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## Dual Fluid collaborates with University of Dresden for safety report

The German-Canadian nuclear technology company Dual Fluid has contracted the Technical University of Dresden to analyze the stability of the Dual Fluid Reactor. A working group at the Chair of Hydrogen and Nuclear Energy has been calculating the power distribution within the reactor core since the end of last year.

The calculations of the TU Dresden on the Dual Fluid Reactor under the direction of Prof. Antonio Hurtado and Dr. Carsten Lange will show the power distribution in the reactor in different operating states. The aim is to develop and validate calculation methods that will be used to demonstrate the safety of the reactor. The results will be summarized in a safety report as required by the IAEA and the Canadian licensing authority.

The scientific head of the working group, Dr. Carsten Lange, about the work on the dual fluid reactor: "The simulation tasks are an exciting and challenging project for our chair. It is a completely new reactor design that has little to do with light water reactors and is therefore also very interesting for our students. Regardless of many challenges that a new reactor design brings, the concept is promising from a reactor physics and resource ecology perspective. We are pleased to contribute to its development." The Chair of Hydrogen and Nuclear Energy at TU Dresden has been conducting analyses on the stability of power reactors for years and can refer to special expertise in the dynamic behavior of complex nuclear systems.

CEO Götz Ruprecht on the cooperation: "This independent study by a renowned academic institute is an important step for the upcoming licensing. It will show the authorities that all possible operating situations have been fully thought through."

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## **About Dual Fluid**

Dual Fluid is creating an entirely new type of nuclear reactor that

- provides emission-free electricity and hydrogen,
- significantly reduces today's energy costs,
- burns nuclear waste, and is inherently safe.

Dual Fluid differs from other new nuclear concepts by its high efficiency: the nuclear fuel is utilized up to a hundred times better than in today's light water reactors. The operating temperature of 1000° C enables new heat applications.

The Dual Fluid operating principle, based on different fluids for fuel and cooling, is described in scientific publications. There is worldwide patent protection, including in the USA, Canada, the EU and Japan. Dual Fluid Energy Inc. was incorporated as a public company in Vancouver, Canada, in January 2021 to bring the Dual Fluid technology to serial production status. The prototype of a Dual Fluid reactor is to be launched within this decade.