



Contribution ID: 40

Type: Oral

Initiatives for SMRs in Brazil: Opportunities and Challenges

In 2023, a study prepared by the Brazilian Energy Research Company and the Idaho National Laboratory was released. Entitled “Preliminary Assessment of Opportunities and Challenges for Small Modular Reactors in Brazil”, this study discussed some opportunities that SMRs could introduce into the country’s electricity generation and energy transition market.

At the same time, the Brazilian Regulatory Board (DRS/CNEN) has started a discussion to review the procedures and standards applicable to nuclear power plants to incorporate new criteria for the choice of location, safety analysis, construction, and commissioning of SMRs. DRS/CNEN has been incorporating the 3S concept (Safety, Security and Safeguards) into all phases of this reviewing regulation and has been participated in technical meetings promoted by the working groups of the Nuclear Harmonization and Standardization Initiative (NHSI).

Having identified the opportunity to insert SMRs in the electrical generation market or to support the energy transition of large industries that require intensive use of electrical or thermal energy in their industrial processes, CNEN is proposing to conduct studies and scenarios on SMRs that could collaborate with a new project investment agenda for the Brazilian nuclear program.

In this way, CNEN is preparing to conduct a preliminary feasibility study for the introduction of SMRs in the country based on the use of the Integrated Nuclear Infrastructure Review (INIR) methodology that IAEA makes available with the objective to assist the Member States in determining the status of its nuclear power infrastructure development.

In a second step, once the feasibility of inserting SMRs in the country has been proven, the main applications that these reactors can offer will be presented and discussed with the country’s nuclear operator to define the best technology, electrical generation power, schedule of investments and possible participation in cogeneration projects with renewable sources and energy transition of large industrial projects.

Country OR International Organization

Brazil, Comissao Nacional de Energia Nuclear

Email address

leslie.molnary@cnen.gov.br

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

Yes

Author: Mr DE MOLNARY, Leslie (Comissao Nacional de Energia Nuclear)

Presenter: Mr DE MOLNARY, Leslie (Comissao Nacional de Energia Nuclear)

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