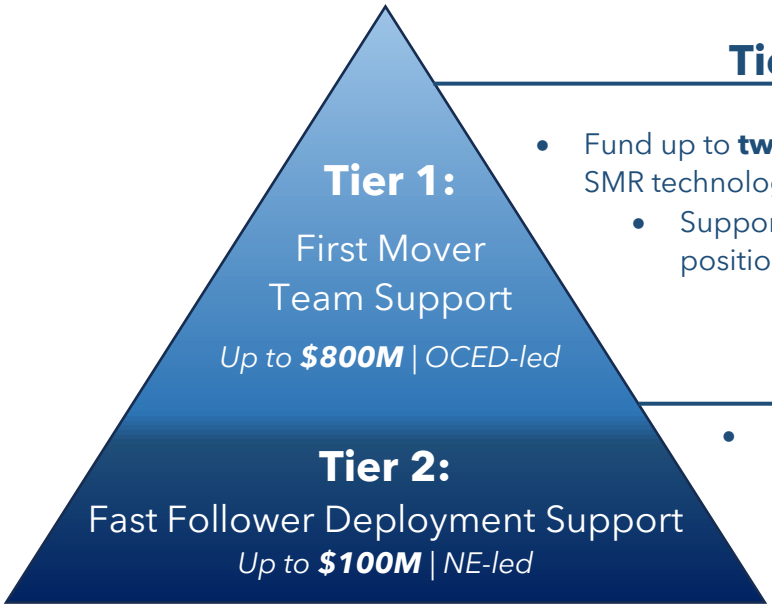
NUCLEAR INNOVATION ALLIANCE

DOE's GenIII+ Small Modular Reactor Program:

Innovative Approaches to Public-Private Partnerships

Public-private partnerships are critical to the successful deployment of advanced nuclear energy technologies. The cost-share financing they provide enables advanced reactor developers to rapidly innovate and commercialize their reactor design. Two innovative approaches to public-private partnerships are especially promising: **Performance milestone-based funding** and establishing an **"orderbook"**.

On October 16, 2024, the U.S. Department of Energy issued a **$900M funding opportunity** for the Generation III+ (GenIII+) Small Modular Reactor (SMR) Program to support the initial U.S. deployments of GenIII+ SMR technologies. These GenIII+ SMR technologies included light water SMR designs being developed by companies, such as NuScale, GE Hitachi, Westinghouse, and Holtec. Funding for this GenIII+ SMR Program is split into two tiers:



Tier 1 Activities

- Fund up to **two near-term deployments** of GenIII+ SMR technologies in the United States
  - Support multi-entity project teams well-positioned to manage first-mover risks

Tier 2 Activities

- Ensure that the domestic nuclear industry maintains momentum for **follow-on deployments**
  - Address key gaps that have hindered domestic nuclear energy deployments including siting, supply chain, cost and schedule.

This funding will focus on catalyzing an **"orderbook"** of follow-on projects using the same design. This is critical to commercialize the technology and drive down the cost of subsequent deployments. Additionally, the program will be **performance milestone based**, awarding funds to companies when they achieve specific commercial milestones. This approach can increase the cost-effectiveness and likelihood of success for technology demonstrations, incentivize more rapid innovation, and provide offramps for unsuccessful projects. As a result, performance milestone-based funding reduces taxpayer risk, improves project performance, and can accelerate commercialization.

DOE's Gen III+ program represents a significant step in commercializing advanced nuclear energy. Its focus on performance-based milestones and catalyzing orderbooks should be models for other DOE programs. **Effective DOE implementation of these innovative program elements is essential** and will help create the conditions for success for advanced nuclear energy to be a major energy security and climate solution.