



Contribution ID: 315

Type: Oral

SMR Deployment: FOAK (First-of-a-Kind) Risks & Risk Mitigation Strategies

To realize the full potential of SMR technology towards a long-term, global future based on clean energy, the nuclear industry has to successfully surmount a number of key challenges. While the new generation of nuclear technology, in the form of numerous SMR options, holds tremendous promise, the successful commercialization of these new reactors has to address several critical elements. Chief among these is the development and construction of First-of-a-Kind (FOAK) projects. While any FOAK project, in the energy industry or otherwise, is challenging in its own right, nuclear FOAK projects carry a distinctive level of complexity due to a unique combination of technical, financial and regulatory burdens. Even in instances where specific SMR designs are based on sound technology, with promising results in laboratory environments, the process of converting this sound technology to successful commercial product is long and arduous. This paper will undertake a comprehensive assessment of the risks associated with SMR FOAK projects and propose plausible mitigation strategies for these risks.

Country OR International Organization

United States of America

Email address

iali@arc-cleantech.com

Confirm that the work is original and has not been published anywhere else

Yes

Author: Mr ALI, Irfan (ARC Clean Technology, Inc.)

Presenter: Mr ALI, Irfan (ARC Clean Technology, Inc.)

Track Classification: Topical Group A: SMR Design, Technology and Fuel Cycle: Track 1: Design and Technology Development of SMRs