International Conference on Small Modular Reactors and their Applications



Contribution ID: 416 Type: Oral

OPPORTUNITIES AND CHALLENGES IN INTRODUCING SMRS IN THE ECOWAS REGION

Energy continues to be a central constraint to the socio-economic development prospects of the ECOWAS region. The current level of development of the energy system is a bottleneck for the social, economic, and industrial development throughout the region. This paradoxical energy circumstance in the ECOWAS region has sparked interest in several Heads of States in the region who are keen to develop a common regional vision and plan on how to harness the different energy resources in the region so as to support their socio-economic development plans

The paper is to take into consideration the electricity demand for the study that was developed and analyzed based on the expected/projected development of several influencing factors, showing the importance of nuclear power in the countries' energy mix. For the countries of the ECOWAS region with very limited grid, undertakings to build the infrastructure for a nuclear power programme will need to consider the implications and opportunities of sharing infrastructure building efforts that is very challenging. Remains therefore for countries that wish to build their own first nuclear power plant, the opportunity for building a SMR. The paper aims to prepare a reference framework for a number of studies that the ECOWAS States will need to have prepared, providing the technical framework for studies and associated actions related to the following seven principal infrastructure areas of consideration for the development of a nuclear power programme including (1) Comprehensive studies for developing a strategy for sustainable supplies of electricity, and the possible contribution of nuclear energy: Energy planning; (2) Nuclear and radiation safety infrastructure; (3) Legal framework; (4) Technological and industrial infrastructure; (5) Workforce planning for SMRs; (6) Fuel cycle back end and waste management policies and (7) 2 Nuclear power plant siting.

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Track Classification: Topical Group D: Considerations to Facilitate Deployment of SMRs: Track 14: Nuclear Infrastructure and Enabling Environment for SMRs