



# MACKENZIE GLOBAL ENVIRONMENTAL EQUITY FUND: THEMATIC INVESTING

Mackenzie Global Environmental Equity Fund is sub-advised by Greenchip Financial, who have been solely dedicated to environmental themed investing since 2007.

## INVESTMENT THESIS:

### The Global Energy Transition is Driving Investment Opportunity

1. Systemic shift from fossil-based energy to decentralized, renewable power is driving long-term structural change in how we produce, transmit, store, and consume energy.
2. This energy transition is creating new investment opportunities.
3. Investing in more sustainable business models that improve the efficiency of natural resource use can contribute to a reduced carbon footprint.

## INVESTMENT UNIVERSE:

### Environmental Sectors

The portfolio managers look at an investment universe of over 600 companies with a cumulative \$6 trillion market capitalization, from which they build a concentrated portfolio of 30-35 companies. These companies generally fit into six sectors: Clean Energy, Energy Efficiency, Clean Technology, Sustainable Agriculture, Water, and Transportation. The Energy Efficiency sector focuses on companies that provide products and services that improve efficiency in the use of energy, with growth in the sector driven by environmental degradation and resource scarcity.

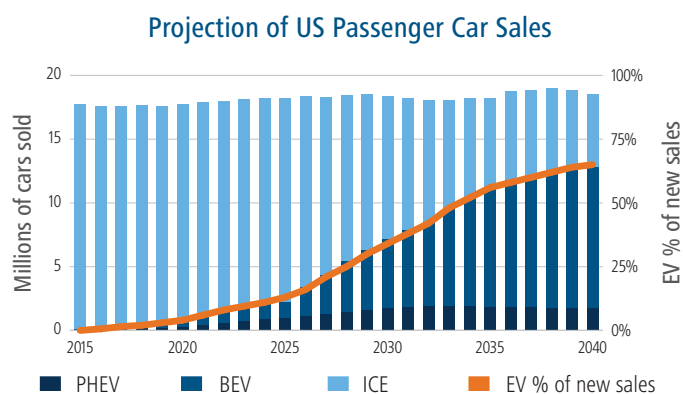
Clean Energy	Energy Efficiency	Clean Technology	Sustainable Agriculture	Water	Transportation
Renewable utilities	Building management and efficiency	Waste management and pollution controls	Food processing/logistics	Water utilities	Transportation operators
Renewable equipment	Lighting	Software and logistics	Agricultural inputs	Water equipment	Transportation equipment
Electric infrastructure	Engineering/Consulting	Advanced materials	Sustainable food retail	Diversified Environmental Leaders	
Energy storage equipment	<b>Power management</b>	Metering and monitoring	Sustainable forestry		
Renewable fuels	Automation and drives	Industrial efficiency			

## INVESTMENT THEME:

## Power Management

## 1. Tailwind – energy efficiency

- Demand for power management semiconductors, capacitors, resistors and other components in efficiency applications has potential long-term growth that is 2-3x the rate of traditional uses, and several points higher than the general economy.
- New electric and hybrid vehicles, one of the important end-markets for these power management components, has seen strong demand growth over the last few years. This end-market is expected to continue to grow, which should support increased demand for semiconductors and other component parts (see chart below).
- The dollar content of semiconductors in a hybrid or electric vehicle is \$900 - \$1000 versus \$330 for a traditional internal combustion engine.\*\*



Source: Bloomberg New Energy Finance. Definitions: Plug-in hybrid electric vehicle (PHEV), Battery Electric Vehicle (BEV), Internal combustion engine (ICE), Electric vehicle (EV).

## 2. Misunderstood business cycle

- The demand cycle has fundamentally changed.
- The industry is in short capacity, and planned capacity expansion is at best expected to maintain the current supply/ demand imbalances.
- Three portfolio holdings in this sector have been taken out since inception of the Greenchip strategy\*.

## 3. Long-term value

- Portfolio holdings AVX, Kemet and Vishay Intertechnology have strong balance sheets and free cash flow generation.
- These companies represent 90% of the global tantalum polymer capacitor market<sup>1</sup>.
- Component pricing is measured in pennies, and with oligopolistic market dynamics there is room for the key players to increase prices and margins.

To learn more about the Mackenzie Global Environmental Equity Fund, please contact your financial advisor.

<sup>1</sup> A tantalum polymer capacitor is a passive component of electronic circuits.

\* Since inception of the Greenchip Global Equity Fund in 2008. The portfolio of Mackenzie Global Environmental Equity Fund (the "Fund") will generally include securities that are included in Greenchip Global Equity Fund.

\*\* Source: McKinsey Insights; McKinsey & Company

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