GENERATE

The Infrastructure Imperative: The Road to 2030

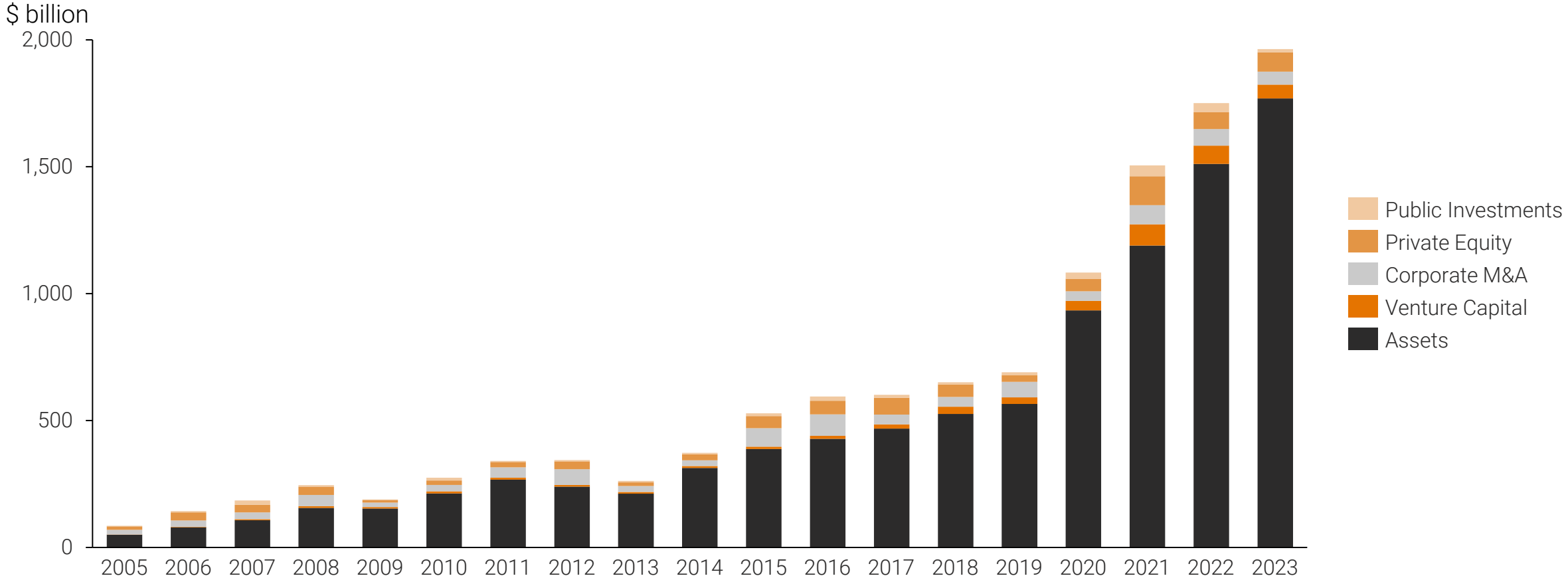
October 2024

Logan Goldie-Scot

Climate is a physical problem that requires physical solutions

The bulk of Climate investment to date has gone to deploying low-carbon technologies, such as wind, solar, energy storage and electric vehicles.

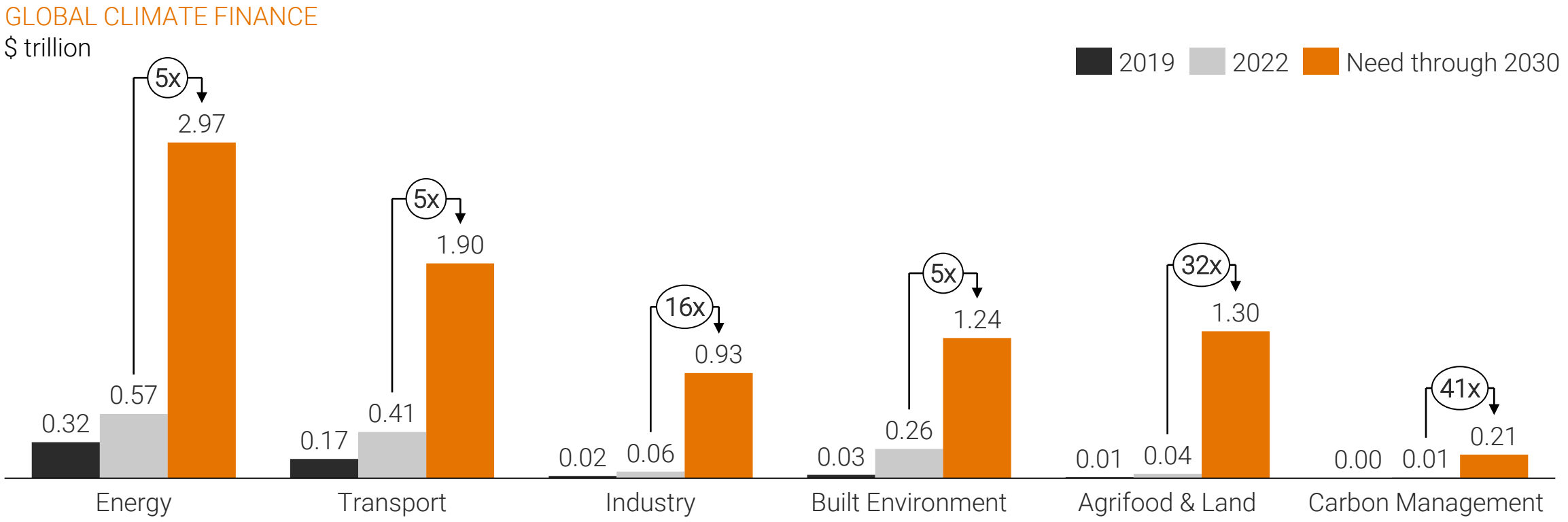
ENERGY TRANSITION & CLIMATE INVESTMENTS BY TYPE: 2005-2023



Source: BloombergNEF for asset level data. Pitchbook for VC, Corporate and Strategic M&A, Private Equity and public investments data. Pitchbook data based on completed deals across these deal types in the Climate and CleanTech verticals. Assets figure excludes supply chain investments.

Annual energy transition spend needs to increase dramatically between now and 2030 to achieve our climate goals

Needs and opportunities differ considerably by sector, and by geography.

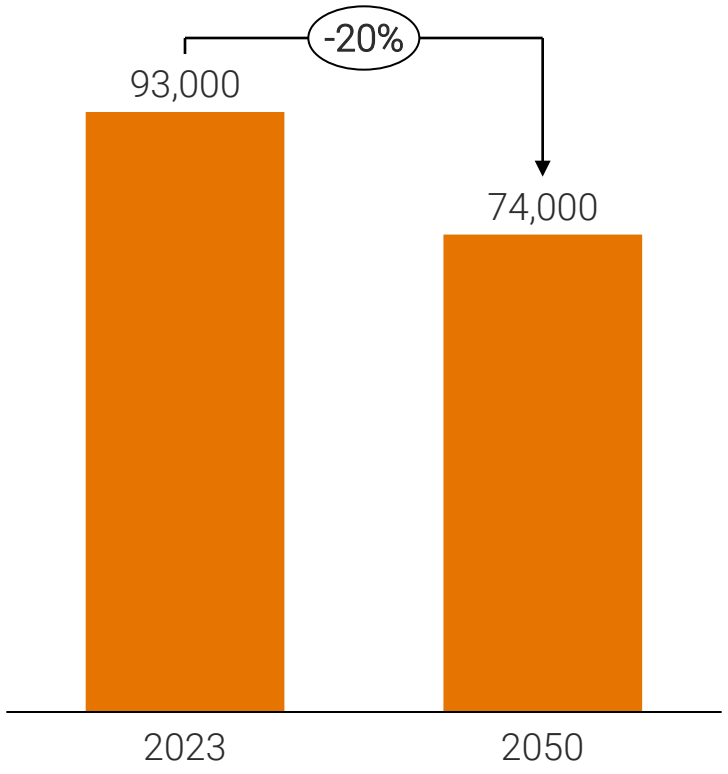


Source: CREO analysis, CPI (2023) Global Landscape of Climate Finance; CPI (September 2023) How Big is the Net Zero financing Gap?; WRI (2023) State of Climate Action; IPCC (2021) Sixth Assessment Report; BloombergNEF (2023) Energy Transition Investment; CPI (2023) Landscape of Climate Finance in Agrifood Systems. Note: Excludes an estimated additional $212bn in adaptation finance needed by developing countries up to 2030 (CPI); Excludes Waste & Wastewater; Carbon management refers to carbon removals and negative emissions (e.g., CCUS, DACS, BECCS); Given the multiple sources and lack of harmonized methodologies, the data can only be indicative of the size and pattern of investment gaps.

A net-zero system looks very different to today's: widespread electrification results in less primary energy, but more power demand

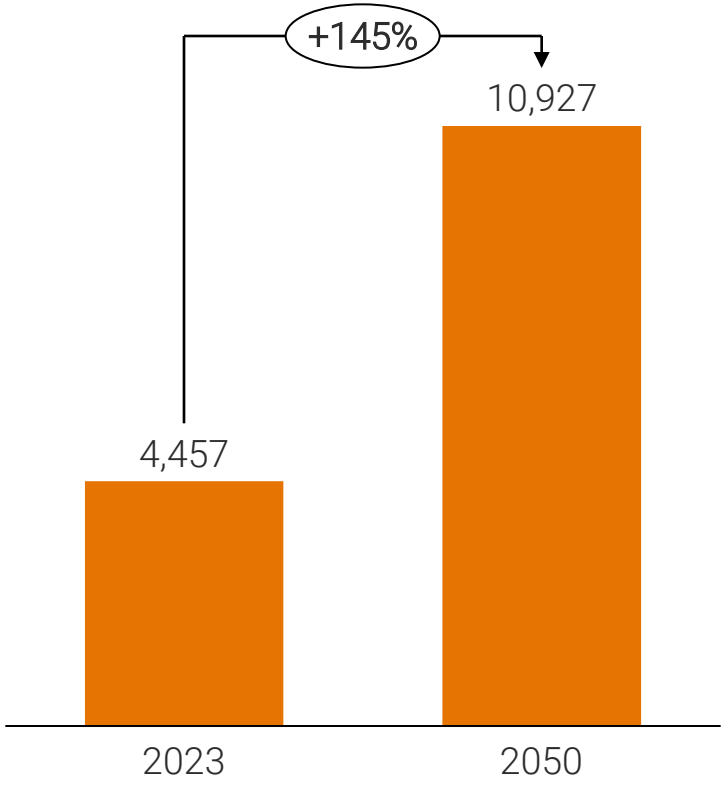
PRIMARY ENERGY CONSUMPTION (US)

Petajoules (PJ)



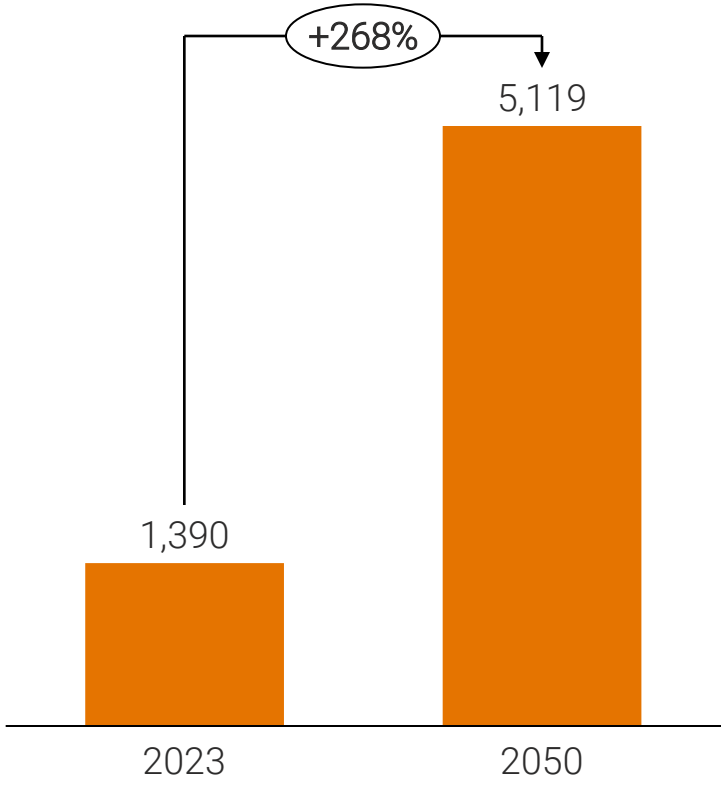
ELECTRICITY GENERATION (US)

Terawatt hours



INSTALLED ELECTRIC CAPACITY (US)

Gigawatts

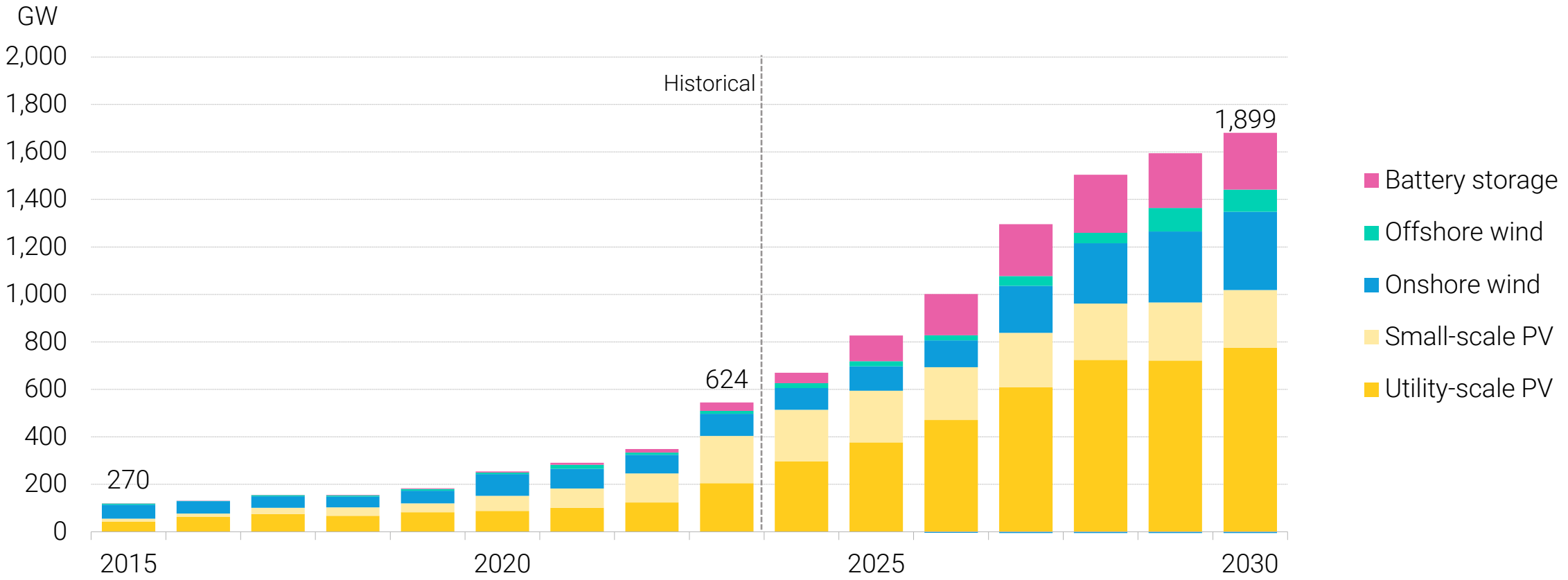


Source: BloomberNEF 2024 New Energy Outlook

To meet this electricity demand, investment in commercially proven technologies such as wind and solar needs to continue to grow

Core infrastructure investors can focus on opportunities across wind, solar and other more established low carbon technologies. Roughly two thirds of global CO2 emissions reductions by 2050 could come from commercially mature or early market stage technologies.

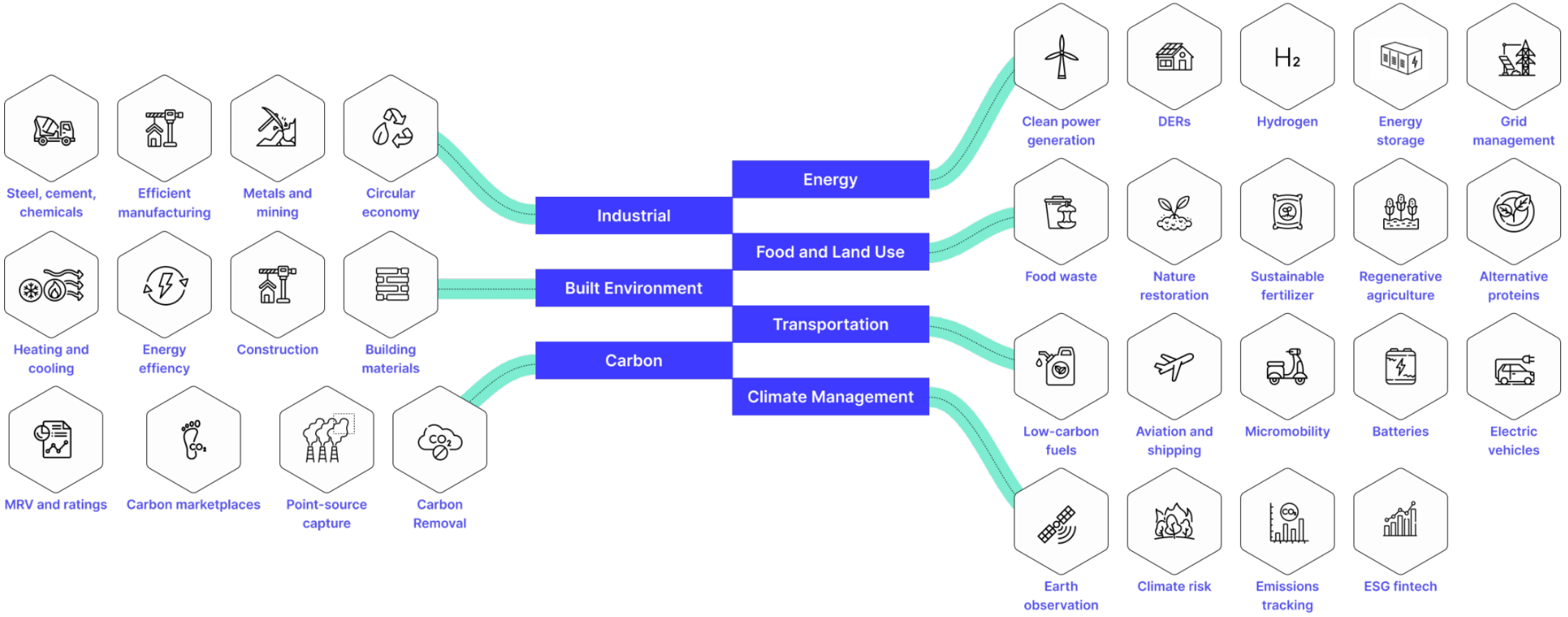
GLOBAL ELECTRIC CAPACITY ADDITIONS IN NET-ZERO SCENARIO



Source: BloomberNEF; 2/3 figure from McKinsey and based on net-zero needs by 2050.

Economy-wide decarbonization will also require different types of capital, in sectors at different stages of maturity

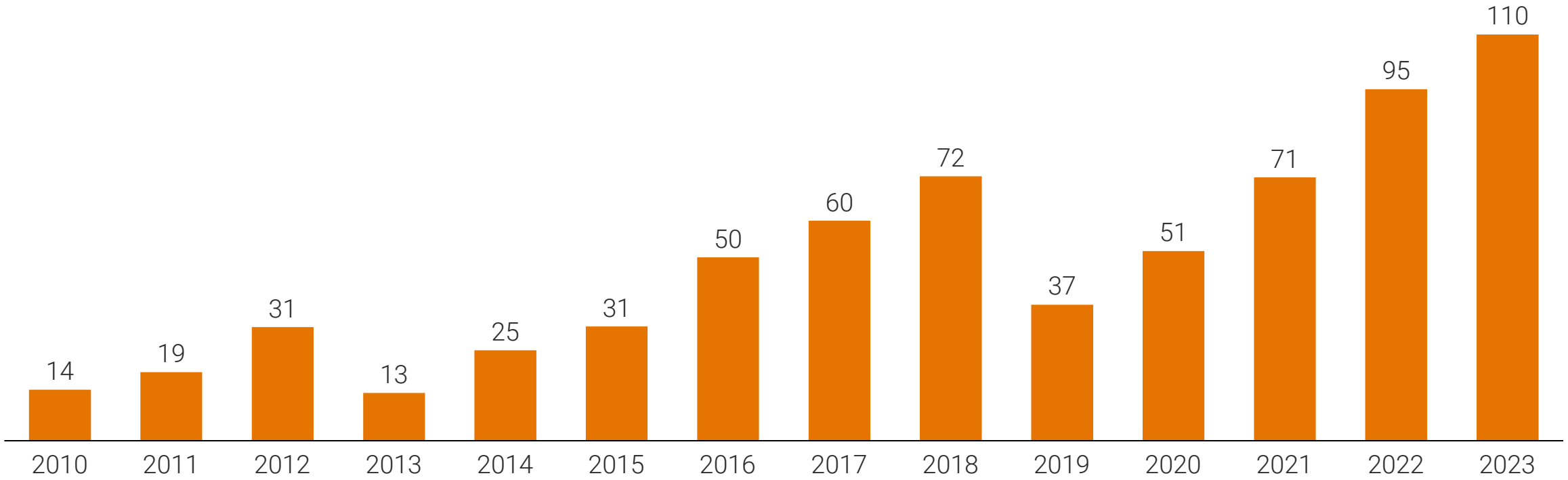
SELECTION OF 31 OUT OF 60 SECTORS IDENTIFIED BY SIGHTLINE CLIMATE ACROSS 7 CORE INDUSTRIES



Source: Sightline Climate

Climate funds raised a record amount of capital in 2023

CLIMATE CAPITAL RAISED ($ BILLION)

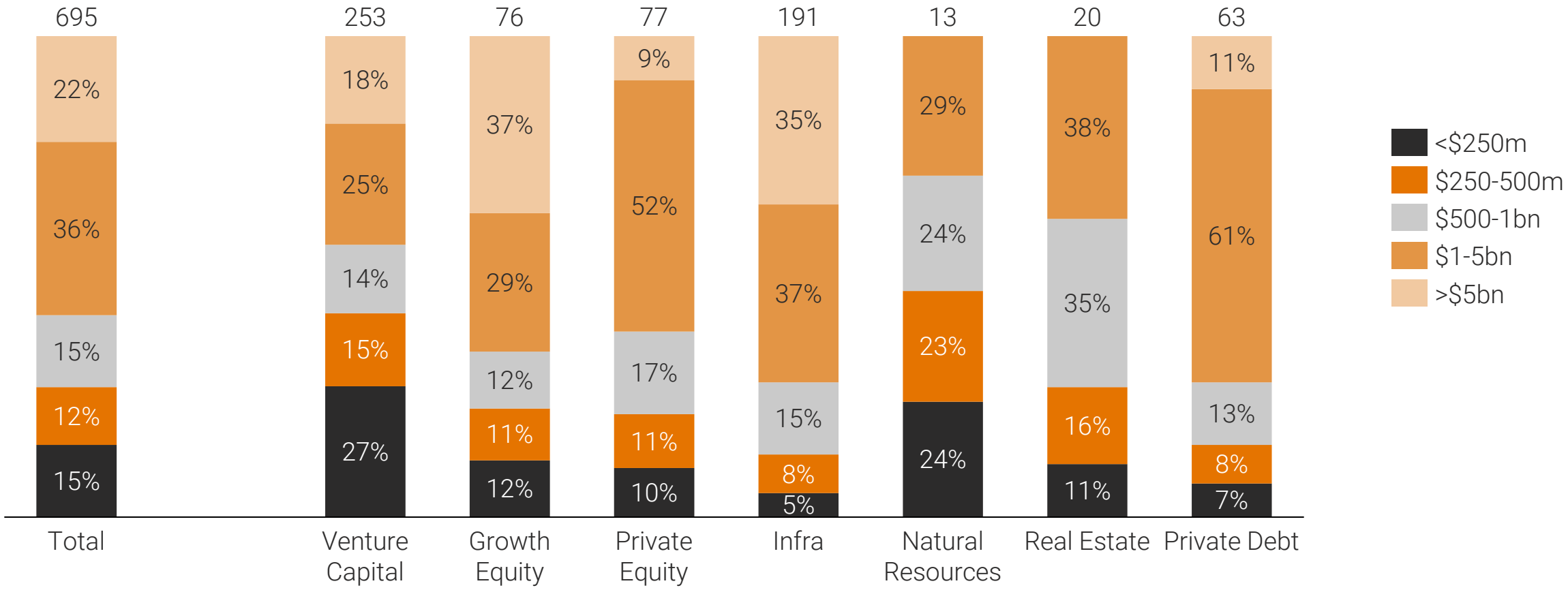


Source: Pitchbook. Note: Based on AgTech, CleanTech and Climate Tech verticals; applied to Funds.

Large (>$1B) funds dominate the capital raised within the climate sector

Infrastructure capital is overlooking the attractiveness of the middle-market

CLIMATE CAPITAL RAISED BY FUND TYPE AND SIZE FROM 2010-2023 ($B)



Source: Pitchbook Data, CREO analysis. Note: Analysis excludes funds without fund size data

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A number of factors contribute to the attractiveness of middle-market sustainable infrastructure

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GPs are raising significantly larger funds and have moved away from the middle market

Number of closed funds investing more than $5B globally increased from 11 to 52 (372% increase) in the past decade[1]

Source: [1] Preqin; 11 funds between 2014-2018 and 52 funds between 2019-2024.; [2] Preqin; Middle market = $100M - $1B TEV, Large-cap = >$1Bn TEV; [3] U.S. Department of Energy, BloombergNEF; Cost reduction from 2008 to 2020.; [4] Patrizia, Investing in mid-market infrastructure (July 26, 2023).

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The focus on decarbonization is leading to smaller, distributed assets, resulting in robust deal flow in the middle market

~95% of global infrastructure transactions in 2023 were middle market transactions[2]

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Technology costs have decreased over time and with scale, driving down asset values and enhancing unit economics

Costs of LEDs, batteries, solar, wind, fuel cells have come down by ~75-95% over the decade[3]

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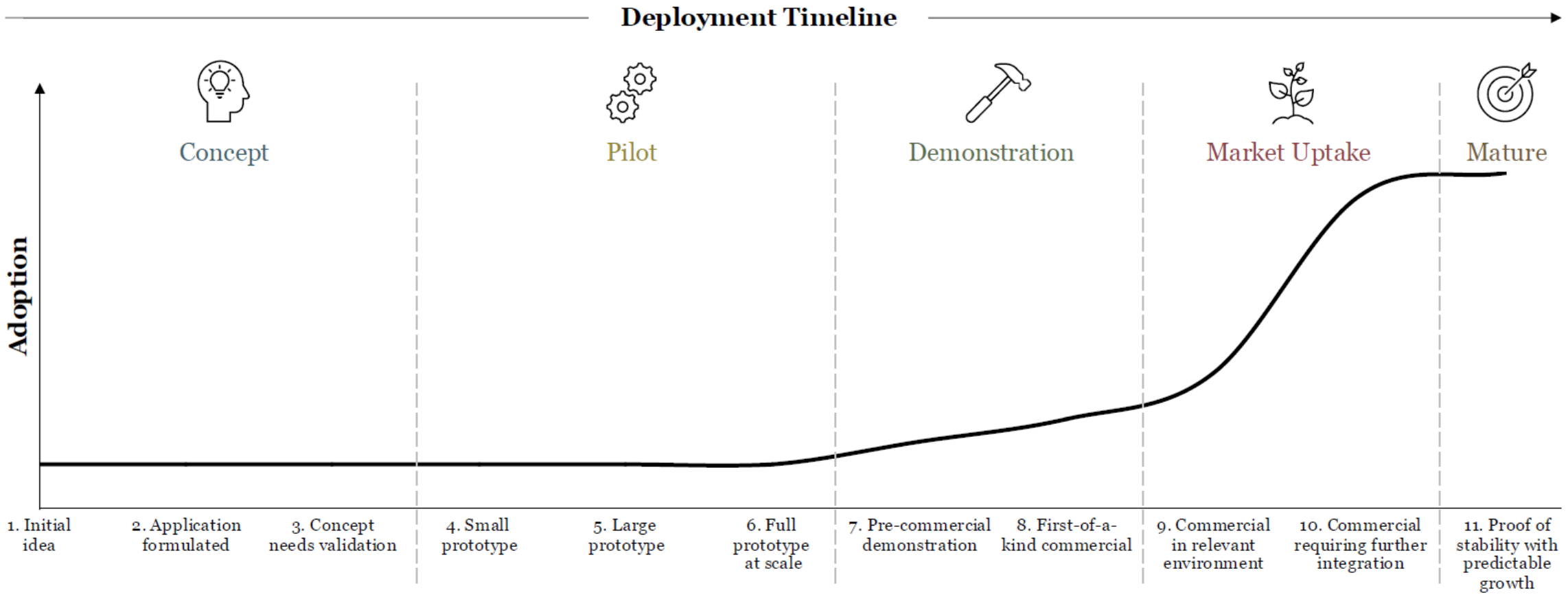
Middle-market infrastructure transactions provide superior risk-adjusted returns vs. large-cap transactions

Middle-market funds relative to large-cap funds have delivered between 150 and 250 basis points of better return on a risk-adjusted basis[4]

Source: [1] Preqin; 11 funds between 2014-2018 and 52 funds between 2019-2024.; [2] Preqin; Middle market = $100M - $1B TEV, Large-cap = >$1Bn TEV; [3] U.S. Department of Energy, BloombergNEF; Cost reduction from 2008 to 2020.; [4] Patrizia, Investing in mid-market infrastructure (July 26, 2023).

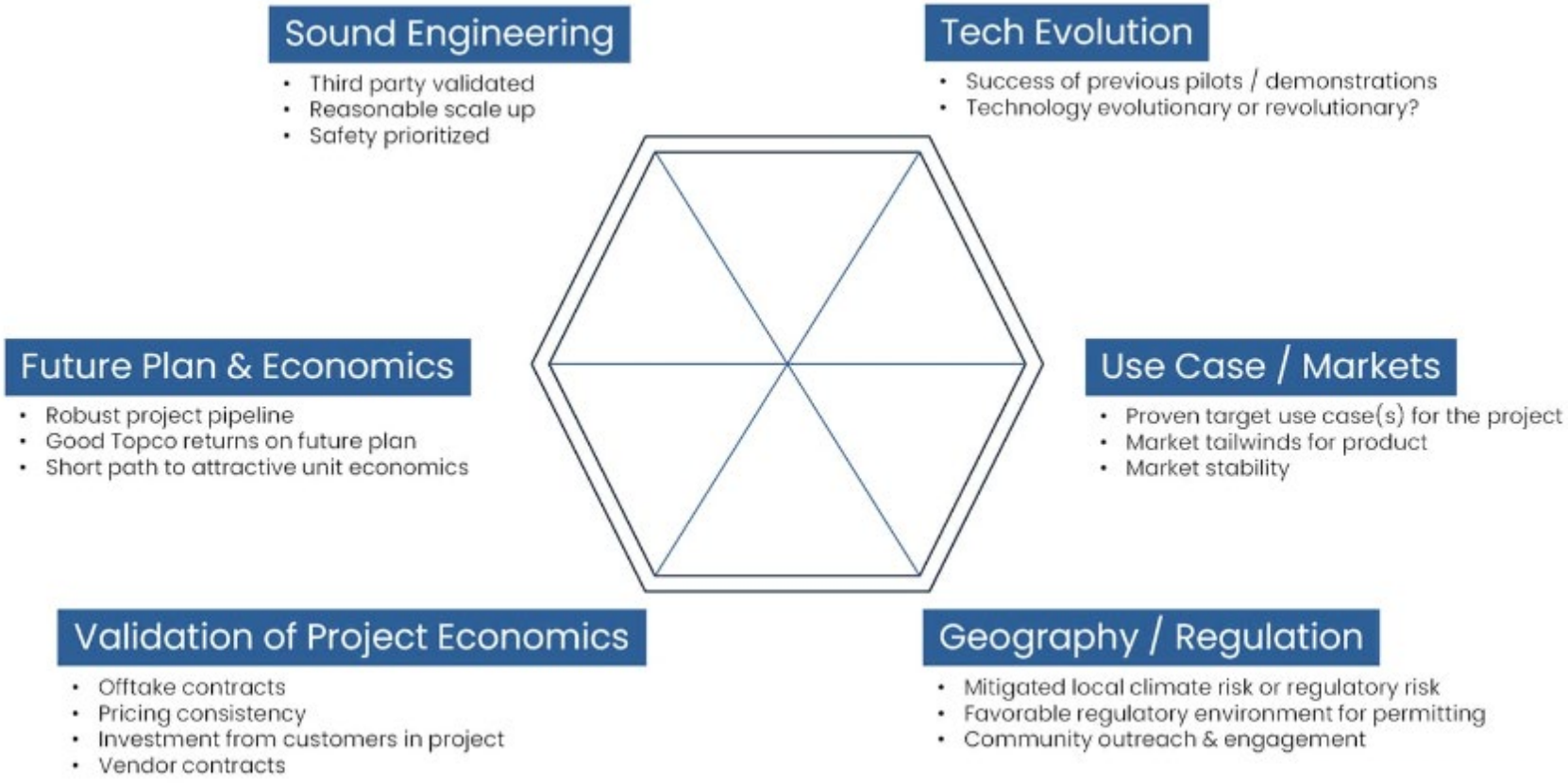
Family offices can also play a key role by bridging today's funding gap and opening new technologies and markets to traditional capital



Source: IEA Clean Technology Guide (2022); S2G Ventures (2023) The Missing Middle: Capital Imbalances in the Energy Transition; CREO analysis

Successfully investing in FOAK projects requires the right partner who can assess its technology, business model, unit economics and operational challenges

ASSESSMENT OF FOAK READINESS

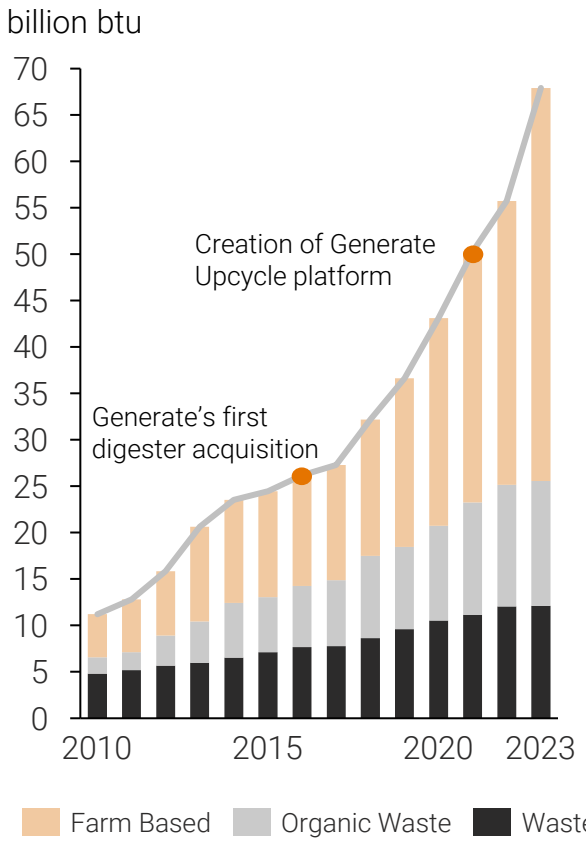


Source: Deanna Zhang

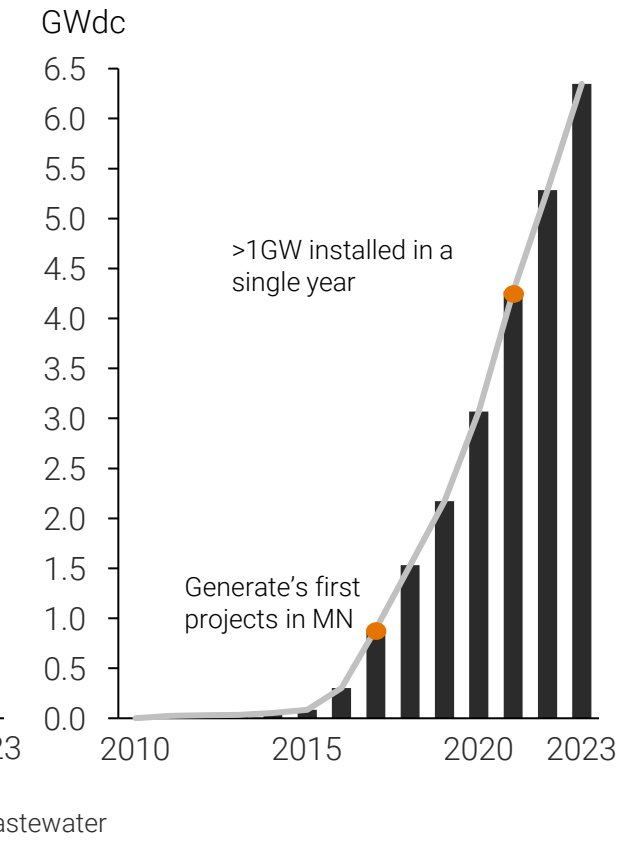
Since 2014 Generate has helped take many new asset classes of sustainable infrastructure from niche to mainstream

To successfully navigate the "missing middle" and to take the risks that others cannot you need large, dedicated and specialized capabilities

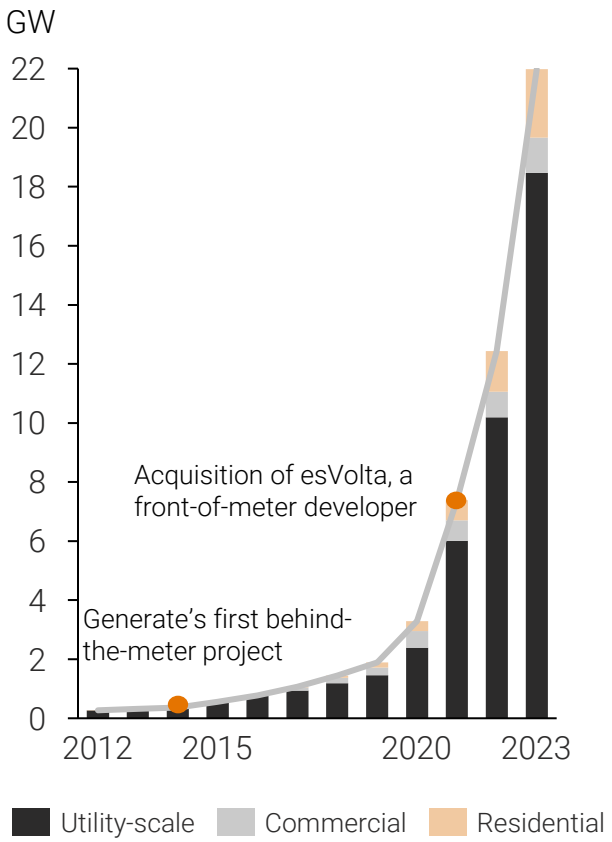
ORGANIC WASTE[1]



COMMUNITY SOLAR[2]



ENERGY STORAGE[3]



VALUE CREATION

- Asset class is widely adopted and has easy access to capital
- Increased access to capital markets, including tax equity
- Ability to engage in policy and regulatory outcomes to avoid negative market outcomes
- Increased available market through unlocked projects and customer demand
- Lower cost via economies of scale and derisking technology
- Market entry with money and help
- Asset class has progressed beyond first-of-a-kind ("FOAK") but is poorly understood

Note All three charts refer to operational assets only. Organic waste includes assets in Canada and the U.S. whereas the other two are U.S.-only.
1 Orennia; 2 Wood Mackenzie; 3 BloombergNEF.

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Investors need new ways to measure impact

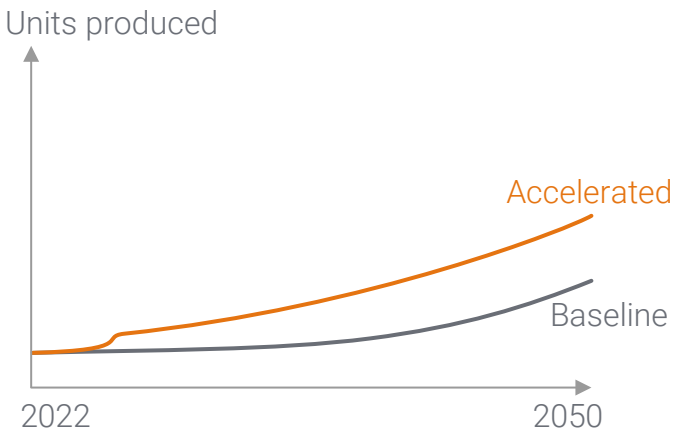
Snapshot-in-time emissions reductions are not the best fit for the private capital markets since they have more ability to be flexible and take on risk than the public markets. Private capital can focus on using investments to create long-term markets that drive deep decarbonization.

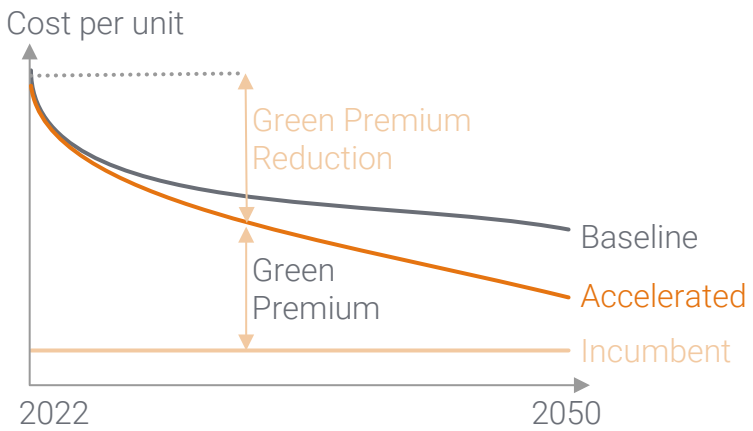
EXAMPLE OF A CATALTYIC EMISSIONS IMPACT FRAMEWORK

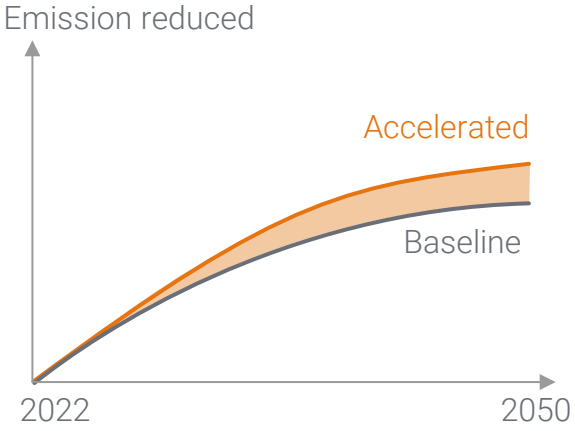
Catalytic investment **accelerates deployment and market uptake** by increasing production capacity and de-risking market

Increased adoption and economies of scale **reduce costs and open new capital pools** for thesis technologies

Cycle of cost reduction and accelerated market uptake **increases emissions reduction potential**







Source: Generate Capital

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LET’S REBUILD THE WORLD TOGETHER