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Challenges of SMR deployment in a Swedish setting

Sweden is experiencing a new wave of interest in nuclear energy. This interest is largely driven by the recently changed pro-nuclear political landscape in the EU and Sweden, the emergence of new nuclear technologies and the estimated doubling of national electricity consumption.

Drawing on an ongoing study of the reintroduction of nuclear technology in Sweden, this paper presents findings related to the main challenges perceived in the potential deployment of SMRs in Sweden. In a qualitative study connected to the ANItA (Academic-industrial Nuclear technology Initiative to Achieve a sustainable energy future) competence centre managed by Uppsala University, we investigate what the main nuclear actors perceive as the main challenges associated with the future deployment of SMRs in Sweden. The preliminary findings indicate that much of the challenges of deployment of SMRs are not related to technological challenges per se, instead, the main challenges are tightly connected to the organizational and regulatory context of embedding new technology; including lack of licensing regulations, lack of competences within nuclear, uncertainty of financing and cost estimates, as well as long-term political commitment.

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