



SEPTEMBER 24-25, 2019 ENERGY & ENVIRONMENTAL RESEARCH CENTER GRAND FORKS, ND



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Mr. Kazuya Morito-san



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Dear Partners and Guests:

Welcome to the 2019 Plains CO_2 Reduction (PCOR) Partnership Annual Meeting, and thank you for your attendance! We strive to engage all of our partners to ensure the PCOR Partnership provides the most value for your investment. Your input is a key component in determining the future direction of the industry, our program, and future events, and we look forward to hearing from you throughout the course of this meeting.

Annual Meeting

The PCOR Partnership is addressing CO_2 management on a regional level in the upper Great Plains of North America. Through collaborative partnerships with a broad range of stakeholders, we are demonstrating the value of carbon capture, utilization, and storage (CCUS) as a viable solution to national energy and environmental concerns. This year's meeting will highlight recent program accomplishments; share storage strategies and technologies; discuss regulatory development, appropriate carbon storage infrastructure, and future CCUS activities; and feature a panel of CEOs who will discuss business cases for CCUS. We will also be discussing the new PCOR Initiative, a 5-year program recently selected for award by the U.S. Department of Energy (DOE) that will identify and address CCUS deployment challenges across the region.

Dinner and Networking Social

This year's evening event is at the Toasted Frog. This unique hot spot offers a relaxed and welcoming atmosphere, American fare with global influences, and martinis amid brick walls, high ceilings, and abstract art. The chef has prepared a special, locally sourced, six-course meal for our event. Shuttle buses will depart from the CanadInn and SpringHill Suites hotel lobbies at 5:45 p.m. Dinner will begin at 6:00 p.m. Shuttle buses will return to both hotels at 9:00 and 10:00 p.m.

Special Event Sponsors

I want to personally thank all of our special event sponsors for their incredible support. Without their generous contributions, our evening events at Rhombus Guys and The Toasted Frog would not be possible. This year's special event sponsors include ALLETTE, Inc; Ballantyne Oil, LLC; Basin Electric Power Cooperative; Computer Modelling Group LTD.; Denbury Resources, Eagle Operating Inc.; Great River Energy; Ham's Well Service Inc.; the Lignite Energy Council; Minnkota Power Cooperative; the North Dakota Petroleum Council; Schlumberger; Steiner Oil & Gas, LLC; and a personal donation from Mr. Kazuya Morito-san.

Event Services

We wish to make your experience at our meeting as positive and enjoyable as possible, so please contact any of our event team members at the registration desk if you have questions or need assistance.

Please feel free to contact me anytime with questions or comments regarding the PCOR Partnership. I can be reached by phone at (701) 777-5355 or by e-mail at cgorecki@undeerc.org. Again, thank you for your support, and enjoy your stay in Grand Forks!

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Sincerely,

Charles D. Gorecki

PCOR Partnership Program Manager

EERC CEO

Wednesday, September 25, 2019

7:30 a.m.	Shuttles De	part Canad	Inns and S	pringHill	Suites for	the EERC

7:45 a.m. Registration and Networking (breakfast provided)

8:30 a.m. Welcome and Introductions

Charlie Gorecki, Energy & Environmental Research Center (EERC)

8:45 a.m. Future of the DOE Fossil Energy Program

The Honorable Angelos Kokkinos, DOE

9:15 a.m. Achievements and Future of the PCOR Partnership

Neil Wildgust, EERC

9.35 a.m. Denbury: A Pioneering CO₂ EOR Company

Kate Ryan, Denbury Resources

10:05 a.m. Break

10:30 a.m. Preview of the Upcoming National Petroleum Council Report on CCUS

John Mingé, BP America

11:00 a.m. Infrastructure Assessment and CCUS Prospects in Alaska

Brent Sheets, University of Alaska

11.30 a.m. Advancing CCUS Deployment in Wyoming

Scott Quillinan, University of Wyoming

12:00 NOON Group Photo and Lunch (provided)

1:30 p.m. Panel: Business Cases for CCUS

- The Honorable Chuck McConnell (Panel Chair), Executive Director, Center for Carbon Management and Energy Sustainability, University of Houston
- Wade Boeshans, President and General Manager, BNI Energy
- Chris Kendall, Director, President, and CEO, Denbury Resources
- John Mingé, Former Chairman and President/Chair NPC CCUS Study, BP Americas
- Robert (Mac) McLennan, President and CEO, Minnkota Power Cooperative
- Paul Sukut, CEO and General Manager, Basin Electric Power Cooperative

3:00 p.m. Break

3:30 p.m. Latest News from Project Tundra

David Greeson, Proven Project Development Group

4:00 p.m.	Developing Storage Options for Large-Scale ${\rm CO_2}$ Capture in North Dakota Wes Peck, EERC			
4.15 p.m.	Pioneer Award Presentation John Harju, Ed Steadman, and Charles Gorecki			
4:35 p.m.	Wrap-Up and Announcements Neil Wildgust, EERC			
4:45 p.m.	Adjourn			
4:50 p.m.	Shuttles Depart the EERC for Canad Inns and SpringHill Suites			
5:45 p.m.	Shuttles Depart the Canad Inns and SpringHill Suites for the Toasted Frog*			
6:00 p.m.	Social and Locally Sourced, Six-Course Dinner at the Toasted Frog*			

^{*} Funding for external events provided by private donations from special event sponsors.

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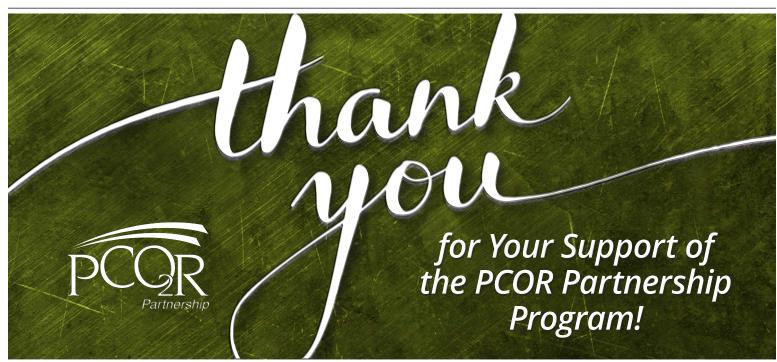


Evening Networking Event

Locally Sourced, Six-Course Social/Dinner at

The Toasted Frog

























Mr. Kazuya Morito-san





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ANNUAL MEETING SPEAKERS





Mr. Charles Gorecki is CEO of the EERC at the University of North Dakota (UND), where he leads a multidisciplinary science, engineering, and support team of 220 people focused on research and development (R&D) leading to demonstration and commercialization of innovative energy and environmental technologies. Mr. Gorecki oversees efforts

to address these issues through strategic initiatives focused on clean coal technologies, oil and gas industry technologies, CCUS, energy and water sustainability, air toxics and fine particulate control, water management strategies, global climate change, waste utilization, hydrogen technologies, and contaminant cleanup. He continues to serve as Program Manager for the PCOR Partnership and the Bakken Production Optimization Program. He holds a B.S. degree in Geological Engineering from UND.



The Honorable Angelos Kokkinos is Associate Deputy Assistant Secretary for Clean Coal and Carbon Management in the Office of Fossil Energy at DOE, responsible for managing and planning of coal R&D. He has over 40 years of experience in fossil fuels, energy generation, and air pollution control equipment design and operation. Prior

to joining DOE, he was Chief Technology Officer for Babcock Power, Inc., a major supplier of steam generation and environmental control equipment for utility and industrial applications. He is the holder of six U.S. patents and received a B.S. degree in Chemical Engineering from the University of Massachusetts Lowell and an M.S. degree in Fuel Science from the Pennsylvania State University.



Mr. Neil Wildgust is Assistant Director for Geoscience and Engineering at the EERC, where he leads projects and risk assessment activities related to CO₂ storage and enhanced oil recovery (EOR), working with team members to prepare proposals and develop and manage project scopes of work, objectives, personnel, and budgets. He holds an

MSc. degree in Applied Environmental Geology from Cardiff University, Wales, and a BSc. degree in Geology from the University of Southampton, England. Prior to joining the EERC, Mr. Wildgust was the Manager for Geological Storage with the Global CCS Institute, responsible for leading the storage advisory team across the institute and managing relationships with Canadian members. He has also worked for the Petroleum Technology Research Centre, managing the IEA Greenhouse Gas R&D Programme (IEAGHG) Weyburn–Midale research project, and for IEAGHG. Mr. Wildgust's principal areas of interest and expertise include CCUS, EOR, and project management. In addition, he is a chartered geologist (United Kingdom) and has 25 years of industrial experience in mining, land contamination, and hydrogeology.



Ms. Kate Ryan, Director – Reservoir Engineering, joined Denbury in 2015. Prior to being named Director in April 2019, Ms. Ryan served as Denbury's Chief Reservoir Engineer and had also previously served as Asset Manager for the Texas Region. Prior to joining Denbury, Ms. Ryan served as the lead reservoir engineer for C12 Energy – an

oil and gas start-up focused on utilizing anthropogenic CO_2 for EOR as well as other engineering roles with Chesapeake and ConocoPhillips. Ms. Ryan earned her B.S. degree in Chemical Engineering from the University of Texas.



Mr. John Mingé is a Senior Executive at BP America, Inc., and Chair of the National Petroleum Council (NPC) study on CCUS. During his 36-year career with BP, Mr. Mingé has held executive and engineering posts around the world. In his role as Chairman and President of BP America, he was responsible for providing leadership

and oversight to BP's U.S. businesses. Before that, he served as Regional President of BP Alaska, where he was responsible for exploration, development, and production activities. Mr. Mingé also served as Head of BP's Asia Pacific Exploration and Production Unit, President of BP Indonesia, and President of Exploration and Production for Vietnam and China. He started his BP career in the Gulf of Mexico as a Drilling Engineer and holds a B.S. degree in Mechanical Engineering from Washington State University (WSU). Mr. Mingé is a non-executive director of Newpark Resources and Proserv and a member of McKinsey's Crisis Advisory Board. He is an NPC member and an advisory board member of the Rice University Kinder Institute for Urban Research. He is heavily involved with his alma mater, WSU, where he serves on the University's Foundation Board of Directors.



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Mr. Brent Sheets has been Director of the University of Alaska Fairbanks (UAF) Petroleum Development Laboratory (PDL) since November 2016. Mr. Sheets is working with industry representatives and researchers across the UA system to unite disciplines so that UA can better serve the oil industry's

research needs and to augment what already exists by collaborating with other universities, private sector businesses, and federal and state governments. Prior to joining PDL, he was Deputy Director of the Alaska Center for Energy and Power, and from September 2001 until he joined UAF in July 2011, he was the Regional Manager of DOE's Arctic Energy Office. The Arctic Energy Office was established to promote research related to development of Alaska's oil, natural gas, and coal resources for the benefit of the nation and to address the state's unique energy needs. Mr. Sheets' current projects include a \$9.5 million Alaska North Slope demonstration project, funded by DOE and Hilcorp, regarding the use of polymer flooding on viscous oils and a \$3 million initiative to design a small-scale coal gasification plant to generate electricity,

ANNUAL MEETING SPEAKERS



which will hopefully lead to its construction. He is also working to develop a scope of work with the North Slope operators to model the rate of permafrost thawing and estimate its effect on infrastructure, particularly pads and roads.



Mr. Scott Quillinan is Director of Research for the School of Energy Resources (SER) at the University of Wyoming (UW) and acting Director of the SER Center of Economic Geology Research. Prior to joining UW, he managed the Groundwater Division at the Wyoming State Geological Survey and founded the Unconventional

Resources Division. Mr. Quillinan has B.S. and M.S. degrees in Geology from UW and is a registered consulting Professional Geologist (PG-3824). Over the years, his research has focused on the sustainable production of energy resources, both domestic and abroad.



The Honorable Charles McConnell is Executive Director of the Center for Carbon Management and Energy Sustainability at the University of Houston (UH). Prior to joining UH Energy, he was Executive Director of the Energy and Environment Initiative at Rice University. Mr. McConnell served as Assistant

Secretary of Energy at DOE from 2011 to 2013 and was responsible for the Office of Fossil Energy's strategic policy leadership, budgets, project management, and R&D of the department's coal, oil and gas, and advanced technologies programs as well as for the operations and management of the U.S. Strategic Petroleum Reserve and the National Energy Technology Laboratories. Mr. McConnell also previously served as Vice President of Carbon Management at Battelle Energy Technology in Columbus, Ohio, and with Praxair, Inc., serving in a variety of operations, sales, and global business and technology roles including hydrogen, gasification, and energy as the Global VP of Energy and Hydrogen. Mr. McConnell is currently a board member of the EERC Foundation®, is a member of the National Coal Council, has served on the Society of Petroleum Engineers and National Petroleum Council subcommittees, and has held a number of board positions including chairmanships of the Gasification & Syngas Technologies Council and the Clean Carbon Technology Foundation of Texas. He holds a bachelor's degree in Chemical Engineering from Carnegie-Mellon University and an M.B.A. degree in Finance from Cleveland State University.



Mr. Wade Boeshans, P. Eng., is the President and General Manager of BNI Energy Inc., headquartered in Bismarck, North Dakota. He has 20 years of experience in the coal industry across the United States, including experience in Gulf Coast lignite fields, the Powder River Basin, and North Dakota lignite mines. He

also serves as Chair of the Lignite Energy Council Board of Directors. Mr. Boeshans is a tireless advocate for technology development and its critical role in securing a sustainable energy future for our nation. He holds a B.S. degree in Civil Engineering from North Dakota State University (NDSU) and is a graduate of the University of Minnesota Carlson School Executive Program. He is an executive member of the Bismarck State College Foundation Board of Trustees and an ex officio member of North Dakota's EmPower Commission.



Mr. Christian Kendall has been the President and COE at Denbury since July 2017, also serving as a member of Denbury's Board of Directors. Mr. Kendall joined Denbury as Chief Operating Officer in September 2015 and was named President in October 2016. Prior to joining Denbury, Mr. Kendall was

employed at Noble Energy, Inc. (Noble), where he served as a member of Noble's executive management and as part of its operations leadership team as Senior Vice President, Global Operations Services. Prior to that, Mr. Kendall served as Vice President, Gulf of Mexico (2011-2014) and as Business Unit Manager and Vice President, Noble Energy Mediterranean Ltd. (2007–2011), having been with Noble since 2001. Mr. Kendall began his career with Mobil Oil Corporation in 1989 and, in total, has more than 29 years of oil and gas industry experience in domestic and international operations roles. Mr. Kendall holds a B.S. degree in Engineering, Civil Specialty, from the Colorado School of Mines and is a graduate of the Advanced Management Program at the Harvard Business School. As President and CEO of Denbury, Mr. Kendall is intimately knowledgeable of its day-to-day and strategic operations, providing its Board with a management perspective.

ANNUAL MEETING SPEAKERS





Mr. Robert "Mac" McLennan is President and CEO of Minnkota Power Cooperative Inc. He joined Minnkota Power in January 2011. Mr. McLennan was previously employed by Tri-State Generation & Transmission Association based in Westminster, Colorado, as

Senior Vice President of External

Affairs & Member Relations. In that

position, he focused on member relations, corporate planning, environmental compliance, and development of business strategies. He also worked for the National Rural Electric Cooperative Association (NRECA) as Director of Environmental Affairs and was an Assistant to the Chief of Staff for Senator Byron Dorgan. Mr. McLennan is a member of the College of Engineering & Mines Executive Board at UND. He is a graduate of Jamestown College in Jamestown, North Dakota.



Mr. Paul Sukut is CEO and General Manager of Basin Electric Power Cooperative. Mr. Sukut has 40 years of experience in the energy industry, with over 35 years at Basin Electric. Prior to his current position at Basin Electric, he served as Chief Financial Officer and, before that, Senior Vice President. Mr. Sukut holds a B.A. degree in

Business Administration and Political Science from Jamestown College and an M.S. degree in Accounting and Tax from UND. He is a Certified Public Accountant and a Chartered Global Management Accountant.



Mr. David Greeson is a consultant to the carbon capture and power generation industries. Until his retirement in 2018, he was the Vice President of Development for NRG Energy, where he led NRG's Gulf Coast business development group and the company's carbon capture program. Mr. Greeson was the developer of the

\$1 billion Petra Nova project near Houston, Texas, from inception through commissioning and is now consulting with Minnkota Power Cooperative on Project Tundra in North Dakota. He began his career in the power industry at Houston Lighting & Power over 38 years ago. Over the years, he has developed five major power projects which represent over \$3 billion of investment.



Mr. Wesley Peck is a Principal Geologist at the EERC, where he is involved in subsurface resource development with an emphasis on the Williston and Powder River Basins. He also serves as task lead and principal investigator of the regional geologic characterization component of the PCOR Partnership Program,

which focuses on carbon dioxide storage in central North America. Mr. Peck's principal areas of interest and expertise include geology and geographic information systems (GIS). Mr. Peck received his M.S. degree in Geology from UND and his B.S. degree in Earth Science from NDSU. Mr. Peck has authored and coauthored several professional publications.



Mr. John Harju is Vice President for Strategic Partnerships at the EERC, where he leads efforts to build and grow dynamic working relationships with industry, government, and research entities globally in support of the EERC's mission to provide practical, pioneering solutions to the world's energy and environmental

challenges. In 2018, he was appointed by the U.S. Secretary of Energy to serve on the National Coal Council. He was appointed to the National Petroleum Council in 2010. He also served on DOE's Unconventional Resources Technology Advisory Committee (URTAC) from 2012 to 2014. He was appointed to the Interstate Oil and Gas Compact Commission (IOGCC) in 2010, serving on the Energy Resources, Research, and Technology Committee and on IOGCC's Carbon Capture and Geological Storage Task Force. Since 2014, Mr. Harju has served on the Board of Governors of Mainstream Investors, LLC. In addition, he is a member of the Rocky Mountain Association of Geologists.



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Mr. Edward Steadman is Vice President for Research at the EERC. In this role, he oversees the activities of a team of scientists and engineers focused on research, development, demonstration, and commercialization of energy and environmental technologies that address the EERC's core

research priorities: coal utilization and emissions, carbon management, oil and gas, alternative fuels and renewable energy, and energy-water. Mr. Steadman's principal areas of interest and expertise include carbon sequestration, EOR techniques, and chemical transformations during coal combustion. He holds an M.A. degree in Geology from UND and a B.S. degree in Geology from the University of Pennsylvania-Edinboro.

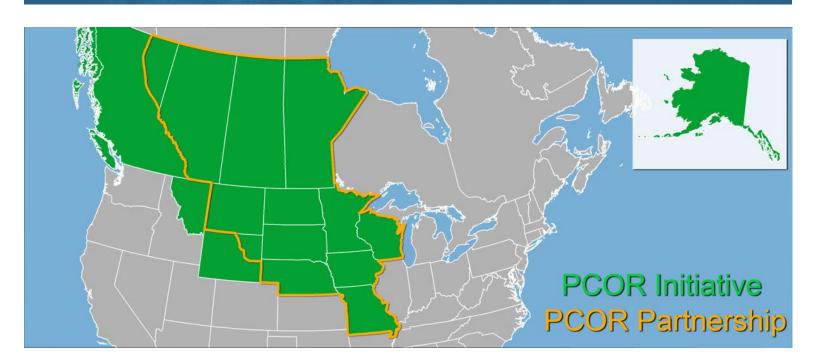
ABOUT THE PARTNERSHIP



The PCOR Partnership has been a 16-year collaboration of over 120 U.S. and Canadian organizations drawn from industry, government and research organizations. Led and managed by the EERC and supported by DOE, the PCOR Partnership has identified outstanding regional CCUS potential and demonstrated secure CO₂ storage at the industrial scale. The new DOE award for the PCOR Initiative will allow the EERC and partners to continue developing a regional CCUS vision and accelerate project deployment.

PCOR Partnership Program at a glance:

- PCOR Partnership Phase I, 2003–2005, regional CCUS characterization
- PCOR Partnership Phase II, 2005–2008, field validation projects and public outreach
- PCOR Partnership Phase III, 2007–2019, large-scale demonstration project, public outreach, and refined regional assessment
- PCOR Initiative, 2019–2024, identify and address regional storage and transport challenges facing commercial CCUS deployment



Membership in the PCOR Initiative will provide unique opportunities to develop working relationships with stakeholders from across the region and encompassing all aspects of the CCUS value chain. Become a partner in the new PCOR Initiative!

For more information, please contact: Neil Wildgust, Assistant Director for Geoscience and Engineering nwildgust@undeerc.org 701.777.5193



PCOR PARTNERSHIP AND INITIATIVE







SEPTEMBER 24-25, 2019 ENERGY & ENVIRONMENTAL RESEARCH CENTER GRAND FORKS, ND

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