

Background Information For Speakers of the June 25th, 2024 BANR Board Meeting, Session 2

BIO
<i>Paul Overby – SESSION 2</i>
Paul Overby is a leading edge regenerative farmer, along with his wife Diane, from Welford, ND. They operate 1250 crop acres and have pasture and hay land, CRP, wetland buffer zones, and wildlife habitat on an additional 550 acres. They have a diverse crop mix of field peas, sunflowers, wheat, flax, oats, millet, canola and soybeans and they are experimenting with pea/canola polycropping. They also plant a diverse cover crop mix when possible. Rotations are built mostly for ecological considerations along with economics. Overby began field zone management and no-till in 2005. They partnered with General Mills and ADM on regenerative ag pilot programs, helping farmers and businesses learn about regenerative ag. They were among the first farmers selling soil carbon credits to Indigo Ag. Paul and Diane were selected as 2023 Rolette County Conservation Achievement Award recipients. Paul was just selected as the 2024 Conservation Professional of the Year by the National Soil and Water Conservation Society.

BIO
<i>Dr. William Goldner – SESSION 2</i>
Dr. William (Bill) serves as National Program Leader for Biofuel and Bioeconomy Systems for USDA's National Institute of Food and Agriculture (NIFA). Since 2011 has Bill provided leadership for NIFA's Regional Bioenergy and Bioproduct Coordinated Agricultural Project (CAP) Sustainable Agricultural Systems Program. The CAP Program has invested ~\$216 M in more than 12 regional public-private consortia projects that focus on facilitating the development of sustainable production systems for biofuels, industrial chemicals and polymers, and biobased products. Six of these projects have focused on sustainable aviation fuel (SAF) systems. Bill also serves as co-chair of the Biomass Research and Development Board Operations Committee, and the SAF Interagency Working Group. He is the USDA POC on the SAF Grand Challenge MOU with DOE and DOT-FAA and leads the Grand Challenge Roadmap Feedstock Innovation Action Area implementation team. He is a member of the Commercial Aviation Alternative Fuel Initiative (CAAFI) steering committee. In addition to SAF Bill's portfolio includes enabling a domestic natural rubber industry and the colocation of solar energy and agriculture (agrivoltaics). Dr. Goldner has a Ph.D. in plant physiology and genetics from the Intercollege Program in Plant Physiology from Penn State University. Prior to joining USDA Bill was a Research Scientist and Project Manager in the forest products industry for Union Camp Corporation's Corporate Research and Development Division, Princeton, NJ (now International Paper), Technical Strategy Manager for Applied Genetics for American Cyanamid Corporation's Global Agricultural Products Division, Princeton, NJ (now BASF), and Associate Professor on the off-campus faculty of the Graduate Program in Plant Biology, Cook College, Rutgers University.

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BIO
<i>Michael Wolcott – SESSION 2</i>
Michael Wolcott, Regents Professor, has been a member of the WSU faculty since 1996 conducting research in the field of biobased materials, chemicals, and fuels. Wolcott currently serves as the Director of ASCENT, the FAA Center of Excellence for Alternative Jet Fuel and the Environment. He was formerly Project Co-Director for NARA - Northwest Advanced Renewables Alliance, a USDA AFRI Sustainable Biofuels CAP project, which most notably flew the first cellulosic biofuel flight cross-country with partners Gevo and Alaska Airlines. Until recently, Wolcott served as the WSU's Associate Vice President for Research where he managed the strategic relationship between WSU and the Department of Energy's Pacific Northwest National Laboratory (PNNL) building research alliances and graduate student education opportunities.

BIO
<i>Madhu Khanna – SESSION 2</i>
Dr. Madhu Khanna is the ACES Distinguished Professor of Environmental Economics in the Department of Agricultural and Consumer Economics and Alvin H. Baum Family Chair and Director of the Institute for Sustainability, Energy, and Environment, at the University of Illinois at Urbana-Champaign. Her research is at the intersection of agricultural, energy and environmental economics. She has served on the USEPA Science Advisory Board for 10 years and as a Chair/member of review panels for NIFA, USEPA and NSF and as a member of USDOE Technical Advisory Committee. She has also served on the Board of Directors of the Agricultural and Applied Economics Association (AAEA) and the Association of Environmental and Resource Economists (AERE). She is a University of Illinois Scholar, a Stanford Woods Institute of Environment Leopold Leadership Fellow, AAEA Fellow and past President of the AAEA.

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BIO

Dr. Jennifer Holmgren – SESSION 2

Dr. Jennifer Holmgren is the Chairman & CEO of LanzaTech. Under Jennifer's guidance, LanzaTech is developing a variety of platform chemicals and fuels, including the world's first alternative jet fuel derived from industrial waste gases. She is also the Director and Chair of the LanzaJet Board of Directors. Prior to LanzaTech, Jennifer was the founding VP and General Manager of the Renewable Energy and Chemicals business unit at UOP LLC, a Honeywell Company. While there, she was a key driver of their leadership in low carbon aviation biofuels.

Jennifer has authored or co-authored 50 U.S. patents and more than 30 scientific publications and is a member of the National Academy of Engineering (NAE). In 2023, she was named to the Time Magazine Climate 100 list of Most Influential Leaders. Jennifer also sits on the Board of Directors of Nature's Fynd, the U.S.-India Strategic Partnership Forum (USISPF), the Advisory Council for the Andlinger Center for Energy and the Environment at Princeton University, the National Academies' Board on Energy and Environmental Systems (BEES), the Advisory Council for the Pacific Northwest National Laboratory (PNNL), the Halliburton Labs Advisory Board, the Universiti Teknologi PETRONAS International Advisory Council, and the Founder Advisory for The Engine, a venture capital fund built by MIT that invests in early-stage science and engineering companies.

Jennifer holds a B.Sc. degree from Harvey Mudd College, a Ph.D. from the University of Illinois at Urbana-Champaign, a MBA from the University of Chicago, and an Honorary Doctorate from the Delft University of Technology (TU Delft).

BIO

Dr. Zara Summers – SESSION 2

Dr. Zara Summers, the Chief Science Officer at LanzaTech, oversees the technology pipeline and supports innovation and commercial technology deployment. She leads a talented team at the intersection of biology and engineering to advance carbon transformation technologies and plays a strategic role in LanzaTech's mission to decarbonize energy and heavy industries. Zara manages multidisciplinary teams in engineering biology, modeling, fermentation, analytics, biomanufacturing, operations, and technology strategy, ensuring that LanzaTech stays at the forefront of scientific innovation. With nearly a decade of experience at ExxonMobil, Zara held pivotal scientific and leadership roles, developing strategic initiatives in biological solutions for the energy transition and shaping the corporate research strategy on Nature-Based Solutions. Her work at ExxonMobil also involved assessing the impact of subsurface microorganisms on CO₂ sequestration. Zara is committed to integrating economic, environmental, and climate stability into actionable solutions and spearheads efforts at LanzaTech to provide sustainable solutions to meet global energy demands. Her leadership is key in advancing scientific research and commercializing groundbreaking technologies. Zara holds a Ph.D. in Microbiology from the University of Massachusetts and completed her postdoctoral research at the University of Minnesota, which solidified her expertise in microbiology and its applications to climate and energy challenges.

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BIO***Dr. Hugh Bromley – SESSION 2***

Hugh Bromley leads BloombergNEF's research teams covering sustainable food and agriculture systems, land use, nature and biodiversity. Hugh has more than a decade of experience helping companies, investors and policymakers navigate the energy and ecological transition.

Hugh previously spearheaded consumer clean-tech research at BNEF, examining how new technologies such as alternative proteins, solar PV and electric vehicles can disrupt markets. Before that he led the firm's North America clean energy research, and earlier produced analysis on distributed energy, utility strategy and carbon markets within BNEF's Australia research team. He holds a BE (Hons) in photovoltaic engineering from the University of New South Wales, Australia.

BIO***Dr. Nafisa Lowhala – SESSION 2***

Nafisa Lohawala is a Fellow at Resources for the Future (RFF). Before joining RFF, she earned a PhD in economics at the University of Michigan and a BS-MS dual degree in economics with a minor in computer science and engineering (algorithms) from the Indian Institute of Technology, Kanpur. Her research lies at the intersection of industrial organization, energy economics, and public finance. She investigates decarbonization strategies in the transportation sector, focusing on on-road vehicles and aviation, and assesses how government policies influence the sector's environmental externalities.

BIO***Michael Wang – SESSION 2***

Dr. Michael Wang is a Distinguished Fellow and the Director of the Systems Assessment Center at Argonne National Laboratory. Dr. Wang leads the ongoing development of Argonne's GREET model for life cycle analysis of transportation fuels, technologies, and energy systems (see greet.anl.gov for details). At present, there are nearly 60,000 registered GREET users globally. The GREET model and its results have been used by agencies such as the California Air Resources Board, the U.S. Environmental Protection Agency, the U.S. National Highway Traffic Safety Administration, the International Civil Aviation Organization, and the hydrogen and fuel incentive provisions of the Inflation Reduction Act. Besides, the model and results are used by automotive companies, energy companies, and others to address the greenhouse gas footprints of their businesses, products, and technologies. Dr. Wang is a fellow of the Society of Automotive Engineers. He is on the editorial boards of four

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international journals. He has over 330 publications in the areas of transportation energy and environment effects.

BIO

Dr. Karsten Temme – SESSION 2

Karsten founded Pivot Bio in 2010 with his friend and colleague, Alvin Tamsir, driven by a desire to create meaningful change and solve one of the planet's biggest challenges. After completing his graduate research on enhancing the nitrogen-fixing potential of soil-borne microbes, he and Alvin focused on creating a microbial nitrogen to replace synthetic nitrogen, at scale. He earned his BS and MS in biomedical engineering from the University of Iowa and his PhD from the University of California, Berkeley.

BIO

William Hohenstein – SESSION 2

William Hohenstein is the Director of USDA's Office of Energy and Environmental Policy (OEEP), within the Office of the Chief Economist. OEEP serves as a focal point for the Department's energy, environmental markets, and climate change activities. Before working at USDA, Mr. Hohenstein served as a Division Director in EPA's National Center for Environmental Economics. Prior to that, Mr. Hohenstein served in the Climate Change Division of EPA's Office of Policy Planning and Evaluation. He represents the United States at international climate change negotiations and has served as a U.S. representative to the Intergovernmental Panel on Climate Change (IPCC). Mr. Hohenstein has a B.S. in Natural Resource Management from Cook College, Rutgers University and a M.E.M. in Resource Economics and Policy from Duke University's School of Forestry and Environmental Studies.

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