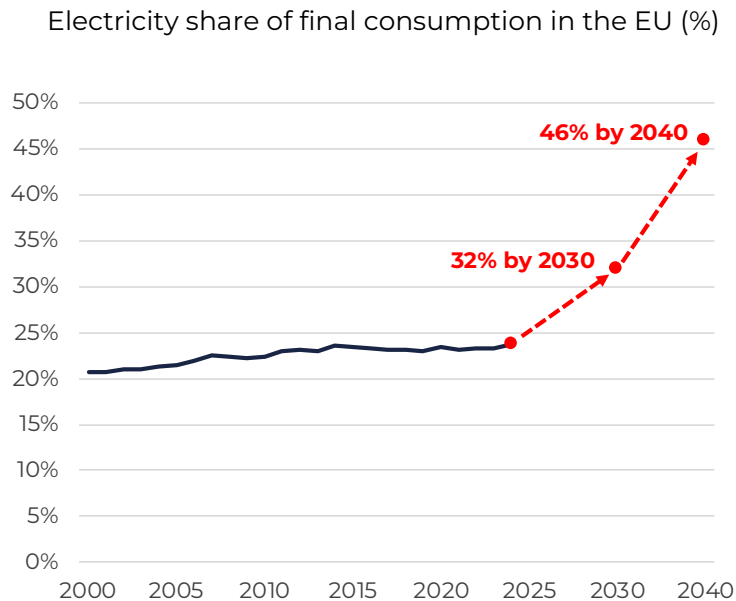


Chart of the Month: EU ELECTRIFICATION PLAN

In response to high fossil fuel prices from the conflict in Iran, the European Commission published its Electrification Action Plan. The Plan reiterates a previous target to grow electricity to 32% of final energy consumption by 2030 and sets a new target of 46% by 2040. Achieving this is expected to save €260bn annually in fossil fuel imports to the EU.



Source: Guinness Atkinson, IEA, July 2026

News

- International Energy Agency (IEA) chief Fatih Birol called Europe's continued reliance on imported fossil fuels in the wake of the 2022 energy shock a "major mistake". This came one week before the EU published its Electrification Action Plan which sets the electrification target above as well as target to install 200GW of electricity storage by 2030, up from 55GW in 2026. The Commission emphasizes that the lowest electricity prices in the EU are observed in markets with very high shares of clean electricity (renewables and nuclear). Both Birol and the EU point to congested power grids' role in stifling electrification. Stocks exposed to European grid and electrical equipment such as Schneider and Legrand and Utilities including SSE and Iberdrola stand to benefit from EU electrification.
- For the second year running, PJM Interconnection, the largest US grid operator, has missed its reserve capacity target for 2028/29. Its latest capacity auction cleared at the \$325/MW (megawatt)-day price cap but still fell 6.8GW (gigawatt) short of the 20% target reserve margin. The result highlights strong electricity demand and tightening supply, but also suggests that price caps intended to limit the impact on customer bills in the near term may weaken the incentive to build new generation capacity over the longer term.
- China's Belt and Road Initiative (BRI), the infrastructure program through which Beijing has deepened its economic influence and trade ties across the developing world, channeled a record \$20.1bn into green energy and hydropower in the first half of 2026, a first-half high that came within touching distance of the \$20.7bn

recorded across the whole of 2025. Researchers at the University of Queensland tracking the BRI expect the fossil fuel volatility triggered by the Strait of Hormuz crisis to support further green engagement through the rest of 2026, arguably as most of the first-half deals were structured before the oil shock hit.

- Westinghouse, the designer of the first American commercial nuclear reactor in 1957 and pioneer of the country's nuclear industry, has confidentially filed for an initial public offering (IPO). After filing for bankruptcy in 2017 following delays and cost overruns at the Vogtle and V.C. Summer nuclear power plants, the company was subsequently bought by Brookfield Renewables and uranium miner Cameco. This deal comes amid strong US nuclear sentiment. Sama Bilbao y León, the director general of the World Nuclear Association, has been quoted saying "we are seeing an enormous appetite", with the key lobby group noting that annual combined public and private investment needs to triple to about \$250bn if governments want to meet expected energy demand by 2050.
- Google has agreed to purchase the output of the first two phases of the largest solar-plus-storage project to break ground in the US. Steel River Energy Center in Arkansas will ultimately have 2.5 GW of solar and 2.9 gigawatt-hour (GWh) of electricity storage when fully operational in 2029. The project is evidence of sustained solar demand despite the Trump administration's removal of the industry's tax credits. The deal also benefits two fund holdings, LG Chem, whose subsidiary is supplying the battery cells, and First Solar, which supplies the photovoltaic panels.

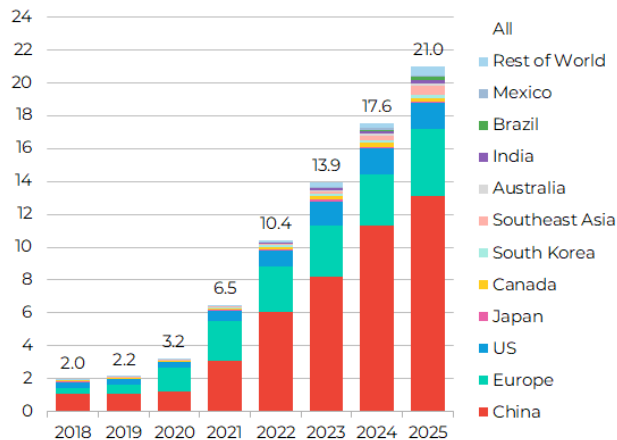
Manager's Comments

Higher fuel prices from the conflict in Iran have strengthened the case for electric vehicle (EV) adoption by improving ownership economics versus internal combustion engines (ICE), driving a near-term jump in sales that should act as a modest tailwind for the rest of the year. Longer-term, we remain confident that EV demand will continue to rise as the three barriers to adoption – cost, choice and charging – are overcome. In these managers' comments, we review the latest developments in electric vehicles and battery technology and provide an outlook for long-term demand.

EV sales continued to show strong momentum in 2025, growing nearly 20% year-on-year to reach 21 million units across plug-in hybrids (35%) and battery-electric vehicles (65%). China remained the largest market, representing 63% of global sales, followed by Europe at 19% and the US at just 8%. Global penetration reached 25%, meaning that one in four cars sold came with a plug, up meaningfully from around 5% and 3 million units just five years ago.

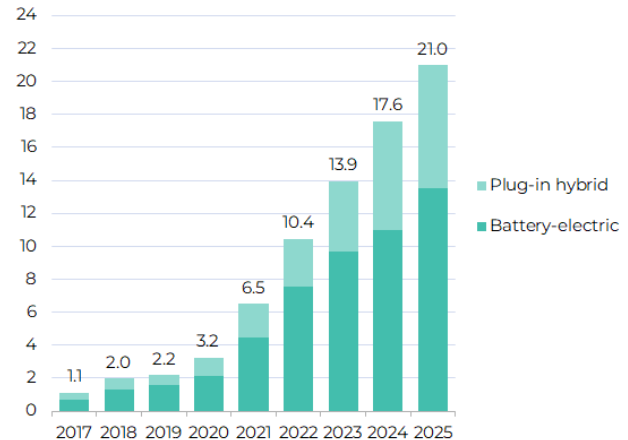
The global EV market has seen a volatile start to 2026. The first quarter saw EV sales dip as weak automotive sales in China offset continued penetration gains. Growth rebounded strongly in the second quarter with EV sales increasing 35% compared to the first three months of the year as higher fuel prices as a result of the conflict in Iran boosted consumers' incentive to switch. With momentum building in Europe and emerging markets, we expect global EV sales to increase around 11% to 23 million units in 2026, with penetration reaching 27%.

Passenger EV sales by region (million units)



Source: BNEF, July 2026

Passenger EV sales by drivetrain (million units)



Source: BNEF, July 2026

In **China**, EV penetration continues to rise, reaching a record 63% in the month of June, despite a weaker auto market estimated to have fallen by around 20% in the first half of the year. Cuts to scrappage scheme incentives and rising purchase taxes have weighed on sales, yet EVs continue to gain share, driven by the following:

- **Cost:** On average, EVs have been cheaper than ICE vehicles in China since 2023 thanks to falling battery prices.
- **Choice:** As of the end of 2025, there were about 60% more EV models available than ICE models in China.
- **Charging:** Chinese battery makers now offer ultra-fast charging that rivals petrol refueling times.

While national anti-involution measures have dampened destructive price competition, Chinese manufacturers continue to compete aggressively on technology, speeding up product development and model refresh cycles to ensure they are offering the latest connectivity, infotainment and smart driving features to entice consumers. As growth has slowed and competition intensified, manufacturers have turned to overseas markets for profitable growth, with exports to Southeast Asia, Latin America and Europe increasingly important despite rising trade barriers. EV exports from China reached around 2.4m units in the first half of the year, with June exports hitting a record 523,000 units, up 160% year-on-year.

Europe has been the fastest-growing major EV market this year, with sales increasing around 27% in the first half of 2026 against overall passenger car market growth of roughly 6%. Growth has been underpinned by two main factors:

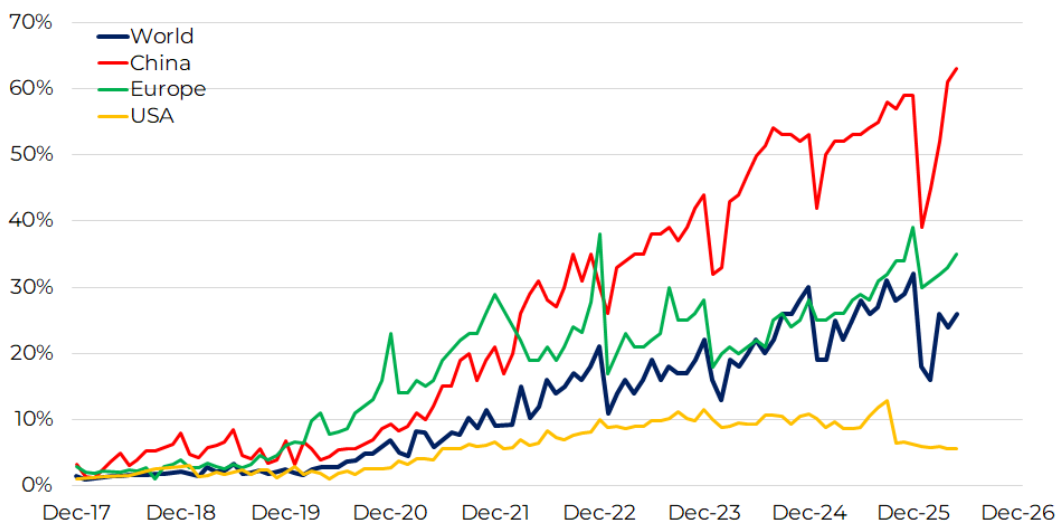
- **Policy support** – EU emissions standards require cars sold from 2025-27 to deliver a 15% reduction in fleet-average emissions versus 2021 levels, incentivizing original equipment manufacturers (OEMs) to accelerate EV sales and introduce more affordable models.
- **Improving EV economics** – based on average April oil prices, the IEA estimates annual EV fuel cost savings in the EU grew 35% versus 2025 (€2,100 per year), reflecting higher pump prices since the conflict began.

Despite a watering down of targets in recent years, the EU's Automotive Package still foresees electric car sales exceeding 90% by 2035, up from around 30% today. We expect Chinese manufacturers to take a material share of that growth thanks to competitively priced products, partnerships with local brands, and expanding local manufacturing.

In the **United States**, EV sales dropped meaningfully following the passing of the One Big Beautiful Bill Act (OBBBA), which scrapped consumer tax credits and eased the fuel economy regulations that had pushed automakers to electrify. EV sales fell over 20% year-on-year in the first half of 2026, and adoption forecasts have been marked down, prompting more than \$50bn of EV investment write-offs and a pivot toward hybrids.

As for the **rest of the world**, sales continue to grow strongly here as well, rising 89% in the first five months of the year compared with the same period in 2025, led by emerging markets. May EV sales rose over 150% year-on-year in South America and Indian registrations increased 125%, largely thanks to Chinese manufacturers exporting competitively priced vehicles into markets with supportive policy and rising investment in charging infrastructure.

EV sales monthly market share



Source: BloombergNEF, Marklines, JATO Dynamics; Guinness Atkinson, July 2026

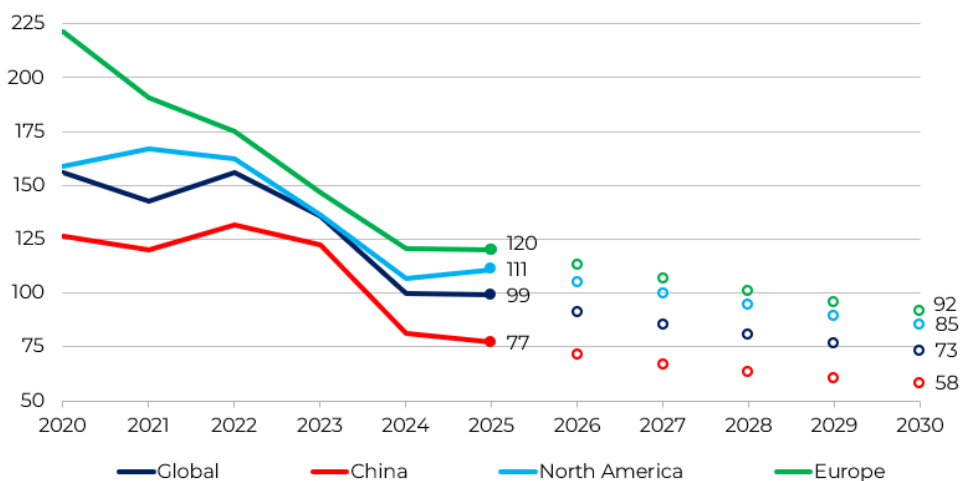
Beyond passenger vehicles, **commercial vehicles** are also increasingly electrifying, with global electric truck penetration doubling in 2025 to a record 9%. As with passenger EVs, growth has been led by China, where penetration has accelerated to 25%. Although these vehicles are still twice or three times the purchase price of a comparable diesel truck, improving battery economics mean they are now competitive on a total cost of ownership (TCO) basis, with Europe expected to reach the same milestone in 2030.

Batteries

Global battery demand reached almost 1.6 TWh in 2025 according to Bloomberg New Energy Finance, a 34% increase year-on-year. While passenger EVs continue to dominate, accounting for 64% of sales, ESS (Energy Storage Systems) and commercial vehicle batteries collectively are just under a third of overall volumes but are growing even faster at 67% and 108% year-on-year respectively.

The average battery electric vehicle (BEV) battery price fell to \$99/kilowatt (kWh) in 2025, below the \$100/kWh threshold often thought to mark price parity with internal combustion engines. However, these global trends mask significant regional differences. China has the lowest battery costs globally at \$77/kWh, around 30-35% cheaper than North America or Europe, both above \$100/kWh. This is reflected in 2025 electric SUV prices, which reached parity with ICE models in China compared to a 10% premium in Europe and a 20% premium in the US.

Historic and forecast BEV battery prices by region (\$/kilowatt-hour)



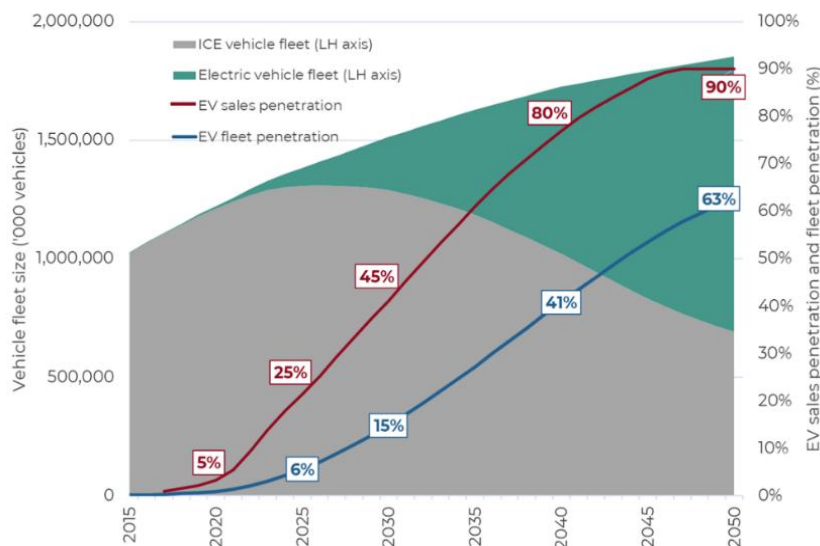
Source: BNEF, July 2026

Looking ahead, we expect battery prices to continue to fall towards \$70-80/kWh by the end of the decade thanks to continued scale and manufacturing efficiency, the adoption of lower cost chemistries (e.g. lithium iron phosphate, sodium-ion), and continued structural innovations (e.g. cell-to-pack, cell-to-body).

Outlook

We expect falling battery prices to support our long-term forecast for EV penetration of 45% by 2030 and over 80% by 2040. Greater scale and investment in EV and battery manufacturing should also benefit other end markets such as Energy Storage Systems (ESS) and commercial vehicles, supporting battery demand growth of 15-20% per annum out to 2030, with ESS and commercial vehicle demand continuing to outgrow the broader market.

Global auto, ICE, and EV population to 2050



Source: US DoE (actual), Guinness Atkinson(estimates) as of July 2026

At the end of 2025, we estimate that there were approximately 80 million EVs on the road, making up 5-6% of the total fleet. According to the IEA, this global fleet consumed around 250TWh of electricity, making up just under 1% of global power demand. Over the next 10 years, we expect the global EV fleet to grow by over five times to just under 450 million units, making up over 25% of the global fleet. This drives 10-15% of the growth in global power demand to reach 4-5% of global power demand by 2035.

Fund positioning

As the global economy reckons with its second major energy shock in four years, we believe the economic case for EV ownership is stronger than at any point since the war began, and the investments made across the supply chain over the last five years leave the industry well placed to meet demand. The Guinness Atkinson Alternative Energy Fund is well positioned to benefit, with exposure to semiconductors (Infineon, NXP Semi), electrical connectors and sensors (Amphenol, TE Connectivity, Sensata) and batteries (LG Chem). All of these names enjoy a content-per-vehicle uplift when selling onto an electric vehicle compared to internal combustion engine and are expected to experience tailwinds to growth as EVs continue to penetrate into the sales mix.

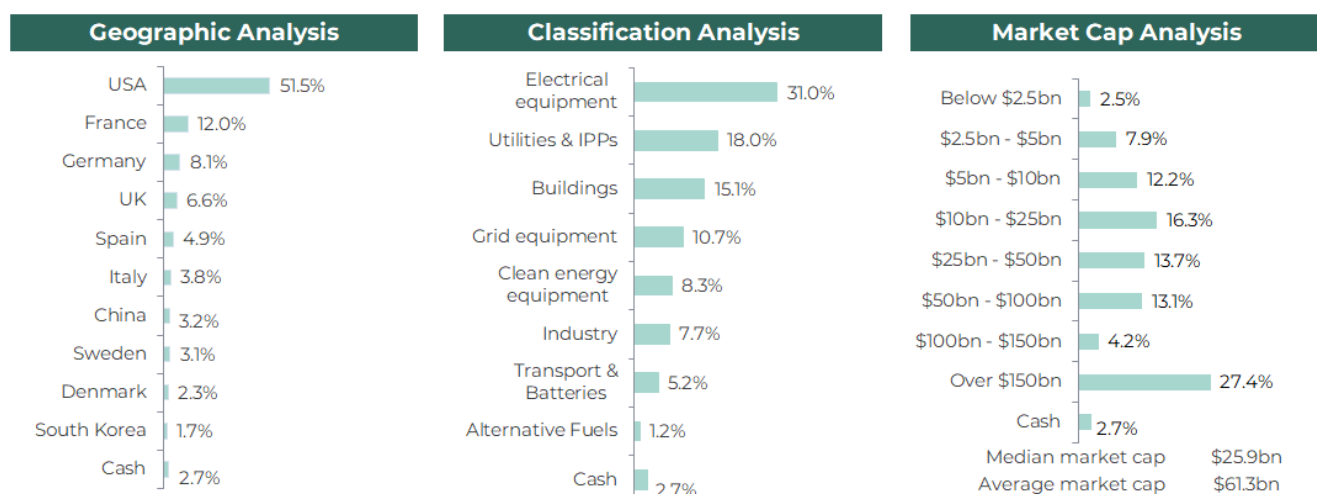
Portfolio

Buys/Sells

TE Connectivity is a world leading electrical and electronic connector manufacturer, selling into automotive and industrial end markets. The company is the world's largest automotive connector supplier and benefits from a content-per-vehicle uplift when selling high-voltage connectors for electric vehicles rather than low-voltage ones for internal combustion engine vehicles. The company also sells connectors into a broad array of industrial end markets such as factory automation, clean energy, and data centers.

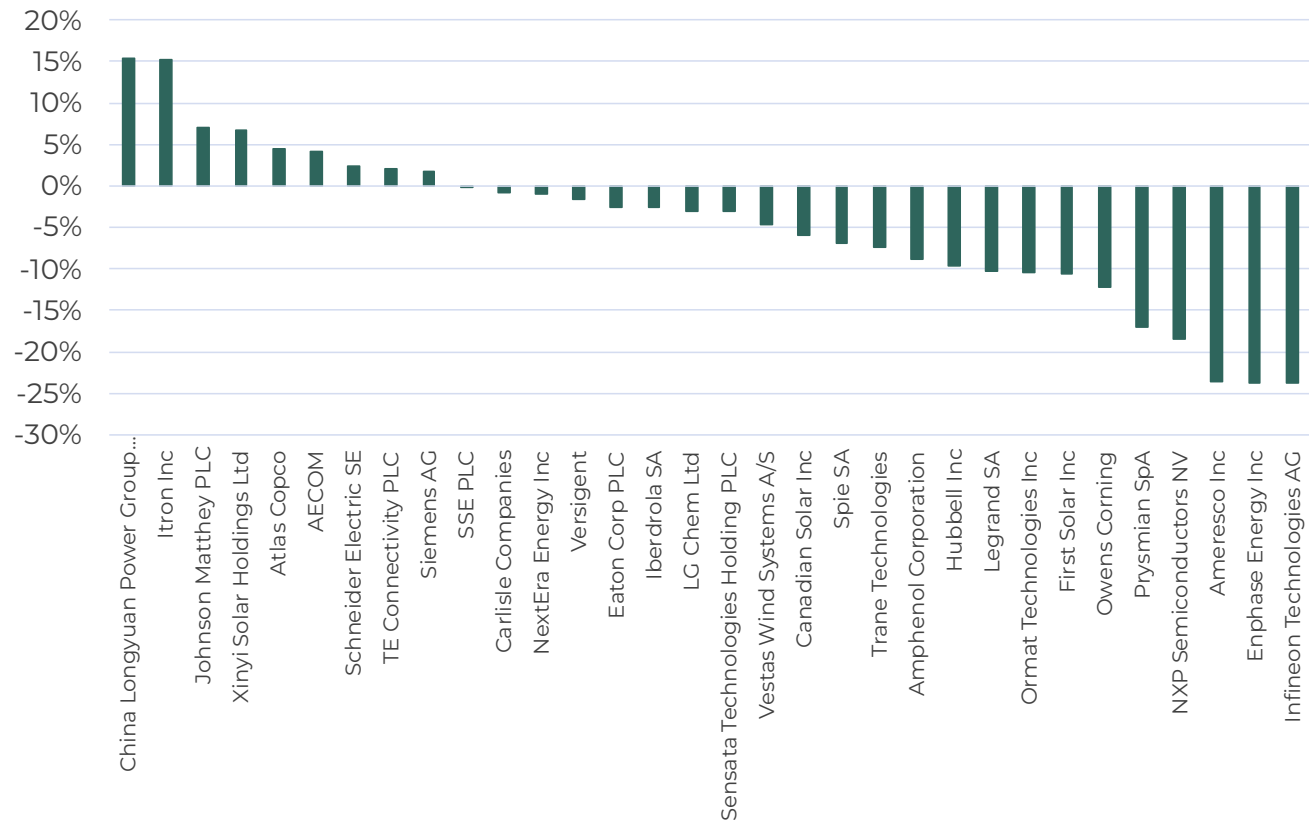
We sold our position in **Aptiv** and recycled the capital into TE Connectivity, where we have higher conviction in the firm's competitive positioning and growth outlook.

Portfolio structure analysis



Data as of 07.31.2026. Source: Guinness Atkinson. Portfolio holdings are subject to change.

Stock by Stock performance over the month, in USD

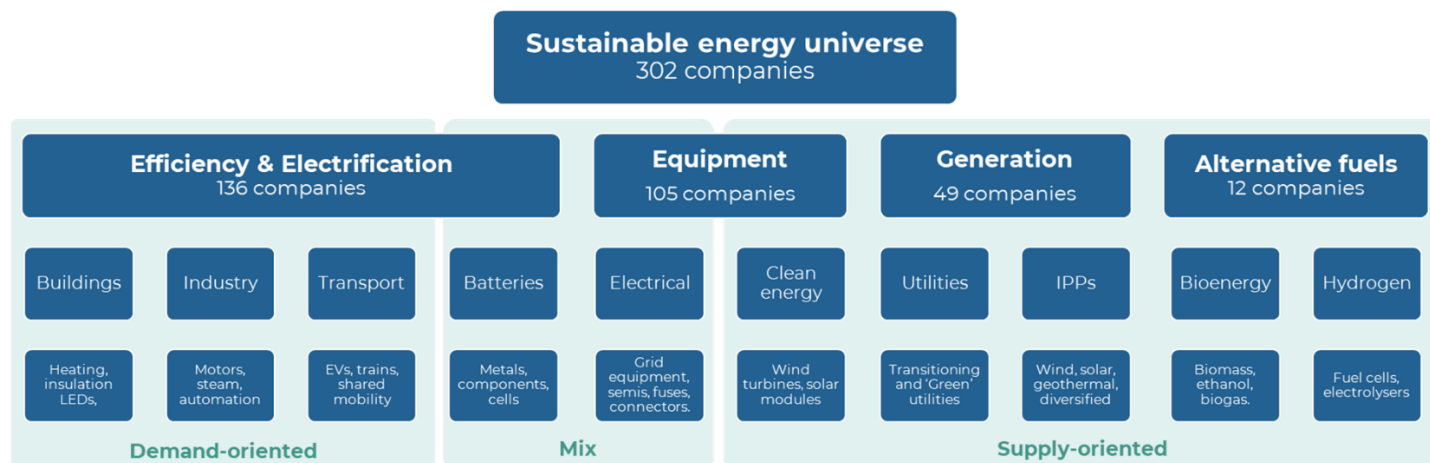


Source: Bloomberg. As of 31 July 2026

Portfolio holdings as at the end of July 2026

Theme	Example holdings	Weighting (%)
1 Electrification of energy demand	 	25.5%
2 Modernising the power grid	 	10.7%
3 Rise of the electric vehicle and auto efficiency	 	12.0%
4 Power semiconductors	 	6.6%
5 Wind & solar equipment manufacturing	 	8.3%
6 Low carbon power generation: regulated producers	 	12.8%
7 Low carbon power generation: independent producers	 	6.4%
8 Building and industrial efficiency	 	15.0%
9 Other (inc cash)		2.7%

We believe the Guinness Atkinson Alternative Energy Fund is positioned to benefit from many of the long-term themes associated with the transition towards a lower-carbon economy and of sustainable energy generation via investment in companies with activities that are economic with limited or zero government subsidy and which are profitable. We do not limit ourselves to 'pure plays', opening our universe to some companies with existing hydrocarbon-based fuel exposure, but this must be accompanied by a commitment to transitioning their business models towards sustainable energy sources. Our investment universe comprises around 300 companies which are classified as follows:



Source: Guinness Atkinson; data as of January 2026

Performance

As of 07/31/2026	YTD	1 Year	3 Years	5 Years	10 Years
GAAEX	8.82%	19.11%	2.89%	0.95%	10.08%
MSCI World Index NR	10.26%	20.41%	18.12%	11.18%	12.72%

As of 06/30/2026	YTD	1 Year	3 Years	5 Years	10 Years
GAAEX	14.96%	29.85%	5.01%	2.31%	10.81%
MSCI World Index NR	9.69%	21.34%	19.22%	11.47%	13.13%

All returns after 1 year annualized.

Inception 03.31.2006 Expense ratio* 1.11% (net); 1.89% (gross)

Performance data quoted represents past performance; past performance does not guarantee future results. The investment return and principal value of an investment will fluctuate so that an investor's shares, when redeemed, may be worth more or less than their original cost. Current performance of the Fund may be lower or higher than the performance quoted. Performance data current to the most recent month end may be obtained by visiting www.gafunds.com or calling 800-915-6566.

* The Advisor has contractually agreed to reduce its fees and/or pay Fund expenses (excluding Acquired Fund Fees and Expenses, interest, taxes, dividends on short positions and extraordinary expenses) in order to limit the Fund's Total Annual Operating Expenses to 1.10% through June 30, 2029. To the extent that the Advisor absorbs expenses to satisfy this cap, it may recoup a portion or all of such amounts absorbed at any time within three fiscal years after the fiscal year in which such amounts were waived or absorbed, subject to the expense cap in place at the time recoupment is sought, which cannot exceed the expense cap at the time of the waiver. The expense limitation agreement may be terminated by the Board of the Fund at any time without penalty upon 60 days' notice.

Top 10 Fund Holdings as of 7/31/26:

1. Iberdrola SA	4.82%
2. Schneider Electric SE	4.69%
3. Eaton Corp PLC	4.58%
4. Siemens AG	4.50%
5. Nextera Energy Inc	4.18%
6. Trane Technologies PLC	4.13%
7. Amphenol Corp	4.13%
8. Hubbell Inc	4.10%
9. Legrand SA	3.96%
10. Prysmian SpA	3.75%

MSCI World Index captures large and mid cap representation across 23 Developed Markets countries. With 1,546 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country.

The MSCI World Index (Net Return) measures the performance of large and mid-sized companies across 23 Developed Markets countries. It reflects both share price movements and dividends, with dividends reinvested after accounting for local withholding taxes.

Capital expenditure (capex) are funds used by a company to acquire, upgrade, and maintain physical assets such as property, plants, buildings, technology, or equipment.

SSE is a leading generator of renewables and flexible energy in Great Britain and Ireland

MW stands for **megawatt**. It is a unit of power that equals one million watts (1,000 kilowatts)

1 **GWh** equates to 1 billion watt-hours (Wh)

Terawatt-hour (TWh) is a unit of energy representing one trillion watt hours

Fund holdings and/or sector allocations are subject to change at any time and are not recommendations to buy or sell any security.

The price-to-earnings (P/E) ratio compares a company's share price with its earnings per share (EPS). Analysts and investors use this to determine the relative value of a company's shares in side-by-side comparisons.

One cannot invest directly in an index.

Earnings Growth is not a measure of future performance.

Opinions expressed are subject to change, are not guaranteed and should not be considered investment advice.

The Guinness Atkinson Alternative Energy Fund's investment objectives, risks, charges and expenses must be considered carefully before investing. The statutory and summary prospectuses contain this and other important information and can be obtained by calling 800- 915-6565 or visiting www.gafunds.com. Read and consider it carefully before investing.

The Fund invests in foreign securities which will involve greater volatility and political, economic and currency risks and difference in accounting methods. The risks are greater for investments in emerging markets. The Fund also invests in smaller and mid-cap companies, which will involve additional risks such as limited liquidity and greater volatility than larger companies. The Fund's focus on the energy sector to the exclusion of other sectors exposes the Fund to greater market risk and potential monetary losses than if the Fund's assets were diversified among various sectors.

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