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# Challenges in development of cogeneration module for SMRs

Orlen Synthos Green Energy (OSGE) is a Polish company that plans to deploy a fleet of SMRs in Poland with use of BWRX-300 technology by GE Hitachi Nuclear Energy (GEH). BWRX-300 is designed to produce only electricity, whereas, the waste heat is discharged to the atmosphere via cooling towers, as most of existing large-scale nuclear power plants do. However, the waste heat could be used to supply district heating networks (DHNs) and industrial facilities, therefore making the SMR a cogeneration plant. Cogeneration is widely applied in Poland for coal and gas fired plants, however it is a niche area for the nuclear industry. OSGE believes that nuclear technology is a key solution for decarbonizing the Polish and European energy sector and nuclear cogeneration can only enhance its effect. What is more, cogeneration SMR could be used in wider range of applications than large-scale nuclear cogeneration. This paper is dedicated to describing the challenges in developing the cogeneration module for existing SMR technology in international environment in technical, business and regulatory areas.

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

YES

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