

## Solar Energy South Africa

# Modular nuclear reactor companies South Georgia and South Sandwich Islands



## Overview

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What is a small modular reactor?

Small modular reactors have a power output of less than 300 MWe. The term “modular” in the context of SMRs refers to its scalability and to the ability to fabricate major components of the nuclear steam supply system (NSSS) in a factory environment and then transported them to the site. Key characteristics:.

Can small modular reactors save energy?

Small modular reactors (SMRs) could allow energy developers to build smaller nuclear plants than conventional construction would. Small modular nuclear reactors, known as SMRs, can give cost saving where conventional nuclear plants cannot. Credit: Tennessee Valley Authority under CC-BY-2.0.

How much will the UK invest in small modular nuclear reactors?

This week, UK Prime Minister Boris Johnson announced that the UK would invest up to \$332m (£250m) in small modular nuclear reactors. The government policy document said this would “unlock up to £300 million private-sector match-funding”.

What is a molten salt reactor?

Moltex Stable Salt Reactor: This molten salt reactor (MSR) design from Moltex Energy in the United Kingdom uses a unique fuel design that makes it resistant to nuclear weapons proliferation. It has a capacity of 300 MW and can be deployed in units of up to six modules.

How many mw can a SMR-160 reactor produce?

Each module has a capacity of 60 MW, and the entire system can produce up to 720 MW. SMR-160: This PWR design from Holtec International in the United States has a capacity of 160 MW and can be deployed in units of up to six modules. The reactor vessel is submerged in water, which provides an

additional safety feature in case of an accident.

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### **COP29: UK and US link for nuclear research and development**

The initiative supports the COP28 commitment to triple global nuclear energy capacity by 2050, with 31 countries, including the UK and US, participating. The UK is advancing its nuclear reactor programme, Great British Nuclear's small modular reactor competition, and the Sizewell C project.

### **Rolls-Royce, Fermi Energia study modular nuclear power in Estonia**

Strike Energy takes FID on South Erregulla gas power plant Rolls-Royce and Fermi Energia have agreed to study the potential impacts of small modular nuclear reactor deployment in Estonia. Umesh Ellichipuram March 3, 2021. Share Copy Link; Share on X The companies have signed a memorandum of understanding (MoU) to study the potential



### **Meta seeks developers for early 2030s nuclear reactor projects**

The company aims to add 1GW to 4GW of new nuclear generation capacity in the US, with delivery expected to begin in the early 2030s. Go deeper with GlobalData. Reports. Vogtle 3 . Reports. In October 2024, Google ordered six to seven small modular reactors (SMR) from Kairos Power, supported by a \$300m investment from

the US Department of

## Blue Energy secures \$45m funding for modular ...

Blue Energy, a US-based company specialising in nuclear power plants, has completed a \$45m Series A fundraising round co-led by Engine Ventures and At One Ventures. The funding involved contributions from capital firms Angular ...



## EDF revises SMR design in response to cost and tech concerns

These companies are considering investments in both third-generation full-size nuclear plants and emerging small-scale reactors. They have expressed a preference for a product grounded in established technologies to ensure competitive electricity costs, estimated between EUR70 and EUR100 per megawatt hour.

## Small modular reactors: the day of nuclear 'plug and play'?

AL: Which companies are currently developing small modular reactors? GL: In the United States there is NuScale Power, there is Westinghouse and there is Babcock & Wilcox, which has a Chinese design. In Argentina, there is the CAREM reactor, then in Russia there is a very, very small reactor of 35Mw under construction which is floating, and there is a design in ...



## List of 20 SMR Companies ,

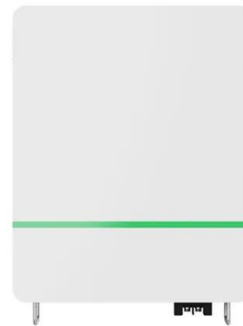
## Reactor designs

China National Nuclear Corporation - HTR-PM and NHR-200; Korea Atomic Energy Research Institute - SMART; VBER-300; Canadian Nuclear Laboratories - Advanced Fuel CANDU Reactor (AFCR) Oklo - Aurora; Ultra Safe Nuclear Corporation - Micro-Modular Reactor (MMR) Idaho National Laboratory - The 4S (Super-Safe, Small and Simple) Reactor



## Five of the World's Leading Small Modular Reactor ...

According to Polaris Market Research, the global market for SMRs was valued at approximately \$9.88 billion in 2023 and is projected to grow at a compound annual growth rate (CAGR) of 3.6% until 2032, up from just ...



## Westinghouse signs engineering contract for reactors in Bulgaria

A consortium of Westinghouse Electric Company and South Korea's Hyundai Engineering & Construction has signed an engineering services contract with Bulgaria's Kozloduy NPP-Newbuild.. The contract represents the next step following the front-end engineering and design phase for the construction of two AP1000 nuclear reactors at the Kozloduy nuclear ...

## List of 20 SMR Companies , Reactor designs

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nuclear steam supply system (NSSS) in a ...



**5 Years warranty**



## South Georgia and the South Sandwich Islands

Like South Georgia, the South Sandwich Islands also support globally m Height of the territories highest peak, Mount Paget. ~60% Proportion of the territory under permanent snow/ice cover. 6 1: Natural and cultural heritage significant proportions of certain species, for example, Antarctic fulmars (*Fulmarus glacialis*: LC)

## Westinghouse announces plans for a small modular reactor in the ...

Westinghouse has showcased plans to construct a small modular nuclear reactor (SMR) for the US government's approval. Westinghouse centre the proposition around a 300MW reactor, the AP300. The AP300 is a light water reactor, meaning that it uses untreated water throughout the process as opposed to expensive heavy water.



## Vattenfall advances plans for new nuclear reactor in ...

Swedish renewable energy company Vattenfall has taken significant steps towards the development of new nuclear reactors adjacent to

the Ringhals nuclear power plant (NPP) in Sweden.. The company is evaluating ...



## South Korea signs MOU for advanced reactor development

South Korea's Ministry of Science and ICT (MSIT) has signed a memorandum of understanding (MOU) with eight Korean companies to cooperate on the development of next-generation nuclear reactors. "While nuclear power is emerging as a core strategic technology due to the global climate crisis and reorganisation of the energy supply chain



**2MW / 5MWh**  
**Customizable**

## Smaller, safer, cheaper: One company aims to reinvent the nuclear

A NuScale plant would submerge 12 small modular reactors in a single pool of water. Each reactor has passive safety features that would help avoid a meltdown, and the simple design eliminates the pumps and pipes that could fail and cause an accident. To keep costs down, the factory-built reactors would be sent whole to a construction site.

## Seaspan to manufacture SMR components for Westinghouse

Westinghouse Electric has signed a

memorandum of understanding (MoU) with Seaspan for the production of essential components for the AP1000 and AP300 small modular reactors (SMRs). The MoU will support nuclear new-build projects in Canada and around the world, and include the manufacturing of components such as pipe spools and steel structures.



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Similarly, China is considering using FNPPs to power its outposts in the Spratly Islands in the South China Sea. Small modular reactors (SMRs) that are placed on board transportable nuclear power plants (TNPPs) are being developed to provide energy for military applications as well, including autonomous and unmanned vehicles.

### Beyond the grid: how small modular nuclear reactors ...

A 2016 study by the Nuclear Energy Agency, ' Small Modular Reactors: Nuclear Energy Market Potential for Near-term Deployment ', has found that in a high-case scenario, up to 21GW of SMRs could be added globally by ...

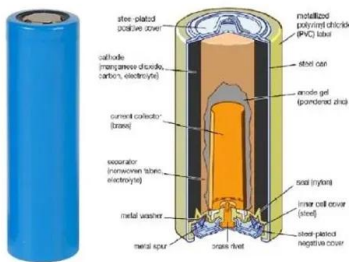


### Amazon plans to power Eastern Oregon data centers with nuclear reactors

Employees work in an X-energy facility. Amazon is investing in X-energy, a leading developer of next-generation small modular nuclear reactors and fuel, which will power Amazon's data centers in

## HD Hyundai joins maritime nuclear propulsion development project

A group of maritime companies including HD Hyundai has unveiled plans to develop small modular nuclear reactors for newbuild vessels. Skip to site menu Skip to page content. ST. Menu. (KSOE), has unveiled plans to develop small modular nuclear reactors for use on newbuild vessels after a joint research and technology exchange meeting.



## RETRANSMISSION: SOLO(TM) Micro Modular Reactor Takes ...

Founded in 2018, the Italian company boasts decades of consolidated international experience in nuclear design, R& D, safety, manufacturing, and unprecedented knowhow in licensing; having worked on

## Several U.S. utilities back out of deal to build novel nuclear power

Plans to build an innovative new nuclear power plant--and thus revitalize the struggling U.S. nuclear industry--have taken a hit as in recent weeks: Eight of the 36 public utilities that had signed on to help build the plant have backed out of the deal. The withdrawals come just months after the Utah Associated Municipal Power Systems (UAMPS), which ...



## Royal Navy explore nuclear propulsion for surface



## warships

Likewise, the company is already well-placed to deliver such a capability to the Royal Navy surface fleet having already produced nuclear reactors for use beyond the submarine sector. In December 2023, the company unveiled a nuclear Space Micro-Reactor Concept Model as part of a UK Space Agency programme.

## South African nuclear company enters partnership to develop

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South African nuclear company Stratek Global and technology consultancy Koya Capital have entered into a partnership to secure the financing and construction of a R9bn (\$480m) first-of-a-kind reactor in South Africa. The new HTMR-100 reactor, being developed in Pretoria, produces 100MW of heat and 35MW of electricity. It is derived from the



## UK commits funding for Rolls-Royce small nuclear modular reactors

A consortium led by British engineering company Rolls-Royce has secured a commitment from the government to invest in the development of small nuclear modular reactors (SMRs) for commercial use. The UK aero-engine maker said that the development of small nuclear reactors could boost British exports.

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