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Type: Poster

The Role of Small Modular Reactors in Enhancing Global Energy Security: A Comparative Analysis of Deployment Strategies in Diverse Energy Markets

The paper would explore the following facets:

Global Energy Security Context: Examining the concept of energy security and its critical importance in the current global energy landscape. This part would contextualize the role of SMRs within the broader framework of energy needs, sustainability, and geopolitical factors affecting energy policies.

Comparative Analysis of Deployment Strategies: Investigating various strategies for the deployment of SMRs across different energy markets, including developed and developing countries. This would involve an examination of case studies or hypothetical scenarios, assessing factors like economic feasibility, regulatory environments, and infrastructural readiness.

Integration with Renewable Energy Systems: Exploring how SMRs can complement renewable energy sources, such as solar and wind, to create hybrid systems. This section would assess the potential of SMRs in enhancing the reliability and stability of renewable energy-based grids.

Policy Implications and Recommendations: Offering insights into the policy frameworks necessary for the successful integration of SMRs into national and international energy strategies. This would include discussions on regulatory standards, international cooperation, and investment models.

This topic not only aligns with current scientific and technological trends but also engages with broader socio-economic and policy-related discussions, making it a highly relevant and multidisciplinary subject for research.

Country OR International Organization

Brasil

Email address

leosg@uol.com.br

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

YES

Author: Dr GUIMARAES, LEONAM (Eletronuclear SA)

Presenter: Dr GUIMARAES, LEONAM (Eletronuclear SA)

Track Classification: Topical Group D: Considerations to Facilitate Deployment of SMRs: Track 13: SMRs in Energy Planning for Climate Change Mitigation