3167 San Mateo Blvd NE #131 Albuquerque, NM 87110-1921 http://local.ans.org/trinity/ans.trinity@yahoo.com



### ZOOM MEETING ANNOUNCEMENT

https://us02web.zoom.us/j/81619346688?pwd=b1lLUUNxQm5sSEl2N0xpd0JVUWprZz09

## "Lightning Talks #3"

**Background:** Because of the constraints that the COVID-19 pandemic has placed on in-person gatherings, it's been too long since we've been able to get together in person and share both camaraderie and professional discussions—to "socialize" with each other (from students to emeritus members) and to hear about current activities and interests.

To that end, Trinity Section is hosting the third in our series of "virtual dinner meeting with speakers." Of course, dinner and libations are whatever you choose to provide at your individual locations, but at least we can offer some professional interaction in the form of "lightning talks" and an opportunity for discussion.

This is a "special session" devoted to Small Modular Reactors (SMRs) and the Carbon Free Power Project (CFPP). There will be presentations by NuScale Power and the Utah Associated Municipal Power Systems. There will also be additional time available for questions and discussion.

**Abstract:** please see next page.

**Biographies:** please see next page.

**Directions:** This meeting will be hosted on Zoom. The sign-in link will be posted

on the Calendar page of our web site (http://local.ans.org/trinity/calendar.html).

Date: Tuesday, January 12, 2021

**Time: 7:00pm (MST)** Speakers and discussion

**Cost/Menu:** Whatever you choose to provide at your individual locations.

And you don't even need to sign up from our web site or pay with PayPal.

**RSVP:** No need to tell us ahead of time. However, if you have ideas for

speakers and topics of interest for either another lightning talk session or for an in-person dinner meeting with speaker when we're able to accommodate that in the future, or if you are willing to present a lightning talk about your own current work, please be in touch with us

through:

Chris Perfetti: cperfetti@unm.edu (505-277-1945) or Travis Trahan: travistrahan@gmail.com (505-695-5078).

# "Introduction to NuScale Technology and the UAMPS Carbon Free Power Project"

**Dr. José Reyes,** Co-founder & Chief Technology Officer, NuScale Power and

Mason Baker, Chief Legal Officer, Utah Associated Municipal Power Systems

Abstract: NuScale Power has developed a new modular light water reactor nuclear power plant to supply energy for electrical generation, district heating, desalination, and other process heat applications. This groundbreaking small modular reactor (SMR) design features a fully factory-fabricated NuScale Power Module™ capable of generating 77 MW of electricity using a safer, smaller, and scalable version of pressurized water reactor technology. NuScale's scalable design—power plants can house up to four, six, or 12 individual power modules—offers the benefits of carbon-free energy and reduces the financial commitments associated with gigawatt-sized nuclear facilities. The majority investor in NuScale is Fluor Corporation, a global engineering, procurement, and construction company with a 60-year history in commercial nuclear power. By the end of this decade, a NuScale small modular reactor (SMR) power plant will become part of the Carbon Free Power Project (CFPP), an initiative spearheaded by the public power consortium Utah Associated Municipal Power Systems (UAMPS).

### Biography: Dr. José Reyes, Co-founder & Chief Technology Officer, NuScale Power

Dr. Reyes is the co-founder of NuScale Power and co-designer of the NuScale passively-cooled small nuclear reactor. He is an internationally recognized expert on passive safety system design, testing and operations for nuclear power plants. He has served as a United Nations International Atomic Energy Agency (IAEA) technical expert on passive safety systems. He is a co-inventor on over 110 patents granted or pending in 20 countries. He has received several national awards including the 2013 Nuclear Energy Advocate Award, the 2014 American Nuclear Society Thermal Hydraulic Division Technical Achievement Award and the 2017 Nuclear Infrastructure Council Trailblazer Award. He is a fellow of the American Nuclear Society and a member of the National Academy of Engineering.

At Oregon State University, Dr. Reyes served as head of the Department of Nuclear Engineering and Radiation Health Physics. He directed the Advanced Thermal Hydraulic Research Laboratory (ATHRL) and was the co-director of the Battelle Energy Alliance Academic Center of Excellence (ACE) for Thermal Fluids and Reactor Safety in support of the Idaho National Laboratory mission. Additionally, Dr. Reyes was the OSU principal investigator for the AP600 and AP1000 design certification test programs sponsored by the U.S. Nuclear Regulatory Commission (NRC), the U.S. Department of Energy and Westinghouse. He currently serves as a Professor Emeritus in the School of Nuclear Science and Engineering.

Prior to joining the faculty at OSU in 1987, Dr. Reyes worked nearly 10 years as a thermal hydraulics research engineer in the Reactor Safety Division of the U.S. Nuclear Regulatory Commission. He holds Ph.D. and Master of Science degrees in nuclear engineering from the University of Maryland, and a Bachelor of Science degree in nuclear engineering from the University of Florida. He is the author of numerous journal articles and technical reports, including a book chapter on SMRs for an ASME B&PV Codes and Standards handbook. He has given lectures and keynote addresses to professional nuclear organizations in the U.S., Europe and Asia.

- Licensed Professional Engineer, State of Oregon.
- Fellow of ANS and Member of ASME.
- Inaugural Holder of the Henry and Janice Schuette Endowed Chair Professor, Oregon State University.

#### Keynote Speaking Engagements in 2019:

• Small Modular Reactor Innovation, Innovation Session 4: Innovation in Energy and Transportation Sector, G20 Climate Sustainability Working Group, Nagano, Japan, April 2019.

- Flexible Nuclear for Low-cost Decarbonization, Academy of the American Public Power Association, National Conference, Austin, TX June 2019.
- <u>Fireside Chat- Next Generation Nuclear</u>, 2019 ARPA-E Energy Innovation Summit, Aurora, CO, July 2019.
- General Co-Chairman, 18th International Topical Meeting on Nuclear Reactor Thermal Hydraulics (NURETH-18), August, 2019 Portland, OR.
- NuScale Integrated Energy Systems, Plenary Speaker, IAEA International Conference on Climate Change and the Role of Nuclear Power, Vienna, Austria, October 2019.
- Adapting Nuclear Power for Climate Change, IAEA International Conference on Climate Change and the Role of Nuclear Power, Vienna, Austria, October 2019.
- An Innovative Energy Solution for a Carbon Constrained World, Mpact Lecture, University of Maryland, College Park, MD, November 2019
- NuScale Power Plant Resilience for Energy Security, InfraGard National Disaster Resilience Council, Summit on Building Critical Infrastructure Resilience, Washington DC, November 2019
- NuScale Technology Overview, Bettis Naval Nuclear Laboratory, Pittsburgh, PA, November 2019.

Biography: Mason Baker, Chief Legal Officer, Utah Associated Municipal Power Systems

Mason Baker is Utah Associated Municipal Power Systems' ("UAMPS") Chief Legal Officer and General Counsel. Mason holds a law degree from the University of Utah and a Bachelor of Arts degree in Philosophy from Colorado College. He holds a certificate in Environmental and Natural Resources Law from the University of Utah and is the past Chair of the Board of the Salt Lake Climbers Alliance. Mason enjoys spending time with his young sons, Jude and Silas, and rock climbing throughout the West with his wife and two dogs.