private sector and public service.

As an entrepreneur, Westerdale's outside interests fall under Westerdale Holdings, LLC, where he serves as General Manager and Principal. Westerdale Holdings is a project incubator and holding company focused on energy-related business development and client relations for a wide range of investment, project development, and business planning activities in the U.S. and internationally.

Previously, Westerdale served as Senior Vice President and on the Board of Directors for Jiangnan Environmental Protection Group Inc. (JNG), an environmental technology provider where Westerdale was responsible for the corporation's oil and gas strategy. Before joining JNG, Westerdale was a Senior Advisor with the U.S. Department of State, where he advised senior principals, including the Secretary, on the nexus of energy with U.S. national security and international energy policy priorities. Westerdale also led engagement with other agencies within the U.S. government. He was the inaugural Director of Policy Analysis and Public Diplomacy and helped establish the Energy Resources Bureau.

During his nearly two-decade tenure with ExxonMobil, Westerdale last worked within a small staff group that reported directly to the Chairman & CEO. Prior to that, he lived overseas, in the Middle East and Australia, and held multiple senior level positions. While in Abu Dhabi, his duties included initiation of commercial strategies, coordination of internal resources, and development of proposals that included competitive tender submissions as well as direct negotiations. While in Australia, Westerdale was responsible for overseeing marketing efforts in Asia and developed the company's first equity marketing strategy for liquefied natural gas.

Westerdale received a Bachelor of Science degree in Civil Engineering from the University of Kentucky. He is a U.S. Army veteran, honorably discharged, and served during the first Gulf War. Westerdale earned a Master of Business Administration degree from Averett University. He is also a registered Professional Engineer.



Brian DaRin

Energy Futures Initiative,
Project Manager, KAPSARC
Workshop Manager

Brian DaRin has over 25 years of international affairs and policy experience in energy, monetary, trade, technology, and other economic issues. Brian came to EFI, recently, following a distinguished diplomatic career with the U.S. Department of State. With State and USAID, he served at United States missions to Japan, China, Hong Kong, Afghanistan, Belize, and Mongolia.

Domestically, as Head of Presidential Pipeline Permitting for hydrocarbons, Brian directed the approval of billions of dollars in critical energy infrastructure. Brian also served as Co-Chair of the Defense Logistics Agency's Materials Impacts Committee, as well as a representative for the Department at the National Petroleum Council, and the NSC's National Emergency Grid Planning, and Strategic Minerals Committees. At the U.S. Consulate General Osaka-Kobe, Brian was the Political-Economic Section Chief where he advised senior U.S. officials on developments in Japan's energy sector and burgeoning gas importation needs. At Embassy Kabul, Brian was Head of energy and minerals development. While at the Department, in addition to a focus on energy-related policy issues Brian also specialized in international monetary affairs, political-military affairs, and other national security issues. With USAID Mongolia, Brian established the first U.S. Trade Linkage Office and drafted the first Country Commercial Guide to Mongolia.

Brian has an MBA in International Management with a focus in International Finance and Mandarin from the Thunderbird School of Global Management and a B.A. in English and Fine Arts with a minor in Economics from the Virginia Military Institute.