

DEMONSTRATING THE NATRIUM™ REACTOR AND INTEGRATED ENERGY SYSTEM: COST-COMPETITIVE, FLEXIBLE TECHNOLOGY FOR THE CLEAN ENERGY FUTURE

The Natrium™ reactor and integrated energy system redefines what nuclear technology can be: competitive and flexible.

TerraPower and GE Hitachi Nuclear Energy developed the Natrium technology with a cost-competitive, 345 MWe sodium fast reactor and gigawatt-hour-scale, molten salt energy storage. The storage can boost output to 500 MWe of power for more than five and a half hours when needed.

This innovative combination creates an integrated energy solution that provides clean, firm generation for electricity grids that have a growing mix of renewables. The Natrium technology will also help utilities capture more daily electricity revenue.

NATRIUM

- 345 MWe reactor
- Gigawatt-hour-scale energy storage (capacity of 500 MWe output for 5.5+ hours)
- Cost-competitive, flexible technology that supports load following, energy storage and industrial process heat applications

www.NatriumPower.com



NUCLEAR TECHNOLOGY OF CHOICE FOR GOVERNMENT INVESTMENT

In October 2020, the U.S. Department of Energy (DOE) awarded TerraPower funding, as part of the Advanced Reactor Demonstration Program, to demonstrate the Natrium technology.

FROM DEMONSTRATION TO COMMERCIALIZATION

This precedent-setting, public-private partnership will demonstrate the Natrium technology's design, construction and operational features. To ensure the technology meets market needs, a team of leading nuclear companies will provide their supply chain and operational expertise. This collaboration aids the transition to a cost-effective, zero-carbon grid, which requires innovations in siting, licensing, operations and maintenance.

The Natrium reactor and integrated energy system will be available in the late 2020s, making it one of the first commercial advanced nuclear technologies.



Founded in 2008
Headquartered in Bellevue, WA

NATRIUM DEMONSTRATION PROJECT TEAM

- Bechtel Power Corporation
- GE Hitachi Nuclear Energy Americas, LLC
- PacifiCorp, a subsidiary of Berkshire Hathaway Energy
- Energy Northwest
- Duke Energy Carolinas, LLC
- American Centrifuge Operating, LLC (Centrus Energy Corporation)
- Global Nuclear Fuels Americas, LLC
- Orano Federal Services
- Argonne National Laboratory
- Battelle Energy Alliance, LLC (Idaho National Laboratory)
- Los Alamos National Laboratory
- Oak Ridge National Laboratory
- Pacific Northwest National Laboratory
- North Carolina State University
- Oregon State University
- University of Wisconsin



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