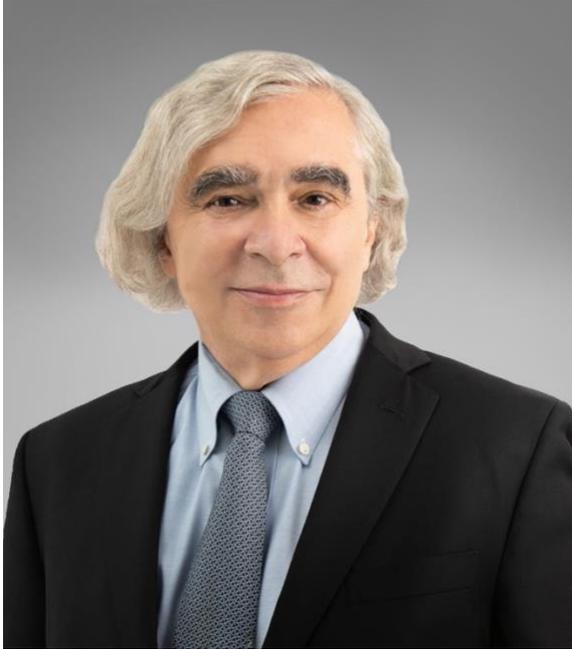


EFI-KAPSARC Advisory Committee Bios

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Ernest J. Moniz

President and CEO
Energy Futures Initiative
EJM Associates
Joint Chairperson for the Committee

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
King Abdullah Petroleum Studies and
Research Center (KAPSARC)
Joint Chairperson for the Committee

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.



Martin Wilhelm

Founder and Managing Partner
Geopolis Energy Partners
Distinguished Associate at EFI
Advisory Committee Member

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.



Kenneth B. Medlock III

James A. Baker, III, and Susan G. Baker
Fellow in Energy and Resource Economics
Senior Director, Center for Energy Studies
Advisory Committee Member

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.



Ken Koyama, PhD

Senior Managing Director, Chief Economist
Strategy Research Unit
The Institute of Energy Economics, Japan (IEEJ)
Advisory Committee Member

Since he joined IEEJ in 1986, Dr. Ken Koyama has held many senior positions in IEEJ, including Senior Research Fellow at the Energy Strategy Unit, general manager of Energy Strategy Department, and an honorary associate, Centre for Energy, Petroleum and Mineral Law & Policy, University of Dundee.

Currently, Dr. Koyama is the Managing Director and Chief Economist at the Institute of Energy Economics, Japan (IEEJ). He also serves as a Visiting Professor at the Graduate School of Public Policy, University of Tokyo and as an Adjunct Professor at the Institute of Innovative Research, Tokyo Institute of Technology.

Dr. Koyama is known for his expertise in energy security issues and the geopolitics of energy. His research in the area of energy economics and the world oil and gas market has been published extensively in national and international journals and books. Dr. Koyama has also been featured in numerous broadcasts on BBC, NPR and others.

He has served as a member of energy policy related advisory councils and committees of Japanese government on numerous occasions. Most recently, Dr. Koyama was appointed as a Director of Japan Electric Power Exchange (JEPX). He also serves on the International Advisory Board of the Energy Academy of Europe (Netherlands) and is an International Advisor (Chair in Energy Economics) at the Energy Commission of Tenaga Nasional University (Malaysia).

He was awarded the BrandLaureate's "Brand Personality Award 2016."

Dr. Koyama obtained his Ph.D. from the University of Dundee, Scotland, and his BA and MA from the Waseda University, Japan.



Carol Battershell

Independent Director
BlueEarth Renewables
EFI Distinguished Associate
Advisory Committee Member

Carol J. Battershell served as Principal Deputy Director in the Office of Policy at the U.S. Department of Energy. In this position she was one of the Agency's senior executives and worked closely with members of the Secretary of Energy and the Under Secretaries Offices.

In her ten years with the Department of Energy (2008-2018), Carol led multi-billion dollar technical programs; ran the Energy Efficiency and Renewable

Energy field operations office which at its peak was responsible for approximately \$7 billion of grants, research and construction; and was a key contributor on two multi-Agency energy policy reviews.

Prior to the Department of Energy, Carol worked for 25 years (1983-2008) in the energy industry for BP. With BP she worked in a variety of locations in the United States, and spent ten years living and working in Europe.

In her career at BP she held roles in operations management, strategy development, financial management, and policy development. She began her career as a refinery environmental engineer in Ohio. Her last role at BP was in London as Vice President, Policy and Strategy for BP Alternative Energy where she was instrumental in developing the business case for an \$8 billion investment to launch that new division.

Carol holds a BS in Engineering from Purdue University with a specialization in environmental engineering and an MBA from Case Western Reserve University.

Carol was an Arotech (NASDAQ:ARTX) Board member (2016-2017) as well as the Nominating Committee chair and an Audit Committee member. She completed the Kellogg Business School Board Director Development Program. Carol previously served as a member of the California Fuel Cell Board, the European Union Hydrogen Initiative Advisory Council, and was appointed to the U.S. Department of Energy Freedom Car and Fuel Partnership Advisory Board.

Recently retired from full-time employment, Carol currently serves on the advisory board for the Energy Policy Institute and as a board member or advisor for three women in energy organizations – Lean In Energy, Ally, and the Clean Energy Education and Empowerment Initiative (C3E).



Anne-Sophie Corbeau

Global Research Scholar
The Center on Global Energy Policy
Columbia University
Advisory Committee Member

Anne-Sophie Corbeau is a Global Research Scholar at the Center on Global Energy Policy at Columbia University's School of International and Public Affairs. Her research focuses on hydrogen and natural gas. Anne-Sophie has over 20 years of experience in the energy industry and is a recognized expert on natural gas. She is the

author of many publications focusing on gas, LNG markets, Asia, China, India and Africa, including the book "LNG markets in transition: the great reconfiguration" (Oxford, 2016). She is also a member of the Gastech governing body.

Prior to joining the Center, Mrs. Corbeau was a senior Leader and head of gas analysis at BP, where she was responsible for advising the Leadership Team on gas market developments and long term pricing assumptions. As part of the Economic and Energy Insights team, she was leading the Energy Outlook's analysis on gas, industry, nuclear and hydrogen. She also served as a member of BP France's Comex (board). Before joining BP, she was a Research Fellow at KAPSARC (King Abdullah Petroleum Studies and Research Center) in Riyadh where she set up and expanded the natural gas program. She also worked for the International Energy Agency (IEA) where she was responsible for managing the research on global gas markets, and for IHS CERA.

She began her career as an engineer working on fuel cells and hydrogen at Peugeot and Debis Systemhaus. Anne-Sophie holds an MSc from the Ecole Centrale Paris and an MSc from the University of Stuttgart.



Wael Almazeedi

Co-founder and CEO,
AIONA Arabia,
Alternative Energy & Avance Labs
Advisory Committee Member

Wael Almazeedi has over 25 years of industry experience in energy and infrastructure acquired while working for Kuwait Petroleum Corporation (1984-1990); the World Bank Group (1993-97); BTU Ventures (1999-2011), an infrastructure private equity firm; and since 2012, FATE Consortium, a collaborative energy technology platform. Experience acquired while stationed in (in alphabetic order): Boston, Dubai, Hong Kong, Kuwait, London, Yokohama, and Washington D.C. Currently, Co-founder and CEO, AIONA Arabia for Alternative Energy (advisory firm) and Avance Labs (global hydrogen accelerator), and Member, Kuwait Energy Transition Committee, the General Secretariate of the Supreme Council for Planning and Development.

Almazeedi's hydrogen assignments include:

- Member, Kuwait National Hydrogen Committee; Scientific Advisor, Kuwait Foundation for the Advancement of Sciences; and Lead Author, Kuwait Hydrogen White Paper/Preliminary Hydrogen Strategy and Roadmap (2019-2021).
- Coordinating Author, "Roadmap for an Inclusive Customer-facing Hydrogen Ecosystem to Expedite the Energy Transition" T-20 Kingdom of Saudi Arabia (2020).
- Author, MENA Hydrogen Chapter in a Book (forthcoming) titled: "Saudi Arabia and the Hydrogen Economy: Domestic and International Opportunities" sponsored by King Abdullah Petroleum Studies and Research Center (KAPSARC) and King Abdullah University of Science and Technology (KAUST).



Coby van der Linde

Director, Clingendael International Energy
Programme (CIEP)
Advisory Committee Member

Coby van der Linde is currently director of the Clingendael International Energy Programme (CIEP) in The Hague, The Netherlands, a non-executive director in three energy companies, a member of the KAPSARC International Advisory Council and, since 2004, an IGU wise person. Coby van der Linde started working as an assistant professor on International Economic Relations at

the University of Leiden in 1984. After finishing her PhD-thesis – Dynamic International Oil markets, Oil market development and structure 1860-1990 (Kluwer, 1991) – she became associate professor. From 2000-2005 she was professor International Political Economy and International Oil Markets at the University of Leiden and from 2004 to 2015 and from 2018 onward, she was part-time professor of Geopolitics and Energy Management at the University of Groningen.

Since September 2001 she is director of the Clingendael International Energy Programme (CIEP). She is managing various studies on European and international energy markets, security of oil and gas supply and energy system transition. From 2004-2014 she was a member of the Dutch Energy Council (AER). She is a columnist on energy. Her publications can be found on www.clingendaelenergy.com



Manal Shehabi

Senior Research Fellow,
Academic Visitor, St. Antony's College,
University of Oxford
Founding Director, SHEER Research &
Advisory Ltd.
Advisory Committee Member

Dr. Manal Shehabi is Academic Visitor at St. Antony's College of the University of Oxford, and Founding Director of SHEER Research & Advisory Ltd, and Research Associate of the Economic Research Forum. She is an applied economist with recognized expertise in energy, economic, resource sustainability and policy in resource-dependent economies. She is Consultant to the International Energy Agency (IEA) on energy transition in producing economies, an international transfer pricing advisor, and Expert with the UNFCCC on response measures, economic diversification in a low carbon environment, and just energy transition.

Her previous positions include Senior Research Fellow and the OIES-KFAS Research Fellow at the Oxford Institute for Energy Studies (2016-2022), in-house expert for a multinational energy & mining services company, and economist in consulting firms in the US and Australia working mostly with energy and mining firms.

Her research made important contributions to the analysis of economic adjustment, energy and economic sustainability and policy alternatives in hydrocarbon-producing economies in the Gulf region. Her publications span fiscal sustainability, economic modeling, economic diversification, decarbonization of hard-to-abate sectors, hydrogen, and quantifying socioeconomic impacts of policies.

Her work's impact on policy includes constructing an economic model for policymaking in Kuwait, acting as a reviewer of Kuwait's White Paper for Hydrogen Strategy, advising on geoeconomics and geopolitics of hydrogen, and conducting capacity building for policymakers. She was also lead author of policy briefs to T20 (of G20) and T7 (of G7), and co-authored various policy reports (including decarbonizing cement in Saudi Arabia, the IPCC Special Report on the ocean, Kuwait Energy Outlook, a report to the UNFCCC on impacts of implementing response measures presented at COP26). She successfully launched and managed a business public policy project in the US.

Dr. Shehabi advises policymakers, international organizations, and firms including mid-size and Fortune 500+ companies in energy, mining, petrochemical cross various geographies. A regular speaker at international seminars and conferences, she has been interviewed and cited in major international media outlets.

Dr. Shehabi holds a PhD in economics (The University of Western Australia); an MIA-Economics (Texas A&M University); a BA (Honors) *magna cum laude* in economics and international relations (Ursinus College). She is recipient of various honors, awards, and grants.



Richard Westerdale II

Energy Futures Initiative, Executive
Director, KAPSARC
Committee Secretary

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.