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National Commission on Innovation & Competitiveness Frontiers  
**Mountain West Innovation Summit**

June 21-22, 2022  
University of Wyoming, Laramie, WY

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**Day 1, Breakout Group #1: The Future of Sustainability – Accelerating Innovation in Energy Technologies**

Date: June 21, 2022  
Time: 3:45pm – 5:00pm  
Venue: Marian H. Rochelle Gateway Center  
Room: Gateway Salon A  
Registration: On-the-ground registration for the Summit will take place in the Gateway Center Foyer.

**CO-CHAIRS**

**Mr. Rich Brown**  
Senior Vice President, Bank of America

**Dr. Holly Krutka**  
Director, School of Energy Resources, University of Wyoming

**Dr. Cindy Powell**  
Chief Science & Technology Officer, Energy and Environment Directorate, Pacific Northwest National Laboratory

**MODERATORS**

**Mr. Bill Bates**  
Senior Advisor  
Council on Competitiveness

**Mr. John Thompson**  
Director of Technology and Markets  
Clean Air Task Force

## **GENERAL INFORMATION**

- Press may be in the room – **THOUGH UNLIKELY**. Nevertheless, please keep in mind your comments as they may be quoted.
- The breakout sessions will **NOT** be audio recorded (though Moderators and Support Team will be taking notes) – but they are likely to be photographed – as such, we will ask all participants to sign a simple release to use images upon registration.
- Images will be used in the production of a post-Summit summary report.
- Dress code for the Summit – including the reception and dinner on the 21st – is business casual.

## **PROGRAM FORMAT AND DYNAMICS**

The purpose of the breakout sessions is for Summit participants to leave plenary and gather in smaller groups to focus on one of four critical issue sets that will form the 2022/2023 “policy recommendation generation engine” of the Council on Competitiveness “National Commission on Innovation and Competitiveness Frontiers.” The focus will include a consideration – **BEFORE THE SUMMIT** – of a short breakout group “charter” which sets out the innovation and competitiveness challenge under consideration – as well as shares a series of questions to consider addressing/answering at the Mountain West Innovation summit.

- Breakout Group #1, “The Future of Sustainability: Accelerating Innovation in Energy Technologies” will report at the appointed time to Gateway Salon A on both June 21st and June 22nd.
- Breakout Groups will be led on both days by a different set of “Co-Chairs”, supported substantively and administratively by a group of “Moderators.”
- Moderators will bring the Breakout Groups to order – introducing the “Co-Chairs” and initiating an around-the-room introduction of Breakout Group participants.
- Breakout Group Co-Chairs will set the stage for the 1-hour 15-minute conversation – reviewing the “charter” for the conversation, as well as outlining a series of questions to address across the two days of the Summit.

- The goal is not to cover every question on Day 1 – but to go deep on a set of questions on both days of the Summit, ensuring ample consideration.
- The Co-Chairs and/or Moderators should also note from the outset that upon completion of each day’s Breakout Group conversation, all Breakout Groups will return to plenary – and each Breakout Group will need to nominate a representative to join the emcee on stage and provide a 3-5 minutes summary of key issues discussed in Breakout. This will be repeated on Day 2 – but with, ideally, a different representative standing up for each group.
- The Co-Chairs should help instigate and drive the Breakout Group conversation – but Moderators need to be prepared to jump in and support the Co-Chairs, either with suggested questions or time check to proceed to a different issue/question outlined in the Breakout Group charter.
- The Co-Chairs and Moderators should use the final 15 minutes of the session to try – with the participation of the full Breakout Group – to nominate a representative and work together to arm that representative with a prioritized summary to report back in plenary.
- Moderators need to track the questions/issues covered during Day One – and at the beginning of Day 2’s Breakout, quickly remind respective groups on Day 1’s findings – and help set up Day 2 Co-Chairs for reflections/opening remarks.

(IF YOU ARE A DAY 2, JUNE 22<sup>ND</sup> CO-CHAIR FOR A BREAKOUT GROUP, BE PREPARED TO COME TO DAY 2 WITH YOUR OWN REFLECTIONS OF DAY 1 CONVERSATION – AND BE PREPARED TO RESTART THE CONVERSATION WHERE IT LEFT OFF ON DAY 1.

MODERATORS – BE PREPARED TO SUPPORT DAY 2 CO-CHAIRS IN THE PREVIOUSLY BULLETED TASK.)

## **MODERATOR ROLE**

- The moderator will introduce the session and Co-Chairs each day – and be prepared to frame the discussion with his or her insights regarding the Breakout Group topic (2-3 minutes).
- The moderator will support the Co-Chairs each day in guiding conversation, using the general questions in this guide allowing time for response and commentary from panelists.
- The moderator will work both days with their Co-Chairs to stop conversation, engage the entire Breakout Group in summarizing chat, find/nominate a Breakout Group rep and help prepare him/her with 3-5 minutes worth of summary bullets to deliver back in plenary.

## **BREAKOUT GROUP CONCEPT AND KEY QUESTIONS TO ADDRESS ON DAYS 1 & 2**

Refer to the provided National Commission concept paper, plus the “FUTURE OF SUSTAINABILITY” CHARTER in that report, for a summary of key issues and specific questions to consider in this breakout group.

## **CO-CHAIR AND MODERATOR BIOS**



**Mr. Rich Brown (confirmed attendance, co-chair role TBD)**  
Senior Vice President, Bank of America

Rich Brown serves as senior vice president in the Global Environmental Group at Bank of America. The group is responsible for all environmental sustainability for the company, which includes strategic direction for business activities such as climate finance, operational initiatives, employee programs, corporate policy and governance, philanthropy and supporting the United Nations Sustainable Development Goals. In that role, Brown is responsible for environmental business development, marketing initiatives, managing the bank's partnerships with national and international environmental organizations, and Bank of America's My Environment employee engagement program. He is a 28-year veteran of Bank of America. Prior to joining Bank of America, Brown was legislative aide to then-Congressman (now U.S. Senator) Ron Wyden. Brown earned a bachelor's degree in political science from the University of Oregon. Bank of America is a founding member of the Strategic Energy Alliance at Stanford.



**Dr. Holly Krutka**  
Director, School of Energy Resources  
University of Wyoming

Holly Krutka is the Executive Director of the School of Energy Resources at the University of Wyoming. She came to the university after serving as the Vice President for coal generation and emissions technologies at Peabody, the world's largest private-sector coal producer. Dr. Krutka has spent much of her career focusing on technology and policy pathways to advance carbon capture as well as identifying nontraditional coal-consumption opportunities. Before joining Peabody, she worked as a senior research and development analyst for Tri-State Generation and Transmission, an electric generation and transmission cooperative based in Westminster, Colo.; as executive editor of *Cornerstone, The Official Journal of the World Coal Industry*, employed by the Chinese state-owned energy company

Shenhua Group; and as a research scientist and senior research engineer with ADA Environmental Solutions in Highlands Ranch, Colo., where she was tasked with launching a carbon capture research program. In her various roles, Dr. Krutka holds three patents, has served in leadership positions in the National Coal Council and the Carbon Utilization Research Council, has participated in the Carbon Capture Coalition and as a judge on the NRG COSIA Carbon XPRIZE competition.

Dr. Krutka holds a bachelor's degree, graduating magna cum laude, and a Ph.D. from the University of Oklahoma, both in chemical engineering. She is originally from Tahlequah, Oklahoma.



**Dr. Cindy Powell**

Chief Technology Officer, Energy and Environment Directorate  
Pacific Northwest National Laboratory

Dr. Cynthia (Cindy) Powell assumed the role of Chief Science and Technology Officer, for PNNL's Energy and Environment Directorate effective October 1, leading the scientific, technology and engineering vision for the directorate. Cindy joined PNNL in June 2017 as the Division Director for the Energy Processes and Materials Division. As Division Director, Cindy helped steward and grow the division's deep capabilities in science and engineering to create and deliver real-world solutions for clean and secure energy. She stewarded capabilities in key research areas including advanced energy systems, applied materials and manufacturing, battery materials and systems, and chemical and

biological processing.

Previously, Dr. Powell worked for DOE's National Energy Technology Laboratory (NETL) as researcher, line manager, Chief Research Officer, and as the Executive Director for Research & Innovation. These R&D activities included leading 400 multidisciplinary staff at research locations in Pennsylvania, West Virginia, and Oregon. In 2016, Dr. Powell received the DOE Secretary's Achievement Award for her efforts in leading the research effort at NETL. In addition, she is the recipient of an R&D 100 Award for BlackGold®, an erosion-resistant coating for turbine compressor air foils, in partnership with MDS Coating Technologies and Delta Airlines; and a Carnegie Science Award for Corporate Innovation for the creation and implementation of the NETL-Regional University Alliance with five universities.

As a materials research engineer, she is an accomplished author with multiple publications, patents, and presentations. Dr. Powell earned her B.S. and M.S. degrees in Ceramic Engineering at Clemson University and her Ph.D. in Materials Science at Case Western Reserve University.



**Mr. Bill Bates**  
Senior Advisor  
Council on Competitiveness

Bill Bates is a Senior Advisor to the Council on Competitiveness. He was previously an Executive Vice President with the Council and the founding Executive Director of the Global Federation of Competitiveness Councils. He has led multi-year initiatives to explore the economic opportunity for advanced manufacturing in the United States and the development of a national cyber security agenda. Bill was also the chief architect of the Council's National Competitiveness Forum (NCF), the annual C-suite conversation that sets a pro-growth agenda for the U.S. policymakers. He is a frequent speaker both nationally and internationally on a range of competitiveness and innovation topics from education to technology policy to advanced manufacturing.

Since 2019, Bill has led the Council's University Leadership Forum to draw greater attention to higher education's role in U.S. competitiveness from leadership in game changing technologies to the development of the next generation of entrepreneurs.

As the first Executive Director of the Global Federation of Competitiveness Councils (GFCC), Bill helped establish and build a network of more than 30 competitiveness councils from around the world. He managed the Council's role as secretariat to the GFCC, oversaw membership engagement and outreach and directed the development of annual policy reports, including Best Practices in Competitiveness Policy.

He previously served as Director of Government Relations for the United States Telecom Association. Prior to that, he was Chief of Staff and Legislative Director to House Commerce Committee member, U. S. Congresswoman Anna Eshoo (D-CA) where he advised the Congresswoman on a wide range of technology issues including telecommunications, biotechnology and intellectual property. Before joining Ms. Eshoo, he was an Associate with the Washington, DC-based public affairs company, Cassidy & Associates.

He holds a master's degree in government from Johns Hopkins University and a bachelor's degree in government and History from Cornell University. In his spare time, he runs ultramarathons and is a member of the Marine Corps Marathon Runners Club, having completed the race seven times.





**Mr. John Thompson**  
Director of Technology and Markets  
Clean Air Task Force

John Thompson promotes new technology and policy solutions to address climate change that emphasize carbon capture, utilization, and storage (CCUS).

His current work focuses on policy design to overcome barriers facing carbon capture and sequestration. These include policies to develop new transformational carbon capture technologies and overcoming economic and infrastructure barriers that limit the application of CCUS in industry, power, and zero-carbon fuels markets.

John's past work includes facilitating technology transfer between U.S. and Chinese companies, using economic models to determine the impact of potential federal policies on CCUS deployment, and

advocating federal regulatory policies that limit carbon dioxide emissions.

John is a frequent presenter on carbon capture and sequestration at conferences in the United States, China, and Europe. Since 2012, he has served on the National Coal Council, an advisory body to the Secretary of the Department of Energy.

John holds a B. S. in chemical engineering from the University of Illinois, Champaign-Urbana, as well as an M.B.A. from Olin School of Business at Washington University in Saint Louis.