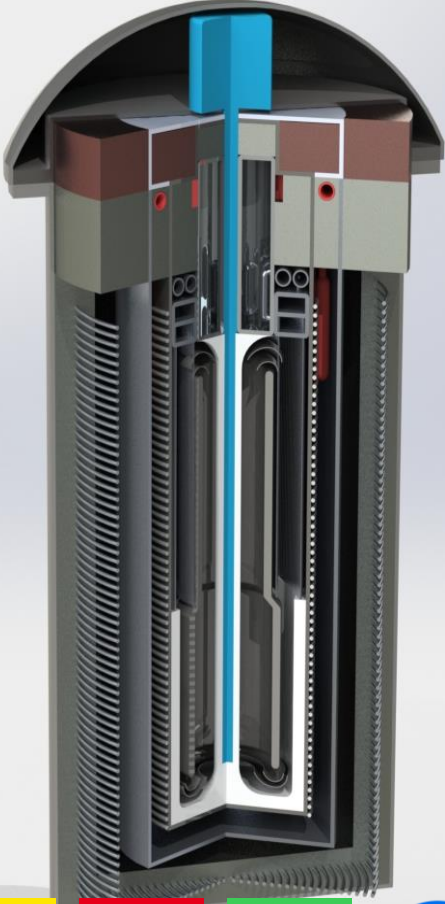


Patented STELLARIUM pile



Renewable 24/7 power forever

The Stellarium is a 250 MW thermal or 110 MWe next generation of liquid-molten-salt pile that regenerates 100% of its fuel directly in the core during operations. It is of the "fast neutron" or regenerator type, meaning that it produces as much **fissile material as it consumes**. The Stellarium has a full autonomy of 15 years without refueling.

Versatile & circular fuels for Water Pressurized Reactors

The Stellarium can **burn old waste** (minor actinides), old MoX, and can fertilize Uranium 238 and Thorium, using multiple fuels in the same design. Everything can be refurbished on sites (vessels changed every 10 years), that can last 150+ years. It complements large Water Pressurized Reactor market, bringing regional 24/7 stability and **even recreating WPR fuels**. Moreover, the high level of controllability enables the only nuclear pile to **adapt very quickly to demand**, with power ramps as fast as gas-fired power plants.

The ultimate sustainable solution

It unleashes unused resources - enough energy for 100 000+ years. The Stellarium brings the next level of **energy sovereignty**. Its high temperature (550°C) can easily energize 24/7 industrial processes.

Simpler + safer = low cost

The **patented** fission chamber operates by natural convection, without pumps. Its physical counter-reactions ensure self-stabilizing in a matter of seconds. **Without pressure in core**, it is the next generation of "safety by design" technology.

Produced in series

Piles will be produced in series in factories & yards. A critical mock-up is planned in Q1 2027 that will demonstrate our **nuclear-safety-by-design** to national bodies. STELLARIA is building a strong **European industrial alliance** (CEA, Technip, Schneider-Electric, Orano). This positioning aims to bring together the future European industrial leaders to provide **turnkey SMR's for Vattenfall**.

