



Contribution ID: 196

Type: Oral

REGULATORY FRAME WORK FOR SMR DEPLOYMENT IN NIGERIA EFFORTS, PROSPECTS AND CHALLENGES

The regulatory framework for nuclear energy in Nigeria is primarily governed by the Nuclear Safety and Radiation Protection Act of 1995, which established the Nigerian Nuclear Regulatory Authority (NNRA) to regulate nuclear activities. This Act outlines the NNRA's responsibilities in licensing, inspection, and enforcement related to nuclear facilities and materials, as well as addressing radiation protection and emergency preparedness. Recognizing the need for updated legislation due to increasing nuclear energy usage and Nigeria's quest for nuclear power plant to address its electricity needs, the NNRA on behalf of the Government has proposed the Nuclear Safety, Security, and Safeguards Bill (NSSSB) to enhance regulatory oversight.

The deployment of Small Modular Reactors (SMRs) in Nigeria presents an opportunity to address energy needs and advance nuclear capabilities. However, successful implementation requires a robust regulatory framework. This paper explores efforts, benefits, and challenges of SMR deployment in Nigeria. SMRs offer scalability, cost-effectiveness, and potential for energy security, economic development, and climate change mitigation. However, obstacle includes approval of the NSSSB, regulatory capacity, legislative frameworks, capacity building, and infrastructure development. These challenges stem from the novelty of the technology and a lack of operational and regulatory. Public acceptance is crucial, requiring effective communication and transparency by regulatory authorities and stakeholders.

As Nigeria pursues nuclear energy, the regulatory framework must evolve to address emerging challenges and opportunities. Collaboration among regulatory bodies, industry stakeholders, and international partners is essential to navigate obstacles and ensure safe SMR deployment in Nigeria. Through ongoing review and amendments, the regulatory framework must adapt to technological advancements, international standards, and societal needs while ensuring safeguards of nuclear materials, promoting safety, security, and public confidence in nuclear energy utilization and in the deployment of SMR's in Nigeria.

Country OR International Organization

Nigeria

Email address

ibrahimabdulmajeed@gmail.com

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

Yes

Authors: Mr IBRAHIM, Abdulmajeed (Nigerian Nuclear Regulatory Authority); Mr OSIBO- ODEH, Biriska (Nigerian Nuclear Regulatory Authority)

Co-author: Mr SULAIMAN, Saiyadi (Nigerian Nuclear Regulatory Authority)

Presenters: Mr IBRAHIM, Abdulmajeed (Nigerian Nuclear Regulatory Authority); Mr OSIBO- ODEH, Biriska (Nigerian Nuclear Regulatory Authority)

Track Classification: Topical Group B: Legislative and Regulatory Frameworks: Track 6: International and National Legal Frameworks and SMRs