

NE-23-29899 – Assessment of SMRs for Dow

Dow, headquartered in Midland, Michigan, is the largest U.S. based chemical and materials manufacturer. Their purpose is to deliver a sustainable future for the world through materials science expertise and collaboration with various partners.

The focus of this project is to look at the integration of small modular reactors (SMRs) for both electricity and process heat. The application of process heat needs definition on how an SMR can be integrated into a manufacturing site. Determining what integration equipment will be needed to meet redundancy targets and how the system will be controlled, will be explored in this work.

Dow will partner with the Integrated Energy Systems (IES) group at Idaho National Laboratory (INL) to review Dow processes and SMR technologies, examine engineering process design for thermal integration of nuclear and chemical plants, and provide preliminary evaluation of control methods.