

Japan's Mitsubishi, energy body join Gates' nuclear project

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A man walks past the company sign of the Mitsubishi Heavy Industries in Tokyo Tuesday, July 16, 2019. Mitsubishi Heavy Industries and the Japan Atomic Energy Agency have signed an agreement, Wednesday, Jan. 26, 2022, to participate in a next-generation nuclear energy project with TerraPower, a company started by Bill Gates. Credit: AP Photo/Koji Sasahara, File

Mitsubishi Heavy Industries and the Japan Atomic Energy Agency have signed an agreement to participate in a next-generation nuclear energy project with TerraPower, a company started by Bill Gates.

The memorandum of understanding signed Wednesday calls for cooperation in developing advanced nuclear technologies, Mitsubishi Heavy said.

Located in Kemmerer, in western Wyoming's desert highlands, the [demonstration project](#) will use a nontraditional, sodium-cooled nuclear reactor. It will hire workers from a local coal-fired power plant scheduled to close soon.

MHI, one of Japan's largest industrial conglomerates, said it will explore ways to provide technical support and to develop the reactor.

"MHI will also bring back expertise and knowledge obtained through this partnership to contribute to the advancement of nuclear innovation in Japan," the company said in a statement.

The U.S. nuclear industry has been at a standstill, providing a steady 20% of the nation's power for decade amid the costly and time-consuming process of building huge conventional nuclear plants.

Japan's atomic energy sector has been in crisis since meltdowns at the Fukushima Dai-Ichi plant on its northeast coast following a massive earthquake and tsunami in March 2011. But its government views nuclear energy as essential for achieving net zero carbon emissions to counter climate change.

TerraPower plans to make its plant useful for today's energy grid of growing renewable power. A salt heat "battery" will allow the plant to ramp up electricity production on demand, offsetting dips in electricity

when the wind isn't blowing and sun isn't shining.

The startup of the plant is years off—2028 according to current planning.

The approach isn't new. Russia has had a commercial sodium-cooled reactor in use at full capacity since 2016 and such designs have been tested elsewhere in the U.S.

GE Hitachi Nuclear Energy, an alliance between GE and Japan's Hitachi, worked with TerraPower to develop the project's sodium fast reactor and molten salt energy storage system.

Mitsubishi Heavy said the agreement with TerraPower will facilitate joint, wider efforts on developing fast reactor technology.

Gates, the famous co-founder of Microsoft, started Bellevue, Washington-based TerraPower in 2008 and is chairman of its board.

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