

The nuclear IPO boom: AI needs electricity, Wall Street smells an opportunity

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Key takeaways

Holtec joins a growing group of nuclear companies testing public-market appetite, alongside X-energy and Standard Nuclear, while Westinghouse is also exploring a listing.

Artificial intelligence strengthens demand for reliable power, but nuclear economics still depend heavily on construction cost and execution.

Nuclear stocks offer very different exposures, from operating plants and fuel to equipment suppliers and future reactor developers.

The next artificial intelligence company coming to the stock market does not make chips or software. It makes nuclear equipment.

Holtec Nuclear is scheduled to list on Nasdaq on 18 September 2026, after setting an IPO price range of USD 15 to USD 18 per share that values the company at up to USD 10.2 billion.

Behind the rush sits a simple problem. AI needs computers. Computers need data centres. And data centres need enormous amounts of electricity, preferably every hour of every day.

Nuclear is one theme, but several businesses

Holtec makes the comparison interesting because it is not simply a promise about a future reactor.

The company already makes nuclear components, handles spent fuel and provides decommissioning services. It is also trying to restart the 800-megawatt Palisades plant in Michigan and develop its own small modular reactor (SMR), a smaller reactor designed for more standardised construction.

That puts Holtec somewhere between several existing nuclear investments.

Constellation Energy mainly offers exposure to electricity from operating plants. Cameco sells uranium and owns 49% of Westinghouse, which supplies fuel, equipment and services. GE Vernova participates through nuclear equipment and its BWRX-300 small modular reactor technology. Oklo sits much further towards the development end, where most of the value depends on reactors that still need to be built.

Same nuclear theme. Very different business risks.

For investors, that distinction matters more than the word “nuclear” in the company description. Existing reactors generate electricity today. New-reactor developers first need permits, financing, construction and customers.

The USD 15,000 question

Demand may no longer be nuclear's biggest problem. Cost is.

The recent US experience is uncomfortable. Research used by the US Department of Energy estimates the construction cost of Vogtle Units 3 and 4 at around USD 15,000 per kilowatt (kW) in 2024 dollars.

Compare that with the Barakah nuclear plant in the United Arab Emirates. Built using South Korean reactor technology and a repeatable four-unit programme, its USD 24.4 billion financing requirement across 5.6 gigawatts works out at roughly USD 4,400 per kW of capacity.

The measures are not perfectly comparable, but the gap tells the important story. Nuclear becomes much cheaper when countries repeat designs, retain skilled workers and maintain functioning supply chains.

Holtec itself targets around USD 7,500 to USD 8,500 per kW for future dual-unit SMR projects in high-cost markets such as the US. That target matters. Delivering it matters considerably more.

Where the story can go wrong

The clearest risk is that nuclear enthusiasm runs ahead of nuclear economics. Rising cost-per-kW estimates, delayed regulatory milestones or repeated requests for additional government funding would be early warning signs.

AI demand can also be real without becoming nuclear demand. Natural gas, renewables, batteries and grid upgrades can arrive faster than new reactors.

Holtec adds a governance wrinkle. Founder-linked entities are expected to retain roughly 99% of the voting power over director elections after the IPO, leaving public shareholders with limited influence.

Investor playbook

- Separate today from tomorrow. Distinguish existing cash-generating nuclear assets from businesses dependent on future reactor deployment.
- Follow cost per kilowatt. Falling construction costs and repeat projects matter more than ambitious capacity announcements.
- Watch contracts and permits. Binding power agreements, regulatory approvals and completed construction milestones provide stronger evidence than non-binding plans.

Electricity first, valuations second

AI may have reopened nuclear's door to Wall Street, but electricity demand alone does not make reactors economic. The winners will be companies that turn demand into signed contracts, permits, repeatable construction and eventually cash flow.

That is why the most useful nuclear metric may not be megawatts promised, but dollars per kilowatt actually delivered. If the industry moves from Vogtle-style one-off complexity towards Barakah-style repetition, this IPO wave could mark a genuine industrial restart. If costs remain high and timelines keep slipping, investors may discover that AI servers can still be built much faster than reactors.

The electricity shortage is real. Execution will decide who gets paid for solving it.

