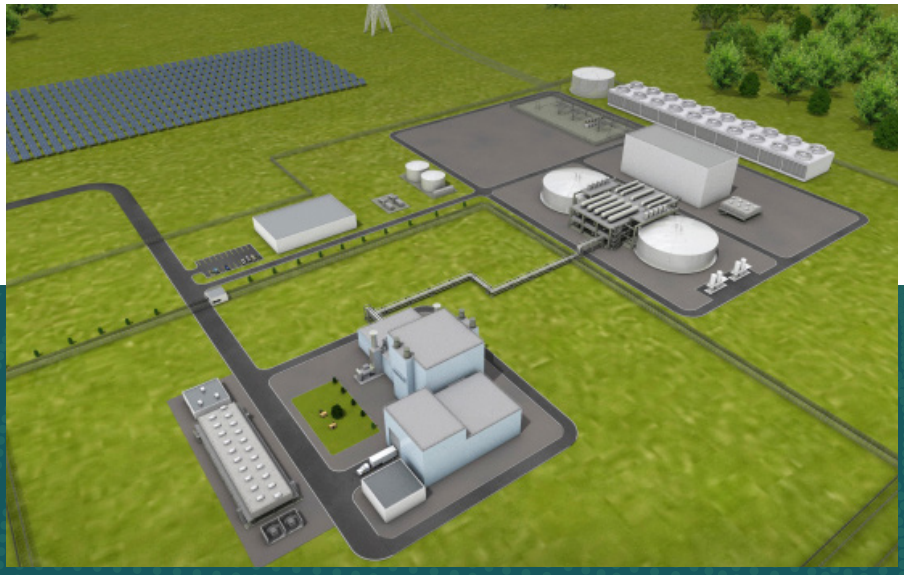
WYOMING ADVANCED ENERGY

A PROJECT OF

PACIFICORP TerraPower



AN ADVANCED NUCLEAR DEMONSTRATION PROJECT

Decarbonized Solutions

Leading the way towards a cost-effective, decarbonized future, PacifiCorp and nuclear innovation company, TerraPower, are seeking to site the Natrium™ advanced nuclear reactor technology at a retiring coal plant site in Wyoming.

The companies are working together on a demonstration project for the Natrium advanced nuclear reactor technology. This reactor with gigawatt-scale energy storage has the potential to provide reliable power while integrating seamlessly with renewable resources and could lead to faster, cost-effective decarbonization of electricity generation.

The demonstration project creates opportunities for both PacifiCorp and local communities to provide well-paid, knowledge-intensive, long-term jobs in Wyoming communities that have decades of energy expertise. Wyoming is the ideal place for this project with its highly skilled, well-trained workers who understand the value of always-on electricity for their communities.

The companies are conducting joint due diligence to explore the technical and economic feasibility of the project with final site selection expected in late 2021.

Natrium™ Advanced Reactor Technology

The project features a 345 MW sodium-cooled fast reactor with a molten salt-based energy storage system. The storage technology can boost the system's output to 500 MW of power for more than five and a half hours when needed, which is equivalent to the energy required to power around 400,000 homes. The technology's novel architecture separates and simplifies major structures, reducing complexity, cost and construction schedule. The technology provides dispatchable power at a scale that can support electricity diversification and decarbonization.

The Natrium system, which is a TerraPower and GE Hitachi technology, enhances safety, relying on natural forces and advanced design.

Along with PacifiCorp and GE Hitachi Nuclear Energy, members of the demonstration project team include engineering and construction partner Bechtel, Energy Northwest, Duke Energy and nearly a dozen additional companies, universities and national laboratories.

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2021

Utility due diligence for project
Site assessment
Site announcement

Engineering, Licensing, Construction, Testing and Qualification, Supply Chain Development, Operations Programs and Training

2028

Operations begin

FACTS AND QUESTIONS

What are your options for site location within Wyoming?
TerraPower will work with PacifiCorp to identify a site for the Natrium demonstration project at a retiring coal plant in Wyoming. The team is evaluating a variety of factors in selecting the site including local community support, the physical characteristics of the site, the ability of the site to obtain a license from the Nuclear Regulatory Commission, access to existing infrastructure, and the needs of the grid. A final decision is expected by the end of 2021.

Why Wyoming?
Wyoming has been a leader in energy for more than 100 years and is home to a highly skilled, well-trained workforce. Wyoming knows what it takes to support major energy projects, and the state has a history as the nation's leader on energy issues. Like many utilities, PacifiCorp is making significant investments in its grid. The Natrium reactor, with its ability to serve both baseload and energy storage functions, is a versatile tool for 21st century grids.

What kind of workforce is needed to build and operate this nuclear power plant and what specialized training will be needed?
There are many similarities between running a coal plant and the power system that will generate electricity in the Natrium system. While there are some jobs – like the licensed nuclear plant operator – that are unique to nuclear, there are many other jobs where the skills possessed by the coal workforce are transferable. . A big part of the reason TerraPower is interested in these retiring coal plant sites is the workforce that is already available in these communities ready to be trained on the Natrium system.

What's a realistic expectation for jobs, construction and long-term?
Project leaders estimate around 1500 craft workers and about 500 non-manual workers will be needed for construction at the project's peak. Estimated workforce numbers for ongoing operations, including plant security, are around 250.

What are the benefits of nuclear jobs versus other types of generation?
A study by the Energy Futures Initiative found that nuclear workers, on average, make more than workers in any other energy sector. That includes coal, natural gas, wind, and solar. In addition, nuclear plants last for many decades, ensuring that the economic benefits stay in the community for generations to come.

Is this project safe?
Safety is always the highest priority. The Natrium technology enhances safety, relying on natural forces and advanced design. The reactor has a net negative power coefficient, which means that if the temperature goes up, the reactor will naturally respond by reducing power. Further, the Natrium reactor is a pool-type reactor, so there are no penetrations in the reactor vessel below the lid, which eliminates the possibility of a leak or loss of coolant accident. The design also relies on natural forces, like gravity and hot air rising, to cool the reactor if an unexpected shutdown occurs.

What will be done with nuclear waste in Wyoming?
The Natrium technology will reduce the volume of waste per megawatt hour of energy produced by two-thirds because of the efficiency with which the reactor uses the fuel. The waste the Natrium reactor does produce will be stored safely and securely at the same site as the reactor until the United States identifies a permanent geologic repository. No waste will be accepted from out of state at this facility.

What are the economic benefits to Wyoming, in addition to jobs?
The development of a nuclear energy facility will bring welcome tax revenue to Wyoming's state budget. This demonstration project creates opportunities for PacifiCorp and local communities to provide well-paying and long-term jobs for workers in Wyoming communities that have decades of energy expertise.

What taxes will this nuclear power plant pay in Wyoming?
During construction, the plant will be subject to sales and use taxes, as well as property taxes during its operational life - similar to the company's existing generation facilities in the state.

Do we need nuclear power when wind and solar are so cheap?
America's energy system is going through tremendous change with the country relying more heavily on wind and solar. However, nuclear energy is one of the only large-scale, carbon-free electricity source that can provide power 24/7. A Natrium plant is specifically designed to integrate into the system with high levels of variable renewables. Additionally, the plant's molten salt storage system can store large amounts of energy, far surpassing the capacity of typical battery storage facilities. That energy can be used during times of peak demand when the wind isn't blowing or the sun isn't shining.

What happens next once the demonstration is successful?
Once complete, the demonstration project will be a fully functioning power plant. The goal is for the demonstration plant to be the first of hundreds of Natrium plants across the country and around the world.