

**Project**—NuScale Power, Corvallis, Ore. This project will conduct design finalization activities and ensure supply chain readiness to meet a commercial operation date of 2026 for the first NuScale plant. DOE funding: \$40,000,000; non-DOE: \$40,000,000; total: \$80,000,000.

The following four projects were selected under the Advanced Reactor Development Projects pathway:

■ **Combining Multi-Scale Modeling with Microcapsule Irradiation to Expedite Advanced Fuels Deployment**—General Atomics, San Diego, Calif. This project aims to combine advances made in microstructurally informed fuel performance modeling and simulation tools with a new microcapsule irradiation capability that can substantially reduce the schedule and cost burden associated with qualifying new fuel systems for commercial deployment. DOE funding: \$2,210,995; non-DOE: \$552,749; total: \$2,763,744.

■ **Modeling and Optimization of Flow and Heat Transfer in Reactor Components for Molten Chloride Salt Fast Reactor Application**—Elysium Industries USA, Clifton Park, N.Y. This project will develop the computational fluid dynamics models needed to simulate and optimize the flows of chloride molten salt fuel in a reactor vessel and heat exchangers for the company's Molten Chloride Salt Fast Re-

actor design. DOE funding: \$2,560,000; non-DOE: \$640,000; total: \$3,200,000.

■ **Establishment of an Integrated Advanced Manufacturing and Data Science Driven Paradigm for Advanced Reactor Systems**—BWXT Nuclear Energy Inc., Lynchburg, Va. This project will develop the ability to implement additive materials manufacturing—also known as 3D printing—to the fabrication process for nuclear components and subcomponents that will yield material structure and strength that can be accepted by the national code organizations and the regulator. DOE funding: \$5,400,000; non-DOE: \$4,415,000; total: \$9,815,000.

■ **Dynamic Natural Convection—Passive Cooling for the LWR Fleet**—NuVision Engineering Inc., Pittsburgh, Pa. This project proposes an engineered solution to mitigate the effects of loss of power to light water-based nuclear reactors and to remove decay heat from the reactor core, mitigating losses due to random equipment failures and severe accidents. DOE funding: \$2,999,657; non-DOE: \$749,914; total: \$3,749,571.

The following two projects were selected under the Regulatory Assistance Grant pathway:

■ **Resolving the Regulatory Issues with Implementation of Online Monitoring Technologies to Extend the Calibration In-**

**tervals of Process Instruments in Nuclear Power Plants**—Analysis and Measurement Services (AMS) Corporation, Knoxville, Tenn. This project will work with nuclear industry stakeholders and the regulator to develop guidelines for extending calibration intervals of transmitters using on-line monitoring technology. DOE funding: \$499,906; non-DOE: \$125,000; total: \$624,906.

■ **Pre-Application License Review of Silicon Carbide Composite Clad Uranium Carbide Fuel for Long-Life Gas-Cooled Fast Reactor Cores**—General Atomics, San Diego, Calif. This project will engage the regulator to execute a pre-licensing review of a silicon carbide composite-clad uranium carbide fuel system for use in a gas-cooled fast reactor long-life core. DOE funding: \$380,655; non-DOE: \$95,164; total: \$475,819.

The DOE additionally chose five U.S. companies to receive technical voucher awards under its Gateway for Accelerated Innovation in Nuclear (GAIN) initiative. Selected firms, with the DOE's contribution, are as follows: Terrestrial Energy USA, New York, N.Y. (\$500,000); Vega Wave Systems Inc., West Chicago, Ill. (\$130,000); Oklo Inc., Sunnyvale, Calif. (\$417,000); Urbix Resources LLC, Mesa, Ariz. (\$320,000); and ThorCon US Inc., Stevenson, Wash. (\$400,000). **IN**

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