
The Nuclear Moonshot: NuScale Power (\$SMR) and the Re-industrialization of the Grid

MoatPeak Independent Research

1. Executive Summary

We are witnessing a fundamental realignment of the global energy system. The decarbonization mandate, once largely a policy aspiration, has now collided with the hard physical reality of the AI era: an insatiable, round-the-clock demand for carbon-free baseload power that intermittent renewables simply cannot meet on their own.

NuScale Power (\$SMR) stands out as the leading industrial attempt to close this gap. By shifting nuclear power from bespoke, multi-decade megaprojects to standardized, factory-built modules, the company aims to turn the world's most energy-dense fuel source into a scalable, repeatable product.

We view NuScale as a high-conviction "Moonshot"—a venture-stage growth story wrapped in a public-market vehicle. Yet we believe it is essential to maintain intellectual discipline about the journey from engineering blueprints to steel in the ground.

The central investment question for \$SMR hinges on its ability to manage the 2026 pivot point: the transition from accumulating regulatory milestones to actually pouring concrete and executing in the field. The outcome of this transition will determine whether NuScale becomes a foundational asset in the re-industrialization of the U.S. grid—or remains a sophisticated, well-capitalized prototype. (see Figure 1)

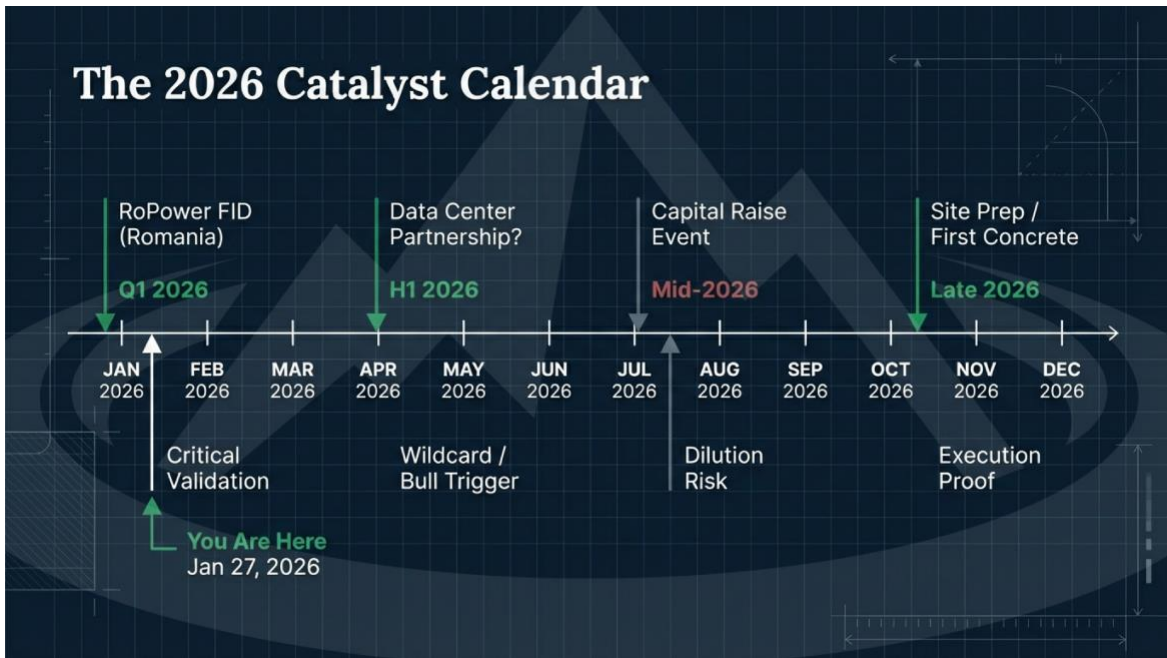


Figure 1. 2026 catalyst calendar and execution pivot

Key takeaway: The 2026 transition from licensing milestones to on-the-ground execution is the key proof point, with RoPower FID and first concrete framing the timeline.

2. Impact on U.S. Markets: Equity, Credit, and the Cost of Capital

In long-cycle infrastructure, the macro backdrop is the ultimate arbiter of what is viable. Under a “higher for longer” interest rate regime, capital-intensive projects such as Small Modular Reactors (SMRs) become extremely sensitive to the cost of debt.

When we look at the U.S. Treasury curve through vehicles like \$TLT and \$IEF, we see the upward pressure on discount rates that has historically constrained nuclear development. As of January 23, 2026, \$SMR trades at \$19.77, with a 52-week range from \$11.08 to \$57.42. This volatility reflects a market attempting to price a binary future: industrial-scale success or structural disappointment. (see Figure 2)

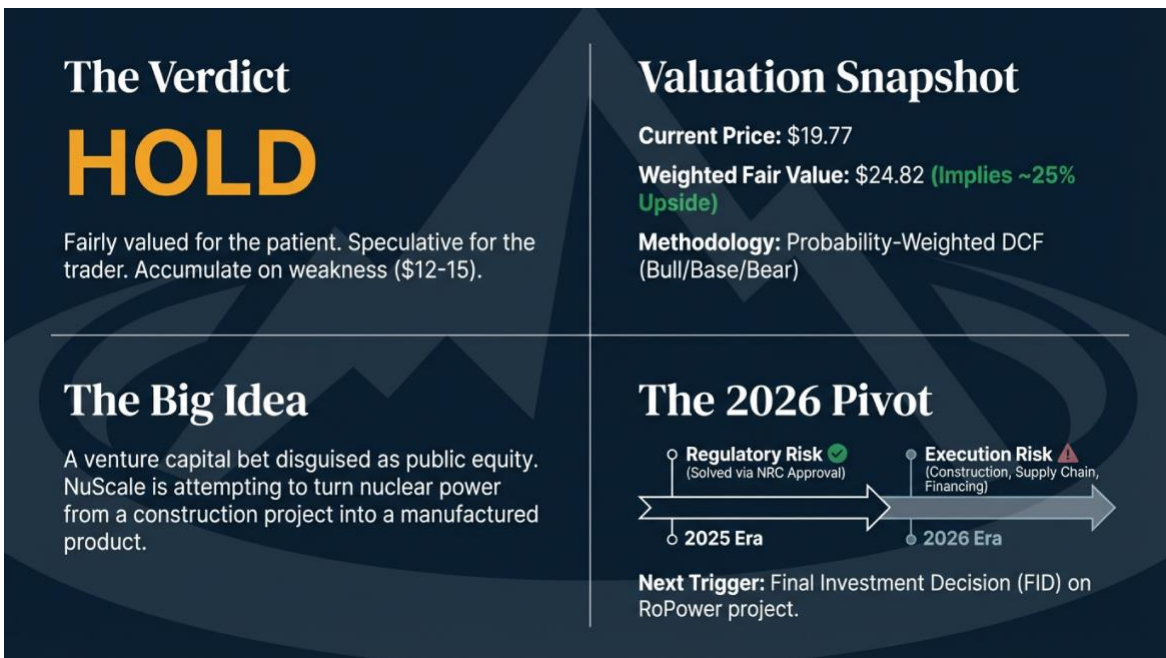


Figure 2. Verdict, valuation snapshot, and the 2026 pivot

Key takeaway: Market volatility reflects a binary path: industrial-scale execution success versus prolonged prototype status as NuScale enters the execution-heavy 2026 era.

Against that backdrop, NuScale’s \$690 million cash position is strategically critical. It acts as a buffer against near-term credit tightening while the company advances its flagship projects in Eastern Idaho. This liquidity, further supported by the Inflation Reduction Act (IRA), provides room to absorb early-stage manufacturing inefficiencies that are inevitable when moving to first-of-a-kind industrial production. (see Figure 3)



Figure 3. Liquidity runway and financing sensitivity

Key takeaway: NuScale’s cash balance is strategically important as a buffer against tighter credit while the company moves from engineering milestones to manufacturing and field execution.

In our view, U.S. policy support sets the floor under NuScale’s valuation. The ceiling, however, is increasingly defined by global energy arbitrage and the export of U.S. nuclear technology to sovereign partners seeking secure, low-carbon baseload power.

3. Europe and Global Market Dynamics

The geopolitical urgency of energy sovereignty has effectively turned Europe into a primary laboratory for NuScale’s export model. For many European countries, the move away from fossil fuel dependence is no longer solely an environmental commitment; it has become a core national security priority.

In that context, the RoPower project in Romania emerges as a pivotal international proof-of-concept. It is here that we expect to see the first full integration of modular U.S. nuclear technology into a foreign grid. The global perception and valuation of \$SMR are increasingly tied to Europe’s evolving sustainable finance taxonomy, in which nuclear is now recognized as a sustainable transition fuel.

This recognition unlocks the potential for long-duration Power Purchase Agreements (PPAs), providing the revenue visibility needed to finance industrial-scale rollout. As European capital reallocates toward reliable baseload solutions, NuScale’s modular design offers a scalable edge over traditional gigawatt-scale reactors that many smaller or fiscally constrained sovereigns simply cannot fund or manage.

4. Sectoral Movements and Peer Monitoring

We apply Capital Cycle Theory to interpret the flow of investment toward modular nuclear solutions. Historically, nuclear plants were “stick-built”—custom-engineered projects constructed almost entirely on-site, with exposure to local labor markets, weather disruptions, and political interference. This model has repeatedly produced cost overruns and schedule slippage.

SMRs represent a structural break from that paradigm. By migrating most of the work from the field to a controlled factory environment, NuScale aims to dramatically reduce field labor hours, which have been the primary driver of nuclear cost blowouts. From an industrial engineering standpoint, this is a profound shift. (see Figure 4)

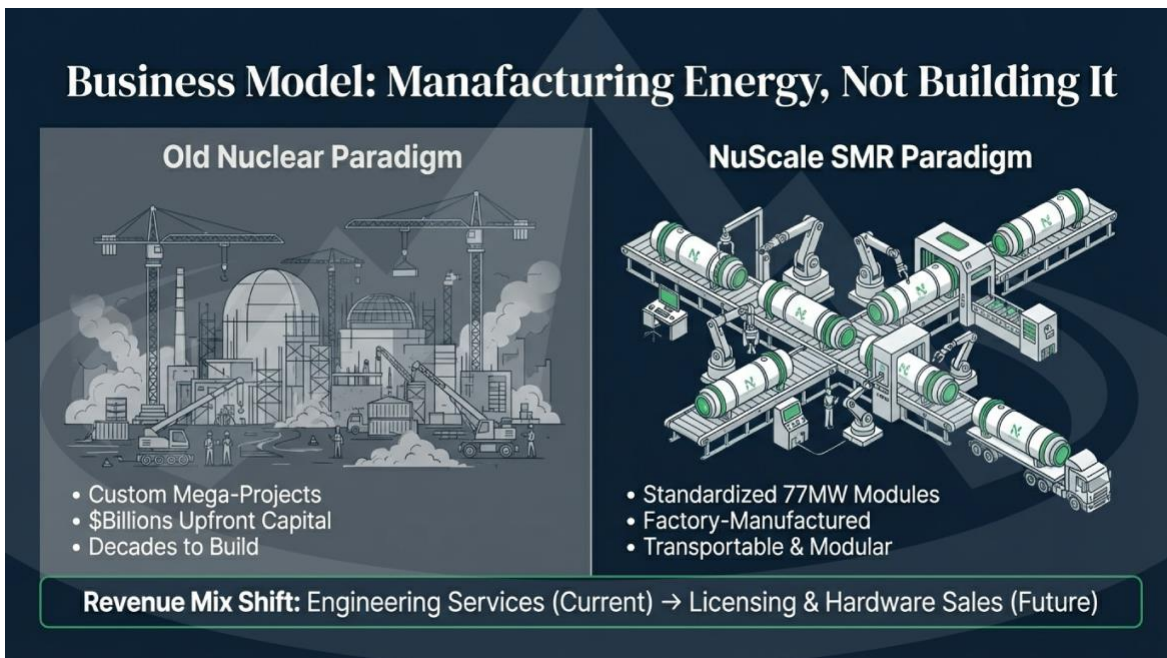


Figure 4. From stick-built megaprojects to factory-built SMR modules

Key takeaway: The central industrial shift is moving labor and complexity from the jobsite to the factory, aiming to reduce the field-driven cost overruns that have historically plagued nuclear builds.

Within this emerging landscape, NuScale currently holds a meaningful first-mover advantage. While peers such as X-energy, TerraPower (backed by Bill Gates), and Commonwealth Fusion Systems remain in earlier development or licensing stages, NuScale’s design achieved formal U.S. Nuclear Regulatory Commission (NRC) approval in May 2025. We estimate that this confers a 3–5 year regulatory lead, a form of moat that cannot be compressed merely by deploying additional capital. It is built out of time, process, and regulatory experience.

At the same time, we are closely tracking what we call the “AI–Energy Nexus.” The world’s largest technology companies, pursuing massive AI and data center buildouts, require 24/7 carbon-free power at scale. These firms are natural anchor customers for SMRs, including behind-the-meter deployments directly adjacent to data centers.

From this perspective, we highlight several tickers to watch as part of the broader SMR ecosystem: \$SMR as the leading pure-play on modular nuclear industrialization; \$MSFT and \$GOOGL as likely counterparties for long-term power contracts; and \$EQIX as a data center REIT whose growth depends on dense, highly reliable power supply.

5. The “Grey Rhinos”: Underestimated Signals and Risks

In our framework, “Grey Rhinos” are not black swans; they are highly probable, often visible threats that investors tend to underweight. For NuScale, these risk signals are becoming progressively harder to ignore. (see Figure 5)

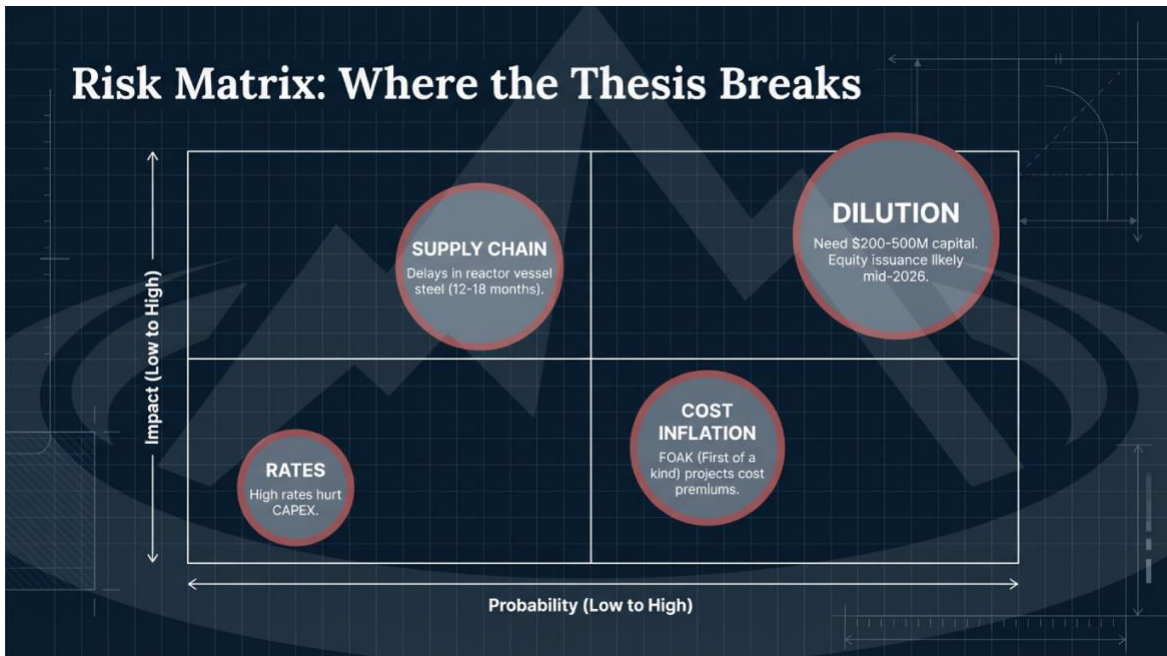


Figure 5. Risk matrix: visible, high-probability breakpoints

Key takeaway: We focus on ‘grey rhino’ risks that are already visible—supply chain delays, cost inflation, and dilution dynamics that can impair the commercialization timeline.

We see the company’s cash burn versus revenue trajectory as a primary concern. NuScale has posted a Last Twelve Months (LTM) loss of \$800 million on revenues of just \$63.9 million. This is consistent with a “public venture” stage company, but it sharply narrows the window for flawless execution.

We are also focused on the specialty steel constraint. Our expectation is for a potential 30% budget overrun driven by global shortages of nuclear-grade specialty steel. This is a tangible, physical bottleneck that could delay module deliveries regardless of regulatory progress.

A further risk lies in what we call the execution gap. Investors frequently treat an NRC license as equivalent to a functioning reactor. In reality, the decisive milestone is the first pour of nuclear-grade concrete in Idaho. Any significant delay at that point would put the current commercialization timeline at risk.

Finally, we believe capital dilution is more likely than not. Based on today’s burn rates, we see a high probability that NuScale will need \$200 million to \$500 million in additional equity before 2030. Such raises would inevitably dilute early shareholders, even if they ultimately enable long-term value creation.

6. MoatPeak Scenarios and Probabilities (2026–2030)

To navigate the intrinsic volatility of the SMR space, we rely on a probability-weighted scenario framework rather than a single-point price target. Our focus is the distribution of outcomes. (see Figure 6)

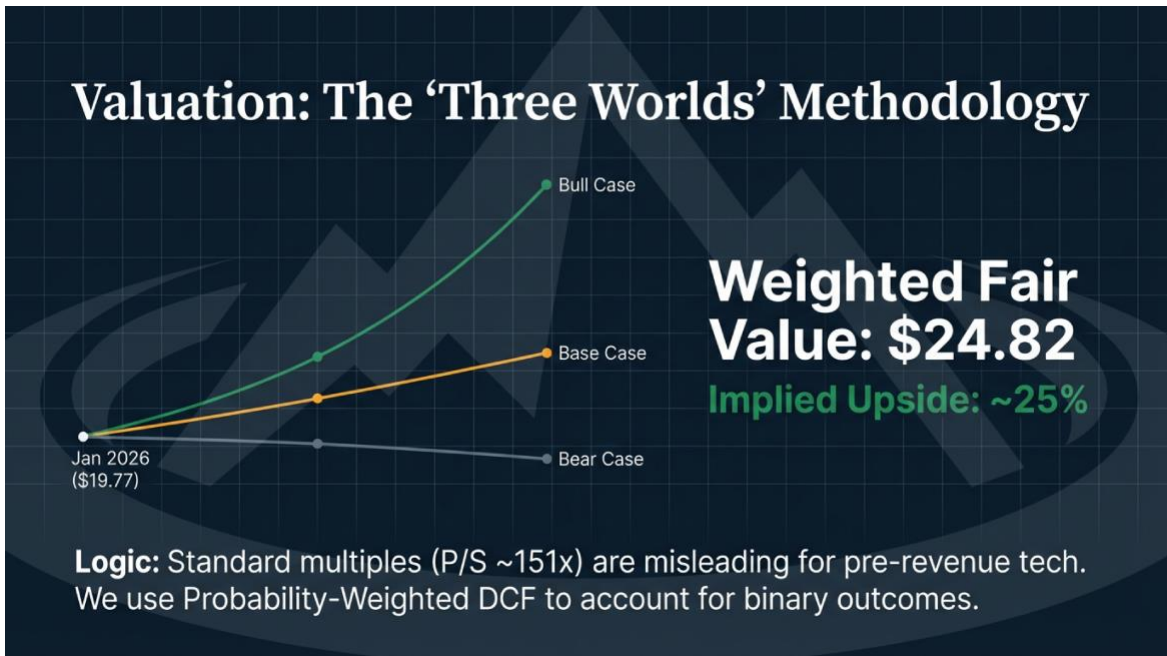


Figure 6. Probability-weighted valuation approach

Key takeaway: We frame \$SMR as a distribution of outcomes and prioritize scenario probabilities over single-point targets, with 2026 execution milestones driving re-weighting.

Our Base Case is explicitly contingent on a successful Final Investment Decision (FID) for the RoPower project in February–March 2026. This is the fulcrum of our medium-term view. If that FID is missed, or if the Eastern Idaho project stalls into a prolonged holding pattern, we would abandon the Base Case and re-weight the model toward the Bear Scenario. (see Figure 7)

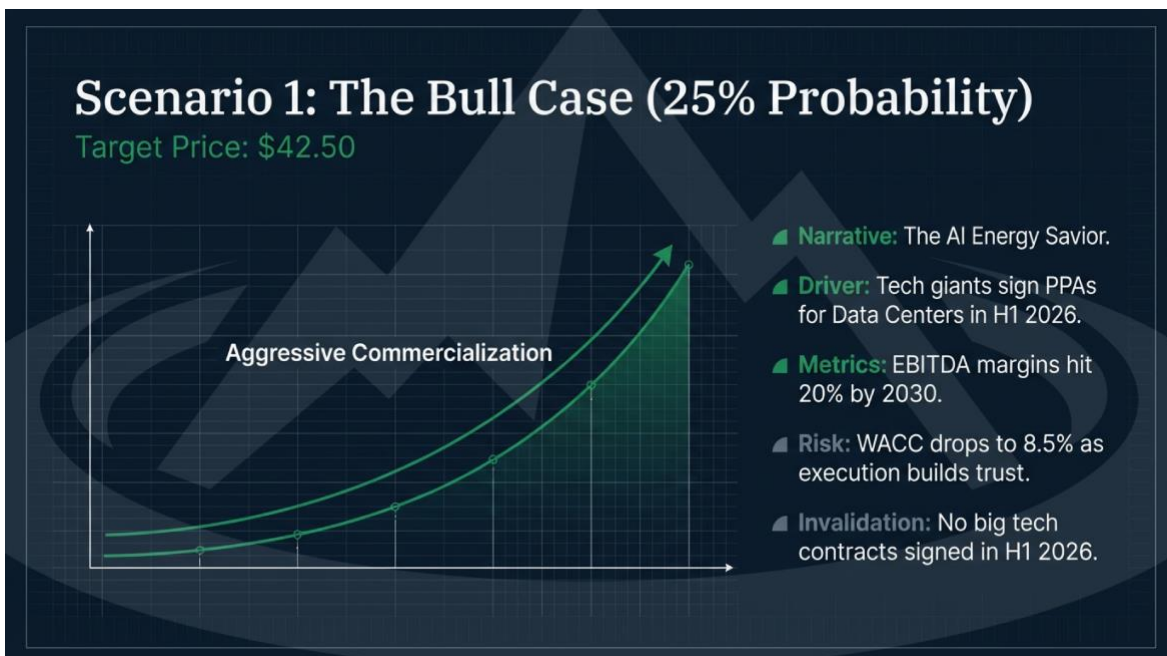


Figure 7. Scenario framework: bull case pathway

Key takeaway: The upside case requires clean execution through the RoPower FID and subsequent buildout, turning regulatory progress into bankable field delivery.

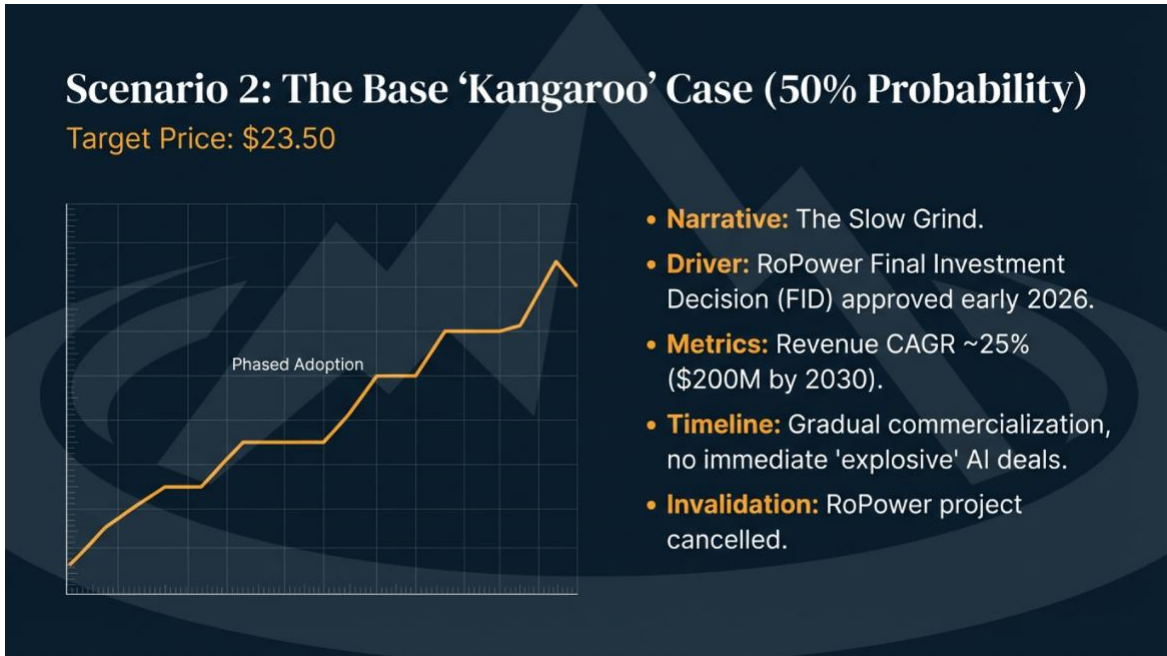


Figure 8. Scenario framework: base case (contingent on FID)

Key takeaway: Our base case is explicitly contingent on a successful RoPower final investment decision in early 2026; if missed, we re-weight toward downside.



Figure 9. Scenario framework: bear case re-weighting trigger

Key takeaway: If the RoPower FID is missed or Eastern Idaho stalls, the distribution shifts toward a bear outcome as execution risk overwhelms regulatory progress.

7. MoatPeak Insights: The “Second-Order” Reflection

When we examine what we call the “Mentality of the Moat,” we see NuScale’s advantage as meaningful but inherently fragile. Applying Inversion Thinking, we start from the question: “What makes this fail?”

The primary threat, in our view, is not necessarily a superior reactor design from a competitor. Instead, it is a step-change reduction in the cost of long-duration energy storage, or a material shift in the political and fiscal willingness to support nuclear through subsidies, tax credits, and streamlined regulation.

Reflecting these realities, we assign NuScale a Quality Score of 4.2/10. This low score aligns with its current financial profile: a Net Margin of -2024% and an EBITDA Margin of -53.7%. These are typical of a company still transitioning from R&D and engineering services to scalable productization. (see Figure 10)



Figure 10. MoatPeak quality scorecard (venture-stage profile)

Key takeaway: The current quality score reflects a venture-stage financial profile; sustained improvement requires an observable shift toward scalable product revenue and execution credibility.

For this quality score to rise, we need to see a clear evolution in the revenue mix—from predominantly engineering services to recurring licensing and service fees, with EBITDA margins expanding toward our 15% target by 2030.

Above all, we distinguish between the fact of an NRC license and our judgment of management’s ability to industrialize at scale. A license confers permission to build; it does not guarantee the operational capability to manufacture, deploy, and maintain a fleet of reactors worldwide.

8. Strategic Implications for the Retail Investor

For a retail investor, the most powerful advantage in \$SMR is the “stewardship of time.” Only a 2026–2035 investment horizon truly captures the industrial reality of nuclear deployment. Anything shorter is likely to be dominated by news flow and sentiment rather than fundamentals.

If NuScale succeeds in scaling to 50 million kW of capacity by 2035, at an assumed \$10M per MW, the implied annual revenue potential exceeds \$500 billion. This is the core of the “Moonshot” narrative that justifies today’s volatility and the venture-like risk profile. (see Figure 11)

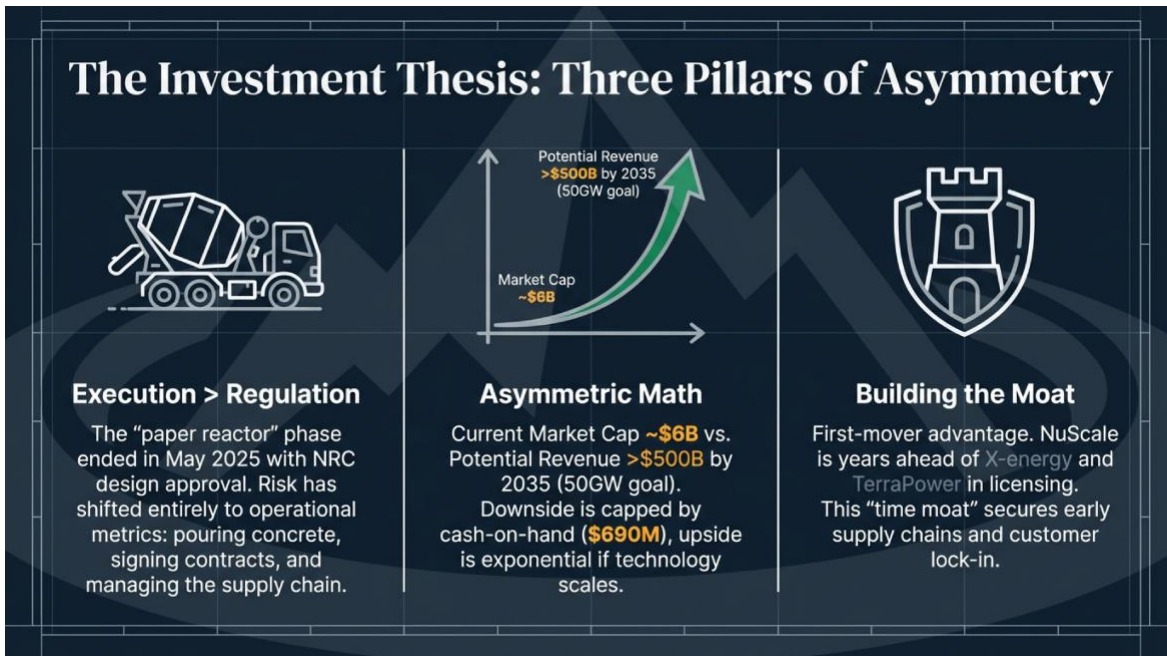


Figure 11. Asymmetry math: execution, scale, and ‘time moat’

Key takeaway: Long-term upside is driven by scale economics if NuScale industrializes deployment; near-term risk is concentrated in execution, supply chain, and financing.

Against this backdrop, our stance is to HOLD. At \$19.77, we see the stock as fairly valued for investors who can commit to a decade-long view. (see Figure 12)

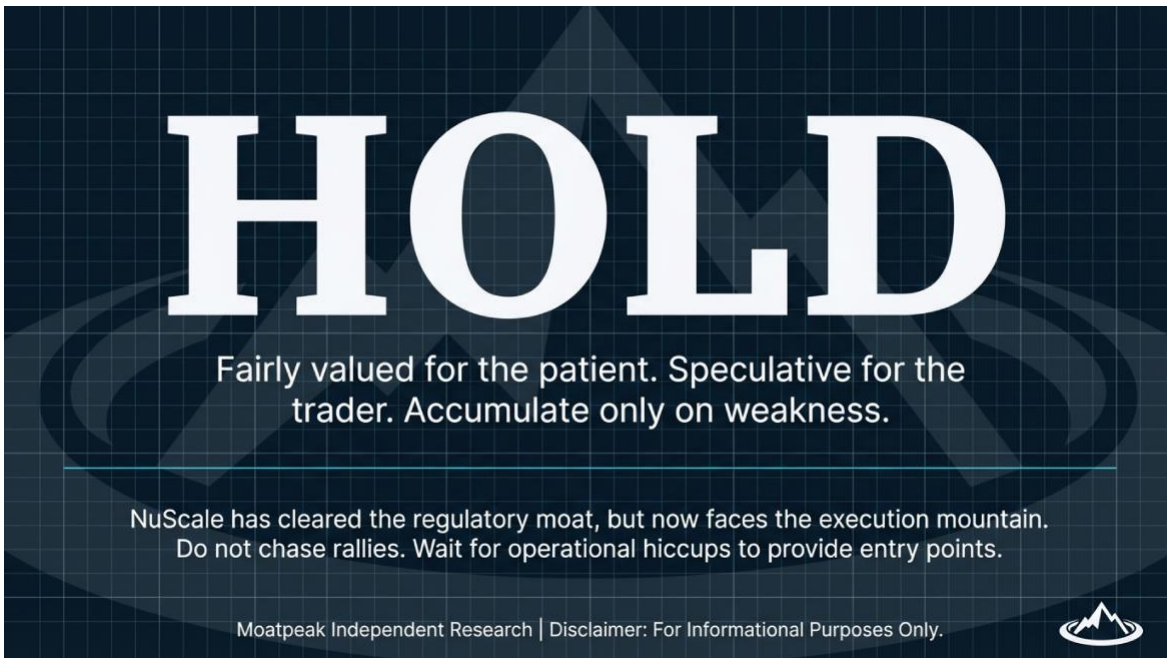


Figure 12. Stance and positioning (HOLD)

Key takeaway: At current levels, we view \$SMR as fairly valued for investors with a decade-long horizon, while acknowledging meaningful interim volatility.

In constructing a portfolio, we would treat \$SMR as a high-risk, high-upside satellite position, typically in the range of 2–5% of total portfolio value. Investors should be psychologically prepared for sharp price swings between \$11 and \$57, as the market reacts to every regulatory, technical, and geopolitical headline. (see Figure 13)

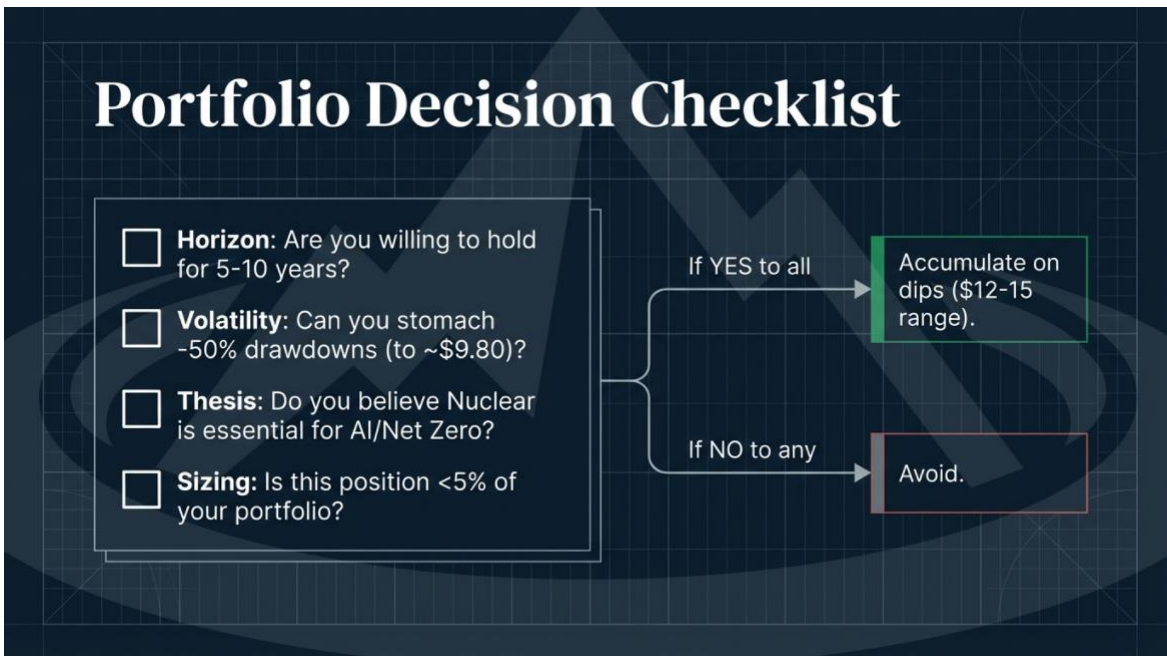


Figure 13. Retail portfolio sizing and behavior checklist

Key takeaway: We treat \$SMR as a high-risk satellite position (2–5% sizing), suitable only for investors who can tolerate large drawdowns and hold through a long build cycle.

The overarching objective, in our view, is to own a stake in the future baseload grid. That requires a disciplined focus on the long-term industrial cycle, not the daily tape.

We therefore emphasize watching on-the-ground execution: progress at manufacturing facilities, supply chain readiness, and, above all, the actual pouring of concrete in the field. Those are the true leading indicators of value creation in this story—far more meaningful than the inevitable short-term noise.

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