

Rutgers Energy Institute
Energy Policy Seminar Series

Presents

***Expanding global nuclear energy
generation capacity with small modular
reactors (SMRs)***



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Friday, April 11th at 10:30am

(Refreshments at 10 am)

Alampi Room, Institute of Marine & Coastal Sciences (IMCS)

71 Dudley Road, Cook Campus

Abstract: Can the global use of nuclear energy be expanded enough to make a significant contribution to mitigating climate change while simultaneously reducing the risks of proliferation, terrorist access, nuclear accidents, and nuclear war? Expanding nuclear capacity worldwide based on large centralized facilities (e.g. generating capacity greater than 1 GW) poses challenges and risks due to the large capital outlays, potential safety issues, negative public opinion, and persistent concerns about proliferation – that is, the intentional misuse of nuclear technology and material. Small modular reactors (SMRs), defined as units with a generating capacity of less than 300 MW that are delivered to the site fully assembled, may represent a viable alternative to large reactors since they require smaller initial capitalization, better match existing demand for energy and capacity requirements, may be easier to site and may engender less public opposition. In this talk, I will discuss the opportunities and challenges for SMRs, focusing on both the climate change and proliferation concerns. Specifically, I will advance a long-term vision developed by the Center for International and Security Studies at Maryland (CISSM) of SMRs with a tightly controlled fuel cycle that has the potential to increase proliferation resistance compared to conventional reactor designs and deployment.

Upcoming Seminars

April 25 - Robert B. Noland (Professor and Director, Voorhees Transportation Center, Edward J. Bloustein School of Planning and Public Policy, Rutgers University)

Visit <http://rei.rutgers.edu/> for more information. Contact Bob Kopp robert.kopp@rutgers.edu or Beatrice Birrer bea@marine.rutgers.edu more information.