

Trends Review, February 2026

The Climate & Energy Tech Grand Pivot:

From advancing the 'energy transition', toward **energy resilience, resource security** and **economic competitiveness**

A review by NetZero Tech Ventures examining the trends reshaping where expert investors invest in climate tech today.

The Strategic Reset

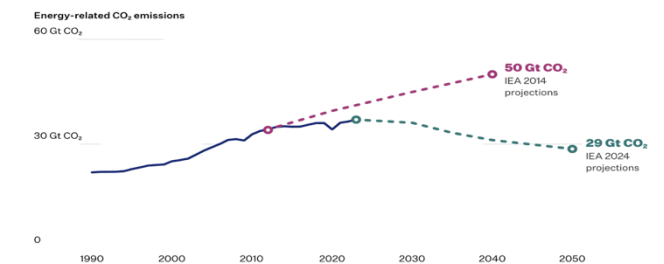
The climate-tech ecosystem is undergoing its biggest strategic shift in a decade. The global interest is **changing from "phase out fossil fuels" to a more pragmatic goal: delivering resilient, abundant, and clean power to meet surging demand and strengthen energy sovereignty.**

In the U.S., the perceived urgency to invest purely to bend the global emissions curve has eased—driven by a federal policy pivot toward sovereignty, and resilience, and by a belief that innovation has perhaps reduced the imminent risk of a climate catastrophe. The EU, Canada, and parts of Asia maintain a stronger commitment to cutting emissions, albeit with a tougher emphasis on energy security and affordability.

Climate-tech investors are rebranding as AI-enabling infrastructure investors, refocusing on opportunities at the intersection of decarbonization and energy supply. At the same time, climate tech is becoming embedded in national strategies, opening new opportunities in domestic production, such as critical minerals production, and in circular-economy technologies that reduce dependence on fragile supply chains.

Once again, the bar has risen: Investors increasingly recognize that climate-tech must show clear paths to demand and cost efficiency while staying policy-resilient. Many clean solutions still struggle to compete on price with incumbents and require consumers to pay a green premium before they scale. Shrinking this premium—closing the cost gap to legacy options—remains a critical barrier to widespread deployment of technologies that support climate goals.

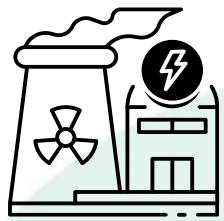
Innovation has cut future emissions



Source: IEA. Note: IEA 2014 refers to the Current Policies Scenario, and IEA 2024 to the Stated Policies Scenario, from their respective years.

*“Although climate change will have serious consequences — particularly for people in the poorest countries — it will **not lead to humanity’s demise.**”* – Bill Gates, Oct 2025.

Key Industry Shifts



From 'saving the planet' to '**abundant energy and resources resilience**'.

Climate & energy tech is no longer approached as an imperative to curb emissions — it is **becoming the backbone of the digital economy**.



From hype to **fundamentals**.

The bar has risen: climate-tech needs a credible route to low costs and **products that satisfy demand regardless of policy swings**.

Priority Investment Themes

Where is capital expected to flow in climate & energy tech in 2026?

In this review, NetZero Ventures groups climate-tech investment themes from the perspective of early-stage expert investors into three clusters:



The Heat

Where capital is flowing fastest, as themes are closely aligned with national security & industrial strategies



The Breeze

Where interest remains due to existing supporting policies and regulations, but where capital is more cautious



The Cooling Down

The biggest question marks, particularly from the perspective of early-stage investors, as technology face tough competitive dynamics, driven primarily by China's dominance in manufacturing and supply chains



The Heat

Boiling Investment Priorities for 2026

The first cluster comprises investment themes benefiting from accelerating demand, underpinned by clear economics and alignment with national security and industrial strategies: in particular, **anything that can deliver steady, large amounts of power for data centers to ensure AI predominance, as well as resource materials independence and supply chain resilience for domestic manufacturing capabilities.**

Fastest growing priorities, aligned with national security & industrial strategies



1. Reliable clean power

Geothermal, advanced nuclear, and data-center energy solutions



2. Data-centers thermal tech

Technologies for thermal management of energy-intensive compute infrastructure



3. Grid

Increased capacity, resilience and management; urgency driven by AI demand and renewable integration



4. Supply-chain resilience & independence

Critical minerals, circular manufacturing, and advanced recycling for AI, defense, and advanced manufacturing

Hot Investment Theme

1. Reliable Clean Power

In the Heat cluster, the first group of technologies driving investors' attention are those that power AI: Energy is now widely understood as basic infrastructure to power national AI capabilities. The scale of the challenge shows up in the numbers. The [IEA](#) reports that electricity use from data centers is rising about four times faster than global demand as a whole and will grow from 1.5% of global electricity demand in 2024 to 3% in 2030. In the US, [regulators](#) are already warning that power needs will hit record levels in 2026, with much of the pressure coming from AI workloads and the rapid build-out of new computing facilities.

Technologies in the Spotlight

Geothermal

Geothermal is clean and safe. With deep drilling, it can work almost anywhere—drilling and heat extraction are the key technologies.

Fusion

Fusion needs more than core reactor tech—breakthroughs in enabling areas like fuels are essential too.

Fission

Fission is widely viewed as the likeliest source of clean baseload power—if newer designs can make it safer and cheaper.

On-Site Dedicated Power Generation

With a 2–3 year power crunch, data centers are racing to secure local generation: gas turbines, CHP/cogeneration, engines and renewables.

Hot Investment Theme

2. Data-centers Thermal Tech

Investors are also bullish about technologies for thermal management and cooling for computing infrastructure. As AI accelerators and high-density servers concentrate more heat into smaller footprints, NetZero sees climate-tech investors increasingly backing liquid cooling solutions, immersion systems, advanced heat reuse & heat recovery systems, AI-driven thermal management & controls, and other electronics-cooling technologies that can be credibly framed as AI-enabling infrastructure. Investors keep tracking additional thermal management pathways, including active on-chip cooling, yet it is not clear yet who wins this space.

Leading Thermal Technologies

Liquid cooling solutions

These are preferred over existing air-cooling solutions used today (~10X cooling capacity w/ a liquid in a cold plate).

Immersion systems

Twice as effective as liquid cooling, the whole system is dipped in a special liquid (normally oil), which is then cooled.

Two-phase evaporation systems

Highest capacity to date, uses evaporation of a liquid to cool.
Can either be on the chip, or via an immersion system

Advanced heat reuse & recovery

The amount of waste heat is staggering, but it is difficult to use the low-grade heat, and out of the box thinking is needed

Hot Investment Theme

3. Grid

In the second group of Hot Tech themes, with demand rising faster than many expected, investors are prioritizing solutions that can not only supply the power but also expand the electricity grid and keep it stable, particularly in areas where there is high renewable energy penetration. NetZero points to grid-scale energy storage solutions (beyond Lithium-Ion), advanced power electronics & grid-forming inverters, high-voltage transmission & grid expansion technologies and grid digitalization, AI & advanced control software.

Grid-scale energy storage

Cost is king. Solutions beyond Lithium-Ion for large-scale power management

Advanced power electronics

Grid-forming inverters for stability and control
High voltage DC-DC transformers

Transmission

Simplified and accelerated installation and maintenance.
Increased capacity e.g. by retooling current infrastructure

Grid digitalization

AI & advanced dynamic control for optimization
Data based optimization of consumption and production

Hot Investment Theme

4. Supply Chain Resilience & Critical Minerals

Increasingly framed as energy security and industrial competitiveness

The third investment theme that is gaining momentum among climate tech investors is prioritizing domestic manufacturing capabilities/ 'supply-chain resilience', therefore **creating a new tailwind for 'circular economy' (recycling) technologies**. This is particularly strong in the topic of critical minerals and rare earths production.

Critical minerals are the essential raw inputs used across every sector of the economy and underpin a wide range of strategic technologies – from semiconductors and solar panels to advanced defense systems and AI chips. Since President Trump took office, securing reliable access to critical minerals has been elevated as a core pillar of U.S. foreign policy and national security strategy, to combat China's dominance that creates dependence and puts economic growth at risk.

📄 U.S. Push for Resilient Supply Chains

- The U.S. administration launched the Pax Silica initiative (2025) to secure supply chains in energy, critical minerals, advanced manufacturing, and computing with key allies including Australia, Japan, the UK, South Korea, Singapore, Israel, the UAE, and the Netherlands.
- The U.S. is also advancing major critical-minerals funding and equity initiatives, plus a proposed bipartisan CIRCLE Act offering a 30% tax credit for recycling/reuse facilities.



The Breeze

Remaining, but on Stricter Terms

This investment cluster includes themes that remain relevant but are heavily dependent on policy and regulatory incentives; as a result, capital has become more selective—flowing toward solutions that are genuinely cost-competitive and capable of scaling at meaningful levels.

Still relevant, stricter scrutiny; heavily dependent on regulations & incentives

Built environment energy efficiency

Driven by U.S federal tax incentives, building performance requirements and carbon caps (such as NYC's Local Law 97).

Next-gen fuels

SAF, Bio-Fuels, e-Fuels for aviation, maritime and mobile applications. Methanol, Ethanol and Ammonia drive strong interest. EU's ReFuelEU framework and the Renewable Fuel Standard in the US drive demand.

CO₂-to-value

Carbon capture & storage funding is cooling until demand and returns clarify; interest remains in profitable emissions utilization (graphite/graphene, fuels) – business models that do not rely on carbon credits.

Low-cost clean hydrogen

Interest is shifting from green hydrogen—hurt by high costs and slow project ramp—to nearer-term bets like methane pyrolysis, 'white' geological hydrogen, and enabling infrastructure such as hydrogen storage.

Breeze Investment Themes – expanded concepts



1. Sustainable Aviation Fuel & Alternative Fuels

With mandates still in place (particularly Europe's binding blending targets under ReFuelEU Aviation), innovation aiming to produce Sustainable Aviation Fuel (SAF) remains a strong focus. Supply shortages - there is little chance of meeting the 10% SAF target by 2030) fuel this innovation space further.

NetZero believes that alternative fuels will gain more interest in the near future, as they answer to the key needs of the Heat category, namely continuous resilient power. Shipping is moving slower: the International Maritime Organization (IMO) maintains a broad decarbonization strategy but paused detailed net-zero rules for a year, leaving European mandates as the single near-term driver of ammonia and e-methanol adoption in the maritime industry.

2. CO₂-to-Value Solutions

CO₂-to-value solutions form another related theme. Demand from oil and gas producers to address operational footprints is real, and companies are exploring carbon capture, storage, and removal, as well as conversion into fuels or materials. However, NetZero observes that investors are cautious about business models that depend heavily on carbon credits or volatile offset markets. The thesis that gains more traction is one where captured carbon becomes an input into products with independent, durable economic value rather than relying primarily on policy-driven credit prices.

Breeze Investment Themes – expanded concepts



3. Built Environment Efficiency

Energy efficiency for the built environment (outside of data centers) is another theme that remains a focus albeit a cautious approach by investors. Hyperscale facilities have attracted attention for optimization and cooling. However, efficiency in buildings, commercial refrigeration, and other industrial processes remains a significant, underexploited segment. NetZero points to policies like New York City's [Local Law 97](#), which placed carbon caps on most buildings over 25,000 square feet from 2024 and further tightened those limits for 2030, as examples of regulations that can unlock retrofit and efficiency markets.

4. Next-gen clean Hydrogen

In this cluster, an important topic is Hydrogen. Most investors are clearly losing interest due to lack of ability of green hydrogen technologies to prove cost-efficiency. However, Hydrogen innovation remains central for cutting emissions in steel, chemicals, and sectors that cannot electrify, or as a basis for fuels that will feed these industries, such as synthetic kerosene, SAF and methanol. Still, many of the big projects have slipped as economics, permits, and market demand have not lined up. NetZero notes that investors who stay in the space are shifting their attention toward technologies that have proven cost-effective pathways, such as methane pyrolysis, niche breakthrough electrolysis technologies, and exploration of naturally occurring "white hydrogen" deposits.



The Cooling Down Areas

The Question Marks: When Innovation Meets Industrial Incumbents

This category covers technologies where innovation struggles to compete with highly industrialized incumbents. NetZero sees this most clearly in solar and EV battery manufacturing, where Chinese producers and large global conglomerates dominate the value chain through scale, aggressive pricing, and continuous optimization cycles. That dominance makes it difficult for early-stage investors to back new entrants without a clear path to significant cost advantage or differentiation.

A similar tension shows up in low-carbon materials and petrochemical alternatives. While sustainable polymers, bio-based inputs, and other novel materials receive strong rhetorical support, NetZero notes that many of these solutions still face a "green premium" and a lack of clear demand. Without comprehensive policy mandates or procurement

standards that recognize their value, investors are asking whether enthusiasm will translate into scaled projects or whether these innovations will remain niche. Furthermore, incumbent petrochemical products continue to benefit from cost and infrastructure advantages.

The Cooling Down

Interest in these areas isn't disappearing—but early-stage investors find it increasingly challenging to get involved unless companies demonstrate clear differentiation, credible paths to cost parity with fossil incumbents, or strong regulatory pull.

- Battery innovation - particularly lithium-ion
- Fuel-cell hydrogen technologies
- Solar & wind power innovation

“Investors now understand that winning climate-tech companies must pair **clear paths to cost efficiency, with policy-resilient technologies that meet real market demand.**”



Dr. Gideon Friedmann, CTO at NetZero Tech Ventures and former Chief Scientist at the Israel Ministry of Energy

NetZero Ventures is the foremost early-stage investor and venture builder in Israeli climate and energy deep tech. We are backed by world-class stakeholders including TotalEnergies, Eren Group, DelekUS, OSEG, and Innovative Power.

We have a venture-building approach which includes identifying promising hard science technologies from leading academic labs and creating robust companies around them, as well as investing in young companies where the core team is already in place. Thanks to our partnership with the Israel Innovation Authority, we effectively mitigate the financial risks associated with early-stage deep tech investments. **Learn more: www.net-zero.vc**

Sources

Selected conversations with climate and energy tech investors and corporates that informed our insights (September–December 2025)

- Australian Renewable Energy Association (Arena) (Australia)
- Freepoint (US)
- DKI (US)
- KBR (US)
- MKB (Canada)
- Chevron Technology Ventures (US)
- Orion Industrial Ventures (US)
- Third Sphere (US)
- Evonik Ventures (Germany)
- Electric Hydrogen (US)
- Eastern Pacific Shipping (Singapore)
- Wacker (Germany)
- Unovis Ventures (US)
- Halliburton (US)
- Grupo Pantaleon (Guatemala)
- Closed Loop Partners (US)
- Indie Bio (US)
- CSIRO (Australia)
- Orbia Polymer Solutions (US)
- TotalEnergies (US)
- Energy Impact Partners (US)
- Dow Ventures (US-Belgium)
- Climate Investments (US)

Key industry reports reviewed

- CTVC, [\\$40.5bn and 8% uptick as power demand drives '25 investment](#)
- Net Zero Insights, [The State of Climate Tech 2025](#)

Building bolder tech for a greener tomorrow?

We'd love to build it with you.

