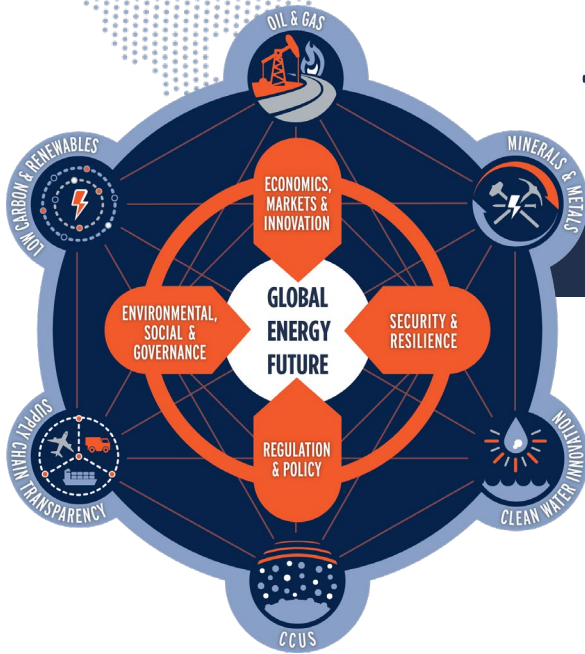


GLOBAL ENERGY FUTURE

Innovation Forum

Digital Program

Thursday, November 2, 2023



SCHEDULE OVERVIEW

1:00PM – 2:00PM

Panel Session

2:00PM – 3:00PM

Presentations –
Session 1

3:00PM – 3:20PM

Break

3:20PM – 5:15PM

Presentations –
Session 2

Networking Reception immediately following
the Forum completion

Contact us to learn
more about the
initiative at
global@mines.edu.

Mines Global Energy Future Initiative (GEFI) is focused on linking Mines' unique combination of expertise with partners from academia, industry, government and civil society to create energy solutions that will shape our Global Energy Future.



SESSION ONE

1:00PM – 2:00PM
Friedhoff Hall

Forum Emcee

Neal Sullivan

Professor, Mechanical Engineering; Director, Colorado Fuel Cell Center
nsulliva@mines.edu



Professor Sullivan's research focuses on experimentation with electroceramics. At the Colorado Fuel Cell Center, new materials for electricity generation and green hydrogen are scaled up to meet the needs of practical applications. His research spans from early-stage materials discovery to complete system integrations,

Panel Session:

Cross sector perspectives on the energy future

John Bradford

Vice President for Global Initiatives
jbradford@mines.edu



"GEFI brings together Mines unique expertise to touch on the critical issues of the energy transformation: making oil and gas sustainable, managing carbon, renewable energy systems and the raw materials that they require, as well as health and prosperity for global communities."

Steven Christensen

Manager Technology Assessment & Planning, Corporate Development,
Xcel Energy



Steve leads a small team at Xcel Energy that commercializes technology that can enable 100% carbon-free electricity by 2050. These include long duration energy storage, geothermal energy, advanced nuclear, carbon capture, and/or clean molecules.

SESSION ONE

1:00PM – 2:00PM
Friedhoff Hall

Panel Session: Cross sector perspectives on the energy future



Warwick King

Vice President Low Carbon Technologies, ConocoPhillips

Warwick began his career with ConocoPhillips in 1983, steadily rising through the organization and working across the globe. He took up his current role in 2021.



Dan Lumma

President, Kiewit Engineering Group Inc.

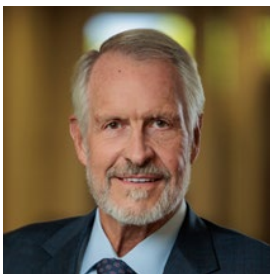
Dan is responsible for engineering and design across the power, water, oil, gas and chemical, industrial and infrastructure markets. Dan brings a comprehensive project execution and technical background as well as solid management and commercial development capabilities.



Brent Lewis

CEO and Co-Founder, Carbon America

Brent has 20 years of senior-level investment banking, project finance, and C-suite experience in renewables, natural resources, and utilities, closing transactions valued at over \$20 billion.



Gerald W. Grandey

Vice-Chair, Board of Governors, Mines Foundation

Jerry was previously the President and Chief Executive Officer of Cameco Corporation, one of the world's largest uranium producers. He currently serves as Chairman of the board of Rare Elements Resources, a mineral resource company.

SESSION ONE

2:00PM – 3:00PM
Friedhoff Hall

Presenters



Luis Zerpa

Associate Professor & Asst Department Head, Petroleum Engineering

lzerpa@mines.edu

Luis' research combines experimental and modeling evaluation of multiphysical properties of rocks, fluids, and their interactions.



Manika Prasad

Professor, Geophysics; Director, Mines CCUS Innovation Center

mprasad@mines.edu

A large part of Manika's work is on multiphysics investigations of sediments and rocks materials for CCS and energy applications.



Dorothy Kanini Mwanzia

PhD Student, Geophysics Graduate Program

dorothym@mines.edu

Dorothy's primary focus is to replicate the CO2 sequestration process in various geologic formations using laboratory experiments.



Yaoguo Li

Professor, Geophysics; Director, Center for Gravity, Electrical & Magnetic Studies

ygli@mines.edu

Yaoguo's research interests are in inverse theory and its application in the interpretation of geophysical data sets arising from resources exploration and production, environmental, and groundwater problems.



Eliza Hotchkiss

PhD Student, Advanced Energy Systems Graduate Program

ehotchkiss@mines.edu

Eliza is exploring the overlap between resilience and energy security, including definitions, metrics, algorithms, and methodologies, to include the role of renewable energy technologies.

SESSION TWO

3:20PM – 5:15PM
Friedhoff Hall

Presenters



Maki Ikeda

Head of Innovation – Product Development, BHP Think & Act Differently

Passionate about decarbonization, technology innovation and challenging our ecosystem to think differently about sustainability and the future of our industries, Maki has spent a large part of her career in the Energy sector, in operational, technology, innovation and strategy roles, and expanded her reach in the broader Industrial space. She is currently the Head of Innovation – Product Development, within BHP Innovation Think & Act Differently. Her team has adopted an open innovation model, accelerating technology deployment and creating pathways for the integration of technologies required to build modern lower impact mines.



Reza Hedayat

Associate Professor, Civil & Environmental Engineering
hedayat@mines.edu

Reza's research focuses on evaluation of geomaterials and sustainable construction materials. He is the recipient of the Early Career Award from the US Department of Energy,

SESSION TWO

3:20PM – 5:15PM
Friedhoff Hall

Presenters



Todd Chapman

Former U.S. Ambassador to Brazil and Ecuador and Non-Resident Fellow at the Payne Policy Institute

Ambassador Todd Chapman (ret.) served 30 years as a career diplomat in the U.S. Foreign Service until 2021. As the U.S. Ambassador to Brazil, he advanced a broad economic, security, and environmental agenda at the sixth-largest U.S. embassy in the world. Prior to Brazil he also served as the U.S. Ambassador to Ecuador, as well as at U.S. embassies in Costa Rica, Mozambique, Afghanistan, Nigeria, and Bolivia. Ambassador Chapman was selected for the Presidential Distinguished Service Award in 2021 and 2022. He was admitted into the American Academy of Diplomacy, and is a non-resident senior adviser at the Center for Strategic and International Studies and board member of the Krach Institute for Tech Diplomacy at Purdue. Ambassador Chapman now serves as an international business consultant and is a member of several corporate boards. Ambassador Chapman earned a bachelor's degree from Duke University and a Master of Science degree from the National Intelligence University.



Alexis Navarre-Sitchler

Professor and Ben Fryear Endowed Chair for Innovation and Excellence, Geology and Geological Engineering

asitchle@mines.edu

Alexis is an expert in geochemical kinetics and application of numerical simulation to answer questions about geochemical processes in natural and engineered Earth systems.

SESSION TWO

3:20PM – 5:15PM
Friedhoff Hall

Presenters

Abdulrahman Al-Belushi

Former U.S. Ambassador to Brazil and Ecuador and Non-Resident Fellow at the Payne Policy Institute

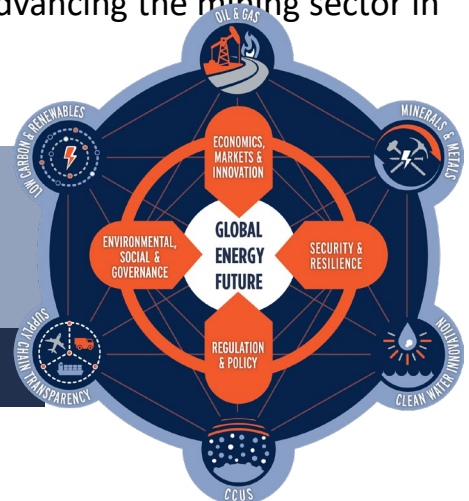
Abdulrahman is an accomplished Mining and Metals industry professional leading the first-ever licensing rounds of the largest site in the Kingdom of Saudi Arabia. As the Assistant Deputy Minister of Mining Enablement, he drives the growth and competitiveness of the Saudi mining sector and overseeing the implementation of the mining strategy. With expertise in exploration policies and opportunities development, Abdulrahman plays a vital role in shaping and advancing the industry.

Abdulrahman's educational background includes two master's degrees in Mining & Energy Economics, obtained from the esteemed Colorado School of Mines and the Institute of French Petroleum (IFP). These qualifications, coupled with his hands-on experience and leadership capabilities, position him as a valuable asset in shaping and advancing the mining sector in Saudi Arabia.



To learn more about Mines
Global Energy Future Initiative Membership
Visit:

<https://www.mines.edu/global-energy-future/membership/>



SESSION TWO**3:20 – 5:15PM
Friedhoff Hall****Presenters**

Jeff Gustavson
President, Chevron New Energies

Jeff is president, Chevron New Energies, a position he assumed in August 2021. In this role, he is focused on lower carbon business prospects that have the potential to scale, including commercialization opportunities in hydrogen, carbon capture, and offsets and support of ongoing growth in biofuels. Prior to this role, Gustavson served as the vice president of Chevron's North America Exploration and Production Company overseeing its Mid-Continent Business Unit, which manages a large resource base of oil and liquids-rich assets in the mid-continent United States, including Chevron's significant Permian assets in Texas and New Mexico. Gustavson has also served as president of Chevron Canada Limited, where he was responsible for the company's upstream interests in Canada. Gustavson joined Chevron in 1999 and has held positions in Finance, Mergers & Acquisitions, Corporate Strategic Planning, Supply and Trading, Investor Relations and Upstream, with numerous assignments in the United States, as well as Venezuela, the United Kingdom and Canada.



Brian Trewyn
Associate Professor, Chemistry and Associate Director, Materials Science Program
btrewyn@mines.edu

Brian's expertise is in the synthesis, characterization, and application development of porous materials. His research interest in energy aligns largely with hydrogen storage/transportation and methane utilization.

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