DeepSeek Is Coming for Sam Altman’s Other Company Too

Oklo’s prospects depend on AI’s insatiable need for electricity fueling demand for carbon-free electricity and expensive nuclear projects.

January 29, 2025 at 4:00 AM PST

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A surprise attack. *Photographer: Michael M. Santiago/Getty Images*

5:34

If OpenAI LLC were a listed company, Monday would have been a very bad day for the stock. But Chief Executive Sam Altman also happens to be chairman of another, less well-known company that is listed, a developer of nuclear small modular reactors, or SMRs, called Oklo Inc. Monday *was* a very bad day for that stock.

A Disruptor Gets Disrupted

Oklo's stock price

Source: Bloomberg

Even if the market's knee-jerk reactions often lend themselves to overinterpretation, Oklo's 26% sell-off on news of a Chinese competitor to chatbots such as ChatGPT is a useful reminder of nuclear power's big vulnerability.

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The DeepSeek deluge that overwhelmed technology stocks also washed through a number of electricity generator stocks, and for similar reasons. The race to lead in artificial intelligence had spawned a bull case about infinite demand for Nvidia Corp.'s chips that has extended to the electricity required to power those chips. Constellation Energy Corp., with its fleet of nuclear power plants, is the poster child for this burst of enthusiasm, with its meteoric rise over the past year fueled partly by rising profits but mostly by bubbling optimism: Its earnings multiple roughly doubled, overtaking even that of Nvidia. Now DeepSeek has crashed the AI-power party with claims of developing AI models that can compete with the likes of OpenAI's but use just a fraction of the hardware, and therefore energy.

Constellation's Surge of Optimism

Forward price/earnings multiples

Source: Bloomberg

To be clear, DeepSeek's vaunted efficiency gains are yet to be verified, although Altman himself acknowledged the Chinese startup's R1 model, which has created all the buzz, as "impressive." The bigger point is that, as should be expected with any technology boom, but somehow never is, disruption has reared its head. Which brings us to Oklo and nuclear power.

SMRs are touted as a way of dealing with the infamously high costs of building traditional reactors, by incorporating series manufacturing. But the other big problem for nuclear power concerns time.

Lengthy planning and construction schedules in the US, sometimes stretching to a decade or more, have often meant that by the time reactors start up, the world has moved on. As much as the Three Mile Island accident in 1979 is blamed for derailing the nuclear power boom, the truth is it was faltering already for a more prosaic reason: The high electricity demand growth of the 1960s, which spurred the initial nuclear boom, slowed dramatically in the 1970s and then further still beyond (see this). A similar fate befell two more recent reactor projects in South Carolina, conceived amid buoyant projections and ultimately abandoned in 2017 (and now hoping to be revived on the back of AI).

SMRs should be quicker to build, but even Big Tech backers of the technology aren't expecting much capacity to show up this side of 2035. Oklo targets 2027 for switching on its first project, with just 15 megawatts of capacity, in Idaho, subject to regulatory approval. Like several peers, it has signed a number of agreements with various potential customers, though these tend to be non-binding and come with few details on timing. A potentially huge (non-binding) agreement with Switch, a digital infrastructure company, announced last month envisages 12 gigawatts — equivalent to more than 10% of the entire current US nuclear fleet — deployed … "through 2044."

The problem here is akin to something with which anyone holding bonds is quite familiar: duration risk. The longer a bond's duration — the time it takes for the holder to be paid back — the more sensitive it is to changes in interest rates. Similarly, the bull case for new nuclear plants, especially new SMR designs, is tied to long-term expectations about data centers' demand for carbon-free electricity and the willingness to pay a premium for that. As this week has

shown, a lot can change in a weekend, let alone a decade. For example, while demand projections for data centers slope up, the range is wide. The latest national assessment plots potential demand in 2028, just three years away, ranging from 325 to 580 terawatt-hours. That difference is equivalent to the entire electricity consumption of Florida.

This doesn't mean DeepSeek has deep-sixed growth in power demand altogether. If the aftermath of this shock lingers, however, it may cause Big Tech, and the investors backing it, to rethink the scale or, at least, the timing of their giant capex plans for AI. This, in turn, could mean more of those non-binding nuclear agreements remaining unbound or getting finalized at lower prices than the bullish ones plugged into models prior to this week.

Linked to this is the threat of unforeseen competition, as DeepSeek epitomizes. Another mooted nuclear renaissance in the early 2000s was sideswiped by cheap shale gas. Today, Big Tech may be talking up nuclear power but is signing actual deals with gas-fired plants, since speed to market is the priority. Exxon Mobil Corp., recognizing deep pockets with a need for speed, is touting dedicated gas plants with carbon capture as a quicker alternative to nuclear power, and rival Chevron Corp. announced similar plans on Tuesday. Meanwhile, utility NextEra Energy Inc. is partnering with turbine maker GE Vernova Inc. to offer data centers renewables supply backed up with gas-power.

This latest potential US nuclear renaissance still has much going for it, not least political support (incoming Energy Secretary Chris Wright was until recently on Oklo's board). Being years away from fruition, serving a sector that can seemingly get upended inside of a weekend, it will need it.

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