



Framatome awarded \$1M contract from Department of Energy (DOE) for Advancing Digital Twin-based Diagnostics

September 26, 2023 – Framatome announced today a \$1 million contract award for phase two of the Digital Twin-based Diagnostics for Nuclear Auxiliary Systems project in North America.

Phase two of this project focuses on the commercialization of automated diagnostic technology for nuclear plant auxiliary systems, specifically the plant service water system and cooling water systems of light water reactors (LWRs). This technology saves operation and maintenance costs for the current LWR fleet and is capable of obtaining greater per-MWe savings in advanced reactors.

“The successful commercialization of this technology will be instrumental in developing additional cost-effective solutions available for nuclear plant operations today and prepares us for the next generation of advanced reactor designs,” said Katherine Williams, CEO of Framatome North America. “Together with our utility partner and Metroscope, we bring this technology one step closer for the advancement of reliable, low carbon nuclear energy in North America.”

Framatome and Metroscope have partnered to achieve commercialization. While Framatome will be responsible for the overall project management and the digital twin model development for the auxiliary system, Metroscope will support the project with co-leadership, product advancement and plant integration.

To meet this objective, phase two of the project builds on proven Metroscope diagnostic technology already in use at more than 60 nuclear plants. It also builds on the existing phase one application to a high-temperature gas reactor auxiliary system using input data from the Argonne National Laboratory Natural Convection Shutdown Heat Removal Test Facility (NSTF).

The project will apply Metroscope digital twin technology to an auxiliary system to demonstrate O&M savings at an operating LWR plant. The objective is to demonstrate the value of the technology and quantify the return on investment for expanding to more plants after project completion.

Funding is sponsored by the Advanced Research Projects Agency – Energy (ARPA-E) office of the Department of Energy under the GEMINA (Generating Electricity Managed by Intelligent Nuclear Assets) program. The GEMINA program aims to develop digital twin technology for advanced nuclear reactors and transform operations and maintenance systems in the next generation of nuclear power plants.

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About Framatome

Framatome is an international leader in nuclear energy recognized for its innovative, digital and value added solutions for the global nuclear fleet. With worldwide expertise and a proven track record for reliability and performance, the company designs, services and installs components, fuel, and instrumentation and control systems for nuclear power plants. Its more than 18,000 employees work every day to help Framatome's customers supply ever cleaner, safer and more economical low-carbon energy.

Visit us at : www.framatome.com and follow us on [Twitter](#) and [LinkedIn](#).

Framatome is owned by the EDF Group (75.5%), Mitsubishi Heavy Industries (MHI – 19.5%) and Assystem (5%).