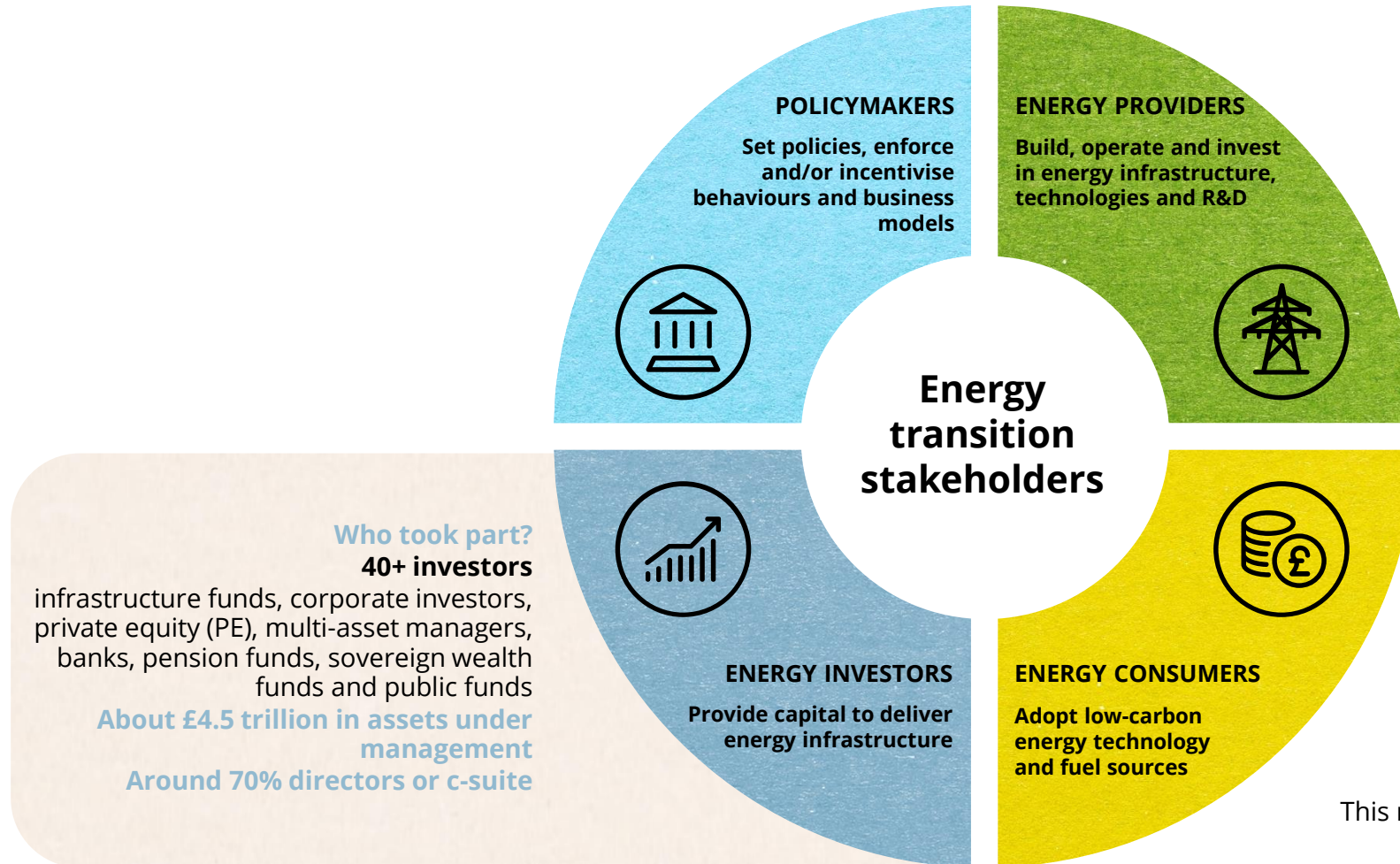




How to finance the
UK energy transition
A view from investors
2025

We need significant investment to accelerate the UK energy transition






We asked investors what they need to invest in low-carbon energy infrastructure and technology.



This new insight builds on the views of 200 energy providers and business energy consumers collected in May 2024.

Factors needed to scale up investment in the UK energy transition

At a glance

-  **Stable, long-term ENERGY POLICY**
-  **Quicker PLANNING, CONSENT and GRID ACCESS**
-  **More effective CARBON PRICING**
-  **Strengthened SUPPLY CHAIN and SKILLS**
-  **DE-RISKED energy transition-related technologies**

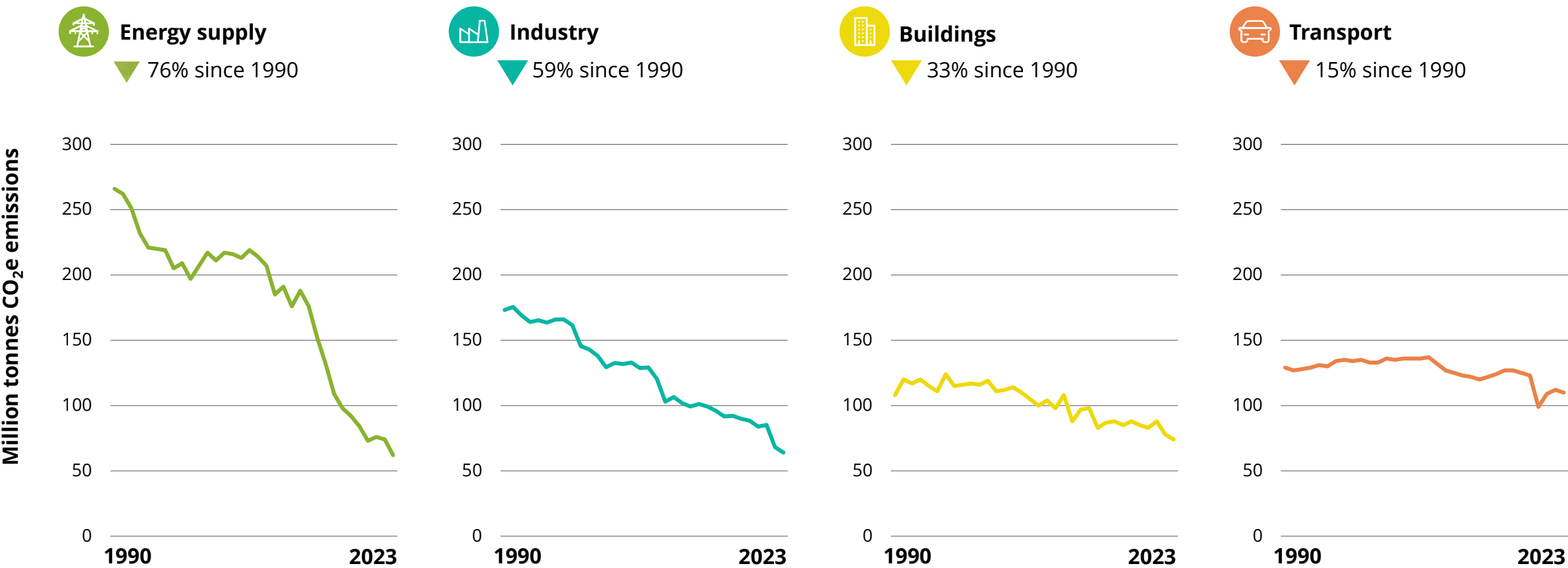


How to scale up investment in the UK energy transition

The UK energy transition is underway

UK emissions have more than halved since 1990 with energy supply and industry leading the way.

UK territorial CO₂e emissions in energy-related sectors 1990-2023

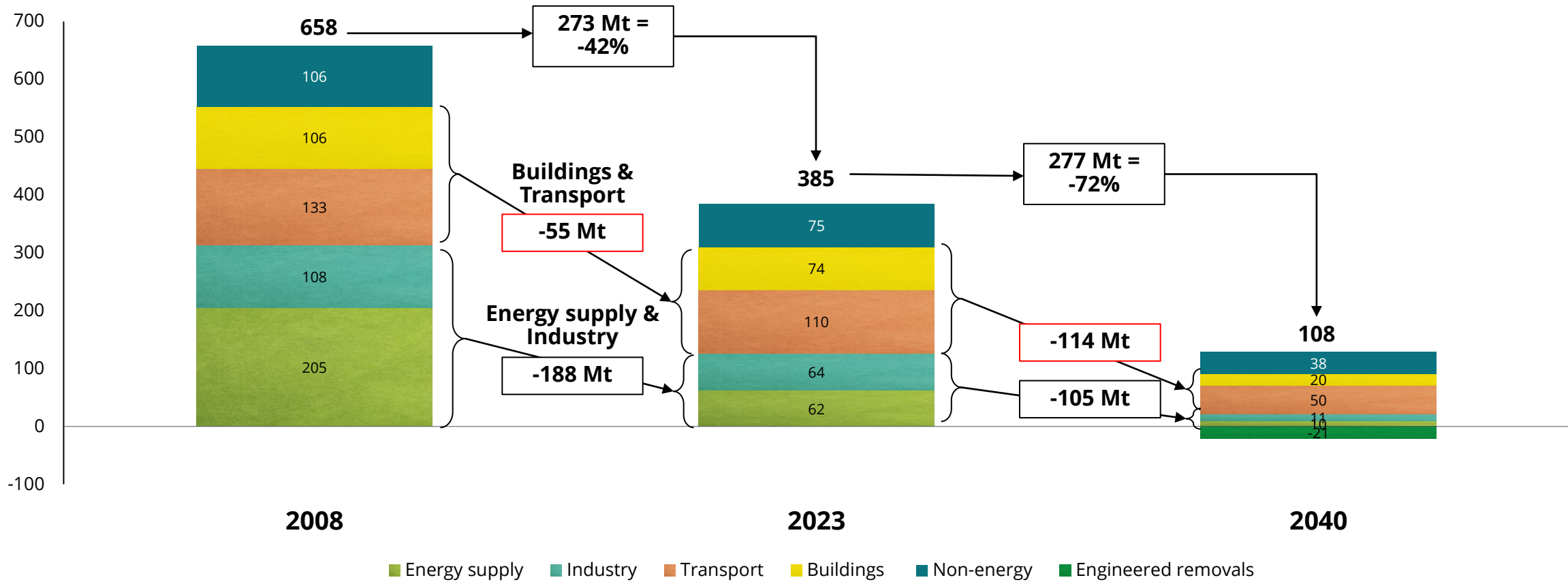


Source: [Final greenhouse gas emissions tables 2023](#)

Seventh Carbon Budget requires a 72% decrease in UK emissions by 2040

We must decarbonise buildings and transport, but progress here relies on decarbonising energy supply and industry.

Annual UK territorial CO₂ equivalent emissions*



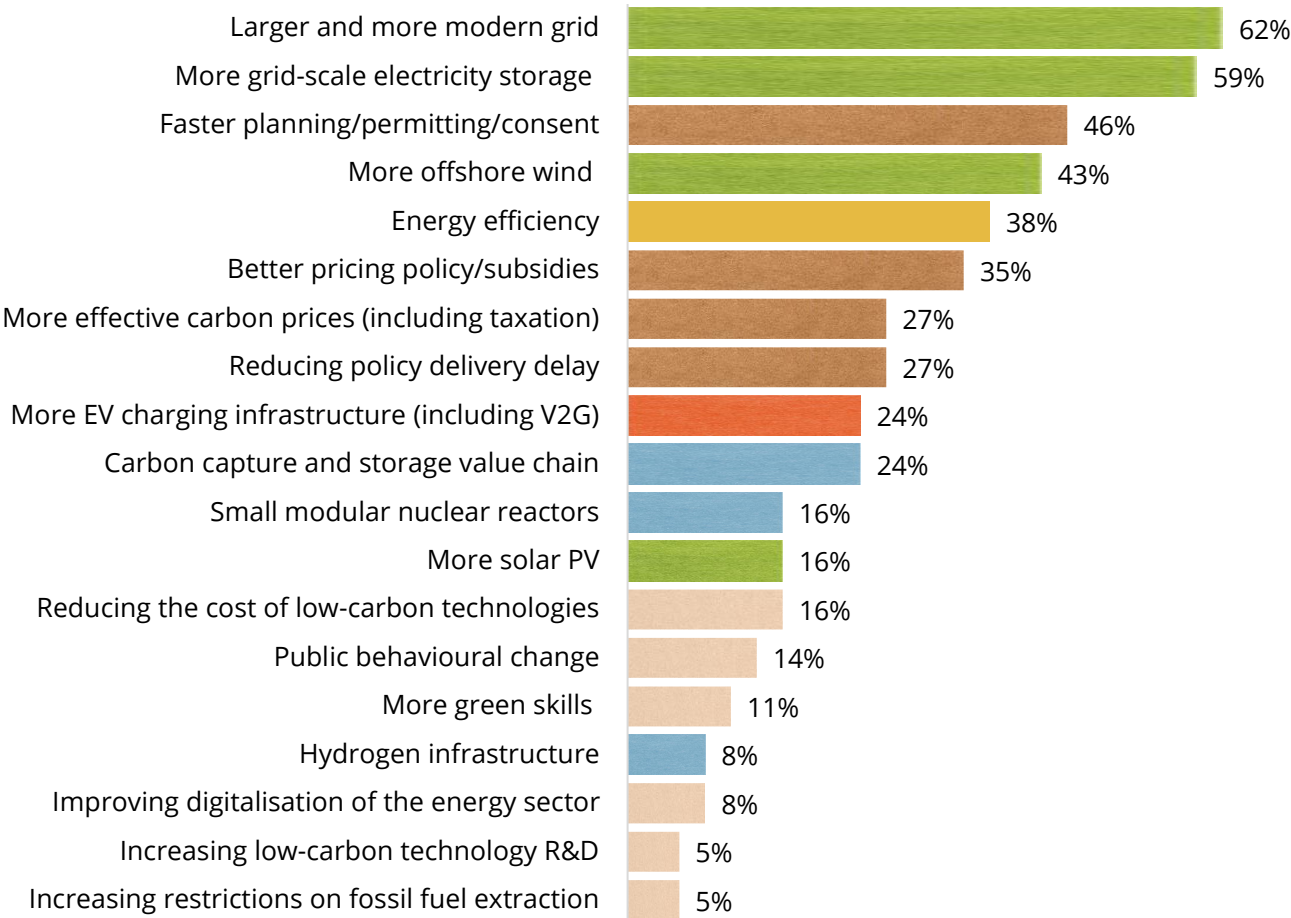
*Note: The Climate Change Committee (CCC) included International Aviation and Shipping in its 2040 Carbon Budget. This was not included in its 2008 or 2023 figures.

Source: Final greenhouse gas emissions tables 2023; [The Seventh Carbon Budget - Climate Change Committee](#) – Charts and data book for 2040 data

The UK energy transition needs a range of enablers

From mature and emerging supply-side technologies, energy efficiency and demand-side technologies, to policy action and at least £200 billion of low-carbon investment by 2030.

Energy transition enablers



Number of responses investor survey = 37

Supply-side mature technologies

Policy action

Energy efficiency

Demand-side enabling technologies

Supply-side emerging technologies

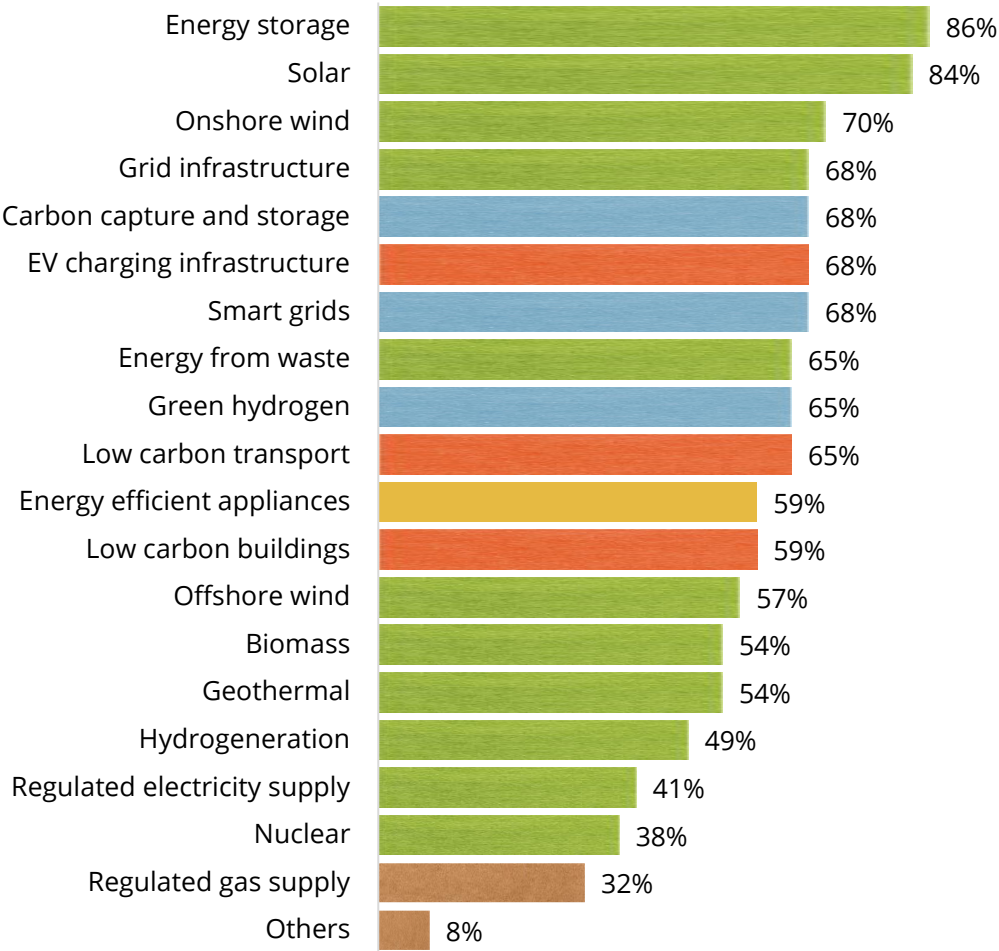


£40 billion/year to 2030 in clean power supply alone. Most of this money needs to come from the private sector. [\(Clean Power 2030: Action Plan \)](#)

Investors are interested in a wide range of energy technologies...

This includes emerging supply-side and demand-side technologies, as well as energy efficiency.

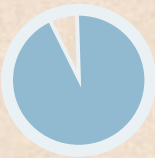
Investment interest



Supply-side mature technologies

Supply-side emerging technologies
Demand-side enabling technologies

Energy efficiency



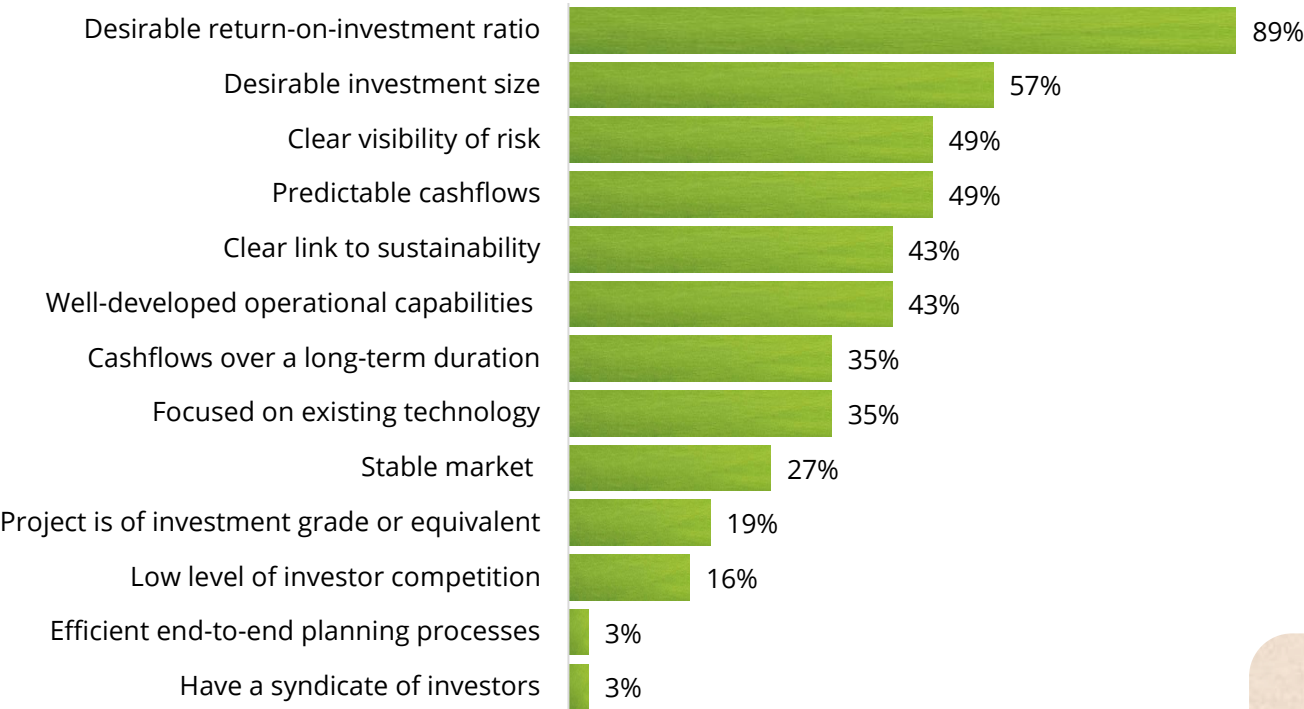
92% of investors said energy transition is more of an opportunity than a challenge.

Number of responses investor survey = 37

But investors need attractive projects...

A project must generate return, be a certain size, have risk clarity and predictable cashflows.

Investment target characteristics



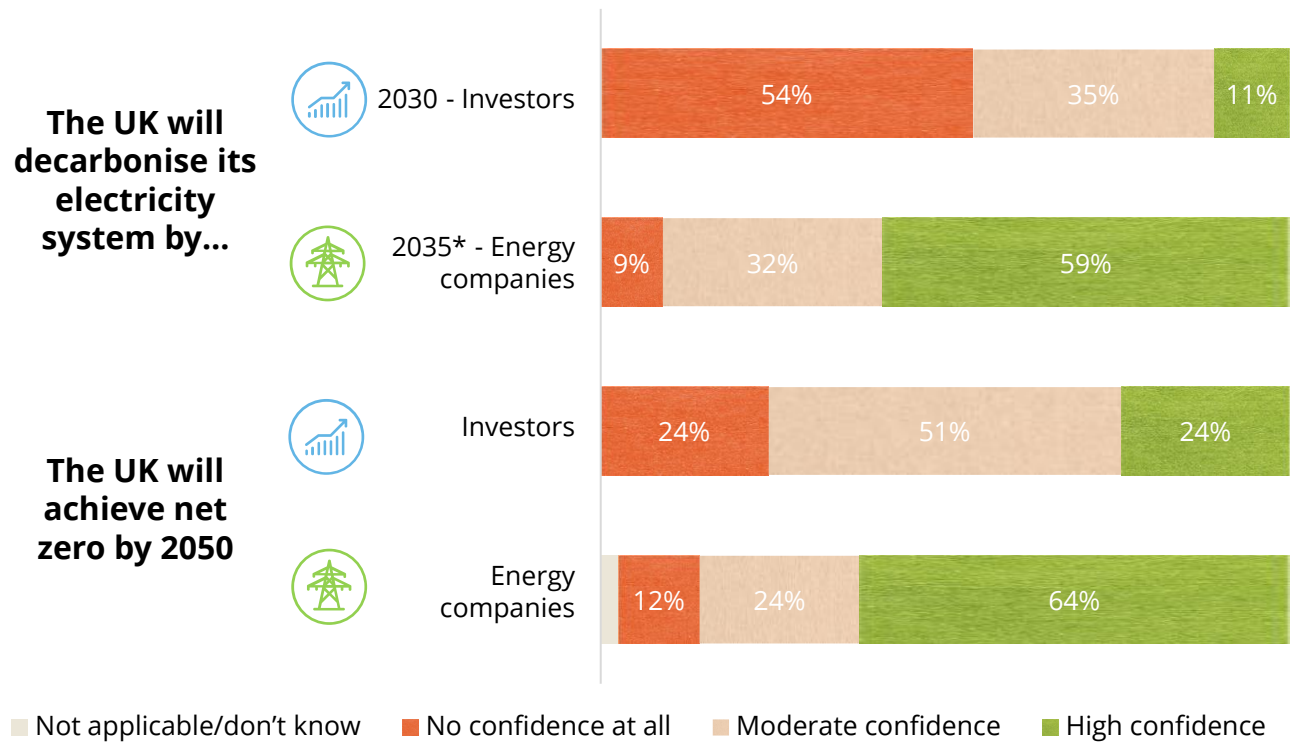
84% of investors will only invest in energy transition if returns match other opportunities.

Number of responses investor survey = 37

...and more confidence to invest

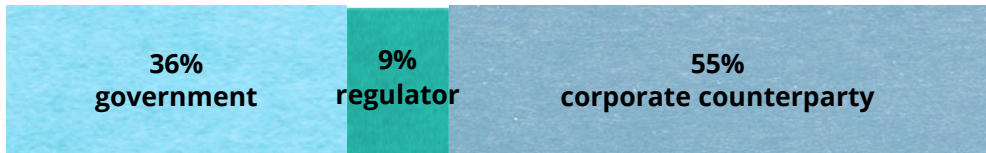
Investors are less confident about the UK's ability to meet national targets than energy companies, and their confidence in government needs to improve.

Confidence in national ambitions



Confidence in government

Infrastructure funds prefer dealing with:



*Note: Our survey with energy companies took place in May 2024, shortly before the UK General Election was announced

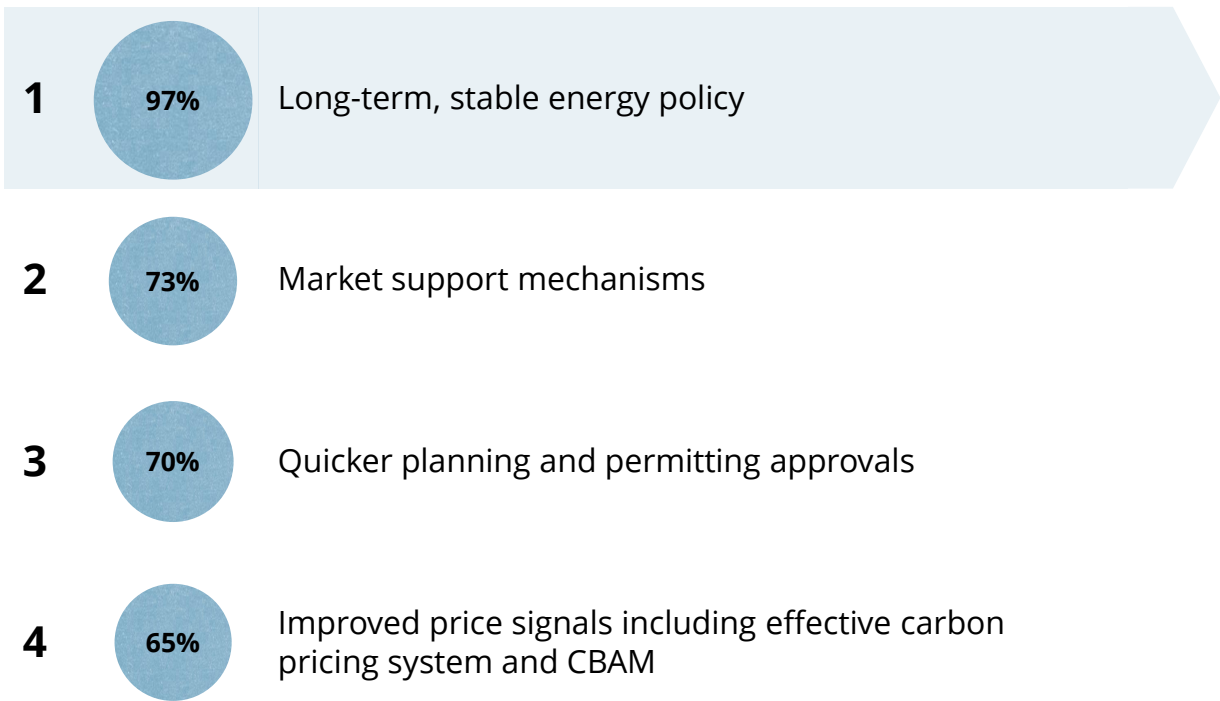
How to improve investor confidence

Stable, long-term energy policy

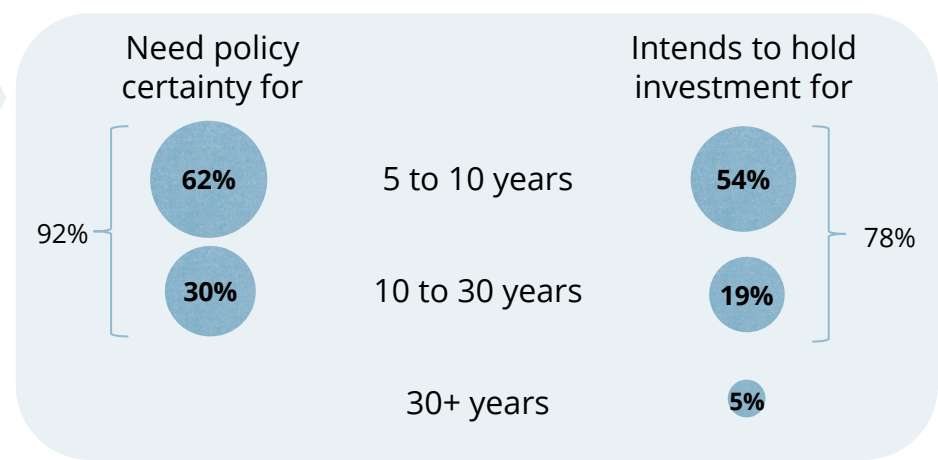
9 out of 10 investors want policy certainty beyond a parliamentary cycle.

Top 4 policy priorities

Investors want:



Policy certainty and investment hold times



Energy company survey:

42%

want to collaborate with investors on policy advocacy



Business consumer survey:

36%

want to collaborate with investors on policy advocacy

Number of responses investor survey = 37; Energy company survey = 103; Business consumer survey = 100

Quicker permitting, consenting and grid access

Reducing planning delays is a key policy priority for investors and energy companies. It is a top energy transition enabler along with quicker grid access.

Top 4 policy priorities

Investors want:

- 1 97% Long-term, stable energy policy
- 2 73% Market support mechanisms
- 3 70% Quicker planning and permitting approvals
- 4 65% Improved price signals including effective carbon pricing system and CBAM

Energy transition enablers

Energy transition will need:

- 1 62% Larger and more modern grid
- 2 59% More grid scale storage
- 3 46% Quicker permitting and consenting



Energy company survey:

52%

say reducing planning delays is their top priority

Number of responses investor survey = 37; Energy company survey Power, Utilities and Renewables Companies = 46

More effective carbon prices

The current carbon price is not effective at driving investment into decarbonisation, say investors.

Top 4 policy priorities

Investors want:

- 1 97% Long-term, stable energy policy
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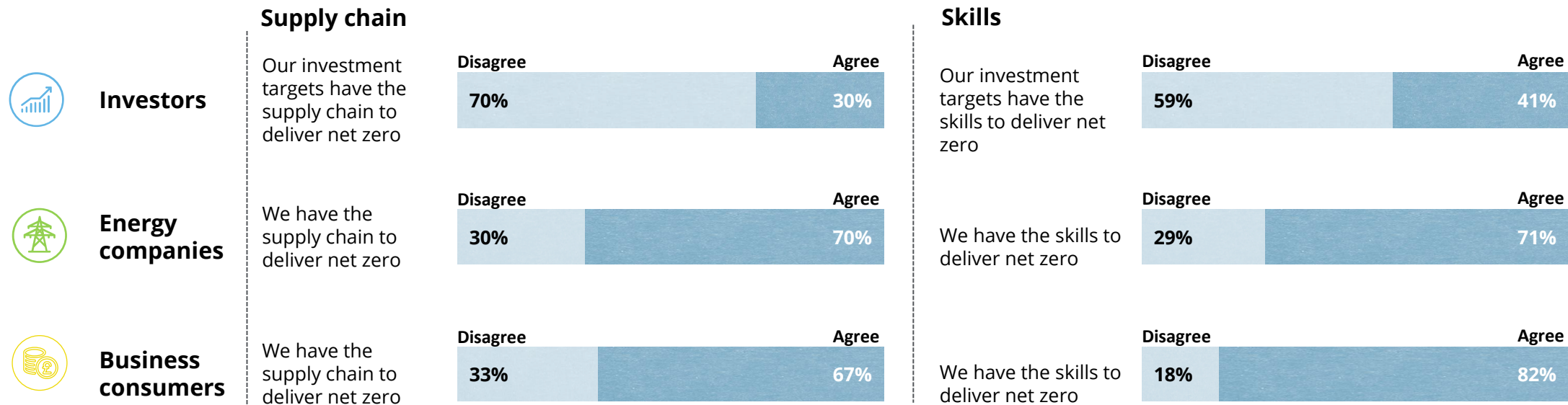
Energy transition impact



Number of responses investor survey = 37

Strengthened supply chain and skills

Investors are much less optimistic than energy companies and business consumers about their targets' access to supply chain and skills.



Energy company and Business consumer surveys:

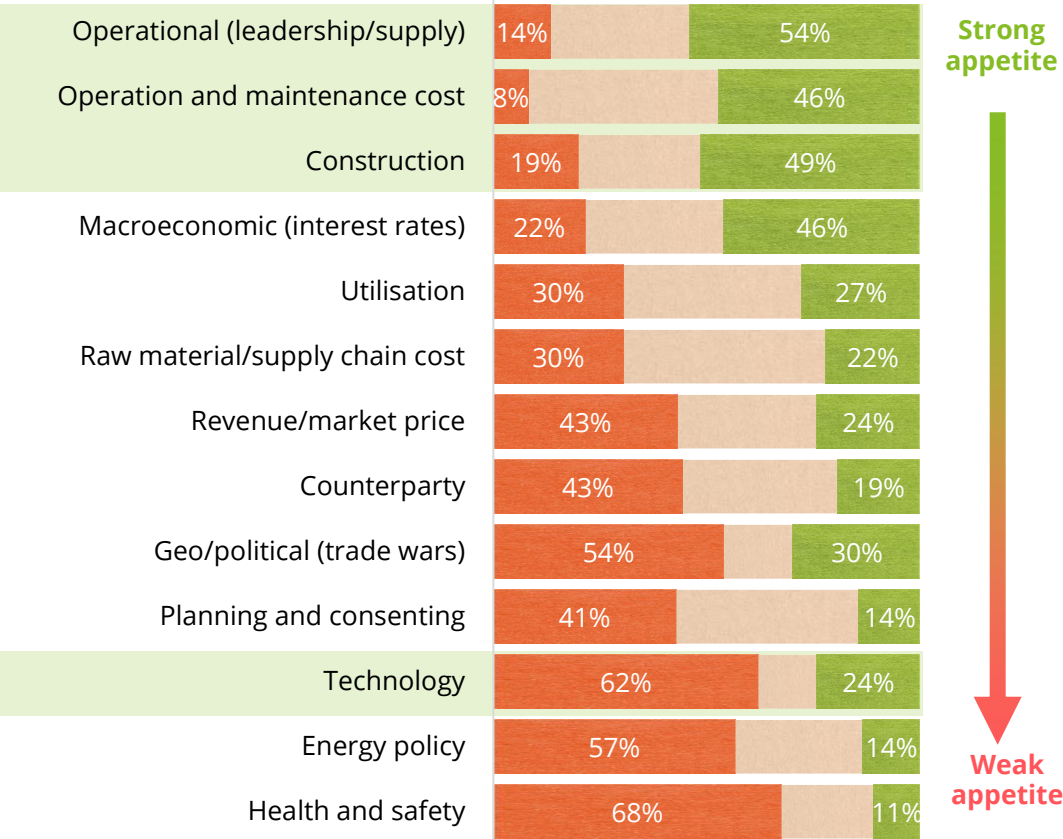
36% want to collaborate with investors on supply chain

Number of responses investor survey = 37; Energy company survey = 103; Business consumer survey = 100

Investors want to invest in large, mature, supply-side technology

Most investors surveyed have strong appetite for construction and operation-related risks and weak appetite for technology risk. They look to invest in large electricity supply assets and require 10%-15% returns.

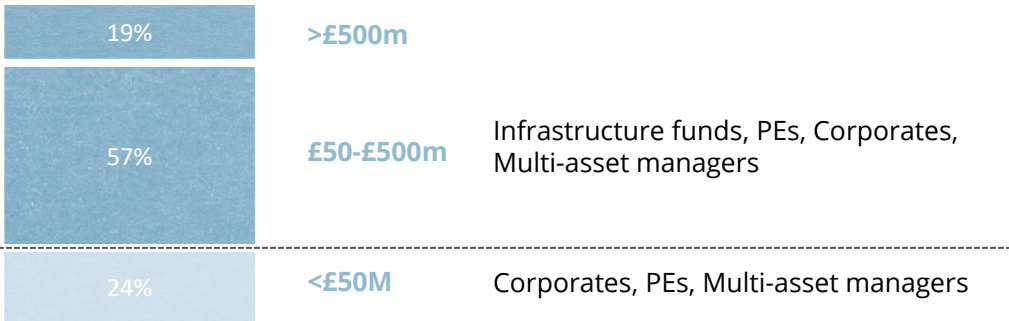
Risk types



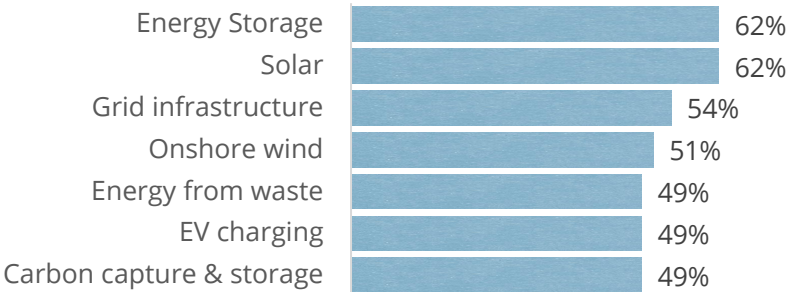
Weak appetite Neutral Strong appetite

Number of responses investor survey = 37

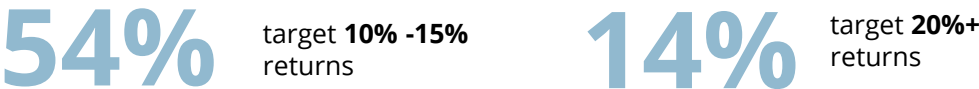
Target asset size



Investment interest area (of those focusing on £50m+ projects)



Those focusing on assets £50m+



Corporates have the expertise and the most appetite for technology risk

The role of energy companies is shifting. Business consumers want technical help from their energy suppliers to decarbonise, while energy companies want to work with investors on technology and business model innovation.

| Risk types | Investment hold time | Infra-structure funds 5-10 yrs (63%) | Investor/PE 3-5 yrs (57%) 5-10 yrs (14%) 10-30 yrs (29%) | Multi-asset managers 5-10 yrs (71%) | Corporates 5-10 yrs (60%) 10-30 yrs (40%) |
|--------------------------------|----------------------|---|---|--|---|
| | Average Score/Risk | | | | |
| Operational | 3.5* | 3.8 | 3.8 | 2.9 | 3.6 |
| Operation & maintenance cost | 3.4 | 3.6 | 3.6 | 2.9 | 4.0 |
| Macroeconomic | 3.3 | 2.9 | 3.6 | 3.6 | 2.8 |
| Construction | 3.2 | 4.4 | 3.0 | 2.9 | 3.5 |
| Utilisation | 2.9 | 2.5 | 3.3 | 3.6 | 2.8 |
| Raw material/supply chain cost | 2.8 | 2.9 | 3.1 | 2.6 | 2.6 |
| Revenue/market price | 2.7 | 2.6 | 2.7 | 2.6 | 2.8 |
| Counterparty | 2.6 | 1.8 | 3.5 | 3.0 | 2.8 |
| Geopolitical | 2.6 | 1.9 | 3.0 | 2.3 | 3.2 |
| Energy policy | 2.5 | 2.4 | 2.3 | 2.3 | 2.4 |
| Planning and consenting | 2.4 | 3.0 | 2.8 | 2.0 | 2.4 |
| Technology | 2.2 | 1.4 | 2.4 | 1.9 | 3.6 |
| Health and safety | 2.0 | 2.3 | 2.4 | 1.9 | 1.4 |

*Respondents were asked to score each type of risk on a scale from 1-5. The numbers in the table are overall averages by risk type and by investor type for each risk type.

Number of responses investor survey = 37; Energy company survey = 103; Business consumer survey = 100



Business consumer survey:

75%

want energy suppliers to help them develop **self-generation and storage assets** and provide **technical support** to decarbonise



Energy company survey:

34%

want to work with institutional investors on **innovative technologies** and business models



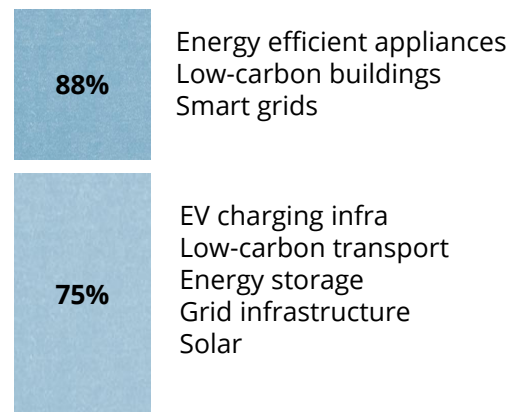
Existing innovation grants funding is too difficult to find and obtain because it is often too narrow in focus

Corporates/PEs are most interested in demand-side tech

We need more uptake of demand-side technologies in the next phase of decarbonisation. But relying on corporate investors/PEs for funding means these must generate returns above 20%.

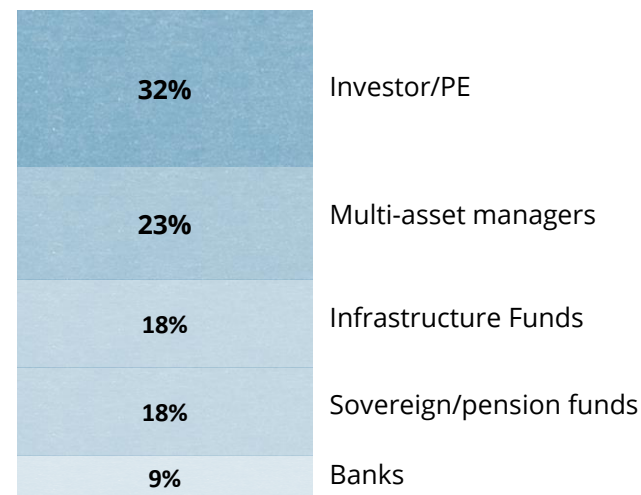
Investment interest area – Investors/PE

Technologies



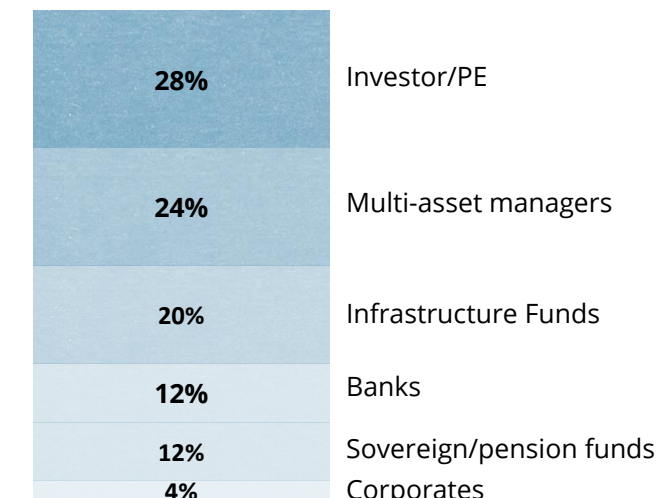
Energy efficient appliances

Investor Type



Smart grids

Investor Type



Number of responses investor survey = 37

To discuss these findings in more detail and what they mean for your organisation, please contact:



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