



## Engineering

# Studies to support deployment of advanced reactor technology at Portsmouth Site



### THE GEN IV REACTOR COMMUNITY:

- Has over 40 privately funded companies currently pursuing designs
- Recognizes that designing, licensing and building any reactor can take a significant period of time
- Realizes that maintaining investor interest for the long term is important to many private companies pursuing advanced reactors
- The SODI proposal, supported by a broad cross section of the Gen IV reactor community, will benefit all designs that support the process of licensing and characterization studies on deployment of advanced reactor technology at the Portsmouth Site



The Southern Ohio Diversification Initiative (SODI), supported by EPRI, Southern Nuclear Company, Duke Energy, NuScale Power, Framatome, and Orano submitted a proposal to the U.S. Department of Energy's Office of Nuclear Energy (DOE NE) to look at starting the process of licensing and characterization studies to support the deployment of advanced reactor technology at the Portsmouth Site in the 2028 to 2033 timeframe.

This \$12M proposal submitted by SODI was in response to DOE NE's Advanced Reactor Funding Opportunity Announcement which required a 20% cost-share supplied by the industry component of the team.

A recent report conducted by the Next Generation Nuclear Plant Alliance for DOE NE, titled **Advanced Reactor Site Feasibility Evaluation, Final Report, 51-9272172-000**

(July 27, 2017), identified the Portsmouth Site as **the most suitable site in the U.S. for industrial advanced reactor deployment.**

The Portsmouth Site offers:

- A significantly reduced time and cost for NRC licensing of a Generation IV reactor
- Extensive characterization: previous NRC license applications have already been conducted
- Existing site infrastructure that will save over \$1B for any new build
- Supportive and trained nuclear workforce
- Benefits to the taxpayer by reusing existing infrastructure that would otherwise be decontaminated and decommissioned by the DOE Office of Environmental Management (EM)
- Collaboration between DOE EM and DOE NE for the reuse of the site

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