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Sustainability assessment of infrastructure for small modular reactor deployment in Vietnam using INPRO methodology

Small modular reactors (SMRs) are being considered as a potential solution that can help Vietnam reach decarbonization by 2050. However, most SMRs are still in the design or licensing stage, leading to challenges to assess their sustainability. According to the INPRO methodology, comprehensive sustainability assessment of SMRs is necessary, particularly if an embarking country plans to build and operate them for harnessing nuclear power. Among the assessment areas for SMRs, assessment of infrastructure is essential to ensure a country shall be able to deploy SMRs without excessively investing in national infrastructure. Thus, this work performed a limited scope assessment of infrastructure for SMR deployment in Vietnam using the INPRO methodology. It was based on the infrastructure previously established for the former nuclear power plant projects and aimed to pinpoint infrastructure issues which need to be solved to facilitate SMR deployment in Vietnam. National energy planning and policy was also taken into account to identify candidate SMR technologies which can be timely deployed for supporting the decarbonization target. The results could provide policy makers with initial recommendations on how to develop adequate infrastructure for future SMR introduction in Vietnam. Future works are being planned for the respective full scope assessment.

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Yes

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