GUINNESS ATKINSON FUNDS

Alternative Energy *brief*

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Commentary and Review by portfolio manager Edward Guinness

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Warren Buffet has steadily increased his exposure to the alternative energy sector over the past 10 years. We look at the possible strategies behind his approach to investing in the sector .

Sector Review

The drivers of the good second quarter performance of the alternative energy fund were the wind turbine manufacturers, the takeover of Waterfurnace by Nibe Industries and gains from the fund's solar holdings.

The wind turbine manufacturers benefitted from some easing of policy as Angela Merkel removed repowered sites from the annual cap on installations. Vestas was able to secure a €5 billion 5 year revolving credit facility that should allow it the balance sheet flexibility to grow. The working capital needs of the wind turbine manufacturers varies significantly and can become a constraint. In China, it was revealed that the curtailment of wind production had fallen from 17% of wind generation in 2012 to 11% in 2013.

Waterfurnace, one of the main North American heat pump installers was the subject of a takeover offer by Nibe, its Scandinavian peer. While the premium paid was good news for the fund, we think that Nibe have made a shrewd acquisition at the right time in the cycle – the US property market is showing signs of life again.

The solar sector has seen polysilicon prices remain steady at $21-$22 per kg while the headline Bloomberg solar module price has fallen 3.3% over the quarter. Demand in China, US, Africa, Latin America, the Middle East and Japan remains strong while Europe has shown weaker demand as expected.

Trade disputes continue to overshadow the industry, with the US imposing wider anti dumping and anti-subsidy tariffs on Chinese and Taiwanese solar manufacturers. The EU maintains a minimum price for Chinese modules although it has lowered that to Eur0.53/Watt (w). China has responded with anti-dumping and anti-subsidy tariffs of its own. We believe the tariffs are unhelpful for the sector, although as we believe that sense will prevail in the long run, which could create a better market for consumers and manufacturers alike. In more positive news, 14 WTO (World Trade Organization) members including China, the European Union (EU), the US and Taiwan have announced a new series of trade negotiations aimed at removing tariffs on environmental products including solar. While this will probably take some time, it does at least demonstrate some willing to try to stop the imposition of tariffs at the bequest of domestic competitors.

A number of the Chinese solar module manufacturers including Yingli and Trina have accessed the capital markets in the quarter, improving balance sheet strength and demonstrating some support for the leading solar players amongst institutional investors.

The solar financing market has continued to develop apace, with Solarcity and the burgeoning number of yieldcos leading the charge. We have also seen Google sign a $250 million financing deal for residential rooftop solar installations with Sunpower and Warren Buffett increasing his commitment to the sector (more on that below).

Portfolio Changes

As a result of the takeover bid, we have sold our position in Waterfurnace and replaced it with a position in a small Italian hydroelectric company called Iniziative Bresciane. While we have some concerns about the subsidy regime in Italy given Italy's weaker economy, we believe that small hydro installations will continue to be supported as the subsidy levels are amongst the lowest for any technology and installations are expected to last for 100 years or more. This company has a portfolio of 16 hydro installations today and are proposing to increase their portfolio with the capital they raised in their IPO (initial public offering). We will be visiting some of the company's facilities in August.

Warren Buffet's alternative energy investing

Over the last ten years, Warren Buffett has been steadily increasing his exposure to the alternative energy sector. This is in stark contrast to his studied avoidance of the internet boom of the late 90s and is an indication that alternative energy is a different and more "investable" theme. While he has made some technology investments, notably into the Chinese car manufacturing company Byd, which has made forays into electric vehicles, batteries and solar panel manufacturing, the bulk of his alternative energy investments have been into electricity producing assets.

MidAmerican, one of the companies that forms the core of Berkshire Hathaway Energy has made investments in wind farms, solar farms geothermal power plants and hydroelectric power plants. 30% of MidAmerican's energy comes from wind turbines which accounts for 7% of total US wind generation. MidAmerican owns a number of large solar intallations and is constructing the 550MW Topaz Solar Farm which will be one of the world's biggest solar farms. Of other notable Berkshire Hathaway investments, Pacificorp has 25% alternative energy generation, NV Energy is a major purchaser of alternative energy and CalEnergy Philippines consists entirely of a hydroelectric power plant in the north of the Philippines.

These electricity generating assets are highly attractive to an investor like Warren Buffett and it is easy to see why. They offer returns well in excess of treasury yields – typically from about 7% up to 15% depending on the specific project, while having predictable revenue streams.

There is a good fit for Berkshire Hathaway's long term insurance business liabilities. The long term steady returns over 20-25 years are difficult to find elsewhere and at the end of the lives of the assets they are likely to retain some sort of residual value. At worst, the cost of decommissioning is lower than the scrap cost and there is almost no environmental damage done to the wind and solar farm sites. Furthermore, alternative energy projects typically include an inflation hedge in the subsidized element of the contract and the energy component is in itself a form of inflation hedge.

For Berkshire Hathaway, the size they have reached presents a meaningful challenge when looking for new investments. Vast amounts of capital can be deployed into alternative energy projects and they are modular – the legal framework and due diligence on one solar or wind project can be reused for the next. The required investment in global alternative energy projects needs to rise from $300 billion a year to $1 trillion by 2030 according to the UN and the International Energy Agency.

And finally, US investments in alternative energy projects are highly tax efficient. Berkshire Hathaway can benefit from the tax credits (Investment Tax Credits and Production Tax Credits) to offset tax owed in other parts of its business.

The other important aspect of investing in alternative energy is considering which risks Warren Buffett is prepared to take. He is happy to take long term weather risk. While you might not know for certain whether the sun will shine or the wind will blow tomorrow, over longer periods the amount of sunshine and wind is highly predictable with manageable deviation from long term averages.

He is comfortable with government subsidy risk but only in the right countries. Note that his investments are predominantly supported by subsidies from the US government. He has avoided the countries like Spain and Italy where a government promise is less binding. The Philippines hydroelectric plant benefits from being a low cost source of power and therefore has much more limited government subsidy reduction risk.

By investing in these projects, he is theoretically taking an element of long term power price risk. However, much of this risk is mitigated structurally by signing long term power purchase agreements. The ability to strike such long term contracts with creditworthy counterparties is almost unique to the power sector.

There is a perception that investing in alternative energy projects involves technology risk. However we would argue that most of the technologies are proven, with years of performance history for both solar modules and wind farms. The projects themselves are relatively straightforward to construct with cost overruns unlikely and usually covered by fixed price contracts.

The operational risk is relatively low as well. While there have been some high profile wind turbine failures, such failures are covered by insurance and the operating and maintenance costs for these projects are low compared to the revenue. Note that for solar projects there are no moving parts and the module manufacturers provide warranties for their output for twenty or more years.

What does this mean for alternative energy investors? We think that where Warren Buffett leads, others will follow, as has been the case in many other sectors. This means that one of the main challenges for the alternative energy industry – attracting the vast amounts of capital needed – is likely to be met and the cost of capital for projects is likely to fall as the large capital providers learn to become comfortable with the risks. You can already see this with pension funds increasing their exposure to alternative energy projects and with the proliferation of dividend paying "Yield-cos".

We look at this from two perspectives as we manage Enterprise Investment Scheme ("EIS") investments into UK alternative energy project companies and manage a "long-only" alternative energy fund that invests in listed alternative energy stocks. For the existing EIS assets we hold, we expect yield compression from the falling cost of capital to contribute to investment returns. For the "long-only" fund, which invests in a mix of manufacturing, development and asset holding companies, we expect the availability of large amounts of capital to support growth of wind and solar that is higher than expected, and for those companies holding and developing assets, we expect the value of those assets to increase over the long term to reflect the falling cost of capital.

Taking a step back from the analysis of the attractiveness of the investments Buffet has made, it is also worth noting that he has not justified any of these investments on the basis of their social, environmental, ethical, sustainable or other corporate responsibility benefits. These are all investments that he has made because of their economic returns. This is an approach that we share – the drivers of finite fossil fuels, energy security and climate change all support an economic case, and that is why we invest in the alternative energy sector.

Outlook

Our outlook for the sector remains positive but tinged with caution. While the drivers for alternative energy remain in place, the potential for government interference that will harm the sector remains omnipresent and the outlook for energy prices remains uncertain and subject to the vagaries of global supply and demand of commodities.

We are starting to see behavior from manufacturers that is more commonly found in more mature markets. In both the wind and the solar markets there has not been a surge in capacity expansion in anticipation of higher volumes. Companies have been protecting margins and working on efficiencies to increase capacity from existing plants. This bodes well for the outlook of pricing in the sector.

Solar demand is believed to have been about 19-20 gigawatts(GW) in the first half of 2014, with 25-30GW of installations expected in the second half. We think there is some potential upside to this given the momentum in installations we are seeing in China and the US. Looking forward to 2015, the growth of meaningful emerging market demand is likely to accelerate the global growth and support what we expect to be more growth in the US and China.

Elon Musk has been visionary in a number of sectors now, and he has noted that:

"Even if the solar industry were only to generate 40 percent of the world's electricity with photovoltaics by 2040, that would mean installing more than 400 GW of solar capacity per year for the next 25 years". With the move to unsubsidized solar becoming more than a pipedream in many countries, we think this is a feasible outcome and implies that the solar industry needs to supply 10 times as many solar installations as it does today. In our opinion this is the most important long term growth theme for alternative energy investors today.

The long term outlook for alternative energy remains good. The key drivers remain in place: dwindling fossil fuel supplies; energy security concerns; environmental issues; and climate change. The reduced cost of alternative energy technologies is likely to accelerate the growth of the alternative energy sector. We continue to position the fund to benefit from the long term growth of the sector.

Fund Performance (Q2 2014)

The Guinness Atkinson Alternative Energy Fund was up 5.92% for the second quarter of 2014. The fund outperformed the two indices which had mixed performance of 4.64% and -2.28%.

Total Returns as of 6/30/14

Total returns	Q2 2014	CY 2013	1 year	5 year	From launch
Guinness Atkinson Alternative Energy Fund	5.92%	61.54%	43.27%	-5.20%	-10.28%
Wilderhill New Energy Index	4.64%	55.70%	44.87%	0.77%	-1.58%
Wilderhill Clean Energy Index	-2.28%	58.54%	29.31%	-5.94%	-12.43%

Calendar year returns	2009	2010	2011	2012	2013
Guinness Atkinson Alternative Energy Fund	33.42%	-21.90%	-42.53%	-15.20%	61.54%
Wilderhill New Energy Index	41.12%	-13.65%	-38.91%	-4.14%	55.70%
Wilderhill Clean Energy Index	29.81%	-4.76%	-50.50%	-17.37%	58.54%

CY = Calendar Year

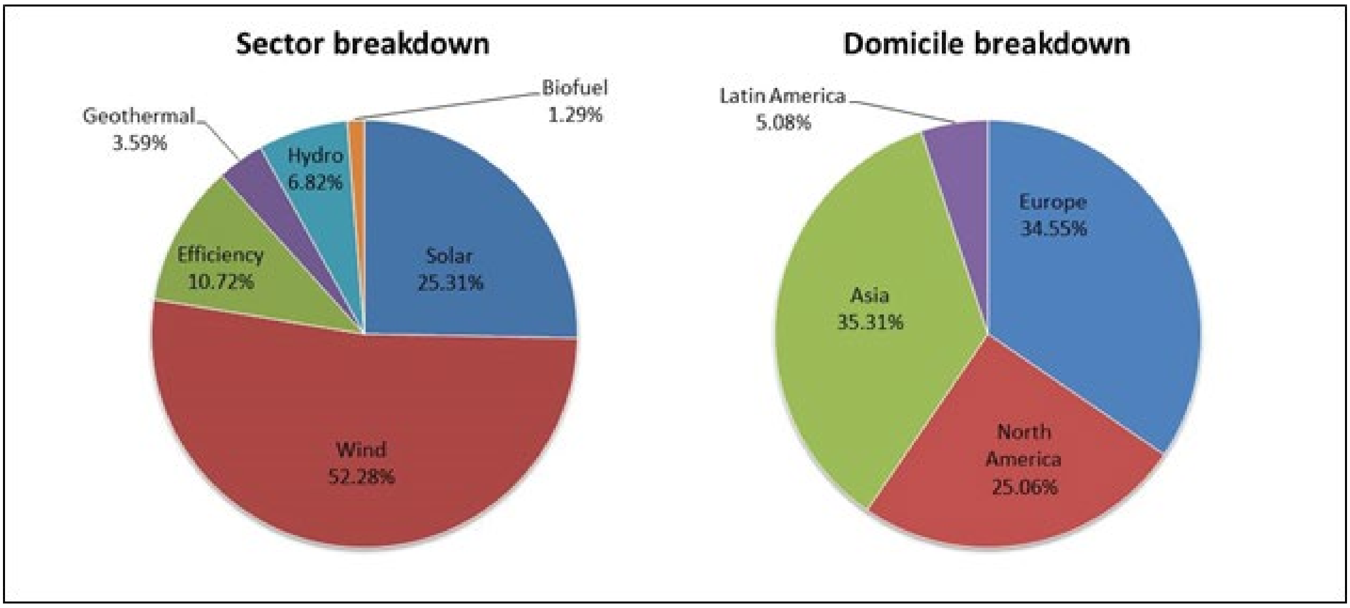
Expense Ratio: 2.00% (net); 2.13% (gross)

The Advisor has contractually agreed to reduce its fees and/or pay fund expenses in order to limit the Fund's Total Operating Expenses to 1.98% through 06/30/2015.

All return figures represent average annualized returns except for periods of one year or less, which are actual returns.

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 Funds impose a redemption fee of 2% on shares held less than 30 days. Performance data does not reflect the redemption fee. If reflected, total returns would be reduced.



Fund Holdings

The top five performers over the second quarter were Yingli Green Energy (+62.82%), Waterfurnace Renewable Energy (+53.71%), Nordex (+37.64%), Sunpower (+27.03%) and CEMIG (+17.50%).

The bottom five performers over the second quarter were Maple Energy (-34.01%), Enel Green Power (-26.12%), Acciona (-22.23%), China Datang (-20.26%) and Boralex (-19.11%).

Top 10 holdings as of 06/30/14	% of assets
CHINA SINGYES SOLAR TECH	5.42%
MYTRAH ENERGY LTD	4.88%
WATERFURNACE RENEWABLE ENER	4.82%
NORDEX SE	4.34%
SUNPOWER CORP	4.21%
THEOLIA SA - REGR	3.92%
YINGLI GREEN ENERGY HOLD-ADR	3.86%
CEMIG SA -SPONS ADR	3.86%
GAMESA CORP TECNOLOGICA SA	3.79%
JA SOLAR HOLDINGS CO LTD-ADR	3.72%

Commentary for our views on Global Energy, Dividends and Asia markets is available on our website. Please click here to view.

Total returns reflect a fee waiver in effect and in the absence of this waiver, the total returns would be lower.

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

This information is authorized for use when preceded or accompanied by a prospectus for the Guinness Atkinson Alternative Energy Fund. The prospectus contains more complete information, including investment objectives, risks, charges and expenses related to an ongoing investment in The Fund. Please read the prospectus 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 is non-diversified meaning its assets may be concentrated in fewer individual holdings than diversified funds. Therefore, the Fund is more exposed to individual stock volatility than diversified funds. The Fund also invests in smaller companies, which will involve additional risks such as limited liquidity and greater volatility. Current and future portfolio holdings are subject to risk. Investments focused on the energy sector may be exposed to greater risk than an investment diversified among various sectors.

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

Click Here for top 10 holdings of the Guinness Atkinson Alternative Energy Fund.

The WilderHill New Energy Global Innovation Index (NEX) is a modified dollar weighted index of publicly traded companies which are active in renewable and low-carbon energy, and which stand to benefit from responses to climate change and energy security concerns.

The WilderHill Clean Energy Index (ECO) is a modified equal dollar weighted index comprised of publicly traded companies whose business's stand to benefit substantially from societal transition toward the use of cleaner energy and conservation.

One cannot invest directly in an index.

A Yieldco is generally defined as a publicly traded company that predominantly distributes its cash flows from owned operating assets as dividends or other payments to investors, focusing on income as opposed to growth.

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