

Guinness Alternative Energy Fund

A high conviction pureplay equity fund managed by Edward Guinness investing in quoted companies in the alternative energy sector.

INVESTMENT COMMENTARY – review of the 3rd quarter 2016

Manager Edward Guinness
(from launch in December 2007)

Fund size \$5.1m

AUM under strategy \$18.3m

Aim

Guinness Alternative Energy Fund gives investors pureplay exposure to global alternative energy markets.

The Fund is managed for capital growth and invests in companies in the solar, wind, hydro, geothermal, biofuels, biomass and energy efficiency sectors.

Investment case

We believe that over the next twenty years the alternative energy sector will benefit from the combined effects of:

- Higher energy prices driven by population growth, developing world industrialisation and diminishing fossil fuel supplies
- Falling costs of alternative energy assets as the technology improves
- Energy security concerns
- Climate change and environmental issues

The Guinness Alternative Energy team has been managing alternative energy portfolios since 2007.

The Fund is a long-only equity portfolio of around 30 equally-weighted positions.

Normally the Fund is invested in companies with a market capitalisation over \$100 million.

Alternative energy review

During the third quarter, the fund began to recover from the weak first half of 2016. The main macroeconomic events have been improvements in policy for wind in China, and proposals for sharp reductions in Chinese solar feed-in tariffs in June 2017. The US election is weighing on stocks generally, but if Clinton were to win, it would be positive for the entire alternative energy sector. Record-low bids in solar, onshore wind and offshore wind this quarter showed the competitiveness of alternative energy compared to fossil fuels, which should provide a demand-driven floor to price reductions for equipment manufacturers.

Performance contribution

Top 5 performers	Q3
China Singyes	50.04%
Senvion	37.26%
China Suntien	33.78%
Tianneng Power	26.18%
Schneider Electric	18.31%

Bottom 5 performers	Q3
Sunpower	-42.41%
Enphase	-40.70%
JinkoSolar	-22.47%
First Solar	-18.54%
JA Solar	-12.26%

Wind

The wind energy sector saw strong performance in the third quarter. Most of the companies we hold in the wind sector are independent power producers (IPPs) that develop, build and own wind farms, and over half of them are in China,

where we perceive the best value opportunity. The good performance was driven by policy changes in China which limit curtailment (being switched off by the grid) and which saw payments to Chinese power producers of delayed subsidies, with indications that future payments will not be delayed. Lack of sufficient grid infrastructure had caused the curtailment levels of wind power output to increase from 15% in 2015 to 25% in Q1 2016, meaning that IPPs were able to sell less power than they theoretically could have produced. The cap on curtailment introduced in May 2016 has so far been well enforced and led to earnings increases for Chinese wind IPPs in the second quarter. The sixth subsidy plan for renewables for China was published in September 2016. This led analysts to believe that delayed subsidy payments would be received by the IPPs in the near future, whereas previously there was no visibility as to when these payments would be made.

Our other wind investments include Senvion, a German wind turbine manufacturer, which performed well over the quarter. We acquired the stock as it was trading at a significant discount to its peers and over the quarter it saw a rerating on the back of a continued flow of orders.

Solar

Solar remained the laggard. A rush of solar installations boosted earnings for solar companies in Q2, but worries of overcapacity have weighed on share price performance. All five of the weakest performers in the quarter were solar companies. The module manufacturers JinkoSolar, SunPower, FirstSolar and JA Solar suffered from expectations of lower module prices and lower margins. SunPower announced that it would scale down its utility-scale division and close its Philippines module production plant to move the equipment to Mexico, resulting in a higher loss for FY 2017 than previously expected. We believe all of these companies are well positioned; Sunpower

and FirstSolar have strong management teams, differentiated products and meaningful downstream businesses, while JinkoSolar and JASolar are two of the cost leaders in the module market and are well placed for increased volumes at lower prices. As system prices continue to fall, the inverter manufacturers have also been hurt. Enphase has a strong product offering, but pricing is falling faster than anticipated and their suffering has been exacerbated by a balance sheet that is weaker than those of their peers. We continue to monitor the Enphase position closely and are not currently rebalancing.

On a more positive note, China Singyes Solar, a solar installer, increased 50.4% over the quarter as it benefited from the boom in Chinese solar installations. Trina Solar, the Chinese module manufacturer, was the recipient of a management buyout offer on 1st August, which the board accepted, sending the stock 49% higher than its lows for the year. We have sold the position following the announcement.

Efficiency

Battery-related companies performed well. Grid-scale storage saw support for large projects that provide short-term grid balancing services in the UK and California. Batteries were preferred to diesel alternatives. More and more electric vehicles are being launched by major car manufacturers such as the Chevrolet Bolt, which is coming out in early 2017 at a competitive price and range. Tianneng Power announced good interim earnings in mid-August, with revenue increasing 21% and profit attributable to shareholders increasing 48% year on year. Notably, the company's small lithium battery products segment increased revenues by 52%. With China's grid limitations becoming more apparent and the need for energy management systems on a distribution level and company level increasing, Boer Power is well positioned to benefit. Our Swedish heatpump investment Nibe Industrier posted healthy earnings and has acquired another geothermal heat pump player

Past performance should not be taken as an indicator of future performance. The value of investments and any income arising from them can fall as well as rise.

in Europe. Johnson Controls completed its merger with Tyco.

Hydro

Both hydro positions performed well over the third quarter, for unrelated reasons. Cemig has benefited from the 10% increase in value of the Brazilian Real to the US dollar. The company was oversold at the beginning of the year, and we are finally seeing the price recover. Iniziative Bresciane is benefitting from high rainfall over second and third quarters that should have enabled strong operating performance.

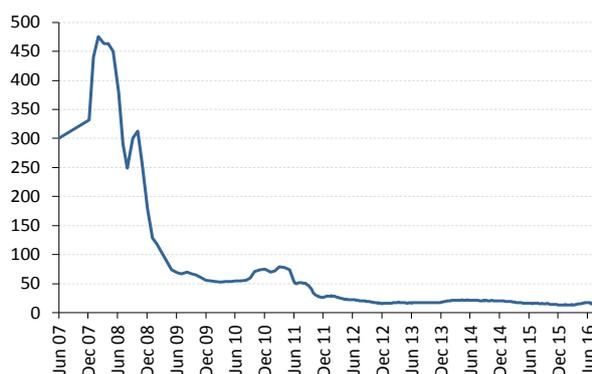
Geothermal

The fund’s geothermal holding, Ormat Technologies, continues to do well as more plants are completed and generate cash flow for the company. Ormat reported a year-on-year increase in net income attributable to shareholders of 68% in Q3 2016.

Outlook

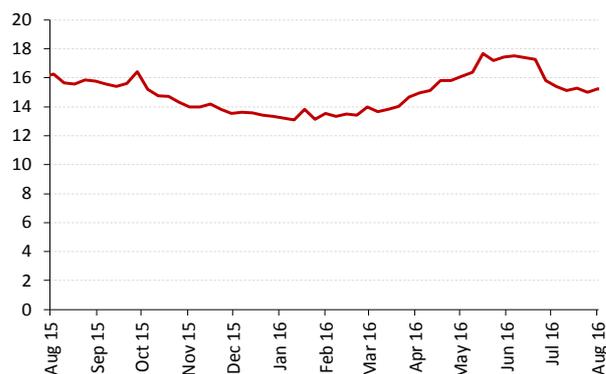
Solar

Long-term Silicon price (\$/kg)



Source: Bloomberg

TTM Silicon price (\$/kg)



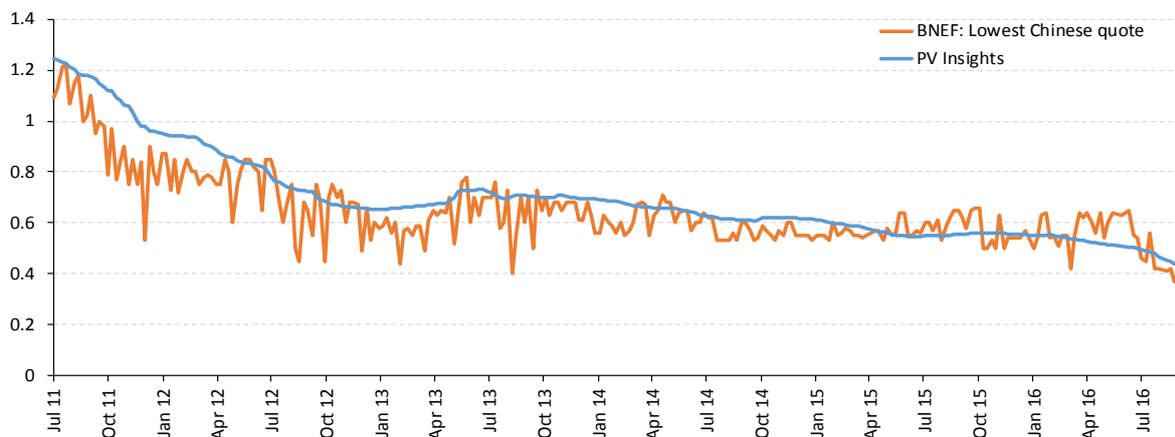
Source: Bloomberg

Over the quarter, the Bloomberg New Energy Finance polysilicon spot price fell from \$17.45 to \$13.88. For historical context, polysilicon prices have fallen from a high of \$475/kg in February 2008 to just over \$50/kg in December 2009. Since then, polysilicon has continued to fall in price, albeit not as dramatically. Since August 2012, polysilicon has failed to maintain a price above \$20/kg for any significant amount of time. The costs for producing silicon in existing plants is now believed to be just under \$10/kg for the lowest cost producers. A number of the polysilicon production plants still have costs of over \$20/kg¹. We are aware of smaller suppliers entering the market who claim to have production costs below \$10/kg using new technologies, such as privately-held Silicor Materials in Iceland. We do not believe that there will be a major bottleneck in polysilicon supply causing a price spike unless annual installation volumes more than double from current levels. We have no investments in polysilicon manufacturers.

¹ Bloomberg New Energy Finance

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Module Price (\$/W)

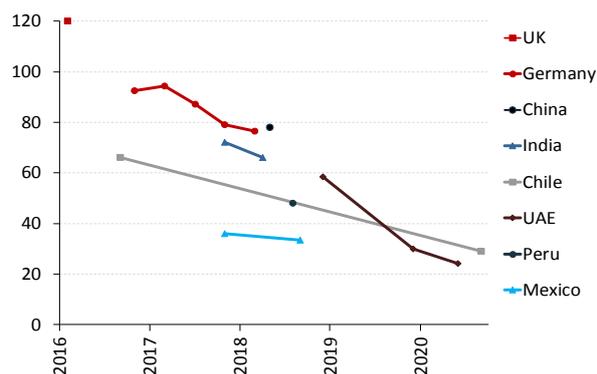


Source: Bloomberg

Module prices have declined steadily and have seen a lurch downwards following the reduction in Chinese feed-in tariffs in June 2016. China has announced potential feed-in tariff cuts that would likely induce an installation boom in H1 2017, boosting demand and alleviating oversupply. We expect a temporary plateauing or even recovery in module prices to result from this surge in installations.

Over the long run, prices are likely to continue to decline further due to technology improvements and economies of scale which should enable manufacturers to maintain margins. Consolidation of the solar module manufacturers is likely and will further support margins. We believe that the companies in the portfolio are well placed to weather this period, with low cost bases or strong balance sheets and shareholder support.

PV bids by delivery date (\$/MWh)



Source: Bloomberg, Cleantechica, Guinness Asset Management

As module prices decline, bids to supply electricity from solar PV are coming in at lower prices per MWh. In the graph above, the drop in the bid prices is shown per country by date of delivery. There is a clear trend downwards

Implied price decreases, total and annualised

Country	Absolute decrease (\$/MWh)	Years over which price decreases	Annualised rate of price decrease
Germany	16	1.5	12%
Chile	37	4	19%
UAE	35	1.5	44%

Source: Guinness Asset Management

across all three countries for which we have auction data over time. The bids in Chile and the UAE are for construction in two or more years' time meaning that bidders have to form a view on future costs and are not able to lock in returns.

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Solar PV forecast

	2013	2014	2015	2016	2017	2018
World	42.4	46.1	56.3	70.8	76.7	86.5
Asia	24.2	25.8	34.5	42.1	41.9	38.6
North America & Caribbean	5.5	7.4	8.8	14.1	14.0	17.3
EU Europe	9.8	6.8	7.5	5.7	6.0	6.7
Central & South America	0.1	0.9	1.0	2.5	3.7	5.8
Non-EU Europe	0.8	0.8	1.2	1.6	3.0	4.6
Oceania	0.9	1.2	1.5	1.5	2.3	3.8
Middle East & North Africa	0.3	0.7	0.9	1.5	3.6	6.5
Africa (excl. North Africa)	0.2	1.4	0.6	1.2	1.8	2.7

Source: Bloomberg. Note: Sorted by 2016 forecast installations

Asia is by far the most important region for solar demand. China today accounts for most of that demand, but India has aggressive growth aspirations and other countries in the region are seeing meaningful growth. In the first half of 2016 alone, China installed 20GW of solar capacity which was in line with many analysts' expectations for the full year. China has an annual feed-in tariff that is adjusted in June. Initial indications of a large cut in June 2017 are expected to drive a surge in installations in the first half of 2017. India has announced a goal to increase solar capacity to 100 GW by 2022, which will require a ramp up in the pace of solar capacity additions. Japan has been a very important market for 2014, 2015 and 2016 as a result of high feed-in tariffs offered. As a result of the removal of those attractive tariffs, Japan's annual installation levels are expected to fall from 2017. Taiwan has increased its target by 2.2 times. As of June 2016, Taiwan aims to have 20GW of solar PV installed by 2025, compared to an original 2014 target of 6.2GW. We believe that analysts are underestimating the growth that will be achieved in Asia.

Outside of Asia, the next most important market is the US, where the extension of the Investment Tax Credit has created a fertile support regime for growth of solar installations. Installation costs in the US are beginning to catch up with international best practice, which should support much higher levels of demand than are even now being forecast. The main

concern in the US is the outcome of the presidential election. For solar, Hillary Clinton has much more supportive policies than Donald Trump, although we might expect an acceleration of installation if he were to win from installers looking to complete projects before any change in the legislation.

Europe is now evolving from having been the leading subsidy-driven market to being driven by unsubsidized installations. Unsurprisingly it is the southern European countries with high insolation and high energy costs where we believe there may be upside to analysts' forecasts.

Latin America is the next most important market and we believe it has huge potential because of grid constraints and utility costs. The Middle East and Africa also have considerable potential although it may take time for them to benefit from the installation cost efficiencies being achieved elsewhere in the world.

Lower module and project prices are improving the economics of solar PV and are beginning to compete with fossil fuel generation in a number of locations. This transition away from subsidies is likely to lead to a meaningful surge in installations growth that is less likely to be matched by product price falls. Since solar PV projects are easy to permit and quick to build compared to other power generating technologies, taking only a few months

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compared to years, we expect demand levels for solar PV to respond to lower prices faster than for other technologies.

This competitiveness is manifesting itself in the record-low bids for solar PV projects witnessed in the third quarter 2016. A consortium of Japan’s Marubeni and China’s JinkoSolar offered to sell electricity from a solar PV plant at \$24.2/MWh for a 350MW plant in Abu Dhabi. We expect this plant would be commissioned in

2020. Only one month earlier, Spain’s Solarpack bid \$29.1/MWh for a 120MW solar plant in Chile to deliver 280GWh of energy per year starting in 2021, benefiting from a high expected capacity factor of at least 26%. Other than the structural support from long-term PPAs and priority dispatch of their output, these solar plants do not benefit from subsidies. Portugal has authorized 180MW of unsubsidized solar projects and a total of more than 2GW are being processed.

Wind

	2013	2014	2015	2016	2017	2018
World (including offshore)	33.6	48.6	62.1	58.6	59.7	69.6
Asia	17.1	23.8	32.3	30.4	30.4	33.6
EU Europe	11.9	10.4	13.5	11.3	12.6	11.0
North America & Caribbean	2.5	7.7	10.7	10.9	9.7	11.7
Central & South America	0.7	4.1	3.4	3.8	3.2	6.2
Non-EU Europe	0.9	0.9	1.0	0.9	1.3	1.6
Africa (excl. North Africa)	0.0	0.7	0.7	0.8	1.6	2.1
Middle East & North Africa	-	0.3	0.2	0.4	0.6	1.6
Oceania	0.5	0.8	0.3	0.1	0.3	1.8

Source: Bloomberg. Note: Sorted by 2016 forecast installations

After last year’s record level of global wind installations, analysts expect a slight decrease in the global wind market in 2016. Last year’s rush to complete projects before a tariff decrease meant that a record 29GW² of wind power was installed in China in 2015 – 19GW in H2 2015 alone. China’s National Energy Administration (NEA) reported that close to 8GW of wind had been installed in H1 2016, of which 5.3GW were installed in Q1 2016. The Chinese government has successfully implemented and enforced limits to the amount of curtailment that wind turbines suffer, much to the relief of Chinese wind farm operators. The Chinese government targets 30GW of new wind installations in 2016, mainly in regions that have lower curtailment rates. However, whether the government will be successful is unclear – the country would have to repeat its phenomenal installation rate achieved in H2 2015. The vast majority of the

Chinese wind market is supplied by Chinese turbine manufacturers, offering limited opportunities for non-Chinese manufacturers.

Outside of China, analysts expect wind demand to decrease slightly by 1GW as European installation levels fall. The United States is the largest individual market outside Asia. The United States Congress extended the production tax credit (PTC) which supports wind installations at the end of 2015 out to 2019. Ironically, this means there is less of a rush to finish projects and as a result the United States wind market may not witness growth in 2016 and 2017, before picking up again in 2018 and 2019 with a surge before the PTC expires.

As with solar, Hillary Clinton is supportive of wind but were Donald Trump to win the US presidential election there might be a rush of wind installations to protect against any change to supporting legislation.

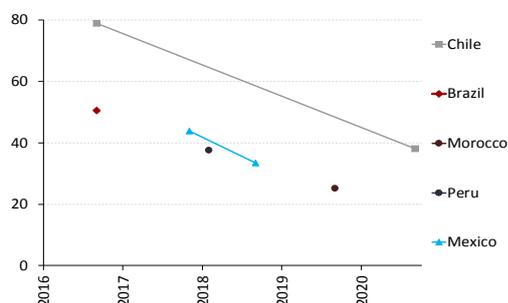
² Source: Bloomberg

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We note that with expected cost and performance improvements of turbines, wind power will be even more competitive compared to conventional sources in the United States, which may support higher growth than expected in 2018 and 2019 and will help the industry continue once the PTC has tapered away.

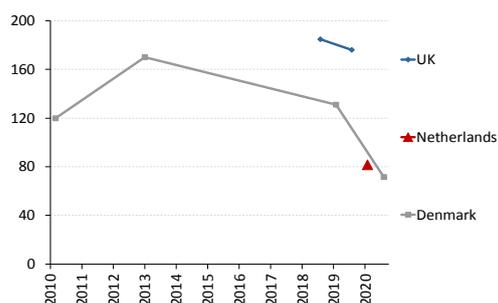
Europe as a whole is expected to continue to demand between 11 and 13GW between 2016 and 2018, driven by the feed-in tariffs in France and general competitiveness of wind power with conventional sources. Developers are rushing to complete projects before auctions begin in Germany in 2017, after which installation levels will probably fall by around 1GW. Germany is starting construction on a transmission link with Norway, essentially using Norway’s many hydro plants as energy storage. This opens up grid capacity and would allow for even higher penetration of renewables in northern Europe.

Onshore wind bids by delivery date (\$/MWh)



Source: Bloomberg, Guinness Asset Management

Offshore wind bids by delivery date (\$/MWh)



Source: UK government, Government of the Netherlands, Windpower Monthly, Vattenfall, Guinness Asset Management

Note: Projects have not been standardised for plant lifetime or financing cost and so values may not necessarily be directly comparable.

Canada, Brazil and Mexico are the next sources of demand growth. Chile has made headlines due to its auctions where wind power bids have decreased in price since last year, down to \$38/MWh from \$79/MWh. The delivery dates for these two prices are four years apart, partially explaining the dramatic drop in price, equivalent to an annualized decrease of 17%.

Auctions across the globe continue to bring wind power prices down, with turbine suppliers seeing pressure on margins. Price pressure in the onshore wind sector is not as intense as in the solar sector – there are fewer manufacturers, the technology is broadly competitive today and policy remains broadly supportive. However, further research and development spending to improve efficiency and lower costs, as with all industries, will be critical in allowing all in the value chain to maintain margins.

Corporates continue to provide purchase power agreements (PPAs) to renewable energy projects, predominantly wind. The US market was historically driven in part by large corporations signing PPAs, and we are beginning to see the same thing happen in Europe, reducing the importance of the utilities. We believe this trend will continue and support unsubsidized installations.

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Offshore wind

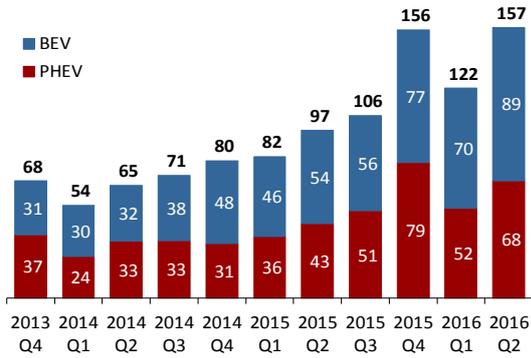
Offshore wind has received much positive press in Q3 2016. First, Vattenfall set a new record for offshore wind in Denmark on 12 September 2016. The company had submitted the winning bid of 475 Danish Kroner per MWh (\$71.7/MWh) over 12 years, surpassing Dong's previous offshore record in the Netherlands of €72.7/MWh (\$81.7/MWh) in June this year. Bloomberg New Energy Finance reported the latest Vattenfall bid as having an equivalent LCOE of \$51/MWh over its 23-year lifetime. However, the Danish government is looking into cancelling Vattenfall's bid, since low power prices would require higher than anticipated subsidies.

The phenomenally low prices for these offshore projects are partially achievable due to the proximity to shore, synergies with existing projects in the area and proximity to offshore wind manufacturing facilities. Bloomberg reports that there are no 'near-shore' projects left in Europe, indicating that future bids for offshore wind are likely to be higher.

Second, the US Department of Energy and the US Department of the Interior published a document detailing the offshore wind strategy of the US until 2050. The document foresees 86GW of offshore wind by 2050. This would require average annual offshore wind installations of 2.5GW in the US. However, there are no binding targets and whether the strategy will be implemented will depend on the results of the US election in November this year. The global offshore wind market in 2020 could be as large as 10.5GW without the newly published strategy, up from 4.1GW in 2015. The new US offshore wind strategy would make the US a sizable player in the global offshore wind industry, if implemented.

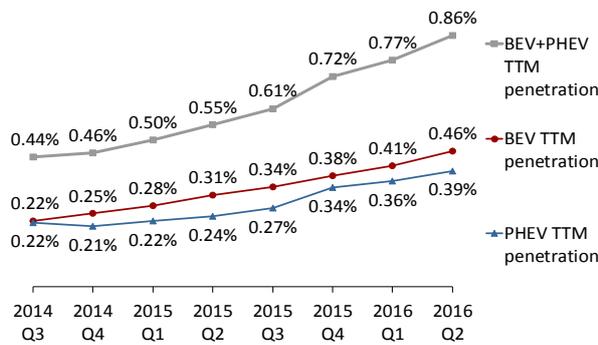
Third, the Lawrence Berkeley National Laboratory showed that experts expect offshore wind to drop 30% in cost (in \$/MWh terms) between 2014 and 2030. In the most optimistic scenario, the experts expect offshore wind to drop to \$80/MWh by 2030. The main drivers behind cost reduction for fixed-bottom offshore wind were CapEx and financing costs. The study, titled 'Expert elicitation survey on future wind energy costs', was conducted in late 2015 and published in the renowned scientific journal Nature Energy.

Quarterly plug-in vehicle sales in selected countries (thousands)



Source: Bloomberg, Cleantechnica

Trailing 12-month plug-in vehicle penetration of new car sales in selected countries (%)



Source: Bloomberg. TTM = trailing twelve months. Total EV sales across selected countries divided by total car sales in these countries show the penetration above.

Electric vehicles (EVs) have shown strong growth in sales numbers since 2014. The compound quarterly growth rate is 8.7% between Q4 2013 and Q2 2016, translating to a 39.7% compound annual growth rate.

The graph above shows the TTM (trailing twelve months) penetration of EVs in new car sales in the selected countries consistently growing for the last two and a half years. As has been the case for the duration of the graph, Norway has the highest penetration of EVs, with 28% of sales in Q2 and 30% in Q1. The exceptionally

high penetration in Norway is due to effective tax breaks and benefits to EV owners along with a relatively expansive charging network. A long way behind Norway lies Sweden, at 3.7% for Q2 2016. The sensitivity of EV sales to policy changes has been experienced in the Netherlands, where EV penetration dropped from a high of 16.3% in Q4 2015 to 2.2% in the following quarter. This was due to the expiration of a subsidy for PHEVs at year end 2015.

In July, Germany introduced a subsidy scheme for EVs worth €1.2 billion. Prospective EV owners can apply for a €4,000 or a €3,000 grant when purchasing a BEV or a PHEV respectively. However, the uptake of this subsidy in Germany in Q3 has been disappointing so far according to preliminary reports.

Electric car models have been making the news continuously this quarter in the run-up to the first set of affordable, long-range models coming to market. Renault surprised the market by announcing a doubling of range for its Zoe model to 250 miles (186 miles in real life driving conditions), beating Tesla and Chevrolet in range and timing. The long-range Zoe model will go on sale in November 2016 at around £23,000 (\$30,000). In the United States, General Motors confirmed that the Chevrolet Bolt will have a 238-mile range on a full charge and will have a retail price of \$37,495. After applying the \$7,500 subsidy available to purchasers in the United States, the car would cost \$29,995, which is significant since this would break the mental \$30,000 barrier. The former chief designer of the Toyota Prius, Satoshi Ogiso, revealed in September 2016 that some battery electric vehicle (BEV) – fully electric – models up to 250km (155mile) in range are already cheaper to build than non-plug-in hybrids, further adding to the momentum behind EVs.

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Grid-scale stationary storage

The California Public Utilities Commission (CPUC) directed utilities in Southern California to solicit grid-scale energy storage capacity after a leakage problem at the Aliso Canyon natural gas reservoir. In May 2016, the CPUC approved purchasing batteries for electricity storage to prevent blackouts. Notably the CPUC did not choose diesel generators or other forms of back-up power for the system.

On August 18, 2016 AES Energy Storage, a subsidiary of AES Corporation, announced that they will install 37.5MW of their Advancion Energy Storage arrays in early 2017. The project will be able to provide 37.5MW for four continuous hours, making this the largest battery storage project in the United States to date. San Diego Gas and Electric chose AES through a competitive solicitation.

Tesla also won a solicitation to provide an energy storage system to Southern California Edison. The system will have a power capacity of 20MW and storage capacity of 80MWh. The system will be located at a substation, similar to the projects by AES. Both projects are due to come online in a matter of months, showing the maturity of the storage sector.

The largest contract for energy storage was announced on 26 August 2016 by National Grid, the grid operator in Great Britain. The company announced the results of its tender for enhanced frequency response (EFR), meaning that bidders had to be able to react to grid imbalances in under one second. Combined, the winners had 200MW of storage projects costing the government £65 million (\$86m) over four years. National Grid stated that these projects would save the consumers £200 million over four years. Notably, the prices for these projects on a \$/kWh basis may appear expensive compared with the batteries found in electric vehicles, which we assume lie between \$300 and \$350/kWh. However, the batteries in the EFR tender need to be able to ramp more quickly than electric vehicle batteries, having a higher power to energy ratio than electric vehicle batteries, making the batteries used for the EFR tender more expensive. Nevertheless, these prices could be low enough for some alternative energy developers to look at batteries to smooth out power generation from intermittent power generation technologies.

Portfolio changes

We sold Trina Solar, one of the leading Chinese module manufacturers, following the board's recommendation to accept a management buyout offer. We replaced the position with Sensata, a controls and sensors company selling mainly to the automotive market. Sensata, aside from having a strong earnings history and trading on reasonable multiples, is likely to benefit from increased demand for its products as the automotive market focuses on fuel efficiency and electrification.

Saft Group was acquired by Total and the transaction closed at the beginning of the third quarter. We replaced it with a position in Senvion, a Germany wind turbine manufacturer

formerly known as RePower. Senvion has a good market reputation and positioning and was trading at significantly lower multiples than its peers.

Fund Performance (Q3 2016)

The Guinness Alternative Energy Fund was up 4.12% for the third quarter of 2016. This compared to a rise in the Wilderhill New Energy Global Innovation Index in the third quarter of 5.46%, a rise in the Wilderhill Clean Energy Index of 1.19% and an increase in the MSCI World Index of 4.99%.

Edward Guinness & Samira Rudig
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Guinness Alternative Energy Fund

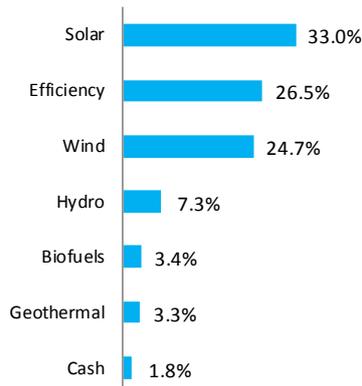
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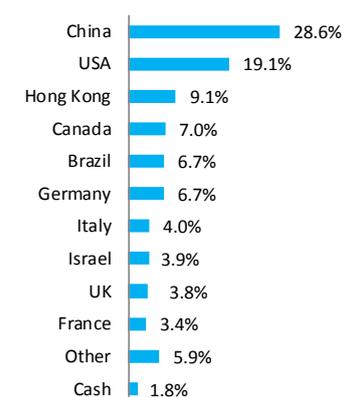
Fund top 10 holdings

Inbre	4.0%
Sunpower	3.9%
Solaredge Technologies	3.9%
Good Energy	3.8%
First Solar	3.5%
Canadian Solar	3.5%
Johnson Controls International	3.5%
Boer Power Holdings	3.5%
JA Solar	3.4%
Cosan	3.4%
% of Fund in top 10	36.3%
Total number of stocks in Fund	31

Sector analysis



Geographic allocation



PERFORMANCE

30/09/2016

Annualised % total return from launch* (USD)



Discrete years % total return (USD)

	Sep '12	Sep '13	Sep '14	Sep '15	Sep '16
Fund	-19.6	79.5	2.6	-30.1	1.1
WilderHill Clean Energy Index	-20.9	53.0	0.7	-35.3	-5.1
WilderHill New Energy Global Innovation Index	-11.5	50.9	15.1	-16.1	7.3

Cumulative % total return (USD)

	3 months	Year-to-date	1 year	3 years	5 years	From launch*
Fund	4.2	-7.4	1.1	-27.5	4.6	-75.6
WilderHill Clean Energy Index	1.2	-18.2	-5.1	-38.2	-25.2	-84.4
WilderHill New Energy Global Innovation Index	5.5	-1.9	7.3	3.5	38.2	-55.8

RISK ANALYSIS

30/09/2016

Annualised, three years, in USD	Wilderhill Clean Energy Index	Fund
Alpha	0	-0.18
Beta	1	0.70
Correlation	1	0.84
R squared	1	0.70
Volatility	19.09	18.01

*Fund launch date: 19/12/2007.

Performance data based on the Fund's 'E' share class (AMC: 0.75%, max OCF: 1.24%), except periods starting prior to 02/09/2008, which are based on a composite of the Fund's 'A' share class (AMC: 1.00%, max OCF: 1.49%) from Fund launch launch (19/12/2007) until the launch of the Fund's E class (02/09/2008).

Source: Bloomberg and Financial Express, bid to bid, (inclusive of all annual management fees but excluding any initial charge or redemption fee), gross income reinvested. Performance would be lower if initial charge and/or redemption fee were included.

Past performance should not be taken as an indicator of future performance. The value of this investment and any income arising from it can fall as well as rise as a result of market and currency fluctuations.

All returns stated here are in US dollars; which is the Fund's base currency. Returns in different currencies may be higher or lower as a result of currency fluctuations.

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Important information and risk factors

Issued by Guinness Asset Management Limited, authorised and regulated by the Financial Conduct Authority.

This report is primarily designed to inform you about recent developments in the alternative energy markets invested in by the Guinness Alternative Energy Fund. It may also provide information about the Fund's portfolio, including recent activity and performance. It contains facts relating to the alternative energy market and our own interpretation. Any investment decision should take account of the subjectivity of the comments contained in the report.

This document is provided for information only and all the information contained in it is believed to be reliable but may be inaccurate or incomplete; any opinions stated are honestly held at the time of writing, but are not guaranteed. The contents of the document should not therefore be relied upon. It should not be taken as a recommendation to make an investment in the Fund or to buy or sell individual securities, nor does it constitute an offer for sale.

Risk

The Guinness Alternative Energy Fund is an equity fund. Investors should be willing and able to assume the risks of equity investing. The value of an investment and the income from it can fall as well as rise as a result of market and currency movement, and you may not get back the amount originally invested. The Fund invests only in companies involved in the alternative energy sector; it is therefore susceptible to the performance of that one sector, and can be volatile. Details on the risk factors are included in the Fund's documentation, available on our website.

Documentation

The documentation needed to make an investment, including the Prospectus, the Key Investor Information Document (KIID) and the Application Form, is available from the website www.guinnessfunds.com, or free of charge from:-

- the Manager: Capita Financial Managers (Ireland) Limited, 2 Grand Canal Square, Dublin 2, Ireland; or,
- the Promoter and Investment Manager: Guinness Asset Management Ltd, 14 Queen Anne's Gate, London SW1H 9AA.

Residency

In countries where the Fund is not registered for sale or in any other circumstances where its distribution is not authorised or is unlawful, the Fund should not be distributed to resident Retail Clients. **NOTE: THIS INVESTMENT IS NOT FOR SALE TO U.S. PERSONS.**

Structure & regulation

The Fund is a sub-fund of Guinness Asset Management Funds PLC (the "Company"), an open-ended umbrella-type investment company, incorporated in Ireland and authorised and supervised by the Central Bank of Ireland, which operates under EU legislation. If you are in any doubt about the suitability of investing in this Fund, please consult your investment or other professional adviser.

Switzerland

The prospectus and KIID for Switzerland, the articles of association, and the annual and semi-annual reports can be obtained free of charge from the representative in Switzerland, Carnegie Fund Services S.A., 11, rue du Général-Dufour, 1204 Geneva, Switzerland, Tel. +41 22 705 11 77, www.carnegie-fund-services.ch. The paying agent is Banque Cantonale de Genève, 17 Quai de l'Île, 1204 Geneva, Switzerland.

Telephone calls maybe recorded and monitored.

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