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A Green Street Company

US climate tech crossroads: Insights from Gastech Milan

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16/09/2025

After investors pumped record levels of capital into global clean energy projects in 2024, US investors are zeroing in on carbon capture and blue ammonia even as policy shifts force them to forge unique partnerships and rethink financing structures.

At Gastech in Milan, Italy, clean energy investors and industry leaders said the $2.1 trillion invested in the sector in 2024 bodes well for the future of climate technology investment, even amid evolving regulatory landscapes and fierce competition for capital.

“Capital alone won’t bridge the gap between pilots and bankable assets,” said Dr. Ahmed El Sherbiny, co-head of the Energy Transition Fund at Copenhagen Infrastructure Partners. “We closed our first final investment decision (FID) in Louisiana this year – [the St. Charles] blue-ammonia plant with carbon capture – by acquiring 49% of a gas company’s CCS business.”

El Sherbiny noted that US tax credits are still driving flows: Section 48E incentives for green hydrogen and renewables remain intact, while Section 45E carbon-capture credits weathered recent tweaks.

“Regulatory stability attracted more than 52 announced green and blue ammonia projects in the past two years,” he said. “Banks require cost-certainty guarantees from EPC contractors before they’ll lend, so wrap guarantees are now table stakes.”

In this environment there is potentially an increased role for private capital, Yair Reem, co-founder and partner at Extantia Capital, said at the conference. Venture and growth investors are revisiting once-nascent technologies.

“Cost curves only bend once you deploy,” Reem said. “Denmark’s wind farms in the 1970s and lithium-ion batteries in the 1990s weren’t bankable at first. Early backers took risks and developed financing engineering that kicked off learning-curve effects. Today, electrochemical carbon capture can halve the levelized cost of capture; it just needs a leap of faith.”

US venture capital remains the largest climate-tech pool globally, Reem said.

“North American CVC and VC funds collectively raised over $35 billion for clean-tech in 2024 – twice Europe’s total,” he said. “The UAE and Saudi Arabia are closing in via sovereign green-hydrogen funds, but US policy clarity still gives American startups an edge.”

Guido D’Aloisio, chief commercial officer at Italian engineering and services firm Saipem, warned that “bankability has become a bad word” after abrupt subsidy changes in US offshore wind.

“When incentives disappear, project costs spike,” he said. “Banks push back, saying ‘this isn’t bankable,’ and deals stall. We integrate technologies like UVIA ammonia and NEL’s green-hydrogen modules daily, but without stable policy and cost guarantees, we can’t underwrite long-term offtake agreements.”

D’Aloisio also pointed to competition from traditional oil and gas.

“In 2024 and 2025, US oil-and-gas capex reached its highest level since 2014,” he said. “That has siphoned nearly 15% of private equity and asset manager allocations away from renewables and CCUS.”

Inflection points and persistent barriers

Limited finance isn’t the only barrier, Charlie Sanchez, head of infrastructure advisory at Black & Veatch, said at the conference. Successful projects now require offtaker and community backing from day one.

“We’ve seen offtakers join at inception to cap build costs and secure long-term supply contracts,” Sanchez said. “That ecosystem collaboration makes projects bankable. Lenders are more receptive when they see stable revenue streams underpinned by credible partnerships.”

Sanchez emphasized the shift to longer horizons.

“We’re seeing US infrastructure funds embrace 30-year hold periods and tempered IRR expectations,” he said. “That aligns capital markets with climate-tech lifecycles, where learning-curve payoffs unfold over decades.”

While CCS and blue ammonia grab headlines, other segments are heating up.

El Sherbiny said CIP is “spending significant time on direct-air capture,” targeting technologies with levelized capture costs below $150 per ton and viable off-take of carbon removal certificates.

“E-methanol and advanced SAF are also in our pipeline,” he said, noting that feedstock constraints for biogenic CO_2 remain tight.

Reem pointed to electric heat pumps and biogas as “already cheaper than fossil-fuel alternatives in many US regions,” citing an estimate that US residential heat-pump installations rose 28% in 2024, driven by state rebates and utility incentives.

“We've crossed the inflection point in green electricity costs – now we’re seeing that in green molecules,” Reem said.

Despite progress, developers warn that US policymakers must lock in long-term signals.

“Nothing spooks investors more than tax credits set to expire in six months,” D’Aloisio said. “Congress needs to extend 45Q and 48C credits on 10- to 15-year schedules to match project horizons.”

El Sherbiny agreed. “Stable policy is the catalyst that turns pilots into gigatons of emissions reduction,” he said. “Without it, trillions on the sidelines will remain idle.”

With US clean-energy investment expected to exceed $850 billion in 2025, attendees said the country stands at a tipping point.

“We have the capital, the technologies, and the contracting models,” Reem said. “Now we need durable policy and genuine collaboration across finance, engineering, and offtake to move from demos to gigawatts and gigatons.”