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**Committee on Laying the Foundation for New and Advanced Nuclear Reactors in  
the United States**

**VIRTUAL MEETING #1 – Public Session**  
**Thursday, December 17<sup>th</sup>, EASTERN TIME**

**REGISTER FOR THE EVENT HERE:**

<https://www.eventbrite.com/e/new-and-advanced-nuclear-reactors-in-the-united-states-committee-meeting-registration-131366265035>

**PUBLIC LIVESTREAM LINK:**

<https://livestream.com/accounts/7036396/events/9435883>

**1:00 – 1:10 p.m.** Welcome and opening remarks

**Richard Meserve**, Committee Chair, and **National Academies staff**

**1:10 – 1:30 p.m.** Opening remarks from the study sponsor

**James Truchard**, Truchard Ventures, introduced by **John Anderson**, President, National Academy of Engineering

**1:30 – 2:15 p.m.** Implementation of the ARDP (30 minute presentation, 15 minute Q&A)

**Alice Caponiti**, Deputy Assistant Secretary for Reactor Fleet and Advanced Reactor Deployment, Office of Nuclear Energy, Department of Energy

**Tim Beville**, Program Director for Advanced Reactor Demonstrations, Office of Nuclear Energy, Department of Energy

**2:15 – 3:00 p.m.** Technology Collaborations with Utilities and Private Companies (30 minute presentation, 15 minute Q&A)

**John Wagner**, Director, Idaho National Laboratory

**3:00 – 3:30 p.m. BREAK**

**3:30 – 4:15 p.m.** Congressional Stakeholder Panel (5-10 minute presentations, 15 minute Q&A)

**Alyse Huffman**, House Science, Space, and Technology: Energy Subcommittee

**Scott McKee**, House Appropriations: Energy and Water Subcommittee

**Rory Stanley**, Senate Energy and Natural Resources Committee

**4:15 – 5:00 p.m.** Licensing Advanced Reactors (30 minute presentation, 15 minute Q&A)

**Ho Nieh**, Director, Office of Nuclear Reactor Regulation, U.S. Nuclear Regulatory Commission

**5:00 – 5:15 p.m.** Public Comment Period

*Livestream viewers can fill out the Q&A form from the link on the livestream page*

*(<http://nationalacademies.org/deps-webinar>). Comments will be read, time permitting. If you*

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*wish to verbally comment, please indicate on the form and staff will send you meeting login information. All comments will be considered by the committee and filed in the public record for this study.*

**5:15 p.m.** Adjourn

**Speaker Biographies**

**Dr. James Truchard** completed his education at The University of Texas at Austin. He received his bachelor's and master's degrees in physics in 1964 and 1967, respectively; and his Ph.D. in electrical engineering in 1974. While pursuing his Ph.D., Dr. Truchard worked full time as a research scientist at the Applied Research Laboratory at UT Austin, where he pioneered technologies for computer-based systems for testing the U.S. Navy's sonar transducers and sonar beamformers.

Computer-based test measurement systems became Dr. Truchard's vision for National Instruments, a company he co-founded in 1976. Starting with computer interfaces for traditional instruments, he went on to create data acquisition products interfaced directly to computers. Dr. Truchard co-invented LabVIEW, a graphical programming language that revolutionized how tests and measurements are performed in engineering and science experiments for a wide range of industries. National Instruments went on to create a suite of products and now works with over 35,000 companies and 7,000 universities. On January 1, 2017, Dr. Truchard retired after 40 years as CEO of the company, now known as NI.

Dr. Truchard has actively supported the next generation of engineers through programs such as FIRST® and hands-on learning labs. Since retiring from NI in 2017 he has spent his time sponsoring a number of humanitarian causes, including working with top researchers to help find the cause of Alzheimer's Disease. Dr. Truchard set-up the Oskar Fischer Prize in 2019 to incentivize Alzheimer's researchers to take an engineering approach to Alzheimer's Disease. He believes through out-of-the-box thinking and cross-referencing key factors the answer to this devastating affliction can be achieved. He is also currently sponsoring a study with the National Academies on clean, safe, and affordable nuclear power.

Among his various honors, Dr. Truchard was inducted into the National Academy of Engineering in 2007, named an IEEE Fellow in 2015 and was inducted into the National Inventors Hall of Fame in 2019.

**Alice Caponiti** serves as the Deputy Assistant Secretary for Reactor Fleet and Advanced Reactor Deployment in the Office of Nuclear Energy at the Department of Energy. She leads a diverse portfolio of research, development, and demonstration programs focused on the technical and economic sustainability of the existing U.S. fleet of commercial reactors and the development and deployment of innovative advanced reactors, including small modular reactors and microreactors. Ms. Caponiti is managing a new cost-shared program with industry to demonstrate multiple advanced reactor designs that offer improved safety, functionality, and affordability, leading to expanded market opportunities for clean energy. Her office also sustains the nuclear talent pipeline through competitive university R&D and infrastructure investment programs. Ms. Caponiti serves on the Generation IV International Forum

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Policy Group that advises on research and development needed to establish the feasibility and performance capabilities of next generation nuclear energy systems.

Ms. Caponiti previously led efforts to design, build, test, and deliver safe and reliable nuclear power systems for space exploration and national security applications, and conduct detailed safety analyses for each mission. She served as the technical advisor to the Department of State and a United Nations working group on space nuclear power sources, as well as a risk communications spokesperson for the New Horizons mission to Pluto and the Mars Science Laboratory mission that delivered the Curiosity rover to the surface of Mars. Prior to joining the Office of Nuclear Energy in 2001, Ms. Caponiti worked on a nonproliferation program to reduce stockpiles of excess Russian weapons plutonium. Ms. Caponiti has a bachelor's degree in civil engineering from the University of Maryland and master degrees in nuclear engineering and the Technology and Policy Program from the Massachusetts Institute of Technology.

**Tim Beville** is currently assigned as the Department of Energy (DOE) Office of Nuclear Energy Advanced Reactor Demonstration Program Director. Mr. Beville has significant recent experience working with the domestic nuclear industry in supporting the development and deployment of advanced reactors in the United States, including GEN III+ designs, small modular reactors, and advanced non-light water reactors. During his time at the Department and the National Nuclear Security Administration, Mr. Beville has managed a number of focused, high-profile technical programs supporting national initiatives in nuclear power and nuclear weapons research and development, including the Nuclear Power 2010 program, the Small Modular Reactor Licensing Technical Support program, the W88 Pit Manufacturing and Certification program, as well as several subcritical experimental campaigns at national laboratories and the Nevada Test Site.

**Dr. John C. Wagner** is the director of Idaho National Laboratory and president of Battelle Energy Alliance, LLC. He is responsible for management and integration of a large, multipurpose laboratory whose mission focuses on nuclear energy, national and homeland security, and energy and environmental science and technology. He manages this U.S. Department of Energy (DOE) national laboratory of approximately 5,200 scientists, engineers, and support staff in multiple nuclear and nonnuclear experimental facilities, with an annual budget of over \$1.3 billion.

Wagner began serving as INL director on Dec. 11, 2020. He has more than 20 years of experience performing research, and managing and leading research and development projects, programs, and organizations. Wagner's experience is strongly aligned with INL's programmatic portfolio. He has guided and helped implement INL's nuclear energy strategy during an innovative and exciting time at the nation's center for nuclear energy research and development. As a recognized expert in reactor and fuel cycle technologies, he is called upon frequently to provide expert testimony to Congress and to advise in formulation of policies for nuclear fuel cycles and advanced reactors.

He has been at INL since 2016 and served as associate laboratory director for Nuclear Science and Technology (NS&T) since 2017. His previous roles included director of Domestic Programs in NS&T and director of the Technical Integration Office for the DOE-NE Light Water Reactor Sustainability Program at INL. Wagner initially joined INL as the chief scientist at the Materials and Fuels Complex in 2016. Prior to

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joining INL, he worked at Oak Ridge National Laboratory for nearly 17 years, where he held several research and leadership roles in reactor and fuel cycle technologies. Wagner is a Fellow of the American Nuclear Society and recipient of the 2013 E.O. Lawrence Award. He has authored or co-authored more than 170 refereed journal and conference articles, technical reports, and conference summaries. He received a B.S. in nuclear engineering from the Missouri University of Science and Technology in 1992, and M.S. and Ph.D. degrees from the Pennsylvania State University in 1994 and 1997, respectively.

**Mr. Ho Nieh** is the Director, Office of Nuclear Reactor Regulation (NRR), U.S. Nuclear Regulatory Commission (NRC). Mr. Nieh joined the NRC in 1997 as a resident inspector and conducted safety inspections at pressurized water and boiling water reactors. His management experience includes responsibilities for the NRC's Reactor Oversight Process, emergency preparedness, licensing and rulemaking, control room operator licensing, operating experience, emergency response, research and test reactor oversight, and decommissioning funding. Mr. Nieh also served as the Chief of Staff for an NRC Commissioner and was the Director of the Division of Reactor Projects in NRC's Region 1 office where he was responsible for the resident inspectors. He also served as the Director of the Division of Inspection and Regional Support in NRR. Most recently and prior to Mr. Nieh's return to NRC, he was Head of the Nuclear Energy Agency's Division of Nuclear Safety, Technology and Regulation, where he was responsible for international cooperation in regulatory policy, safety research, and new reactor regulatory reviews. Mr. Nieh also worked at the International Atomic Energy Agency as a Communications Advisor in the Department of Nuclear Safety and Security.

Mr. Nieh holds a Bachelor's degree in Marine Engineering from the New York Maritime College. Mr. Nieh is a graduate of the United States Naval Nuclear Power School and attended Rensselaer Polytechnic Institute for graduate studies in nuclear engineering. Mr. Nieh also holds a Master of Business Administration from the Johns Hopkins University.

**Alyse Huffman** is a Professional Staff Member working on the Energy Subcommittee of the House Science, Space, and Technology Committee, Majority, where she also worked as the 2019 American Association for the Advancement of Science (AAAS) Congressional Fellow sponsored by the American Nuclear Society. Her primary focus areas in her portfolio are nuclear energy, geothermal energy, water power, biological and environmental research, nuclear physics, and energy water nexus issues. Prior to the fellowship, Alyse worked as a nuclear engineer with over 4 years of experience in reactor core design for the Oconee Nuclear Station and fleet-wide spent fuel pool criticality safety at Duke Energy in Charlotte, NC. Her graduate work involved research for the Expert Group on Burnup Credit within the Working Party on Nuclear Criticality Safety of the Organisation for Economic Co-operation and Development Nuclear Energy Agency (OECD – NEA). Alyse received her M.S. and B.S. in Nuclear Engineering from the University of Florida. She is a licensed Professional Engineer in the state of North Carolina. Alyse is passionate about science communication and nuclear energy. She organizes workshops and content for STEM organizations and professional societies. She has experience in nuclear education and outreach, particularly focusing on K-12 curriculum. She is a co-author of an educational nuclear children's book for first and second graders titled, *Marie's Electric Adventure*.

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**Scott McKee** focuses on energy and science accounts at the House Appropriations Subcommittee on Energy & Water. Previously, he worked at the Senate Committee on Energy & Natural Resources, the Bipartisan Policy Center, the National Commission on the BP Deepwater Horizon Oil Spill & Offshore Drilling, and the Energy Information Administration at the Department of Energy. Scott has a B.S. and M.S. in Chemical & Biomolecular Engineering from the Georgia Institute of Technology.

**Rory Stanley** is a Democratic Professional Staff Member for Ranking Member Manchin on the Senate Energy and Natural Resources Committee covering nuclear and security related issues. Previously he worked in the Office of Senator Cantwell, the Wisconsin Project on Nuclear Arms Control, and the James Martin Center for Nonproliferation Studies. Rory holds a MA from Middlebury, a BA from the University of Washington, and is pursuing an MA in National Security and Strategic Studies at the Naval War College.