Menhaden Resource Efficiency

Menhaden Resource Efficiency PLC
Half Year Report
for the six months ended 30 June 2023

Contents

Financial Highlights

Menhaden Resource Efficiency PLC (the "Company") is an investment trust. Its shares are listed on the premium segment of the Official List and traded on the main market of the London Stock Exchange.

The Company's investment objective is to generate long-term shareholder returns, predominantly in the form of capital growth, by investing in businesses and opportunities that are demonstrably delivering or benefiting significantly from the efficient use of energy and resources irrespective of their size, location or stage of development.

Performance	As at 30 June 2023	As at 31 December 2022
Total net assets	£119,675,000	£103,831,000
Net asset value ("NAV") per share	151.4p	129.8p
Share price	96.5p	89.0p
Share price discount to the NAV per share^	36.3%	31.4%

Total returns	Six months to 30 June 2023	Year to 31 December 2022
NAV per share^	16.9%	(16.5%)
Share price^	8.8%	(20.3%)
RPI + 3%	5.9%	13.7%

	Six months to 30 June 2023	Year to 31 December 2022
Annualised ongoing charges ratio^	1.8%	1.8%

^ Alternative Performance Measure. Please refer to the Glossary on page 21 for definitions of these terms and the basis of their calculation.

Chairman's Statement

Strategic Context

Over the first six months of 2023 the level of investment in both the global quoted and private capital markets was subdued. The main reasons include post pandemic concerns, the dislocating impact of the Ukraine war on global energy and other resource supply chains, inflationary pressures and rising central bank interest rates, and incidence of extreme weather events in North America, Europe, and Asia.

At the same time the global demand for energy and resources continues to rise. The World Meteorological Association has stated that 2023 is set to be the hottest year ever recorded and the International Monetary Fund reported that financial markets are under-pricing climate related risks. The need for businesses to progressively reduce their use of fossil fuels and greenhouse gas emissions has never been so critical.

Consequently, our investment thesis to invest in high quality businesses that both enjoy strong market positions and are demonstrably delivering or significantly benefitting from the efficient use of energy and resources is now even more relevant and so should be beneficial for long-term shareholders.

Financial Performance

The performance of our investment portfolio has been encouraging. Between 31 December 2022 and 30 June 2023 the Company's total net assets increased from £103.8 million to £119.7 million. The NAV per share increased from 129.8p at 31 December 2022 to 151.4p at 30 June 2023, giving an NAV per share total return of 16.9%. The Company's share price over the same period rose from 89.0p per share to 96.5p, giving a share price total return of 8.8%.

These metrics compare with a return over the six months of our primary performance comparator, RPI+3% per annum, of 5.9%. At the end of June the share price stood at a 36.3% discount to the NAV per share. Such share price discounts are currently reflected across much of the investment trust sector and does not reflect our NAV per share CAGR performance of 12.5%, 10.5% and 10.3 % over 1, 3 and 5 years.

Notable contributors to our performance included private equity clean energy developer X-ELIO, which is expected to realise 2.2 times invested capital following its proposed acquisition by Brookfield Renewable, expected to conclude by the end of 2023. Taken together, our three largest digitalisation (decarbonisation) themed public equities (Microsoft, Alphabet and Amazon) contributed 9.2% to NAV. The two largest detractors were two sustainable infrastructure and transport companies, Union Pacific and Canadian National Railway, which reduced our NAV by 0.3%.

The most significant changes to the portfolio in the period included investment profits being taken from reducing, by around half, the holding in Alphabet and re-investment in Airbus (because of its focus on manufacturing more efficient engines powered by sustainable aviation fuel). We also made a new large US$25 million private equity commitment into TCI Real Estate Partners Fund IV (because of its focus on developing best in class energy efficient buildings).

Environmental Performance

Our Portfolio Manager actively monitors the energy and resource efficiency of our investments in line with the carbon disclosure project and the Science Based Targets initiative.

The focus of engagement with all quoted investee companies has been on their alignment with the Paris Agreement to reduce global warming, deforestation and biodiversity loss. The aim of this engagement is to encourage them to adopt and use best practice environmental solutions and define pathways to reduce their GHG emissions and preserve tropical rain forests, together with associated biodiversity. Some positive responses were received, which were welcomed. Where a weak or no response was received further follow-up engagement is planned.

Our Portfolio Manager supported AGM resolutions seeking greater disclosures by KLA of their Net Zero targets and the Canadian National Railway climate action plan.

Share Price Discount

We had not previously favoured share buy backs for mitigation of the share price discount and remain of the view that share buybacks are not usually in the best interest of shareholders as they reduce the size of the Company and increase the ongoing charges ratio. However, after a step-down in the share price in January 2023 the Board decided it would trial a very modest programme of share buybacks. We considered that this might reduce the volatility of the share price, take advantage of the accretion to NAV that buying back shares at a discount achieves and provide a signal to the market of our confidence in the value of the Company's portfolio. Some 975,000 shares were bought back between February and April 2023 at an average price of 94.35 pence per share. The exercise did provide some additional liquidity in the volatile market conditions, was accretive to our shareholders and the cost of execution was modest.

We will continue to monitor closely the discount to NAV at which the Company's shares trade. Any future action will be dependent on market conditions, the Company's available liquid resources and the potential conflict between accretive share buybacks and the availability of attractive portfolio investment opportunities. Buybacks will remain at the discretion of the Board.

As the Company can only issue new shares when the share price is at a premium to NAV it remains the Board's goal to improve the share price through enhanced investment performance and by having effective marketing strategies and informative communications to potential new investors.

Dividend

In line with previous practice the Board has not declared an interim dividend in respect of this half year. As shareholders will be aware a dividend of 0.4p per share was recommended in respect of the year to 31 December 2022 and, following shareholder approval in June 2023, was paid in July 2023.

Income generation is not part of the Company's investment objective and shareholders are reminded that the Company's dividend policy is that the Company will only pay dividends sufficient to maintain investment trust status. If that threshold is crossed once again for the current financial year, to 31 December 2023, the Directors will recommend to shareholders, for approval at the next AGM, a dividend sufficient to achieve compliance with the investment trust status requirements.

Outlook

Whilst financial markets have generally been resilient overall so far in 2023, and the Board hopes for an upturn for both quoted equities and private investment opportunities, we cannot ignore background macro factors, including: the continuing war in Ukraine; tension between the USA and China over trade; inflationary pressures and high interest rates, which may persist for some time; nor the potential for further energy and resource price volatility; and climate change impacts.

However, the Board considers the Company's portfolio to be well placed for further capital growth because of its quality and the defensive and inflation resistant properties of many of the holdings. Moreover, the Board continues to remain convinced of the validity of the premise that the world and all businesses need to be more energy and resource efficient and the Company's investment thesis should accordingly provide long-term benefits for our investors.

Further Information

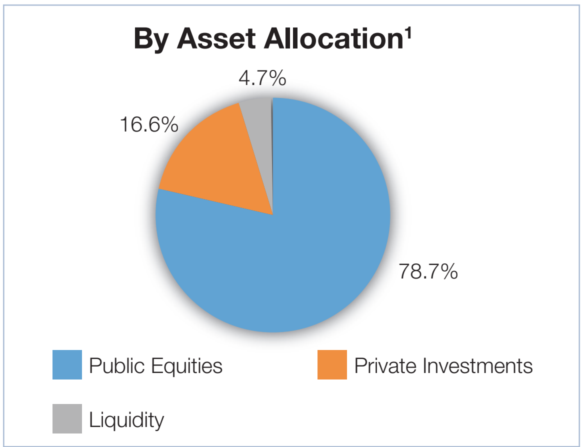
Our Portfolio Manager's report, starting on page 8 provides further details about our investments and their contribution to the Company's performance during the period. The Company's most recent 2022 annual environmental impact report and monthly factsheets can be found on our website www.menhaden.com. Our 2023 annual report and environmental impact report will be published in mid 2024.

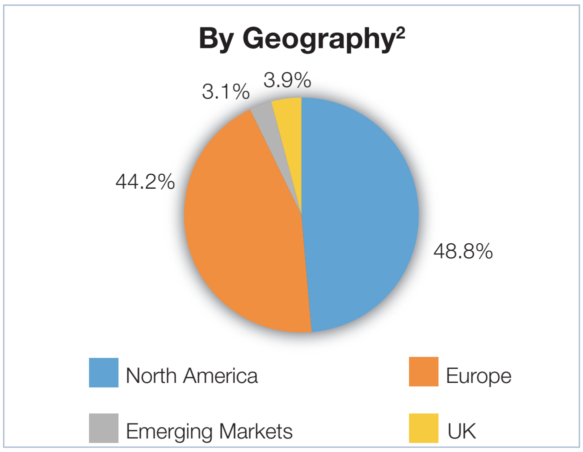
Howard Pearce
Chairman
14 September 2023

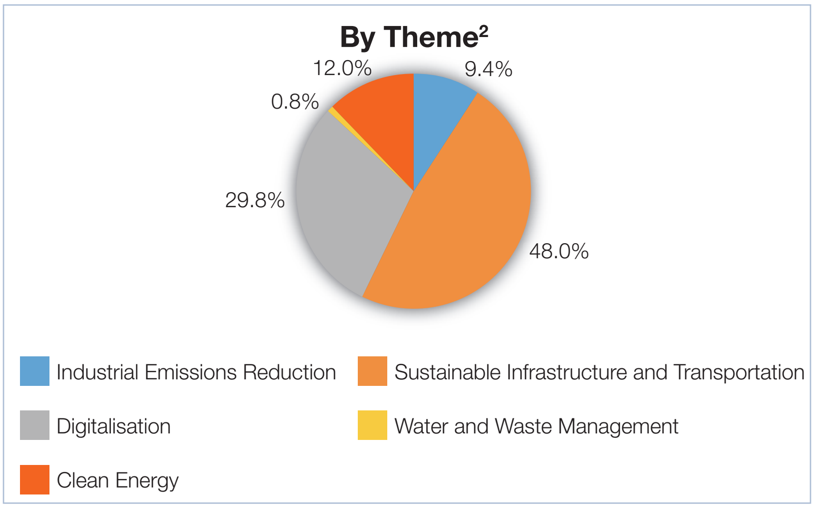
Portfolio Summary

Investment Themes

Theme	Description
Clean energy	Companies involved in the production and transmission of power from clean sources such as solar or wind.
Industrial emissions reduction	Companies focused on improving energy efficiency (e.g. in buildings or manufacturing processes) or creating emissions reduction products or services.
Sustainable infrastructure and transportation	Companies in the infrastructure and transport sectors helping to reduce harmful emissions.
Water and waste management	Companies with products or services that enable reductions in usage/volumes and/or smarter ways to manage water and waste.
Digitalisation	Companies that facilitate reduced resource consumption through digital technology.
Reporting	Companies providing the means for environmental reporting and evaluation.







[1] excludes FX forward contracts
[2] excludes FX forward contracts and liquidity

Portfolio as at 30 June 2023

Investment	Country	Fair Value £'000	% of net assets
Airbus	France	14,875	12.4
X-ELIO*[1]	Spain	13,588	11.4
Alphabet	United States	13,181	11.0
Microsoft	United States	13,115	11.0
Safran	France	10,587	8.8
Canadian Pacific Kanas City	Canada	10,291	8.6
VINCI	France	9,595	8.0
Canadian National Railway	Canada	8,953	7.5
Amazon.com	United States	5,841	4.9
John Laing Group*[2]	UK	4,396	3.7
Ten largest investments		**104,422**	**87.3**
Ocean Wilsons	Bermuda	3,456	2.9
TCI Real Estate Partners Fund III*	United States	1,676	1.4
Union Pacific	United States	869	0.7
Waste Management	United States	859	0.7
ASML	Netherlands	683	0.6
KLA	United States	496	0.4
LAM Research	United States	354	0.3
Total investments		**112,815**	**94.3**
Net current assets (including cash)		6,860	5.7
Total net assets		**119,675**	**100.0**

[1] Investment made through Helios Co-Invest LP
[2] Investment made through KKR Aqueduct Co-Invest LP
* Unquoted

Business Description	Theme
Designs and manufactures aircraft with the most fuel-efficient engines in the industry	Sustainable infrastructure and transportation
Develops and operates solar energy assets	Clean energy
Delivers a range of internet-based products and services for users and advertisers, which are powered by renewable energy with the group being the largest corporate buyer of renewable power worldwide	Digitalisation
Provides cloud infrastructure and software services which deliver energy efficiency savings for customers versus legacy solutions	Digitalisation
Designs, manufactures and services next generation aircraft engines which offer significant fuel efficiency savings	Industrial emissions reduction
Owns and operates fuel-efficient freight railways in Canada and the USA	Sustainable infrastructure and transportation
Builds and operates energy efficient critical infrastructure assets	Sustainable infrastructure and transportation
Operates rail freight services across North America, which represent the most environmentally friendly way to transport freight over land	Sustainable infrastructure and transportation
An energy efficient ecommerce and cloud computing business aiming to use only renewable energy by 2030	Digitalisation
Portfolio of mostly renewable rail and social infrastructure assets	Sustainable infrastructure and transportation
Operates ports and provides lower climate impact maritime services in Brazil	Sustainable infrastructure and transportation
Invests in energy-efficient real estate projects	Sustainable infrastructure and transportation
Provides fuel-efficient rail freight services across the USA	Sustainable infrastructure and transportation
Provides waste management and environmental services in North America	Water and waste management
Develops, manufactures and services advanced lithography systems used to produce more energy efficient semiconductor chips	Digitalisation
Develops, manufactures and services inspection and metrology equipment used to increase the efficiency of semiconductor manufacturing	Digitalisation
Develops, manufactures and services etching and deposition equipment used to produce more energy efficient semiconductor chips	Digitalisation

Portfolio Manager's Review

Performance

During the first half of 2023, the Company's NAV per share increased from 129.8p to 151.4p. This represents a total return of 16.9% and compares to the benchmark return of 5.9%. The Company's share price traded at a 36.3% discount to NAV as at 30 June 2023. The contributions to the NAV per share total return over the period are summarised below:

Asset Category	*30 June 2023 NAV %*	*Return Contribution %*
Public Equities	77.8	13.1
Private Investments	16.4	2.7
Cash	5.3	-
Foreign exchange forwards	1.1	2.1
Dividend Paid		(0.3)
Expenses (including accruals)	(0.6)	(1.8)
Net Assets	100.0	
Net Return		15.8
Reinvested dividend		0.3
Impact of share repurchases		0.8
Total Return		16.9
Net Assets	100.0	

The easing of inflation and hope for a soft landing in the higher interest rate environment have buoyed equity markets this year. The consumer remains resilient so far and dislocations in the United States regional banking sector seem to have been successfully contained. We continue to actively look for attractive private opportunities with better risk-reward profiles than those in our quoted portfolio. There is some evidence of increasing deal flow and a more sensible approach to pricing which will satisfy our requirements. The global move towards Net Zero by 2050 continues to gain momentum. More and more companies from all sectors of the economy are establishing frameworks to reduce their greenhouse gas (GHG) emissions. We believe our thesis of investing in businesses benefitting from the efficient use of energy and resources remains more relevant than ever.

In the current environment, the portfolio continues to prioritise quoted equities, which represented 77.8% of the NAV at the period end. Our quoted equities span a number of energy and resource efficiency themes, namely: clean energy; digitalisation; industrial emissions reduction; sustainable infrastructure and transport; water and waste management. These all offer secular growth and their industry structures provide the incumbents with formidable competitive positions. Commitments to deliver the more efficient use of energy and resources are now widely recognised as adding to the shareholder value of those companies.

Investment performance was led by our biggest digitalisation holdings (**Microsoft, Alphabet** and **Amazon**), in a reversal of their poor performance in 2022. Within the private portfolio, KKR agreed a deal to sell its 50% stake in Spanish solar developer, **X-ELIO**, to joint venture partner, Brookfield Renewable. We expect the transaction to complete in the second half of this year and deliver a compounded rate of return of 13% over 8 years in US dollars. This will be our fourth successful exit from a private investment, which, in aggregate, will have realised gains of approximately £21 million.

Investment performance was negatively affected by the appreciation of sterling, although this was partly offset by our forward currency contract hedges. We realised net cash proceeds of £5.2 million from our currency hedging over the period.

Key investment decisions during the period included the reduction of our **Alphabet** position by one half and the partial redeployment of the proceeds into a new position in **Airbus** in February. We continued to increase the size of the position over the subsequent months. We regularly monitor valuation and adjust positions accordingly where appropriate. We opted to take some profits on our **Microsoft** holding in June, following very strong performance. We then added the proceeds, and some excess cash, to our **Airbus**, **Canadian National Railway** and **VINCI** holdings.

Our private investment activity was limited, with no new transactions in the period. However, we were pleased to make a new commitment to the fourth vintage of the TCI Real Estate Partners strategy in March. This fund will follow the same strategy, and offer similar environmental benefits, as the **TCI Real Estate Partners Fund III** into which we made a US$15 million commitment in 2018. The fund helps to finance developments which are best in class in terms of energy efficiency and environmental standards.

The Company's share price has continued to trade at a significant discount to its net asset value. Following a widening of the discount in January, the Board of Directors authorised the deployment of up to £1 million for a share buyback program. 975,000 shares (1.2% of the total issued) costing a total of £929,000 were purchased between mid-February to early April.

We maintain a proactive stance on stewardship. We carefully assess shareholder resolutions and engage with portfolio companies on environmental issues, while remaining mindful of our size. We seek to promote energy transition plans to progress towards net zero targets and greater disclosure of greenhouse gas emission reduction and mitigation strategies. During the period we voted against the recommendation of Amazon's management to support a resolution requesting disclosure on how the company is protecting the retirement plan's beneficiaries from climate risk.

Public Equities

Quoted public equities represented 77.8% of total NAV at 30 June 2023, and delivered a total return of 16.9% over the period, adding 13.0% to the NAV per share.

Investment	*Increase/ (Decrease) %*	*Contribution to NAV %*
Microsoft	42.0	3.9
Alphabet	35.7	3.5
Amazon	55.2	1.8
Safran	22.7	1.7
VINCI	14.0	0.8
Airbus	5.3	0.5
Ocean Wilsons	3.2	0.4
ASML	31.6	0.1
Canadian Pacific Kansas City	8.3	0.1
LAM Research	53.0	0.1
KLA	28.6	0.1
Waste Management	10.5	-
Union Pacific	(1.2)	(0.1)
Canadian National Railway	1.8	(0.2)

Note: Percentage increase/(decrease) for individual holdings is calculated on their local currency and based over the holding period if bought or sold during the year.

Microsoft remains the key technology partner for all enterprises and its software products are ubiquitous. Customers can depend on **Microsoft** to ensure their technology infrastructure is fully sustainable, with the company aiming to operate on carbon-free energy everywhere, at all times, by 2030. **Microsoft** is also set to be one of the prime beneficiaries of Artificial Intelligence. The new Copilot products will enable customers to harness the power of Generative AI. The rate of adoption may be gradual, but we believe that the productivity gains from it will support significant future revenue growth. The core profit drivers, Office 365 Commercial and the Azure Cloud business are performing well. Office 365 now has more than 380 million users and continues to grow. Azure is still gaining market share. Percentage revenue growth has remained in the high 20s on a year-over-year basis, even as customers have focused on optimising workloads to reduce costs. Positively, the weaker PC market should cease to be a headwind going forwards. With the shares up more than 40% year-to-date in US dollars, we opted to take some profits in June and reduced our position by 2.0% of NAV.

Alphabet continues to step up its response to the competitive threat posed by Open AI/**Microsoft** and ChatGPT. Management is focused on using Generative AI to enhance Google's products and services for both users and advertisers. The launch of a new beta search experience in the US (as part of "Search Labs") provides an AI powered snapshot of key information to consider, then suggested next steps and has chat capabilities. The tempo of iterative product development appears to be increasing. We welcome the new sense of urgency. The company continues to push forward on its sustainability agenda with aims to achieve net-zero emissions, run on 24/7 carbon-free energy and to replenish more water than it consumes. Progress is also being made on costs, with headcount now falling and operating margins improving. The company should be able to accelerate revenue growth once the economy improves.

We opted to reduce our position materially in February due to concerns stemming from heightened competition in Search, following **Microsoft**'s launch of its new Bing search engine. Whilst we thought that **Alphabet** was well positioned to fend off this new challenge, we realised that the level of risk and range of outcomes had widened. We sold approximately one half of our position, leaving it equal to the profit we made on our original holding. We have been happy to maintain the position since then but do continue to monitor the various anti-trust actions against the company.

The turnaround at **Amazon** is gaining momentum. Profitability and free cash flow generation have inflected. The Retail business' operating margins have benefited from lower fuel prices, falling freight rates and the switch to a regional fulfilment model in the US. The latter translates into shorter delivery distances and faster delivery speeds. Amazon Web Services' growth rate is also picking up following a softer Cloud environment focused on workload optimisations. CEO Jassy has always been adamant on the future for AWS, outlining how 90% of IT spend is still on-premises. We were disappointed to see that Amazon recently failed to meet the Science Based Targets initiative's (SBTi) deadline to submit their emissions reduction targets for validation. We intend to raise this matter during our engagement with the company.

French aircraft engine manufacturer, **Safran**, has continued to profit from the commercial aviation industry's resurgence. The reopening of China in January removed the last major obstacle to a full recovery. We believe air travel remains a secular growth story, with most people still never having travelled on a plane.

Flight cycles are the key driver of the company's financial performance, with most of its profits coming from aftermarket sales of spare parts. **Safran** continues to lead the way towards the decarbonisation of the aviation sector. We were pleased to see that its emission reduction targets were independently approved by the SBTi. These include targets to reduce Scope 1 and 2 emissions by 50% by 2030 and reduce Scope 3 emissions by 42.5% by 2035 (versus 2018).

Holding company, **Ocean Wilsons**, owns a controlling interest in publicly listed Brazilian port operator, Wilson Sons, alongside a diversified investment portfolio. Wilson Sons' asset base enjoys high barriers to entry and substantial operating leverage for growth in Brazil's international trade shipping sector. Shipping has the lowest climate impact of any freight method, on a per unit basis, producing between 10-40 grams of CO2 per metric ton of freight per kilometre of transportation, which is around half that even of rail freight. **Ocean Wilsons** recently confirmed that it is undertaking a strategic review of its investment in Wilson Sons. We believe that the company could unlock significant value, with the shares trading at more than a 50% discount to NAV at the period end.

French infrastructure group, **VINCI**, benefited from the recovery of its Airports business and the good performance of its Energies and Cobra contracting businesses. Traffic at the former is now above 90% of 2019 levels. The management team continues to make progress on its targets to reduce Scope 1 and 2 emissions by 40% and Scope 3 emissions by 20% by 2030. This includes the company's construction business increasing the use of low carbon concrete for 90% of its needs. The recent completion of the Belmonte solar farm in Brazil marks **VINCI**'s first foray into renewable power generation. The company is currently waiting for the publication of the French government's opinion on the possibility of changing taxes levied on motorway concessions in the country.

Our North American railroad holdings, **Canadian National Railway**, **Canadian Pacific Kansas City** and **Union Pacific**, are currently facing a slowing economy. We view the headwinds as only cyclical in nature. Rail retains a significant cost advantage over trucks on longer haul routes and no one is building railroads today. Rail remains the most environmentally friendly way of transporting freight over land, with current locomotives four times more fuel efficient than trucking on a per unit basis.

We opted to add incrementally to our position in **Canadian National Railway** in June. We believed the shares offered good value compared to the company's midterm organic growth profile. Canadian Pacific finally completed its merger with Kansas City Southern in April. **Canadian Pacific Kansas City** has multiple opportunities to grow volumes, including by converting truck traffic to rail. We consider the published earnings per share guidance to be overly conservative. We believe new **Union Pacific** CEO, Jim Vena, should be able to help the company fulfil its potential and deliver meaningful improvements in operations and profits.

Signs are emerging that the semiconductor industry is finding a bottom to its current cycle. A return to growth should translate into higher capital spending. This should benefit our semiconductor capital equipment companies, **ASML**, **Lam Research** and **KLA**. Each company dominates its respective niche in the value chain and plays a critical role in helping the wider industry both maximise semiconductor production from finite resources and develop and produce more advanced and energy efficient chips. We believe the fundamental drivers of semiconductor demand remain as clear as ever: cloud computing, artificial intelligence, 5G, the Internet of Things (IoT) and the digitalisation of the automotive industry. Semiconductor manufacturers' capital intensity also continues to increase. We expect all these companies to have very bright futures.

Solid waste pricing is moderating as inflation eases, but **Waste Management** continues to drive forwards on its sustainability agenda. Growth investments in new automated recycling facilities and renewable natural gas plants at landfill sites should help to drive double digit earnings growth going forward. The company provides essential services and benefits from a high proportion of annuity-like revenue streams, with the cost of its services representing a very small portion (circa 0.5%) of customers' total expenses.

We opened a new position in aircraft manufacturer, **Airbus**, in February and increased its size over the subsequent months to 12.4% of NAV at the period end. We previously held the company's shares but exited in April 2021, believing that the post Covid recovery would take significantly longer than implied by the price. Now commercial aviation's recovery from the global reaction to the Covid pandemic is nearly complete and the secular growth of air travel appears set to resume. Fleet renewal requirements and the need for the global aviation sector to accelerate their decarbonisation are key drivers. By upgrading to **Airbus**' latest generation aircraft, customers can reduce carbon emissions by 20-30%. **Airbus**' aircraft are also certified to operate on 50% sustainable aviation fuel (SAF), with a target to reach 100% by the end of the decade.

Airbus' A320 program is the most successful aircraft family ever. Production is sold out until 2029. Deliveries should increase from a target of 720 this year to more than 1,000 in the coming years and underpin significant earnings growth. We were also pleased to see the company receive approval from the SBTi for its greenhouse gas emissions near-term reduction targets. These include plans to reduce scope 1 and 2 emissions by 63% by 2030 and reduce scope 3 emissions by 46% by 2035.

Private Investments

Our portfolio of private investments represented 16.4% of the total NAV as at 30 June 2023, and delivered a total return of 16.6% during the period, adding 2.7% to the NAV per share.

Investment	*Increase/ (Decrease) %*	*Contribution to NAV %*
X-ELIO	52.0	2.8
John Laing	(2.5)	(0.1)
TCI Real Estate Partners Fund III	4.5	-

Note: Percentage increase/(decrease) for individual holdings is calculated on their local currency and based over the holding period if bought or sold during the year.

KKR agreed a deal to sell its 50% stake in Spanish solar energy developer, **X-ELIO**, to joint venture partner, Brookfield Renewable in March. We marked up our valuation to align with the sale price. We expect the transaction to complete in the second half of this year and deliver a return of ~2.2 times invested capital in US dollars, equivalent to an IRR of ~13% over 8 years.

TCI Real Estate Partners Fund III currently comprises three loans to separate real estate developments in the United States. They are first mortgages and have low loan-to-value ratios (less than 60%). These developments are best in class in terms of energy efficiency and environmental standards. Buildings contribute more than 30% of GHG emissions in the United States and raising their efficiency levels is vital to reducing emissions. Whilst the Fund did not manage to commit the level of capital we originally hoped, investment returns have remained in line with expectations. The Fund has continued to draw down from its remaining commitment (circa US$3.2 million) in line with the schedules of its existing loans. We expect the last loan to be repaid in 2026.

John Laing is an active manager of public-private partnerships and similar concession-based assets. The company makes both green and brownfield investments. Environmental impacts are managed on an asset by asset basis and the firm is seeking to achieve a net zero transition for its direct operations by 2050 or before. We marked down our valuation to align with the manager's latest valuation, with the downgrade being primarily driven by losses on currency translation. KKR's overhaul of the company's operations continues, with the appointment of Andrew Truscott as CEO in March. Recent investments include the acquisition of a majority stake in National Road RV555, Norway's largest PPP, and the purchase of three Irish infrastructure assets from AMP Capital. The latter consisting of Valley Healthcare, a portfolio of primary care centres, the Convention Centre Dublin and Towercom, a mobile tower operator.

We were pleased to finalise a new US$25 million commitment to the **TCI Real Estate Partners Fund IV**. This fund will follow the same strategy, and offer similar environmental benefits, as the **TCI Real Estate Partners Fund III**. The coronavirus epidemic provided a stress test for Fund III. We were very pleased that while certain developments were affected by construction delays, return expectations on the loans remained unchanged. Each loan has several elements of downside protection such as credit seniority, loan-to-value ratios of up to 65% and completion and carry guarantees. The strategy has only ever recorded one loss out of 37 loans. The manager believes that stress is starting to permeate real estate credit markets and that the emerging conditions should underpin strong demand for its differentiated financing. Furthermore, the rise in interest rates has increased the relative attractiveness of their traditionally premium rates. The manager is targeting gross returns of 11-14%. We believe this level of return represents an exceptional balance between risk and reward. We expect the fund to start drawing down this year. We expect our net invested amount, on a cost basis, to peak at approximately 70% of the total commitment in mid-2026.

FX Hedges

The aim of our currency hedging policy, to date, has been to address volatility inherent in the portfolio's exposure to both the US dollar and the euro. While in this period we realised proceeds of £5.2 million, we continue to keep the policy under review.

Outlook

We continue to focus on what we can control. Our preference remains for investments which require us to make as few predictions as possible. We believe our criteria of investing in energy and resource efficiency businesses offering quality and value should leave the portfolio well placed to generate superior risk adjusted returns over time in most market conditions.

Private investment opportunities are becoming more interesting, with higher expected returns. We believe that the balance between risk and reward on proposed transactions is improving but we will take a considered approach to committing capital. We continue to evaluate new transactions with a critical lens. We will only make private investments when they offer a more attractive balance between risk and reward compared to public markets. We believe the next vintage of TCI Real Estate Partners' strategy met this criteria and were very happy to make a substantial commitment (US$25 million) in March. We expect to earn comparable returns to equity markets, whilst incurring substantially less risk due to our more senior position in the capital structure.

Following the strong year to date returns, the Company's net asset value per share has now compounded at over 10%, after fees, for the five years ended 30 June 2023. Share price performance continues to trail net asset value returns. We believe the two should converge in time. We remain optimistic on both our energy and resource efficiency investment thesis and our current portfolio's prospects.

Performance CAGR %	*30/06/22 - 30/06/23 1Yr*	*30/06/20 - 30/06/23 3Yr*	*30/06/18 - 30/06/23 5Yr*	*30/06/16 - 30/06/23 7Yr*	*31/07/15 - 30/06/23 Inception*
NAV per share	12.5%	10.5%	10.3%	9.6%	5.8%
Share Price	(2.4%)	4.9%	6.6%	6.8%	(0.2%)
RPI+3%	11.2%	9.8%	7.6%	7.1%	6.9%

Note: Figures are adjusted for cumulative dividend reinvestments

Menhaden Capital Management LLP
Portfolio Manager
14 September 2023

Regulatory Disclosures

Principal Risks and Uncertainties

The principal risks and uncertainties faced by the Company are explained in detail in the Company's Annual Report for the year ended 31 December 2022 (the "Annual Report"). The Board believes that the Company's principal risks and uncertainties have not changed materially since the date of the Annual Report and are not expected to change materially for the remaining six months of the Company's financial year.

Related Parties Transactions

During the first six months of the current financial year, no transactions with related parties have taken place which have materially affected the financial position or the performance of the Company.

Going Concern

The Directors believe, having considered the Company's investment objective, risk management policies, capital management policies and procedures, the nature of the portfolio and the expenditure projections, that the Company has adequate resources, an appropriate financial structure and suitable management arrangements in place to continue in operational existence for the foreseeable future and, more specifically, that there are no material uncertainties pertaining to the Company that would prevent its ability to continue in such operational existence for at least twelve months from the date of the approval of this half year report. For these reasons, the Directors consider it is appropriate to continue to adopt the going concern basis in preparing the financial statements.

Directors' Responsibilities Statement

The Board confirms that, to the best of the Directors' knowledge:

(i) the condensed set of financial statements contained within the half year report has been prepared in accordance with FRS 104 'Interim Financial Reporting' and gives a true and fair view of the assets, liabilities, financial position and return of the Company; and

(ii) the interim management report includes a fair review of the information required by sections 4.2.7R and 4.2.8R of the UK Listing Authority Disclosure Guidance and Transparency Rules.

In order to provide these confirmations, and in preparing these financial statements, the Directors are required to:

- select suitable accounting policies and then apply them consistently;
- make judgements and accounting estimates that are reasonable and prudent;
- state whether applicable UK Accounting Standards have been followed, subject to any material departures disclosed and explained in the financial statements; and
- prepare the financial statements on the going concern basis unless it is inappropriate to presume that the Company will continue in business;

and the Directors confirm that they have done so.

This half year report contains certain forward-looking statements. These statements are made by the Directors in good faith based on the information available to them up to the date of this report and such statements should be treated with caution due to the inherent uncertainties, including both economic and business risk factors, underlying any such forward-looking information.

Howard Pearce
Chairman
14 September 2023

Condensed Income Statement

	Note	Six months to 30 June 2023 (unaudited) Revenue £'000	Capital £'000	Total £'000	Six months to 30 June 2022 (unaudited) Revenue £'000	Capital £'000	Total £'000
Gains/(losses) on investments at fair value through profit or loss		–	17,492	17,492	–	(17,838)	(17,838)
Income from investments	5	1,129	–	1,129	761	–	761
Management and performance fees	6,9	(161)	(1,079)	(1,240)	(164)	1,021	857
Other expenses		(193)	–	(193)	(221)	–	(221)
Net returns/(losses) before taxation		775	16,413	17,188	376	(16,817)	(16,441)
Taxation		(99)	–	(99)	(57)	–	(57)
Net returns/(losses) after taxation		676	16,413	17,089	319	(16,817)	(16,498)
Basic and diluted returns/(losses) per share	7	0.8p	20.7p	21.5p	0.4p	(21.0)p	(20.6)p

The total column of this statement is the profit and loss account of the Company. The supplementary revenue and capital columns are prepared under guidance issued by the Association of Investment Companies' Statement of Recommended Practice.

All revenue and capital items in the above statement derive from continuing operations.

There are no recognised gains or losses other than those shown above and therefore no Statement of Total Comprehensive Income has been presented.

Condensed Statement of Changes in Equity

	Called up share capital £'000	Special reserve £'000	Capital redemption reserve £'000	Capital reserve £'000	Revenue reserve £'000	Total £'000
Six months to 30 June 2023 (unaudited)						
Balance at 31 December 2022	800	77,371	–	24,970	690	103,831
Net returns after taxation	–	–	–	16,413	676	17,089
Repurchase of ordinary shares for cancellation	(10)	(929)	10	–	–	(929)
Dividends paid	–	–	–	–	(316)	(316)
Balance at 30 June 2023	790	76,442	10	41,383	1,050	119,675
Six months to 30 June 2022 (unaudited)						
Balance at 31 December 2021	800	77,371	–	45,996	364	124,531
Net (losses)/returns after taxation	–	–	–	(16,817)	319	(16,498)
Dividends paid	–	–	–	–	(160)	(160)
Balance at 30 June 2022	800	77,371	–	29,179	523	107,873

Condensed Statement of Financial Position

	Note	As at 30 June 2023 (unaudited) £'000	As at 31 December 2022 (audited) £'000
Fixed assets			
Investments at fair value through profit or loss	8	112,815	93,809
Current assets			
Debtors		76	104
Derivative financial instruments	8	1,259	4,200
Cash		6,249	6,061
		7,584	10,365
Current liabilities			
Creditors: amounts falling due within one year		(291)	(343)
Performance fee provisions	9	(433)	–
Net current assets		6,860	10,022
Net assets		119,675	103,831
Capital and reserves			
Called up share capital		790	800
Special reserve		76,442	77,371
Capital redemption reserve		10	–
Capital reserve		41,383	24,970
Revenue reserve		1,050	690
Total shareholders' funds		119,675	103,831
Net asset value per share		151.4p	129.8p

Condensed Cash Flow Statement

	Six months to 30 June 2023 (unaudited) £'000	Six months to 30 June 2022 (unaudited) £'000
Net cash inflow/(outflow) from operating activities	6	(299)
Investing activities		
Purchases of investments	(18,982)	(10,049)
Sales of investments	15,172	20,017
Settlement of derivatives	5,237	(3,618)
Net cash inflow from investing activities	1,427	6,350
Financing activities		
Dividends paid	(316)	(160)
Repurchase of ordinary shares for cancellation	(929)	–
Net cash outflow from financing activities	(1,245)	(160)
Increase in cash and cash equivalents	188	5,891
Cash and cash equivalents at beginning of period	6,061	878
Cash and cash equivalents at end of period	6,249	6,769

Notes to the Financial Statements

1 FINANCIAL STATEMENTS

The condensed financial statements contained in this interim financial report do not constitute statutory accounts as defined in s434 of the Companies Act 2006. The financial information for the six months to 30 June 2023 and 30 June 2022 has not been audited or reviewed by the Company's external auditor.

The information for the year ended 31 December 2022 has been extracted from the latest published audited financial statements. Those statutory financial statements have been filed with the Registrar of Companies and included the report of the auditor, which was unqualified and did not contain a statement under Sections 498(2) or (3) of the Companies Act 2006.

No statutory accounts in respect of any period after 31 December 2022 have been reported on by the Company's auditor or delivered to the Registrar of Companies.

Earnings for the first six months should not be taken as a guide to the results for the full year.

2 ACCOUNTING POLICIES

These condensed financial statements have been prepared on a going concern basis in accordance with the Disclosure Guidance and Transparency Rules of the Financial Conduct Authority, FRS 104 'Interim Financial Reporting', the April 2021 Statement of Recommended Practice 'Financial Statements of Investment Trust Companies and Venture Capital Trusts' and using the same accounting policies as set out in the Company's Annual Report for the year ended 31 December 2022.

3 GOING CONCERN

After making enquiries, and having reviewed the investments, Statement of Financial Position and projected income and expenditure for the next 12 months, the Directors have a reasonable expectation that the Company has adequate resources to continue in operation for the foreseeable future. The Directors have therefore adopted the going concern basis in preparing these financial statements.

4 PRINCIPAL RISKS AND UNCERTAINTIES

The principal risks facing the Company together with an explanation of these risks and how they are managed is contained in the Strategic Report and note 17 of the Company's Annual Report for the year ended 31 December 2022.

5 INCOME

	Six months to 30 June 2023 (unaudited) £'000	Six months to 30 June 2022 (unaudited) £'000
Income from investments		
Overseas dividends	1,103	761
Total income from investments	**1,103**	**761**
Other income		
Interest income	26	–
Total income	**1,129**	**761**

6 AIFM AND PORTFOLIO MANAGEMENT FEES

	Six months to 30 June 2023 (unaudited)			Six months to 30 June 2022 (unaudited)		
	Revenue £'000	Capital £'000	Total £'000	Revenue £'000	Capital £'000	Total £'000
AIFM fee	25	99	124	25	101	126
Portfolio management fee	136	546	682	139	555	694
Provision for performance fee	–	434	434	–	(1,677)	(1,677)
	161	1,079	1,240	164	(1,021)	(857)

7 RETURNS/(LOSSES) PER SHARE

The revenue and capital returns/(losses) per share are based on the weighted average number of Ordinary shares in issue during the six months to 30 June 2023, 79,375,968, and 30 June 2022, 80,000,001. The calculation of the total, revenue and capital returns/(losses) per share is carried out in accordance with IAS 33, "Earnings per Share".

There are no dilutive instruments in the Company and so basic and diluted returns/(losses) are the same.

8 FAIR VALUE HIERARCHY

The methods of fair value measurement are classified into a hierarchy based on reliability of the information used to determine the valuation.

Level 1 – Quoted prices in active markets.

Level 2 – Inputs other than quoted prices included within Level 1 that are observable (i.e. developed using market data), either directly or indirectly.

Level 3 – Inputs are unobservable (i.e. for which market data is unavailable).

The table below sets out the Company's fair value hierarchy investments as at 30 June 2023.

	Level 1 £'000	Level 2 £'000	Level 3 £'000	Total £'000
As at 30 June 2023 (unaudited)				
Investments	93,155	–	19,660	112,815
Derivatives	–	1,259	–	1,259
As at 31 December 2022 (audited)				
Investments	76,945	–	16,864	93,809
Derivatives	–	4,200	–	4,200

Notes to the Financial Statements

9 PROVISIONS

Provisions are recognised when a present obligation arises from past events, it is probable that the obligation will materialise and it is possible for a reliable estimate to be made, but the timing of settlement or the exact amount is uncertain.

Full details of the performance fee arrangement can be found in the Company's Annual Report for the year ended 31 December 2022.

Glossary of Terms

Alternative Performance Measures ("APMs")

Measures not specifically defined under the International Financial Reporting Standards but which are viewed as particularly relevant for investment trusts and which the Board of Directors uses to assess the Company's performance. Definitions of the terms used and the basis of calculation are set out in this Glossary.

Discount/Premium (APM)

A description of the difference between the share price and the net asset value per share. The size of the discount or premium is calculated by subtracting the share price from the net asset value per share and is usually expressed as a percentage (%) of the net asset value per share. If the share price is higher than the net asset value per share the result is a premium. If the share price is lower than the net asset value per share the shares are trading at a discount.

Net Asset Value ("NAV") Per Share

The value of the Company's assets, principally investments made in other companies and cash held, minus any liabilities. The NAV is also described as "shareholders' funds". The NAV is often expressed in pence per share after being divided by the number of shares that have been issued. The NAV per share is unlikely to be the same as the share price, which is the price at which the Company's shares can be bought or sold by an investor. The share price is determined by the relationship between the demand for and supply of the shares.

NAV Total Return (APM)

The theoretical total return on shareholders' funds per share, reflecting the change in NAV assuming that dividends paid to shareholders were reinvested at NAV at the time the shares were quoted ex-dividend. A way of measuring investment management performance of investment trusts which is not affected by movements in the share price.

	30 June 2023 (unaudited)	31 December 2022 (audited)
Opening NAV	129.8p	155.7p
Increase/(decrease) in NAV	21.7p	(25.9)p
Closing NAV	151.4p	129.8p
% Increase/(decrease) in NAV	16.6%	(16.6)%
Impact of dividend reinvested	0.3%	0.1%
NAV Total Return	16.9%	(16.5)%

Share Price Total Return (APM)

Share price total return to a shareholder, on a last traded price to a last traded price basis, assuming that all dividends received were reinvested, without transaction costs, into the shares of the Company at the time the shares were quoted ex-dividend.

	30 June 2023 (unaudited)	31 December 2022 (audited)
Opening share price	89.0p	112.0p
Increase/(decrease) in share price	7.5p	(23.0)p
Closing share price	96.5p	89.0p
% Increase/(decrease) in share price	8.4%	(20.5)%
Impact of reinvested dividends	0.4%	0.2%
Share Price Total Return	8.8%	(20.3)%

Glossary of Terms

Ongoing Charges (APM)

Ongoing charges are calculated by taking the Company's annualised operating expenses excluding finance costs, taxation and exceptional items, and expressing them as a percentage of the average daily net asset value of the Company over the period. The costs of buying and selling investments and performance fees are excluded, as are interest costs, taxation, costs of buying back or issuing shares and other non-recurring costs. These items are excluded because if included, they could distort the understanding of the Company's performance for the period and the comparability between periods.

	30 June 2023 (unaudited) £'000	31 December 2022 (audited) £'000
Total operating expenses	1,000	2,018
Total operating expenses (annualised)	2,000	2,018
Average NAV during the period/year	112,658	111,560
Ongoing Charges	1.8%	1.8%

Company Information

Directors

Howard Pearce (Chairman)
Sir Ian Cheshire
Barbara Donoghue
Soraya Chabarek

Company Registration Number

09242421 (Registered in England and Wales)
The Company is an investment company as defined under Section 833 of the Companies Act 2006

The Company was incorporated in England and Wales on 30 September 2014. The Company was incorporated as BGT Capital PLC. Its name was changed to Menhaden Capital PLC on 19 June 2015, to Menhaden PLC on 14 December 2018 and to Menhaden Resource Efficiency PLC on 23 June 2021.

Website

Website: www.menhaden.com

Registered Office

25 Southampton Buildings, London WC2A 1AL

Alternative Investment Fund Manager, Company Secretary and Administrator

Frostrow Capital LLP
25 Southampton Buildings, London WC2A 1AL
Telephone: 0203 008 4910
E-mail: info@frostrow.com
Website: www.frostrow.com

Authorised and regulated by the Financial Conduct Authority

If you have an enquiry about the Company or if you would like to receive a copy of the Company's monthly fact sheet by email, please contact Frostrow Capital using the above e-mail address.

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E-mail: enquiries@linkgroup.co.uk
Website: www.linkgroup.eu
Shareholder Portal: www.signalshares.com

Please contact the Registrars if you have a query about a certificated holding in the Company's shares.

† Calls are charged at the standard geographic rate and will vary by provider. Calls outside the UK will be charged at the applicable international rate. Lines are open from 9.00 a.m. to 5.30 p.m. Monday to Friday excluding public holidays in England and Wales.

Share Price Listings

The price of your shares can be found in various publications including the Financial Times, The Daily Telegraph, The Times and The Scotsman.

The Company's net asset value per share is announced daily and is available, together with the share price, on the TrustNet website at www.trustnet.com.

Identification Codes

Shares:	SEDOL:	BZ0XWD0
	ISIN:	GB00BZ0XWD04
	BLOOMBERG:	MHN LN
	EPIC:	MHN

Legal Entity Identifier:
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