

Wyoming breaks ground on Nation's First-of-its-kind nuclear power plant

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Construction is officially underway on America's next nuclear power plant, marking a significant milestone in the country's clean energy journey. Bechtel, a global leader in engineering and construction, celebrated the groundbreaking of the Natrium Demonstration Project alongside its partner, TerraPower.

The Natrium Demonstration Project, located in Kemmerer, Wyoming, is the first-of-its-kind in the United States. This innovative project is part of the U.S. Department of Energy's Advanced Reactor Demonstration Program, signifying a commitment to exploring and deploying next-generation nuclear technology.

The Natrium reactor utilizes a groundbreaking sodium-based cooling system, a departure from traditional water-cooled reactors. This technology offers a clean, baseload operation capable of generating 345 megawatts of power, with the potential to flexibly scale up to 500 megawatts – enough to meet the energy needs of approximately 400,000 homes.

"The Natrium reactor's innovative design will launch a new approach to nuclear plant construction that is designed to be safer, cleaner, faster, and more efficient than many energy source alternatives."

"Working together, the combination of advanced technology and streamlined constructability has the potential to diversify the U.S. power generation industry. The option of deploying smaller advanced nuclear plants that can work in concert with other clean energy sources will help speed our progress toward net-zero emissions."

Albert commended TerraPower on their approach and the significance of the partnership:

"TerraPower extended their visionary approach to the building of the plant itself. Their involvement of Bechtel from the very beginning means the entire project lifecycle, including construction, has been optimized at every stage, making the entire process cost-effective, fast, and repeatable."

"Natrium will be the first nuclear project where the execution of those plans will benefit from Bechtel's suite of digital tools and systems, which have been proven to deliver exceptional results on other large energy facilities."

The Natrium project will be the first nuclear project to leverage Bechtel's suite of advanced digital tools and systems. These proven solutions, successfully implemented on other large-scale energy facilities, will ensure exceptional project delivery.

The Natrium reactor design, a collaboration between TerraPower and GE Hitachi, represents a giant leap forward in clean and sustainable power generation. This project will deliver the first commercially operational advanced nuclear reactor in the US, providing reliable, carbon-free power to the national grid and creating long-term job opportunities in Wyoming.

For over seven decades, Bechtel has been a leader in delivering clean energy solutions through nuclear power. The company boasts a proven track record, having designed, built, or provided construction services for 150 nuclear plants worldwide – contributing over 76,000 megawatts of new nuclear generation capacity globally. Bechtel brings this extensive experience and trusted expertise to the Natrium Demonstration Project.