# 2018 Aspen Institute Clean Energy Innovation Forum

February 25-28, 2018 Aspen, CO

# DRAFT PARTICIPANT BIOGRAPHICAL INFORMATION

#### Jeffrey Ackermann

# Chairman, Colorado Public Utilities Commission

Jeffrey Ackermann was appointed Chairman of the Colorado Public Utilities Commission (PUC) effective Jan. 9, 2017 by Gov. John Hickenlooper. His four-year term expires in January 2021. Prior to his appointment, Jeff served as executive director of the Colorado Energy Office (CEO). Under his leadership, CEO made significant strides in improving innovative production and efficient consumption of Colorado's energy resources. He has more than three decades of experience in state government and the energy sector. Previous to his CEO appointment, Jeff led the research efforts at the PUC, focusing on issues ranging from electric system planning to the regulatory implications of emerging technologies. Jeff also served as an advisor to the commissioners on energy efficiency (demand-side management). Jeff started his professional career in the service of low-income energy consumers, twice as director of the state's energy efficiency assistance program (weatherization) as well as an advocate for energy consumers with the state's nonprofit energy assistance fund. Jeff earned a bachelor's degree from Albion College and a master's degree in non-profit management from Regis University.

# Roger Ballentine (Co-Chair)

# President, Green Strategies Inc.

Roger Ballentine is the President of Green Strategies Inc., where he provides management consulting services to corporate and financial sector clients on sustainability strategy; investment and transaction evaluation and project development execution in the in the clean energy sector; and the integration of energy and environmental policy considerations into business strategy. Previously, Roger was a senior member of the White House staff, serving President Bill Clinton as Chairman of the White House Climate Change Task Force and Deputy Assistant to the President for Environmental Initiatives. He has been a *Lecturer on Law* at Harvard Law School teaching in the area of energy and climate policy and prior to the White House was a partner at Patton Boggs LLP. Roger currently serves on the Advisory Boards of the Department of Energy's National Renewable Energy Laboratory (NREL), Clean Capital LLC, 8 Rivers Capital, Uptake Technologies, and the American Council on Renewable Energy (ACORE), where he was a founding Board member in 2001. He is a member of Ingersoll Rand's Advisory Council on Sustainability. Roger also serves as the Co-Chair of the Aspen Institute's Clean Energy Innovation Forum. Roger is a Magna Cum Laude graduate of the University of Connecticut and a Cum Laude graduate of the Harvard Law School. He is a member of the Connecticut, District of Columbia, and the United States Supreme Court bars.

#### William Berg

# VP, Wholesale Market Development, Exelon Corporation

Mr. Berg currently serves as Vice President of Wholesale Market Development for Exelon Corporation. In that capacity, Berg manages Exelon's wholesale policy development and advocacy in all competitive wholesale electricity markets in which Exelon is engaged (PJM, ISO New England, Electric Reliability Council of Texas, Southwest Power Pool, Midcontinent Independent System Operator, and New York Independent System Operator) to ensure outcomes that are aligned with Exelon's business strategy. Mr. Berg works closely with the various business units within Exelon to understand the business needs of the Corporation. Mr. Berg has worked in the electric power industry for over 23 years, and in that time developed an understanding of market dynamics in regulated and deregulated energy markets. Mr. Berg holds a Bachelor of Arts in Business Administration with a Minor in Economics from Lenoir-Rhyne University and a Master of Arts in Applied Economics from the University of Central Florida, College of Business.

#### Jacquelyn Birdsall

#### Senior Engineer, Toyota Motor North America

Jacquelyn Birdsall is a Senior Engineer in the Fuel Cell Hybrid Vehicle group of Toyota Motor North America Research and Development specializing in hydrogen infrastructure, high pressure hydrogen systems and associated codes, standards and regulations. Recently she returned from a thirteen-month assignment at the Toyota Motor Corporation Global Headquarters where she worked directly with the Fuel Cell Division in Toyota City, Japan. Birdsall received a Bachelor of Science degree in Mechanical Engineering from Kettering University.

#### Bill Brown

#### CEO, NET Power, LLC

Bill Brown is the co-founder and CEO of 8 Rivers Capital, LLC, the inventor of the Allam Cycle. Focusing on energy, telecom, water and space launch, 8 Rivers is creating the sustainable infrastructure of tomorrow. Mr. Brown is a graduate of MIT and Duke Law. He was a law partner at Sidley Austin, where he focused on project finance, leveraged buyouts and commercial finance. Following his career in law, Mr. Brown had an extensive career in financial services, holding leadership positions at Goldman Sachs & Co., AIG International, and Morgan Stanley, where he managed teams of up to one thousand people in eight offices around the world. After working in financial services, Mr. Brown became a professor at Duke Law School, where he is now member of the Board of Visitors. Mr. Brown is the co-founder of 8 Rivers Capital, a technology commercialization firm focused on developing infrastructure-scale technologies, and the co-Founder and CEO of NET Power, LLC, which is working with Exelon and CB&I to commercialize a technology that will allow the world to meet its climate targets without having to pay more for electricity. Known as the Allam Cycle, the technology, invented by 8 Rivers, produces electricity from fossil fuels (including natural gas) at a cost comparable to existing technologies, while, at no additional cost, capturing all of the carbon dioxide and other atmospheric emissions.

#### Steve Clemmer

#### Director of Energy Research and Analysis, Union of Concerned Scientists

As director of energy research for the Union of Concerned Scientists' Climate and Energy program, Steve Clemmer conducts research on the economic and environmental benefits of implementing renewable energy technologies and policies at the state and national levels. He also directs UCS research on coal, natural gas, and nuclear power, and on solutions to reduce carbon emissions and water use in the electricity sector. Before joining UCS, Mr. Clemmer was the energy policy coordinator for the Wisconsin Energy Office. Mr. Clemmer holds an M.S. in energy analysis and policy from the University of Wisconsin-Madison, and a B.A. in political science and history from Gustavus Adolphus College in Minnesota. Mr. Clemmer has written numerous reports and journal articles on the economic and environmental benefits of increasing renewable energy and energy efficiency. Mr. Clemmer has been quoted widely, including by the Associated Press, Chicago Tribune, The Guardian, Miami Herald, The New York Times, San Francisco Chronicle, The Wall Street Journal, and The Washington Post. He has also appeared as a guest on numerous radio and television programs.

# James Connaughton (Co-Chair)

# President & CEO, Nautilus Data Technologies

James Connaughton is a nationally distinguished energy, environment, technology expert, as both corporate leader and White House policymaker. Mr. Connaughton is currently President and CEO of Nautilus Data Technologies, an ultra energy and water efficient, low cost data center infrastructure company. He is also an Advisor to the medical isotope company Shine Medical Technologies. From 2009-2013, Mr. Connaughton was Executive Vice President and a member of the Management Committee of Exelon and Constellation Energy, two of America's cleanest, competitive suppliers of electricity, natural gas and energy services. In 2001, Mr. Connaughton was unanimously confirmed by the US Senate to serve as Chairman of the White House Council on

Environmental Quality. He served as President George W. Bush's senior advisor on energy, environment and natural resources, and as Director of the White House Office of Environmental Policy. During his service with the federal government, Connaughton worked closely with the President, the Cabinet and the Congress to develop and implement energy, environment, natural resource, and climate change policies. An avid ocean conservationist, Mr. Connaughton also helped establish four of the largest and most ecologically diverse marine resource conservation areas in the world. Mr. Connaughton is a member of the advisory board of the ClearPath Foundation, and a board member of the Argonne National Laboratory, the Advanced Energy Economy (AEE), and the Columbia University Center on Global Energy Policy.

# Jon Creyts

# Managing Director, China Program, RMI

Dr. Jon Creyts is a Managing Director at Rocky Mountain Institute (RMI), where he leads research and collaboration activities globally on Disruptive Technologies and is the founder and co-leader of RMI's China Program. Jon is a board member of RMI's joint venture Energy Web Foundation, which is creating a global open-source standard blockchain platform to support energy markets. Prior to RMI, Jon was a partner with McKinsey & Company and a designer in both the aerospace and power industries. He is an alumnus of Lockheed Martin's renowned Skunk Works aircraft design facility. Jon received a Ph.D. in mechanical engineering from the University of California, Berkeley.

#### Dave Danielson

#### Managing Director, Breakthrough Energy Ventures

David Danielson is a Managing Director at Breakthrough Energy Ventures, a new \$1B+ climate-tech investment fund backed by Bill Gates and 20 other highly successful business leaders from around the world. Previously, David served as Assistant Secretary of Energy Efficiency & Renewable Energy (EERE) at the US Department of Energy, where he led the largest government clean-energy innovation funding agency in the world. At EERE, he directed the US government's innovation strategy in the areas of sustainable transportation, renewable power, energy efficiency and clean-energy manufacturing, investing about \$2 billion annually into American clean-energy innovation. Prior to serving as Assistant Secretary of EERE, Danielson was a co-founder and employee #1 at the DOE's Advanced Research Projects Agency — Energy (ARPA-E), a highly successful funding agency that focuses on the development of high-risk, high-reward clean-energy technologies. Prior to his government service, he was a clean-energy venture capitalist at General Catalyst Partners and was also the founder and president of the MIT Energy Club. David is also an Adjunct Professor and Precourt Energy Scholar at Stanford University, teaching a course on New Energy Ventures. David received a PhD in Materials Science from MIT and BS in Materials Science from U.C. Berkeley.

#### Noah Deich

#### Executive Director, Center for Carbon Removal

Noah is a cleantech professional with a passion for fighting climate change. He is currently running the Center for Carbon Removal, a non-profit organization dedicated to accelerating the development of carbon removal solutions, and is a visiting scholar at the University of California, Berkeley's Energy and Climate Institute. Prior to founding the Center, Noah worked in consulting, and gained experience with environmental market and carbon offset modeling, financial valuation of renewable and fossil energy power plants, energy efficiency and demand response program design and implementation, and corporate social responsibility strategy assessments. Noah received his M.B.A. from the Haas School of Business at UC Berkeley and his B.A. from the University of Virginia, and his writing has been published in GreenBiz.

#### Dan Delurey

# President, Wedgemere Group

Dan is a former utility and tech executive who over the past 15 years has become known for his coalition building and leadership in the area of grid modernization and distributed energy. He helped shape the very first policy in those areas as represented in federal legislation enacted in 2005, 2007 and the Stimulus Bill of 2009. A provision authored by Dan in 2005 was cited in a major Supreme Court decision in 2015 that rejected calls from power generation companies to restrain the development of demand response. Dan has also been out front as an opinion leader on the intersection of grid modernization and climate change, both from the standpoint of mitigation and adaptation/resiliency. He formed and now manages a credentialed delegation of technology companies that participates in the UN climate change conferences (COPs), and has regularly brought grid technology companies to those events to talk about how grid modernization can help address climate challenges. At the recent UN COP in Bonn, he served as Master of Ceremonies for two days at the US Climate Action Center—the alternative US Center established by Michael Bloomberg and others to replace the US Governmental Pavilion that was not constructed as usual. Dan is the founder of several non-profit organizations and several events, including the National Town Meeting on Smart Grid. He has testified before Congressional Committees and is a frequent speaker and interview subject. His blog and newsletters on policy and business developments in the electricity industry are widely followed.

#### Mike Donohue

# Energy Solutions Team, Uptake

Donohue has spent the last two decades of his career in energy and tech companies. Prior to Uptake, Donohue was a c-suite member for GE Power. At GE Power, he was responsible for its innovation and growth agenda, focusing on revenue growth in the installed base, expansion of profitability and the development of the next generation of services and software offerings. Donohue began his career working for Accenture and various tech startups. He has been active in bringing technology to deliver meaningful outcomes for energy companies. This technology builds bridges between the Information Technology and Operational Technology worlds to engage workers in delivering the transformational outcomes. Mike earned his MBA and BSME from Purdue University and currently serves on Brown University's Advisory Committee for Science and Technology Leadership.

## Julio Friedmann

#### Distinguished Associate, Energy Futures Initiative

Dr. Julio Friedmann is the CEO of Carbon Wrangler, LLC, and a Distinguished Associate at the Energy Futures Initiative, where he leads a team on large-scale carbon management and deep decarbonization. He recently served as Principal Deputy Assistant Secretary for the Office of Fossil Energy at the Department of Energy during the second Obama administration under Sec. Moniz. Previously he held the position of Deputy Assistant Secretary for Clean Coal and Carbon Management. His expertise includes R&D and programs in Clean Coal and Carbon Management, Oil and Gas systems, international engagements in clean fossil energy, and inter-agency engagements within the US government. He has also held positions at Lawrence Livermore National Laboratory, including Senior Advisor for Energy Innovation and Chief Energy Technologist. Dr. Friedmann is one of the most widely known and authoritative experts in the US on carbon removal, CO2 conversion and use, and carbon capture and sequestration, specifically in technology, policy, and operations. He has testified before the US House, Senate, and several state legislatures, published in Foreign Affairs, Financial Times, and the New York Times. In addition to close partnerships with many private companies and NGOs, Julio has worked closely with the US State Department, EPA, and Treasury. Dr. Friedmann received his Bachelor of Science and Master of Science degrees from MIT, followed by a Ph.D. in Geology at the University of Southern California. After graduation, he worked for five years as a senior research scientist in Houston, first at Exxon and later ExxonMobil. He next worked as a research scientist at the University of Maryland.

#### Kate Gordon

#### Senior Advisor, Paulson Institute

Kate Gordon is a nationally recognized expert on the intersection of clean energy and economic development. She provides strategic project and policy advice to a variety of foundation, NGO, and corporate clients, including as a Senior Advisor at the Paulson Institute, where she supports Chairman Henry Paulson on issues related to climate change and sustainable economic growth. She is also a nonresident Fellow at the Center on Global Energy Policy at Columbia University and a regular contributor to the Wall Street Journal as one of the paper's "Energy Experts." Gordon is perhaps best known for her work as the founder of the "Risky Business Project," co-chaired by Michael Bloomberg, Henry Paulson, and Tom Steyer, and focused on the economic risks the US faces from unmitigated climate change; she continues to represent the project in public and private forums across the US and internationally. Earlier in her career, Gordon served as Senior VP at the non-partisan Center for the Next Generation, where she worked on California policy development as well as large-scale national communications and research projects; VP for Energy and Environment at the Washington DC-based Center for American Progress; and Executive Director of the national Apollo Alliance.

#### Amy Grace

#### Head of North America Research, Bloomberg New Energy Finance

Amy Grace is Head of North America Research for Bloomberg New Energy Finance, a division of financial information provider Bloomberg LP. She leads a team responsible for producing and communicating analysis on the economics and strategic dynamics of the North American power, gas and environmental markets. She previously was head of Wind Insight at BNEF, where she led research on the global wind sector. Amy has spoken at numerous international conferences and been quoted extensively in the media. She is a graduate of the University of Notre Dame's Program of Liberal Studies, and holds a master's degree from Columbia University's School of International and Public Affairs in energy and finance.

#### Juan Grobler

#### Founder and Executive Vice President, FridgeWize, Inc.

Juan Grobler, is a founder and Executive Vice President of FridgeWize, Inc. FridgeWize was founded to measure energy reduction in the HVACR space. Since its inception in 2010, FridgeWize has become the leading authority and retrofit arm in North America of an energy efficient line, which is fully quantifiable, and is now in the process of a global expansion. He holds a degree in Science from Natal University in South Africa, and resides in Carbondale Colorado. He consults to numerous national and international businesses to reduce their carbon footprint, and saves money on their bottom line with very quick payback periods. The former International rugby player, who played professionally for seven years and also in the 1999 Rugby World Cup, is a fierce competitor and has a passion for energy conservation.

# Dave Grossman (Rapporteur) Principal, Green Light Group

Dave Grossman is the principal of Green Light Group, a consulting practice specializing in research, analysis, writing, and strategy on sustainability issues, with a particular focus on climate change and clean energy. In his consulting, Dave has helped numerous clients – including non-profits, philanthropic foundations, trade associations, corporations, and intergovernmental organizations – transform complex concepts and processes into logical, organized, and clear results. He graduated summa cum laude from Princeton University with a degree in Politics and received his law degree from Yale Law School.

#### Bryan Hannegan

#### President & CEO, Holy Cross Energy

Bryan Hannegan is President and CEO of Holy Cross Energy, a not-for-profit, member-owned electric cooperative utility providing electricity and energy products and services to more than 55,000 customers in Western Colorado. Prior to joining Holy Cross in July 2017, Bryan was the Associate Laboratory Director for Energy Systems Integration at the National Renewable Energy Laboratory (NREL), where he co-founded the US Department of Energy's Grid Modernization Initiative and started up the successful Energy Systems Integration Facility (ESIF), a unique "distribution grid in a box" enabling utilities, entrepreneurs and consumers to work together on cleaner, more affordable and more reliable energy systems.

# Tom Hassenboehler Partner, COEFFICIENT

Tom Hassenboehler is the Executive Director of EC-MAP and a Partner of the Coefficient Group. Tom has a career history of being at the center of many of the major energy and environmental laws and debates of the last decade. He most recently served as the Chief Counsel for Energy and Environment at the US House Committee on Energy and Commerce under Chairman Greg Walden (R-Oregon). During his time in the House, he led and managed the issues and staff under the jurisdiction of the Subcommittees on Energy and Environment. He successfully oversaw bipartisan Committee passage of reauthorizations of several energy and environmental laws, and the launching of the Powering America hearing series. He previously served as Chief Counsel for Energy under Chairman Fred Upton (R-Michigan). Before his roles in the US House, he worked as the Vice President of Policy Development and Legislative Affairs for America's Natural Gas Alliance. Tom's earlier experience was in the Senate as Counsel for the Committee on Environment and Public Works under Ranking Member Jim Inhofe (R-Oklahoma). He focused on Clean Air Act, climate and fuels-related issues while conducting bipartisan oversight and overseeing the confirmation process of several Obama appointees to the EPA. He began his career working on various issues that led to the formation of the Energy Policy Act of 2005 and Energy Independence and Security Act of 2007 for the Energy and Commerce Committee under former Chairman Billy Tauzin (R-Louisiana) and Joe Barton (R-Texas). A native of New Orleans, Tom received both his undergraduate and juris doctorate degrees from Louisiana State University. Tom's proven ability to lead through effective coalition building, bipartisan negotiating, and creative thinking on a range of complex and diverse issues will drive EC-MAP's policy agenda.

# Christopher Herbst

#### Vice President, Government Programs, Eaton

Dr. Christopher Herbst serves as Vice President of Government Programs at Eaton, a \$20B power management company. His focus is on creating technology-driven organic growth opportunities and strategic alliances with governments, universities and national laboratories. Herbst has degrees from Columbia University (B.A.) and Arizona State University (Ph.D.) and was a postdoctoral fellow at Harvard University and Exxon Corporate Research Science Laboratories.

#### Colette Honorable

#### Partner, Reed Smith LLP; Former FERC Commissioner

Colette is a member of Reed Smith's Energy and Natural Resources Group resident in the Washington, DC office. Colette is a highly regarded policy maker in domestic and international energy sectors. Colette recently served as Commissioner at the Federal Energy Regulatory Commission (FERC). She was nominated by President Barack Obama in August 2014, and unanimously confirmed by the US Senate in December 2014 for a term that expired in June 2017. At FERC, Honorable focused on reliability oversight of the bulk power system, cyber and physical security, oversight of wholesale markets, transmission planning and cost allocation in regional transmission organizations, gas-electric coordination, renewables integration, energy storage integration and valuation, enforcement, ratemaking, infrastructure development, and enforcement matters. Colette joined the FERC from the Arkansas Public Service Commission (PSC), where she served since October 2007, and led as Chairman from January 2011-January 2015.

#### Mitch Jackson

# Vice President, Environmental Affairs and Sustainability, FedEx Corporation

As Vice President of Environmental Affairs and Chief Sustainability Officer for FedEx Corporation, Mitch Jackson leads the strategic direction and provides vision for all aspects of the company's sustainability initiatives and environmental innovations and technologies. A passionate ambassador for sustainable solutions that support the business objectives, Jackson helped envision and pioneer the implementation of hybrid and electric vehicles in the FedEx fleet, and ultimately in commercial vehicles. Jackson was also instrumental in successfully securing first-ever national fuel economy standards and greenhouse gas requirements for commercial trucking. Under his influence and leadership, FedEx has taken a holistic approach to fleet management and fuel efficiency with a significant expansion in lower-polluting, higher-efficiency vehicles. Jackson was the key driver for the establishment of the first FedEx sustainability goals and has responsibility for current and future goals. Jackson is currently a board and executive committee member of the Shelby Farms Park Conservancy in Memphis, TN, serves on the American Trucking Associations' board of directors, The Keystone Policy Center's Keystone Energy Board, and on Corporate Eco Forum's Leadership Council. He has also served as an environmental juror for the Heinz Awards. In addition, he is a former member of the Keep Tennessee Beautiful Governor's Advisory Council.

## Chris Kallaher

# Director, Government & Regulatory Affairs, Direct Energy

I've been in the energy business for about 30 years (or longer, if you count a summer job doing energy audits for TVA) in a variety of positions with energy providers, law firms and governmental agencies. I've been with Direct Energy for about 12 years, addressing issues of energy policy with state regulatory agencies and legislatures. I have a B.S. in Civil Engineering from Stanford and a law degree from the University of Wisconsin at Madison.

# Lynne Kiesling

# Professor and Associate Director, Purdue University Research Center in Economics

I am a Visiting Associate Professor in the Department of Economics at Purdue University and Associate Director of the Purdue University Research Center in Economics. I was recently an Associate Professor of Instruction in the Department of Economics at Northwestern University, where I was also Director of the Electricity Policy Program in the Searle Center on Law, Regulation, and Economic Growth. My transactive energy research uses transaction cost economics to examine the interaction of market design and technology in the development of retail markets, products and services and the economics of smart grid technologies in the electricity industry. I have served as a peer reviewer for the US Department of Energy and the National Science Foundation, and for academic journals including Energy Journal, Public Choice, Review of Economics and Statistics, and Energy Policy. I write about economics as the editor/owner at the website Knowledge Problem. My teaching includes energy and

environmental economics, antitrust and regulation, and history of economic thought. I am also an emerita member of the GridWise Architecture Council, a group of 13 experts volunteering their time to articulate the guiding principles for an intelligent, transactive, energy system of the future, and to guide and promote measures to transform the nation's electricity system into a more reliable, affordable, secure network in which users collaborate with suppliers in an information- and value-rich market environment.

#### **Amory Lovins**

# Co-founder & Chief Scientist, Rocky Mountain Institute

Physicist Amory Lovins is cofounder, Chief Scientist, and Chairman Emeritus of Rocky Mountain Institute; advisor to major firms and governments worldwide on advanced energy efficiency, renewables, and energy strategy; and author of 31 books and over 600 papers. An honorary architect, Swedish engineering academician, and former Oxford don, he has taught at ten universities, most recently Stanford and the Naval Postgraduate School, and is on the National Petroleum Council. In 2009, Time named him one of the world's 100 most influential people, and Foreign Policy, one of the 100 top global thinkers. In 2016, the President of Germany awarded him the Officer's Cross of the Order of Merit.

#### **Ronald Nichols**

#### President, Southern California Edison

Ronald O. Nichols is president of Southern California Edison (SCE). He is responsible for external affairs, compliance, power production and procurement, and other operations. He is a member of SCE's board of directors. Nichols has more than 35 years of experience in the electric and water utility industry. He has been a strategic and operational advisor to utilities, state and local government, power suppliers and the financial community on complex energy and utility matters throughout the United States, particularly in the West. Previously, Nichols was senior vice president of Regulatory Affairs and Nuclear for SCE, overseeing regulatory policy and affairs, regulatory operations and environmental affairs. Prior to joining SCE in 2014, Nichols served for three years as General Manager of the Los Angeles Department of Water and Power (LADWP), where he provided leadership for the utility in supplying reliable and competitively priced water and electricity while continuing to maintain and implement environmentally conscious policies and priorities. Previously, Nichols was a managing director at the energy practice of Navigant Consulting, an international consulting organization with over 2,000 employees. From 1980 to 1997, before his position at Navigant, he was a co-founder and Senior Vice President of the energy and water utility consulting firm, Resource Management International, which was headquartered in Sacramento with offices throughout North America and in Europe and Asia. Prior to starting his energy and water utility consulting career in 1980, he held positions with the California Department of Water Resources and the California Energy Commission. Nichols is a graduate of the University of California, Davis with a degree in agricultural economics and business management.

#### **Ted Nordhaus**

# Co-founder and Executive Director, The Breakthrough Institute

Ted Nordhaus is a leading global thinker on energy, environment, climate, human development, and politics. He is the co-founder and executive director of the Breakthrough Institute and a co-author of "An Ecomodernist Manifesto." Over the last decade, he has helped lead a paradigm shift in climate, energy, and environmental policy. His 2007 book <u>Break Through</u>, co-authored with Michael Shellenberger, was called "prescient" by <u>Time</u> and "the best thing to happen to environmentalism since Rachel Carson's <u>Silent Spring</u>" by <u>Wired</u>. Over the years, Nordhaus been profiled in the <u>New York Times</u>, <u>Wired</u>, the <u>San Francisco Chronicle</u>, the <u>National Review</u>, <u>The New Republic</u>, and on <u>NPR</u>. In 2007, he received the <u>Green Book Award</u> and <u>Time</u> magazine's 2008 "<u>Heroes of the Environment</u>" award. Nordhaus is executive editor of the <u>Breakthrough Journal</u>, which <u>The New Republic</u> called "among the most complete efforts to provide a fresh answer" to the question of how to modernize liberal thought, and the <u>National Review</u> called "The most promising effort at self-criticism by our liberal cousins in a long time."

# Justin Ong

#### Policy Associate, ClearPath Foundation

Justin Ong is a Policy Associate at the ClearPath Foundation. He manages the Foundation's work on hydropower and clean fossil energy, with a focus on policy levers to develop and demonstrate breakthrough technologies. Prior to joining ClearPath, Justin worked on policy and systems analysis at the National Renewable Energy Laboratory and the Nicholas Institute for Policy Solutions. Mr. Ong holds a Master's degree from Duke University in Environmental Management with a concentration in Energy and Environment, as well as a B.A. in Economics and B.S. in Environmental Science from the University of California, Los Angeles.

#### Michelle Patron

#### Director, Sustainability Policy, Microsoft

Michelle Patron is Director of Sustainability Policy at Microsoft where she leads the company's policy efforts on sustainability and energy issues. She has two decades of unique experience forecasting energy markets for private investors and driving high impact energy, environmental, and foreign policy. Prior to joining Microsoft, Patron served as Special Assistant to the President and Senior Director for Energy and Climate at the National Security Council at the White House from 2013 to 2015. In that role she led efforts to design and execute groundbreaking energy and climate policy, including the historic climate deal with China. Prior to the White House, she was Senior Director at PIRA Energy Group, a private energy research firm in New York City. Earlier in her career, Patron worked at the Department of Energy, Deutsche Bank, the International Energy Agency and the Center for International Environmental Law, and served as energy attaché at the US Embassy in Beijing. Patron holds a BA from Columbia University and a MA from Johns Hopkins School of Advanced International Studies. She has served as an expert commentator to CNBC, BBC, NPR, Fox, CBS, the Economist and the New York Times and written op-eds for Reuters, Foreign Affairs, the Financial Times and the Los Angeles Times. She has taught as an adjunct professor at New York University and is a Life Member of the Council on Foreign Relations.

#### Richard Powell

#### Executive Director, ClearPath Foundation

Rich Powell is the Executive Director at ClearPath Foundation, where he leads the day-to-day operations of ClearPath programs including policy and strategy. He focuses on educating policymakers on investing wisely in energy innovation, and maintaining and promoting baseload clean energy resources. Rich also leads ClearPath's external advocacy and research partnerships with non profits, academia, and the private sector. Previously, Rich was with McKinsey & Company in the Sustainability and Resource Productivity Practice. He focused on clean energy strategy, residential energy efficiency, low carbon growth, and clean tech market entry. He served clients across the private, public, and social sectors. Education - B.A. from Harvard College in Environmental Science and Public Policy, and a J.D. from New York University. Area of Expertise - Policy and Strategy

#### Bill Ritter

# Director, Center for the New Energy Economy, Colorado State University

Governor Bill Ritter was elected Colorado's 41st governor in 2006. During his four-year term, Ritter established Colorado as a national and international leader in clean energy by building a New Energy Economy. After leaving the Governor's Office, Ritter founded the Center for the New Energy Economy at Colorado State University, which works with state and federal policy makers to create clean energy policy throughout the country. Governor Ritter has authored a book that was recently published entitled, Powering Forward – What Everyone Should Know About America's Energy Revolution.

#### Mike Smith

#### Vice President, Business and Technology Strategy, The Electric Cooperatives of South Carolina

Mike Smith serves as vice president of business and technology strategy for The Electric Cooperatives of South Carolina, the state association of 20 independent, member-owned electric utilities in the state. Mike works with state and national partners to develop understanding of how technology is changing the utility industry. A registered professional engineer in South Carolina, his work includes contributions to the development of the Distributed Energy Resource Program Act (Act 236), adopted by the General Assembly in 2014. The legislation was a compromise across multiple interests and organizations that opened the way for more distributed energy production in South Carolina. He contributes to another inclusive effort to develop the South Carolina State Energy plan. He is also the program manager for Help My House, a whole home weatherization program offered through the electric cooperatives. This program was recently granted a \$13 million no interest loan from RUS to weatherize both site built and manufactured homes, repayment which will be made through on bill financing. Prior to coming to the co-ops' association, Mike worked 11 years at Central Electric Power Cooperative, the generation and transmission cooperative that acts as the power aggregator for South Carolina cooperatives.

#### Martha Symko-Davies

Laboratory Program Manager, Partnerships for Energy Systems Integration, National Renewable Energy Laboratory Dr. Martha Symko-Davies is the Laboratory Program Manager, for Energy Systems Integration (ESI) at the National Renewable Energy Laboratory (NREL) in Golden. Dr. Symko-Davies has developed over 100 partnerships both internationally and domestically, over \$12M Funds-in with key stakeholders in the area of Energy Systems Integration (ESI) to address the challenges of systems integration at all scales from residential to utility. Enabling this integration is the Energy Systems Integration Facility (ESIF) which is the nation's first research facility able to conduct integrated megawatt-scale research, development, and testing of the components and strategies needed to safely integrate clean energy technologies seamlessly. This integration includes electricity, therma, water and fuels pathways. Prior to this role she was the architect and integrator for the PV Technology Incubator, funded in part by the Department of Energy, resulting in over \$1.4 billion in private investments. Dr. Symko-Davies was recognized by DOE as one of the top innovators in the area of photovoltaics, and recently received four R&D 100 Awards and recognition by the Denver Business Journal as a "Top Women in Energy."

# Steve Vavrik

#### Chief Commercial Officer, Apex Clean Energy

Steve has 20 years of power development experience. Prior to Apex, he worked at GE Capital, Enron, Dynegy, First Wind, and SunPower. During his career, Steve has worked directly on the development of over \$3 billion of wind and solar projects that are now operating. Steve earned a JD from Yale Law School, an MPA from Princeton, and MS and BS degrees in mechanical engineering from the University of Illinois.

#### Michael Webber

# Deputy Director & Professor, Energy Institute, The University of Texas at Austin

As Deputy Director of the Energy Institute, Co-Director of the Clean Energy Incubator, Josey Centennial Fellow in Energy Resources, Author, and Professor of Mechanical Engineering, Dr. Michael E. Webber trains the next generation of energy leaders at the University of Texas at Austin and beyond through research and education at the convergence of engineering, policy, and commercialization. His recent book, "Thirst for Power: Energy, Water and Human Survival", which addresses the connection between earth's most valuable resources and offers a hopeful approach toward a sustainable future, is receiving wide praise. His television special Energy at the Movies was in national syndication on PBS stations 2013-2015, and a suite of energy literacy tools titled Energy 101, including videos, online courses, and an interactive ebook, is available globally. He was selected as a Fellow of ASME, has authored more than 300 publications, holds 4 patents, and serves on the advisory board for Scientific American. Michael holds a BS and BA from UT Austin, and MS and PhD in mechanical engineering from Stanford. He was honored as an American Fellow of the German Marshall Fund, an AT&T Industrial Ecology Fellow, and on four separate occasions by the University of Texas for exceptional teaching.

#### Jeff Weiss

# Co-Chairman & Managing Director, Distributed Sun

Jeff Weiss co-founded Distributed Sun in 2009, beEdison in 2015, and is Co-Chairman and Managing Director of both firms. He leads capital formation, business development, strategy and governance. Jeff participates and speaks regularly at industry and leadership forums. An early digital media and commerce entrepreneur, Jeff led companies in renewable energy, cyber and physical security, intelligence and corporate fraud mitigation, mission preparedness and training, software development, and transformational management. Jeff graduated from Cornell University and The Wharton School (University of PA). He is on the Board of the Atkinson Center for a Sustainable Future, the Cornell Trustee Council, and Washington Hebrew Congregation, is Co-Chair of SEIA's Solar Energy Finance Advisory Council, and is Washington Leadership Chair of Business Executives for National Security.

#### Rhem Wooten

# Executive Vice President, Hannon Armstrong Sustainable Infrastructure/President, HASI Partners

Mr. Wooten joined Hannon Armstrong as a Managing Director in 2010; was named EVP, Origination 2013; EVP, Group Head-Private Sector in 2015; and EVP, HASI/President HASI Partners in 2017. He has over 30 years of energy industry experience in project development, commodity trading/risk management and project finance. Mr. Wooten previously held executive management positions at: Duke Energy (President of IPP unit); Duke/Louis Dreyfus (Managing Director, Origination and Operations); Merchant Energy Group of the Americas (President); Pradium, Inc. (President and CEO); and Allied Syngas Corporation (President). Mr. Wooten received a Bachelor of Science degree in Business Administration with Honors from the University of North Carolina-Chapel Hill. He holds Series 63 and 79 securities licenses.

# THE ASPEN INSTITUTE

# David Monsma (Moderator)

## Vice President, Aspen Institute; Executive Director, Energy and Environment Program

David Monsma is Vice President, Aspen Institute, and Executive Director of the Aspen Institute's Energy and Environment Program. The Institute's Energy and Environment Program is a prominent convener of energy and environmental policy forums and roundtables including The Aspen Institute Energy Policy Forum; the Global Forum on Energy, Economy and Security; and the Clean Energy Innovation Forum; and the Aspen-Nicholas Forum on Water Policy. The program also convenes, and David moderates, policy-testing dialogues on wildlife and ocean conservation; food security; climate change; energy governance and the India/China Track II Dialogues on Climate Change and Energy as well as the Aspen Institute's Executive Seminar. An attorney by training, David has over 20 years of experience in environmental law and policy. He taught law and ethics at Loyola University in Maryland and served as director of business and environment at Business for Social Responsibility in San Francisco. During the Clinton Administration, David was the environmental management task force coordinator for the President's Council on Sustainable Development (PCSD). David began his legal career as a program attorney in the Office of Toxics Substances and Pollution Prevention at the US Environmental Protection Agency headquarters in Washington, DC.

#### **Greg Gershuny**

Managing Director & James E. Rogers Energy Fellow, Energy and Environment Program, The Aspen Institute
Greg Gershuny is Managing Director and the James E. Rogers Energy Fellow for the Aspen Institute Energy and
Environment Program. Greg's work includes the Annual Energy Policy Forum, the Forum on Global Energy
Economy and Security, and the Clean Energy Forum. Prior to joining the Aspen Institute, Greg served as the
Associate Director for the Office of Energy Policy and Systems Analysis at the US DOE, as well as Chief of Staff to
Director of EPSA from 2013 to 2015. From 2011 to 2013, Greg served as the Director of Energy and Environment
at the White House Office of Presidential Personnel where he oversaw the Presidential appointment process for
the energy and environment agencies as well as several White House Offices and a dozen boards and
commissions. Greg also served as Confidential Assistant to the Associate Director for Science and Nobel Laureate
Carl Wieman at the White House OSTP, where he worked on basic science R&D issues and science, technology,
engineering, and math education, and as an Associate for the White House National Economic Council.

#### Anna Giorgi

#### Program Manager, Energy and Environment Program, The Aspen Institute

Anna Giorgi is a Program Manager with the Energy and Environment Program at the Aspen Institute. In this role, she helps to facilitate EEP convenings and works on energy and environmental issues, including EEP's annual energy forums as well as several international environmental roundtables. Anna joined the Aspen Institute in 2015 as part of another program, the Aspen Strategy Group, where she worked on the US-India Strategic Dialogue, the Aspen Ministers Forum, and the ASG Summer Workshop. Before ASG, Anna was an Advocacy Intern at the International Crisis Group, where she assisted the Middle East and North Africa Program. She also interned in the program's department of the Chicago Council on Global Affairs. Anna is a graduate of Brown University where she earned her B.A. in International Relations and Italian Studies. While an undergraduate, she spent her junior year studying at the University of Bologna, Italy. Anna is originally from Chicago, Illinois.

# Maggie Carroll

#### Program Associate, Energy and Environment Program, The Aspen Institute

Maggie Carroll is a Program Associate with the Energy and Environment Program at the Aspen Institute. In this role, she helps to facilitate EEP convenings and works on energy and environmental issues, including EEP's energy and governance roundtable series, annual energy forums, and other energy and environmental work. Prior to joining EEP, Maggie served as a Program Manager at OurEnergyPolicy.org, helping to facilitate substantive dialogue on energy policy as a resource to policymakers, the general public, and media. Previously, she also worked as an environmental consultant for Geo-Technology Associates, Inc. She received a M.S. in Environmental Science and Policy from Johns Hopkins University and a B.A. in Environmental Studies from Dickinson College. Maggie is a registered yoga teacher, and enjoys practicing yoga and hiking in her free time.