The Drive for AI Is the Catalyst for Nuclear Energy Demand — Accept Nuclear or Abandon Green

written by InvestorNews | August 15, 2025

Over the past year, hyperscale data-center demand has accelerated so violently that even bullish projections are now obsolete. Generative-AI training clusters can gulp 150 MW apiece; inference farms aren't far behind. Grid-connection queues in prime markets stretch into the 2030s, and the physics of storage can't close the gap alone. Suddenly, the most maligned technology in the energy stack, **nuclear fission**, has vaulted from punchline to power broker.

On August 14, 2025, Equinix, Inc. (NASDAQ: EQIX) booked more than a gigawatt of advanced-nuclear supply obligations. The headline deal: a 500-MW, 20-year power-purchase agreement with Oklo Inc. (NYSE: OKLO) and a preorder for twenty *Kaleidos* microreactors from Radiant Industries Inc. In Europe, parallel option agreements with ULC Energy B.V. and Stellaria Ltd. give Equinix the right to ring-fence zero-carbon baseload for its Amsterdam and London campuses, all disclosed within a single news cycle.

Capital markets took the cue. Shares of BWX Technologies, Inc. (NYSE: **BWXT**), the only U.S. firm certified to machine reactor cores for both the Navy and the commercial sector, have advanced roughly 85% year-on-year, outstripping every clean-energy peer index. Bank of America and Truist have both chased the tape, lifting price targets above US$200 as backlog visibility hardens.

Washington is matching that momentum with money. On August 13th the U.S. Department of Energy named eleven winners, Oklo, Last Energy Ltd., Terrestrial Energy Inc., Aalo Atomics, Deep Fission and others, for its pilot program to license and connect demonstration reactors in under twelve months, the first such sprint since Eisenhower's Atoms-for-Peace era.

The fastest hardware on that list is sub-utility scale. Last Energy's PWR-20 ships in ISO containers, produces 20 MW, and promises revenue service twenty-four months after a customer signs the EPC. The company has already penciled in thirty units for the Texas data-center corridor and another quartet for South Wales, banking on factory replication to do for fission what Henry Ford did for steel chassis. Even tinier still, Terra Innovatum's 1-MW SOLO™ cube, now merging into Nasdaq via a US$230 million SPAC, targets micro-grids, mines, and edge-compute hubs where diesel is king.

Academia is hedging the same direction. The Texas A&M University System has offered land at its RELLIS campus to four SMR developers (Kairos Power, Natura Resources, Terrestrial Energy, and Aalo Atomics) with a goal of delivering one gigawatt of carbon-free capacity inside five years. The project's nickname, "Energy Proving Ground," says the quiet part out loud: whoever solves AI's power crisis first wins the century's most durable growth market.

Legacy assets are not being left for scrap. Constellation Energy Corp. (NASDAQ: **CEG**) has signed a 20-year offtake with Microsoft Corp. (NASDAQ: **MSFT**) to return Three Mile Island Unit 1—rebadged the *Christopher M. Crane Clean Energy Center*—to service by 2028, adding 835 MW of carbon-free baseload to Microsoft's AI fleet. In Texas, privately held Fermi America LLC (co-founded by former Energy Secretary Rick Perry) is shepherding an 11-GW multi-technology "Hypergrid" campus that braids SMRs with gas peakers

and solar, explicitly targeting Oracle and Meta as anchor tenants.

Even regulators are blinking. In Britain, a taskforce convened by Prime Minister Sir Keir Starmer has damned the existing licensing regime as “unnecessarily slow, inefficient, and costly” and recommended one-stop siting approval to land the first SMR by 2032—a revolutionary timeline for a nation that once took seventeen years to finish Sizewell B.

Risks remain real, not theoretical. Fast-track permitting could snap back after a single high-profile incident; HALEU fuel, required by most advanced designs, is still produced in kilogram-not-kiloton quantities despite Centrus Energy Corp.’s recent 900-kg delivery to the DOE. Factory-built reactors promise CapEx discipline, yet first-of-a-kind overruns are industry lore. Meanwhile, Amazon Web Services’ bid to route 480 MW of nuclear power directly from Talen Energy Corp.’s (NASDAQ: TLN) Susquehanna plant was slapped down by the Federal Energy Regulatory Commission over grid-fairness concerns, underscoring how politics can trump physics.

Still, the direction of travel is unmistakable. Tech giants need around-the-clock electrons; governments need credible decarbonization pathways; investors need infrastructure yields uncorrelated with Fed policy. Advanced nuclear—once dismissed as an academic sideshow—now sits at that three-way intersection. I hold BWXT as a core position, Oklo warrants as asymmetric upside, and I’m diligencing Terra Innovatum’s SPAC prospectus as I write. The atom, reimagined at data-center scale, looks poised to become the most coveted energy asset class since North Sea oil. Ignore it at your peril; mathematically, opportunity cost is still a cost.