

## **NE-23-31609 – Assessment of NuScale SMR Steam Heat Augmentation for Chemical Plant Decarbonization**

NuScale Power LLC is located in Corvallis, OR. The use of their small modular reactor power plants, such as VOYGR™, work to fill their mission of improving the quality of life for all humankind.

Industrial emissions represent a substantial contribution to carbon dioxide driven climate change, especially in chemical production facilities. The chemical industry requires a large heat supply at high temperatures and the lack of a viable low-carbon steam production technology option at commercial scale (e.g., 1Mlb/hr of steam) makes this challenge difficult to overcome. NuScale has developed a heat augmentation system that can address these needs, but there are questions on requirements and cost effectiveness to integrate such a system.

NuScale will partner with Oak Ridge National Laboratory (ORNL) to perform a techno-economic analysis of a NuScale plant with a novel heat augmentation system for application to a commercial scale chemical production facility to help understand the functional requirements for the system and determine best ways to integrate with the facility.