



 EMERGING TECH RESEARCH

Clean Energy Report

VC trends and innovation spotlights

Q2
2024

REPORT PREVIEW

The full report is available through the PitchBook Platform.





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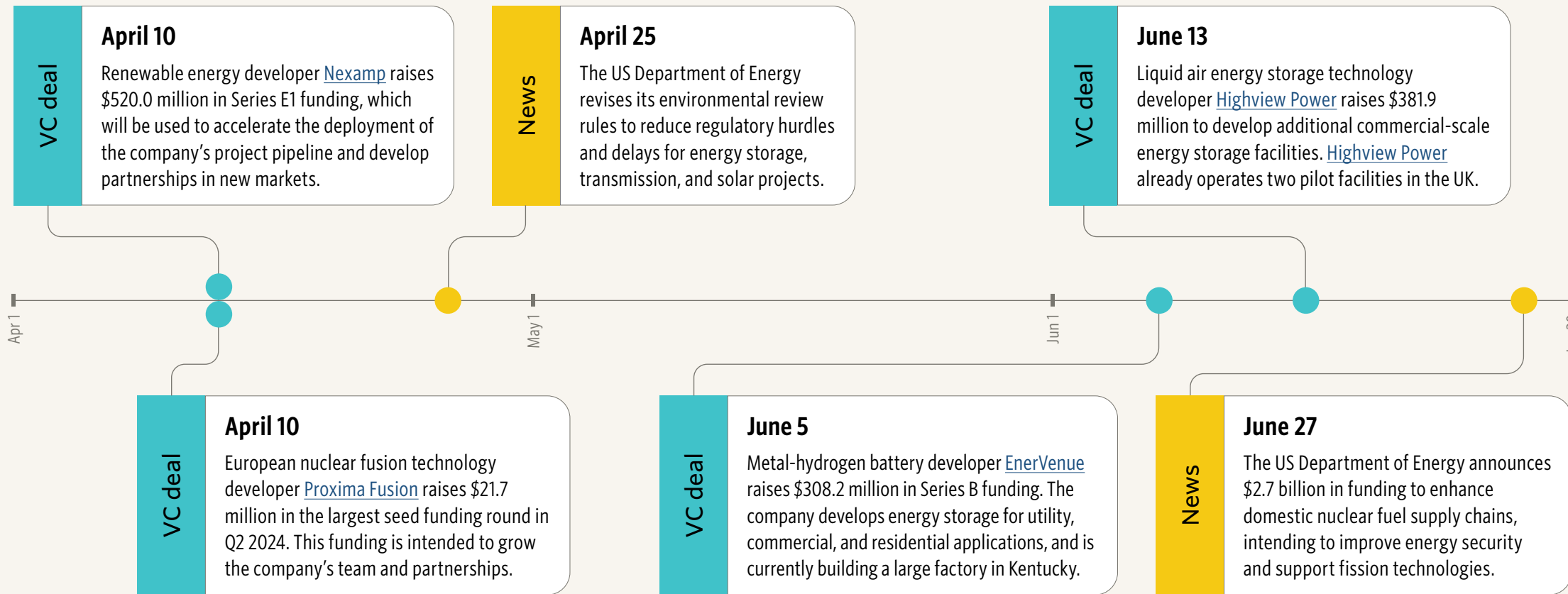
Publishing

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Q2 2024 timeline



Q2 VC deal count summary

232
total deals

2.2%
QoQ growth

7.4%
YoY growth

5.3%
YTD growth

Q2 VC deal value summary

\$4.3B
total deal value

-4.0%
QoQ growth

-12.9%
YoY growth

-2.2%
YTD growth



Clean energy landscape

- 1** Intermittent renewable energy sources
- 2** Dispatchable energy sources
- 3** Clean fuels
- 4** Grid infrastructure





Clean energy VC ecosystem market map

This market map is an overview of venture-backed or growth-stage companies that have received venture capital or other notable private investments.

1 Intermittent renewable energy sources

Solar photovoltaic (PV)



Solar thermal



Wind



2 Dispatchable energy sources

Geothermal



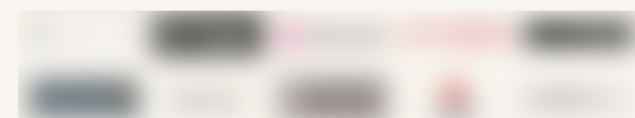
Hydropower



Nuclear fission



Nuclear fusion

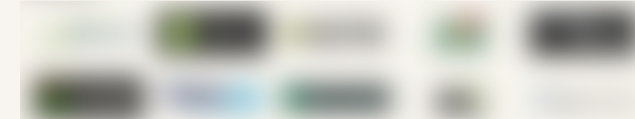


3 Clean fuels

Hydrogen



Biofuels



Waste to energy/fuel



Clean conventional fuels



4 Grid infrastructure

Battery storage



Nonbattery storage



Analytics & grid management





VC activity

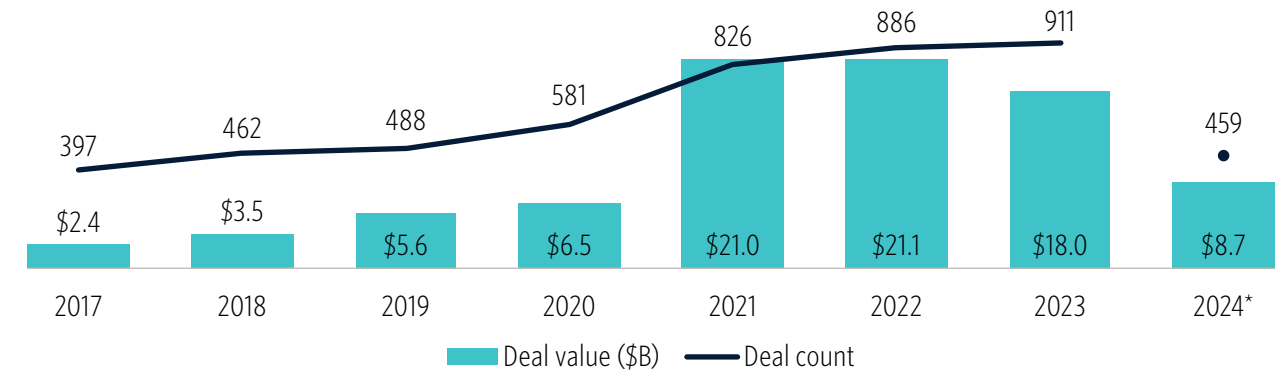
Halfway through 2024, VC deal activity into clean energy technologies has been somewhat flat, with \$8.7 billion in VC deal value from 459 deals, which—if H2 2024 shows similar deal activity—puts 2024 on pace to fall slightly short of 2023’s \$18.0 billion. M&A activity in the clean energy sector has been limited post-2022, falling from \$14.7 billion in M&A value in 2022 to \$2.6 billion in 2023, though H1 2024 has already seen \$1.9 billion, putting the year on track to exceed 2023. So far in 2024, the proportion of VC investment from Asia has fallen relative to 2023’s values, with both North American and European investments rising. Top VC investors into clean energy in 2024 include [Energy Impact Partners](#) with eight deals, [Climate Capital](#) with seven deals, and [Lowercarbon Capital](#) with six deals—18 additional investors had three to five deals in the space in H1 2024. From a quarterly perspective, Q2 reached \$4.3 billion in VC deal value for the clean energy space, a minor fall of 4.0%, whilst deal count rose by 2.2%.

In Q2 2024, the grid infrastructure segment raised \$2.6 billion—the highest VC funding, representing 60.1% of clean energy funding for the quarter. This was followed by intermittent renewable energy sources at \$1.2 billion, clean fuels at \$705.7 million, and finally dispatchable energy sources at \$305.1 million. Of the individual categories, battery energy storage overtook solar photovoltaic technologies as the largest category of the quarter, with \$2.3 billion in VC deal value, compared with \$1.1 billion for solar photovoltaics. Alternative energy storage tech from the nonbattery storage category was the third-largest category in Q2 2024, putting all three categories in the grid infrastructure segment in the top five categories by total raised this quarter.

The largest deals for the quarter were:

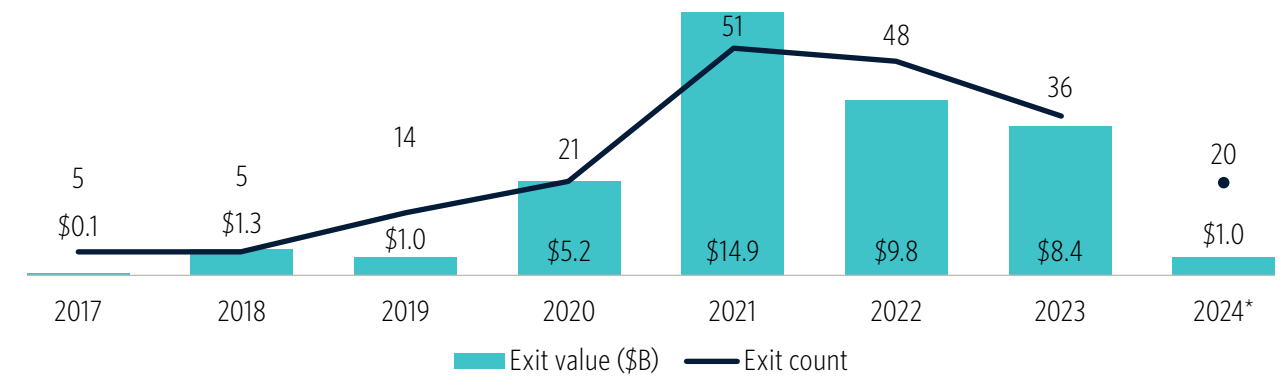
- \$520.0 million in later-stage VC funding raised by renewable energy developer [Nexamp](#).
- \$381.9 million in later-stage VC funding raised by liquid air energy storage company [Highview Power](#).
- \$375.0 million in Series G funding for lithium-ion battery developer [Sila](#).

Clean energy VC deal activity



Source: PitchBook • Geography: Global • *As of June 30, 2024

Clean energy VC exit activity



Source: PitchBook • Geography: Global • *As of June 30, 2024



VC ACTIVITY

Key clean energy pre-seed/seed VC deals in Q2 2024*

Company	Close date	Segment	Category	Deal value (\$M)	Post-money valuation (\$M)	Lead investor(s)
Proxima Fusion	April 10	Dispatchable energy sources	Nuclear fusion	\$21.7	\$186.1	Redalpine
Exowatt	April 22	Intermittent renewable energy sources	Solar photovoltaic	\$20.0	N/A	Sam Altman
Electronx	June 12	Grid infrastructure	Analytics & grid management	\$15.0	\$45.0	Innovation Endeavors
Found Energy	May 23	Grid infrastructure	Nonbattery storage	\$14.6	N/A	N/A
Curio Legacy	April 18	Dispatchable energy sources	Nuclear fission	\$14.0	N/A	Synergos Holdings
Airloom Energy	May 20	Intermittent renewable energy sources	Wind	\$11.1	\$27.1	Breakthrough Energy
Ore Energy	May 22	Grid infrastructure	Battery storage	\$10.8	N/A	N/A
Enteligent	May 14	Intermittent renewable energy sources	Solar photovoltaic	\$10.4	\$32.4	N/A
Terra One	April 25	Grid infrastructure	Analytics & grid management	\$7.5	N/A	Neosfer, PT1
AQUABATTERY	April 22	Grid infrastructure	Battery storage	\$6.5	N/A	EIT InnoEnergy

Source: PitchBook • Geography: Global • *As of June 30, 2024



VC ACTIVITY

Key clean energy early-stage VC deals in Q2 2024*

Company	Close date	Segment	Category	Deal value (\$M)	Post-money valuation (\$M)	Lead investor(s)
EnerVenue	June 5	Grid infrastructure	Battery storage	\$308.1	N/A	N/A
Hysata	May 8	Clean fuels	Hydrogen	\$112.6	\$272.3	Templewater, bp Ventures
Rondo Energy	June 10	Grid infrastructure	Nonbattery storage	\$105.0	\$1,218.1	N/A
Xcimer	June 4	Dispatchable energy sources	Nuclear fusion	\$100.0	\$203.0	Hedosophia
Type One Energy	April 29	Dispatchable energy sources	Nuclear fusion	\$50.0	\$115.8	N/A
M2X Energy	June 20	Clean fuels	Clean conventional fuels	\$40.0	N/A	Conifer Infrastructure Partners
Aether Fuels	June 27	Clean fuels	Waste to energy/fuel	\$34.0	N/A	AP Ventures
LanzaJet	June 25	Clean fuels	Waste to energy/fuel	\$30.0	N/A	N/A
enspired	May 14	Grid infrastructure	Analytics & grid management	\$27.3	N/A	Zouk Capital
Molten Industries	June 20	Clean fuels	Hydrogen	\$25.0	\$80.0	Breakthrough Energy

Source: PitchBook • Geography: Global • *As of June 30, 2024



SELECT COMPANY HIGHLIGHTS: HIGHVIEW POWER



Overview

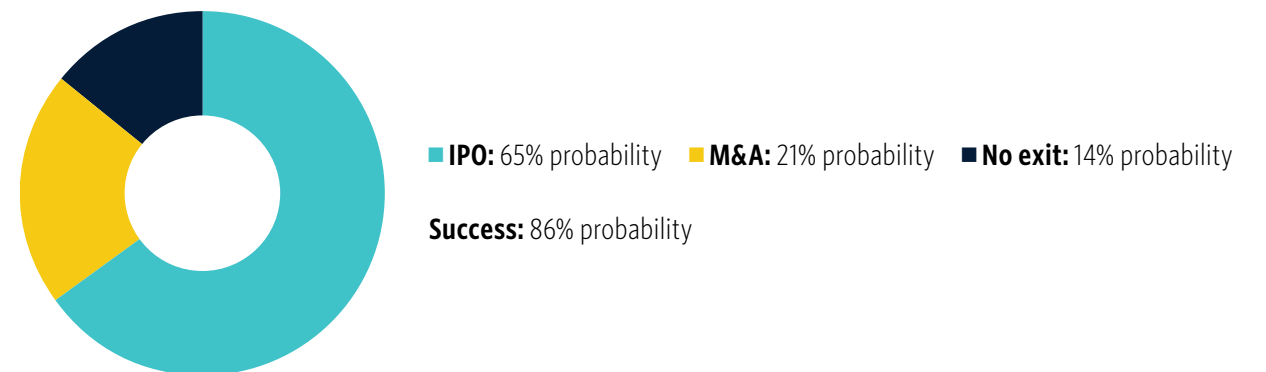
Headquartered in the UK, [Highview Power](#) develops long-duration energy storage technology based on air liquefaction and regasification. The company's technology takes in air and uses excess energy to compress and refrigerate it so that it can be stored in cryogenic, compressed form, to be later regasified, where it expands and drives a turbine. Scaling of this technology to different energy capacities can be done through increasing the size of the storage tanks, and the company claims a 40-year service life for its hardware.

The company's demonstration facility in Manchester, UK, is currently in operation, and a larger facility, which will have a capacity of 50 megawatts (MW)/300 megawatt-hours (MWh), is under construction at a different site in Manchester. [Highview Power's](#) project road map includes several projects, including two in Scotland and Northeast England—each with a capacity of 200MW/2.5GWh—and international projects in Australia and Japan. In June 2024, the UK Infrastructure Bank and Centrica led the company's \$381.9 million later-stage VC round, which will assist in the construction of the company's new Manchester facility.

Key company information

Founded 2002	Total raised \$580.0M over four deals	Post-money valuation N/A
Employees 54	Last financing \$381.9M in late-stage VC funding	First institutional round \$8.5M in early-stage VC funding

Exit Predictor



Note: Probability data is based on [PitchBook VC Exit Predictor methodology](#).

About PitchBook Industry and Technology Research

Independent, objective, and timely market intel

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Our Industry and Technology Research provides detailed analysis of nascent tech sectors so you can better navigate the changing markets you operate in—and pursue new opportunities with confidence.

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