



HARDMAN & CO.



# UK Renewable Energy Infrastructure Funds

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*N.B. Closing stock market prices on 28/06/2019 have been used unless otherwise specified*

# UK Renewable Energy Infrastructure Funds (REIFs)

## Executive summary

- ▶ Over the past two decades, onshore wind power has prospered and now exceeds 12 GW in the UK. The termination of subsidies for new plants from 2017 onwards has cut investment. Instead, offshore wind power is the new 'go-to' investment sector, as there has been a sea-change in costs.
- ▶ The key event was the 2017 auction for the development of the Hornsea Project Two and the Moray East fields, when 15-year contract for differences (CfDs) were awarded, at just £57.50p per MWh; this compares with the 2018 £100 per MWh target that had been set previously by the Government.
- ▶ In recent years, solar power has come of age. Total UK solar capacity now exceeds 12 GW. Inevitably, most solar farms are based in the Midlands or in the South, where irradiation levels exceed the UK average. A typical solar farm portfolio might include 50 sites with 8 MW of capacity per site.
- ▶ Despite the removal of subsidies for new solar plants, the prospects remain bright for new build, since costs have fallen appreciably in recent years. The levelised cost (LCOE) of solar power should fall below £70 per MWh. The UK's first subsidy-free solar farm has been commissioned at Clay Hill in Milton Keynes.
- ▶ For many investors, REIFs offer an attractive means of securing exposure to the benefits of rising UK investment in these sectors, much of which is backed by long-term contracts delivering generally solid and secure returns.
- ▶ Our sector research focuses on 11 quoted REIFs, which mirror those selected by members of the Association of Investment Companies (AIC). The recently floated Aquila European Renewables Income Fund is included, despite its declared policy not to invest in UK generation.
- ▶ Since May 2014, REIF returns have been solid, with total returns approaching 10% per year. As a group, their combined market capitalisation is ca.£7bn; the most valuable quoted funds are Greencoat UK Wind (£2.1bn) and The Renewables Infrastructure Group (£1.8bn).
- ▶ The sector premia over net asset valuations (NAVs) for most REIFs now lie in the 9%-19% range. The premium for Greencoat UK Wind, following its £375m gross fundraise, is ca.14%; The Renewables Infrastructure Group premium is similar.
- ▶ Targeted real dividend increases underpin the attractions, in particular, of wind and solar investments; major earnings shortfalls are low-risk, with little likelihood of a dividend cut. Prospective dividend yields for most REIFs currently lie in the range of 5.0%-6.0%.
- ▶ In terms of risk, future movements of interest rates could have a material impact on NAVs and, consequently, upon share price ratings. The precise effect will depend on the degree to which the discount rates moves relative to the risk-free rate. Regulatory amendments, subsidy changes and possible tax adjustments are also key risk factors with one company commenting that movements in long term power price forecasts are the most significant risk.

### Background

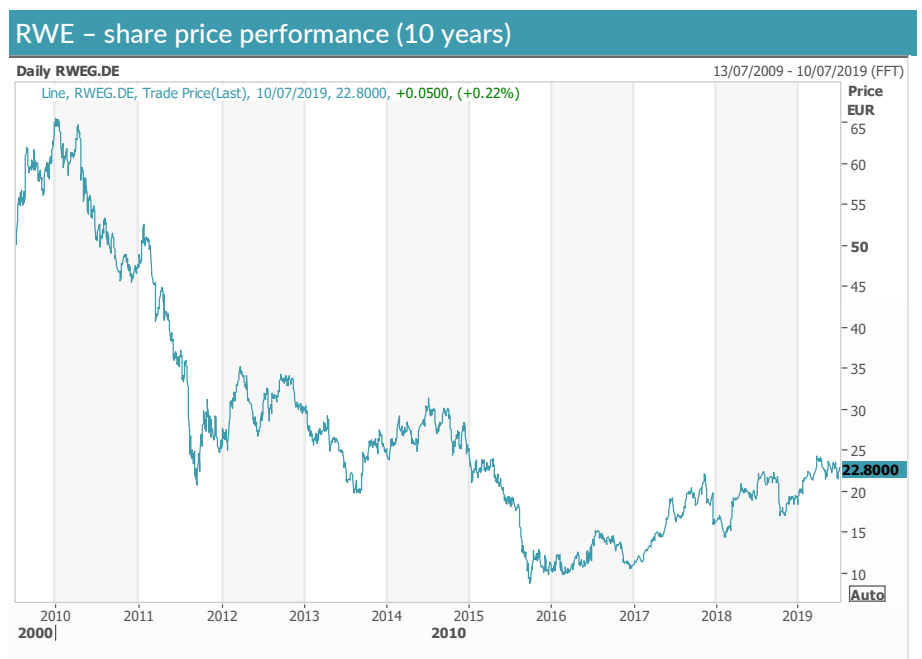
A major transformation took place in the late 1980s and early 1990s, when most of the UK electricity supply industry was privatised: British Gas had been floated in 1986.

#### Emergence of the ‘Big Six’

Following a bout of corporate activity in the mid- and late-1990s, six major energy companies emerged – France’s EDF, the two German companies, RWE and E.ON, Spain’s Iberdrola, and the UK-owned Centrica and SSE. Importantly, over the past two decades, they have dominated the UK generation market.

#### Dreadful returns since 2008/09

Nonetheless, shareholder returns have been poor and, in some cases, dire. EDF, in which the French Government has a ca.84% stake, and RWE have seen their share price ratings plunge, especially since the financial crisis and subsequent recession in 2008/09. The RWE chart below shows the dreadful share price performance since mid-2009 – in clear contrast to many renewable generation funds in recent years.



Source: Refinitiv

#### Networks valuations are robust

Aside from consolidation in the generation sector, many networks businesses, mostly from the 12 Regional Electricity Companies (RECs), were acquired. Indeed, in recent years, as generation returns have plummeted, networks businesses – with their solid regulated income – have become increasingly attractive to investors.

Back in 1990, renewable generation, with the exception of the two hydro power portfolios owned by ScottishPower and the then Scottish Hydro Electric (now SSE), barely existed in the UK.

#### The Airtricity story

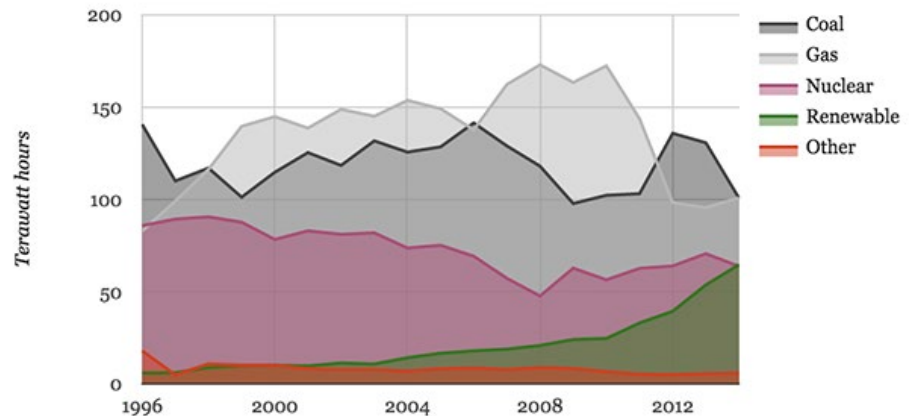
In subsequent years, the onshore wind sector has grown, although not as quickly as the rise of Airtricity, an Irish wind generator, the value of which soared between its modest beginnings in 1997 and its subsequent sale to E.ON and SSE for ca.£1.5bn a decade or so later.

## Renewable Generation – the UK's top funds

### Major shift in generation mix

Nonetheless, there has been a pronounced shift in the UK generation mix in recent years, with coal-fired stations due to be phased out by 2025 and gas-fired plants being increasingly relegated to mid-merit status – while the average age of the nuclear fleet inevitably raises UK's concerns on several fronts. The chart below illustrates the material change in the UK's generation mix since 1996.

### UK electricity generation by source



Source: Carbon Brief from DUKES table 5.5

## Renewable generation developments

### Political drivers behind renewables

Despite widespread concerns about its costs, the large subsidies and its intermittence, renewable power has been heavily promoted by both the Government and the environmental lobby.

### Seven renewable technologies

Aside from nuclear power, which has some renewable energy characteristics, there are seven generally accepted forms of renewable generation; they are reproduced below:

- ▶ wind (onshore and offshore);
- ▶ solar;
- ▶ hydro;
- ▶ marine (tidal and wave);
- ▶ biomass;
- ▶ geothermal; and
- ▶ fuel cells.

### Onshore wind is key renewable source

Undoubtedly, onshore wind has been the key renewable source in the UK: total wind capacity now exceeds 12 GW. Given the closure of the Renewables Obligation (RO) subsidy regime to new capacity in 2017, this figure is unlikely to grow as fast as previously, and certainly not in England.

## Renewable Generation – the UK's top funds

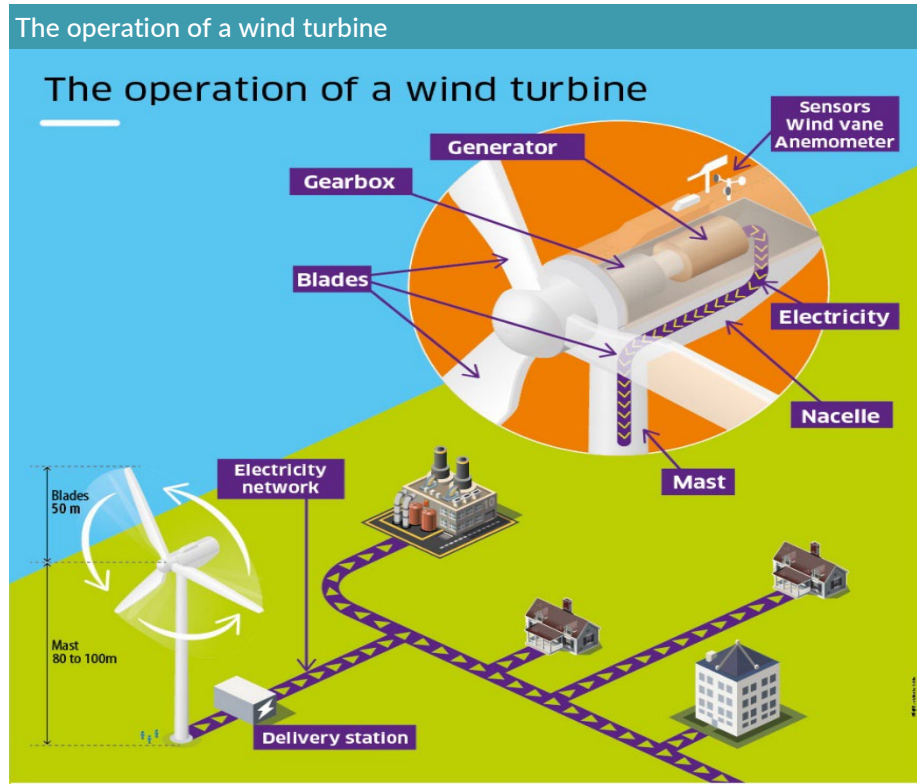
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|  |   |
|--|---|
| <b>Sea-change in the North Sea</b>             | Offshore wind development is set to be a major growth area, with a sea-change in costs, far larger turbines and minimal environmental concerns.   |
| <b>Solar making real progress in the South</b> | Despite the UK's temperate climate, solar power – at least in southern England – is now making a meaningful contribution.<br><br>While hydro power has been long-established in Scotland, few suitable sites remain to be exploited – and there are heavy initial capital costs.  |
| <b>Marine still struggling</b>                 | Marine-based renewable power – whether generated by tides or by waves – continues to struggle on both the technical and financial fronts.<br><br>Many biomass projects have been proposed, but few have actually been built – Drax is a notable exception in this respect. Potential investors face many risks, including securing a reliable – and cheap – supply of wood.<br><br>Unlike in Iceland, where it is key, the opportunities for geothermal power in the UK are very few. Also, fuel cells, despite some encouraging progress of late, still need to achieve critical mass. |

## UK wind generation

|   |  |
|---|--|
| <b>Age-old source of power</b>  | The principle of generating power from wind goes way back to classical times. In the Middle Ages, windmills were a common sight in parts of Europe, notably in the Low Countries. Eventually, base-load energy needs were met primarily by coal-fired generation, supplemented by subsequent nuclear, oil and gas plants.  |
| <b>Onshore wind contribution</b>  | In recent years, wind power has begun to make a real contribution, driven by politics and financed by substantial subsidies. For a wind plant to perform well, consistent wind speeds are needed; prior to installation, anemometers are put in place to ensure that the most advantageous sites are used.   |
| <b>Germany and Denmark in the van</b>                                   | Within the EU, it has been Germany that has been at the forefront of renewable power, along with Denmark, where wind power turbines have been operational for decades.   |
| <b>Investment curbed by 2017 Renewables Obligation (RO) termination</b> | In the UK, onshore wind power has expanded in recent years although the end of subsidies for new plant from 2017 has – not surprisingly – curtailed investment.  |
| <b>Scotland is pivotal to wind investment</b>                           | Scotland is arguably the centre of the UK wind sector; indeed, Scottish wind plants generally have a higher capacity use than those in England. Greencoat UK Wind's portfolio underlines this factor: as at March 2019, 58% of its portfolio was located there, compared with just 17% in England – on a population basis, the ratio should be 10-1 in favour of England. After the recent acquisition of Tom nan Clach wind farm, 61% of its portfolio is now in Scotland.<br><br>On the technical front, the chart below illustrates how onshore wind power is actually generated. |





Source: ENGIE

Offshore wind to fill widening generation gap

Looking forward, the offshore wind sector offers real opportunities, especially as other power sources face very challenging issues. All UK coal-fired plants are due to close by 2025, the finances of gas-fired plants generally do not stack up unless they are used base-load, and nuclear plants remain both desperately expensive to build and subject to a vast number of risks.

The landmark £57.50 per MWh offshore bids...

The 2017 auction for developing the Hornsea Project Two and Moray East offshore sites led to bids of just £57.50 per MWh (at 2012 prices) – way below the Government’s indicative 2018 cost target of £100 per MWh.

...vs. £92.50 per MWh for 35 years for Hinkley Point

These figures also compare favourably with the 35-year £92.50 (2012 prices) for the controversial – and desperately expensive – Hinkley Point C new nuclear plant.

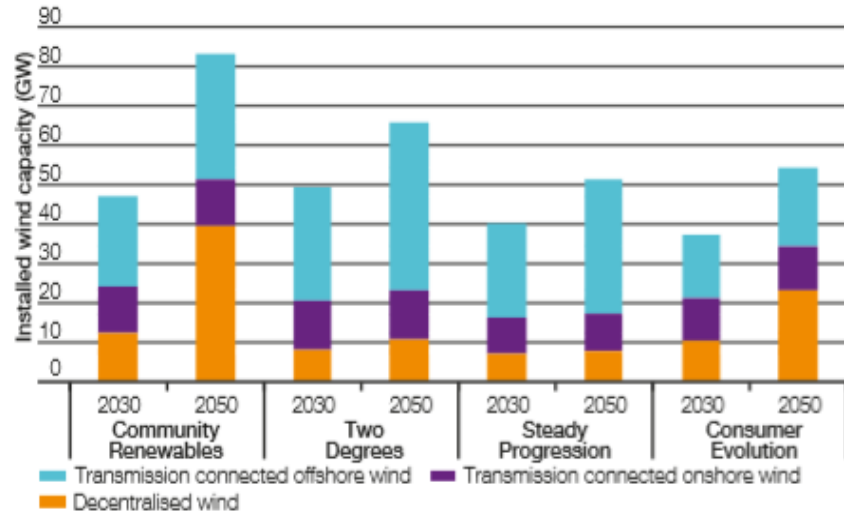
Given these – and other – factors, the Government seems likely to focus on developing offshore wind; the politics of doing so are straightforward when set against new nuclear-build.

National Grid projections

In anticipating this policy, National Grid, in its Future Energy Strategy 2018, set out its projections for wind power, based on various scenarios – the more aggressive assumptions, depicted in the chart below, show how wind power capacity is expected to take off.

National Grid wind power scenarios

Figure 5.5  
Centralised and decentralised wind capacity



Source: National Grid Future Energy Strategy 2018

## Solar generation

### Age-old source of power

The principle of using solar power for heating purposes precedes the years of antiquity.

Importantly, in recent years, solar generation has begun to make a real contribution, especially in the southern states of the US, as well as in the warmer countries of the EU, notably Italy and Spain. Further north, solar investment has attractions that are less obvious, given much lower irradiation and longer night hours.

However, it has been Germany that has been at the forefront of solar power development – more than 41 GW are now installed there, well ahead of the 19 GW located in Italy.

### Sharp rise in UK solar investment

In the UK, solar investment has risen sharply over the past decade. Not surprisingly, it is the south of England, where irradiation levels are higher, that has attracted most investment.

### Solar reaches critical mass

Total UK solar capacity now exceeds 12 GW, with heavy investment having been undertaken prior to 2017, when the renewable energy subsidy regimes were particularly enticing for discerning investors. The closure of the RO subsidy regime for new plants in 2017 has – not surprisingly – adversely affected subsequent solar investment projects.



## Renewable Generation – the UK’s top funds

### 21/04/17 – King Coal ousted

Yet there have been periods in recent summer months when solar power has been able to meet 20% of the UK’s total electricity demand. On 21 April 2017, the day’s entire electricity demand was met without firing up any coal-fired plants – the first time the UK has managed without such power for 130 years.

### The Shell view of solar power

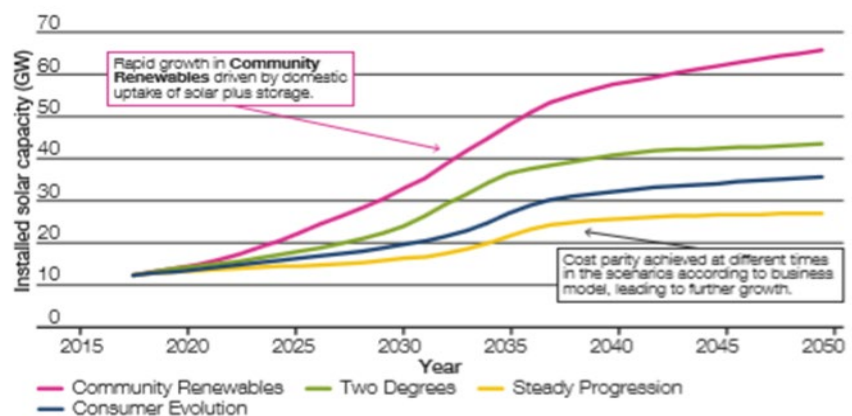
It is clear, too, that solar power in the UK will not be a short-term fad – solar is here to stay. Shell’s CEO, Ben van Beurden, is on public record in stating “I have no hesitation to predict that, in years to come, solar will be the dominant backbone of our energy system, certainly of the electricity system”.

### National Grid solar scenarios

More specifically, in its Future Energy Strategy 2018, National Grid set out its projections for solar power, based on various scenarios; the more aggressive assumptions, set out in the chart below, show how solar power capacity would take off.

#### National Grid solar power scenarios

*Figure 5.4  
Solar capacity*



Source: National Grid Future Energy Strategy 2018

Within an operational solar park, there are four core components – PV panels, inverters, a mounting structure and the connection network for export to the grid. These components generally last for 25 years, although inverters will need to be replaced probably around every 12 years.

### The conversion process

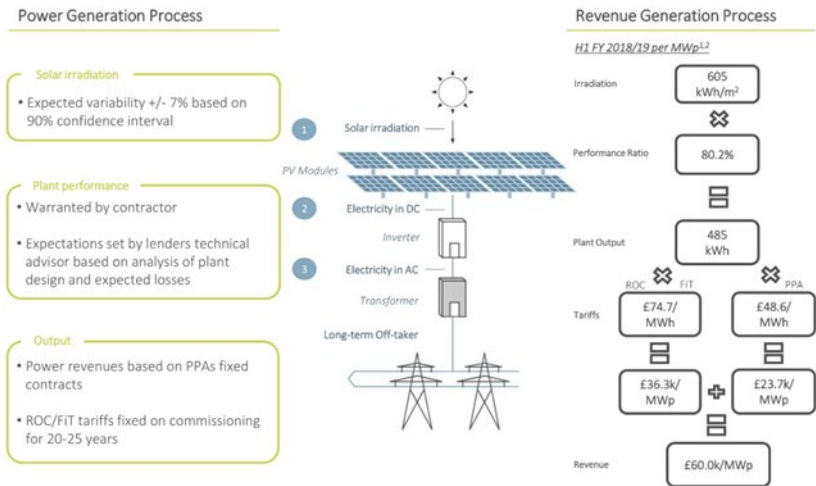
With the use of photovoltaic (PV) panels, irradiated energy is converted into direct current electricity. In turn, via the use of an inverter, the electricity becomes alternating current and therefore suitable for use on the National Grid once it has been transformed into the appropriate voltage.

The chart below, published by Bluefield Solar, sets out the underlying principles behind converting solar irradiation into generated power.

Solar PV

SOLAR PV: REVENUE GENERATION

Converting power generation to revenues



1. BSF interim accounts FY18/19. 2. Figures are representative from interim accounts to show the Company's revenue generation process. They reflect income earned in the period for the Company's portfolio excluding acquisitions in the period and excluding liquidated damages.

6

Source: Bluefield Solar

The chart also shows how solar energy is converted into revenue, which is based partly on subsidies and partly on the prices negotiated within power purchase agreements (PPAs).

25-year lifespan underpins revenues

A key attraction of solar power investment is its high predictability during its estimated 25-year life. Furthermore, throughout the summer, solar power should be operational during both the morning and early evening peak demand periods, when electricity prices are higher than normal.

Like wind power, solar power is intermittent, as it depends on weather, and especially light, conditions. In time, the ability to store more renewable power – and to be able to release it into the grid when demand and prices are high – will boost returns from renewable energy investments.

Prices/regulation

RO regime closed to new plant from April 2017, but not retrospectively

Central to the build-up of solar power over the past decade has been the proliferation of Government subsidies; these are now falling quite markedly. In particular, the RO was closed to new plant – although not retrospectively – in April 2017; some new renewable projects may, though, still qualify for subsidies.

Renewable Obligation Certificate (ROCs) have been pivotal

The RO scheme was based on awarding a financial premium per MWh generated from eligible renewable power assets.

The premium paid is based on complex calculations derived from total renewable output over a year; furthermore, the value varies depending upon the type of renewable generation deployed. In addition, feed-in tariffs (FITs) have been payable for smaller plants, although their impact is minor compared with the now closed RO regime.

## Renewable Generation – the UK’s top funds

### ROC buyout prices

Between 2010/11 and 2018/19, the Renewable Obligation Certificate (ROC) buyout price – paid by suppliers that otherwise are not meeting their RO requirements – has risen progressively, from £36.99 per MWh to £47.22 per MWh. For 2019/20, it will be £48.78 per MWh.

In June 2018, the Government confirmed that the UK’s total solar capacity was 12.8 GW. Just over 7 GW of this capacity was eligible for RO payments, but – following the closure of the RO for new capacity – this figure will erode over time; the comparable figure for FITs is 4.8 GW.

In terms of individual funds, NextEnergy Solar’s contract arrangements – via PPAs – are typical of the renewable power sector. In its 2017/18 Annual Report, NextEnergy Solar confirmed that:

### NextEnergy Solar’s PPA model mitigates power price risk – and dividend cuts

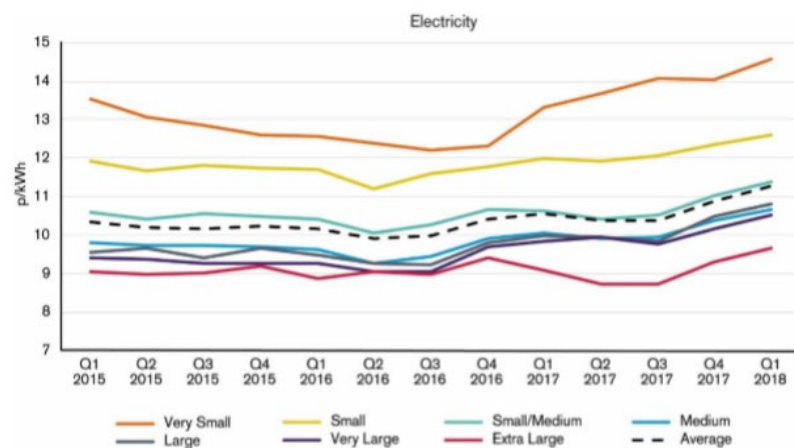
“As at March 31<sup>st</sup>, 2018, the Company had a mix of PPAs with fixed prices for periods ranging from 3 months to 5 years. As a result of these PPAs, as well as the UK regulatory framework, the Company had a total of c76% of its revenues linked to power prices, FiTs and ROCs until March 2021, thereby mitigating the risk of dividend reductions from volatility in the power price market”.

In short, power prices would have to fall quite sharply to cause a major adverse impact on NextEnergy Solar’s cashflow and adversely affect its dividend payment profile.

### Gas input driver

More generally, as the chart below illustrates, non-domestic electricity prices in the UK have fluctuated in recent years, with the gas input cost being a critical price-setting driver.

### Average gas and electricity non-domestic prices



Source: BEIS

### Power price projections to 2040

Over the next two decades, UK power prices are expected to rise modestly in real terms. The chart below, published by NextEnergy Solar, is based on data stretching out until 2040; it was compiled by two leading independent energy market consultants.

### Forecast UK power price (real 2019 – £/MWh)



Source: NextEnergy Solar

### The Clay Hill prototype – subsidy-free

Looking forward, in the light of eroding subsidies, cost reductions will play an increasingly prominent role in new solar-build. Indeed, a new solar plant was recently commissioned at Clay Hill in Milton Keynes, which is the UK’s first non-subsidised solar plant: it is still expected to provide a competitive return for investors.

## Levelised costs

Among the major sources of generation, there have been significant changes in costs over the past decade. Many renewable sources have been able to deliver major cost reductions, including both solar and offshore wind.

### £67 per MWh is 2020 target for solar

In the case of solar power, a Government report on comparative generation costs showed that, by 2020, it expected its Levelised Cost of Energy (LCOE) to be £67 per MWh, compared with the £92 per MWh that it had anticipated seven years previously.

### Massive cuts in costs

Bluefield Solar recently confirmed that its cost price had fallen to £60 per MWh in 2017, compared with ca.£200 per MWh in 2010. Within the next few years, Bluefield Solar is projecting a solar power cost of below £50 per MWh.

Such sharp reductions have also been seen in the offshore wind sector. By 2018, the Government had hoped that the £100 per MWh figure would be reached. In fact, this forecast proved unduly pessimistic, as the 2017 winning bids of £57.50 per MWh (at 2012 prices) for the development of the Hornsea Project Two and Moray East wind farms highlighted.

### Hinkley Point's infamous £92.50 per MWh 35-year nuclear CfD

By contrast, nuclear power costs seem to be heading in the opposite direction. The infamous inflation-linked 35-year £92.50 (at 2012 prices) CfD for Hinkley Point C demonstrates – quite unequivocally – that it is way out of kilter with rapidly falling renewable energy prices.

### Gas projects are parked

On the gas front, minimal new capacity is under construction, as potential investors are deterred by the likelihood that new gas plants will be called upon to generate on a mid-merit basis – rather than as a base-load operator – as was the case some years ago.

## Peaking plant

### National Grid responsibility

For decades, National Grid, which has the responsibility for operating the power system in Great Britain, has had to respond to ever lower plant capacity margins. In recent years, the absence of new-build base-load plants has further depressed capacity margins and heightened the risk of power cuts.

Previously, there were various peak-load plants, some of which were oil-fired, that were kept open simply to supply power during periods of very high demand or to cover major system outages.

### Pumped storage plants

For various short-term demand 'spikes', power was often generated – in less than a minute – from the two pumped storage plants in Wales, namely Dinorwig (1,728 MW) and Ffestiniog (360 MW); the latter was built in the early 1960s.

More recently, strong growth in renewable power output, along with increased off-grid generation, has made it more challenging to manage the electricity system effectively – and to avoid power cuts.

National Grid employs various measures to address this problem – and to avoid the need to build new – and underused – peaking plant.

### Capacity auctions

The key change in recent years has been the holding of capacity auctions, whereby electricity generators bid to supply power to cover periods of expected high demand.

Such auctions had enabled several peaking plants to remain operational, while they have also – somewhat controversially – attracted very competitive bids from owners of small diesel-fired generation units.

### Under a heavy legal cloud

However, last November, the European Court of Justice concluded that such auctions constituted a form of state aid and were therefore illegal under EU law. Given the ongoing Brexit impasse, the issue remains unresolved.

### Demand management schemes

Importantly, there is also a demand-management scheme for large energy users, who – in return for a favourable pricing regime – agree to be taken off supply during periods of very high demand.

More specifically, various companies supply grid-related services, including those to maintain grid frequency and to undertake short-term energy storage. Two funds analysed in this document – Gore Street Energy Storage and Gresham House Energy Storage – operate in this space.

## Renewable Generation – the UK’s top funds

### Scalable and economic storage systems are the big prize

In the longer term, the quest for durable – and scalable – energy storage systems is likely to result in a far greater capacity to hold back large amounts of electricity – a much cheaper option than building new and rarely called-up peaking plant.

### Dire share price performance among the Big Six since 2009

## Defensive earnings

Over the past decade, investors in the UK’s leading energy companies, Centrica and SSE, are unlikely to have prospered. To be sure, had they invested in the four other members of the ‘Big Six’, and especially in EDF, E.ON and RWE, they would probably have under-performed to an even greater degree – shares in the renewable generation-orientated Iberdrola have performed considerably better.

### Wind investment

However, investors in wind power, especially via a REIF, have benefited from various attractive features, including steadily rising NAVs, higher dividends and a modest rise in the share price.

Moreover, in terms of wind resource, the operating figures are reassuringly consistent on a year-on-year basis.

### Wind speed/output correlation

The table below shows Greencoat UK Wind’s average wind speed and output when compared with management’s projections – the correlation between the two variables is high.

| Greencoat UK Wind’s generation data |      |      |      |      |      |      |
|-------------------------------------|------|------|------|------|------|------|
| Year                                | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
| Wind speed                          | +3%  | -2%  | +5%  | -6%  | -1%  | -4%  |
| Output                              | +8%  | -3%  | +8%  | -6%  | 0%   | -6%  |

*Source: Greencoat UK Wind*

### Favourable characteristics for investors

Undoubtedly, wind power does offer investors several favourable characteristics, most of which are applicable to the concept of defensive earnings.

### Greencoat UK Wind has an impressively consistent track record

The table below shows Greencoat UK Wind’s track record since 2013; during turbulent political times and amid many challenges for UK energy companies, it has demonstrated a reassuringly solid performance. As the figures indicate, it made several acquisitions over a period of almost six years.

### Greencoat UK Wind's financial performance since 2013

| Period    | Output (GWh) | Cash generation (£m) | Dividend (p) | Dividend cover (x) | RPI increase | NAV growth |
|-----------|--------------|----------------------|--------------|--------------------|--------------|------------|
| 2013 (9m) | 292          | 21.6                 | 4.50         | 1.8                | 1.9%         | 2.5%       |
| 2014      | 565          | 32.4                 | 6.16         | 1.6                | 1.6%         | 2.5%       |
| 2015      | 799          | 48.3                 | 6.26         | 1.7                | 1.2%         | 0.5%       |
| 2016      | 978          | 49.0                 | 6.34         | 1.4                | 2.5%         | 4.0%       |
| 2017      | 1,457        | 80.1                 | 6.49         | 1.5                | 4.1%         | 2.4%       |
| 2018      | 2,003        | 117.3                | 6.76         | 1.6                | 2.7%         | 10.8%      |

Source: Greencoat UK Wind

The solar sector has shown impressive resilience. Indeed, NextEnergy Solar has achieved an annualised total shareholder return of 9.5% since shares in the fund were first traded in April 2014.

#### Energy storage funds' revenue risk

It should be noted that greater revenue uncertainty applies to energy storage stocks under review, Gore Street Energy Storage, Gresham House Energy Storage and SDCL Energy Efficiency, as well as to Aquila European Renewables Income Fund and to US Solar\*, both of which are in the process of building up their initial renewable energy portfolios.

## Benefits for investors

#### Many tangible benefits

For investors, exposure to REIFs offers several benefits, although, of course, the sector remains subject to some risks.

Among the benefits, we would highlight the following:

- ▶ good shareholder returns, with some REIFs reporting total returns of more than 9% over a five-year period. Undoubtedly, these are attractive figures in what is, for the moment at least, a low inflation environment;
- ▶ REIFs offer both decent dividends and some likely share price growth, with their share price ratings being boosted by their relative security of earnings;
- ▶ holding a portfolio of diverse REIFs reduces the risk element;
- ▶ relatively low exposure to the commercial environment. After all, the RO scheme still applies for many existing wind and solar assets; and
- ▶ contracts of up to 25-year duration are in operation.

## Risks

#### Single technology risk

Undoubtedly, REIFs, with a focus on a single technology or on a single market, are more vulnerable to an adverse regulatory decision: a sudden halving of UK solar subsidies would be a case in point.

\*Fund raised in April 2019 and the portfolio is currently being established.



More specifically, as with all investments, there are various risks attached to the UK wind and solar sectors, although these are materially below those of other – and especially price-regulated – utility-related businesses. The main risks are set out below.

- ▶ Low power prices: In most cases, wind and solar generators are largely protected via PPAs, although energy prices are often volatile.
- ▶ Inadequate wind resource: Over a long period, wind speeds have been quite predictable, although they can vary on a year-to-year basis.
- ▶ Poor irradiation figures: Historically, irradiation figures have also been quite predictable, although large plant portfolios mitigate this risk.
- ▶ Outages: Major outages have far more impact if large plants are involved, as, on occasions, distribution network operators (DNOs) have temporarily disconnected power lines.
- ▶ Material regulatory changes: The closure of the RO to new capacity in 2017, although expected, has had a negative impact on future wind and solar power investment – crucially, it was not retrospective.
- ▶ Auction prices for new offshore wind power developments: This will be a key financial factor going forward should the competitive environment produce markedly different prices to Hornsea Project Two and Moray East offshore sites (referred to on page eight).
- ▶ Counterparty risk: The wind and solar sectors are far less exposed to counterparty risks than most fossil-fuel and biomass generators.
- ▶ Acquisitions: Leading wind and solar funds have made many 'tuck-in' acquisitions, but there is no guarantee that the price paid will be justified subsequently by the earnings from the assets acquired.
- ▶ Revenue shortfalls: The two energy storage funds under review – Gore Street Energy Storage and Gresham House Energy Storage – as well as SDCL Energy Efficiency, Aquila European Renewables Income Fund and US Solar are particularly exposed to revenue figures falling short of expectations.
- ▶ Interest rate movements: Any appreciable rise in interest rates would be negative for both the wind and solar sectors, as it would place upward pressure on the cost of capital and, therefore, on financial returns.
- ▶ Tax changes: As with every profitable business, tax changes can have an adverse impact – changes to the offsetting of interest costs, based partly on an EBITDA assessment that was recently introduced, are an obvious example.
- ▶ Business Relief (BR): Currently, BR provides exemption from Inheritance Tax for most AIM shares held for at least two years; if this were to change, some REIF shareholders may become sellers as a result.
- ▶ Changed financial assumptions: Assessing individual fund NAVs is not a precise art, with key decisions being needed on the discount rate to be used – REIFs use different cost of capital figures – and whether recent market transactions should be at the core of any NAV calculation.
- ▶ Political machinations: The UK utilities sector is very sensitive to political changes, given the Labour Party's Manifesto re-nationalisation commitments;

## Renewable Generation – the UK's top funds

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however, the wind and solar sectors are far less exposed to any major political shift.

## UK-quoted renewables

In defining REIFs, we have adopted the criteria determined by members of the AIC. Within this group, there are 11 funds, two of which – Aquila European Renewables Income Fund and US Solar – were floated very recently.

The key market data of these 11 quoted funds are set out below.

| Leading UK-quoted REIFs                |                 |                  |              |
|--|-----------------|------------------|--------------|
| Fund                                   | Share price (p) | Market cap. (£m) | Prosp. yield |
| Aquila European Renewables Income Fund | 93              | 144              | N/A          |
| Bluefield Solar                        | 136             | 502              | 5.7%         |
| Foresight Solar                        | 121             | 661              | 5.6%         |
| Gore Street Energy Storage             | 90              | 28               | 7.8%         |
| Greencoat Renewables (ex € to £)       | 100             | 522              | 5.4%         |
| Greencoat UK Wind                      | 141             | 2,139            | 4.9%         |
| Gresham House Energy Storage           | 104             | 155              | 4.3%         |
| NextEnergy Solar                       | 120             | 695              | 5.7%         |
| SDCL Energy Efficiency                 | 106             | 181              | 4.7%         |
| The Renewables Infrastructure Group    | 128             | 1,848            | 5.2%         |
| US Solar                               | 82              | 163              | N/A          |
| <b>Total</b>                           |                 | <b>7,038</b>     |              |

Source: Bloomberg, Hardman & Co Research

## UK-quoted wind stocks

Iberdrola and SSE are big wind power investors

There are various UK companies with exposure to the wind sector; these include the large international integrated energy companies, such as Iberdrola, as well as the privatised SSE, which is Scottish based. However, while the valuations of wind power have a marked impact on SSE, its wide-ranging portfolio means that any significant sector developments are heavily diluted in overall valuation terms.

The Renewables Infrastructure Group is mainly wind

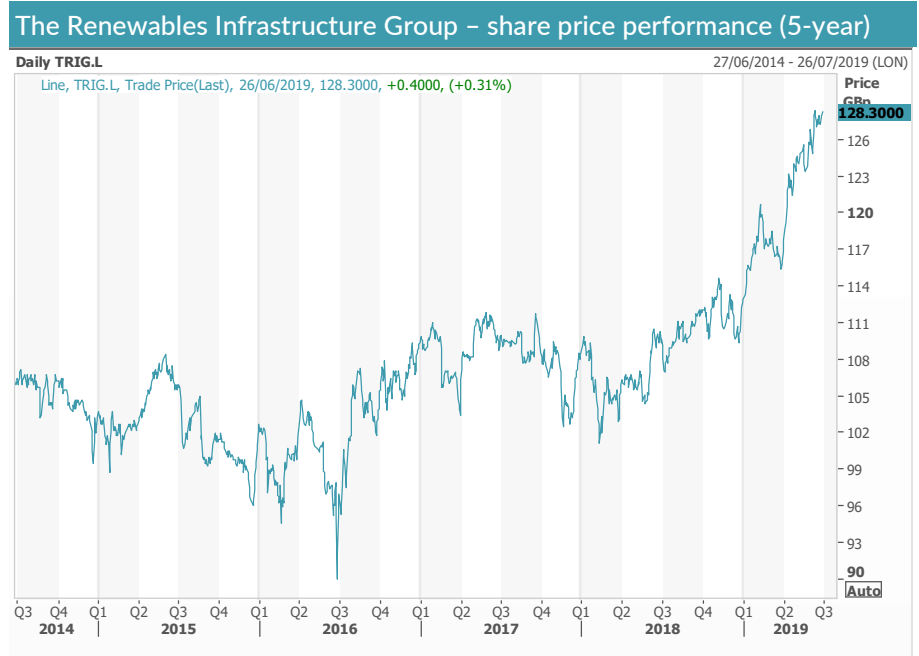
There are two quoted REIFs, namely The Renewables Infrastructure Group and Greencoat UK Wind, where wind output is pivotal in determining their cash generation and share rating.

Until recently, The Renewables Infrastructure Group had been the most valuable fund in the quoted REIF sector. At March 2019, it had a capacity of 1,363 MW\*, ca.85% of which are wind generation assets; subsequently, it has acquired further onshore wind plants in France.



Its two key aims are:

- ▶ to provide investors with long-term stable dividends, while preserving the capital value of its investment portfolio; and
- ▶ to invest in a diversified portfolio of renewable energy infrastructure assets in the UK and Northern Europe, with a focus on operating assets.



Source: Refinitiv

The chart above underlines the success of The Renewables Infrastructure Group’s investment policy, with a solid rise in its share price in the past five years.

\*At July 2019, the company’s capacity increased to 1,509 MW.

## Renewable Generation – the UK’s top funds

Greencoat UK Wind has a very narrow investment window – UK and wind



Greencoat UK Wind’s expanding activities

Greencoat is UK wind bellwether

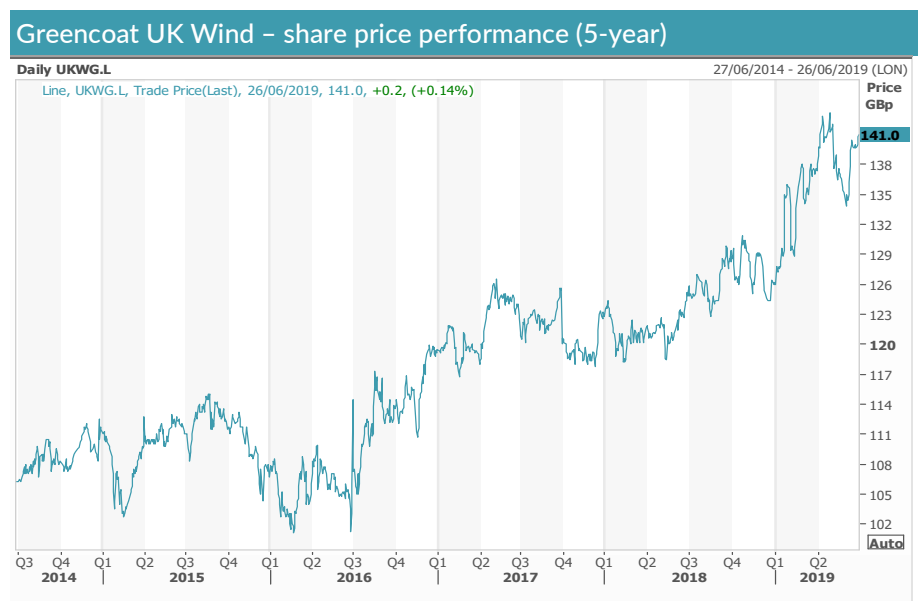
Greencoat UK Wind focuses exclusively on the UK wind sector, in which it is heavily invested. Its capacity after the Tom nan Clach acquisition is 979 MW.

Its policy is narrowly defined as follows:

- ▶ to invest exclusively in operating UK wind farms, predominantly onshore, although offshore returns are now becoming more relevant;
- ▶ to ‘increase its dividend in line with the RPI’; and
- ▶ to ‘preserve capital on a real basis by re-investing excess cashflow in additional operating UK wind-farms, and through prudent use of portfolio leverage’.

Nonetheless, Greencoat UK Wind is expanding its activities – and recently raised £375m of gross proceeds to finance further acquisitions in the wind sector.

As with The Renewables Infrastructure Group, Greencoat UK Wind’s five-year share price performance chart shows a solid rise in the share price, which – combined with dividends of over 6p per year – has delivered impressive total returns.



Source: Refinitiv

Three major solar players provide comparative valuation data

In assessing comparative capacity levels, the three other quoted pure solar companies – Bluefield Solar, NextEnergy Solar and Foresight Solar – are also included in the table below.

| UK solar and wind capacity           |                         |      |       |      |
|--------------------------------------|-------------------------|------|-------|------|
| Company                              | Installed capacity (MW) | UK   | Solar | Wind |
| Bluefield Solar                      | 465                     | 100% | 100%  | 0%   |
| Foresight Solar                      | 869                     | 83%  | 100%  | 0%   |
| Greencoat UK Wind                    | 979                     | 100% | 0%    | 100% |
| NextEnergy Solar                     | 691                     | 95%  | 100%  | 0%   |
| The Renewables Infrastructure Group* | 1,509                   | 58%  | 13%   | 86%  |

Source: Company websites

\* Remaining 1% in battery projects

## UK-quoted solar stocks

Valuation benchmarks for the unquoted solar sector

There are various quoted UK funds with major exposure to the solar sector. NextEnergy Solar and Bluefield Solar, in particular, offer a very undiluted investment in UK solar power.

Consequently, both are ideal as sector benchmarks for unquoted solar generation portfolios, especially in terms of assessing underlying value.

In the case of **NextEnergy Solar**, it has a renewable generation capacity, as at March 2019, of 691 MW. More than 95% of its capacity is in the UK, with the remainder sited in Italy.

As at March 2019, Bluefield Solar’s 465 MW portfolio consisted of 45 large solar assets, 39 micro solar assets and two roof-top assets. The entire portfolio is based – and dependent upon – the UK.

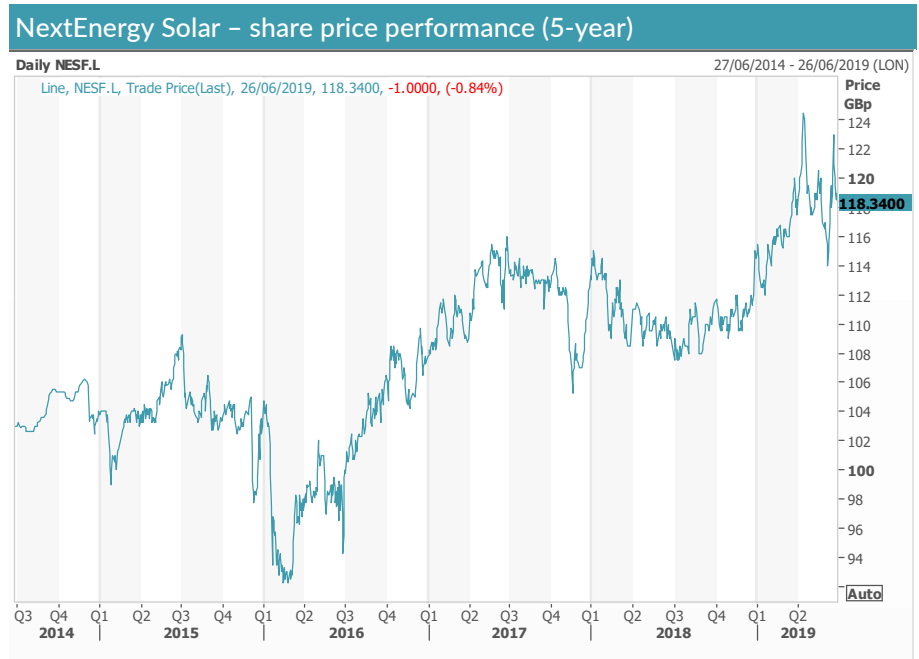
Apart from NextEnergy Solar’s dip in 2015/16, the share prices of both these funds have been reliable performers – and during a period when other energy stocks, particularly due to political and regulatory concerns, have been volatile.

The charts below show how these two funds have performed over the past five years. To be sure, share price growth has been modest – although consistent.



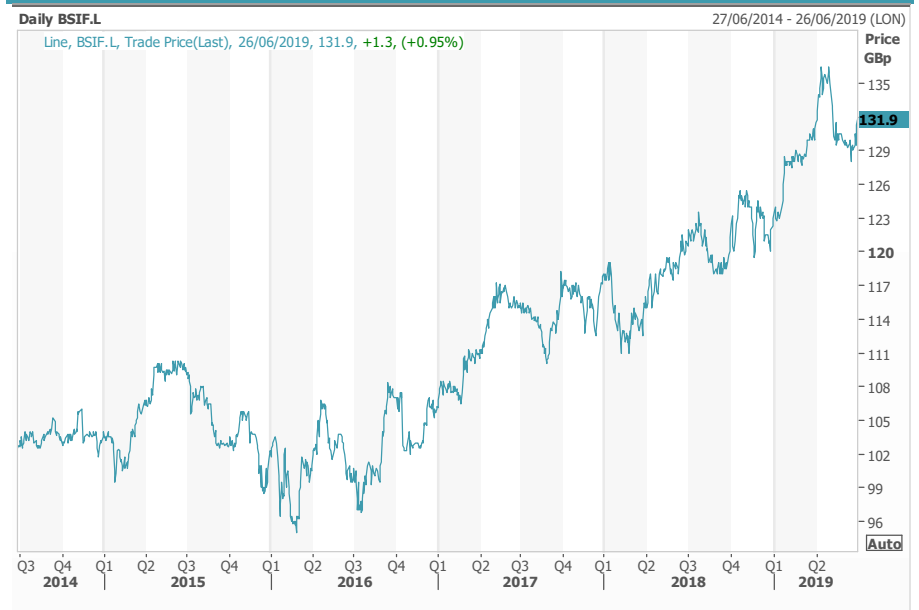
Bluefield | Solar Income Fund

*Solidity is the watchword*



Source: Refinitiv

Bluefield Solar – share price performance (5-year)



Source: Refinitiv

The Foresight Solar portfolio



Foresight Group expands

The third quoted fund, **Foresight Solar**, is somewhat different, in that 146 MW of its 869 MW capacity is located in Australia, where there are ongoing debates about the financing of renewable generation projects. The remaining 723 MW of its solar capacity is sited in the UK.

Furthermore, Foresight Solar’s parent company, Foresight Group, has recently announced the acquisition of the John Laing Environmental fund, which has a gross asset value of £764m; the latter has been publicly listed since 2014. The process of changing the investment adviser to the Fund from John Laing Capital Management to Foresight Group has now taken place.



## Net asset value (NAV)

### NAV premia and discounts are share price drivers

In valuing REIFs, movements in their NAVs are pivotal. Currently, for most funds, there are significant premia over NAV, although this has not always been the case. With the recent surge in renewable energy activity, investors have been attracted to the sector, especially as more traditional energy investments have performed poorly.

### All five quoted at a premium

The table below shows the latest published NAVs for the five largest UK-quoted REIFs under review; some are currently trading at a double-digit premium to their NAV. The NAV figures quoted are based upon the latest published data – but up-to-date market share prices have been used to calculate the premia, as well as the prospective dividend yields.

| UK renewable stocks                 |              |                   |                  |                   |
|-------------------------------------|--------------|-------------------|------------------|-------------------|
| Company                             | NAV (£m)     | NAV per share (p) | Premium/discount | Prospective yield |
| Bluefield Solar                     | 423          | 114               | +18.8%           | 5.7%              |
| Foresight Solar                     | 604          | 110               | +9.50%           | 5.6%              |
| Greencoat UK Wind*                  | (est.) 1,869 | (est.) 123.2      | (est.) +14.40%   | 4.9%              |
| NextEnergy Solar                    | 645          | 111               | +7.80%           | 5.7%              |
| The Renewables Infrastructure Group | 1,613        | 112               | +14.50%          | 5.2%              |

Source: Hardman & Co Research  
\*Estimated due to equity raise in May 2019

### Varying valuation methodologies

Discount rates are pivotal in determining NAVs. However, REIFs are not consistent in adopting their cost of capital methodology. Moreover, for valuation purposes, judgments need to be made about future power prices. There are few energy forecasting organisations that undertake this task – and meet the required technical standards.

### DCF underpins cashflow

NextEnergy Solar’s valuation policy is very much driven by discount cashflow analysis, using a discount rate that also takes account of major developments in the sector. At March 2019, it reduced its discount rate for unleveraged UK operating solar assets from 6.75% to 6.50%.

In terms of assessing its own NAV, Bluefield Solar’s methodology was set out as follows:

“The Directors’ valuation is based upon the discounting of the net, unlevered project cash flows of each investment held by the company, through BSIFIL, irrespective of whether the investment has project leverage or not with the result then benchmarked against comparable market multiples”.

### Corroborated by peer group comparisons

The latter part of this policy raises questions as to whether the discount rate adopted by Bluefield Solar or comparable market multiples actually drive the NAV for valuation purposes.

### Current premia/discounts

The table below sets out the premia/discount figures based on the latest NAV figure announced by each of the 11 funds under review (the dates vary slightly depending on the fund’s year-end) and the up-to-date share price.

## Renewable Generation – the UK's top funds

### NAV vs. current market capitalisation

| Fund                                   | NAV (£m)     | NAV per share (p) | Market cap. (£m) | Premium/discount |
|--|--------------|-------------------|------------------|------------------|
| Aquila European Renewables Income Fund | (est.) 137   | (est.) 98         | 144              | +5.2%            |
| Bluefield Solar                        | 423          | 114               | 502              | +18.8%           |
| Foresight Solar                        | 604          | 110               | 661              | +9.5%            |
| Gore Street Energy Storage             | 28           | 92                | 28               | -2.2%            |
| Greencoat Renewables (€ to £)          | 480          | 89                | 522              | +8.8%            |
| Greencoat UK Wind*                     | (est.) 1,869 | (est.) 123.2      | 2,139            | +14.4%           |
| Gresham House Energy Storage           | 149          | 100               | 155              | +4.1%            |
| NextEnergy Solar                       | 645          | 111               | 695              | +7.8%            |
| SDCL Energy Efficiency                 | 174          | 98                | 181              | +3.9%            |
| The Renewables Infrastructure Group    | 1,613        | 112               | 1,848            | +14.5%           |
| US Solar                               | (est.) 160   | (est.) 80         | 163              | +2.1%            |

Source: Fund websites, Bloomberg  
\*Estimated due to equity raise in May 2019

With regard to dividends, the table below shows our projected figures for the 11 REIFs under review, along with their prospective yields.

### Dividend profiles

| Fund                                   | Prospective dividends (p) | Prospective yield |
|--|---------------------------|-------------------|
| Aquila European Renewables Income Fund | N/A                       | N/A               |
| Bluefield Solar                        | 7.68                      | 5.7%              |
| Foresight Solar                        | 6.76                      | 5.6%              |
| Gore Street Energy Storage             | 7.00                      | 7.8%              |
| Greencoat Renewables                   | (€6.03) 5.43              | 5.4%              |
| Greencoat UK Wind                      | 6.94                      | 4.9%              |
| Gresham House Energy Storage           | 4.50                      | 4.3%              |
| NextEnergy Solar                       | 6.87                      | 5.7%              |
| SDCL Energy Efficiency                 | 5.00                      | 4.7%              |
| The Renewables Infrastructure Group    | 6.64                      | 5.2%              |
| US Solar                               | n/a                       | 5.5%*             |

Source: Fund websites, Bloomberg  
\* Us Solar's target yield

The dividend payout scenario in recent years from these REIFs has been reassuring, all the more so given the intense pressure that energy stocks such as Centrica and SSE are currently facing: both are expected to cut their dividend. With the relative lack in the market of good-quality stocks on decent yields, it is hardly surprising that REIFs have attracted the interest of many a discerning investor.

### Eroding premia

During 2018, most REIFs were trading at a significant premium to their NAV, in common with utilities such as regulated water stocks.

Whether this scenario continues depends on various factors, most notably any movement in interest rates, which could be pronounced in the event of a General Election and a subsequent change in Government.

## The other REIFs

The remaining six REIFs that we are assessing have markedly lower capitalisations, ranging from the Irish-quoted Greencoat Renewables\*, at £522m, to the much smaller Gore Street Energy Storage, currently valued by the market at £28m.

\*Company does not operate in Northern Ireland.

Brief profiles of this sextet are provided below:

### *Aquila European Renewables Income Fund*

Aquila recently raised €154m, which will be invested in a diversified portfolio of renewable generation assets across mainland Europe, but not in the UK. Wind power, solar power and hydro power assets are the most likely acquisitions. Aquila is based in Hamburg, Germany, a country that will see a very sharp increase in wind power investment in the coming years, as nuclear power plants close shortly. Some details of Aquila's initial development portfolio, including a 25.9% stake in the Midtjøllet Vindkraft AS wind-farm business in Norway, have just been announced.



### *Gore Street Energy Storage*

This fund operates in the same space as Gresham House Energy Storage, using battery cell technology to provide frequency balancing services to grid operators. Its current capacity is a modest 29 MW, split between four plants, some of which are still under construction. However, this figure will rise considerably, once the acquisition of a controlling stake in plant assets in Ireland is completed.



### *Greencoat Renewables*

Greencoat Renewables is an investor in euro denominated renewable energy infrastructure assets. It is focused on the acquisition and management of operating wind farms in Ireland and is also looking at opportunities in targeted European countries. Greencoat's current capacity is 411 MW, with a NAV of €537.6m. The company intends to proactively grow these figures over the next three years. It is managed by Greencoat Capital LLP, a European renewable investment manager with over **€3.5 billion AUM across a number of funds in wind and solar infrastructure.**



### *Gresham House Energy Storage*

The larger of the two quoted energy storage businesses, Gresham House Energy Storage has a capacity of 70 MW, which it is seeking to expand. Aside from providing frequency balancing services, Gresham House Energy Storage expects to benefit from the many arbitrage opportunities that arise from the increase in UK renewable generation output.



### *SDCL Energy Efficiency*

SDCL Energy Efficiency's focus is primarily on the UK energy efficiency market. Having raised £100m in December 2018, it has spent £87m in developing its seed capital portfolio, which comprises mainly combined heat and power (CHP) investments and Light-Emitting Diode (LED) related projects. Further gross proceeds of £72m were raised subsequently.





### *US Solar*

Recently, US Solar raised \$200m on the London market. Its aim is to invest these funds in solar power assets, predominantly in the US, where many states offer attractive financial incentives for solar power development – the investment pipeline disclosed at listing included 14 opportunities made up of more than 60 projects located across 13 US states. In time, investments in Canada and Mexico are also possible. Over the next few months, US Solar should be announcing details of its initial investment portfolio.

## Key REIF data

### Aquila European Renewables Income Fund

| Issue                   | Comment  |
|-------------------------|--|
| Ticker/website          | AERS/ <a href="http://www.aquila-european-renewables-income-fund.com">www.aquila-european-renewables-income-fund.com</a>   |
| Fund aim                | 'Will seek to generate stable returns, principally in the form of income distribution, by investing in a diversified portfolio of renewable energy infrastructure investments' |
| Core portfolio capacity | Initial renewable generation portfolio being assembled   |
| Latest NAV              | (Est.) £137m/98p   |
| Market cap./share price | £146.59m/95p   |
| Premium/discount        | +5.2%  |
| Dividend/yield          | The first interim dividend is expected to be declared in November 2019 in respect of the period to the 30 September 2019   |
| Return record           | The shares have risen marginally since being first quoted in June 2019   |

*Source: Fund website, Bloomberg*

### Bluefield Solar

| Issue                   | Comment  |
|-------------------------|--|
| Ticker/website          | BSIF/ <a href="http://www.bluefieldsif.com">www.bluefieldsif.com</a>   |
| Fund aim                | 'Acquisition management of a diversified portfolio of large-scale solar energy in the UK, with the objective of delivering long-term stable yield' |
| Core portfolio capacity | 465 MW – all UK solar  |
| Latest NAV              | £423m/114p   |
| Market cap./share price | £502m/136p   |
| Premium/discount        | +18.8%   |
| Dividend/yield          | 7.68p/5.7%   |
| Return record           | Total shareholder return of over 56% since fund was first quoted in July 2013  |

*Source: Fund website, Bloomberg*

### Foresight Solar

| Issue                   | Comment   |
|-------------------------|---|
| Ticker/website          | FSFL/ <a href="http://fsfl.foresightgroup.eu">fsfl.foresightgroup.eu</a>  |
| Fund aim                | To 'provide investors with a sustainable and inflation-linked quarterly dividend ...and it aims to preserve and, where possible, enhance capital value through the re-investment of excess cash flow' |
| Core portfolio capacity | 869 MW – all solar, of which 723 MW is in UK and 146 MW is in Australia   |
| Latest NAV              | £604m/110p  |
| Market cap./share price | £661m/121p  |
| Premium/discount        | +9.5%   |
| Dividend/yield          | 6.76p/5.6%  |
| Return record           | Annual total shareholder return of 6.8% since the IPO in 2013   |

*Source: Fund website, Bloomberg*

## Renewable Generation – the UK's top funds

### Gore Street Energy Storage

| Issue                   | Comment  |
|-------------------------|--|
| Ticker/website          | GSF/ <a href="http://www.gsenergystoragefund.com">www.gsenergystoragefund.com</a>  |
| Fund aim                | To 'focus on projects that are well-positioned for growth in strategic locations with high barriers to entry and with a sustainable low operating cost structure' and 'to generate value for our companies and investors beyond capital' |
| Core portfolio capacity | 29 MW and due to secure a controlling interest in 160 MW of battery storage projects in Ireland  |
| Latest NAV              | £28m/92p   |
| Market cap./share price | £28m/90p   |
| Premium/discount        | -2.2%  |
| Dividend/yield          | 7.00p/7.8%   |
| Return record           | Since the fund was first traded in May 2018, its shares have fallen by ca.8%   |

*Source: Fund website, Bloomberg*

### Greencoat Renewables

| Issue                   | Comment   |
|-------------------------|---|
| Ticker/website          | GRP/ <a href="http://www.greencoat-renewables.com">www.greencoat-renewables.com</a>   |
| Fund aim                | 'Initially to focus on investing in operating wind assets in Ireland.... over time, it will also target certain other Eurozone countries' |
| Core portfolio capacity | 25%-100% stakes in 411 MW of wind plant on the island of Ireland  |
| Latest NAV              | €533m/€1.00   |
| Market cap./share price | €585m/€1.12   |
| Premium/discount        | +8.8%   |
| Dividend/yield          | 6.03c/5.4%  |
| Return record           | Total shareholder return of over 18% since the fund was first quoted in July 2017   |

*Source: Fund website, Bloomberg*

### Greencoat UK Wind

| Issue                   | Comment   |
|-------------------------|---|
| Ticker/website          | UKW/ <a href="http://www.greencoat-ukwind.com">www.greencoat-ukwind.com</a>   |
| Fund aim                | It 'invests in UK wind farms' and 'seeks to provide investors with an annual dividend that increases in line with RPI inflation whilst preserving the capital value of its investment portfolio in the long-term' |
| Core portfolio capacity | 25%-100% stakes in 979 MW of UK wind plants   |
| Latest NAV              | (est.) £1,886m/124p   |
| Market cap./share price | £2,139m/141p  |
| Premium/discount        | +13.4%  |
| Dividend/yield          | 6.94p/4.90%   |
| Return record           | Total shareholder return of over 71% since the fund was first quoted in March 2013  |

*Source: Fund website, Bloomberg*

### Gresham House Energy Storage

| Issue                   | Comment   |
|-------------------------|---|
| Ticker/website          | GRID/ <a href="http://newenergy.greshamhouse.com">newenergy.greshamhouse.com</a>  |
| Fund aim                | To 'provide investors with an attractive and sustainable dividend over the long-term by investing in a diversified portfolio of utility-scale operational energy storage systems' |
| Core portfolio capacity | 70 MW of battery-based energy storage systems   |
| Latest NAV              | £149m/100p  |
| Market cap./share price | £155m/104p  |
| Premium/discount        | +4.1%   |
| Dividend/yield          | 4.50p/4.3%  |
| Return record           | Shares have risen slightly since the fund was first quoted in November 2018   |

*Source: Fund website, Bloomberg*

## Renewable Generation – the UK's top funds

### NextEnergy Solar

| Issue                   | Comment  |
|-------------------------|--|
| Ticker/website          | NESF/ <a href="http://www.nextenergysolarfund.com">www.nextenergysolarfund.com</a>   |
| Fund aim                | 'Seeks to provide investors with a sustainable and attractive dividend that increases in line with RPI over the long-term. In addition, the Company seeks to provide investors with an element of capital growth...' |
| Core portfolio capacity | 691 MW of solar capacity, mainly in the UK but with a small Italian portfolio  |
| Latest NAV              | £645m/111p   |
| Market cap./share price | £695m/120p   |
| Premium/discount        | +7.8%  |
| Dividend/yield          | 6.87p/5.7%   |
| Return record           | Annualised total return of 9.5% since the fund was first quoted in April 2014  |

*Source: Fund website, Bloomberg*

### SDCL Energy Efficiency

| Issue                   | Comment  |
|-------------------------|--|
| Ticker/website          | SEIT/ <a href="http://www.sdcleit.com">www.sdcleit.com</a>   |
| Fund aim                | To provide 'an attractive total return for shareholders of 7%-8% per annum ....with a stable dividend income, capital preservation and the opportunity for capital growth' |
| Core portfolio capacity | A start-up portfolio of mainly CHP and some LED-related assets in the UK   |
| Latest NAV              | £174m/98p  |
| Market cap./share price | £181m/106p   |
| Premium/discount        | +3.9%  |
| Dividend/yield          | 5.00p/4.7%   |
| Return record           | A slight rise in the share price since the fund was quoted for the first time in December 2018   |

*Source: Fund website, Bloomberg*

### The Renewables Infrastructure Group

| Issue                   | Comment   |
|-------------------------|---|
| Ticker/website          | The Renewables Infrastructure Group/ <a href="http://trig.com">trig.com</a>   |
| Fund aim                | 'To invest principally in a diverse range of operational renewable energy infrastructure assets, with a focus on the UK and other parts of Northern Europe...and to seek to provide an attractive long-term income-based return with a positive correlation to inflation' |
| Core portfolio capacity | 1,509 MW of capacity, 86% wind and 13% solar – UK/Ireland, France and Sweden are key markets  |
| Latest NAV              | £1,613m/112p  |
| Market cap./share price | £1,848m/128p  |
| Premium/discount        | +14.5%  |
| Dividend/yield          | 6.64p/5.2%  |
| Return record           | Annualised total shareholder return of 9.5% since the fund was first quoted in July 2013  |

*Source: Fund website, Bloomberg*

### US Solar

| Issue                   | Comment   |
|-------------------------|---|
| Ticker/website          | USFP/ <a href="http://www.ussolarfund.co.uk">www.ussolarfund.co.uk</a>  |
| Fund aim                | 'To provide its shareholders with attractive and sustainable dividends, with an element of capital growth, through investing in a diversified portfolio of solar power assets located in Northern America and other OECD countries in the Americas' |
| Core portfolio capacity | Initial solar plant portfolio, mainly in the US, being assembled  |
| Latest NAV              | (Est.) £160m/80p  |
| Market cap./share price | £163m/82p   |
| Premium/discount        | +2.5%   |
| Dividend/yield          | First dividend expected to be paid in November 2019   |
| Return record           | The shares have risen marginally since the shares were first traded in April 2019   |

*Source: Fund website, Bloomberg*



## Business relief (BR)

Long-term, secure wind and solar asset cashflow is ideal for BR investment vehicles

It should also be noted that investment in REIFs has been stimulated by their ability to generate decent and risk-averse returns, along with an attractive cashflow, which is eminently suitable for Business Relief (BR) purposes. Consequently, several UK investment funds, such as Octopus, have focused on renewable power as a core component of their portfolios.

BR emerged from Business Property Relief, which was introduced within Inheritance Tax legislation in 1976. In order to minimise the need for small businesses to be broken up on the death of the owner, various reliefs were specified.

Owners of shares in unquoted businesses, subject to various anti-avoidance provisions, are exempt from Inheritance Tax. The same criteria are applicable to most AIM-listed stocks.

For many investors, BR has undeniable appeal, as it allows them to place assets into an appropriate business that, after a two-year period, becomes exempt from Inheritance Tax. To benefit from these reliefs, two major product lines are available, namely AIM portfolio services or those that are outside AIM. HMRC has also specified various categories of assets where such relief will not be granted; in particular, various investment-orientated undertakings and property-related businesses are among those categories deemed ineligible.

Recently, the Office of Tax Simplification, which has been asked by the Government to propose ways to simplify Inheritance Tax, has questioned whether third-party investors – as opposed to the original owners of the business – in AIM-listed stocks should continue to benefit from this important BR exemption.

## Conclusion

### Is the going getting tougher?

The REIFs sector still looks to be well-placed, despite all the political shenanigans. After all, REIFs’ earnings are high-quality and their dividend payment profiles are both attractive and, in most cases, secure.

Of course, both the leading REIF sub-sectors – wind and solar – are exposed to potentially higher interest rates, which would adversely affect all funds, although some to a greater extent than others.

### Decent growth, rising dividends and modest risks

Despite all the Brexit-related political issues, quoted REIFs continue to offer appeal on several fronts – decent growth, rising dividends and, for most funds at least, modest risks.

# Appendix 1

## Glossary

|                 |   |
|-----------------|---|
| CfD             | Contract for Difference                         |
| CHP             | Combined Heat and Power                         |
| Discount to NAV | Amount a fund’s shares trade below NAV          |
| DNO             | Distribution Network Operator                   |
| FIT             | Feed-in Tariff                                  |
| GWh             | Gigawatt hour – electricity generation per hour |
| IPO             | Initial Public Offering                         |
| IRR             | Internal Rate of Return                         |
| KWh             | Kilowatt hour – electricity generation per hour |
| LCOE            | Levelised Cost of Energy                        |
| LED             | Light-Emitting Diode                            |
| MWh             | Megawatt hour – electricity generation per hour |
| NAV             | Net Asset Value                                 |
| PPA             | Power Purchase Agreement                        |
| Premium to NAV  | Amount a fund’s shares trade above NAV          |
| PV              | Photovoltaic                                    |
| RO Scheme       | Renewable Obligation Scheme                     |
| ROC             | Renewable Obligation Certificate                |
| SPV             | Special Purpose Vehicle                         |
| WACC            | Weighted Average Cost of Capital                |

*Source: Nigel Hawkins Associates*

## Appendix 2

Aside from the wind and solar generation funds analysed above, along with other REIFs, this document also has relevance to more mainstream infrastructure funds, which have some exposure to renewable energy. Some, like HICL for example, are substantially invested in other utility stocks, such as Affinity – a leading water company.

Brief summaries of these infrastructure companies are set out below:

### *3i Infrastructure (market cap. £2.38bn)*



The main 3i Infrastructure fund has a wide-ranging scope, but with a focus on utilities, communications, transportation and logistics. Energy and social infrastructure are also among its investments. In geographical terms, there is a broad split – on a 60%/40% basis – between mainland Europe and the UK.

### *BBGI Sicav (market cap. £0.95bn)*



Transport investment lies at the heart of BBGI's long-term infrastructure investment strategy – it accounts for 46% of the portfolio. Social infrastructure is also an important component. Canada and the UK are BBGI's chosen markets – with over a third of fund assets in each country.



**Gravis**

### *GCP Infrastructure (market cap. £1.11bn)*

GCP Infrastructure invests in a somewhat eclectic group of sectors – anaerobic digestion, biomass, education, health, hydro-electric and solar (commercial). All its investments are UK-based and, in terms of funding, there is a pronounced emphasis on debt, rather than on equity.

### *HICL (market cap. £2.84bn)*



HICL is the largest of the quoted infrastructure funds, with a focus on public-private partnerships. Education and health investment feature prominently in HICL's portfolio – accounting for 39% of its asset value in the former and 32% in the latter. Accommodation, fire, law and order, transport and utilities are also sectors attracting HICL investment, most of which is UK-orientated.

### *INPP (market cap. £2.21bn)*



INPP is also partnership-orientated and invests in public sector and social infrastructure projects. Energy transmission, transport and education each account for ca.20% of IPPs' investments, with gas distribution and waste-water also featuring in the portfolio. Just over 70% of the assets are UK-based.

Higher growth in wind/solar NAVs

The table below shows the latest published NAVs for each of these five funds, either for the December 2018 or the March 2019 year-end, along with the relevant premium or discount.

| Latest NAV data |                   |   |                 |   |                  |
|-----------------|-------------------|---|-----------------|---|------------------|
|                 | NAV per share (p) |   | Share price (p) |   | Premium/discount |
| <b>3i</b>       | 235               | V | 292             | = | +24.3%           |
| <b>BBGI</b>     | 134               | V | 152             | = | +13.4%           |
| <b>GCP</b>      | 112               | V | 127             | = | +13.4%           |
| <b>HICL</b>     | 150               | V | 158             | = | +5.3%            |
| <b>INPP</b>     | 145               | V | 148             | = | +2.1%            |

Source: Hardman & Co Research

### Outsourcing/HS2 risks

With the exception of 3i Infrastructure, which is an outlier, most of these premium ratings are below those of the REIFs under review, especially the wind and solar generating funds. Importantly, the larger infrastructure funds are exposed to further problems in the struggling outsourcing sector. Furthermore, any major policy shift by the new Conservative administration on the highly controversial ca.£60bn HS2 project would also adversely affect some funds.

## Appendix 3

### Questions

We list below various questions that might reasonably be asked of the Directors of REIFs.

- ▶ How is your NAV calculated?
- ▶ Do you make any adjustments to your NAV for significant sector-related transactions?
- ▶ What is your leverage policy?
- ▶ Are you exposed to any political risk?
- ▶ How vulnerable are you to upward movements in interest rates?
- ▶ What percentage of your revenues is subsidy-driven?
- ▶ How do you account – in valuation terms – for ‘tuck-in’ acquisitions?
- ▶ Which overseas markets do you see as the most attractive for REIF investment – and why?
- ▶ What is your target annual fund growth rate?
- ▶ What percentage of your revenues is covered by PPAs?
- ▶ What long-term power price assumptions are used in your NAV calculations?
- ▶ What is your long-term dividend policy?
- ▶ How damaging is the 2017 closure of the RO for new investment?

## About the author

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*Nigel is responsible for analysing the UK Utility companies, including those privatised in the 1980s and 1990s, as well as newer arrivals in the sector. He has been involved in the Utilities sector since the late 1980s, as a feature writer at Utility Week magazine and as an analyst at Libertas Capital, which specialised in the renewable energy sector. Prior to that, he was the Telecoms analyst at Williams de Broë. Between 1989 and 1995, he worked at Hoare Govett as the Water and Electricity analyst.*

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