ZERO CARBON FUND

Zero Carbon Capital Limited/Sapphire Capital Partners LLP

	Positives	Issues
Why Invest	▶ **Strategy:** Exposure to a portfolio of early-stage deep science companies that can have a large carbon impact.	▶ **Track record:** As Zero Carbon Capital is a new fund advisor, there is no meaningful track record yet.
The Investment Manager	▶ **Team:** The Zero Carbon directors bring a range of experience in business and angel investing in Silicon Valley.	▶ **Company size:** The team is very small, and this may act as a slight constraint, although the advisory team should alleviate this.

Nuts & Bolts

- **Duration:** The fund has a close on 30 June 2020, although this may be earlier if sufficient funds are raised.
- **Diversification:** The manager expects to provide at least six investments for each closing, with a target of ten.
- **Valuation:** Will usually change at next financing or on writedown.

Specific Issues

- **Fees:** Unusually simple fee structure, with the only fee being the performance fee.
- **Performance fee:** Charged at 25% of all exit proceeds.

Risks

- **Target returns:** The target of 2x capital after seven years seems somewhat low for the stage of investment, but has been set conservatively.
- **Companies:** Supplying risk capital to early-stage companies, many of which will not yet be commercialising their offering, is a key risk. There will be a spread of company returns, as the successful ones will do very well but those who fail may do so completely.

	Adviser information	Contact details
Analyst *Brian Moretta* 0207 194 7622 bm@hardmanandco.com	▶ ***Scheme assets:*** *£0.55m* ▶ ***Scheme target:*** *£3m* ▶ ***EIS assets:*** *£0.55m* ▶ ***Total FUM:*** *£0.55m* ▶ ***Launch date:*** *2019*	***Directors:*** *Pippa Gawley, Alex Gawley* ***Contact:*** *Pippa Gawley* *0800 088 6098* *pippa@zerocarbon.capital*

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Factsheet

Zero Carbon Fund	
Product name	Zero Carbon Fund
Product manager	Sapphire Capital Partners LLP
Product advisor	Zero Carbon Capital Limited
Tax eligibility	EIS
Target return	2x after 7 years, including tax reliefs
Target income	None
Type of product	Discretionary portfolio service
Term	Evergreen
Sectors	Environment
Diversification:	
Number of companies	6-10
(Expected) Gini coefficient	0.10-0.17

Fees	Amount	Paid by
Initial fees:		
None		
Annual fees:		
None		
Exit fees:		
Performance fee	25%	Investor – payable on all proceeds

Advisor fee facilitation	Yes
Advisor fee amounts	As agreed with investor
HMRC Approved	No
Advance Assurance	Yes, for each investment
Reporting	6-monthly
Minimum investment	£25,000
Current funds raised	£0.55m
Fundraising target	£3m
Closing date(s)	30 June 2020
Expected exit method	Mostly trade sale

Source: Zero Carbon Capital, Hardman & Co Research

Fund aims

The Zero Carbon Fund is a discretionary portfolio service, which will provide a portfolio of investments in unquoted early-stage companies that have the potential to make a meaningful impact on climate change. The target return is 2x capital, after tax reliefs, over seven years. Returns will be focused on capital gains, and investors are unlikely to receive any dividends.

Summary of risk areas

Note: *There are generic risks from investing in EIS or unquoted companies, in addition to the specific ones commented on below. Comments on relative risk refer to other EIS investments and not to wider investments.*

Investments

Portfolio risk

Each investment will be providing risk capital to an unquoted early-stage technology company. ZCC aims to have at least six companies in each portfolio, with a target of ten. Although sector diversification is limited, stock-specific risk should dominate market risk.

The benchmark target of 2x, after tax reliefs, after seven years seems conservative for the stage of companies receiving investment, but ZCC stresses it sees the target as a prudent one.

Sourcing and external oversight

Although ZCC is a new fund advisor, its directors are doing the right things to establish their deal pipeline. Nevertheless, their ability to source the targeted number of investments is, as yet, unproven.

The Managing Partner of Sapphire is on the Investment Committee, and will bring third-party validation of prospective deals and the diligence performed on them.

Ongoing support and monitoring

ZCC plans to take an observer role in each investee company, with the places taken by a ZCC director or someone closely aligned with them. Investment appraisal will include possible areas of support, with ZCC seeing its strengths on the business side and looking for more technical support to be in place already.

Exits

With no history of exits to draw on, the expectation is that most exits will come via trade sales. The ZCC hypothesis is that large energy companies, in particular, will be a significant route to exit. ZCC guidance of an average of seven years to exit seems more realistic than that of some other managers.

Manager

Team

ZCC has a small team, consisting of the two directors. The directors have an advisory team of four people with a range of business and technical backgrounds. The latter will play a significant role, particularly for diligence, although consultants will also be used to assess technology, where appropriate.

Track record

ZCC is a new manager and has no track record. The directors have previously made 15 equity and 2 debt investments as angels in the US.

Regulation

Product

Advance Assurance is sought for each investment.

Manager

The manager of the fund is Sapphire Capital Partners LLP. It is FCA-registered (number 565716) with fund management permissions. Submissions to Companies House appear to be up-to-date. ZCC is the fund advisor and is an appointed representative of Sapphire (FCA number 916588).

Risk analysis/commentary

Although ZCC is a new company, it brings an interesting proposition to the market, and is doing the right things in many respects. Although the core ZCC team is small, it has supplemented this with an advisory team. There should not be any issues about team capacity for this fund. The directors are also building up a sourcing pipeline for potential deals. If they are right about capital shortage in this area, then these should bear fruit in due course.

Investors will be getting exposure to early-stage companies engaged in deep science activities. Investments may have to be held for longer than for some other EIS funds before coming to fruition, but we note that ZCC's management is sensible in its guidance on this.

Diversification is an important consideration for any investor – while the companies that succeed are likely to produce exceedingly good returns, those who do not may return little. Diversification within this fund is limited, although typical for products in this area. This EIS fund should be considered in the context of an investor's entire portfolio.

Investment process

Deeper dig into process

ZCC set out a clear ethos for the fund: to invest in technologies with the potential to have a large impact on carbon emissions, with a threshold set at half a gigton a year at scale. This is roughly 1% of expected global emissions in 2050. Investee companies are expected to be involved in deep science, with the expectation that they will develop the technologies, but deployment may be taken on elsewhere.

As important to ZCC is the presence of a theory of change. It is not enough that a technology has the potential to reduce emissions; there also needs to be a clear logical path, or, even better, more than one, for the technology to be adopted in sufficient scale to matter. As well as a clear path to adoption, ZCC will look for good evidence that the assumptions are reasonable.

By analysing the market, ZCC believes that there are five areas into which potential investments may fit:

- Reliable electricity: technologies to improve renewable generation or mitigate the impact of fossil fuels.
- Effective transportation: electric vehicles require a myriad of technologies, but there are other areas, such as shipping and alternative fuels.
- Healthy food: the growth in meat-alternative companies illustrates that there is potential here, in both the end-product and in production methods.
- Responsible industry: making industry more efficient, in both production and its output.
- Comfortable buildings: from construction methods to the way they are heated or cooled.

These potentially cover a broad range of areas of carbon production. While ZCC has not given any targets for sector diversification, the intention is to provide a spread across different areas, although this may be limited by available opportunities.

Management is seen as the other essential ingredient for an investment. It is looking for teams, not individuals, with complementary skills, and at least one member having a deep understanding of the technology. The focus is very much on skills and drive, rather than industry experience. ZCC is looking for disruptive technologies, which are not always best developed by insiders.

The financial model gets less weight. It is anticipated that most investments will be early-stage, where a company is still developing its financial model or is pre-revenue. ZCC is driven by a belief that de-carbonisation is currently being undervalued, and a good technology will be funded if it has a big enough impact.

Sourcing deals

Since the directors of ZCC returned to the UK in autumn 2018, they have been actively establishing an investor and deal origination network. Their belief is that this area is particularly underserved by investors, so companies will be open to a new supplier of capital.

With a deep science focus, there has been an emphasis on developing connections with universities and those who develop IP in these areas, including other investors. The latter include appropriate accelerators, some other EIS fund managers, angels and impact funds.

The directors have also been making contacts at some "official" sources of funding, such as using data points from Innovate UK and beneficiaries of regional support strategies. They are open to non-UK investments too, although, given the network development so far, it is likely there will be very few of these.

Fund investors will get exposure to a minimum of six companies, with ZCC targeting ten investments. The directors believe, reasonably, that they will need to get hundreds of companies into their pipeline to source this number of investments. While ZCC has been taking the right steps to develop its sourcing capability, its ability to find the appropriate number of investments is, inevitably, unproven.

Decision-making

In broad terms, ZCC's decision-making process is similar to that of most mainstream EIS managers. It should be noted that a member of the advisory team, Zachary Lebovitz, will be supporting the ZCC diligence process. The decision-making process will be progressive, with potential red flags at each stage that may prevent investment.

The first filter on any potential investments is whether they satisfy the core criteria in the Information Memorandum and those set out above. Some of these will be straightforward to assess, while others may take some time. The minimum impact will likely be significant in excluding potential candidates. There will also be a check that the company is raising the appropriate amount of money.

The next check will be on the technology. While both directors of ZCC have technical backgrounds, they are aware of their limited knowledge in some areas, such as biological innovation. For companies relying on such technology, advisors and consultants will be used to validate the approach. However, ZCC will tend to be more cautious on investing in these areas, and there may be a – sensible – bias towards areas with which the directors are more comfortable.

As well as assessing whether the technology will work, ZCC will also conduct an impact assessment. The criteria for the fund require that the technology can have a large impact. One component of this will be the new CRANE Tool, which will measure the potential impact of technologies on carbon emissions, although other information will be used where available.

A positive result on technology will be followed by legal and other diligence.

The information will be aggregated into a due diligence report for the Investment Committee. A unanimous agreement is required for the fund to make an investment.

ZCC will look to take no more than a third of an investment round, and so will always be co-investing alongside others. This should allow participation in a wider range of scale of deals than those where the fund looks to be the sole investor. ZCC is agnostic on whether it will lead a round, being equally happy to lead or leave that to a co-investor. ZCC may share its diligence with its co-investors where appropriate.

Historically, the directors of ZCC have not made follow-on investments. While the directors say they will keep an open mind about whether to make these for the fund, their focus will be more on new investments, and there will be very few, if any, follow-on investments. Nevertheless, many investments are likely to be capital-intensive and will require further funding rounds from other sources to be successful.

Exits

Exits are expected to be reliant on trade sales. ZCC believes, reasonably, that there will be strong interest in successful enterprises from large energy companies. ZCC guides to an average time to exit of seven years. Given the stage of investment, this seems more reasonable guidance than that from some other managers. While some exits may come more quickly, there are likely to be some that take significantly longer.

Part of ZCC's hypothesis is that the area as a whole is undervalued, as the costs of climate change are not appreciated yet. While it accepts that there is a need for policy change to alter this situation, the likelihood of this does appear to be increasing. If the hypothesis is right and there is change over the next few years, then exit valuations for successful companies could look much more attractive than they do currently.

Governance and monitoring

Advance Assurance is sought from HMRC on all investments prior to completion.

All client assets, including shares and cash, are held by Woodside Corporate Services (FCA registered – no 467652), which is the Administrator for the fund.

The values of investments are reported to investors every six months. Valuations will be mostly based on the price as at the last funding round.

ZCC plans to take an observer seat on the board of each investee company, with that place taken by either one of the ZCC directors or someone closely aligned with them. There will be, at a minimum, a monthly catch-up with the CEO to monitor progress.

The ZCC pre-investment analysis will include an assessment of the needs of the company and what support ZCC can supply. The team sees its strengths in supporting the business side, including governance, strategy development and developing connections for later funding. ZCC will have less ability to support the technical side, and the due diligence will look at what support is in place.

With the anticipation that boards will typically be cleared out around the time of the series A, the number of companies proposed for the fund should be manageable for the small size of the ZCC team.

Track record

As ZCC is a new company, it does not have a track record. The directors have been angel-investing in the US. They have made 15 equity and 2 debt investments, including investing $275,000 into nine companies comparable with those the fund is targeting. Of the latter, the four oldest have received follow-on funding from third parties. This gives an unrealised multiple of 2.3, although, given the small number of investments, the unrealised nature of the gains and different geography, investors should not attach much weight to these figures.

Fees

The fees for the fund are set out in the table on page 3. Investors will see that they have an unusual structure, with the only fee payable by investors being a performance fee. Investee companies will pay no fees, with ZCC funding the costs of setting up the fund and investing the assets.

The performance fee is calculated on an unusual basis, being 25% of all proceeds received (no hurdle rate). This gives an different fee profile from most funds. If the fund loses money, then the fee payable will be less than usual. A return in excess of the target may give a larger fee than many other funds, while the fees at the target return are within the usual range. There is a clear trade-off for investors, with fees being more closely aligned with returns than other funds.

Fundraising targets

The target fundraise is £3m by 30 June 2020, with a minimum of £1m. It is hoped that there will be an earlier close, probably early in the 2020/21 tax year. The aim is to invest before the end of that tax year.

The minimum subscription is £25,000.

Investment manager

ZCC is a new company set up by Pippa and Alex Gawley. Having been angel investors in Silicon Valley, they returned to the UK in 2019. They have concluded that investing in carbon-related areas will enable them to maximise their impact.

Sapphire Capital Partners LLP is a fund manager within the tax-enhanced services market. It provides a wide range of specific tax-enhanced services. We note that the two partners each won EISA "best individual rising star" in 2015 and 2016.

People

Pippa Gawley – Director, Zero Carbon Capital

Following an engineering degree, she joined Capital One as an analyst. This was followed by a product development role at Ask.com. After two years as MD of Amberlight, she was Head of Site Experience at eBay UK. She has spent the last four years focused on angel investing in the Cleantech area.

Alex Gawley – Director, Zero Carbon Capital

Also started his career at Capital One, followed by roles at HSBC and Barclays. Since 2006, he has worked at Google, with roles including Director of Product for Gmail and Google Calendar and Managing Partner at Area 120, Google's internal innovation lab. At the time of writing, he is serving his notice and is already working on the fund full-time.

Boyd Carson – Founder & Managing Partner, Sapphire Capital Partners LLP

Previously worked as a Director of PwC LLP corporate finance in New York. Boyd is a Fellow of the Institute of Chartered Accountants. He also acts as a director for several companies in the UK, and is the honorary treasurer of a leading cancer charity.

Vasiliki Carson – Partner, Sapphire Capital Partners LLP

Having started her career at JPMorgan Chase, Vasiliki moved to PwC LLP before joining Goldman Sachs, where she worked in both New York and Tokyo. She returned to PwC corporate finance, staying there until she left to become a partner in Sapphire Capital. She is a qualified accountant.

The Investment Committee consists of the ZCC directors and the Managing Partner of Sapphire. With the ZCC directors having been angel-investing in Silicon Valley, they will bring a slightly different perspective from many other EIS managers.

Although the ZCC team is small, it would seem to be adequate for the planned number of investments. It is complemented by an advisory team that has experience in financing and technology.

Appendix 1 – due diligence summary

Summary of core due diligence questions		
Manager		**Validated by**
Company	Sapphire Capital Partners LLP	
Founded	2009	Hardman & Co
Type	Limited Liability Partnership	Hardman & Co
Ownership	Two LLP designated members	Hardman & Co
FCA registration	565716	Hardman & Co
Solvency	Yes	Sapphire
EISA member	Yes	Hardman & Co
Advisor		
Company	Zero Carbon Capital Limited	Information Memorandum
Founded	2019	Hardman & Co
Type	Private Limited Company	Hardman & Co
Ownership	Equally by both directors	Hardman & Co
CRN	12028532	Hardman & Co
FCA registration	916588	Hardman & Co
Solvency	n/a	
EISA member	Yes	Hardman & Co
Fund Custodian		
Company	Woodside Corporate Services Limited	Information Memorandum
FCA registration	467652	Hardman & Co

Source: Hardman & Co Research

The Fund Manager is Sapphire Capital Partners LLP. It has two LLP-designated members: Mr Boyd Carson and Mrs Vasiliki Carson. It was created in 2009, and has its accounts made up to 31 December 2018. The company has confirmed its solvency, and has appropriate investment management permissions from the FCA.

As discussed under *Fund Manager and Advisor* above, Zero Carbon Capital is a new company, and it has not yet been required to submit accounts to Companies House. Its FCA registration is as an appointed representative of Sapphire.

Appendix 2 – example fee calculations

This calculates the estimated total amount payable to the manager under certain assumptions.

Basic assumptions	
Term	5 years
Investor amount	£100,000

Source: Hardman & Co Research

Calculations					
		Hardman & Co standard			Target
Gross return		-50%	0%	50%	87%
Amount (pre-tax relief)		£100,000	£100,000	£100,000	£100,000
Initial fees	Rate				
none					
Annual fees					
none					
Gross fund after investment return		£50,000	£100,000	£150,000	£186,667
Exit fees					
Performance	25%	£12,500	£25,000	£37,500	£46,667
Net amount to investor		£37,500	£75,000	£112,500	£140,000
Gain (pre-tax relief)		-£62,500	-£25,000	£12,500	£40,000
Gain (post-tax relief)		-£32,500	£5,000	£42,500	£70,000
Total fees to manager		£12,500	£25,000	£37,500	£46,667

Source: Hardman & Co Research

Notes: post-tax relief figures assume initial income tax relief only; other reliefs may be available to investors

Notes

Notes

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