Road to Next

Q2 2026

Physical world in focus: Expansion-stage dealmaking in foundational industries

Deloitte.

Data provided by PitchBook

Editorial team

"The time from idea to usable software has been exponentially shortened. Anybody can now write a software application without a coding background. You've got pure-play companies and niche players picking away at the large providers, sometimes turning a competing solution around in 24 hours. We're going to see a lot of consolidation and some clear winners and losers. The software development life cycle is fundamentally changing."

Justin Yahr
Audit & Assurance Partner and National Emerging Company Growth Leader
Deloitte & Touche LLP

With more than 19 years at Deloitte, Justin is the Audit & Assurance National Emerging Company Growth leader. He advises public and private companies on assurance, accounting, and a range of professional services, bringing deep experience in initial public offerings (IPOs), mergers and acquisitions, and strategies for emerging businesses as they grow.

"Private capital is really chasing bottlenecks—the money is going where the need is greatest. AI-driven power demand and grid scarcity are increasingly outweighing what previously drove infrastructure investment."

Amy Parker
Audit & Assurance Partner and
West Region Energy Tech Audit Leader
Deloitte & Touche LLP

Amy is an Audit & Assurance partner and the West Energy Tech Audit leader in the San Francisco office of Deloitte and has more than 20 years of audit experience. She serves primarily in the energy industry serving large public power, utility, and renewable companies, which include regulated utilities and merchant generation operations of SEC entities, including Fortune 500 companies, as well as renewable and energy tech entities, including emerging growth and startup entities.

Deloitte and PitchBook have collaborated to produce a unique methodology for the Road to Next series to better analyze a new segment of companies that emerged in the 2010s. Dubbing this segment the "expansion stage," the methodology uses investment data restricted to late-stage venture capital (VC), private equity (PE) growth, and private corporate financing. In addition, companies must still be privately held by investment firms.

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Executive summary

Private capital accelerates into physical infrastructure

Themes and key findings for this issue:

- While artificial intelligence (AI) and digital transformation continue to command headlines, investors are placing increasing emphasis on the tangible products and systems that support this technology wave. This report examines dealmaking trends in four of these industries: semiconductors, energy, commercial products, and commercial transportation.

- Expansion-stage deal value in all four industries reached record highs in 2025, reinforcing the thesis that private capital is flowing to the critical focus areas driving AI expansion. Based on Q1 2026 run rates, semiconductors, energy, and commercial products are all on track to exceed 2025 investment levels in both dollar value and count.

- Commercial products and energy are the two largest industries, with more than $5 billion invested across both in the first quarter of the year. Commercial products activity has been bolstered by aerospace and defense build-outs, while energy activity has been driven largely by alternative energy equipment and energy infrastructure providers.

Executive summary

- Semiconductor deal value increased by more than 50 percent in 2025 despite a relatively small base of expansion-stage transactions, and year-to-date deal value already represents nearly half of that record amount, underscoring the capital intensity and strategic significance of chip-related investments. Application-specific semiconductors continued to make up the vast majority of deal activity in the sector.

- Follow-on investors accounted for a growing share of capital deployed across these sectors. Semiconductors and commercial transportation both saw sustained investor interest with follow-on investors participating in 63.6 percent and 57.1 percent of deals, respectively.

- First-time expansion-stage financings rose meaningfully across these industries in 2025. This pipeline expansion suggests a broadening base of entrants that could shape future investment and exit activity.

- The geographic distribution of energy dealmaking diverges sharply from the typical coastal concentration of technology sectors. The Bay Area and New York still account for a meaningful number of deals, but Houston historically commands the largest share of expansion-stage deal activity. Los Angeles, Denver, and Washington, DC, also generate material deal value in the sector, reflecting how proximity to natural resources, grid infrastructure, and policy environments shape capital allocation.

Dealmaking trends

Digital infrastructure and trade dynamics are reshaping private capital allocation

The convergence of AI infrastructure build-out, trade policy shifts, and energy security priorities has drawn private capital into physical-world industries across the United States (US) at a pace not seen in prior cycles.[1] Expansion-stage dealmaking across commercial products, semiconductors, energy, and commercial transportation collectively exceeded $44 billion in 2025, representing a 69.1 percent rise from 2024. This acceleration is being driven by larger, higher-conviction transactions rather than a broad-based uptick in deal volume.

This pattern of value outpacing volume reflects a broader dynamic in private markets, and investors are increasingly concentrating capital behind companies that sit at the intersection of physical infrastructure and digital technology. As data center construction and AI compute requirements continue to scale, demand for semiconductor capacity, energy generation, and the commercial products that support both has risen in tandem. According to the International Energy Agency, global electricity consumption from data centers is projected to more than double by 2030, a trajectory that directly underpins the investment thesis in the energy and semiconductor markets.[2]

$5.3 billion

Semiconductor expansion-stage deal value reached $5.3 billion in 2025, more than tripling the $1.4 billion recorded in 2023 and extending a two-year surge that has reshaped the sector's capital profile.

$17.9 billion

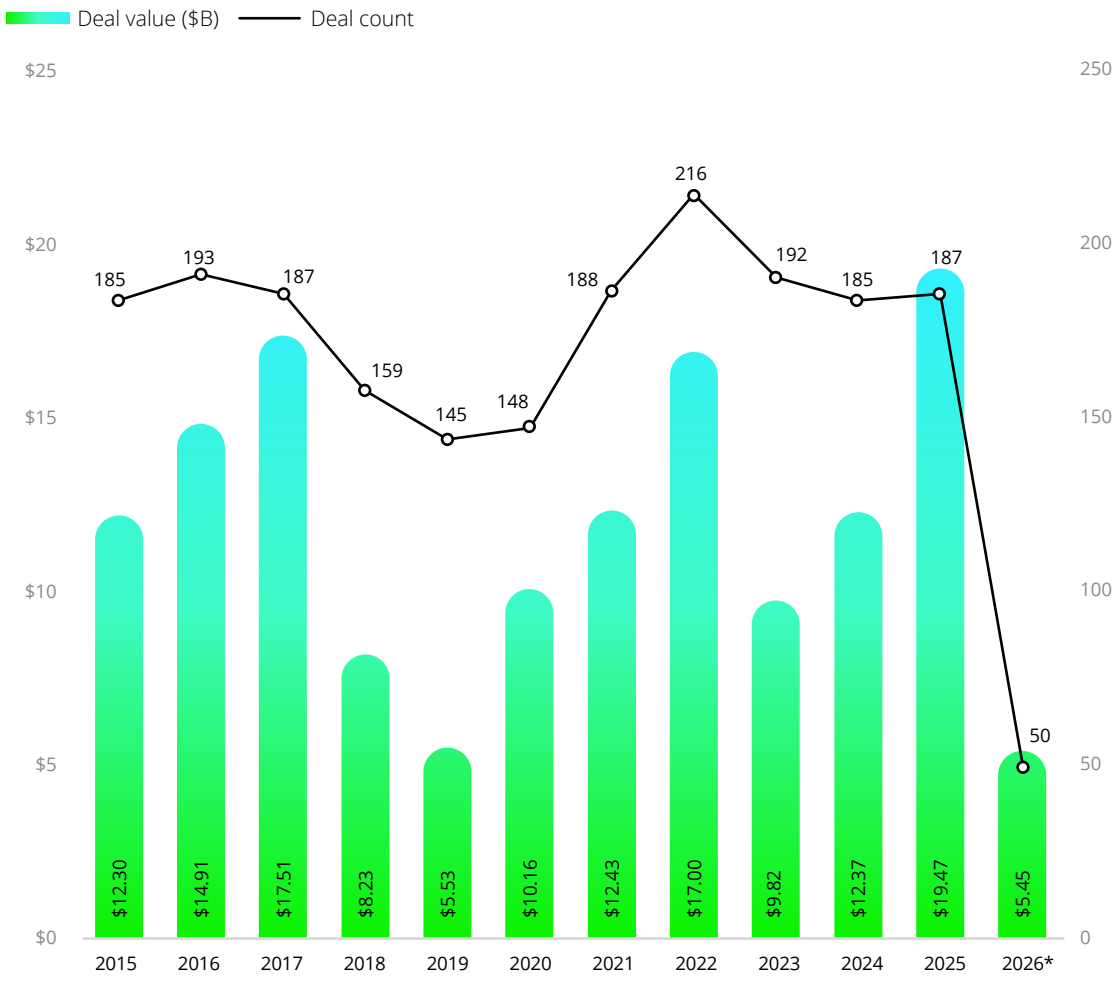
Expansion-stage commercial products deal value reached $17.9 billion in 2025, an 84 percent increase from 2024, driven by aerospace and defense.

$30 million

Median deal sizes doubled across two of the four industries in 2025: The median for energy rose from $14.8 million to $30 million, and for commercial transportation it increased from $15 million to $30 million.

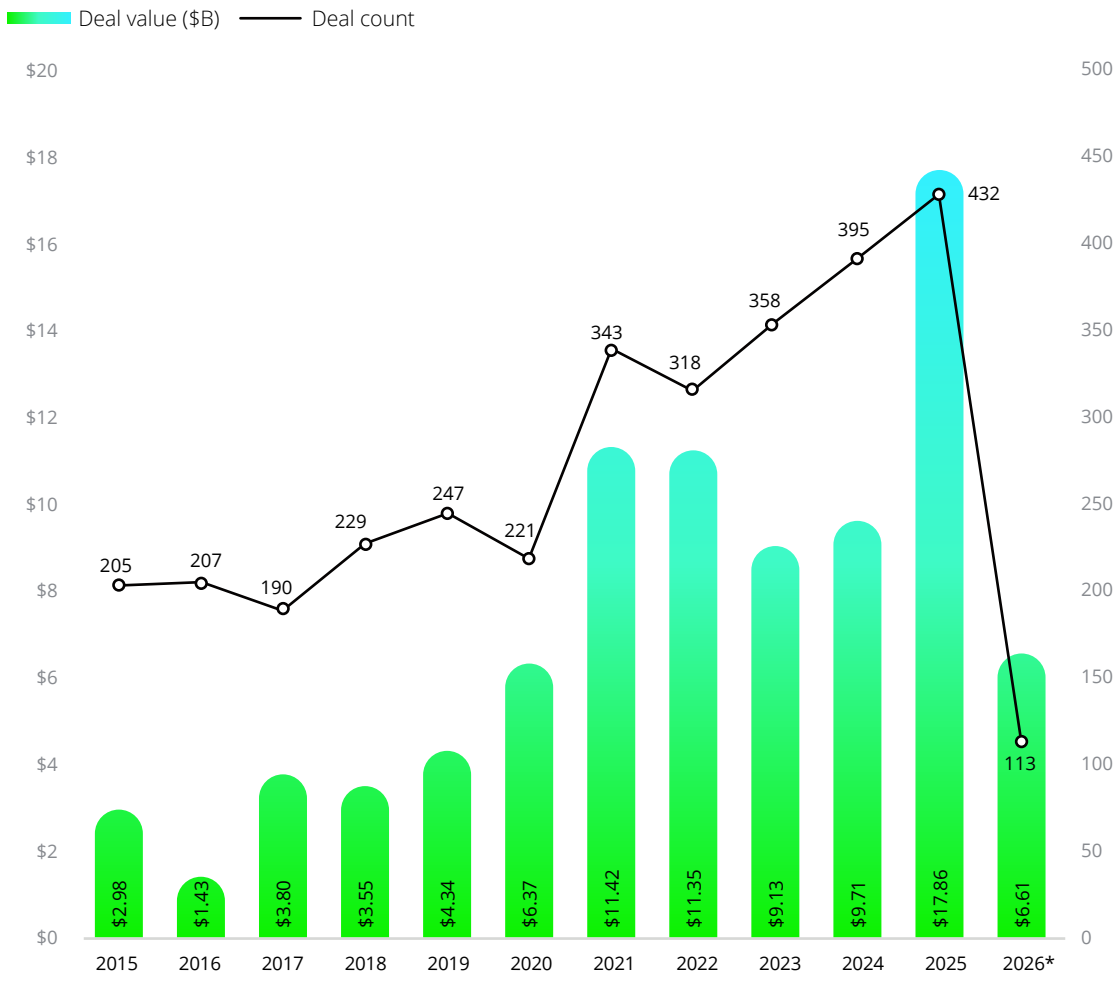
Dealmaking trends

Expansion-stage energy deal activity



Source: PitchBook | Geography: US | *March 31, 2026

Expansion-stage commercial products deal activity



Source: PitchBook | Geography: US | *March 31, 2026

Dealmaking trends

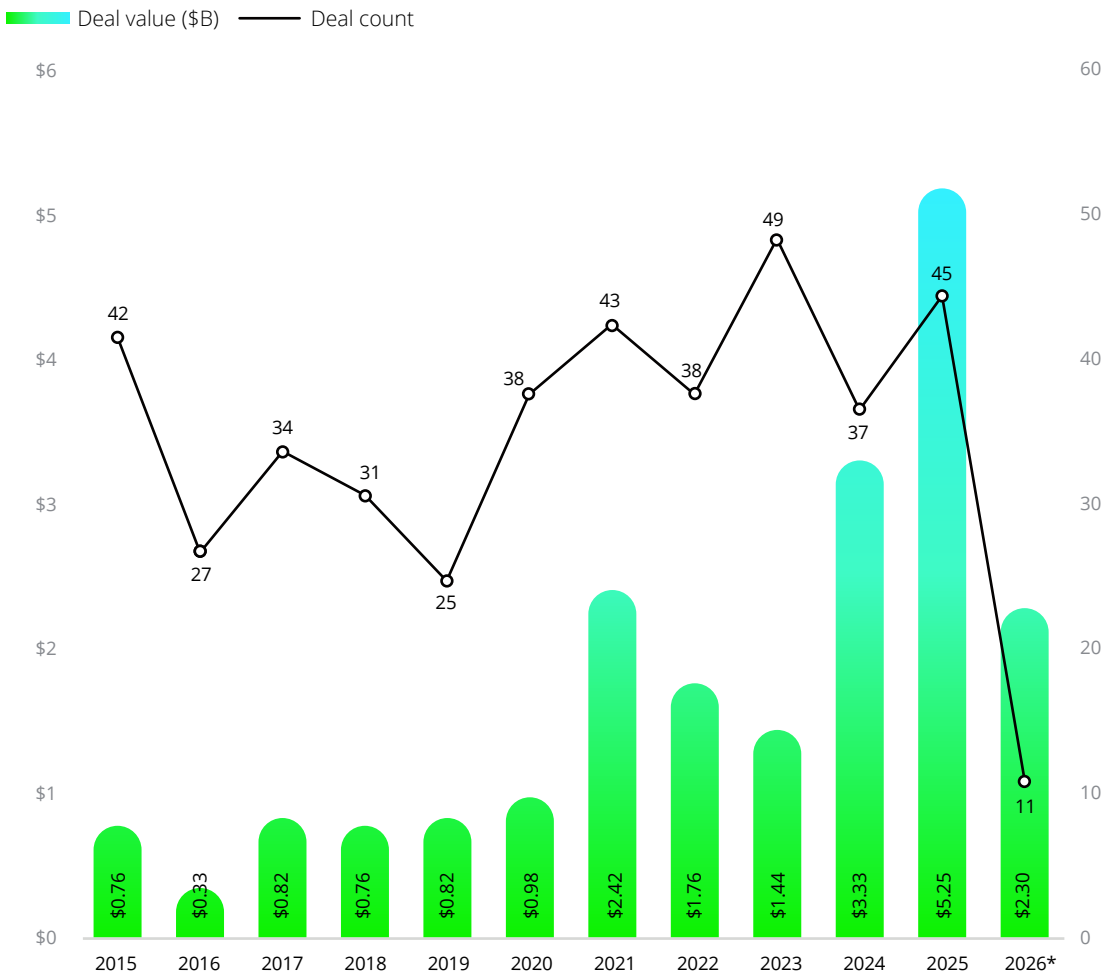
Larger deals signal deepening investor conviction

Increasing deal sizes across sectors in 2025 offer further evidence of growing investor commitment in select areas. In energy, the median deal size doubled to $30 million, up from $14.8 million in 2024. Commercial transportation posted a similarly sharp increase, with the median rising from $15 million to $30 million. Commercial products saw more measured growth, with the median climbing from $8.1 million to $10 million. Companies in these capital-intensive sectors tend to require more substantial capital to fund operations, and investors appear increasingly willing to underwrite those requirements at scale.

The capital intensity of physical-world investments also shapes the composition of deal types. PE growth deals have historically comprised a material share of dealmaking in energy and commercial transportation, reflecting PE firms' familiarity with legacy industries and the demand for later-stage capital. In commercial products, while later-stage VC deals typically lead, PE growth deals account for around one-third of total deal count, illustrating the breadth of capital sources engaged in the sector.

Dealmaking trends

Expansion-stage semiconductors deal activity



Source: PitchBook | Geography: US | *March 31, 2026

Average and median expansion-stage energy deal size ($M)

Source: PitchBook | Geography: US | *March 31, 2026

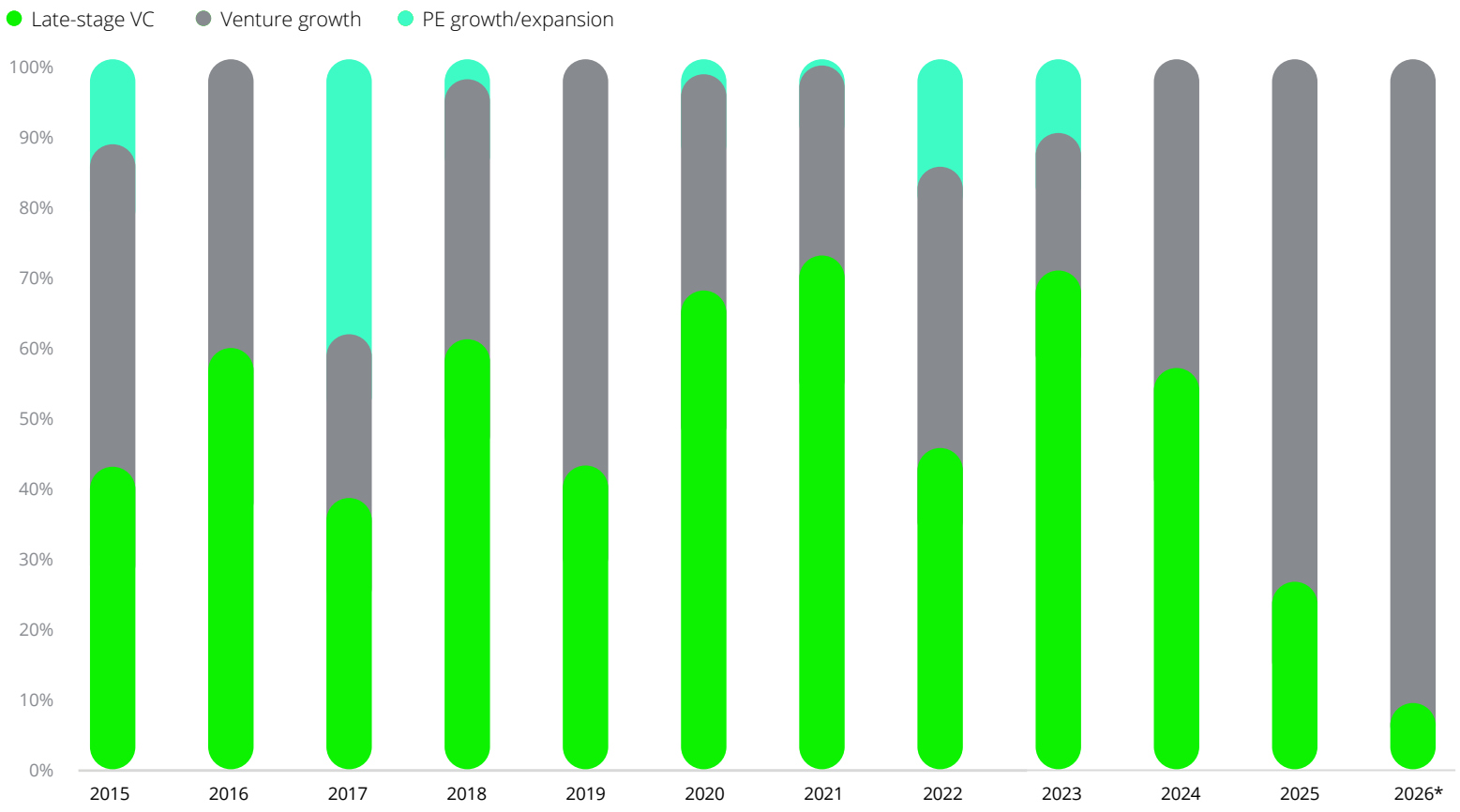
Dealmaking trends

Semiconductor investment reaches record levels on the back of AI demand

Semiconductor deal activity at the expansion stage reached $5.3 billion in 2025, nearly tripling the $1.4 billion recorded in 2023 and exceeding the 2021 cycle peak of $2.4 billion. The sector's trajectory is closely linked to the accelerating demand for specialized computing hardware driven by AI model training and inference workloads. Venture-growth rounds contributed $3.9 billion of the 2025 total, underscoring the scale of capital being directed toward companies developing next-generation chip architectures that require significant CapEx. These investments also target more mature business opportunities or entrance categories to sell into that can provide stronger revenue streams, justifying larger financings.

Dealmaking trends

Share of expansion-stage semiconductors deal value ($B) by type



Source: PitchBook | Geography: US | *March 31, 2026

Notably, PE growth and expansion deals in semiconductors fell to zero in 2025 after several years of modest but consistent activity, suggesting that growth-stage dealmaking in the sector is now overwhelmingly concentrated in venture-oriented capital structures. This dynamic reflects both the technical risk profile of semiconductor development and the outsized return potential that continues to attract venture-style investors. Trade policy developments, including expanded domestic manufacturing incentives and restrictions on cross-border technology transfers, have further heightened strategic interest in the sector, particularly among investors positioning portfolios around the reshoring of semiconductor supply chains. The CHIPS Act, enacted in 2022, continues to catalyze private investment alongside public funding commitments.

Dealmaking trends

Energy dealmaking broadens beyond exploration

Energy deal value rose 57 percent year over year to $19.5 billion in 2025, while deal counts remained essentially flat at 187 transactions. The composition of energy dealmaking has shifted meaningfully over the past decade: Energy exploration deals, which accounted for the majority of sector value as recently as 2016 at $7.7 billion, represented only $660 million across 12 deals in 2025. In contrast, alternative energy equipment, energy infrastructure, and energy production collectively comprised the bulk of activity, reflecting a structural shift toward the generation and delivery systems required to meet growing electricity demand.

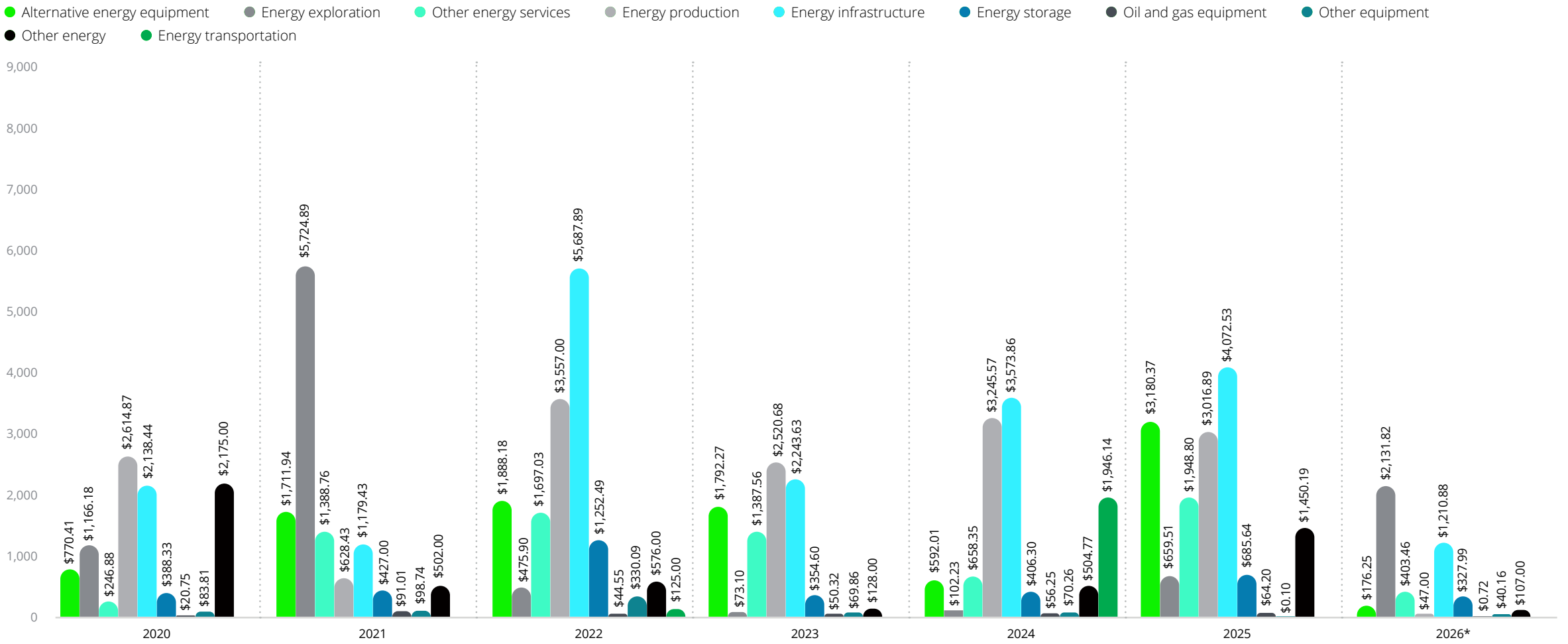
The expansion of data center campuses, electrification of industrial processes, and growing grid-scale storage requirements have increased investment in companies operating at the intersection of energy generation and technology infrastructure. Private debt markets are also playing a supporting role, with private credit assets under management exceeding $1.7 trillion globally and committed but uninvested capital continuing to grow, providing companies in these sectors with additional financing flexibility.

"Companies that demonstrate speed to power—in other words, power sources that can stand on their own—are attracting capital and driving high valuations."

Amy Parker
Audit & Assurance Partner and West Region Energy Tech Audit Leader
Deloitte & Touche LLP

Dealmaking trends

Expansion-stage energy deal value ($M) by subsegment



Source: PitchBook | Geography: US | *March 31, 2026

Sector trends

Capital converges on energy equipment, chip design, and industrial manufacturing

Within each of the four broad industries examined, deal activity in 2025 was heavily concentrated in a limited number of subsectors, reflecting the targeted nature of private capital deployment in physical-world markets.

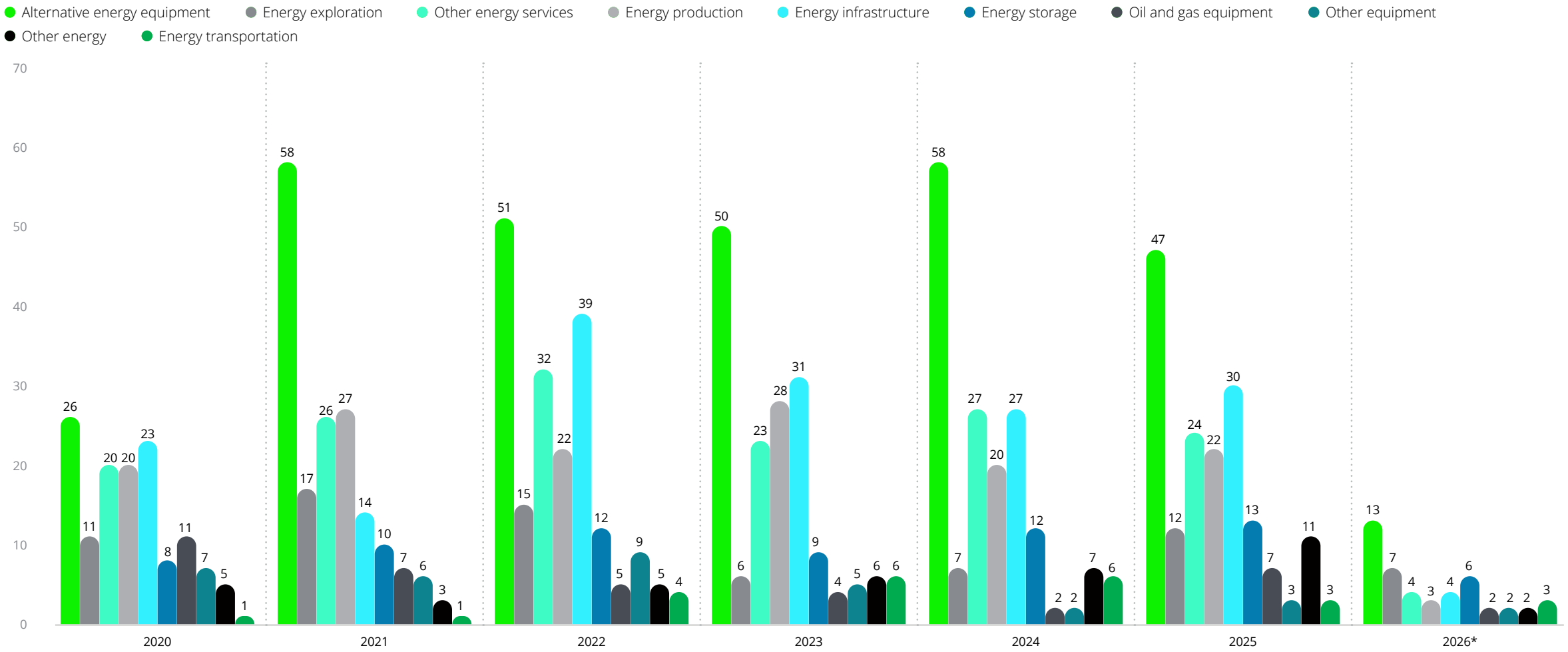
In energy, alternative energy equipment led the sector in deal count with 47 transactions totaling $3.2 billion, while energy infrastructure generated $4.1 billion across 30 deals. Energy production contributed $3 billion across 22 deals, and energy storage—a subsector increasingly linked to grid stability and data center backup requirements—accounted for $686 million across 13 deals. The sharp decline in energy exploration activity to just 12 deals and $660 million in 2025 further underscores the sector's ongoing pivot toward generation, storage, and delivery infrastructure rather than upstream extraction.

Semiconductor deal activity remained overwhelmingly concentrated in application-specific semiconductors, which accounted for $2.7 billion across 31 deals in 2025. General-purpose semiconductors contributed an additional $2.4 billion across 10 deals, a notable increase from prior years, reflecting growing demand for a broader range of chip architectures. Production-focused and other semiconductor subsectors remained minimal in both value and volume.

In commercial products, aerospace and defense was the standout, generating $13.2 billion in deal value across 116 transactions—far exceeding the sector's next-largest subsector. Electrical equipment contributed $1.6 billion across 84 deals, while machinery and distributors/wholesale each recorded meaningful activity. The concentration in aerospace and defense reflects private capital's expanding role in supporting dual-use technologies, advanced materials, and defense supply chain resilience. The broader PE market for aerospace and defense followed a similar trajectory. According to PitchBook's Q4 2025 Aerospace & Defense Report,[3] total PE deal value in the sector reached a new annual record in 2025, driven by rising defense budgets and strengthening commercial aerospace fundamentals.

Sector trends

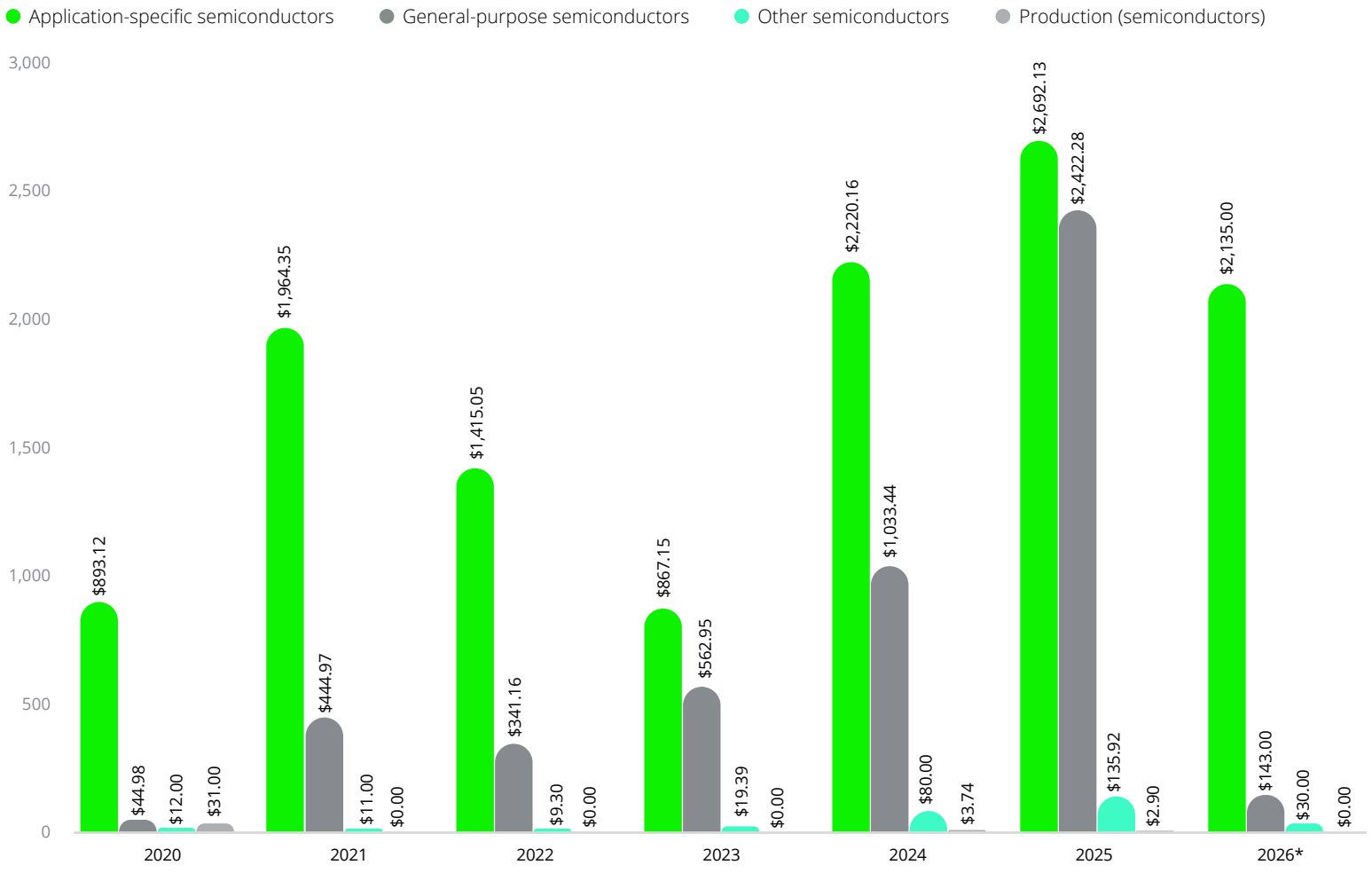
Expansion-stage energy deal count by subsegment



Source: PitchBook | Geography: US | *March 31, 2026

Sector trends

Expansion-stage semiconductors deal value ($M) by subsegment



Source: PitchBook | Geography: US | *March 31, 2026

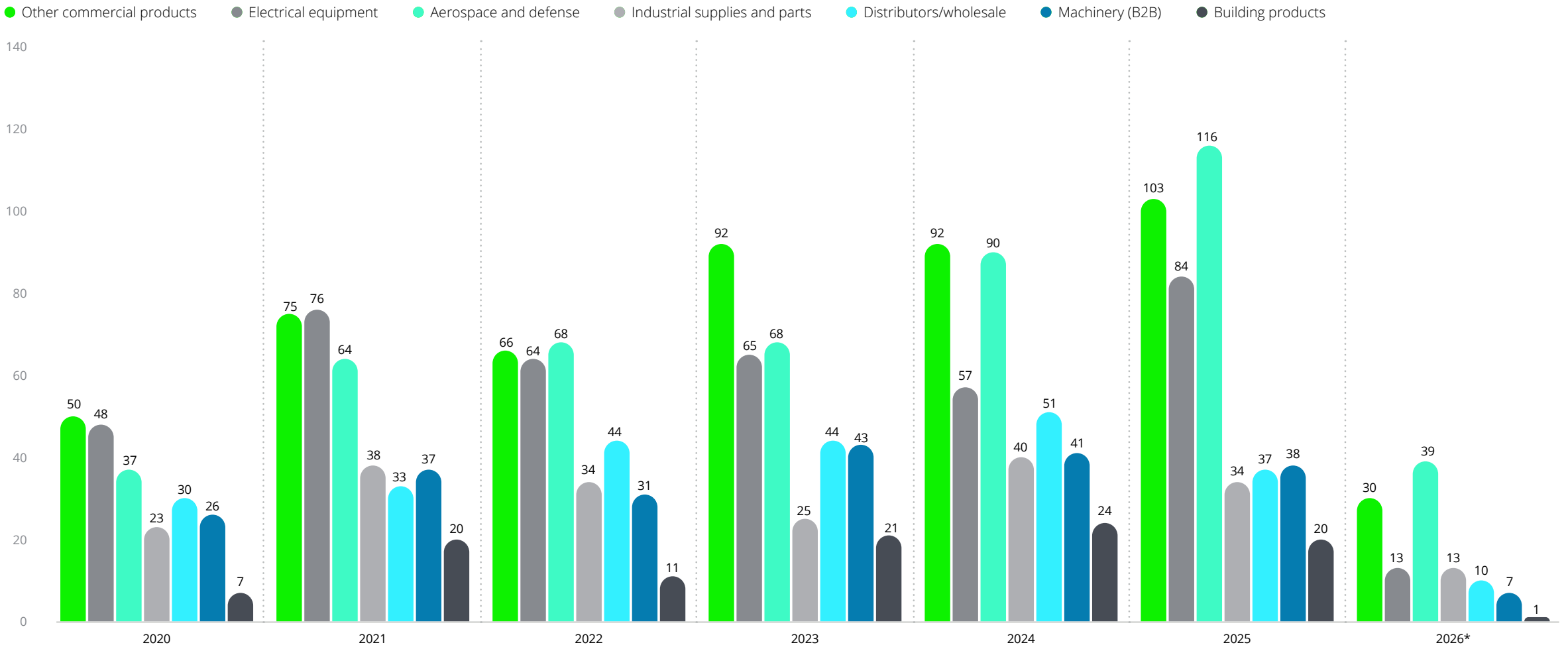
Within commercial transportation, road transportation led deal activity count, generating $491 million across 18 deals, while air transportation generated well over $800 million in deal value. Air and marine subsectors each recorded lower but notable activity, while rail transportation saw a meaningful increase in deal count to six transactions in 2025, up from just one in 2024. Because these are nontraditional sectors for expansion-stage deal value, the lower deal counts and modest upticks likely reflect minor investments in adjacent emerging technologies.

"VC funding is focusing on pioneering and enabling technologies at the very earliest stages of the innovation curve, whereas more mature PE capital and larger investors are throwing large dollars at industrial-scale projects. The two are playing very different games in the same space."

Justin Yahr
Audit & Assurance Partner and
National Emerging Company Growth Leader
Deloitte & Touche LLP

Sector trends

Expansion-stage commercial products deal count by subsegment



Source: PitchBook | Geography: US | *March 31, 2026

Spotlight

First-time and follow-on financing patterns reveal the pipeline taking shape

The composition of expansion-stage deal activity between first-time VC financings and follow-on rounds offers insight into where new companies are entering these sectors and where existing portfolio companies are attracting additional capital.

In energy, first-time VC financings expanded significantly in 2025, with deal counts increasing from 36 to 48 and deal value nearly tripling from $1.2 billion to $3.2 billion. This acceleration suggests a broadening pipeline of companies entering the energy sector at the expansion stage, potentially drawn by the structural demand drivers associated with data center power requirements and grid modernization. At the same time, follow-on investors deployed $9.2 billion across 54 deals, representing approximately 47.5 percent of total energy deal value—up from 42.8 percent in 2024.

The parallel expansion of both first-time and follow-on activity indicates an energy investment ecosystem that is growing from both ends: New entrants are increasing the breadth of the investable universe, while established portfolio companies are absorbing larger subsequent rounds.

In commercial products, first-time financings also grew, with deal counts rising from 83 to 93 and value increasing from $344 million to $891 million. Follow-on activity was even more pronounced, accounting for $13.4 billion across 106 deals—roughly 75 percent of total sector deal value. This outsized follow-on share suggests that investors in commercial products are primarily scaling existing investments rather than diversifying into new platforms.

"A new class of growth capital is coming into this space—whether you call it infrastructure, AI infrastructure, or energy infrastructure, it all goes together. It's not replacing what has typically come into traditional energy infrastructure, but rather emerging alongside it. The industry can handle it, and probably more, as the dollars in this space are so significant that funding is originating from multiple sources."

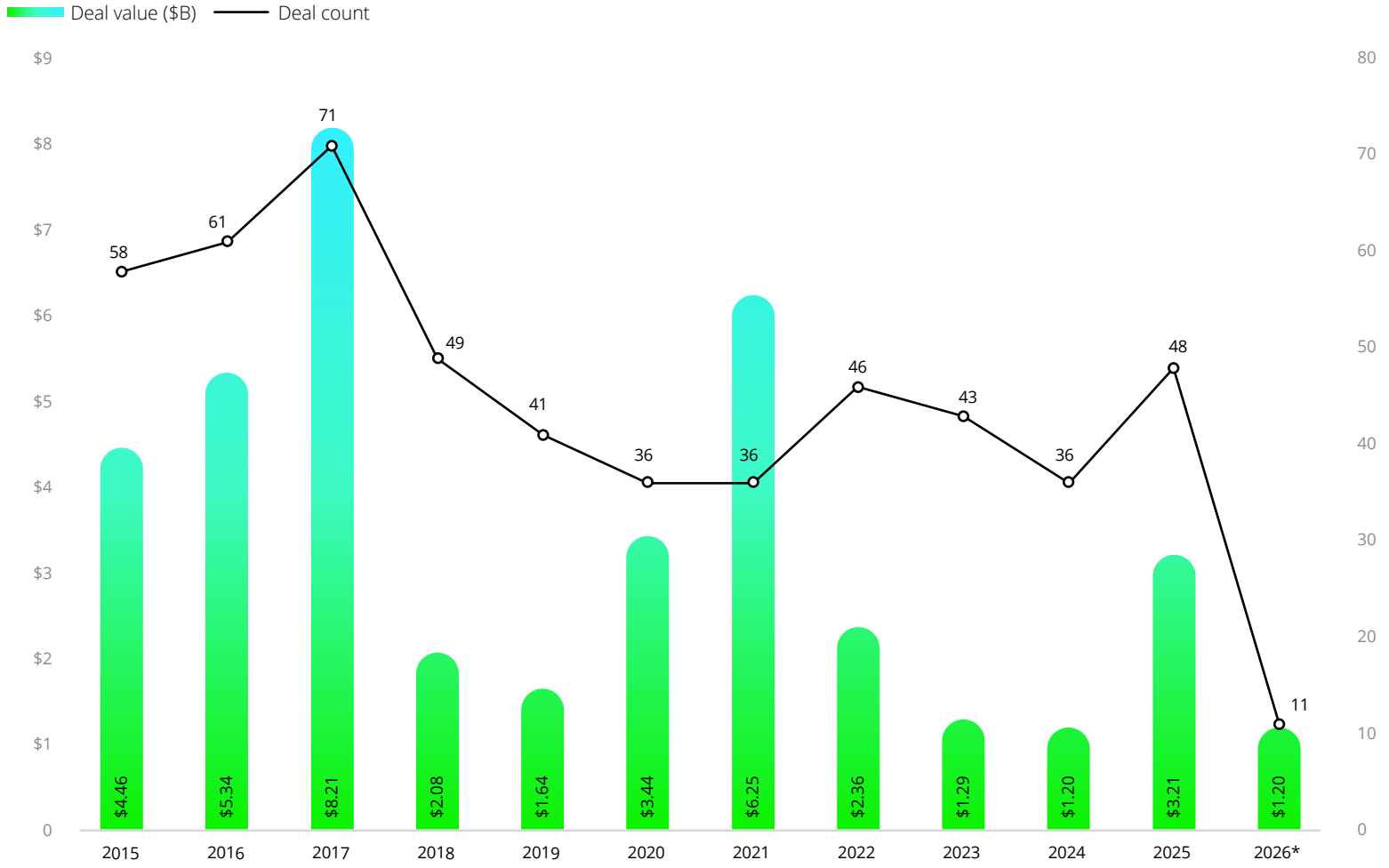
Amy Parker
Audit & Assurance Partner and
West Region Energy Tech Audit Leader
Deloitte & Touche LLP

Spotlight

Semiconductor follow-on financing accounted for $3.1 billion across 24 deals in 2025, representing approximately 60 percent of total sector deal value, down from over 80 percent in 2024. First-time financings in semiconductors remained limited in both count and value, reflecting the capital intensity and extended development cycles that continue to characterize the sector and make initial VC entry relatively rare.

Overall, these patterns suggest that the physical-world investment pipeline is deepening across sectors, with energy showing the most balanced expansion between new and existing companies and commercial products exhibiting the strongest follow-on momentum.

First-time energy VC financing activity



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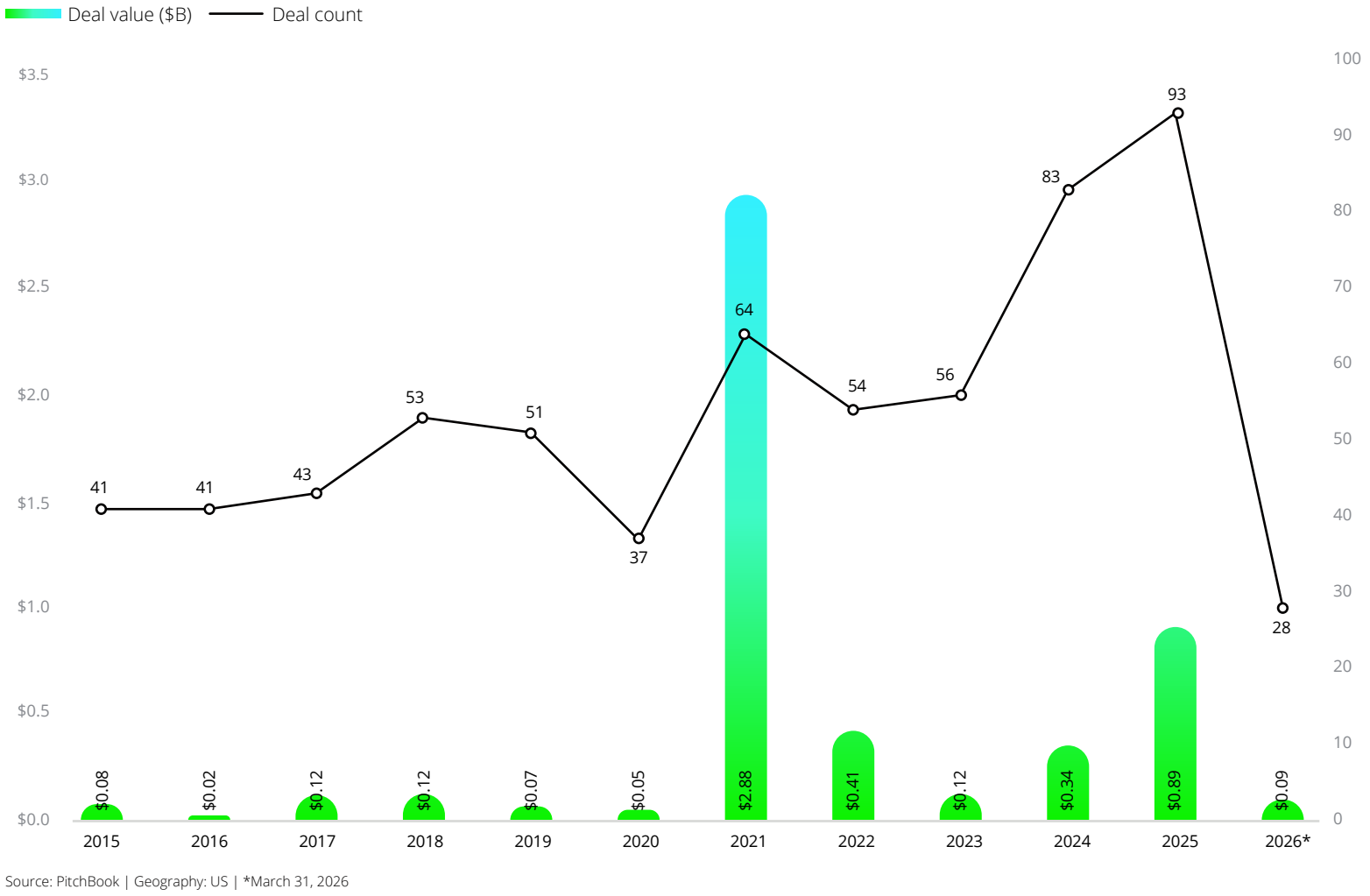
Spotlight

First-time commercial products VC financing



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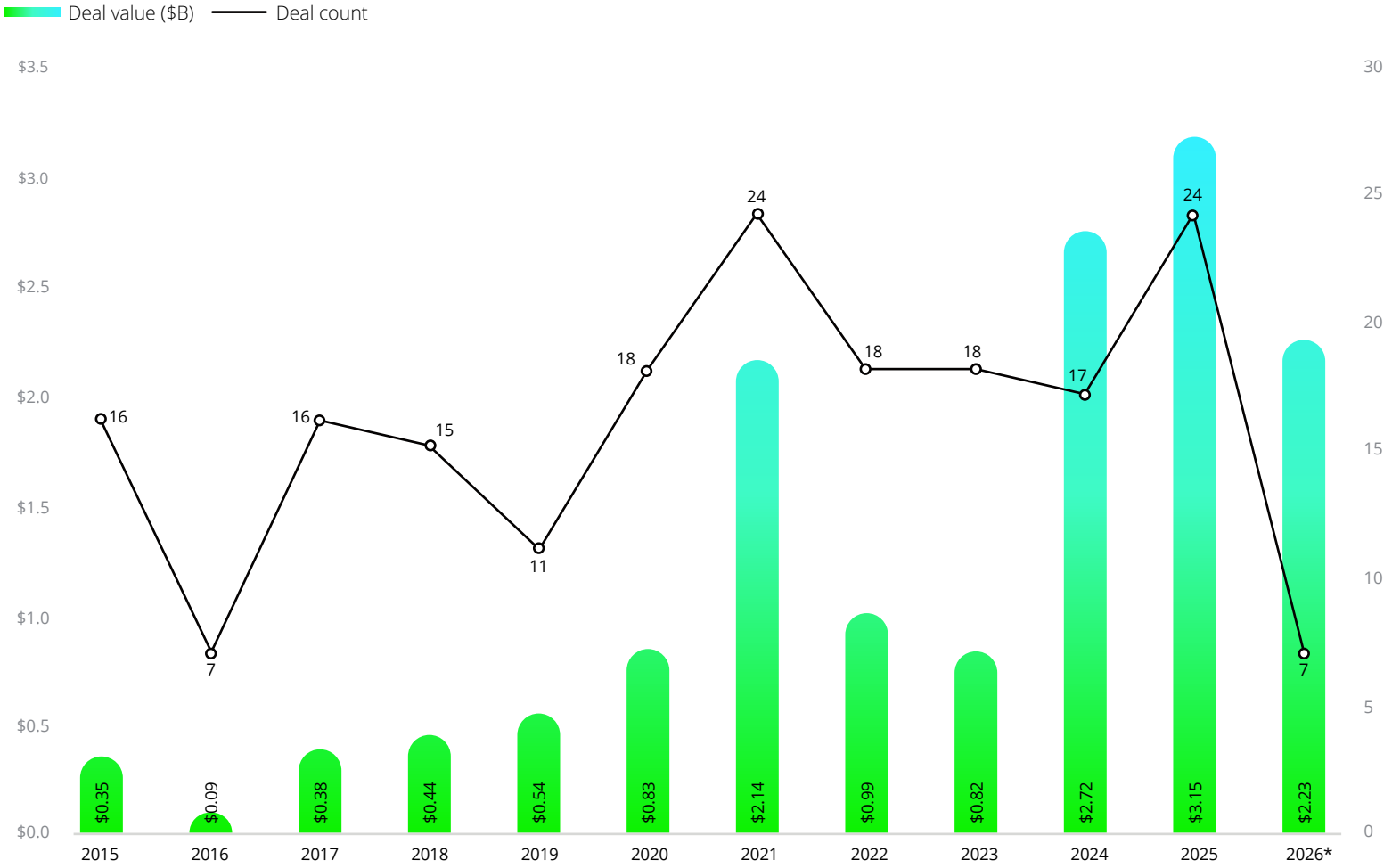
Spotlight

Follow-on expansion-stage semiconductors deal activity



Source: PitchBook | Geography: US | *March 31, 2026

Regional trends

Energy dealmaking disperses far beyond traditional tech corridors

The geographic distribution of expansion-stage energy deals in 2025 stands in sharp contrast to the coastal concentration that defines most tech-oriented activity. In energy dealmaking, this broader dispersion illustrates how resource proximity, grid infrastructure, and policy environments are shaping where capital flows. Investors are increasingly taking notice of key hubs where physical space and infrastructure outweigh proximity to established dealmaking arenas.

Houston led all markets by deal count with 24 transactions in 2025, a 50 percent increase from the 16 deals recorded in 2024. The region's deep existing infrastructure in energy production, pipeline networks, and workforce expertise continues to make it a natural home for expansion-stage energy companies, even as the composition of deals shifts away from upstream exploration toward alternative energy equipment, grid infrastructure, and energy storage. This transition is aided by the transferability of skill sets and existing industry capacity, which provide a natural lift for launching related platforms. Combined with Austin's four deals, Texas hubs accounted for approximately 15 percent of all energy deal counts in 2025.

Beyond Texas, the dispersion of energy deal value was notably broad. Washington, DC, recorded $1.6 billion in deal value across 10 transactions, likely reflecting its proximity to federal energy policy and procurement channels. Denver generated $1.5 billion across five deals, and Chicago posted $1.5 billion across six deals—both regions with long-standing ties to energy production, transmission, and industrial infrastructure. Los Angeles recorded 19 deals totaling $1.4 billion, a 73 percent increase in deal count over 2024, while Seattle posted $1.3 billion across five transactions.

Regional trends

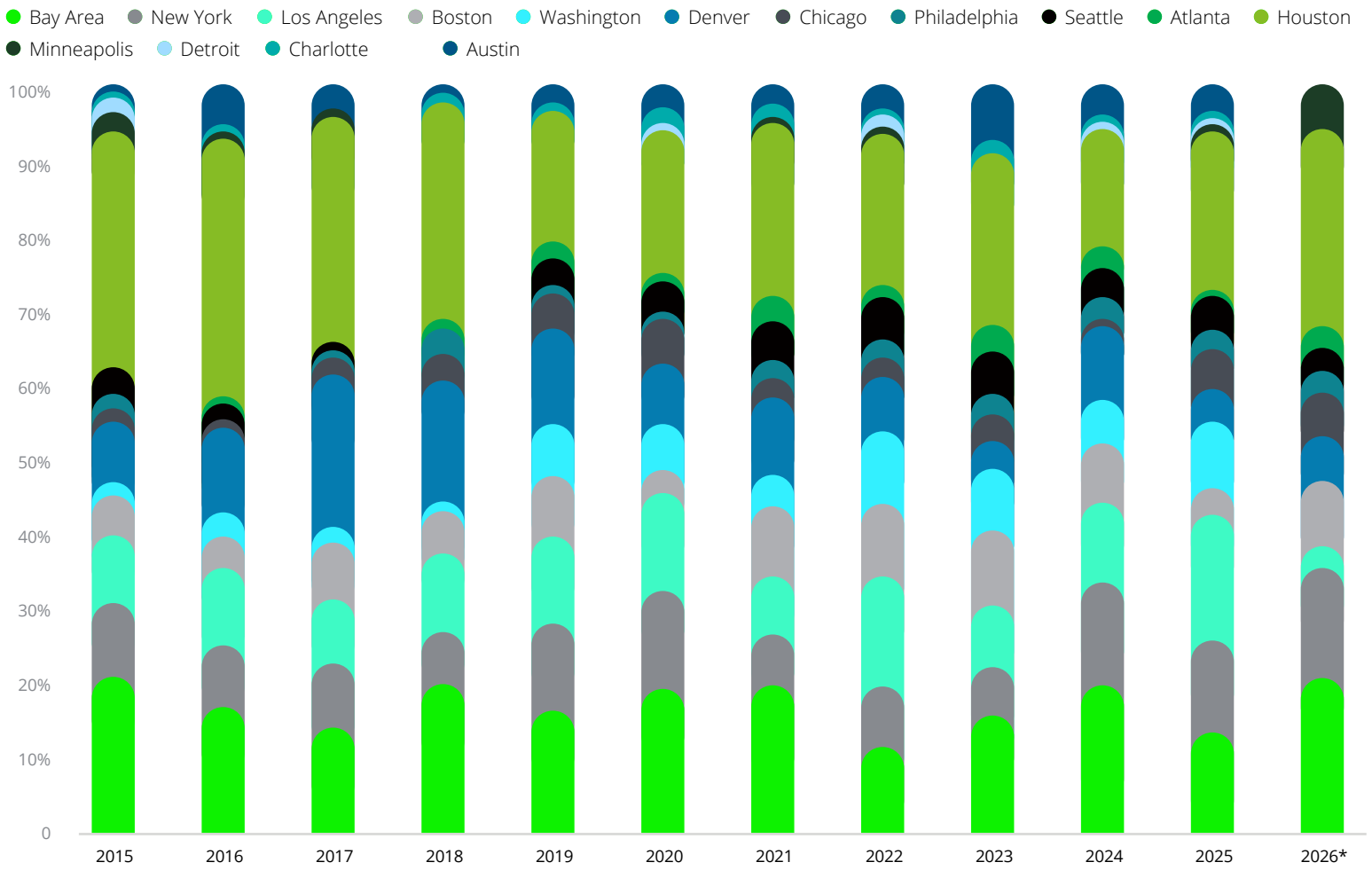
Over the longer term, several nontraditional markets have shown sustained growth in energy deal activity. Washington, DC, posted a 10-year compound annual growth rate of approximately 17.5 percent in deal counts, and Chicago grew at roughly 11.6 percent over the same period, although both started from small bases. Los Angeles also expanded steadily at approximately 6.6 percent annually.

"Places that previously weren't on our radar are popping up, with characteristics like favorable regulatory environments, access to space, and access to utilities. Rural areas that were never really on the map are starting to appear on the utility-scale map."

Justin Yahr
Audit & Assurance Partner and
National Emerging Company Growth Leader
Deloitte & Touche LLP

Regional trends

Share of expansion-stage energy deal count by top US metros



Source: PitchBook | Geography: US | *March 31, 2026

This geographic footprint differs fundamentally from the pattern observed in software, AI, and other digital sectors, where the Bay Area and New York together consistently account for 30 percent to 40 percent or more of deal activity and value.

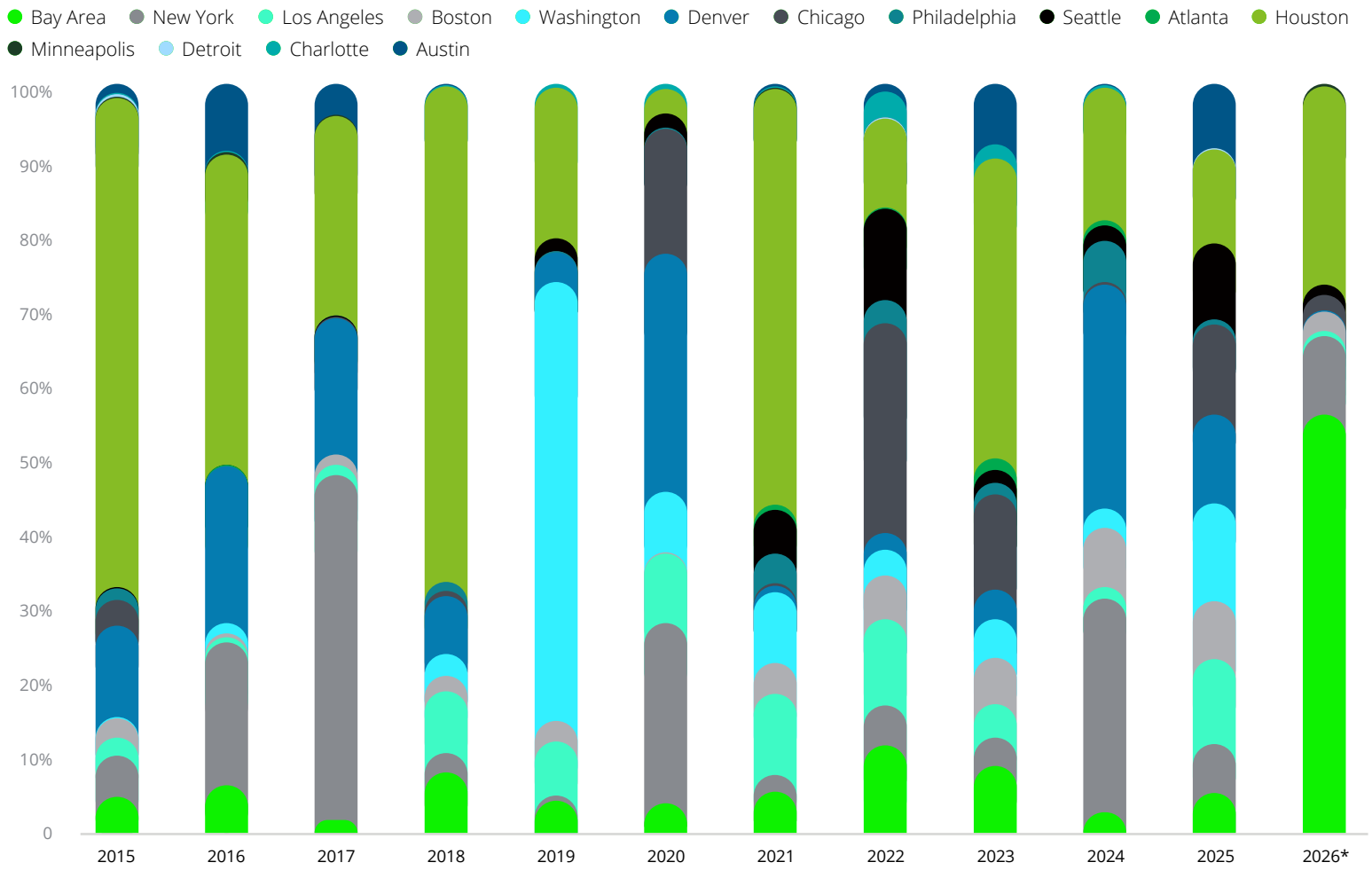
Energy dealmaking is shaped by a distinct set of locational factors (i.e., proximity to natural resources, grid interconnection points, regulatory environments, and existing energy workforce clusters) that tend to distribute activity across a broader set of US markets. For investors evaluating opportunities in expansion-stage energy companies, this dispersion means that deal sourcing and portfolio monitoring require a wider geographic lens than what is typical in technology-focused strategies.

Regional trends

"Where you can build drives valuation. Texas continues to be a pretty clear winner—attracting data centers, semiconductor manufacturing, and aerospace and defense. On the infrastructure side, you're looking for return on assets: How quickly can you build, scale, and start earning on those assets, which can tie directly into the pace of building."

Amy Parker
Audit & Assurance Partner and
West Region Energy Tech Audit Leader
Deloitte & Touche LLP

Share of expansion-stage energy deal value ($M) by top US metros



Source: PitchBook | Geography: US | *March 31, 2026

Looking forward

Physical-world investment is positioned for continued, if selective, growth

The trends observed across these four sectors in 2025 and early 2026 point to a structural shift in expansion-stage capital allocation rather than a cyclical uptick. The forces driving investment, such as AI infrastructure build-out, semiconductor supply chain reshoring, energy capacity expansion, and defense industrial base modernization, are long-duration themes that appear unlikely to reverse in the near term.

Deal value is likely to continue outpacing deal volume in 2026. The capital intensity of physical-world businesses means that individual transactions will remain large relative to those in software-oriented sectors, and median deal sizes may continue to rise as companies move into later stages of development. Follow-on financing is expected to remain the dominant source of capital in these sectors, given the long development timelines and substantial scaling requirements that characterize companies in the energy, semiconductor, and commercial products sectors.

First-time VC activity in energy, which expanded meaningfully in 2025, is worth monitoring as a leading indicator. If the current pipeline of new expansion-stage entrants sustains its growth trajectory, it could support a broader base of investable companies over the next several years—potentially easing the concentration risk that currently defines these markets. In semiconductors, the interplay between public funding programs and private capital will be a defining factor, as companies navigate the transition from development-stage investment to commercial-scale production.

"We saw a similar pattern emerge with social media platforms—there was always a question of how anyone would ever monetize the investment. We know how that played out. The monetization story here isn't fully in focus yet, but as it becomes clearer, that's when you'll see winners emerge."

Justin Yahr
Audit & Assurance Partner and
National Emerging Company Growth Leader
Deloitte & Touche LLP

Looking forward

Regional diversification is also likely to continue. While the Bay Area, Los Angeles, and Houston will remain anchors of physical-world dealmaking, the steady growth of activity in Denver, Austin, Seattle, and other secondary markets suggests that the geographic footprint of these industries is expanding. For investors and companies alike, the coming quarters will test whether the capital commitments made in 2025 can translate into durable operational scale across an increasingly complex set of physical-world challenges.

"18 to 24 months feels like a safe bet for continued investment and build-out. But behind the scenes, supply chain continuity remains critical, which is where potential strains could emerge. Bottlenecks in chips and fabs could occur, and even with all the capital expenditures flowing, it will take time to ramp up capacity. That lead time adds complexity to every timeline in this space."

Justin Yahr
Audit & Assurance Partner and
National Emerging Company Growth Leader
Deloitte & Touche LLP

Methodology

Geographical region: United States

The **expansion stage** is defined from a transactional perspective as including late-stage venture or growth financings as defined by PitchBook. All investment data is restricted to late-stage VC, venture-growth, PE-growth, or corporate financing types, as defined by PitchBook. **Nontraditional investors** are defined as hedge, mutual, or sovereign wealth funds.

Active investors: The number of active investors is calculated by including either investors that have raised a venture or growth fund in the trailing five years or those that have made four or more VC- or PE-growth investments in the past three years. There is no exclusion on investor type, apart from angel investors.

Exits: All exits are defined by PitchBook's primary exit types: buyouts, acquisitions, and public listings, which include direct listings, traditional public listings, and special purpose acquisition companies, as well as "additional liquidity events after the public listing," explained in further detail below. The underlying companies are those that have, at minimum, achieved any of the investment data under restrictions. In the Q2 2023 edition of the Road to Next series, a fourth category of exit was debuted, explicitly for companies that had undergone a public listing. To better capture liquidity for investors' post-lockup periods and for longer-term holders of shares that liquidated after the public listing in general, additional liquidity events classified as secondary market offerings on the open market, secondary public offerings, and private investment in public entity (PIPE) deals were also included. Private investors often hold their shares beyond the initial offering and then utilize additional offerings or secondary market transactions, as well as sales to new investors when firms seek a PIPE. Up to three additional liquidity events were included.

Updates: For editions beginning in 2023, underlying methodologies were changed due to PitchBook's methodological changes and incorporation of new pre-seed, seed, and venture-growth stages, which will shift numbers slightly yet be more accurate going forward. A new exit methodology was also incorporated, including the breakout of post-IPO liquidity events.

Endnotes

1. Andrew Obin, "U.S. manufacturing's high-voltage growth," BofA Securities, January 22, 2026; Christian Frank et al., "AI investment accelerates across U.S. tech while cost pressures intensify broadly: Ratings impact mostly positive," S&P Global, May 7, 2026.
2. International Energy Agency (IEA), Electricity 2025, February 14, 2025.
3. Jim Corridore, Aerospace & defense report, PitchBook, updated February 24, 2026.

Deloitte.

Data provided by PitchBook

Data provided by PitchBook. This report was written in late April 2026. All data is as of March 31, 2026, unless otherwise noted.