

PENGANA WHEB SUSTAINABLE IMPACT FUND

DESCRIPTION

The Pengana WHEB Sustainable Impact Fund invests in companies with activities providing solutions to sustainability challenges. WHEB have identified critical environmental and social challenges facing the global population over coming decades including a growing and ageing population, increasing resource scarcity, urbanisation and globalisation. The Fund invests in companies providing solutions to these sustainability challenges via nine sustainable investment themes – five of these are environmental (cleaner energy, environmental services, resource efficiency, sustainable transport and water management) and four are social (education, health, safety and well-being). WHEB's mission is 'to advance sustainability and create prosperity through positive impact investments.'

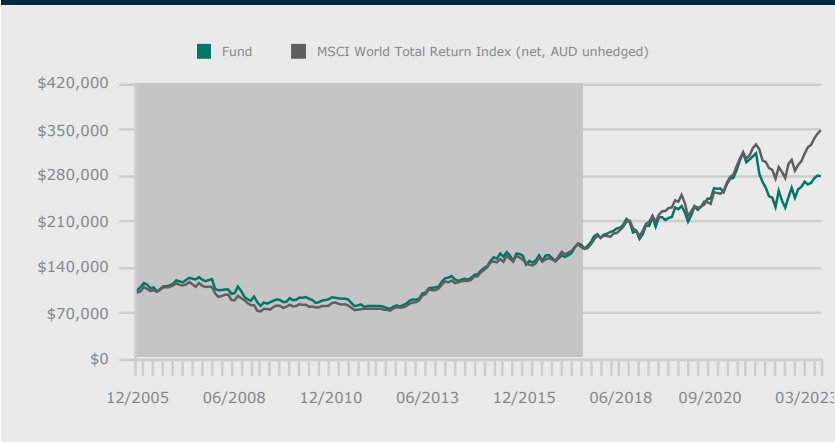
PERFORMANCE TABLE

NET PERFORMANCE FOR PERIODS ENDING 31 Aug 2023¹

	1 MTH	1 YEAR	3 YEARS P.A.	5 YEARS P.A.	SINCE INCEPTION P.A.
WHEB Sustainable Impact Fund	-0.3%	15.5%	5.8%	5.5%	
Strategy (partial simulation – see below)					6.0%
MSCI World Total Return Index (net, AUD unhedged)	1.6%	22.4%	13.3%	10.7%	7.3%

PERFORMANCE CHART

NET PERFORMANCE SINCE INCEPTION²



TOP HOLDINGS (ALPHABETICALLY)

Agilent Technologies Inc	Health Care
Autodesk Inc	Information Technology
CSL Ltd	Health Care
Danaher Corp	Health Care
ICON PLC	Health Care
Linde PLC	Materials
MSA Safety Inc	Industrials
STERIS PLC	Health Care
Thermo Fisher Scientific Inc	Health Care
Trane Technologies PLC	Industrials

SECTOR BREAKDOWN

Consumer Discretionary	4%
Consumer Staples	1.8%
Health Care	30%
Industrials	24.4%
Information Technology	27.5%
Materials	11.1%
Cash	1.3%

CAPITALISATION BREAKDOWN

2-10bn	26.7%
10-20bn	12.5%
>20bn	59.4%
Cash	1.3%

CUSTOM SECTOR BREAKDOWN

Health	25.5%
Resource Efficiency	26.1%
Sustainable Transport	10.1%
Environmental Services	11.6%
Water Management	7.5%
Safety	6.7%
Cleaner Energy	5.2%
Wellbeing	4.3%
Education	1.6%
Cash	1.3%

REGION BREAKDOWN

North America	67.3%
Europe ex-UK	15.5%
Japan	7.2%
UK	6.4%
Asia Pacific	2.3%
Cash	1.3%

PUTTING THE BACKBONE INTO A RENEWABLE ENERGY FUTURE

COMMENTARY

Market volatility increased in August following weak macroeconomic data out of China, renewed stress in the Chinese property market, and an increase in sovereign bond yields. For the month overall the MSCI World Index rose +1.6% on the back of a depreciating AUD. The Fund underperformed as a result of the continued performance of non-impactful stocks and large-cap stocks.

In this month's commentary, Victoria MacLean (Associate Portfolio Manager) discusses whether our infrastructure can cope with renewable energy and electrification, which together can deliver 75% of the energy-related CO2 emissions reductions needed to keep global temperature increases "well below" 2°C.

Market Review

Market volatility increased in August following weak macroeconomic data out of China, renewed stress in the Chinese property market, and an increase in sovereign bond yields. For the month overall the MSCI World Index rose +1.6% on the back of a depreciating AUD.

Global inflation continued on its unsteady path downwards. In the Eurozone, core inflation fell modestly although it remains above the ECB's target and markets continue to price in further ECB rate increases before the end of the year. In the US, Fed chair Jerome Powell promised ongoing vigilance in a Jackson Hole speech that was well received by financial markets.

UK inflation is on track to halve by the end of the year but is likely to remain high in the medium term. The Bank of England hiked its policy rate by 25bps at the start of August to bring the banking rate to 5.25%.

With war still raging in Ukraine, European natural gas prices increased by 23% in August on the prospect of a possible strike at three liquefied natural gas (LNG) plants in Australia. This is despite the EU reaching its gas storage target well ahead of the 1 November deadline and may signal further pressures ahead.

In Japan, the economy expanded by 6% quarter-on-quarter in the second quarter of 2023 on the back of the strong contribution of net trade. Japanese equities remained resilient over the month and continued their strong run this year.

In terms of industry sectors, Energy (which our investment strategy is not exposed to) and Healthcare were the best performers while Utilities and Materials were the weakest.

Fund Review

The outperformance of Energy and other non-impactful sectors, coupled with a structural exposure to mid-sized companies were significant performance headwinds and the Fund delivered a negative monthly return of -0.3%.

Safety was the strongest theme during the month and the largest contributor to performance, while Cleaner Energy was the weakest.

MSA Safety, Hello Fresh, and Autodesk were the strongest performing stocks. MSA Safety's results beat expectations with strong organic revenue growth and an increase in margins. The company also raised its guidance

for the full year. Autodesk also reported ahead of expectations, and HelloFresh bucked negative sentiment to report results that were in line with a positive pre-announcement and re-iterate full year guidance.

SolarEdge, Infineon, and Power Integrations were the largest detractors from return. SolarEdge suffered negative momentum as the US residential solar market navigates the headwinds of higher interest rates. Infineon and Power Integrations struggled as expectations of a weakening semiconductor market grew, along with weaker Chinese export growth.

Outlook

Sentiment around global equities remains finely balanced. Expectations are for a further economic slowdown, and the debate is around its pace and duration. Markets also expect further rate increases before the current tightening phase ends.

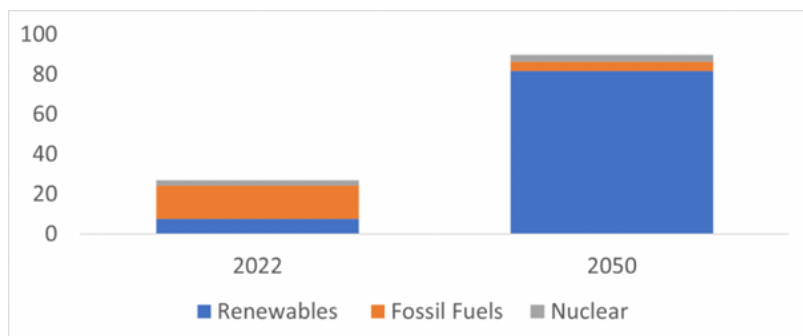
While there is uncertainty in the short term, we remain confident in the long-term positioning of our holdings. We continue to have conviction that the sustainable-led growth drivers and competitive advantages of the companies we invest in put the portfolio in a good position to deliver outperformance.

Putting the backbone into a renewable energy future

Renewable energy and electrification can deliver 75% of the energy-related CO2 emissions reductions needed to keep global temperature increases “well below” 2°C.¹ The question is: can the infrastructure cope?

Wind and solar energy sources are both variable and decentralised. In contrast, the existing electricity network was designed around very stable and centralised power generation sources. As a result, innovation and investment are needed to modernise the grid to support a growing share of renewables.

Figure 1: Power generation (PWh) needs to triple, with a significant shift to renewables by 2050.²



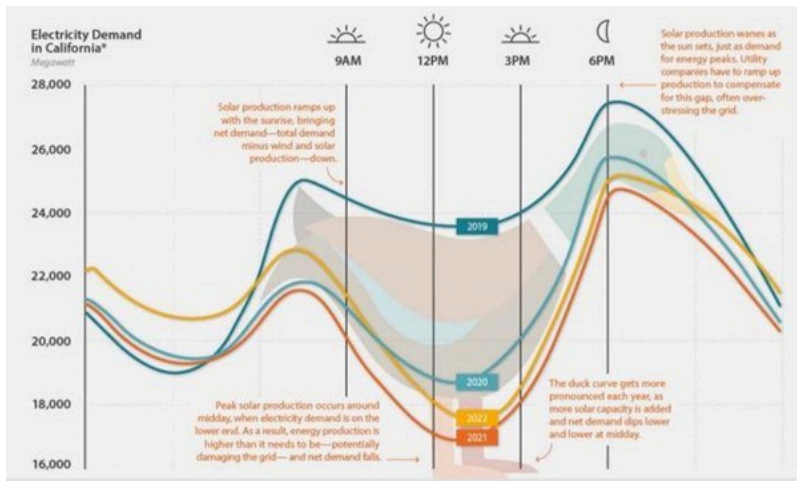
Alongside this challenge, end-use electrification (transport and heating for example) also increases the demand burden, meaning grid expansion will also be necessary alongside modernisation. On the positive side, increased deployment of digitalisation and “smart technology” can enable more flexible demand. For example, smart meters can signal to consumers when it’s cheapest to use electricity.

We think these challenges are underestimated, but we also see opportunities that are under-appreciated.

When does the sun shine?

Peak solar production typically occurs around midday. But when do the lights get turned on? Demand for electricity peaks just as the sun goes down. The diagram below illustrates this mismatch between supply and demand. Known as the ‘duck curve’, the mismatch grows as we use more solar energy.

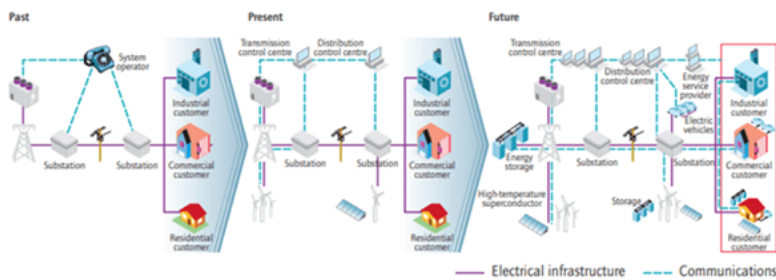
Figure 2: The solar power 'duck curve'.³



But these fluctuations aren't just daily. Seasons cause mismatches across months; weather patterns like El Nino across years; and major weather events can create sudden, short-term changes. All of these factors are also becoming increasingly unpredictable due to the effects of climate change.

The variability in power generation creates significant challenges for the grid. The diagram below gives an indication of some of the technology that can support a more flexible grid.

Figure 3: Smarter electricity systems.⁴



At WHEB, we are already investing in some of the solutions. The examples you can find in our portfolios include smart grid technology, battery storage solutions, Electric Vehicle (EV) charging, and semiconductor technology that enables communication between the different parts of the system.

What makes a grid smart?

A smart grid is all about information and control. It is fitted with information and communications technologies (ICTs) to enable a real-time, two-way communication between suppliers and consumers. This creates a more dynamic interaction in energy flow, which helps to deliver electricity more efficiently and sustainably. According to the International Energy Agency (IEA), investment in smart grids needs to double by 2030 to get on track with Net Zero Emissions by 2050.⁵

Not a case of plug and play

But doubling investment in grid infrastructure isn't easy. It's an area that is heavily influenced by policy and regulation. Planning and approval can take years, delays are common and it's not an industry known for its innovative flair.

Grids globally are already struggling to cope with the addition of renewable power. In the UK, projects are being connected to the grid on average four years after the date requested.⁶ In the US, fewer than one in five solar and wind proposals actually make it through the interconnection queue as developers eventually just give up.⁷

How is WHEB positioned?

In the WHEB global strategy, we invest in several companies with exposure to smart grid technologies. [Silicon Labs](#) is a leading supplier of semiconductor technology that enables wireless communication and the Internet of things.

Figure 4: Silicon Labs and the internet of things (IoT).⁸



The connectivity they provide in smart meters, EV chargers and solar panels is a key enabler of communication with the grid. That in turn enables better visibility, and potentially management, of end-demand.

Other examples include Infineon, which makes power semiconductors designed for flexible grid transmission and high voltage power transmission. TE Connectivity, a world leader in connectivity and sensors, also recently acquired a German company leading in power grid monitoring, protection, and automation systems.

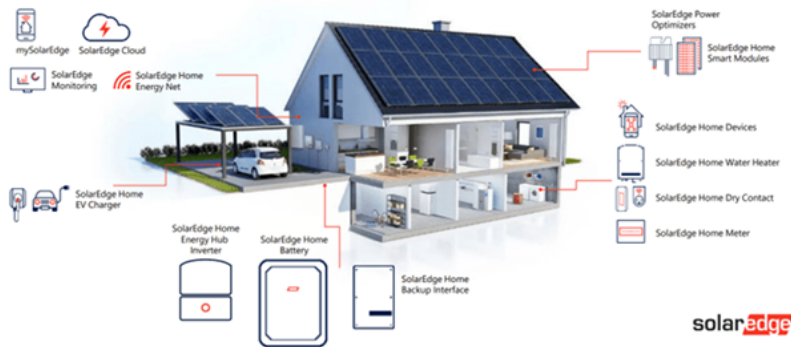
The role of storage

The grid is becoming more complicated. As well as utility-scale power there will be new small-scale and local renewable sources including residential solar. Battery storage and EVs are also now being designed to work in reverse as a source of supply, as well as being a user of electricity from the grid.

Storage solutions play a crucial role in flexibility. Industrial scale storage technology serves multiple purposes. It can provide back-up and temporary power but can also be used for load balancing. This is the process of matching peak demand with additional sources of supply, or peak supply with storage.

The same is true of residential storage. [SolarEdge](#), is seeing strong growth in its storage solutions, which connect to its solar panel technology and smart energy ecosystem within the home. That in turn connects with utilities and the wider grid to allow for better visibility and control across the system.

Figure 5: SolarEdge products in residential homes.⁹



Making grids a strategic priority

The technology solutions to the challenges the grid faces already exist. The task now is to integrate them into existing infrastructure and accelerate the planning and delivery of grid expansion. That will require political will and significant spending, which is not easy in the current environment.

This is particularly pertinent as increasing investment could end up being passed on to consumers through electricity bills if policy makers don't adopt the traditional mechanism for adding grid investment costs to the price of electricity. Solving the grid challenge will undoubtedly have societal benefits, but it is important to consider the immediate costs and ensure the burden is distributed fairly.

¹ IRENA, ["Global Energy Transformation: a Roadmap to 2050"](#)

² Ibid

³ Visual Capitalist, [The Solar Power Duck Curve Explained](#)

⁴ International Energy Agency, [Technology Roadmap: Smart Grids](#)

⁵ IEA, [Smart Grids](#)

⁶ The Economist, [Adding capacity to the electricity grid is not a simple task](#)

⁷ New York Times, [The US has billions for wind and solar projects. Good luck plugging them in](#)

⁸ Silicon Lab Investor Day 2022

⁹ SolarEdge Technologies, Investor Presentation

FEATURES

APIR CODE	HHA0007AU
REDEMPTION PRICE	A\$ 1.5306
FEES *	Management Fee: 1.35%
MINIMUM INITIAL INVESTMENT	\$10,000
FUM AT MONTH END	A\$ 273.31m
FUND INCEPTION DATE	31 October 2007

FUND MANAGERS



Ted Franks
Partner, Head of Investment



Seb Beloe
Partner, Head of Research

1. From August 2017, performance figures are those of the Pengana WHEB Sustainable Impact Fund's class A units (net of fees and including reinvestment of distributions). The strategy's AUD performance between January 2006 and July 2017 has been simulated by Pengana from the monthly net GBP returns of the Henderson Industries of the Future Fund (from 1 January 2006 to 31 December 2011) and the FP WHEB Sustainability Fund (from 30 April 2012 to 31 July 2017). This was done by: 1) converting the GBP denominated net returns to AUD using FactSet's month-end FX rates (London 4PM); 2) adding back the relevant fund's monthly ongoing charge figure; then 3) deducting the Pengana WHEB Sustainable Impact Fund's management fee of 1.35% p.a. The WHEB Listed Equity strategy did not operate between 1 January 2012 and 29 April 2012 – during this period returns are zeroed. The Henderson Industries of the Future Fund's and the FP WHEB Sustainability Fund's GBP net track record data is historical. No allowance has been made for buy/sell spreads. Please refer to the PDS for information regarding risks. Past performance is not a reliable indicator of future performance. The value of the investment can go up or down.
 2. The Fund inception on 31 October 2007 as the Hunter Hall Global Deep Green Trust. The Fund was relaunched on 1 August 2017 as the Pengana WHEB Sustainable Impact Fund employing the WHEB Listed Equity strategy. This strategy was first employed on 1 January 2006 by the Henderson Industries of the Future Fund and currently by the FP WHEB Sustainability Fund.
 3. Annualised standard deviation since inception.
 4. Relative to MSCI World Total Return Index (net, AUD unhedged)
- * For further information regarding fees please see the PDS available on our website.

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