

Advanced Nuclear Technology Workshop

NARUC-DOE Nuclear Energy Partnership

Thursday, July 1, 2021 | 2:00 – 4:00 pm ET

Zoom Meeting (advance registration required) – Register in advance [here](#)

Audience: state utility regulators and regulatory staff

In order to facilitate conversation and encourage interaction between audience members and invited speakers, the audience for this event is limited to current NARUC members (public utility commissioners and commission staff). Nuclear Energy Partnership members are encouraged to attend; however, any active NARUC member may join the meeting regardless of NEP membership status.

Objectives:

- Build upon the [Introduction to Advanced Nuclear webinar](#) on June 4 by featuring advanced nuclear technology researchers and experts from public and private sectors.
- Highlight the role of public-private partnerships in the commercialization of advanced nuclear technologies.
- Identify information gaps and state needs and challenges in advanced nuclear development.

Regulators and regulatory staff in attendance will develop understandings of:

- The types of advanced nuclear technologies that are currently under development, and their associated strengths and challenges;
- Pathways for advanced nuclear technologies from concept to commercialization; and
- The role of state regulators in facilitating the deployment of new technologies in the electric utility sector while managing and mitigating risks and costs to ratepayers.

We are observing Chatham House Rules during this meeting. Attendees can share what was said but not who said what. The meeting recording will be used only by NARUC staff to write a non-attributable workshop summary after the event at <https://www.naruc.org/cpi-1/energy-infrastructure-modernization/nuclear-energy/>.

Tentative Outline:

Time (Eastern)	Topic	Speakers
2:00 – 2:05 pm	Welcome, intros, objectives	Commissioner Tim Echols , Georgia PSC Commissioner Anthony O'Donnell , Maryland PSC Kiera Zitelman and Jasmine McAdams , NARUC Center for Partnerships & Innovation
2:05 – 2:15	Overview of the pathway to technology commercialization and demos supported by DOE Office of Nuclear Energy	Ashley Finan , Director, National Reactor Innovation Center, Idaho National Laboratory

Time (Eastern)	Topic	Speakers
2:15 – 2:40	The role of public-private partnerships (PPPs) for advanced nuclear	Alex Gilbert , Project Manager, Nuclear Innovation Alliance Christine King , Director, Gateway for Accelerated Innovation in Nuclear, Idaho National Laboratory
2:40 – 2:50	Break	
2:50 – 3:10	Technology expo: ARDP tech talks	Presentations from Advanced Reactor Demonstration Program participants will provide short introductions to reactor technologies; the importance of DOE support and the PPP model; benefits, challenges, and risks; and recommendations for regulators interested in advancing ARDP technologies. 1. Mike Melton , X-energy 2. Jeff Navin , TerraPower
3:10 – 3:40	Technology expo: advanced nuclear roundtable	Representatives from leading advanced nuclear companies will provide an overview of their technology, in what stage of commercialization their technology falls, key partners and future customers, and technical, regulatory, and policy challenges. 1. Chris Colbert , NuScale 2. Chrissy Borskey , GE Hitachi 3. Peter Hastings , Kairos Power
3:40 – 4:00	Breakout rooms for Q&A	Q&A with company representatives: NARUC members can select their own breakout room for additional time with speakers

Speaker Bios (in alphabetical order)

Chrissy Borksey, Global Government Affairs and Policy, GE Power Portfolio

Chrissy C. Borskey is a Senior Executive for global government affairs and policy for the GE Power Portfolio business and Senior Vice President for Global Government Affairs for GE Hitachi Nuclear Energy. Chrissy focuses on shaping policies impacting the GE Power business, developing relationships with foreign and domestic government decision-makers, and supporting transactions involving governments. Chrissy works closely with the businesses to develop and execute a proactive government relations and policy practice to drive growth.

Chrissy has more than 25 years of experience in legislative, regulatory and political management, as well as public affairs. She joined GE in August of 2008 leading state government affairs for the southern US region. In 2012 she joined the GE Aeroderivatives team, to advise the leadership team on global and domestic policy. She has supported GE Power, GE Distributed Power and GE Power and Water. And in 2016, served as the government affairs leader for GE's Energy Connections business.

Prior to joining GE, Chrissy worked for Dell Inc., as manager of government affairs, focusing on state and local government legislative, procurement and regulatory issues. She is actively involved with GE's Hispanic Forum, chairs the energy committee for the US-India Business Council, serves as chairman of the Texas Association of Manufacturers, is on the board of the California Energy Storage Alliance, and is engaged with several other issue-based associations.

Chrissy holds a bachelor's degree in political science from St. Mary's University in San Antonio, Texas. She lives in Austin, Texas with her husband Mark.

Chris Colbert, Chief Strategy Officer, NuScale Power, LLC

Chris Colbert is the chief strategy officer of NuScale Power, LLC, a position he has held since 2014, and chief financial officer. From 2011 to 2014 Colbert held the position of chief operating officer of NuScale Power, LLC.

Colbert joined NuScale from UniStar Nuclear Energy, LLC, where he was senior vice president for Projects and Services during 2007-2011. While at UniStar, Colbert was responsible for the deployment of the U.S. EPR at UniStar's existing nuclear power plant sites and the provision of licensing and other project development services to other U.S. EPR projects.

Prior to joining UniStar, Colbert worked for a number of companies over nearly 15 years developing and financing over 6500 MW of fossil-fueled power projects.

Colbert began his career at GE Aircraft Engines as an engineer and later transferred to the General Electric Company Corporate Audit Staff.

A graduate of the Massachusetts Institute of Technology with a B.S. in electrical engineering and a minor in computer science, Colbert received an M.B.A. from the Walter A. Haas School of Business in Berkeley, CA. He is also a chartered financial analyst.

Ashley Finan, Director, National Reactor Innovation Center

Ashley Finan is the Director of the National Reactor Innovation Center. In this role, she is responsible for overseeing initiatives to provide resources to reactor innovators to test, demonstrate, and conduct performance assessments to accelerate the deployment of advanced nuclear technology concepts.

Dr. Finan most recently served as Executive Director for the Nuclear Innovation Alliance, where she was responsible for managing the organization's strategy, operations, policy and technical development, stakeholder outreach, and fundraising. She provided expert guidance to policymakers, academic teams, industry stakeholders, and NGOs. Dr. Finan previously served as a Director of Nuclear Innovation at Clean Air Task Force.

Dr. Finan earned her Ph.D. in Nuclear Science and Engineering at the Massachusetts Institute of Technology. Her doctoral work focused on energy innovation investment and policy optimization, both in nuclear and renewable energy technologies. She has played a key role in studies of the use of advanced nuclear energy to reduce greenhouse gas emissions in several applications, including hydrogen production, coal to liquids processes, and oil production methods. She has worked as a strategy and engineering consultant, primarily on nuclear energy applications. She has also contributed to analyses of the techno-economic potential of energy efficiency improvements in the residential and commercial sectors and several related topics.

Dr. Finan holds an SB degree in Physics as well as SB and SM degrees in Nuclear Science and Engineering from MIT.

Alex Gilbert, Project Manager, Nuclear Innovation Alliance

Alex Gilbert is a Project Manager at the Nuclear Innovation Alliance where he manages project research, stakeholder engagement, and related activities. He leads research and advocacy related to advanced reactor commercialization, regulatory modernization at the NRC, and international licensing harmonization.

Previously, Alex worked in the private sector as an energy market and governance consultant, first at Haynes and Boone, LLP and more recently as a cofounder of SparkLibrary, Inc. His nuclear experience includes analysis of fleet and project economics, environmental performance, licensing, commercialization policy, and international liability.

Alex is a Fellow at the Payne Institute for Public Policy at the Colorado School of Mines and Adjunct Faculty at Johns Hopkins University where he co-teaches a course on nuclear technology and regulation. He is pursuing a PhD in Space Resources at the Colorado School of Mines where he researches public policy for space nuclear energy and space mining. Alex earned a Master of Energy Regulation and Law with a Certificate in Climate Law from Vermont Law School and a BA in Environmental Studies and International Relations from Lake Forest College.

Peter Hastings, Vice President, Regulatory Affairs & Quality

Mr. Hastings leads teams responsible for licensing and permitting activities, risk-informed safety analysis and probabilistic risk assessment, quality assurance, and government affairs, with a focus on establishing the regulatory basis for development and deployment of the Kairos Power high-temperature, fluoride salt-cooled reactor. Prior to joining Kairos Power, he consulted with the Electric Power Research Institute, the Nuclear Energy Institute, the Nuclear Innovation Alliance, the Tennessee Valley Authority, Southern Company, and several advanced reactor developers on the regulatory framework for advanced reactors; the risk-informed “Licensing Modernization” project; source term development; and risk-informed emergency planning. He held previous positions with Generation mPower, Duke Energy, and NuStart. He earned his BS in nuclear engineering from NC State University and is a registered Professional Engineer in North and South Carolina.

Christine King, Director, Gateway for Accelerated Innovation in Nuclear

Christine King is the director of the Gateway for Accelerated Innovation in Nuclear (GAIN) initiative where she leads efforts on behalf of the DOE Office of Nuclear Energy to provide the nuclear community with access to the technical, regulatory, and financial support necessary to move innovative nuclear energy technologies toward commercialization.

Christine has over 26 years of experience in the nuclear energy industry, including a history of leading strategic initiatives with multimillion-dollar budgets, fostering relationships and expanding programs. She most recently serves as the operations director for Nucleation Capital, an emerging venture capital firm based in Silicon Valley focused on bringing private capital into the developing advanced nuclear sector to help speed these disruptive technologies to market. There, she began to build relationships with advanced nuclear entrepreneurs and members of the investment community and developed an appreciation of the challenges facing emerging nuclear technologies in being able to compete within the broader energy and capital markets for funding. She has also held several senior leadership positions in consulting firms and nonprofit organizations within the energy industry, including the Electric Power Research Institute. She is well known for her ability to lead teams and execute innovative programs, developing and streamlining processes to eliminate obstacles and achieve organizational success. She holds a bachelor’s degree in chemical engineering from North Carolina State University and an MBA from Lynchburg College

Eben Mulder, Chief Nuclear Officer, X-energy

As X-energy's Chief Nuclear Officer, Eben Mulder, PhD, leads development of X-energy's pebble bed high-temperature gas reactor (HTGR) technology. In this executive leadership role, he serves as overall lead for the project, guiding the architectural framework for the Xe-100 reactor project, the R&D roadmap for advanced fuel-cycle designs, core thermal-hydraulic flow path design, and reactivity control and shutdown layout and design. His duties extend to overseeing techno-economical coherence of the overall design consideration.

An expert in nuclear reactor design, Eben has authored more than 30 technical papers and presented more than 55 keynote addresses and invited talks worldwide. Before joining X-energy, Eben was CEO and Director of Steenkampskraal Thorium Ltd. (Centurion, South Africa), responsible for the oversight of advanced small pebble bed high-temperature reactors and advanced fuel cycle designs. Prior to that, Eben was Chief Scientific Officer and Chief Nuclear Consultant at PBMR (Pty) Ltd., South Africa's clean technology Pebble Bed Modular Reactor program.

He has also served as Professor in Northwest University's (Potchefstroom, South Africa) School of Mechanical and Nuclear Engineering, and has presented numerous international short courses. Eben holds undergraduate and master's degrees in mathematics from the University of Port Elizabeth (South Africa) and a BS in Applied Mathematics from University of Pretoria (South Africa), and a Doctor of Engineering in Nuclear Engineering from Rheinisch-Westfälische Technische Hochschule (Aachen, Germany).

He is a member of the South African Council for Natural Scientists (SACNAS), an affiliate member of the Institution of Nuclear Engineers, a Member of the American Nuclear Society (ANS), and an elected member of the South African Academy of Sciences and Art.

Jeff Navin, Director of External Affairs, TerraPower

Navin has a deep background in government and communications. After serving in the federal government for over 15 years, he co-founded Boundary Stone Partners, a public policy, government affairs, and communications consulting firm specializing in clean energy and transportation. In government, he served as Chief of Staff and Deputy Chief of Staff to Secretaries Steven Chu and Ernest Moniz. In those roles, he helped manage the Department of Energy's research and deployment efforts, climate and energy policy initiatives, and nuclear national security missions.

He previously served as Deputy Chief of Staff at the U.S. Department of Labor during the labor market crisis in 2009 and served as a Chief of Staff to Rep. Stephanie Herseth Sandlin in the United States Congress. He served as Research Director to the Senate Majority Leader Tom Daschle, worked as the Washington Director of the consulting firm American Envirionics, and practiced law at Orrick, Herrington & Sutcliffe, LLP.

A recognized expert on government, communications, and energy, Navin has provided commentary to the Wall Street Journal, New York Times, USA Today, Bloomberg, Politico, Axios, Time, E&E News, Marketplace, and others. Jeff received his B.A. from the University of South Dakota, and his J.D. from the Georgetown University Law Center. He is a Harry S Truman Scholar and serves as Chair of the Center on Rural Innovation, 501(c)3 organization that supports economic development in rural areas.