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U.S. ENERGY INFRASTRUCTURE • AI DATA CENTERS • GRID MODERNIZATION

Trump's Energy Law: The $5.2 Trillion Grid Super-Cycle

Executive Order 14262, the AI power crisis, and the five investable themes reshaping America's electricity infrastructure

Lead Analyst: Winston | **Sector:** Energy Infrastructure & Utilities | **Coverage:** Multi-Cap Thematic

$5.2T	76 GW	134 GW
TOTAL AI INFRASTRUCTURE INVESTMENT NEEDED BY 2030	CURRENT U.S. DATA CENTER POWER DEMAND (2026)	PROJECTED DEMAND BY 2030

$1.4T	70%
U.S. GRID SPENDING SUPER-CYCLE (2025–2030)	U.S. TRANSFORMERS OVER 25 YEARS OLD

BOTTOM LINE:

On April 8, 2025, President Trump signed Executive Order 14262 — "Strengthening the U.S. Grid Reliability and Security" — igniting what we believe is a multi-year infrastructure super-cycle. U.S. data centers currently demand 76 GW of power, projected to nearly double to 134 GW by 2030, while 70% of American power transformers are past their intended lifespan. The resulting $5.2 trillion investment wave is not speculative — it is being confirmed by record corporate backlogs, signed power purchase agreements, and stock price action that is dramatically outperforming the S&P 500. Our analysis identifies five investable themes across 18 companies where institutional capital is already positioning. The S&P 500 returned approximately 5.4% over the past six months; the stocks in this report returned between 32% and 202% over the same period.

About Felix Prehn and Goat Academy

Felix Prehn is a former investment banker. He gained deep insights into the strategies and principles that professional investors use to build and protect wealth.

Goat Academy

Felix Prehn is the founder of Goat Academy, an educational platform that has taught over 20,000 students the fundamentals of investing and stock market analysis. Goat Academy focuses on demystifying Wall Street's investment strategies and making them accessible to regular investors.

The academy provides comprehensive training on fundamental analysis, technical analysis, risk management, and portfolio construction—empowering individual investors to make informed decisions about their financial futures.

Tradevision.io

Felix Prehn is also the co-founder of Tradevision.io, a platform dedicated to providing news and data specifically tailored for retail investors. Tradevision.io helps individual investors access the information and tools they need to compete effectively in modern financial markets.

Mission and Dedication

Felix Prehn has dedicated his retirement to teaching regular investors how to protect their wealth and navigate the complexities of the stock market. His approach emphasizes understanding the fundamental principles that drive long-term investment success, rather than chasing short-term trends or speculation.

By bridging the knowledge gap between Wall Street professionals and individual investors, Felix works to level the playing field and help people take control of their financial destinies.

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1. INVESTMENT THESIS

The AI Trade Has Moved from Chips to Power. We believe the most significant investment opportunity of 2026–2030 is not in AI software or semiconductors — it is in the physical infrastructure required to power AI. Semiconductors (industry relative strength 120) remain healthy, but the real momentum has shifted to the infrastructure layer: Electronic Components (RS 264), Pipeline/Power Construction (RS 209), and General Nonresidential Building Contractors (RS 339).

A $5.2 Trillion Problem Creates a $5.2 Trillion Opportunity. The United States needs $5.2 trillion in AI infrastructure investment by 2030. That figure comes from the convergence of three forces: (1) data center electricity demand nearly doubling from 76 GW to 134 GW, (2) an aging grid where 70% of transformers exceed their 25-year design life, and (3) federal policy actively directing emergency powers and capital toward grid reliability.

The Market Is Already Confirming the Thesis. Over the six months ending February 2026, the S&P 500 returned approximately 5.4%. During the same period, the stocks in our coverage universe returned between 32% and 202%. When Bloom Energy trades at a relative strength of 1,896 and Vicor at 562 — both in CLIMBING patterns — institutional money is positioning. This is not a speculative thesis. It is price confirmation backed by signed contracts and record backlogs.

Five Themes, One Macro Trend. Our analysis maps the opportunity across five investable themes: (1) Off-Grid Power Generation for data centers, (2) Grid Infrastructure Builders executing on record backlogs, (3) Electrical and Power Components manufacturers supplying critical hardware, (4) Metals and Materials providers benefiting from domestic sourcing, and (5) Data Storage companies riding the same capital expenditure wave.

> *"We look neither for value stocks, nor for growth stocks. We look for quality stocks."*
>
> **— Felix Prehn, Founder, Goat Academy**

Follow Contracts, Not Headlines. The most important signal in infrastructure investing is backlog. Quanta Services carries a record $44 billion backlog. Powell Industries reached $1.6 billion with a 1.7x book-to-bill ratio. Bloom Energy signed a 2.8 GW deal with Oracle. Oklo secured 1.2 GW with Meta. These are signed contracts with revenue visibility measured in years — not quarters.

Our Approach. This report does not include buy/sell ratings or price targets. We present the macro evidence, dissect the five themes, evaluate individual companies using fundamental quality metrics, and highlight risks. Our goal is to give readers a framework — not a prediction.

2. THE AI POWER CRISIS — WHY THE GRID IS BREAKING

The Numbers Are Staggering. U.S. data centers consumed approximately 176 TWh of electricity in 2023, representing 4.4% of total U.S. electricity consumption. By 2028, that figure is projected to reach 325–580 TWh, or 6.7%–12% of national electricity use. The International Energy Agency projects U.S. data center power consumption to increase by 133% to 426 TWh by 2030.

Demand Is Outrunning Supply. Current U.S. data center power demand sits at 76 GW. EPRI estimates this could rise to 90–134 GW by 2030, meaning data centers could consume 9–17% of all U.S. electricity by decade's end. Virginia alone saw data centers consume 25% of the state's electricity in 2025, with projections suggesting 46% by 2030.

The Grid Was Not Built for This. Seventy percent of U.S. power transformers are over 25 years old — past their intended lifespan. The average wait time for new grid connections in primary markets now exceeds four years. This is not a theoretical risk; it is an operational bottleneck that is forcing companies to seek alternative power solutions.

Hyperscaler Capital Expenditure Is Accelerating. The "Big Five" hyperscalers — Amazon, Google, Meta, Microsoft, and Oracle — are projected to spend over $600 billion in 2026, a 36% increase from 2025. Approximately 75% ($450 billion) is directly targeting AI infrastructure. Dell'Oro Group forecasts that global data center capital expenditure will surpass $1 trillion for the first time in history in 2026.

One-Third of Data Centers May Go Off-Grid. Because grid connections cannot be secured fast enough, an estimated one-third of data centers are expected to operate off-grid by 2030. This is creating an entirely new market for on-site power generation — fuel cells, small modular nuclear reactors, and dedicated power purchase agreements.

The Grid Super-Cycle. The U.S. is entering a $1.4 trillion grid "super-cycle" from 2025–2030, representing double the prior decade's spending. Investor-owned utilities alone are projected to spend $32.1 billion on transmission in 2026. Power infrastructure construction starts through March 2026 totaled $6.2 billion, a 21% increase year-over-year.

3. EXECUTIVE ORDER 14262 — WHAT CHANGED

The Order. On April 8, 2025, President Trump signed Executive Order 14262, titled "Strengthening the U.S. Grid Reliability and Security." The order is aimed at enhancing electric grid stability specifically in response to AI and data center demand. It directs the Department of Energy (DOE) to streamline emergency actions, maintain baseload capacity including coal and natural gas, and establish uniform reliability standards.

Emergency Powers Activated. The DOE is now authorized to use Section 202(c) of the Federal Power Act to prevent grid failures. In practical terms, this means the government can prevent the closure of essential coal and natural gas power plants if their shutdown would jeopardize grid stability. This is a significant policy shift — baseload power is now treated as a national security priority.

Long-Term Power Purchase Agreements. In February 2026, the administration emphasized using these executive orders to prioritize long-term Power Purchase Agreements (PPAs) with coal-fired and natural gas generators. These PPAs are designed to secure on-demand power for military installations and critical facilities. For investors, PPAs translate directly into revenue visibility and contract certainty for power generators.

The SPARK Program. The DOE launched its $1.9 billion SPARK program specifically for reconductoring — the process of upgrading existing transmission lines with modern, higher-capacity conductors. This program alone represents substantial near-term revenue opportunity for grid infrastructure companies.

Why This Matters for Investors. Executive Order 14262 converts political will into capital deployment. When the federal government activates emergency powers to keep power plants running, funds $1.9 billion for transmission upgrades, and prioritizes long-term PPAs, it creates a contractual floor for an entire industry. The companies positioned to capture this spending — the ones building the grid, generating off-grid power, and manufacturing the components — are the direct beneficiaries.

The Capital Commitment Is Massive. Between the $1.4 trillion grid super-cycle, the $1.9 billion SPARK program, $32.1 billion in IOU transmission spending for 2026 alone, and over $600 billion in hyperscaler capex — the funding is not theoretical. It is allocated, contracted, and being deployed now.

4. FOLLOW THE MONEY — PRICE ACTION VS. S&P 500

The Benchmark. Over the six-month period ending February 2026, the S&P 500 returned approximately 5.4%. Meanwhile, the sectors and individual stocks tied to the AI grid infrastructure theme delivered dramatically higher returns — in many cases outperforming the index by 10x or more.

Industry / Sector	Relative Strength	6-Month Return	Pattern	Significance
General Nonresidential Building	339	+25%	CLIMBING	Tops ALL AI/grid industries by RS
Electronic Components	264	+87%	CLIMBING	Highest 6mo return among sectors
Pipeline / Power Line Construction	209	+52%	CLIMBING	Direct grid buildout beneficiary
Engineering & Construction	160	+46%	CLIMBING	EPC contractors for power plants
Electrical Products	138	+25%	CLIMBING	Switchgear, bus duct, power modules
Semiconductors (for context)	120	—	Stable	Healthy but momentum is shifting downstream
S&P 500 (benchmark)	—	**+5.4%**	—	**Baseline comparison**

WHAT THIS TABLE TELLS US

Every energy infrastructure sector is dramatically outperforming the S&P 500 — by 5x to 16x. When entire industry groups move in unison at this magnitude, it signals that large institutional investors are rebalancing toward the theme. This is not retail-driven speculation. It is capital flow confirmation of the macro thesis.

5. HOW TO SPOT WINNERS — BACKLOGS, CONTRACTS & CAPITAL FLOW

Backlog Is the Key Metric. In infrastructure investing, backlog is the single most important forward-looking indicator. Unlike revenue forecasts or analyst estimates, backlog represents signed contracts — work that has been awarded and will generate revenue over the coming quarters and years. Think of it like this: if a company has a $44 billion backlog, that means customers have already agreed to pay $44 billion for work that still needs to be done.

Contracts Beat Headlines. The financial media focuses on earnings surprises and stock price movements. We focus on contract announcements, PPA signings, and backlog growth. When Bloom Energy signs a 2.8 GW fuel cell deal with Oracle, that is not a press release — it is years of revenue locked in. When Oklo signs a 1.2 GW small modular reactor agreement with Meta for an Ohio campus by 2030, that is a first-mover advantage in an entirely new market.

Relative Strength Confirms Capital Flow. Relative strength (RS) measures how a stock's price performance compares to every other stock in the market. When a stock has an RS above 200, it means it is outperforming more than 80% of all publicly traded stocks. When it is in a CLIMBING pattern, institutional money is actively accumulating. Bloom Energy's RS of 1,896 is extraordinary — it signals massive institutional conviction.

Watch for the Book-to-Bill Ratio. A book-to-bill ratio above 1.0 means a company is receiving more new orders than it is completing. Powell Industries reported a 1.7x book-to-bill ratio — meaning for every $1 of work completed, $1.70 of new work was booked. That is a strong signal of accelerating demand.

Revenue Visibility Matters. Companies with multi-year backlogs have revenue visibility that significantly reduces investment risk. Quanta Services' $44 billion backlog, combined with its guidance for 7%–10% organic revenue CAGR through 2030, provides the kind of predictability that institutional investors reward with premium valuations.

THEME 1: OFF-GRID POWER GENERATION FOR DATA CENTERS

Traditional grid connections cannot keep up. One-third of data centers are expected to operate off-grid by 2030.

Stock	RS	6mo Return	Pattern	Why It Matters
BE (Bloom Energy)	1,896	+105%	CLIMBING	Fuel cells for data centers. 2.8 GW Oracle deal. Published 2026 Data Center Power Report showing 45% of DCs adopting DC distribution by 2028.
OKLO	661	—	CLIMBING	Nuclear SMR for data centers. Meta signed for 1.2 GW Ohio campus, power by 2030. First-mover in SMR-for-AI.
CCJ (Cameco)	9	+32%	CLIMBING	Uranium pick-and-shovel play. Nuclear renaissance is real but CCJ's RS is lagging — early innings or a value trap. Watch for RS improvement.

The Big Picture. Bloom Energy is the standout in this theme — RS nearly 1,900, climbing pattern, and the Oracle deal provides real revenue visibility. The company reported record Q1 2026 results with revenue of $751.1 million (up 130% year-over-year), raised its full-year revenue guidance to $3.4–$3.8 billion (representing 80% growth), and projects non-GAAP gross margin of 34%. Oklo is more speculative — zero revenue expected in 2026 — but the Meta deal is potentially transformative if they execute. Cameco is the "picks and shovels" play on the nuclear renaissance, with $3.48 billion in 2025 revenue and growing demand from AI data centers.

Bloom Energy (BE) — Deeper Dive. Q1 2026 non-GAAP gross margin was 31.5%, improving 280 basis points year-over-year. Operating cash flow was $73.6 million — a $184.3 million year-over-year improvement. The company generated non-GAAP operating income of $129.7 million and guided for $600–$750 million in full-year non-GAAP operating income. Non-GAAP EPS guidance of $1.85–$2.25 for 2026. The Oracle deal (2.8 GW) provides multi-year revenue visibility.

OKLO — The Speculative Bet. Oklo carries no revenue and a projected cash burn of $80–$100 million in 2026, but it holds $2.5 billion in cash following a $1.182 billion capital raise. The company's Aurora nuclear heat production target has been adjusted to 2028. Analyst consensus EPS estimate for 2026 is -$0.66. This is a pre-revenue growth story with significant execution risk, but the Meta PPA and domestic nuclear fuel recycling strategy position it uniquely.

Cameco (CCJ) — The Picks & Shovels. Cameco produced 15% of the world's uranium in 2025. Revenue grew 11% to $3.48 billion, and earnings surged 243% to $589.58 million. The company holds proven and probable uranium reserves totaling over 433 million pounds. P/E ratio stands at 118x, reflecting the nuclear renaissance premium. Geopolitical supply uncertainty and a decade of underinvestment in uranium production are structural tailwinds.

7. COMPANY SPOTLIGHT: BLOOM ENERGY (BE)

Metric	Q1 2025	Q1 2026	Change
Revenue	$326.0M	$751.1M	+130.4%
Product Revenue	$211.8M	$653.3M	+208.4%
GAAP Gross Margin	27.2%	30.0%	+280 bps
Non-GAAP Gross Margin	28.7%	31.5%	+280 bps
Non-GAAP Operating Income	—	$129.7M	—
GAAP Net Income	($23.8M)	$70.7M	Turnaround
Non-GAAP Diluted EPS	—	$0.44	—
Operating Cash Flow	($110.7M)	$73.6M	+$184.3M

FY2026 Guidance Raised. Revenue: $3.4–$3.8B (was $3.1–$3.3B). Non-GAAP Gross Margin: ~34% (was ~32%). Non-GAAP Operating Income: $600–$750M. Non-GAAP EPS: $1.85–$2.25. The midpoint of revised revenue guidance reflects 80% year-over-year growth.

The Oracle Catalyst. Bloom Energy's strategic partnership with Oracle for AI projects is a core revenue driver. The 2.8 GW fuel cell deployment provides multi-year revenue visibility. The company published its 2026 Data Center Power Report showing 45% of data centers are expected to adopt DC power distribution by 2028 — a technology where Bloom Energy has a first-mover advantage.

Quality Assessment. Gross margin of 31.5% and expanding — this indicates a growing moat. Operating cash flow turned positive at $73.6M, a dramatic improvement. LTM free cash flow is $57.19M — modest but improving. LTM profit margin is still negative at -4.37%, reflecting the company's transition phase. Debt levels require monitoring. Overall: this is a growth company in transition to profitability, supported by a massive signed contract pipeline.

Moat Assessment. Bloom Energy's competitive advantages include: (1) Technology leadership in solid-oxide fuel cell platforms, (2) high switching costs once installed in data center infrastructure, (3) first-mover advantage in DC power distribution for data centers, and (4) Oracle partnership providing scale advantage.

THEME 2: GRID INFRASTRUCTURE BUILDERS

The companies physically building the grid upgrade. Record backlogs confirm institutional conviction.

Stock	RS	6mo Return	Pattern	Why It Matters
PWR (Quanta Services)	-58	+43%	—	Record $44B backlog. NiSource 3 GW engagement. Double-digit EPS growth guided. The "Grid Architect" for AI. RS is negative — mega-cap that hasn't broken out yet.
MTZ (MasTec)	71	+77%	CLIMBING	Pipeline and power line infrastructure. Big mover on 6mo return.
AGX (Argan)	717	+113%	CLIMBING	Power plant EPC contractor. RS 717 is exceptionally strong.
FIX (Comfort Systems)	255	+75%	CLIMBING	Mechanical/electrical contracting for data centers. Consistent execution.

The Grid Builder Thesis. These companies are the direct beneficiaries of the $1.4 trillion grid super-cycle. They build the power lines, construct the substations, lay the pipelines, and wire the data centers. Their backlogs tell the story: demand is confirmed, contracts are signed, and execution timelines stretch years into the future.

Quanta Services (PWR) — The Market Leader. Quanta reported FY2025 revenue of $28.5 billion (up 20% YoY), with a total backlog of $44 billion. Market cap stands at $94.68 billion. The company guided for continued double-digit growth in revenue, net income, and adjusted EBITDA in 2026, with an opportunity for over 20% growth in adjusted EPS. Free cash flow guidance: $1.8 billion at midpoint for 2026.

PWR Quality Metrics. Net income for 2025: $1.03 billion. Adjusted EBITDA: $2.88 billion. The company is investing $500–$700 million over several years to build power transformer and breaker manufacturing capabilities (345 kV through 765 kV), a vertical integration move that de-risks supply chain and creates differentiated solutions. NiSource selected Quanta to design, procure, and construct ~3 GW of generation and infrastructure for a major data center campus in Indiana.

Why PWR's RS Is Negative. Quanta's negative relative strength (-58) may seem contradictory given its 43% six-month return. However, this reflects the stock's mega-cap status ($94.7B market cap) — large-cap stocks tend to move more slowly in relative strength rankings. The backlog, revenue growth, and NiSource deal suggest the fundamentals are ahead of the stock price — which could represent opportunity if RS turns positive.

Argan (AGX) — The Standout. Argan's RS of 717 and 113% six-month return make it the clear outperformer among grid builders. As a power plant EPC contractor, Argan is directly positioned for new power plant construction — precisely what the executive order and grid super-cycle demand. The stock has effectively doubled in six months.

9. COMPANY SPOTLIGHT: QUANTA SERVICES (PWR)

Metric	FY2024	FY2025	FY2026E
Revenue	$23.7B	$28.5B	Double-digit growth guided
Net Income	$904.8M	$1,028.4M	Double-digit growth guided
Adjusted EBITDA	$2,331M	$2,876M	Double-digit growth guided
Total Backlog	—	$44B (record)	Growing
Free Cash Flow	—	—	~$1.8B guided
Market Cap	—	—	$94.68B
Employees	~58,400	~69,500	Growing

Long-Term Targets. At its March 2026 Investor Day, Quanta guided for 7%–10% organic revenue CAGR and 15%–20% EPS growth through 2030. The company completed eight acquisitions in 2025 alone, adding approximately 11,100 employees. Total workforce now stands at ~69,500.

Vertical Integration Strategy. Quanta is investing $500M–$700M over several years to build power transformer and breaker manufacturing capabilities. This addresses one of the most critical supply chain bottlenecks in the grid buildout: the years-long lead time for high-voltage transformers. By bringing manufacturing in-house, Quanta can both accelerate project timelines for its clients and capture higher margins.

Moat Assessment. Quanta's competitive advantages include: (1) Scale advantage — the largest specialty contractor in North America, (2) High switching costs — utilities and hyperscalers rely on Quanta's integrated "Total Solutions" platform, (3) Skilled labor moat — 69,500 employees with specialized electrical/utility training, and (4) Vertical integration into transformer manufacturing. These create significant barriers to entry.

Key Risk. Quanta's negative relative strength (-58) indicates the stock has not yet broken out relative to its peers. While fundamentals are strong, relative underperformance could signal institutional rotation or valuation compression concerns at a $94.7B market cap.

THEME 3: ELECTRICAL & POWER COMPONENTS

The picks and shovels — companies making the switchgear, power modules, PCBs, and thermal management systems every data center needs.

Stock	RS	6mo Return	Pattern	Why It Matters
VICR (Vicor)	562	+175%	CLIMBING	Power modules for AI chips. DC-DC conversion. Stock nearly tripled in 6 months.
POWL (Powell Industries)	236	+110%	CLIMBING	Switchgear and bus duct for data centers. Custom electrical equipment. Record $1.6B backlog.
AEIS (Advanced Energy)	215	+82%	CLIMBING	Precision power conversion for semiconductor fabs and data centers.
VRT (Vertiv)	158	+64%	CLIMBING	Thermal management and power distribution. The liquid cooling play.
TTMI (TTM Technologies)	632	+134%	CLIMBING	PCBs for power electronics and networking. Massive RS indicates strong institutional flow.
AMSC (American Superconductor)	165	—	CLIMBING	Grid-scale superconductor tech, power electronics. Grid modernization pure-play.

Why Components Matter. Every data center requires switchgear, power modules, printed circuit boards, thermal management systems, and power conversion hardware. These are not optional — they are essential. As data center construction accelerates, the companies manufacturing these specialized components become bottlenecks. That bottleneck effect is reflected in the extraordinary six-month returns across this group.

The Group Performance. The Electronic Components industry group carries an RS of 264 with an 87% six-month return — the highest sector return in our entire coverage universe. Electrical Products has an RS of 138 with a 25% return. Both are in CLIMBING patterns. This is the broadest confirmation of the infrastructure thesis.

Vicor (VICR) — The Standout. Vicor reported Q1 2026 revenue of $113.0 million (up 20.2% YoY), with gross margin expanding to 55.2% — an 800 basis point improvement year-over-year. Net income surged to $20.7 million ($0.44 EPS) from $2.5 million ($0.06 EPS). Backlog surged 75% to $301 million. The company holds $404.2 million in cash with no debt. Year-to-date share price gain: 137%. One-year return: 413%.

Powell Industries (POWL) — The Backlog Story. Powell reported FY2025 revenue of $1.1 billion (up 9%), EPS of $14.86 (up 21%), and a record backlog of $1.6 billion with a 1.7x book-to-bill ratio. Gross margin expanded to 29.4% for FY2025, reaching 31.4% in Q4. Cash position: $500 million. The company is expanding its manufacturing footprint with a 50,000 sq ft breaker factory expansion and 335,000 sq ft offshore yard. Powell announced a 3-for-1 stock split in March 2026.

Every Stock Is CLIMBING. All six stocks in this theme are in CLIMBING RS patterns. This level of unanimity is rare and signals that the entire components supply chain is experiencing accelerating demand — consistent with the grid super-cycle thesis.

11. COMPANY SPOTLIGHT: VICOR CORPORATION (VICR)

Metric	Q1 2025	Q1 2026	Change
Net Revenue	$94.0M	$113.0M	+20.2% YoY
Gross Margin	47.2%	55.2%	+800 bps
Net Income	$2.5M	$20.7M	+728%
Diluted EPS	$0.06	$0.44	+633%
Backlog	$172M	$301M	+75% YoY
Cash & Equivalents	—	$404.2M	Strong balance sheet
Market Cap	—	$11.62B	—
P/E Ratio	—	85.78	—
PEG Ratio	—	0.18	Favorable relative to growth

Quality Assessment. Vicor scores exceptionally well on Felix's quality framework. Gross margin of 55.2% indicates a very wide moat — the company commands significant pricing power in its DC-DC power conversion niche. Cash of $404.2M with no significant debt gives excellent financial stability. The PEG ratio of 0.18 suggests the stock may still be undervalued relative to its growth trajectory despite the 413% one-year return.

The AI Chip Power Problem. As AI chips become more power-dense, the power delivery architecture becomes critical. Vicor specializes in vertical power delivery — converting high-voltage DC to the precise voltages required by AI accelerators. This is a technology moat. Their advanced products (57.5% of revenue) include wafer-scale AI engine power modules that are being ramped with a lead customer.

Manufacturing Expansion. Capital expenditures increased to $12.4 million in Q1 2026 (from $4.6M in Q1 2025), reflecting investments in manufacturing capacity. The company targets a $1.5 billion revenue run rate from its Federal Street facility — a more than 10x increase from current annualized revenue.

Risks. Operating cash flow was negative at ($3.9M) in Q1 2026, primarily due to a $28.6M litigation settlement payment. Capacity constraints could limit near-term growth. The P/E of 85.78 reflects elevated expectations — any execution miss could trigger significant multiple compression. Competitive pressures in the power systems market require continuous innovation.

Three Reasons VICR May Be Better Than Competitors. (1) Vertical power delivery technology leadership — a patented approach that competitors have not replicated at scale. (2) 55.2% gross margin — significantly higher than most power electronics peers, indicating pricing power and differentiation. (3) $301M backlog with 75% growth — demand is accelerating, not plateauing.

THEME 4: METALS & MATERIALS

Grid expansion requires massive quantities of aluminum and copper. Domestic sourcing preferences amplify the opportunity.

Stock	RS	6mo Return	Pattern	Why It Matters
CENX (Century Aluminum)	—	+93%	CLIMBING	Domestic aluminum play. Grid expansion requires heavy aluminum input. Tariff and grid play combined.
AMPX (Amprius Technologies)	—	—	—	Advanced battery technology for grid-scale storage applications.

The Materials Angle. Every mile of transmission line, every transformer, every substation requires substantial quantities of aluminum and copper. As the $1.4 trillion grid super-cycle accelerates, demand for these metals increases proportionally. This is a straightforward demand pull — more infrastructure construction equals more metal consumption.

The Tariff Kicker. Century Aluminum (CENX) benefits from a dual tailwind: rising demand from grid expansion plus tariff protections that favor domestic aluminum production. The company's 93% six-month return in a CLIMBING pattern reflects institutional recognition of this dual catalyst. When both demand and pricing power move in the same direction, the earnings impact can be nonlinear.

Smaller Exposure, Different Risk Profile. The metals theme is narrower than the other four themes in this report. CENX is the primary pure-play, and metals companies generally carry cyclical risk that the infrastructure and technology names in other themes do not. We include this theme because the supply chain is real and the price action is confirming, but investors should size positions according to the higher cyclical volatility inherent in materials stocks.

THEME 5: DATA STORAGE

AI buildout needs power, cooling, and persistent data layers. Storage rides the same infrastructure capex wave.

Stock	RS	6mo Return	Pattern	Why It Matters
SNDK (SanDisk / WD spinoff)	1,660	+202%	CLIMBING	Highest RS in entire coverage universe. AI training requires massive storage. 3x in 6 months.
STX (Seagate)	270	+73%	CLIMBING	Enterprise HDD leader for data center storage. Consistent performer.
WDC (Western Digital)	157	+39%	CLIMBING	NAND flash and HDD for data centers. The lowest return in the group but still 7x the S&P.

Storage Is the Forgotten Layer. The market narrative around AI infrastructure focuses on power and cooling. But every data center also needs persistent data storage — and lots of it. AI model training, inference logging, and data retention requirements are driving storage demand in parallel with power demand. SNDK's RS of 1,660 with a 202% six-month return is the strongest signal in our entire coverage universe.

All Three Stocks Are CLIMBING. SNDK, STX, and WDC are all in CLIMBING relative strength patterns. This sector-wide strength suggests the storage demand wave is structural rather than driven by any single company's earnings surprise. When an entire subsector moves in lockstep, institutional portfolio allocations are increasing.

The Capex Connection. As hyperscalers deploy $600+ billion in 2026 data center capex, a meaningful portion flows directly to storage infrastructure. SSDs for AI training workloads, HDDs for cold storage and archival, and enterprise storage systems are all direct beneficiaries. The same capital expenditure wave driving power and cooling demand is simultaneously driving storage demand.

14. ETFS FOR LOWER-RISK EXPOSURE

For investors seeking diversified exposure to the AI grid infrastructure theme without concentrating in individual stocks, we highlight three sector/industry ETFs.

ETF	Name	YTD Return	1-Year Return	Expense Ratio	Theme Alignment
PAVE	Global X U.S. Infrastructure Development ETF	+17.73%	+49.62%	0.47%	Broad infrastructure: construction, engineering, raw materials. Top holdings include Quanta Services (PWR) and Eaton Corp. AUM: $13.08B.
GRID	First Trust NASDAQ Clean Edge Smart Grid Infrastructure Index	+21.25%	+58.61%	0.56%	Smart grid and electrical energy infrastructure. Top holdings include Eaton, ABB, and Schneider Electric. Global exposure.
XLE	Energy Select Sector SPDR Fund	—	—	0.09%	Traditional energy sector. Lower direct alignment with grid buildout but provides upstream energy exposure at the lowest cost.

PAVE — The Direct Play. PAVE holds Quanta Services as a top position, providing direct exposure to the grid builder theme. Its 49.62% one-year return reflects the infrastructure capex cycle already underway. At $13.08 billion in AUM, it is highly liquid and well-diversified across 100+ infrastructure stocks.

GRID — The Smart Grid Play. GRID's 58.61% one-year total return (including dividends) is the strongest among these three ETFs. Its focus on smart grid and electrical infrastructure companies aligns closely with Themes 2 and 3 of this report. However, its global exposure introduces currency and international regulatory risk.

Why ETFs Make Sense Here. The individual stocks in this report delivered 32%–202% returns over six months. But with returns that large comes concentration risk. ETFs allow investors to participate in the macro theme while spreading individual company risk across dozens of holdings. For investors who agree with the thesis but want a simpler execution, PAVE and GRID are both strong vehicles.

15. FELIX'S QUALITY FRAMEWORK — HOW WE EVALUATE STOCKS

> *"We look neither for value stocks, nor for growth stocks. We look for quality stocks." — Felix Prehn*

Category	Metric	What It Tells You (In Simple Terms)
Is the Business Profitable?	Gross Margin	How big is the company's "moat"? A high gross margin means the company can charge more than it costs to make its product — and survive bad times.
	Operating Margin	After paying all the bills (salaries, rent, marketing), how much profit is left? Good measure of cost control.
	ROCE	Return on Capital Employed — how well is management using ALL the money (both debt and equity) to generate returns?
Is It Generating Cash?	Cash Conversion	Can the company turn its profits into actual cash? Some companies show profits on paper but struggle to collect cash.
	Leveraged Free Cash Flow Margin	What portion of every dollar of sales actually ends up as cash the company can use?
Is It Financially Stable?	Leverage (Debt Ratios)	How much debt does the company carry? High debt means more risk during downturns.
	Interest Cover	Can the company comfortably pay its debt interest? A high ratio means financial comfort and flexibility.
Valuation	P/E Ratio + Forward P/E	How expensive is the stock compared to its earnings? This is the least important of our metrics — but still worth checking.
Consistency	Earnings Growth + EPS Trend	Are earnings growing reliably? Are earnings per share increasing — or is shareholder value being diluted?
Moat	Competitive Advantage	Does the company have a unique edge? Cost advantage, scale, switching costs, patents, brand, or government licenses.

Applying the Framework to This Report. We evaluate each company through this quality lens. Bloom Energy scores well on moat (fuel cell technology, Oracle partnership) but is still transitioning to consistent profitability. Vicor scores exceptionally on gross margin (55.2%) and financial stability ($404M cash, no significant debt). Quanta scores strongly on consistency ($44B backlog, 20% revenue growth) and moat (scale, workforce, vertical integration). Powell Industries scores well on margins (31.4% gross margin in Q4), cash position ($500M), and backlog ($1.6B).

For Growth Stocks in This Report. OKLO, AMPX, and to some extent Bloom Energy are growth companies that require Felix's additional growth criteria: high operating margin (where available), strong revenue growth beating the sector, low debt, good cash position to survive a crash, large target market (25x TAM+), strong brand, tech leadership, high R&D spend, and CEO/founder heavily invested. OKLO's $2.5 billion cash position is a significant strength here — it can survive multiple years of zero revenue without needing to raise additional capital.

16. THE 3-STEP INVESTMENT FRAMEWORK

Our approach to identifying and validating infrastructure investment themes follows three sequential steps. Each step builds on the previous one — skip a step and you increase your risk of being early or wrong.

THE 3-STEP FRAMEWORK

1. **Start with Undeniable Macro Shifts**
Look for changes that are too big to ignore and too structural to reverse. Executive Order 14262, the $5.2 trillion infrastructure requirement, 76 GW of current demand growing to 134 GW — these are not opinions. They are measurable facts with government and corporate backing. If the macro shift is not undeniable, stop here.

2. **Follow Signed Contracts and Backlogs, Not Headlines**
Headlines are noise. Backlogs are signal. Quanta's $44 billion backlog, Bloom Energy's 2.8 GW Oracle deal, Oklo's 1.2 GW Meta agreement, Powell's 1.7x book-to-bill — these are signed commitments that translate into revenue. If a company is in the right sector but has no backlog growth, it may not be capturing the opportunity.

3. **Watch Price and Capital Flow Before Mainstream Narrative Catches Up**
When Bloom Energy's relative strength hits 1,896 and Vicor trades at RS 562 — both CLIMBING — institutional money has already positioned. These moves happen months before the mainstream financial media catches the narrative. The stock market is a leading indicator. If price is confirming your thesis, institutional investors agree with you. If it is not, your timing may be early or your thesis may be wrong.

PUTTING IT ALL TOGETHER

Step 1 (Macro): ✓ — $5.2T infrastructure need, Executive Order 14262, 76→134 GW demand growth, aging grid.

Step 2 (Contracts): ✓ — $44B Quanta backlog, 2.8 GW Oracle/BE deal, 1.2 GW Meta/OKLO, 1.7x POWL book-to-bill.

Step 3 (Price): ✓ — 18 stocks returning 32%–202% in 6 months vs. 5.4% for S&P 500. All themes in CLIMBING patterns.

All three steps align. The data is public. The capital is flowing. The question is whether individual investors will recognize the opportunity before the narrative becomes consensus.

17. RISK FACTORS

All investments carry risk, including the loss of principal. The following risks are specific to the AI grid infrastructure theme covered in this report.

VALUATION	Many stocks in this report have appreciated 64%–202% in six months. Elevated valuations increase the risk of sharp corrections on earnings misses or guidance disappointments. Vicor trades at 85.78x earnings. Cameco trades at 118x. Premium multiples require premium execution.
EXECUTION	Pre-revenue companies like OKLO face significant execution risk. The target for Aurora nuclear heat production has been pushed to 2028. Regulatory delays, construction overruns, and technology failures could impair or eliminate expected value.
POLICY	Executive orders can be reversed by future administrations. The SPARK program and emergency powers could be modified or discontinued. Changes in federal energy policy, environmental regulations, or tariff structures could alter the competitive landscape.
DEMAND	AI infrastructure demand projections (76→134 GW) are estimates. If AI adoption slows, hyperscaler capex could be reduced. Data center power demand projections from EPRI and IEA carry wide confidence intervals (325–580 TWh by 2028).
SUPPLY CHAIN	Transformer lead times, semiconductor shortages, and skilled labor availability could delay project timelines. Supply constraints may limit companies' ability to convert backlog into revenue on schedule.
CONCENTRATION	Several companies depend heavily on a small number of mega-clients. Bloom Energy's Oracle deal and Oklo's Meta deal represent significant customer concentration risk. Loss of a key customer could materially impact revenues.
INTEREST RATES	Infrastructure is capital-intensive. Higher interest rates increase project financing costs, potentially slowing deployment timelines. Companies with significant debt loads face margin compression in a rising rate environment.
CYCLICALITY	Metals and materials stocks (CENX) are inherently cyclical. A broader economic downturn could reduce industrial demand and aluminum pricing regardless of the grid buildout thesis.

COMPLETE COVERAGE UNIVERSE — SUMMARY TABLE

Theme	Ticker	Company	RS	6mo Return	Pattern	Key Catalyst
Off-Grid Power	BE	Bloom Energy	1,896	+105%	CLIMBING	2.8 GW Oracle deal; $3.4-3.8B rev guidance
	OKLO	Oklo Inc.	661	—	CLIMBING	1.2 GW Meta deal; $2.5B cash
	CCJ	Cameco	9	+32%	CLIMBING	Nuclear renaissance; 15% global uranium share
Grid Builders	PWR	Quanta Services	-58	+43%	—	$44B backlog; NiSource 3 GW; $1.8B FCF guided
	MTZ	MasTec	71	+77%	CLIMBING	Pipeline/power line infrastructure
	AGX	Argan	717	+113%	CLIMBING	Power plant EPC; RS 717
	FIX	Comfort Systems	255	+75%	CLIMBING	Mechanical/electrical for data centers
Components	VICR	Vicor	562	+175%	CLIMBING	55.2% gross margin; $301M backlog (+75%)
	POWL	Powell Industries	236	+110%	CLIMBING	$1.6B backlog; 1.7x book-to-bill
	AEIS	Advanced Energy	215	+82%	CLIMBING	Precision power conversion for fabs/DCs
	VRT	Vertiv	158	+64%	CLIMBING	Thermal mgmt / liquid cooling
	TTMI	TTM Technologies	632	+134%	CLIMBING	PCBs for power electronics
	AMSC	American Superconductor	165	—	CLIMBING	Grid-scale superconductor pure-play
Metals	CENX	Century Aluminum	—	+93%	CLIMBING	Domestic aluminum; tariff + grid play
Data Storage	SNDK	SanDisk	1,660	+202%	CLIMBING	Highest RS in coverage; AI storage demand
	STX	Seagate	270	+73%	CLIMBING	Enterprise HDD for DC storage
	WDC	Western Digital	157	+39%	CLIMBING	NAND + HDD for data centers

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About Felix Prehn and Goat Academy

Felix Prehn is a former investment banker. He gained deep insights into the strategies and principles that professional investors use to build and protect wealth.

Goat Academy
Felix Prehn is the founder of Goat Academy, an educational platform that has taught over 20,000 students the fundamentals of investing and stock market analysis. Goat Academy focuses on demystifying Wall Street's investment strategies and making them accessible to regular investors. The academy provides comprehensive training on fundamental analysis, technical analysis, risk management, and portfolio construction—empowering individual investors to make informed decisions about their financial futures.

Tradevision.io
Felix Prehn is also the co-founder of Tradevision.io, a platform dedicated to providing news and data specifically tailored for retail investors. Tradevision.io helps individual investors access the information and tools they need to compete effectively in modern financial markets.

Mission and Dedication
Felix Prehn has dedicated his retirement to teaching regular investors how to protect their wealth and navigate the complexities of the stock market. His approach emphasizes understanding the fundamental principles that drive long-term investment success, rather than chasing short-term trends or speculation. By bridging the knowledge gap between Wall Street professionals and individual investors, Felix works to level the playing field and help people take control of their financial destinies.

Connect with Felix Prehn on YouTube
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