

T8 Energy Vision

31 May 2023



Overview

- Global growth equities fund dedicated to clean energy – the solutions to 'net zero' emissions
- Responsible investment focus with in-house ESG due diligence, engagement, and reporting
- Institutional-grade process and risk management with experienced research team
- Target returns of greater than 20%pa over a 3-5-year timeframe

Fund details

Strategy	Global equities
Base Currency	US dollars
Structure	Registered unit trust
Minimum Investment	A\$100,000
Trustee	EQT
Custodian	JPMorgan
Administrator	Apex
Auditor	EY
Liquidity	Monthly
Management Fees	1.25%/15%
Hurdle	MSCI World Index

Portfolio management



Roscoe Widdup

- Fundamental and ESG research, portfolio construction and direct company engagement
- Previously worked at Goldman Sachs and Rio Tinto



Dimitri Tsangalis PhD

- Quantitative and macro research, portfolio construction and risk management
- Previously worked at JPMorgan based in Europe and Asia

Commentary

T8 Energy Vision finished May down 0.4% with most clean energy sectors pulling back alongside world equities which retreated by 1.0%. While solar, wind, hydrogen, biofuel and clean utilities stocks fell, electric vehicle and enabling technology companies (semiconductors) rallied, cushioning the downside. Similarly, there was a great divergence in broad sector returns fuelled by the strong rally in semiconductor stocks exposed to Artificial Intelligence (AI). The semiconductor sector rallied by +16.8%, lifting the US technology sector (+9.3%), the Nasdaq 100 Index (+7.9%) and US growth stocks (+4.4%). The US energy sector and US value stocks fell by 10.6% and 4.1% respectively, due to concerns around the possibility of a recession in the second half of 2023.

Further to last month's insight on the rapid evolution of battery technology, another Chinese battery manufacturer has announced a leap forward. Chinese-based Gotion High-Tech announced its Astroinno battery will go into mass production in 2024. The battery not only has cell energy density of 240Wh/kg (relative to the industry average at c.160Wh/kg) but is configured in a pack which can travel up to 1,000km on a single charge and has an extraordinary expected useful life of 4,000 full cycles prior to degradation at typical use (or 1,500 cycles on 18-minute fast charging). This is a step change because present variants of lithium-ion batteries do not have long useful lives (typically eight to 12 years), especially when used with fast charging. The Astroinno battery's minimum useful life is 1.5 million km which is c.10x currently available technology and relative to internal combustion engines estimated at 300-350 thousand km. Once again, this highlights how quickly battery technology is advancing. On this trajectory, electric vehicles are set to easily overcome obstacles such as range anxiety, charging time and useful life. The mass adoption of electric vehicles (and batteries) is clearly underway and represents a range of investment opportunities. T8 Energy Vision has unique exposures to various battery and energy storage technologies and their supply chains on the basis that we believe they represent an extraordinary investment opportunity at this relatively early stage of their evolution.

Performance (US\$, since inception)



Investment thesis

- We believe that clean energy is the biggest investment opportunity since the beginning of the tech boom in the 1990s.
- The mass-adoption of clean energy is underway. Installed renewables (solar and wind) capacity, annual sales of electric vehicles and installed battery capacity are on track to be 3-4x, 5-6x and more than 15x larger by 2030, respectively.
- T8 Energy Vision's investment focus is identifying the winners in the clean energy boom. We construct a portfolio which is diversified across 10 critical building blocks which we strongly believe will generate superior returns through different market cycles.

T8's clean energy 'building blocks'

Solar



Solar power is only 3-4% of global electricity generation and is likely to be 5x larger by 2030

Wind



Wind power is only 6% of global electricity generation and is likely to be 3x larger by 2030

Hydrogen



Hydrogen is a zero GHG emission form of energy storage and an energy source for GHG emissions intensive industries

Energy Storage



Energy storage allows renewable electricity to compete with GHG emissions intensive electricity generation

Electric Vehicles



Electric vehicles result in up to 70% lower lifecycle GHG emissions compared to conventional vehicles

Energy Efficiency



Energy efficient technologies stand to materially reduce energy wastage

Enabling Technology



Microchips, data management and wireless communications are required to enable the adoption of clean energy

Clean Utilities



Clean utilities produce a majority of zero GHG emission electricity

Biofuel



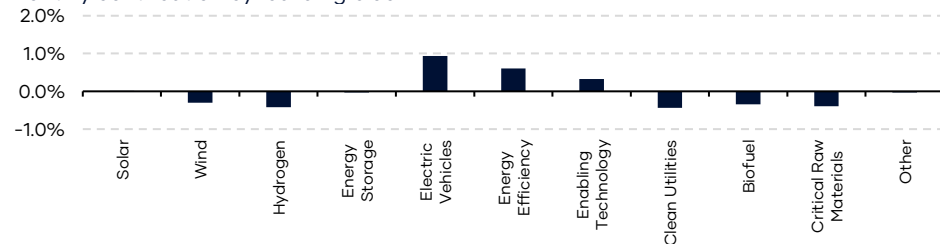
Biofuels are a sustainable alternative to GHG emissions intensive transport fuels and petrochemicals

Critical Raw Materials



Critical raw materials are required to manufacture solar panels, wind turbines, batteries and electric vehicles

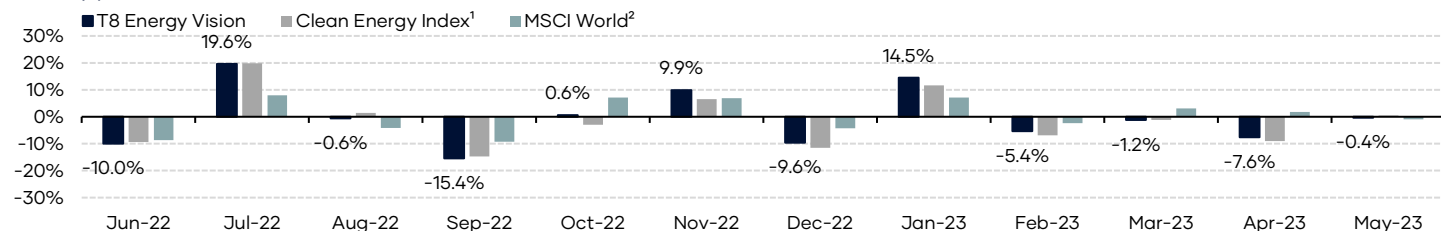
Monthly contribution by 'building block'



Key stock contribution (bps, last month)

Company	'Building block'	Contribution
Top-3		
TSLA US	Electric Vehicles	+69
STEM US	Energy Efficiency	+61
SHLS US	Solar	+32
Bottom-3		
RUN US	Solar	-69
NESTE FH	Biofuel	-50
AA US	Critical Raw Materials	-33

Monthly performance (US\$, last 12 months)



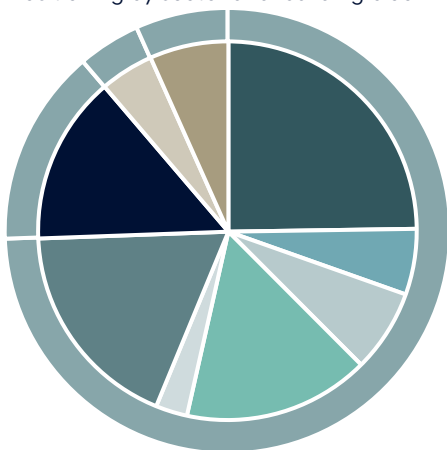
Monthly performance (US\$, since inception)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD	Clean Energy Index ¹	MSCI World ²
2019								4.8%	-4.8%	6.7%	2.3%	9.7%	19.6%	11.6%	8.6%
2020	-7.2%	-0.8%	-19.9%	32.1%	11.7%	7.0%	16.6%	12.1%	-1.5%	3.1%	27.4%	17.0%	130.2%	172.8%	15.9%
2021	8.9%	-2.5%	1.5%	-0.6%	1.9%	1.4%	-4.2%	0.9%	-5.2%	7.6%	-5.8%	-7.8%	-5.3%	-26.2%	21.8%
2022	-12.3%	4.6%	6.1%	-16.0%	1.9%	-10.0%	19.6%	-0.6%	-15.4%	0.6%	9.9%	-9.6%	-24.7%	-27.5%	-18.1%
2023	14.5%	-5.4%	-1.2%	-7.6%	-0.4%								-1.4%	-6.0%	8.5%

Performance and risk metrics

Returns (US\$)	Benchmarks			Risk metrics (12 months)	Benchmarks		
	T8 Energy Vision	Clean Energy Index ¹	MSCI World ²		T8 Energy Vision	Clean Energy Index ¹	MSCI World ²
1 month	-0.4%	0.5%	-1.0%	Volatility	36%	35%	22%
3 months	-9.1%	-9.6%	3.8%	Sharpe Ratio	-0.3	-0.5	0.1
6 months	-10.9%	-16.8%	3.9%	Equity Correlation	0.8	0.8	1.0
12 months	-10.9%	-19.2%	2.1%	Equity Beta	1.4	1.2	1.0
Year to Date	-1.4%	-6.0%	8.5%	Up-capture	105%	73%	100%
Since Inception	93.7%	53.0%	36.2%	Down-capture	139%	136%	100%
Annualised	18.8%	11.7%	8.4%	Up/Down Ratio	0.8	0.5	1.0

Positioning by sector and 'building block'



Sector	'Building block'
Technology	Solar
	Wind
	Hydrogen
	Energy Storage
	Energy Efficiency
	Enabling Technology
Utilities	Clean Utilities
Energy	Biofuel
Materials	Critical Raw Materials

Top holdings (by contribution to risk)

Company	'Building block'	Risk weight
ENPH US	Solar	7.6%
RUN US	Solar	7.0%
PLUG US	Hydrogen	6.2%
STEM US	Energy Efficiency	4.9%
TPIC US	Wind	4.7%
SEDG US	Solar	4.5%
ARRY US	Solar	4.1%
CHPT US	Electric Vehicles	4.0%
AMPS US	Clean Utilities	3.9%
SHLS US	Solar	3.7%

Portfolio characteristics

	Portfolio	Benchmarks	
		Clean Energy Index ¹	MSCI World ²
Revenue growth rate (3-year est. CAGR)	23%	22%	3%
1-year est. P/E (Median)	26	22	17
3-year est. P/E (Median)	14	16	15
1-year est. leverage ratio (Net Debt/EBITDA)	0.8	2.1	1.1
Market cap (Median)	US\$7B	US\$3B	US\$41B
Number of holdings	38	88	1,512

ESG dashboard (year-to-date)

Company meetings (one-on-one)
FSLR US, WRTIV FH, NUE US, CHPT US, SEDG US, FCX US, FIL CN, LUN CN, QCOM US
Shareholder meetings (ballots cast)
6723 JP, NESTE FH, CLSK US, QCOM US, WRTIV FH, ORSTED DC, 2333 HK (x2), PAAS US, GOEV US, MU US, ASML NA, NEL NO, MBTN SW, ALB US, ENEL IM, SHLS US, AA US, DAR US, FSLR US, TSLA US, ENPH US, NEE US, ARRY US, TPIC US, ECV GY, 968 HK, NDX1 GY (x2), RUN US, SEDG US, FCX US, 916 HK (x2)
ESG assessments (new or updated)
FSLR US, WRTIV FH, NUE US, CHPT US, SEDG US, ITM LN, PAAS US
Direct company engagement
FCX US, ITM LN

About T8

Triple Eight Capital (T8) manages unique investment products.

We are dedicated to responsible investment and believe that positive environmental and social benefits can be achieved without sacrificing investment returns. T8's responsible investment policy is available [here](#).

Our process combines fully-independent research of fundamental, ESG (environmental, social and governance) and macro factors.

Our Advisory Board oversees our research process and investment decisions and provides deep industry insights.

Affiliations and recognition

Signatory of:



Investment management



Roscoe Widdup
Portfolio management



Dimitri Tsangalis PhD
Portfolio management



Tonya Payne
Research



Timothy McIntyre
Research



Georgia Widdup
Reporting



Andrew Kellaway
Research intern

Industry technical analysts



Alex Zadnik
Engineering



Stuart Brown
Energy

Advisory Board



Andrew Michelmore AO
Metallurgy



Leigh Clifford AC
Engineering



Mark Harland
Consumer behaviour



Mark Preston
Energy technology



Talieh Williams
ESG leadership

Distribution

Andrew Aitken – Daruka Capital
Noel Corley – Daruka Capital
Adam Wright – Investor relations and distribution
Rob Tandy – Foundations
Leighton Thomas – International
Hamish McDougall
William Morgan

Operations

Martine Fraser – Accounting
Maddison Stewart-Rice – Accounting

Footnotes

¹The Clean Energy Index comprises equal weightings to the S&P Global Clean Energy and Wilderhill Clean Energy Net Total Return Indices

²MSCI World Net Total Return Index

Important notice

Equity Trustees Limited ("Equity Trustees") (ABN 46 004 031 298, AFSL 240975) is the Responsible Entity for T8 Energy Vision. Equity Trustees is a subsidiary of EQT Holdings Limited (ABN 22 607 797 615), a publicly listed company on the Australian Securities Exchange (ASX: EQT).

This document has been prepared by Triple Eight Capital Pty Ltd ("T8") (ABN 52 642 108 496, AFSL 527866) to provide general information only. In preparing this document, we did not take into account the investment objectives, financial situation or particular needs of any particular person. It is not intended to take the place of professional advice and you should not take action on specific issues in reliance on this information. Neither T8, Equity Trustees nor any of its related parties, their employees or directors, provide and warranty of accuracy or reliability in relation to such information or accepts any liability to any person who relies on it. Past performance should not be taken as an indicator of future performance. You should obtain a copy of the Product Disclosure Statement before making a decision about whether to invest in this product.

T8 Energy Vision's Target Market Determination is available [here](#). A Target Market Determination describes who this financial product is likely to be appropriate for (i.e. the target market), and any conditions around how the product can be distributed to investors. It also describes the events or circumstances where the Target Market Determination for this financial product may need to be reviewed.