

Micro-Reactors: A Technology Option for

Accelerated Innovation

Micro-reactors are very small nuclear reactors capable of operating independently from the electric grid to supply highly resilient power, and are well suited to serve the power needs for remote communities that currently do not have access to reliable, resilient and affordable energy. A typical commercial microreactor is envisioned to be a mobile nuclear power plant in a 2-20 MWe range that is fully factory built, fueled and assembled. It is transportable to the remote site via ground, sea or air with black start, renewable integration and island mode operation capability. They are designed to be self-regulating and walk-away safe with minimal operator intervention. NEI estimates that Microreactors could deliver electricity at rates between \$0.09/kWh and \$0.33/kWh. This presentation will describe 'genericized' microreactor designs being pursued by various vendors, technology gaps and the role of DOE's Microreactor R&D.

Free webcast

March 26, 2020 at 8:30 am (EDT) (UTC -4)



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Who should attend: policy makers, managers, regulators, students, general public

Meet the Presenter...

Dr. Dasari V. Rao is a nuclear and mechanical engineer with 25 years of experience in safety and safeguards of nuclear and high hazard facilities. His technical areas of expertise include computational fluid dynamics, neutron and radiation transport, and risk assessment of nuclear energy systems. He has over thirty publications in these fields. Dr. Rao is presently Director of the Office of Civilian Nuclear Programs at the Los Alamos National Laboratory. He is also Technical Advisor to Dr. Jess Gehin, National Technical Director for DOE Microreactor Program, and Principle Investigator for the NASA's Fission Surface Power project. Dr. Rao has been involved in the Microreactor R&D since its inception; and he is the lead designer at LANL for several concepts. Prior to that, he was Reactor Safety Committee Chair for Los Alamos Critical Machines and National technical Lead for Generic Safety Issue-191.



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For more information, please contact: Patricia Paviet at patricia.paviet@pnnl.gov or visit the GIF website at www.gen-4.org