



HARDMAN & CO.



# Quoted UK Infrastructure – the 31 runners and riders

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*Please note:*

*Closing stock market prices as at 31/12/21 have been used, unless otherwise specified.*

*Exchange rates used are:*

*£ to € – €1.19*

*£ to US\$ – US\$1.35*

*£ to CN\$ – CN\$1.71*

*£ to DKK – DKK8.84*

## Executive summary

- ▶ In this publication, Hardman & Co's focus is on the nine quoted Infrastructure Investment Companies (IICs) and on the 22 Renewable Energy Infrastructure Funds (REIFs), as we update our publication of February 2021. Aside from assessing all 31 stocks under review, this report addresses specifically the impact for the leading REIFs of soaring gas prices – the spot price rose from 50p per therm in April 2021 to over 450p per therm shortly before Christmas – and the widely expected impact on their long-term valuations. Particular attention is also given to the nine new entrants to the expanding infrastructure sector during 2021 – three were IICs and six were REIFs.
- ▶ The stocks analysed are all members of the Association of Investment Companies (AIC), and, as a group, their combined market capitalisation is currently £29.7bn. The most valuable IICs are HICL Infrastructure and 3i Infrastructure – both are capitalised at over £3bn each. The largest REIFs are Greencoat UK Wind and TRIG, which are capitalised at £3.3bn and £3.0bn, respectively.
- ▶ All the REIFs and, for the most part, the IICs have weathered COVID-19 with relatively minor dislocation. However, some IICs, including HICL Infrastructure and INPP, have suffered, due to their exposure to demand-based transport investments. Others, such as 3i Infrastructure, have prospered, with their shares rising by more than 50%.
- ▶ Over 50% of the REIF sector's valuation is accounted for by wind power generation. On the back of generous subsidies, the UK wind power sector has expanded, and now exceeds 24GW of capacity, while UK solar capacity is c.14GW. The removal of subsidies for new solar plants from 2017 remains challenging, although unit costs have plummeted.
- ▶ Offshore wind power is the new “go-to” investment sector, given the sea change in costs. The pivotal 2019 auction for the development of some North Sea sites saw several Contracts for Difference (CfDs) being awarded. The lowest, on the Dogger Bank, was struck at just £39.65p (2012 prices) per MWh.
- ▶ The underlying sector premia over the NAVs vary markedly among the IICs – the highest premium, at over 27%, is for BBGI, whose Total Shareholder Return (TSR) since its IPO in 2011 has been a formidable 10.8% per year: it has consistently traded at a sizeable premium to its NAV.
- ▶ For the REIFs, the outperformers have been TRIG and Gresham House Energy Storage; the latter's shares are currently trading – driven in part by its very conservative 10.7% discount rate – at a 16% premium to its latest NAV. The adjusted average NAV premium for the REIFs, whose power price-driven NAV premia have historically been more volatile than those of the IICs, is c.7%-9%.
- ▶ While most established IICs and REIFs have avoided dividend cuts, at least in nominal terms, delivering real dividend growth on the back of rising inflation – 3i Infrastructure excepted – and, in some cases, thin dividend cover, is more challenging. GCP Infrastructure, HICL Infrastructure, NextEnergy Solar and TRIG are among those to have held their dividend on a nominal basis. Underlying prospective dividend yields for most established IICs and REIFs lie within ranges of 4%-5% and 5%-6.5%, respectively.
- ▶ Since January 2020, the 31 IICs and REIFs have raised c.£7.8bn of new funds. In 2021 alone, three IICs and six REIFs undertook IPOs. And, in late November, Greencoat UK Wind confirmed that its latest fundraise was heavily oversubscribed – it raised £450m at a c.6% discount to the price preceding the equity fundraise announcement.

## REIFs revisited – a compendium

- ▶ Recent IPOs in the REIF sector have expanded well beyond the standard UK-based onshore wind and solar models of the past, with energy storage technology featuring prominently. Noticeably, too, the targeted dividend yield, as exemplified by the projected long-term (after year 2) 7%+ figure proposed by the recently floated ThomasLloyd Energy Impact – which focuses on the Asian electricity market – has risen, as funds seek to attract income-driven investors.
- ▶ Rising inflation, and not just in the UK, remains a real concern for many investors. In fact, IICs and REIFs, to varying extents, derive short-term benefits from inflation, providing – in an admittedly unlikely scenario – that this is not accompanied by higher interest rates.
- ▶ Energy markets have suffered real turbulence from the soaring short-term gas price, as available supplies are critically low. In time, unless current spot prices fall very sharply, this trend will raise long-term power prices, whose assumptions are pivotal in determining the NAVs of most REIFs. JLEN's 7.2% increase in its NAV between March 2021 and September 2021 is a precursor of this trend.
- ▶ Three Environmental Trusts – Impax Environmental Markets, Jupiter Green and Menhaden Resource Efficiency – are also discussed in this document; along with the 31 Infrastructure and Renewables Infrastructure stocks: all are part of the AIC universe.
- ▶ BBGI, one of the 31 IICs and REIFs analysed in this report, is a client of Hardman & Co. Our Research Principles can be found [here](#).

### Current market ratings of UK IICs

IIC	Share price (p)	Shares in issue (m)	Market cap. (£m)	Year-end	NAV per share (p)	Prem./disc. to NAV	Prop. dividend (p)	Prop. yield
3i Infrastructure	354	891	3,156	Mar	291.2	+21.6%	10.45	3.0%
BBGI	176	712	1,253	Dec	137.8	+27.7%	7.33	4.2%
Cordiant Digital Infrastructure	112	595	666	Mar	101.6	+10.6%	3.00	2.7%
Digital 9 Infrastructure	114	722	823	Dec	103.3	+11.1%	4.50	3.9%
GCP Infrastructure	108	883	954	Sep	103.9	+3.9%	7.00	6.5%
HICL Infrastructure	177	1,940	3,434	Mar	155.4	+13.9%	8.25	4.7%
INPP	169	1,710	2,890	Dec	145.1	+16.5%	7.55	4.5%
Pantheon Infrastructure	105	400	420	Dec	98.0	+6.9%	nil	n/a
Sequoia Economic Infrastructure	107	1,767	1,891	Mar	102.9	+4.0%	6.25	5.8%
<b>Total</b>			<b>15,487</b>					

Source: Hardman & Co Research

## REIFs revisited – a compendium

Current market ratings of UK REIFs								
REIF	Share price (p)	Shares in issue (m)	Market cap. (£m)	Year-end	NAV per share (p)	Prem./disc. to NAV	Prosp. dividend (p)	Prosp. yield
Aquila Energy Efficiency	95	100	95	Dec	98.0	-3.1%	nil	n/a
Aquila European Renewables	84	407	342	Dec	84.8	-0.9%	4.20	5.0%
Atrato Onsite Energy	109	150	164	Sep	98.0	+11.2%	Nil	n/a
Bluefield Solar	124	496	615	Jun	117.2	+5.8%	8.12	6.5%
Downing Renewables and Infrastructure	103	137	141	Dec	102.5	+0.5%	3.50	3.4%
Ecofin US Renewables	73	125	92	Dec	74.6	-1.8%	1.85	2.5%
Foresight Solar	101	610	616	Dec	104.1	-3.0%	6.98	6.9%
Gore Street Energy Storage	117	345	404	Mar	103.3	+13.3%	7.00	6.0%
Greencoat Renewables	93	890	830	Dec	85.2	+9.4%	5.10	5.5%
Greencoat UK Wind	141	2,317	3,267	Dec	129.0	+9.3%	7.18	5.1%
Gresham House Energy Storage	130	438	569	Dec	111.9	+16.2%	7.00	5.4%
Harmony Energy Income	100	210	210	Dec	98.0	+2.0%	Nil	n/a
HydrogenOne Capital Growth	119	107	127	Dec	97.5	+22.1%	Nil	n/a
JLEN	105	601	631	Mar	98.4	+6.7%	6.80	6.5%
NextEnergy Solar	101	588	596	Mar	103.1	-2.0%	7.16	7.1%
Octopus Renewables	110	565	622	Dec	99.2	+10.9%	5.00	4.5%
SEEIT	117	903	1,057	Mar	104.5	+12.0%	5.62	4.8%
ThomasLloyd Energy Impact	82	115	94	Dec	72.6	+13.1%	Nil	n/a
TRIG	134	2,266	3,036	Dec	114.3	+17.2%	6.76	5.0%
Triple Point Energy Efficiency	100	100	100	Mar	94.5	+5.8%	5.50	5.5%
US Solar	70	332	233	Dec	70.1	+0.3%	4.08	5.8%
Victory Hill GSEO	107	312	334	Dec	99.8	+7.2%	1.25	1.2%
<b>Total</b>			<b>14,175</b>					

Source: Hardman & Co Research

## Infrastructure sector background

### The shift to private financing

The privatisation policies of the 1980s and early 1990s were instrumental in bringing much higher levels of private equity into the financing of public infrastructure projects. The then Conservative government sought to curb public borrowing, but also to invest in new infrastructure.

At the heart of this policy lay the Public Private Partnerships (PPP) policy and the Private Finance Initiative (PFI), which, although being wound down, remain – under various guises – to this day. In essence, the government sought to attract private sector funds into the financing of public sector projects – the massive Channel Tunnel project being a case in point.

### The rise of IICs

In recent years, various quoted IICs, where PPP/PFI or similar financing arrangements are central to their strategy, have emerged as quoted entities. BBGI, HICL Infrastructure and INPP, all FTSE 250 members, are reliant on such contracts, which provide virtually – although not totally – assured revenues; great care is exercised to ensure that their counterparties are financially sound.

### 22 quoted REIFs

Over the last decade, renewable energy has grown very sharply, albeit from a low base; previously, only hydro-power in Scotland provided meaningful quantities of electricity. However, there are now 22 quoted REIFs that are involved in the sector; most are either wind or solar generators, but there has been an increasing interest of late in energy storage technology.

### Broadband financing joins the party

And in the spirit of privatisation – with British Telecom's ground-breaking flotation in 1984 – the financing of broadband and data-based projects by emerging companies has also become a new trend, with both Cordiant Digital Infrastructure and Digital 9 Infrastructure now quoted under the infrastructure head. Pantheon Infrastructure, recently the subject of a successful IPO, may also enter this market.

Reference in this document is also made to three Environmental Investment Trusts (EITs), classified by the AIC under its Environmental heading. The three EITs concerned are Impax Environmental Markets, Jupiter Green and Menhaden Energy Resources.

### Shift in focus – both technologically and geographically

Increasingly, the quoted infrastructure sector is seeing more overlaps. While IICs, such as HICL Infrastructure, remain wide-ranging in terms of sectors, the REIFs have been – until quite recently – very wind and solar generation-focused. This policy has shifted of late, as the more recent REIF IPOs have raised funds for investment in newer technologies, such as energy storage, and for expansion into overseas markets – not only in Europe but also beyond.

### Well-supported IPOs

The two most recent infrastructure IPOs were Pantheon Infrastructure, with a wide-ranging pipeline of potential investment, covering both energy and telecoms, and ThomasLloyd Energy Impact, which aims to participate in energy projects in the Philippines, India and elsewhere in Asia. The former was particularly strongly supported.

Higher dividend yields are also being proposed, as REIFs recognise the quest by many investors for an attractive dividend stream. In the case of ThomasLloyd Energy Impact, its Prospectus proposed a 7%+ yield by year 3 – an ambitious target.



## REIFs revisited – a compendium

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### Around £7.8bn of new capital raised since January 2020

It is also noticeable how successful recent fundraising initiatives have proven to be. Since January 2020, the Hardman & Co analysis shows that the 31 IICs and REIFs under review have raised c.£7.8bn of new capital. The majority has arisen from either new issues by REIFs or from established players, either IICs or REIFs, returning to the market for additional funds.

### Many secondary issues at minimal discounts

Most notably, these secondary issues have generally been at a very modest discount – generally between 2% and 4% of the prevailing share price prior to the announcement of the fundraise.

### The Shell dividend legacy

Another noticeable trend of late is the more aggressive dividend policies being flagged, no doubt reflecting the difficulty of locating high-quality earnings to enable decent – and reliable – dividend flows, especially given Shell's historic 67% dividend cut, its first since WW2, in 2020.

## Infrastructure investment companies (IICs)

Currently, there are nine quoted UK IICs; they are capitalised at a total of £15.5bn, with HICL Infrastructure at £3.4bn, 3i Infrastructure at £3.2bn and INPP at £2.9bn being the most valuable in the sector. The newcomers to the sector, Digital 9 Infrastructure and Cordiant Digital Infrastructure, are currently capitalised at £823m and £666m, respectively.

### Wider diversification

Importantly, the larger IICs have far greater diversification, which limits their exposure to any single adverse event, such as HICL Infrastructure's ill-fated counterparty contracts with the collapsed Carillion. Nonetheless, several have invested successfully in initiatives, such as PPPs/PFIs, and related schemes in the UK.

The older, established IICs, of which there are six, have very different backgrounds. Most, though, emerged from either a financing or investment background. In the cases of the two largest IICs, HICL Infrastructure and 3i Infrastructure, the former was established by HSBC in 2006, and the latter was demerged from 3i Group in 2007.

### HICL's model vs. 3i Infrastructure's model – very different

In fact, these two IICs are very different. HICL Infrastructure preaches diversity – it has over 100 separate investments in six different sectors and seven different countries. Health and transport projects are particularly favoured by HICL Infrastructure, and almost three quarters of its investments are in PPP-/PFI-backed projects. 3i Infrastructure, by contrast, has just c.20 investments, and is operating a far more dynamic growth-orientated – and higher-risk – business model. Its far higher discount rate – c.4% higher than some other IICs – reflects that enhanced risk element.

### The PPP/PFI iterations

Over the years, PPP/PFI has undergone various iterations, and is subject to political intervention: the Treasury has abiding concerns about off-balance sheet financing for public infrastructure projects, something that PPP/PFI embodies. The high-profile collapse of both Carillion in 2018 and of Interserve in 2019, both of which were very prominent Facilities Management (FM) support services providers, has seen further modifications.

### Replacing collapsed FMs

Nevertheless, following their collapse, project companies, which had an obligation to provide the required services, adopted various interim measures and, subsequently, replaced the collapsed FM structure. Importantly, the related costs were borne by the private sector.

Undoubtedly, several IICs, notably BBGI, have prospered on the back of public sector-backed contracts – and, in many cases, on the availability-based revenues that they continue to generate.

### HICL has 100+ investments, while Greencoat UK Wind “sticks to the knitting”

While there are some valid comparisons with the leading REIFs, the reality is that the IICs are far more wide-ranging in their activities, as illustrated by HICL, with over 100 separate investments. By contrast, Greencoat UK Wind relies solely on the output from its many wind generation plants in the UK – as its name implies.

Shown below are those IICs with market capitalisations of over £750m.

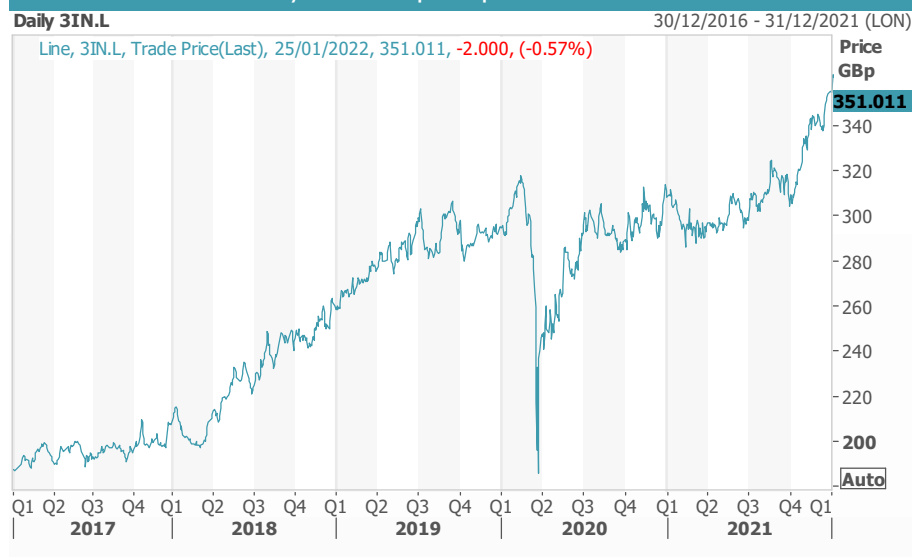




### 3i Infrastructure (market cap. £3,156m)

3i Infrastructure was demerged from the 3i Group in 2007. Subsequently, its shares have performed impressively – up by over 50% since March 2020 to end-December 2021 alone – as the graph below shows.

#### 3i Infrastructure – five-year share price performance



Source: Refinitiv

**Investment sectors:** 3i Infrastructure's investments are wide-ranging, but its focus lies on mid-market economic infrastructure investments – within a typical equity range of £100m to £300m. 3i Infrastructure periodically recycles its portfolio assets. Early in 2020, it sold its very profitable 93% stake in WIG and its UK Projects investments for a combined total of £581m – an illustration of its successful investment rollover strategy.

**Fund aims:** "To provide shareholders with a total return of 8% to 10% per annum to be achieved over the medium term, with a progressive annual dividend per share".

**Portfolio:** 3i Infrastructure owns a portfolio comprising c.20 investments. Based on asset value, 34% of the total is accounted for by utilities, while transport and communications (effectively the Norwegian Tampnet fibre infrastructure business) represent 24% and 18%, respectively. The UK-based waste business, Infinis, is the largest single investment, at 14%. In terms of jurisdiction, the assets are split quite widely, with 18% covering the Netherlands, 16% France and 14% the UK. Lower weightings are applicable to Belgium and Luxembourg, each with 12%.

**Latest results:** In November 2021, 3i Infrastructure published its half-year results for 2021/22. The figures were generally good, with the NAV figure rising to 291.2p per share; they recorded, too, an improvement in the COVID-19-hit TCR, an aviation-related business. Importantly, there was confirmation of a £258m cash balance, which has been enhanced by the c.£47m proceeds from the now completed sale of Oystercatcher's four European oil terminals. However, recent announcements (see below) regarding substantial investments in SRL Traffic Systems, ESVAGT and, particularly, in Global Cloud Xchange (GCX) will erode this cash balance. 3i Infrastructure's 10.45p per share dividend target for 2021/22 represents a very creditable 6.6% of year-on-year growth. The company's latest income statement is shown in the table below.

**3i Infrastructure – half-year income statement, 2021/22**

£m	to 30/09/2021	to 30/09/2020
Net gains on investment	244	73
Investment income	47	43
Fees payable on investment activities	-2	0
Interest receivable	3	6
Investment return	292	122
Movement in FV of derivative instruments	-8	-24
Management, advisory and performance fees	-31	-12
Operating expenses	-2	-1
Finance costs	-1	-1
Profit before tax	250	84
Income taxes	0	0
Profit after tax and profit for the year	250	84
Total comprehensive income for the year	250	84
EPS (basic and diluted, p)	28.0	9.4

Source: 3i Infrastructure, Hardman & Co Research

Since the end of its 2021/22 half-year, 3i infrastructure has announced several major initiatives, including:

- ▶ The sale, for c.€55m, of its 45% stake in four European liquid storage terminals.
- ▶ An agreement to invest c.US\$512m to acquire full ownership of GCX, a leading global data communications service provider, with sub-sea fibre optic networks.
- ▶ A decision to move to full ownership of ESVAGT, a service provider for offshore wind vessels, at an additional cost of £268m.
- ▶ Completion of a c.£192m investment to secure a 92% stake in SRL Traffic Systems, a traffic management rental company; £83m of further debt financing is also being provided.

Given the considerable funds involved – c.12% of 3i's Infrastructure's current market capitalisation – the proposed GCX transaction will be closely scrutinised by investors.

### BBGI (market cap. £1,253m)

Since its IPO in 2011, BBGI has delivered very good value for its shareholders. Its TSR has risen by 165%, equivalent to 10.8% per year. In recent months, its shares have been trading at a c.25% premium to its NAV.



**Investment sectors:** BBGI is a diversified social infrastructure company. It seeks to invest in long-term, low-risk essential infrastructure investments that deliver stable, predictable cashflows. Most of its investments are via PPPs or derivatives thereof – all are availability-based – and are supported by government-backed revenues. There are no investments in higher risk demand-based or regulatory-based sectors. As recent events have demonstrated, it has the lowest risk profile of all IICs.

**Fund aims:** BBGI follows “a low-risk, globally diversified and internally managed investment strategy to deliver long-term predictable returns to our shareholders. We target an internal rate of return (IRR) in the region of 7%-8% on the IPO price of 100p per ordinary share”.

BBGI's in-house management team is focused on delivering shareholder value, incentivised by shareholder returns and growth in NAV per share. Consequently, neither NAV-based management fees nor acquisition fees are charged, while the internal management team's interests are fully aligned with those of BBGI's shareholders. Moreover, BBGI consistently maintains the lowest ongoing charges among the IICs to its shareholders.

Importantly, BBGI provides access to a diversified portfolio of infrastructure assets that serve an inherent social purpose in supporting local communities; furthermore, it adopts a robust approach to addressing ESG issues.

**Portfolio:** Within its global 54-strong asset portfolio, investment in bridges and roads features prominently. Crucially, the portfolio concentrates on low-risk, public sector-financed, availability-based infrastructure investments. Its two leading markets are the UK and Canada, but the US is also important for BBGI.

More specifically, BBGI is single-minded in its policy of investing in availability-based infrastructure assets; as such, it has averted any materially negative impact from COVID-19. Indeed, during the pandemic, its assets have been over 99% available to its public sector clients. None of its existing 54 investments has reported either defaults or distribution lock-ups – unlike other members of its peer group.

**Latest results:** BBGI has announced its results for the half-year ending June 2021; the key details are shown below. BBGI's 2021 full-year results are due in March 2022. While there have been some FV accounting adjustments, BBGI's NAV remains solid. Its latest June 2021 NAV figure was 137.8p per share, which was almost identical to the December 2020 out-turn. Nonetheless, with its impressive TSR over the last decade, its shares continue to trade at a premium of over 27% to NAV. A full-year dividend of 7.33p per share is expected for 2021. For 2022 and 2023, BBGI has announced a planned increase in its target dividends to 7.48p per share and 7.63p per share, respectively; this demonstrates BBGI's confidence in its business model.

<b>BBGI – half-year income statement, 2021</b>		
<b>£m</b>	<b>to 30/06/2021</b>	<b>to 30/06/2020</b>
Operating income	33.1	36.8
Operating expenses	-6.5	-10.7
Operating profit	26.6	26.2
Profit before tax	26.0	19.2
Profit from continued operations	24.8	17.7
EPS (basic and diluted, p)	3.73	2.80

*Source: BBGI, Hardman & Co Research*

BBGI's availability-based business model is centred upon assuming very low risks and generating good returns. Currently, BBGI has 54 investments, and it expects to complete its 55<sup>th</sup> within the next few months, having confirmed its intention to secure a 25% stake in the Centre Hospitalier de L'Université de Montréal (CHUM) PPP project.

The planned CHUM investment is a typical BBGI initiative that complements its proven business model. While final details remain outstanding, the key points of the CHUM project are:

- ▶ The design, construction, finance, operation and maintenance of a fully functional new hospital facility, encompassing 772 private patients' rooms, 39 operating theatres and 415 examination rooms.
- ▶ Revenues are based on availability payments – with virtually no exposure to demand levels – from CHUM, a not-for-profit corporation with very high credit ratings.
- ▶ With Phase 1 completed in 2017 and Phase 2 completed in 2021, the construction risks for incoming investors, such as BBGI, are virtually nil, given that CHUM is now 99% operational.
- ▶ The concession runs to 2050.
- ▶ BBGI plans to invest c.C\$88m, equivalent to c.£51m, in the project.

Interestingly, the CHUM project has very close similarities to another successful BBGI investment in Montreal – the McGill University Health Centre (MUHC) project – which is currently the fourth-largest of BBGI's 54-strong portfolio. In this case, BBGI has secured a 40% shareholding, while the concession period, which began in 2010, is for 34 years, and therefore will not expire until 2044.

An image of the MUHC facility is reproduced below, along with the key investment data for the project.

**BBGI**

- **Type:** Availability-based
- **Status:** Operational
- **Equity Holding (%) BBGI:** 40%
- **Total Investment Volume (Debt & Equity):** C\$2 billion
- **Financial Close/Operational:** July 2010/October 2014
- **Concession Period:** 34 years ending in 2044



Source: BBGI Annual Report 2020.

In terms of BBGI's own investment outlay in MUHC, we calculate that the cost of BBGI's 40% equity share of the C\$2bn (£1.17bn) total cost of the project will be broadly replicated in the proposed CHUM investment, namely within the £50m to £60m range. The 25% CHUM stake will be funded by drawing upon BBGI's £230m revolving credit facility and by other existing cash resources.

For more information about BBGI, please see our research report published in September 2021, *Boring is beautiful – and dividend growth continues*.

### Digital 9 Infrastructure – (market cap. £823m)



**Investment sectors:** Digital 9 Infrastructure undertook its IPO in March 2021. It emerged from the same stable as Triple Point Energy Efficiency, although the pace of its acquisitions policy has certainly exceeded that of the latter. Indeed, having raised c.£750m in three separate equity raises over a near six-month period in 2021, Digital 9 Infrastructure has been busily building up its financial reserves in preparation for more acquisitions in its target sector.

**Fund aims:** Digital 9 Infrastructure's primary aim – in a somewhat old-fashioned way – is “to deliver value for shareholders”. Aggressively growing its business will be key in doing so; an attractive dividend stream is also expected. At the operating level, Digital 9 Infrastructure seeks to improve digital infrastructure and to reduce the digital divide – the experiences of the internet during the pandemic have demonstrated the range of commercial opportunities.

**Portfolio:** In terms of building its portfolio, it is still relatively early days. However, Digital 9 Infrastructure has acquired Aqua Comms., an Irish-based business that operates capacity services across fibre optic telecoms networks. Aqua Comms. was bought for £160m and manages a transatlantic subsea fibre system of c.14,300km in length. In addition, Verne Holdings, which manages data centres in Iceland and is 100% renewable-powered, was acquired for £231m. More recently, a further £50m has been invested in a new intercontinental fibre system that will improve connectivity between Europe, the Middle East and India. Digital 9 Infrastructure is

also planning to acquire an initial 56% stake in the RoI-based Tetra Ireland Communications for €76m.

**Latest results:** Digital 9 Infrastructure has announced its maiden results as a quoted company. In the truncated period ending in June 2021, there was a £16.7m operating profit, owing to a higher valuation of its financial assets, as specified under FV accounting rules. More importantly, net assets were £482m, and the NAV per share was 103.3p. A 1.5p dividend for the period was also confirmed as part of the planned full-year dividend of 4.5p; this covers the three quarters from the March 2021 IPO date.

### *GCP Infrastructure (market cap. £954m)*

**Investment sectors:** GCP Infrastructure, along with GCP Asset Backed, is one of two quoted Gravis Capital closed-ended investment funds. Their market capitalisations are £954m and £427m, respectively. GCP Infrastructure seeks “to create a diversified portfolio of debt and similar assets secured against UK infrastructure projects”. It focuses on debt investments in the renewable generation sector and in PPP/PFI schemes.

**Fund aims:** GCP Infrastructure aims to “provide shareholders with regular, sustained, long-term dividends and to preserve the capital value of its investment assets over the long term”.

**Portfolio:** GCP Infrastructure holds 47 Investments, with an average life of 12 years – all are UK-based. Most notably, it has heavy exposure to the renewable energy sector, with solar generation accounting for 20% of its portfolio; the wind generation component is 19%. Outside the energy sector, GCP Infrastructure has 24% of its investment value tied up within PPP/PFIs, a financing model that the UK government is effectively phasing out. Supported living projects, a sector in which further investment by GCP Infrastructure is now unlikely, accounts for a further 14%.

**Latest results:** In its recently published full-year results for the period ending in September 2021, GCP Infrastructure reported a slight increase in its NAV, to 103.9p per share. Over the last two years, GCP infrastructure has been adversely affected by lower long-term power prices – a scenario that is likely to be reversed, given the recent surge in gas prices. Even so, GCP Infrastructure’s 103.9p per share NAV, as at September 2021, represents a decline of almost 8% per share when compared with its December 2018 NAV figure.

Hence, having paid an annual dividend of 7.6p per share for seven consecutive years, the dividend was cut to 7p per share for 2019/20, a figure that was held in 2020/21. With thin dividend cover, the 7p dividend per share payment seems set to continue for 2021/22 – and possibly beyond.



**GCP Infrastructure – full-year income statement, 2020/21**

£000	to 30/09/2021	to 30/09/2020
<b>Income</b>		
Net income/gains on FV financial assets	97,324	15,987
Unrealised losses on FY derivative financial assets	-20,851	0
Other income	449	9
Total income	76,922	15,996
<b>Expenses</b>		
Investment advisory fees	-7,951	-8,420
Operating expenses	-2,733	-3,650
Total expenses	-10,684	-12,070
Total operating profit before finance costs	66,238	3,926
Finance costs	-3,882	-4,652
Total profit and income for the period	62,356	-726
EPS (basic and diluted, p)	7.08	-0.08

Source: GCP Infrastructure, Hardman & Co Research

**HICL Infrastructure (market cap. £3,434m)**


**Investment sectors:** HICL Infrastructure has over 100 investments across many sectors. Its portfolio is heavily slanted to the UK, which accounts for 74% of its investments, with 19% of the remainder arising from mainland EU. Its North American exposure is modest. Transport and health investments, which account for c.60% of value, are prominent in HICL Infrastructure's portfolio.

**Fund aims:** "To deliver long-term, stable income from a well-diversified portfolio of infrastructure investments positioned at the lower end of the risk spectrum".

**Portfolio:** HICL Infrastructure has the largest and widest range of the nine IICs under review. Its extensive portfolio has been built up over a sustained period of time at a cost of £2.9bn, of which £2.5bn has been equity-financed. Importantly, in terms of risk, PPP/PFI schemes now account for 69% of these assets, while the demand-based component is 20%.

HICL Infrastructure's favoured sectors are health and transport, which account for c.30% of its total portfolio value. In the former sector, some acute care hospitals within HICL Infrastructure's portfolio – predominantly those in the north of England – have been facing various issues, which its clients are contesting. Education also features prominently, accounting for 15% of the portfolio. Importantly, HICL Infrastructure also has significant demand-based investments, including HS1 (which has seen demand plummet since early 2020), the Northwest Parkway in Colorado, US, and the A63 motorway in SW France.

**Latest results:** HICL Infrastructure has recently published its half-year results for 2021/22; they showed an improvement overall, especially as the three largest demand-based investments, which had been severely affected by COVID-19 travel restrictions, recovered. Although NAV rose to 155.4p per share, compared with 152.3p per share at March 2021, cash/dividend cover remains very low; but it has recently recovered to 1.04x, compared with just 0.83x at the 2020/21 half-year. Once again, HICL Infrastructure is planning to hold its full-year dividend at 8.25p – and to do so again in 2022/23 – meaning three years of a flat dividend.

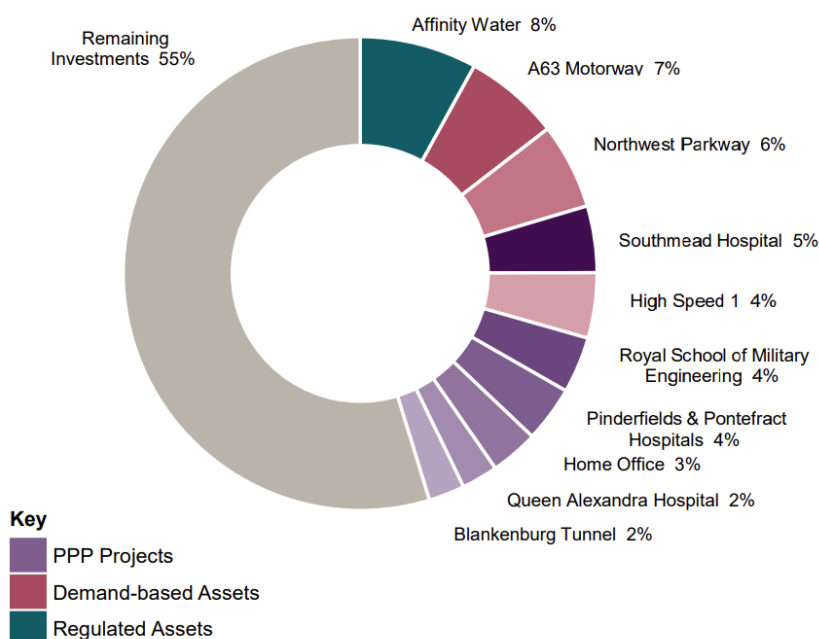


**HICL Infrastructure – full-year income statement, 2021/22**

£m	to 30/09/2021	to 30/09/2020
Total income (IFRS basis)	141.2	105.5
Fund expenses	-1.7	-1.5
Profit before tax	139.5	104.0
Earnings	139.5	104.0
Earnings per share (basic and diluted, p)	7.2	5.5

Source: HICL Infrastructure, Hardman & Co Research

As part of its 2021/22 interim results, HICL Infrastructure published a chart setting out its portfolio metrics, highlighting its key shareholdings; it is reproduced below.

**HICL's Infrastructure's 10 largest investments\***


\*By value using Directors' Valuation of £3,121.7m as at 30 September 2021

Source: HICL Infrastructure's Interim Results Presentation

**INPP (market cap. £2,890m)**


**Investment sectors:** INPP's origins lie with Babcock & Brown, an Australian Investment Bank. INPP is very long-term-orientated, with an investment life span of well over 30 years. Its focus has been very much on the energy sector, and especially on gas transportation and electricity transmission.

**Fund aims:** "We aim to provide our investors with long-term, inflation-linked returns by growing our dividend and creating the potential for capital appreciation".

**Portfolio:** INPP's key investments are in the utilities sector, notably in its offshore electricity transmission operations and in its Cadent gas distribution business; these two components account for almost 40% of its portfolio. However, its biggest single investment is the 25km Tideway super sewer, alongside the River Thames. Much of the remainder of the portfolio is made up of transport and education investments, including over 260 schools. These two sectors each account for 19% of the portfolio.

In terms of location, the UK is INPP's key market, with almost 75% of its portfolio being sited here. Of the remainder, Australia and Belgium (the latter with its Diabolo rail link contract to service Brussels airport) account for 9% and 7%, respectively.

**Latest results:** Despite some concerns and some negative FV adjustments, INPP confirmed, in its 2021 half-year income statement, that it was performing soundly. Although the construction element of the Tideway super sewer project is now close to 70% complete, INPP has suffered various delays and cost increases from COVID-19: asset impairments have resulted. Also, the Cadent gas business is still facing some regulatory uncertainties, following the contested periodic review.

Overseas, INPP has suffered from the heavy COVID-19-related fall-off in demand on its Diabolo rail link to Brussels airport: the latter's revenue is very dependent on rail passenger numbers. INPP has recently invested a further €10m in the business, and is providing a contingency commitment of €14m for it. Nonetheless, despite NAV falling to 145.1p per share, compared with 147.1p per share at March 2021, INPP is planning to increase its full-year 2021 dividend to 7.55p per share.

<b>INPP – half-year income statement, 2021</b>		
<b>£000</b>	<b>to 30/06/2021</b>	<b>to 30/06/2020</b>
Interest income	39,377	39,775
Dividend income	18,032	17,439
Net change in investment at FV via P&L	-16,684	-1,418
Total investment income	40,725	55,796
Other operating income/expenses	2,785	-4,251
Total income	43,510	51,545
Management costs	-12,861	-13,027
Administration costs	-1,132	-852
Transaction costs	-335	-150
Directors' fees	-200	-209
Total expenses	-14,528	-14,238
Profit before finance costs and tax	28,982	37,307
Finance costs	-1,765	-1,888
Profit before tax	27,217	35,419
Tax credit	48	171
Profit for the period	27,265	35,590
EPS (basic and diluted, p)	1.68	2.21

Source: INPP, Hardman & Co Research

**SEQUOIA  
ECONOMIC  
INFRASTRUCTURE**  
INCOME FUND LIMITED

*Sequoia Economic Infrastructure (market cap. £1,891m)*

**Investment sectors:** Sequoia Economic Infrastructure is a specialist investor in economic infrastructure debt. It runs a portfolio of debt – 95% of which is private – and bond investments, with generally shorter timeframes than those of other quoted IICs.

**Fund aims:** “To provide investors with regular, sustained, long-term distributions and capital appreciation from a diversified portfolio of senior and subordinated economic infrastructure debt investment”.

**Portfolio:** Currently, Sequoia Economic Infrastructure has over 70 investments across eight sectors, with an average life of c.4.5 years. In terms of asset allocation, transport is the largest component, at 23%, with technology, media and telecom (TMT) accounting for 22%, and power for 15%. Accommodation and transport represent c.11% each of the portfolio.

Sequoia Economic Infrastructure has diversified across many mature jurisdictions. Slightly under half of its assets are in North America, with a further 26% being located in Europe. The two leading UK components are Infinis, the waste business, and the Bannister healthcare accommodation scheme; the latest published values for these are £65.0m and £55.2m, respectively. Less successfully, it has some exposure to the collapsed Bulb Energy, via c.£55m of senior debt, which is secured against all the latter's assets; whether this high debt priority can be enforced under the “Special Administration Regime” is unclear.

**Latest results:** Sequoia Economic Infrastructure's half-year results for 2021/22 demonstrated that its recovery is continuing, although NAV fell back slightly, to 102.9p per share, compared with 103.2p per share at March 2021. Importantly, following the very poor 2019/20 results, which had been heavily distorted by the application of FV accounting to both its non-derivative and derivative financial assets, Sequoia Economic Infrastructure's board undertook a "comprehensive portfolio and Balance Sheet review". With an improving economy, recovering oil prices, additional equity funds and better news on the lending front, Sequoia Economic Infrastructure's outlook is now rather brighter. However, its dividend for 2021/22, projected at 6.25p per share, is set to be held "for the foreseeable future".

**Sequoia Economic Infrastructure – half-year income statement, 2021/22**

£	to 30/09/2021	to 30/09/2020
<b>Revenue</b>		
Net gains on non-derivative financial assets at FV	17,490,664	82,993,765
Net gains (losses) on derivative financial assets at FV	-25,433,938	16,586,260
Investment income	68,708,224	18,031,334
Net foreign exchange loss	-298,335	524,882
Total revenue	60,466,615	118,136,241
<b>Expenses</b>		
Investment adviser fees	5,945,053	5,583,041
Investment manager fees	174,573	172,804
Directors' fees and expenses	130,800	123,327
Other professional fees	1,238,036	1,117,583
Other expenses	286,657	106,176
Total operating expenses	7,775,119	7,102,931
Loan finance costs	2,001,715	1,802,530
Total expenses	9,776,834	8,905,461
Loss/profit and comprehensive loss/income for the year	50,689,781	109,230,780
EPS (basic and diluted, p)	2.87	6.60p

*Source: Sequoia Economic Infrastructure, Hardman & Co Research*

**Foresight Group now quoted**

Another major UK infrastructure player, although outside the AIC criteria, is Foresight Group, which undertook an IPO in February 2021. It is now valued at £476m – and holds a c.5% stake in Foresight Solar.

## UK energy background

During the 1980s and the early 1990s, the UK energy sector underwent major change. Following the end of the year-long miners’ strike in 1985, which began the long process of coal’s replacement as the main fuel for power stations, most of the electricity supply industry was privatised.

### The “dash for gas” in the 1990s

While the impact on the 12 Regional Electricity Companies (RECs) was comparatively minor – despite far greater efficiencies – it was the generation sector that was most obviously affected. Many gas-fired plants were built during the 1990s and early 2000s, while the UK’s coal-fired plants were progressively closed.

New nuclear-build centred around Sizewell B, commissioned in 1995; no further new nuclear plants have been opened subsequently. To be sure, the £23bn Hinkley Point C plant is under construction, but no output is expected until 2030.

### Major problems for E.On and RWE

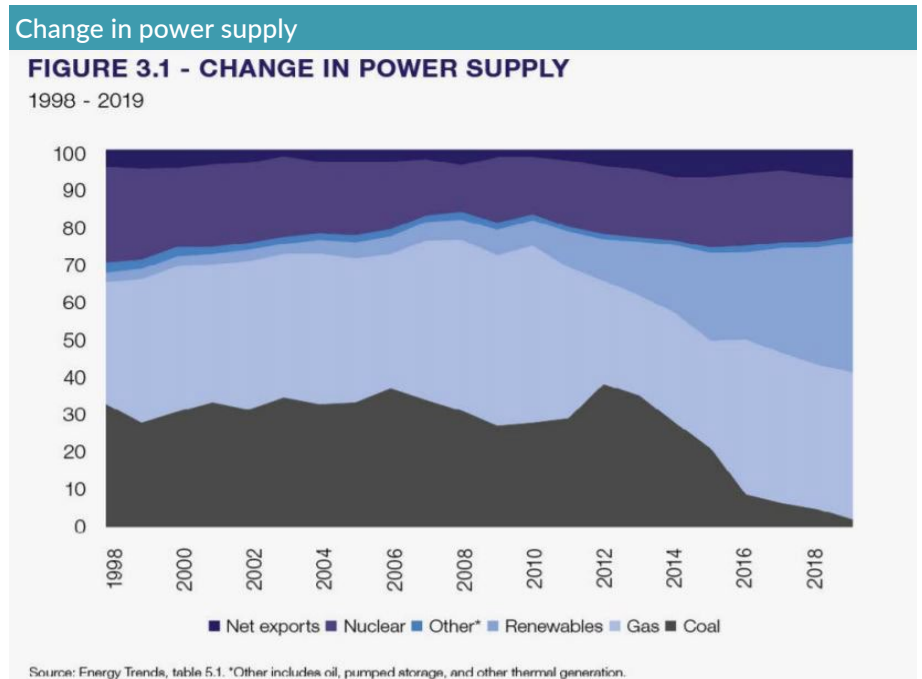
The decline of fossil-fuel generation has had major implications for the sector and its investors. Share returns from the two leading German players, E.On and RWE, plummeted after the financial crisis of 2008/09, and have only begun to recover in recent years, following major restructuring and downsizing.

### EdF’s share price plunge

Perhaps the most serious decline is represented by EdF, whose investor returns have been dreadful. EdF, in which the French Government has a c.84% stake, has seen its shares plunge in recent years. In December 2007, EdF’s shares touched almost €80 – they have fallen by over 85% subsequently.

### A sea-change in the energy mix since 1998

Over the last two decades, there has been a major shift in generation sources, as the graph below – from the Energy White Paper 2020 – illustrates, with much-reduced coal-fired output and a pronounced rise in renewables output.



Source: Energy White Paper 2020

## REIFs revisited – a compendium

### Renewables share up from 7% in 2010 to a third now

To underline this transition in generation source, the Energy White Paper 2020 also confirmed that the contribution from UK renewable generation was now c.33%, compared with just 7% in 2010 – a very sharp rise over the decade.

### Coal's contribution plunges

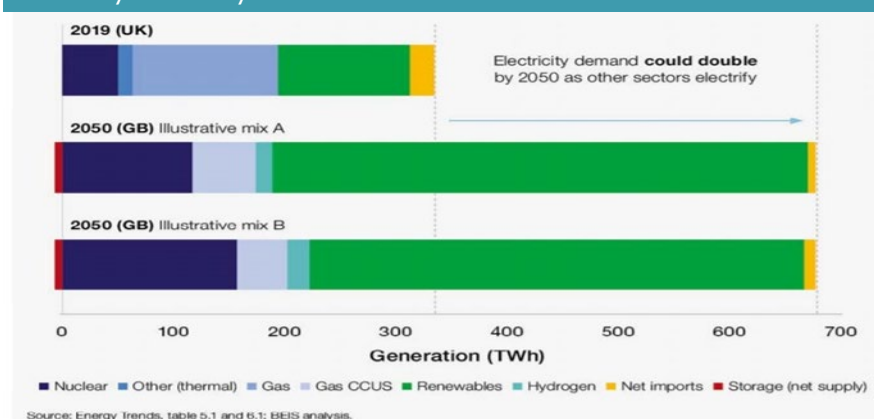
For the 2019 calendar year, nuclear and renewable plants, including biomass, accounted for over 51% of Britain's electricity output, compared with the 40% contribution from fossil fuels. The pronounced sea change – especially of coal's virtual eclipse – over almost 30 years is highlighted by the table below.

% of output from differing fuel sources (GB)						
Year	Coal and others	Gas	Nuclear	Wind, solar and hydro	Biomass	Imports
1990	75.0	0.1	18.8	2.3	0.0	3.8
2019	2.1	38.4	16.8	26.5	8.2	8.0

Source: National Grid

Looking forward, the Energy White Paper 2020 also set out its GB generation projections until 2050 – the tranche allocated to renewables sources is very marked, partly at the expense of gas.

### Electricity mix today and illustrative 2050 mixes



Source: Energy White Paper 2020

### The Energiewende will be key in Germany

This transition to renewable generation is certainly not limited to the UK, as the high-profile German *Energiewende* policy, which also entails a major shift to renewables, illustrates.

## Europe

### Denmark's wind turbine legacy

Indeed, over several decades, renewable power has enjoyed a high profile in Europe, with Denmark's wind generation sector being very much to the fore – a harbinger for the emergence of the REIFs and especially those dependent on onshore wind generation. Indeed, at the end of December 2021, Denmark's two leading wind sector players – Oersted and Vestas – were capitalised at £39.7bn and £22.9bn, respectively; subsequently, both have fallen back markedly.

### Germany's big switch out of nuclear

More recently, Germany has been particularly aggressive in building new wind and solar plants. With the forthcoming close-down of its nuclear power stations, Germany is set to invest heavily in new renewables plants, and especially in offshore wind developments in the Baltic Sea.

## REIFs revisited – a compendium

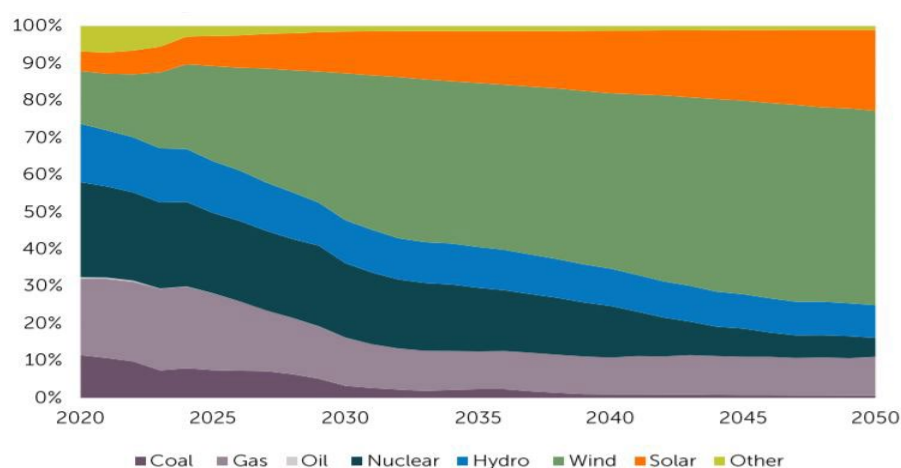
### c.75% renewables by 2050?

The undoubted potential in Europe for renewable generation is highlighted in the chart below, compiled by Bloomberg New Energy. It provides projections until 2050, by which time wind and solar production is expected to account for around three quarters of total European generated output.

### EU opportunities beckon for REIFs

In the expectation of a rapidly expanding EU renewable generation market, many REIFs, most notably TRIG, have already invested in mainland EU countries – and will continue to do so.

#### European power generation mix to 2050



Source: BloombergNEF ("BNEF") New Energy Outlook 2020

Source: Bloomberg New Energy/JLEN September 2020 interim results presentation

### France and others lagging

Investment in wind generation continues to expand in Europe, although some countries are lagging, including France, whose wind power capacity is below one third of the 62.6GW in Germany.

### Germany, the comfortable leader

The table below shows the 2020 wind power capacity for the leading 10 EU/ex EU countries. Irrespective of Brexit, the UK is included in this analysis. Germany, by some way, hosts the largest capacity, with Spain in second place.

#### European wind capacity, 2020

Country	Capacity (GW)
Germany	62.6
Spain	27.3
United Kingdom	24.2
France	17.9
Italy	10.9
Sweden	10.0
Netherlands	6.8
Poland	6.6
Denmark	6.2
Portugal	5.9

Source: Hardman & Co Research

### Germany to the fore in solar capacity

On the solar front, capacity in Europe has grown solidly in recent years, especially – as might be expected – in Italy and Spain. The table below shows solar capacity for the 10 largest EU/ex-EU markets; data from the UK is also included.



### European solar generation capacity, 2020

Country	Capacity (GW)
Germany	53.8
Italy	21.6
Spain	14.1
United Kingdom	13.6
France	11.7
Netherlands	10.2
Turkey	6.7
Belgium	5.7
Ukraine	5.4
Poland	3.9

Source: Hardman & Co Research

## UK renewable generation developments

### Seven renewable technologies

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

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

### Mixed progress

The progress of this septet in recent years in supplementing UK fossil fuel and nuclear output has been mixed. The following snapshots provide an up-to-date summary of the progress, or lack of progress, for each potential renewable source in the UK.

- ▶ Wind (onshore) – provides the bedrock for the UK's transition to renewable energy.
- ▶ Wind (offshore) – the great hope for the coming decades, with a planned quadrupling of UK capacity by 2030.
- ▶ Solar – this has been expanded recently in the south and centre of England, underpinned by very generous subsidies and much lower unit costs.
- ▶ Hydro – has been well-established in Scotland for generations, but few suitable sites remain for major hydro-projects.
- ▶ Marine (tidal/wave) – despite many trials and studies, this has not taken off in the UK; projects, including various iterations of the Severn Barrage, are stalled, owing mainly to high costs.
- ▶ Biomass – dominated by the Drax fuel conversion initiatives, with their enormous subsidies.
- ▶ Geothermal – unlike Iceland, the geology is – apparently – lacking for viable geothermal projects in the UK.
- ▶ Fuel cells – some progress has been made, with Ceres Power being to the fore.

## REIFs revisited – a compendium

### Big Six key to renewables development

Over the last decades, it was subsidiaries of the so-called “Big Six” generators – Centrica, SSE, E.On, RWE, EdF and Iberdrola – that were at the forefront of developing renewables in the UK.

While SSE inherited a valuable portfolio of well-established hydro-power plants at flotation in 1991, the two German utilities, E.On and RWE, were most prominent in backing renewables technology. More recently, the Iberdrola-owned ScottishPower has been a notable investor in onshore wind plants in Scotland.

### Opportunities open up

It is now clear, as the onshore and offshore wind sector, along with the solar sector, develop further, that there are obvious opportunities for the 22 REIFs and for other companies that pursue the IPO route to secure equity for renewables investment.

### *Onshore wind*

### The Airtricity story

Some years ago, outside the “Big Six”, various smaller renewable generators began to emerge. From a standing start in rural parts of the Republic of Ireland (RoI), Airtricity grew aggressively. Indeed, from distinctly humble beginnings in 1997, its value soared, and it was eventually split up and sold, a decade or so later, to E.On and SSE, for c.£1.5bn – a clear example of serious shareholder value creation.

Indeed, Airtricity can be justly seen as the forerunner of the 22 REIFs, and especially of those wind-power generators whose capacity has increased progressively in recent years.

### Onshore wind a key renewable source

Undoubtedly, onshore wind has been the key renewable source in the UK: total onshore wind capacity now exceeds 14GW. 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.

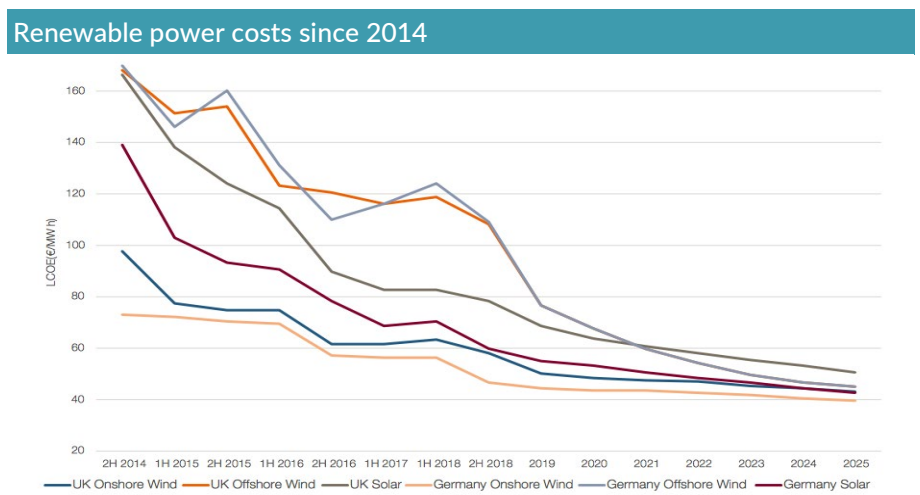
### *Offshore wind*

### Sea-change in North Sea

Offshore wind development is set to be a major growth area, with a sea change in costs, far larger turbines and minimal environmental concerns – the Energy White Paper 2020 was unequivocal in its support.

### Costs plummet

On the cost front, offshore wind generation has performed extremely well, as the graph below – compiled by IRENA – shows. It focuses on the very sharp falls in generation costs since 2014 for both onshore and offshore wind, as well as for solar, in both the UK and Germany.



## REIFs revisited – a compendium

### Offshore at <£40 per MWh, vs. >£90 per MWh for nuclear from Hinkley Point C

Unquestionably, the massive fall in costs of offshore wind power has provided the kick-starter for offshore wind developments.

To be sure, the 2019 Dogger Bank winning bid of £39.65p per MWh (2012 prices) compares very favourably with the 35-year £92.50 per MWh (2012 prices) CfD for the controversial – and desperately expensive – Hinkley Point C new nuclear plant.

Given the cost factor, a key driver behind the Energy White Paper 2020 target of 40GW of offshore wind power by 2030, it seems inevitable that the government, whether Conservative or Labour, will focus on rolling out offshore wind projects; the politics of doing so are very straightforward when set against controversial – and financially very challenging – new nuclear-build.

### UK leads Europe's offshore wind sector

Importantly, from a financial point of view, far larger turbines are installed in the North Sea offshore wind sector than is the case for onshore generation. By way of example, the massive Siemens SG 14-222DD, which is depicted below, has a rotor diameter of no less than 222 metres.

### Size matters – Siemens' 222 metre diameter turbine



Source: Gamesa Siemens

### Solar

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. Bluefield Solar now has 613MW of UK solar capacity under management, which accounts for c.5% of the UK's utility-scale solar photovoltaic (PV) capacity.

### Sharp rise in UK solar investment until 2017

Indeed, total UK solar capacity now amounts to c.14GW, with heavy investment having been undertaken prior to 2017, when the renewable energy subsidy regimes were particularly enticing for discerning investors. Significantly, in its 1H21/22 results, Foresight Solar confirmed that "approximately 56% of (its) revenues were derived from subsidies".

The closure of the RO regime for new plants in 2017 has – not surprisingly – dampened the financial attractions of subsequent solar investment projects, but a handful of unsubsidised solar plants, including NextEnergy Solar's 50MW installation at Staughton in Bedfordshire, have been built.

## REIFs revisited – a compendium

21/04/17 – King Coal ousted

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

### Established UK renewable generators

“Big Six” player

Clearly, the activities and the investment of the “Big Six” has had an important impact on the development of UK generation, and especially in terms of renewable power.

Aside from other major EU players, including the two Danish companies – Oersted and Vestas – and the publicly owned Vattenfall of Sweden, SSE has pioneered renewable generation. SSE was floated, along with the now Iberdrola-owned ScottishPower, in 1991. As part of its privatisation, the then Scottish Hydro Electric (now SSE) inherited a portfolio of hydro-power assets, which it still retains – these plants have been solid generators of low-cost revenues in the intervening 30 years.

SSE's role in building out renewables in the UK

Furthermore, over the last two decades, SSE has undertaken heavy investment in the wind generation sector, which has proven to be particularly successful in Scotland, where wind levels are generally higher – and more consistent – than is the case in the south of England.

The template for many REIFs?

As such, SSE offers a template, around which the UK renewable energy sector may develop; it can also serve as a credible valuation comparator for wind and hydro-generating businesses. To be sure, SSE – in terms of both its hydro-power asset portfolio and its abundant sites for renewable power generation – has enjoyed a major advantage through its pre-privatisation legacy, especially when compared with its startup competitors, which include all 22 REIFs.

EV components

The table below provides a breakdown of SSE's renewable assets in terms of capacity, which totals almost 4,000MW. Annual revenues in 2019/20 from this segment of SSE's business were £826m.

SSE renewable plant data	
	Capacity (MW)
Onshore wind (GB)	1,285
Onshore wind (NI)	122
Onshore wind (RoI)	567
Offshore wind	487
Hydro	1,159
Pumped storage	300
<b>Total</b>	<b>3,920</b>

Source: SSE

Biomass – and its vast subsidies

At the flotation of National Power in 1991, its largest asset was its coal-fired plant at Drax. In recent years, four of its 660MW coal-fired units have been converted to biomass fuelling. As such, the Drax Group, which is currently capitalised at £2.4bn, is, by far, the largest recipient of biomass subsidies. Indeed, the Ember climate and energy think tank has calculated that Drax will have received c.£10bn (at 2019 prices) of taxpayer subsidies – comprising Renewables Obligation Certificates (ROC) payments and CfDs – by 2027.

## REIFs revisited – a compendium

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### One-time world record holder based on capacity

Drax Group's key asset is its eponymous power station, which – as a coal-fired plant – boasted a 3,960MW nameplate capacity; at one time, this was the highest worldwide. Originally privatised in 1991 as a core plant within National Power's portfolio, it has subsequently undergone several changes of ownership.

### Four of six units converted

Major changes have also occurred at the operating front, as Drax has been progressively converting its six 660MW units from coal-firing to biomass. At present, four such units have been converted and are operational; conversion of the remaining two to biomass fuelling seems unlikely.

## Renewable energy infrastructure funds (REIFs)

In our analysis of the REIFs, we focus specifically on the four most valuable REIFs, with market capitalisations of over £750m. Included in this grouping are TRIG, Greencoat UK Wind, SEEIT and the Irish-based Greencoat Renewables.

### The JLEN renewables template

Also assessed, despite its market value being below our £750m threshold, is the renewable generation portfolio operated by JLEN, which arguably provides a portfolio template for a typical REIF. JLEN is UK-based, but it has some minor interests – for the moment at least – in mainland Europe and a focus on onshore wind and solar generation, along with some smaller investments in other renewables technology.

There are two quoted REIFs, namely TRIG and Greencoat UK Wind, where UK wind output is pivotal in determining their cash generation and share rating. In total, this duo accounts for c.45% of the 22 REIFs' total market capitalisation.

### Greencoat UK Wind (market cap. £3,267m)



Greencoat UK Wind, as its name implies, focuses exclusively on the UK wind sector, in which it is heavily invested. Its capacity was recently confirmed as being 1,209MW; it will soon reach 1,422MW, once the Windy Rig and Glen Kyllachy wind plants in Scotland are included. 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”.
- ▶ 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”.

In terms of its financial performance since 2013, the figures are impressive – until quite recently – as demonstrated by the table below.

#### 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%
2019	2,385	127.7	6.94	1.4	2.2%	-1.4%
2020	2,952	145.2	7.10	1.3	1.2%	0.6%

Source: Greencoat UK Wind

The key to paying Greencoat UK Wind's dividends is its leading wind-generating plants in Scotland, notably the Clyde wind farm in which Greencoat UK Wind has capacity of over 147MW. Recently, Greencoat UK Wind has been investing in larger projects than previously, notably its 25% stake in Walney and its 37.8% stake in Humber Gateway; its capacity share of these two projects is 92MW and 83MW, respectively, and they will become increasingly important in generating revenues.



## REIFs revisited – a compendium

### South Kyle is large – and unsubsidised

Furthermore, once it has been built, it aims to invest £320m in the 235MW South Kyle wind farm in southwest Scotland; the project has been subject to some delays. Given its considerable size and that it will be a subsidy-free project, investors will be carefully analysing its financial returns.

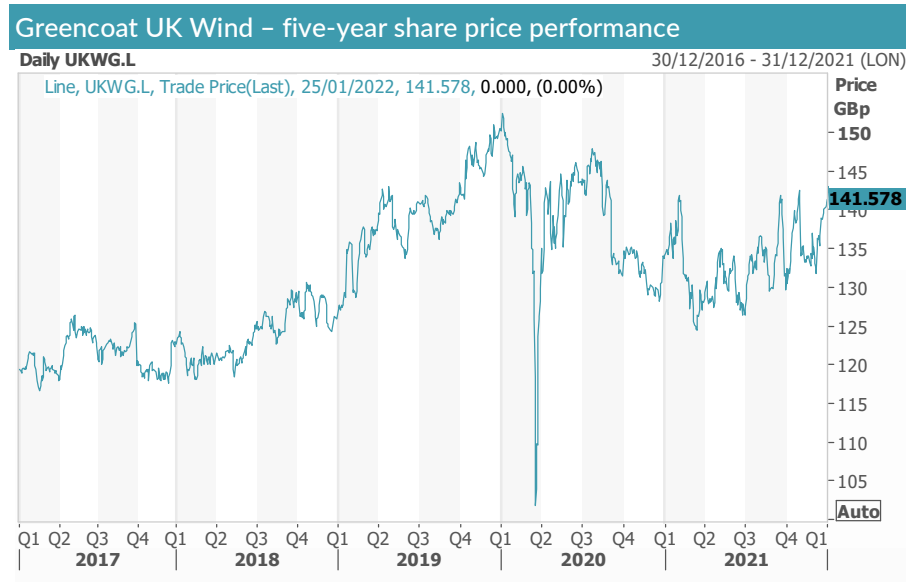
### Greencoat UK Wind is sector bellwether

Greencoat UK Wind's five-year share price performance chart shows a solid rise in its share price – until the recent long-term, power price-driven levelling off, which has held back its NAV growth: NAV per share at end-September 2021 was 129.0p per share.

### Impressive £450m fundraise

Importantly, too, in November 2021, Greencoat UK Wind was successful in raising gross proceeds of £450m at a modest discount of c.6% to its prevailing share price.

Furthermore, shareholder returns have been boosted by an annual RPI-adjusted dividend increase. While the 2021 payment is due to be 7.18p per share, the 2022 dividend is expected to be 7.72p per share. Few larger REIFs can match these achievements.



Source: Refinitiv

### TRIG (market cap. £3,036m)

Greencoat UK Wind and TRIG have alternated in the role of being the most valuable REIF in recent years. Undoubtedly, though, TRIG has a greater international reach; its latest capacity figure is 1,941MW, over 90% of which are wind generation assets.



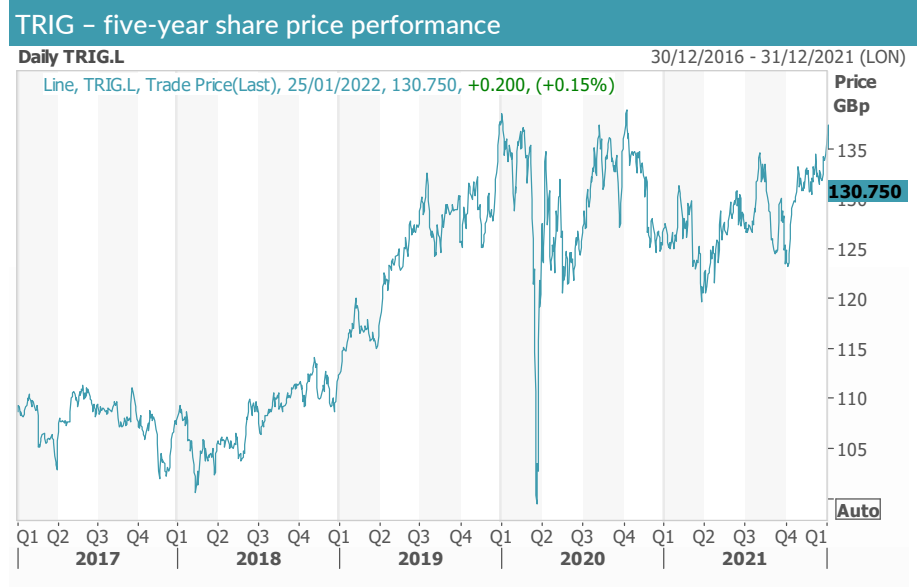
TRIG's recent international expansion has seen it acquire full ownership of the 213MW Jdraas onshore wind plant. Importantly, too, TRIG has acquired a 25% stake in the 330MW Gode 1 offshore wind project, which is located off the German coast in the North Sea. TRIG is widely expected to make further investments in offshore wind in both the Baltic Sea and the North Sea.

### TRIG's twin aims

Overall, TRIG's two key aims are:

- ▶ To provide investors with long-term stable dividends, while preserving the capital value of its investment portfolio.
- ▶ To invest in a diversified portfolio of renewable energy infrastructure assets in the UK and northern Europe, with a focus on operating assets. Realising TRIG's European aspirations has been facilitated by the approval to raise the threshold to 65% for permissible investment outside the UK.

The chart below underlines the success of TRIG’s investment policy, with a solid rise in its share price – despite the COVID-19-induced chasm in March 2020 – over the past five years.



Source: Refinitiv

TRIG’s recent acquisitions, notably in northern Europe, have certainly raised its international profile. Arguably, too, its overall risk profile has risen through its exposure to the Swedish market, where wholesale prices are generally below-average.

**Dividend to be held**

TRIG’s 2021/22 half-year results were adversely affected by wind volumes that were well below budget. Three key onshore wind markets, the UK, Ireland and Germany, each saw shortfalls of between 17% and 20%. While NAV per share was down slightly, at 114.3p per share, compared with 115.3p per share at December 2020, dividend cover has come under sustained pressure – TRIG’s dividend is set to be held at 6.76p per share for 2021/22.



*SEEIT (market cap. £1,057m)*

SEEIT’s focus is primarily on the US and, to a lesser extent, on EU energy markets, and it has been very active in seeking out – and investing in – deals that meet its investment criteria and that are slanted towards promoting energy efficiency. The US is SEEIT’s key market, accounting for over 50% of its project exposure.

**Industrial US is key market**

Having developed its seed capital portfolio, which consisted mainly of Combined Heat and Power (CHP) investments, SEEIT has announced many subsequent acquisitions. In the US, it has now secured full ownership of Primary Energy, which comprises five co-generation projects within the US steel industry; in total, these represent c.20% of the portfolio. Importantly, SEEIT has acquired the district energy system based around the very large Eastman Industrial Park in Rochester, New York. Elsewhere in the US, it operates – via ONYX – a solar generation and energy storage business, with 70 off-takers on more than 200 sites.

## REIFs revisited – a compendium

Equity raise, then acquisition, then another equity raise

In Europe, SEEIT has invested £107m in Vartan Gas, whose main subsidiaries are Gasnatet, a Swedish gas distribution business, and Stockholm Gas; these businesses account for c.10% of SEEIT's overall portfolio. Previously, it had bought a 125MW co-generation portfolio in Spain, comprising five CHP plants, two olive-processing plants and two biomass plants.

Having raised £100m (gross) in December 2018, SEEIT has undertaken several equity raises subsequently. In total, including its IPO fundraise, it has secured over £850m of new equity. Compared with other REIFs, such as Triple Point Energy Efficiency, SEEIT's investment policy has been notably aggressive – despite total debt at September 2021 of £330m. Given a pipeline of potential new investments of c.£500m, this stance seems set to persist, providing it continues to receive strong support from its shareholders.

Recently, SEEIT announced some growth in its NAV – up to 104.5p per share, compared with 102.5p at March 2021 – and reconfirmed its full-year 2021/22 dividend target of 5.62p per share.

### *Greencoat Renewables (market cap. £830m)*



The Rol-based Greencoat Renewables undertook its IPO in 2017. Its shares are €-denominated and, since its IPO, they have performed creditably, on the back of secure wind-generated earnings.

Big player in Rol wind market

Wind generation in Rol, which accounts for most of its total 686MW of capacity, remains its core business – it does not operate in Northern Ireland (NI). Greencoat Renewables has now completed its acquisition of the County Kerry-based 90MW Cordal wind farm.

Greencoat Renewables' ambitions lie beyond Rol

Greencoat Renewables has also sought to invest overseas, with the Nordic Region being a favoured market, along with Germany and France. In the case of the latter, it has already invested in the wind sector there, and now owns 52MW of capacity.

In December 2020, Greencoat Renewables raised gross proceeds of €125m, which will help finance future deals. In coming years, it seems very likely that further mainland Europe wind generation investments will be undertaken by Greencoat Renewables – and, most likely, in northern European countries, where wind conditions are more favourable. The acquisition of the 43MW wind plant at Kokkoneva in Finland, due to be commissioned in 2Q22, may be the first of many such deals.

On the financial front, Greencoat Renewables' NAV was confirmed as c1.01 per share in its 2021 half-year results, up by 2.1% on the March 2021 figure; its latest NAV figure, as at September 2021, is c101.4 per share. In terms of its 2021 full-year dividend, Greencoat Renewables is expected to pay a dividend of 5.10p (c6.06) per share, with a somewhat modest increase in 2022.



Out of the John Laing stable

### *JLEN (market cap. £631m)*

Apart from TRIG and Greencoat UK Wind, JLEN (formerly John Laing Environment Fund), which was floated in March 2014 out of the eponymous housebuilder, has the largest wind capacity of the remaining REIFs. Indeed, its portfolio, which is set out below, provides the template for a renewable energy startup business, at least in securing diversification across the renewables sector; the percentages represent the ascribed value.

JLEN – generation portfolio	
Resource	Capacity (MW)
Wind – 29%	169
Waste/wastewater – 25%	68
Anaerobic digestion – 24%	50
Solar – 18%	80
Hydro – 2%	4

Source: JLEN

Currently, JLEN has capacity of 371MW, 169MW of which is onshore wind, with all its plants – save for a small portfolio in France that is due to be sold shortly – being in the UK. JLEN also owns six solar plants, with a capacity of 80MW, all of which are UK-located.

#### AD focus

Exceptionally, among the other REIFs, JLEN is well-invested in Anaerobic Digestion (AD) facilities, with a UK capacity of 50MW. To date, these AD plants have earned good returns, since plant revenues are underpinned by payments from the Heat Incentive Scheme.

#### Recent power price increases boost NAV

In terms of its NAV, JLEN reported a sharp increase from the depressed level of 92.2p at its March 2021 half-year: the September 2021 NAV, which was boosted by higher power price assumptions, was 98.4p per share. Even so, JLEN's dividend cover remains very thin – the latest figure is just 1.1x. For 2021/22, the dividend looks likely to rise, modestly, to 6.80p share.

#### JLEN taps the market

In an initiative to improve its finances – and to fund further investment – JLEN has just announced its intention to undertake a c.£61m fundraise, with up to 60.4m new shares being issued at 101p – a small discount to the current price.

Looking forward, JLEN, in common with other REIFs, is struggling to find renewable energy projects that can achieve its desired financial returns commensurate with assuming the appropriate risks. Central to this search is Foresight Group, which is now the Investment Adviser to JLEN.

#### The UK's three major solar players

The UK quoted solar generation sector is dominated by three REIFs – Bluefield Solar, NextEnergy Solar and Foresight Solar. All currently have a market capitalisation of c.£600m. As such, this trio is ideal as a sector benchmark for unquoted solar generation portfolios, especially in terms of assessing underlying value.



#### NextEnergy Solar – (market cap. £596m)

NextEnergy Solar undertook its IPO in April 2014. At the time, longer-term energy price projections were considerably higher than has been the case in recent years. Nevertheless, NextEnergy Solar has progressed, although – with the end of subsidies for new solar capacity as from 2017 – the last four years have been more challenging: both its share price and its dividend growth expectations have receded.

#### The challenge of unsubsidised solar

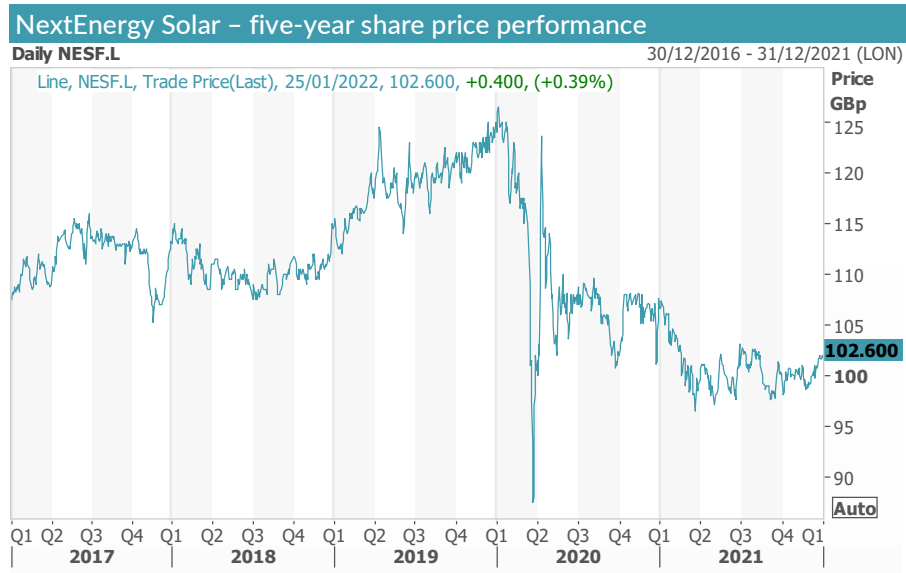
Currently, NextEnergy Solar owns renewable generation capacity, as at September 2021, of 895MW. More than 95% of its capacity is in the UK, with the remainder sited in Italy. Despite the end of the RO for new solar plants in 2017, NextEnergy Solar is continuing to build new solar capacity. In time, it seeks to build up to 150MW of new solar capacity, 50MW of which relates to the now commissioned Staughton plant.

Low dividend cover, which is holding back NextEnergy Solar's plans to deliver decent dividend growth, is one adverse factor. For 2021/22, NextEnergy Solar's dividend is expected to be held at 7.16p per share.

## REIFs revisited – a compendium

### Still to achieve pre-COVID-19 rating

The chart below shows how NextEnergy Solar's share price has performed over the past five years. Unlike some other REIFs, its share price remains well below its pre-COVID-19 rating in early 2020.



Source: Refinitiv



### Has outperformed its two closest comparators

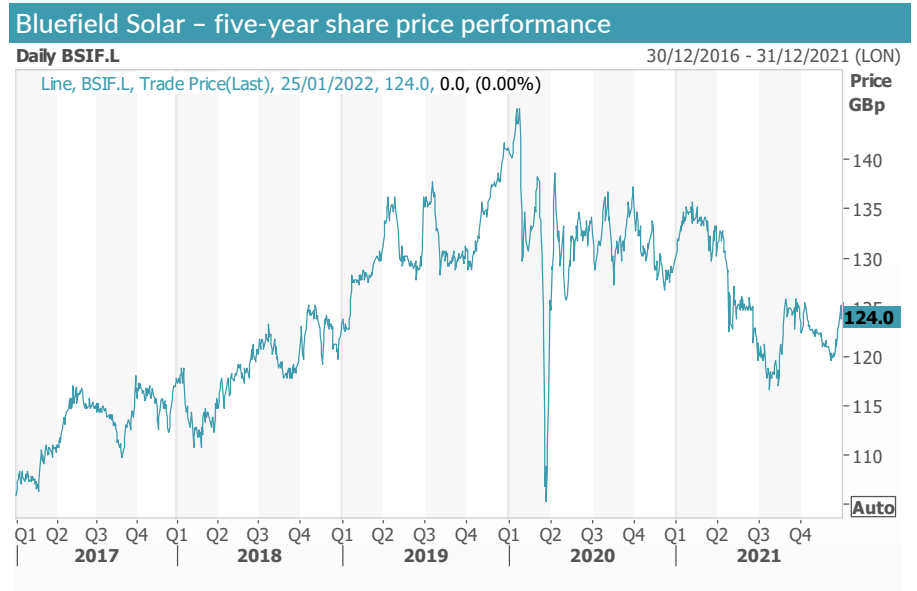
#### Bluefield Solar (market cap. £615m)

Bluefield Solar is a somewhat older member of the quoted REIF sector, having undertaken its IPO in July 2013. Its focus is entirely on the UK, and it derives considerable benefit from the various subsidies applicable to solar plants built prior to 2017. As such, its latest NAV of 117.2p per share demonstrates its resilience when set alongside its two closest comparators – NextEnergy Solar and Foresight Solar.

Following the acquisition of a portfolio of small wind plants – its first move outside the solar sector – Bluefield Solar's latest capacity figure is 623MW: it will rise shortly following the 47MW asset purchase from Good Energy. The entire portfolio is based in – and is dependent upon – the UK.

At its June 2020/21 year-end, Bluefield Solar's NAV was 115.8p per share, down from 117.0p per share at June 2020. Its dividend outlook – 8.12p per share for 2021/22 – is relatively robust, certainly when compared with the dividends of NextEnergy Solar and Foresight Solar, and it underpins its share price rating.

Bluefield Solar’s shares have rallied since the COVID-19-instigated market plunge in March 2020, as its five-year share price graph highlights.



Source: Refinitiv

Australian and Spanish investments

*Foresight Solar (market cap. £616m)*

The third quoted solar generation REIF, Foresight Solar, is somewhat different, in that 146MW of its 1,019MW capacity is located in Australia, where there have been prolonged and divisive debates about the merits of financing renewable generation projects; Foresight Solar’s Australian capacity is due to increase early in 2022. It has also acquired a 125MW solar plant portfolio in southern Spain.



Nevertheless, Foresight Solar’s core business remains in the UK, where it operates solar plants with a capacity of 748MW. Like other REIFs, Foresight Solar has weathered the COVID-19 pandemic without undue alarm, but its shares have performed sluggishly of late, due partly to lower power price forecasts. In consequence, its NAV growth has been depressed. At June 2021, its NAV was 98.0p per share, compared with 95.8p per share at December 2020; however, Foresight Solar’s NAV, as at September 2021, had risen to 104.1p per share. Nevertheless, concerns about Foresight Solar’s thin dividend cover abide. For 2021, a dividend of 6.98p per share is anticipated, along with a payment of 7.10p per share for 2022.

Changes afoot?

Looking ahead, changes may be afoot, as Foresight Solar’s former parent company, Foresight Group, whose interests extend well beyond the former’s core renewable energy sector, undertook an IPO in February 2020.

REIF sector’s biggest guns

Undoubtedly, the three largest UK-quoted wind generators – including the Irish-based Greencoat Renewables – and the three solar generators form the backbone of the quoted REIF sector, which now comprises a membership of 22 funds. In market capitalisation terms, these six REIFs account for c.65% of the sector’s overall value.

In comparing their portfolios, the three quoted pure solar companies – Bluefield Solar, NextEnergy Solar and Foresight Solar – are included in the table below, along with Greencoat UK Wind, TRIG and JLEN. Plant capacity levels of these six REIFs are also shown in the table.

UK solar and wind data				
REIF	Installed capacity (MW)	UK	Solar	Wind
Bluefield Solar	623	100%	98%	2%
Foresight Solar	1,019	73%	100%	0%
Greencoat UK Wind	1,209	100%	0%	100%
JLEN	372	95%	18%	29%
NextEnergy Solar	895	96%	100%	0%
TRIG	1,941	60%	9%	91%

Source: Hardman & Co Research

## Defensive earnings

Dire share price performance among the “Big Six” since 2009

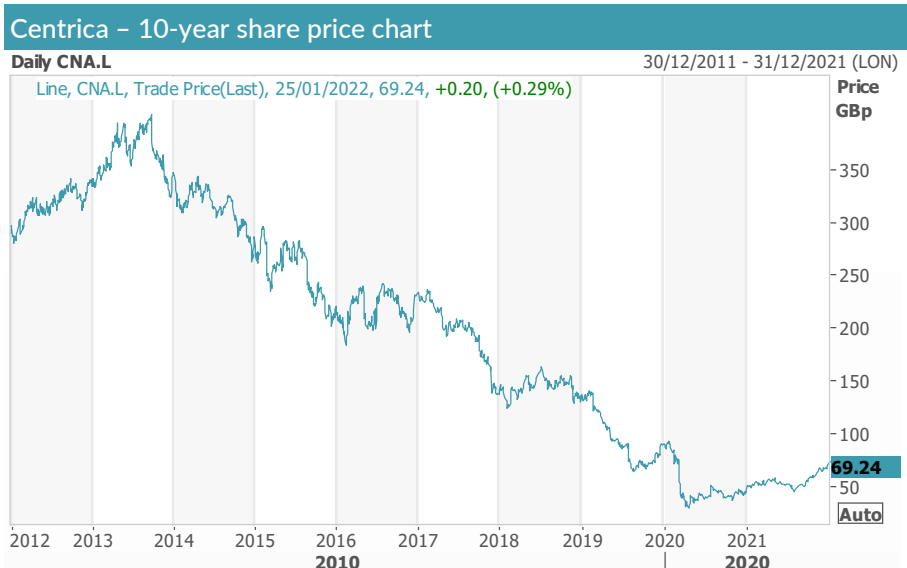
While the share price rating of SSE remains robust, despite a dividend cut, long-term investors in the UK’s leading gas utility, Centrica, are unlikely to have prospered. Furthermore, had they invested, before the financial crisis of 2008/09, in the four other members of the “Big Six”, and especially in EdF, E.On and RWE, they would have probably incurred significant losses – certainly until 2017. Like SSE of late, shares in the renewable generation-orientated Iberdrola have performed far better.

Shell’s historical dividend cut – the first since WW2

More generally, Shell’s virtually unprecedented 67% dividend cut – its first since WW2 – in 2020 has had major ramifications on income funds; moreover, other major FTSE 100 stocks have also cut – or re-based – their dividends. While Shell has recently increased its re-based dividend payments, they remain well short of the 2019 levels.

Centrica’s shares tumble

The share price performance of Centrica – the UK’s leading gas business – is set out below. Unquestionably, its performance has been profoundly disappointing, as was demonstrated in its full-year results for 2020. Despite a recent rally, as almost 30 small energy suppliers have exited the market on the back of surging gas prices, Centrica’s shares have still lost c.80% of their value since early 2013.

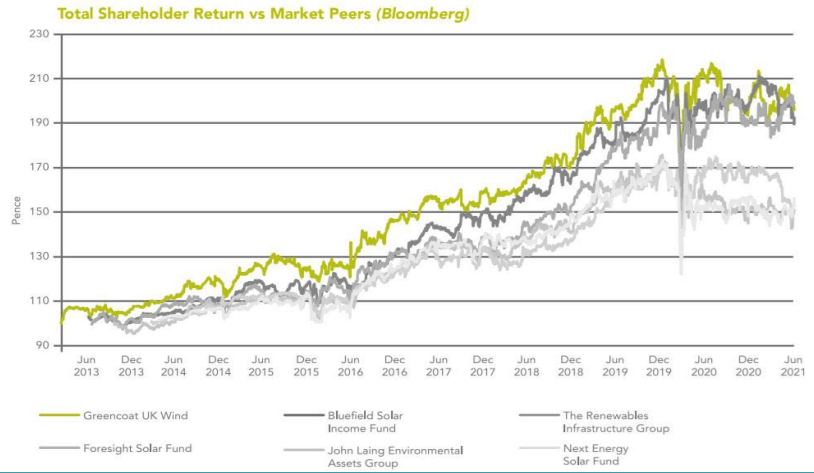


Source: Hardman & Co Research

By comparison with Centrica’s woes, the impressive REIF share price performance is illustrated, over an extended time frame, by a chart compiled by Greencoat UK Wind, which shows the TSR, since 2013, from the leading wind and solar generators, six of which make up the group of 22 REIFs that are currently under review. The data show strong outperformance in 2018, along with the – now familiar – COVID-19 chasm in March 2020, as many investors panicked. Subsequently, though, REIF share prices have rallied.



Shareholder returns of leading REIFs since 2013



Source: Greencoat UK Wind

# Issues surrounding IICs and REIFs

## Benefits for investors

### Many tangible benefits

At a political level, infrastructure investment remains a top priority, with persistent demands to build out a new high-speed broadband network, all the more so in the light of the COVID-19 pandemic, which highlighted the benefits of the online economy. This represents a vast challenge for British Telecom, with crucial financial decisions centering around the allowed returns on its planned broadband rollout. Other broadband companies, such as Vodafone and CityFibre, face similar decisions.

In fact, infrastructure investment, despite the COVID-19-driven hiatus, is prospering, especially on the back of both private equity and of the 31 quoted IICs and REIFs.

### HICL's wide-ranging portfolio

The two largest quoted IICs are HICL Infrastructure and 3i Infrastructure. HICL Infrastructure, with over 100 investments, many of which are in the UK, invests across many sectors; for example, its portfolio ranges from a 33.2% stake in Affinity, a water company, to its investment in the A63 motorway in France. Due to its shareholdings in some demand-based transport businesses, HICL did incur some losses from COVID-19, which adversely affected revenues.

### 3i Infrastructure and BBGI outperform on the TSR front

3i Infrastructure, whose shares have prospered over the last two years, concentrates on its c.20 investments, some of which are telecoms-related. Others, such as BBGI, have focused on roads, bridges and health facilities, and – on the back of a portfolio of high-quality public sector contracts – have delivered impressive annual returns since their IPOs – 3i Infrastructure at 12.4% per year since 2007 and BBGI at 10.8% per year since 2011.

### INPP and Cadent Gas

Within the portfolios of the nine quoted IICs are various energy assets. HICL Infrastructure has stakes in offshore energy transmission companies, while GCP Infrastructure has stakes in a portfolio of renewable energy assets, mainly wind generation plants. Its NAV was adversely affected by lower power price projections in 2020. INPP's key energy stake is its shareholding (16.5%, based on investment FV) in Cadent, a spinoff from BG's gas distribution portfolio that remains heavily price-regulated.

More specifically, investor exposure to IICs and REIFs offers several benefits, although the sector inevitably remains subject to certain risks.

Aside from standard defensive earnings characteristics, there are other benefits for IIC and REIF investors; they include:

- ▶ Good shareholder returns, with some REIFs reporting – until recently – total returns of up to 9% per year over a five-year period. Undoubtedly, these are reassuring figures, given all the uncertainties, including those relating to inflation/interest rates, which continue to dominate financial markets.
- ▶ As part of TSRs, the payment of decent dividends, and likely – although quite modest – share price growth, with IIC and REIF share price ratings being boosted by the relative security of their earnings.
- ▶ Relatively low exposure – excepting demand-based transport assets – to the commercial environment, and, therefore, a reduced risk of a serious revenue shortfall. This is an issue that has come to the fore in the COVID-19-stricken leisure sector.

- ▶ Lengthy concessions for some IICs, while leading REIF generators benefit from Purchase Power Agreement (PPA) contracts of up to 25 years' duration, which are likely to become increasingly valuable if long-term power prices remain high.

## Risks for investors

### COVID-19 – a very left-field risk prior to 2020

The current COVID-19 pandemic was a risk that few investors would have foreseen or factored in prior to 2020, although its impact on IIC and REIF valuations – compared with, for example, the leisure sector – has been relatively minor. To be sure, some demand-based transport assets have caused material revenue shortfalls, but, otherwise, the infrastructure sector's share price ratings have remained relatively robust.

### British Energy – a dotcom stock

As the list below indicates, IICs and REIFs are exposed to many risks, virtually all of which should be eminently manageable – there is no British Energy-type scenario, where shares in the privatised nuclear generator were increasingly regarded as a *quasi* dotcom stock: when wholesale energy prices fell sharply, British Energy duly went bust.

### Single technology risk

Nevertheless, those 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 pre-2017 UK solar subsidies, although very unlikely, would be a case in point.

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

- ▶ Weak power prices: in most cases, wind and solar generators are largely protected via PPAs, but lower long-term power price projections depress NAVs – the NAVs of both Greencoat UK Wind and TRIG were adversely affected by reduced long-term power prices in 2020.
- ▶ Inadequate wind resource: over a long period, wind speeds have been quite predictable, although they can vary significantly on a year-to-year basis, as was the case in 2021.
- ▶ Poor irradiation figures: historically, long-term irradiation figures have also been quite predictable; furthermore, extensive plant portfolios across many sites mitigate this risk.
- ▶ 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, the phasing out of the RO was not applied on a retrospective basis.
- ▶ Subsidy disaggregation: the recent surge in spot gas prices has brought forth many proposals to mitigate the consumer impact of very marked price increases. In particular, disaggregating the sizeable subsidy component from REIFs' selling prices and reallocating it to other public expenditure programmes – as suggested in some quarters – could be potentially damaging for REIF investors, unless it were revenue-neutral.
- ▶ Inadequate returns from unsubsidised new-build plants: this challenge will become an increasingly important feature of UK onshore wind and solar portfolios – a risk to which NextEnergy Solar is particularly exposed.
- ▶ Counterparty risk: leading IICs recognise the importance of reliable and financially strong counterparties. The collapse of Carillion in 2018, and its impact on HICL Infrastructure's cashflow, highlights this risk. Most renewable generators are less exposed in this respect – with PPAs and CfDs providing strong protection.

- ▶ Revenue shortfalls from demand-based, transport-related assets: the revenue streams of both HICL Infrastructure and INPP were adversely affected by this factor during the COVID-19 pandemic.
- ▶ Missing NAV targets: falling short of NAV targets, for whatever reason, may well adversely affect an IIC or a REIF's share price, especially if investors believe such a shortfall is not a one-off event and may have a negative impact on future dividend flows.
- ▶ Low dividend cover: some IICs and REIFs are now reporting very thin dividend covers, which has led to some dividend payments being held – none of GCP Infrastructure, HICL Infrastructure, NextEnergy Solar or TRIG expect to increase their dividends, even in nominal terms, for 2021.
- ▶ Rising UK inflation/higher interest rates: while some inflation will probably boost NAVs, any appreciable rise in interest rates would be negative, especially for the more highly geared IICs and REIFs; it would also place upward pressure on the chosen discount rate and, therefore, on NAVs.
- ▶ Tax changes: as with every business, tax changes can have an adverse impact – the UK Finance Act 2017 restricting tax relief on borrowing to 30% of EBITDA, along with the recent Corporation Tax increases being examples.
- ▶ Exchange rates: many IICs and REIFs, including 3i Infrastructure, BBGI, SEEIT and TRIG, along with other overseas-based IICs and REIFs, such as Sequoia Economic Infrastructure, are materially exposed to exchange rate movements; hedging is widely employed to mitigate these risks.
- ▶ Revised financial assumptions: assessing the NAVs of individual IICs and REIFs is not a precise art, with key decisions being made on the chosen discount rate – different figures are used, based on different criteria – and whether recent market transactions should materially affect individual NAV calculations.
- ▶ Political machinations: historically, PPP/PFI arrangements and the utilities sector have been very sensitive to political changes; however, following the decisive 80-seat majority achieved by the Conservative Party in the December 2019 General Election, this risk element has fallen away sharply over the last two years – but it may resurface.

## Fundraising

Strong primary and secondary markets  
for infrastructure funds

Judging by the table below, which shows that the IICs and REIFs have raised c.£7.8bn of new money since January 2020, many investors seem readily to accept the risk profile. Nine sector IPOs took place in 2021 – three IICs and six REIFs – although there has also been the occasional failure, such as the planned IPO of the Blackfinch Renewables European Income Trust. Importantly, too, many secondary fundraisings have been achieved at a very modest discount to the prevailing share price.

## REIFs revisited – a compendium

Major IIC and REIF fundraises since January 2020				
IICs and REIFs	Date	New shares (m)	Price (p)	Gross proceeds (£m)
3i Infrastructure	n/a	0	n/a	0
Aquila Energy Efficiency	May21	100.0	100	100
Aquila European Renewables	Sep21	87.4	87	76
	Oct20	122.9	87	107
	Mar20	38.1	88	34
Atrato Onsite Energy	Nov21	150.0	100	150
BBGI	Jul21	45.2	166	75
	Nov20	32.5	169	55
	Jul21	89.1	118	105
Bluefield Solar	Nov20	36.5	124	45
	Jun21	185.0 (C shares)	100 (C shares)	185
	Feb21	370.0	100	370
Digital 9 Infrastructure	Sep21	255.8	107	275
	Jun21	166.6	105	175
	Mar21	300.0	100	300
Downing Renewables and Infrastructure	Oct21	14.5	103	15
	Dec20	122.5	100	123
	Dec20	125.0	100	125
Ecofin US Renewables	Dec20	125.0	100	125
Foresight Solar	n/a	0	n/a	0
GCP Infrastructure	n/a	0	n/a	0
Gore Street Energy Storage	Sep21	68.8	107	74
	Apr21	132.3	102	135
	Dec20	60.0	100	60
	Jul20	24.6	96	24
	Feb20	3.6	96	3
Greencoat Renewables	Oct21	148.6	93	139
	Dec20	110.6	95	105
Greencoat UK Wind	Nov21	341.0	132	450
	Feb21	150.9	131	198
	Sep20	305.3	131	400
Gresham House Energy Storage	Jul21	89.3	112	100
	Nov20	114.3	105	120
	Mar20	30.0	104	31
Harmony Energy Income	Nov21	210.0	100	187
HICL Infrastructure	Jul20	73.2	164	120
HydrogenOne Capital Growth	Jul21	107.4	100	107

Source: Hardman & Co

## REIFs revisited – a compendium

Major IIC and REI fundraises since January 2020 (continued)						
IICs and REIFs	Date	New shares (m)	Price (p)	Gross proceeds (£m)		
INPP	Jul20	81.8	165	135		
JLEN	May21	54.7	104	57		
	Feb20	49.7	115	57		
NextEnergy Solar	n/a	0	n/a	0		
Octopus Renewables	Nov21	70.0	105	74		
	Jun21	144.9	104	150		
Pantheon Infrastructure	Nov21	400.0	100	400		
	SEEIT	Sep21	226.2	110	250	
Sequoia Economic Infrastructure	Feb21	150.9	106	160		
	Oct20	100.0	105	105		
	Jun20	105.8	104	110		
ThomasLloyd Energy Impact	Mar21	104.5	105	110		
	TRIG	Feb20	267.9	112	300	
Triple Point Energy Efficiency	Dec21	115.4	74	85		
	US Solar	Sep21	161.3	124	200	
	Victory Hill GESO	Mar21	195.0	123	240	
		Nov20	160.0	125	200	
US Solar	May20	100.0	120	120		
	Oct20	100.0	100	100		
US Solar	May21	132.0	74	98		
Victory Hill GESO	Nov21	69	102	70		
	Feb21	242.6	100	243		
<b>Total</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>7,832</b>		

Note: Overseas currencies have been converted at 31/12/2021 exchange rates; Source: Hardman & Co Research

Much of the activity in the infrastructure sector, which now comprises 31 members, has centred around the entry of new investment funds, with, as mentioned, three IIC IPOs and six REIF IPOs in 2021 alone.

## Current market ratings

Set out below are the latest market ratings for the 31 IICs and REIFs under review. NAV figures are those published for either June 2021 or for September 2021.

### Dividends, yields and NAVs

The tables below covering dividend yields and NAVs show:

- ▶ A market capitalisation for the 31 IICs and REIFs of £29.7bn, split as follows: IICs at £15.5bn and REIFs at £14.2bn.
- ▶ A prospective underlying infrastructure sector dividend yield of between 4.0% and 6.5%, with a few notable outliers, such as 3i Infrastructure, whose prospective dividend yield is far lower.
- ▶ An average NAV infrastructure sector premium of c.9%, with that for BBGI, 3i Infrastructure and TRIG – at 27%, 22% and 17%, respectively – being well ahead of the average, although sector newcomer, HydrogenOne Capital Growth, is also trading at a very healthy premium to its IPO price. Some older, more established funds, such as Foresight Solar and NextEnergy Solar, are currently trading at below their NAV.

NAV data for the nine 2021 IPOs – Aquila Energy Efficiency, Atrato Onsite Energy, Cordiant Digital Infrastructure, Digital 9 Infrastructure, Harmony Energy Income, HydrogenOne Capital Growth, Pantheon Infrastructure, ThomasLloyd Energy Impact and Victory Hill GSEO – are based on Prospectus data and our own estimates.

## REIFs revisited – a compendium

NAV premia range widely – behind  
BBGI's c.27%

The table below shows the NAV data reported by each of the 31 IICs and REIFs – in most cases, June 2021 or September 2021 figures have been used. Where no NAV has been published, a 98p per share figure or equivalent (98% of the gross proceeds amount) has been assumed – this covers several recently floated stocks.

Importantly, consistency on such issues as discount rates, power prices, asset valuations and asset lives remains elusive; this precludes precise read-across comparisons between NAV premia and other valuation tools. Current market yields for the IICs and REIFs, based on our prospective dividends for the coming period, are also set out. Some sector newcomers are expected initially to pay comparatively low dividends, as they build up their portfolios.

UK-quoted IICs and REIFs					
IIC and REIF	Share price (p)	Market cap. (£m)	NAV per share (p)	Prem./Disc. to NAV	Prospective yield
3i Infrastructure	354	3,156	291.2	+21.6%	3.0%
Aquila Energy Efficiency	95	95	98.0	-3.1%	n/a
Aquila European Renewables	84	342	84.8	-0.9%	5.0%
Atrato Onsite Energy	109	164	98.0	+11.2%	n/a
BBGI	176	1,253	137.8	+27.7%	4.2%
Bluefield Solar	124	615	117.2	+5.8%	6.5%
Cordiant Digital Infrastructure	112	666	101.6	+10.6%	2.7%
Digital 9 Infrastructure	114	823	103.3	+11.1%	3.9%
Downing Renewables and Infrastructure	103	141	102.5	+0.5%	3.4%
Ecofin US Renewables Infrastructure (ex \$ to £)	73	92	74.6	-1.8%	2.5%
Foresight Solar	101	616	104.1	-3.0%	6.9%
GCP Infrastructure	108	954	103.9	+3.9%	6.5%
Gore Street Energy Storage	117	404	103.3	+13.3%	6.0%
Greencoat Renewables (ex € to £)	93	830	85.2	+9.4%	5.5%
Greencoat UK Wind	141	3,267	129.0	+9.3%	5.1%
Gresham House Energy Storage	130	569	111.9	+16.2%	5.4%
Harmony Energy Income	100	210	98.0	+2.0%	n/a
HICL Infrastructure	177	3,434	155.4	+13.9%	4.7%
HydrogenOne Capital Growth	119	127	97.5	+22.1%	n/a
INPP	169	2,890	145.1	+16.5%	4.5%
JLEN	105	631	98.4	+6.7%	6.5%
NextEnergy Solar	101	596	103.1	-2.0%	7.1%
Octopus Renewables	110	622	99.2	+10.9%	4.5%
Pantheon Infrastructure	105	420	98.0	+6.9%	n/a
SEEIT	117	1,057	104.5	+12.0%	4.8%
Sequoia Economic Infrastructure	107	1,891	102.9	+4.0%	5.8%
ThomasLloyd Energy Impact (ex \$ to £)	82	94	72.6	+13.1%	n/a
TRIG	134	3,036	114.3	+17.2%	5.0%
Triple Point Energy Efficiency	100	100	94.5	+5.8%	5.5%
US Solar (ex \$ to £)	70	233	70.1	+0.3%	5.8%
Victory Hill GSEO	107	334	99.8	+7.2%	1.2%
<b>Total</b>	<b>n/a</b>	<b>29,662</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>

Note: Based on prices as at 31/12/2021; Source: Bloomberg, Hardman & Co Research

## Valuation issues

NAV movements pivotal for IICs and REIFs

In valuing IICs and REIFs, movements in their NAVs are pivotal. Currently, there are significant premia over NAV for many quoted IICs and REIFs, although this has not always been the case, but their defensive characteristics, especially at a time of economic uncertainty and rising inflation, appeal to many discerning, income-seeking investors.



## REIFs revisited – a compendium

### Back-tracking NAVs

The table below tracks the latest published NAVs for the leading IICs and REIFs, and compares them with those reported almost two years and almost three years previously. The 2021 NAV figures quoted below are based upon the latest published data, namely from either June 2021 or September 2021. With the notable exception of 3i Infrastructure, NAVs have generally been flat or have declined since December 2018, especially in the case of Foresight Solar, GCP Infrastructure, JLEN and NextEnergy Solar, which partly explains – along with the negative dividend implications – their share price underperformance against the sector over the last 18 months.

Historical NAV data of leading IICs and REIFs				
IIC and REIF	NAV at either 06/2021 or 09/2021 (p)	NAV at either 12/2019 or 03/2020 (p)	NAV at either 12/2018 or 03/2019 (p)	Current prem./disc. to 12/2018 or 03/2019 NAV
3i Infrastructure	291.2	254.5	234.7	+24.1%
BBGI	137.8	136.2	133.5	+3.2%
Bluefield Solar	117.2	120.8	114.4	+2.4%
Foresight Solar	104.1	103.8	111.2	-6.4%
GCP Infrastructure	103.9	109.8	112.5	-7.6%
Greencoat Renewables	c101.4	c103.2	c103.4	-1.9%
Greencoat UK Wind	129.0	121.4	123.1	+4.8%
HICL Infrastructure	155.4	152.3	157.5	-1.3%
INPP	145.1	150.6	148.1	-2.0%
JLEN	98.4	97.5	104.7	-6.0%
NextEnergy Solar	103.1	99.0	110.9	-7.0%
Sequoia Economic Infrastructure	102.9	96.7	103.4	-0.5%
TRIG	114.3	115.0	108.9	+5.0%

Source: Hardman & Co Research

### Lack of consistency in determining NAVs

More specifically, in analysing the IICs and REIFs, it is very apparent that there is a pronounced lack of consistency in setting individual fund valuation methodologies. Many of the key valuation tools, such as discount rates, future power price assumptions, inflation projections, asset lives and energy yields, *inter alia*, are – in many cases – inherently subjective.

Nevertheless, several valuation parameters are applied, which have a key influence on the NAV.

The most important are:

- ▶ discount rates;
- ▶ power prices;
- ▶ long-term inflation;
- ▶ asset lives;
- ▶ energy yields; and
- ▶ exchange risk.

While the power price assumptions and energy yield projections do not affect most IICs – GCP Infrastructure is an exception – the prescribed discount rate is a key factor in determining IIC valuations. The most important assumptions are assessed below.

## REIFs revisited – a compendium

### 3i Infrastructure – very much the discount rate outlier

#### Discount rates

The selected discount rate is, of course, key to the overall NAV – and indirectly to the share price rating. As such, investment managers accord a high priority to ensuring that the discount rate applied is appropriate, given the many variables that determine it. While most of the 31 stocks under review use a discount factor of between 6% and 7.5%, the discount rates used by 3i Infrastructure and Gresham House Energy Storage are anomalous: they use discount rates of 10.8% and 10.7%, respectively, which accounts – in part at least – for the marked trading premia over their NAVs.

Some IICs and REIFs accord different discount rates to their overseas assets. NextEnergy Solar, for example, uses a 5.75% discount rate for its unlevered UK assets, 6.75% for its subsidy-free unlevered UK assets and 7.75% for its unlevered Solis portfolio in Italy. The latest weighted average discount rate is 6.3%.

The table below compares the weighted discount rates used by the leading IICs and REIFs – along with some pertinent comments about the discount rate policy that individual IICs and REIFs have adopted. For various reasons, direct “read-across” analysis between the various discount rates and the valuation methodologies used by the leading IICs and REIFs, while not precluding some valid comparisons, is potentially misleading.

### Comparable discount rates

Discount rates of IICs and REIFs		
IIC/REIF	Blended discount rate	Comment
3i Infrastructure	10.8%	A serious outlier, but higher risks apply.
BBGI	6.56%	Gradual reduction of late, as the portfolio is almost exclusively low-risk, availability-based assets.
Bluefield Solar	6.00%	Was 7.18% at 06/2019; some upward adjustments for assets of 30 years+.
Digital 9 Infrastructure	8.9% to 12.6%	A wide range, which may be compressed as more assets are acquired.
Foresight Solar	6.71%	6.50% for levered UK assets, 7.50% for projected revenues after 25 years; Australian plants discounted at 8.41%.
GCP Infrastructure	4.6% to 10.4%	A wide range for Level 3 assets, which reflects its debt-based model.
Greencoat Renewables	6%-7%	Minor adjustments of late.
Greencoat UK Wind	7.00%	Slight rise recently, with more merchant revenue exposure.
HICL Infrastructure	6.60%	6.7% for UK assets, 6.4% for EU assets and 7.4% for North America assets.
INPP	6.81%	Calculated on a portfolio discount basis.
JLEN	7.30%	Very wide range – 5% to 13%, probably to accommodate waste and AD assets.
NextEnergy Solar	6.30%	5.75% for unlevered UK assets, 6.75% for subsidy-free unlevered UK assets; Italian Solis portfolio is discounted at 7.75%.
SEEIT	7.20%	Unlevered.
Sequoia Economic Infrastructure	n/a	Very wide-ranging, with varying rates for individual debt-based assets.
TRIG	6.50%	A blended rate – was 7.25% in 2019. Now more exposed to EU energy, which will affect its future discount rate.

Source: Fund reports, Hardman & Co Research

## REIFs revisited – a compendium

### Limited valuation impact of gas price surge

#### Power prices

Since most REIF revenues accrue from PPAs covering several years, along with the renewable subsidies that they yield, major spot price movements generally have a limited valuation impact. Nevertheless, the near tenfold increase in spot gas prices between April 2021 and December 2021 is bound to have some upward impact on long-term power prices, which are pivotal in driving the valuation of leading REIFs. It should be added that, among the IICs, only GCP Infrastructure is significantly exposed to long-term power price movements, through its renewable generation activities.

### Power prices and “group think”

Undoubtedly, forecasting long-term power prices is complex, with many variable factors being part of the equation. Since very few organisations are equipped to undertake this detailed financial modelling work, it means that an element of “group think” is inevitable.

### NAV upgrades to follow on the back of higher power prices

Indeed, this task will become more complex, given the recent gyrations in energy prices, on the back of surging gas prices; to what extent such upward movements will reverse – and when – is debatable. Those REIFs involved in the renewables generation market seem very likely to raise their NAVs due to higher long-term power price assumptions.

Most REIFs base their power price assumptions on their consultants’ modelled projections until c.2050 – and then make appropriate adjustments to reflect their individual energy portfolio.

That long-term power prices are key factors in NAV calculations has been demonstrated by both TRIG and Greencoat UK Wind. In its 2019/20 full-year results, TRIG took a £123.1m writedown; Greencoat UK Wind also took a substantial writedown subsequently. Both were due mainly to lower long-term power price assumptions; this scenario is now set to reverse.

The table below compares the long-term power prices assumptions, all in real terms, of the leading REIFs and GCP Infrastructure – the latter has recently changed its methodology, with the average long-term pricing forecasts of its energy consultant, Afry, being used. Owing to the very different nature of its energy portfolio, SEEIT is excluded from this analysis.

### Tight range to 2050, but, post the recent gas price surge, it is set to rise

Comparative long-term power price assumptions	
REIF	Long-term power price assumption
Bluefield Solar	Blend of three power curves – £41 per MWh by 2050
Foresight Solar	Real prices in the UK to rise slightly, to £47 per MWh by 2050
GCP Infrastructure	Futures for first three years, Afry average thereafter
Greencoat Renewables	€57 per MWh to 2030, €62 per MWh thereafter to 2040 (RoI only)
Greencoat UK Wind	Average £42 per MWh to 2050
JLEN	c.£43 per MWh by 2050
NextEnergy Solar	£42 per MWh for UK plants and €43 per MWh for Italian plants until 2041
TRIG	£38 (blended) per MWh up to 2044; for UK only, £38 per MWh between 2026 and 2050

Source: REIF, GCP Infrastructure Annual Reports

## REIFs revisited – a compendium

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### TRIG is less bullish on long-term power prices

Excepting TRIG, the above projections are very similar – perhaps not surprisingly, since some REIFs use the same energy consultants. Importantly, they do illustrate the range within which long-term energy prices need to stay before marked changes to NAVs – either upwards or downwards – ensue.

### JLEN's sector implications

Any such movement would affect the underlying valuation of many of the 22 REIFs. It should also be noted that the recent surge in gas prices will almost certainly feed through to higher long-term power price assumptions – a trend already flagged in JLEN's latest results, when its NAV rose by over 7% in just six months.

### Inflation may well be a mid-term concern

#### *Long-term inflation*

Like the privatised water sector, IICs and REIFs generally derive benefit from higher inflation, providing – in an admittedly unlikely scenario – that this is not accompanied by rising interest rates. As such, UK inflation assumptions remain highly relevant for IIC/REIF valuation purposes – and especially so in today's economic environment, where inflation concerns abide. Importantly, too, there is a close correlation between higher power prices and rising inflation, with the former being an integral component of household costs.

### Inflation protection

More specifically, a few leading IICs and REIFs have published data regarding the extent of their inflation linkage. Inevitably, the degree of protection will vary across the funds under review. In the case of INPP, a 75% portfolio inflation linkage has been claimed, slightly above the 71% inflation linkage figure cited by JLEN. In the latter case, JLEN's portfolio has a high proportion of revenues that are linked to RPI, and these, according to JLEN, "will exceed any negative cash flow impacts from higher inflation-linked costs".

By contrast, GCP Infrastructure admits to a rather lower level of inflation protection – namely, 44% across its portfolio.

### Inflation disparities

It should be added that there is little consistency among the IICs and the REIFs regarding their long-term inflation assumptions – a scenario not helped by the parallel existence, for the moment at least, of both RPI and CPI inflation benchmarks. Over a 30-year period, this disparity certainly has valuation implications.

#### *Asset lives*

### Asset lives being stretched

Adjusting the length of asset lives affects most wind and solar generation valuations; but the impact on IICs, GCP Infrastructure notwithstanding, is less significant. Wind and solar plants generally have an accounting life of between 20 and 30 years. However, this figure is edging up, as Bluefield Solar's extension to 40 years, for part of its solar portfolio, demonstrates.

The leading REIFs have variable policies on the asset life issue, with some extending asset life assumptions following successful lease negotiations. Others accept that solar plants will become less productive as they near the end of their lives, and they adjust their assumptions accordingly. In the case of IICs, regular and very material FV adjustments on financial assets have a significant accounting impact

#### *Energy yields*

### P90 vs. P50

Projected output figures over an extended period are also a key valuation issue. Since wind and solar generation output should be reasonably predictable in the medium and long term, this variable should not cause major fluctuations in NAVs, although low wind speeds in Scotland have recently reduced output from Greencoat UK Wind's plants.

## REIFs revisited – a compendium

### Exchange risk looms, but is mostly hedged

#### Exchange risk

Exchange risk is important for many IICs and REIFs, and especially for those with significant overseas exposure, such as 3i Infrastructure, BBGI, SEEIT and TRIG. Furthermore, several other REIFs, including the Irish-based Greencoat Renewables – its assets are Euro-denominated – have been expanding overseas recently.

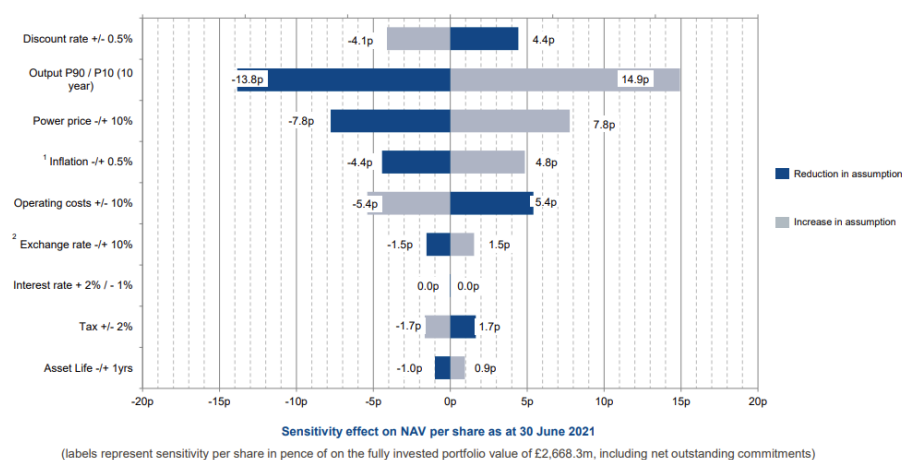
Hedging exchange risks is widely practised, most obviously by 3i Infrastructure and BBGI, both of whose revenues accrue in various currencies.

- ▶ 3i Infrastructure has 75% of its portfolio exposed to the EU. It stated recently that it “...operates a hedging programme which substantially offsets any exchange risk”.
- ▶ BBGI’s hedging strategy aims to limit a 10% adverse foreign exchange sensitivity to c.3% of NAV movement. BBGI hedges 100% of anticipated portfolio distributions on a four-year rolling basis (excluding EUR and GBP), which provides additional comfort, as it shields the company’s forecast dividend payment from adverse foreign exchange movements, thereby de-risking the portfolio.

TRIG, which – along with Greencoat UK Wind – leads the REIF sector, is now increasingly exposed to mainland EU markets, notably France, Germany and Sweden. Its exchange risk is relatively low compared with those relating to below-budget output levels and low power prices. TRIG has recently published a summary, which is reproduced below, of its sensitivity to key valuation assumptions.

### TRIG’s sensitivity analysis

#### TRIG – NAV sensitivities

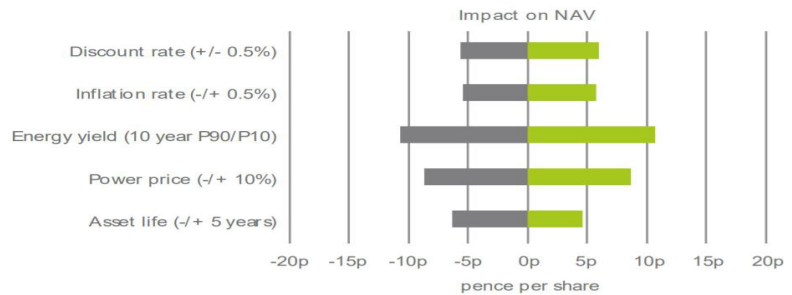


Notes: Inflation rate sensitivity assumes that power prices move with inflation, as well as subsidies that are indexed. Exchange rate sensitivity relates to the direct sensitivity of exchange rates changing, not the indirect movement relating to exposure gained through power prices. Source: TRIG

### The Greencoat UK Wind equivalent

On a similar basis, Greencoat UK Wind has also published a sensitivity analysis on its NAV, assessing the impact of the above factors – it is also reproduced below.

Greencoat – NAV sensitivities



Source: Greencoat UK Wind

## Dividends

### The search for real dividend growth

Given mounting concerns about UK inflation – now in excess of 5%, and well above the Bank of England’s declared range – it will become increasingly difficult for the stocks under review to pay real, as opposed to nominal, dividend increases. 3i Infrastructure, with its aggressive dividend projections, is an exception in this respect.

For many years, the established IICs and REIFs have managed to generate nominal dividend increases. With inflation at 2%, real dividend increases were very common. But, with ongoing inflation at more than double this figure, real dividend increases will be quite rare, although the rate of inflation may begin to fall in the latter part of 2022.

### Eroding dividend cover for many REIFs

Dividend cover levels have eroded for many of the established stocks within the IIC and REIF grouping – although not for 3i Infrastructure, a major outlier in this respect. Several are paying dividends that are barely covered, which clearly has implications for future dividend growth. In some cases, notably Foresight Solar, HICL Infrastructure, JLEN and NextEnergy Solar, their cash dividend cover is below 1.2x. By contrast, Greencoat Renewables’ latest dividend cover, net of special purpose vehicle (SPV) level debt repayment, is 1.4x.

### Flagging held dividends or dividend cuts

The table below provides a guide about the latest dividend cover ratios – they are not directly comparable with those of other IICs/REIFs, owing to the mix of earnings-based and cash-based data, but they do provide a guide about the possibility of either flat or reduced dividends going forward. In several cases, especially with respect to HICL Infrastructure and NextEnergy Solar, dividend cover is decidedly thin. Furthermore, it provides an indication of where future dividend cuts could be applied.

## REIFs revisited – a compendium

Dividend cover	
	Dividend cover at last results (x)
3i Infrastructure	c.5.0 (based on 2021/22 earnings)
BBGI	1.6 (cash cover)
Bluefield Solar	1.4 (earnings cover)
Foresight Solar	c.1.0 to 1.1 (cash cover) target by 12/2021
GCP Infrastructure	1.0 (earnings cover)
Greencoat Renewables	1.4 (cash cover – net of SPV level debt repayment)
Greencoat UK Wind	1.4 (cash cover)
HICL Infrastructure	1.0 (cash cover)
INPP	1.3 (cash cover)
JLEN	1.1 (cash cover)
NextEnergy Solar	1.0 (cash cover)
Sequoia Economic Infrastructure	0.9 (earnings cover)
SEEIT	1.2 (earnings cover)
TRIG	1.2 (cash cover)

Source: Companies, Hardman & Co Research

Most yields lie in 4.0% to 6.5% range –  
3i Infrastructure is an outlier

The table below shows projected dividend payments and the relevant prospective yields for the quoted IICs and REIFs. Most underlying prospective yields lie within the 4.0%-6.5% range. Despite several IICs and REIFs having low dividend cover, most are targeting modest annual dividend increases – a clear contrast with one of the UK's leading utilities, Centrica, which cut its dividend in 2019 by a formidable 58%.

Prospective dividends			
IICs and REIFs	Financial year-end	Prospective dividend (p)	Prospective yield
3i Infrastructure	Mar	10.45	3.0%
Aquila Energy Efficiency	Dec	n/a	n/a
Aquila European Renewables	Dec	4.20	5.0%
Atrato Onsite Energy	Sep	n/a	n/a
BBGI	Dec	7.33	4.2%
Bluefield Solar	Jun	8.12	6.5%
Cordiant Digital Infrastructure	Mar	3.00*	2.7%
Digital 9 Infrastructure	Dec	4.50*	3.9%
Downing Renewables and Infrastructure	Dec	3.50	3.4%
Ecofin US Renewables Infrastructure	Dec	1.85	2.5%
Foresight Solar	Dec	6.98	6.9%
GCP Infrastructure	Sep	7.00	6.5%
Gore Street Energy Storage	Mar	7.00	6.0%
Greencoat Renewables	Dec	5.10	5.5%
Greencoat UK Wind	Dec	7.18	5.1%
Gresham House Energy Storage	Dec	7.00	5.4%
Harmony Energy Income	Dec	n/a	n/a
HydrogenOne Capital Growth	Dec	n/a	n/a
HICL Infrastructure	Mar	8.25	4.7%
INPP	Dec	7.55	4.5%
JLEN	Mar	6.80	6.5%
NextEnergy Solar	Mar	7.16	7.1%
Octopus Renewables	Dec	5.00	4.5%
Pantheon Infrastructure	Dec	n/a	n/a
SEEIT	Mar	5.62	4.8%
Sequoia Economic Infrastructure	Sep	6.25	5.8%
ThomasLloyd Energy Impact	Dec	n/a	n/a
TRIG	Dec	6.76	5.0%
Triple Point Energy Efficiency	Mar	5.50	5.5%
US Solar	Dec	4.08	5.8%
Victory Hill GSEO	Dec	1.25*	1.2%

\*Part-year payments; Source: Company accounts, Hardman & Co Research



## REIFs revisited – a compendium

### Greencoat UK Wind's 2022 dividend hike

For those funds with December year-ends, our dividend projections for their 2022 calendar year-ends are set out below. Most notable is the planned 7.5% dividend increase for 2022 recently announced by REIF sector leader, Greencoat UK Wind.

Forecast dividends for calendar year 2022		
	Projected 2022 dividend (p)	Prospective yield
Aquila Energy Efficiency	3.50	3.7%
Aquila European Renewables	4.40	5.2%
BBGI	7.48	4.3%
Digital 9 Infrastructure	6.00	5.8%
Downing Renewables and Infrastructure	5.20	5.3%
Ecofin US Renewables	2.00	2.7%
Foresight Solar	7.05	7.0%
Greencoat Renewables	5.20	5.6%
Greencoat UK Wind	7.72	5.5%
Gresham House Energy Storage	7.25	5.6%
Harmony Energy Income	2.00	2.0%
HydrogenOne Capital Growth	0	n/a
INPP	7.75	4.6%
Octopus Renewables	5.25	4.8%
Pantheon Infrastructure	2.00	1.9%
ThomasLloyd Energy Impact	2.50	3.0%
TRIG	6.90	5.1%
US Solar	4.35	6.2%
Victory Hill GSEO	5.00	4.7%

Source: Company websites, Hardman & Co Research

### Reassuring dividends vs. Centrica's 58% cut

Overall, though, the dividend payout record in recent years from the IICs and REIFs has been reassuring, especially when set alongside the intense financial pressures that other UK energy stocks, such as Centrica, have faced. With the relative lack in the market of good-quality stocks on decent yields, and the many dividend cuts and/or suspensions by well-known quoted companies over the last two years, it is hardly surprising that IICs and REIFs have attracted the interest of many discerning yield-driven investors.

### Consistent NAV premia – The Severn Trent RAV comparison

Furthermore, except for the period when the COVID-19 pandemic panic was at its height, in March 2020, many IICs and REIFs have continued, with a few exceptions, to trade at a decent premium to their NAV, in common with utilities such as regulated water stocks. Severn Trent, for example, is currently trading at a c.30% premium to its Regulatory Asset Value (RAV) (a similar concept to NAV), despite the decidedly tougher five-year pricing regime imposed following the PR19 periodic review.

### Key macro numbers

Whether this scenario continues depends on various factors, most notably major changes in power prices and any further upward movements in both inflation and interest rates.

## Lower-capitalised IICs and REIFs

### The smaller infrastructure players

Out of the 31 IICs and REIFs, 11 have a current market capitalisation of over £750m. Along with the three solar funds – Bluefield Solar, Foresight Solar and NextEnergy Solar – and JLEN, the business activities and financial prospects of this £750m+ capitalised grouping have been discussed earlier in this document. Issues, such as the removal of subsidies for new UK solar plant after 2017, for example, have been addressed in respect of the three UK-based solar funds.

### Uniqueness of the JLEN model

Also discussed has been the uniqueness of JLEN, whose portfolio could serve as a template for UK renewable funds seeking a public listing. Despite some modest investments in France (to be sold shortly), JLEN's activities are very UK-centric, while the range of renewable technologies that it deploys is certainly impressive – even if its share price has been weak in recent months.

The remaining IICs and REIFs all have market capitalisations below £750m. They extend down to Aquila Energy Efficiency, Ecofin US Renewables and ThomasLloyd Energy Impact; all of these are currently valued at under £100m.

### Gresham House Energy Storage's c.45% rise since March 2020

Given the increasing interest in energy storage technology, and especially battery systems, it is worth highlighting the models of both Gore Street Energy Storage and Gresham House Energy Storage; the latter has been the standout performer in the sector over the past year, with its shares up by more than 16% during the 2021 calendar year and up by almost 45% from the depth of the COVID-19 sell-down in March 2020.

Both offer some characteristics of a typical REIF; indeed, they are listed as such under the AIC criteria. However, their business models and, more specifically, their cashflows are very different from those of a relatively mature wind and solar generation business.

### Many announcements outstanding

For the most recent sector entrants, Aquila Energy Efficiency, Atrato Onsite Energy, Harmony Energy, HydrogenOne Capital Growth, ThomasLloyd Energy Impact and the IIC-classified Pantheon Infrastructure, it is still early days. Announcements are awaited regarding their investment strategy – and to what extent this replicates the intentions set out in the pre-IPO Prospectus, especially with respect to the realisation of their individual pipelines.

Brief profiles of Cordiant Digital, Octopus Renewables and those REIFs with a market capitalisation of below £600m, excepting NextEnergy Solar, whose finances were assessed earlier in this document, are set out below.

#### *Aquila Energy Efficiency (market cap. £95m)*

Aquila Energy is out of the same stable as Aquila European Renewables. Its focus is somewhat different in that its *mantra* is delivering energy efficiency from a wide range of investments with both public and private bodies. Targeted markets include the UK, the EU and Switzerland.

Aquila Energy Efficiency undertook an IPO in May 2021. It raised gross proceeds of £100m – below its £150m target as set out in its Prospectus; these proceeds are still to be invested. It is aiming to pay a 3.5p dividend in its 2022 financial year and 5.0p per share in 2023.

#### *Aquila European Renewables (market cap. £342m)*

Aquila European Renewables, which was floated in 2019, is based in Hamburg, Germany, a country that will see a very sharp increase in wind power investment – especially offshore – in the coming years, as its nuclear power plants are closed



down. Wind power, solar power and hydro power assets are Aquila European Renewables' target markets.

Over the last two years, Aquila European Renewables has expanded aggressively, and it now has a generation capacity of 332MW in six different countries. The Nordic Region, especially Norway, has emerged as its prime wind generation market, where its 150MW plant at Tesla and its 13.8% stake in the controversial 400MW Rocks onshore wind project are key investments. It also owns valuable assets at Olhava in Finland and at Svindbaek in Denmark. In southern Europe, it has acquired a portfolio of hydro assets in Portugal, along with Albeniz, a 50MW solar business, in southern Spain.

At the time of its IPO in May 2019, Aquila European Renewables raised €154m, which has been progressively invested in a diversified portfolio of renewable generation assets across mainland Europe, although not in the UK. More recently, in November 2020, it raised a further €127m and, in September 2021, another €90m of equity capital was secured. In terms of a dividend for 2021, a 4.20p (c5.00) per share payment is being targeted, which may rise to a 4.40p (c5.25) per share in 2022.



#### *Atrato Onsite Energy (market cap. £164m)*

The core business of Atrato Onsite Energy is the onshore renewable assets market. More specifically, though, it focuses on the installation of energy equipment on the rooftops of commercial properties, such as supermarkets, which it argues is a somewhat neglected area in terms of energy efficiency potential. It is likely that various agreements with participating organisations will be announced shortly.

In its IPO, which took place in November 2021, Atrato Onsite Energy raised £150m from an issue that was significantly oversubscribed. Until a decent cashflow is established, there is unlikely to be a material dividend payment.



#### *Cordiant Digital Infrastructure (market cap. £666m)*

Cordiant Digital Infrastructure's business model is – not surprisingly – based on investment in digital infrastructure; enhanced connectivity lies at the heart of its offering. To date, Cordiant Digital Infrastructure has completed the acquisition of Ceske Radiocomunikace (CRA) in the Czech Republic, which has given Cordiant Digital a business comprising digital broadcast towers, an optical backbone network and a portfolio of strategically located data centres – Cordiant Digital Infrastructure will strive to maximise the benefits of this initiative. A second planned acquisition, which is still to be completed, consists of a fibre optic network in Norway; this would provide Cordiant Digital Infrastructure with a platform for increased connectivity throughout the Nordic Countries. Furthermore, Cordiant Digital Infrastructure has recently completed the acquisition of the New York City-based DataGryd Datacenters; it has also signed an agreement to buy Emitel, a multi-asset digital information business, which is located in Warsaw, Poland, at a cost of over £350m.

Cordiant Digital Infrastructure's IPO took place in February 2021, when it raised £370m of gross proceeds; a further equity issue of C shares, which are being converted into ordinary shares, yielded another £185m of proceeds. As a result, the CRA acquisition, at a cost of £306m, has been suitably funded. On the dividend front, Cordiant Digital Infrastructure plans to pay a 3p dividend per share for its 2021/22 financial year.



### *Downing Renewables and Infrastructure (market cap. £141m)*

Downing Renewables and Infrastructure is building a portfolio of generation investments in key European markets, as well as in the UK. Downing Renewables and Infrastructure has now completed its first acquisition. It has bought eight hydro – mainly run-of-river – plants in Sweden, with a capacity of 26MW, from Fortum AB, for £60m. Discussions are also under way regarding the acquisition of a c.40% stake in a new wind plant project at Lake Vanern, also in Sweden. On the solar front, it has invested £42m to acquire a capacity of 96MW, 78MW of which is in Great Britain, with the remaining 18MW in NI.

As part of its IPO in December 2020, Downing Renewables and Infrastructure raised £122.5m of proceeds (gross), part of which it has used to finance the purchase of its hydro plant portfolio in Sweden and its solar portfolio in the UK. If the planned acquisitions are completed, either new debt or a further fundraise are likely. A 5.20p dividend per share for 2022 is expected.



### *Ecofin US Renewables Infrastructure (market cap. £92m)*

Ecofin US Renewables Infrastructure's priority has been to conclude the acquisition of its four seed portfolios; this has now been achieved. The 49.5% stake in two Californian solar plants, Beacon Solar 2 and Beacon Solar 5, with a total capacity of 108MW, is integral to its underlying valuation. Seeds 2, 3 and 4, with a total capacity of 23MW, were completed earlier, so that Ecofin US Renewables Infrastructure is now the owner of several energy assets in Massachusetts. Further initiatives are expected now that Ecofin US Renewables Infrastructure has completed the acquisition of its seed portfolio.

At its IPO in December 2020, Ecofin US Renewables Infrastructure raised \$125m (gross). If further substantial acquisitions are undertaken, further fundraising – whether through debt or equity – will be needed. A 1.85p (c2.50) dividend per share is expected for this calendar year, rising to 2.00p (c2.70) per share in 2022.



### *Gore Street Energy Storage (market cap. £404m)*

This fund continues to invest in a diversified portfolio of utility-scale battery storage projects – it operates in the same space as Gresham House Energy Storage. More specifically, Gore Street Energy Storage uses battery cell technology to provide frequency balancing services to grid operators; this is certainly an expanding market. Moreover, it is optimistic about revenue growth arising from its “dynamic containment” technical initiative.

Country-wise, Gore Street Energy Storage is focused on the UK and the RoI; in both countries, it has been assembling a portfolio of battery storage investments. Gore Street Energy Storage now owns a total of 210MW of operational capacity – a figure that is set to rise markedly over the next two years. Currently, all its operational capacity is UK-based, although it holds 30% stakes in the 30MW Kilmannock and in the 30MW Porterstown battery storage systems in the RoI. Both sites are set to increase their capacity following consent for major grid upgrades locally.

In terms of its finances, Gore Street Energy Storage has been raising funds – at times, with difficulty – to finance its expansion, in both the UK and in the RoI. The National Treasury Management Agency (NTMA), an RoI public sector organisation, has been a cornerstone investor, although its shareholding is now just 3.4%. In total, since January 2020, Gore Street Energy Storage has raised proceeds of almost £290m (gross). For 2021/22, Gore Street Energy Storage plans to pay a dividend of 7p per share.



### *Gresham House Energy Storage (market cap. £569m)*

Gresham House Energy Storage is the larger of the two quoted REIFs in the energy storage sub-sector. Investing in battery storage systems is its core business, which enables it to provide frequency balancing services to grid operators. On the trading front, Gresham House Energy Storage is benefiting from the many arbitrage opportunities that have recently arisen as UK renewable generation output rises; the recent gas-driven spikes in power prices provide an obvious example.

Gresham House Energy Storage now has utility-scale battery storage assets at 17 different sites in England and Scotland, after a pronounced build-up over the last two years. Following completion of the 30MW Byers Brae project in Scotland, its capacity has risen to 425MW. However, a further 415MW of new capacity is currently under construction.

Including its IPO in November 2018, Gresham House Energy Storage has raised over £250m of equity finance. Encouragingly, given the demand for energy storage solutions, there is a solid project pipeline in place, so that further rollouts and fundraises are likely. Against this background, the 16% rise in Gresham House Energy Storage's share price during calendar 2021, although not unexpected, was certainly impressive. A key valuation factor, underpinning its share price performance, has been its very conservative 10.7% blended discount rate – way above the c.7% average adopted by other REIFs. Gresham House Energy Storage plans to pay a 7p per share dividend for 2021.



### *Harmony Energy Income (market cap. £210m)*

The focus of the Yorkshire-based Harmony Energy Income is clear-cut – developing and operating commercial-scale battery storage systems in Britain: it is closely involved with the US-based Tesla in seeking to do so. Harmony Energy Income's initial seed capacity will, once completed, be 213MW, based on holding a 50% stake in five shovel-ready projects, with a capacity of 427MW. The Pillswood project at East Cottingham in East Yorkshire is the largest, and it is progressing well; it has a total capacity of 196MW, 98MW of which is attributable to Harmony Energy Income. Aside from battery storage activities, Harmony Energy Income is also involved in the operation of wind plants; it has, however, mostly relinquished ownership of them. Solar installations also come within Harmony Energy Income's ambit, not just in the UK but also in New Zealand.

At its IPO in November 2021, Harmony Energy Income raised gross proceeds of £210m, over £24m of which was used to acquire its seed assets. It benefits from a substantial investment by Ineos, a well-known, privately owned participant in the international oil and gas sector. Harmony Energy Income plans to pay a 2p dividend in its 2022 financial year.



### *HydrogenOne Capital Growth (market cap. £127m)*

Given the undoubted investor interest in the developing hydrogen market, we note that HydrogenOne Capital Growth is well-placed to deliver significant benefits for its shareholders, once it has assembled a decent portfolio of hydrogen-based assets. At this stage, HydrogenOne Capital Growth has not identified a single specified element of the hydrogen market in which to specialise, although the hydrogen/gas relationship is likely to be pivotal. Government policy on many hydrogen-related issues, including the scope to redeploy the existing UK gas network, remains unclear.

At its IPO in July 2021, HydrogenOne Capital Growth raised gross proceeds of £107m on the back of considerable investor interest – but from the growth potential angle. HydrogenOne has no interest in paying large dividends; but it does seek to make sufficient payments to enable it to retain its trust status. Recently, HydrogenOne Capital Growth confirmed that 46% of the net proceeds from its July 2021 IPO had been invested, mostly in three private companies.

## octopus renewables

### *Octopus Renewables Infrastructure (market cap. £622m)*

Octopus Renewables Infrastructure undertook its IPO in December 2019. In seeking to build up its portfolio, it is focusing on the wind and solar generation market. While the UK is expected to account for much of the investment, there are other countries of investment interest, including mainland Europe – with wind projects in the north and solar projects in the south – as well as Australia. Interestingly, Octopus Renewables Infrastructure has prescribed a maximum 60% exposure – by gross asset valuation – for both wind and solar investments.

To date, Octopus Renewables Infrastructure has acquired a total generation capacity of 315MW, of which 123MW is UK solar plant. A further 192MW of capacity has been bought overseas; the 120MW solar portfolio in France is the most significant international acquisition. Octopus Renewables Infrastructure has also acquired 48MW of wind capacity in Sweden and, more recently, two onshore wind farms in Finland, which will be commissioned shortly – their combined capacity is 71MW. Looking forward, Octopus Renewables Infrastructure plans a major investment in a 175MW solar farm in Andalucía, Spain.

Having raised proceeds of £350m (gross) at its IPO in 2019, there is no immediate need for additional funding, although Octopus Renewables Infrastructure has a formidable investment pipeline, some of which may necessitate, in time, further fundraising. However, the combination of the negotiation of a £150m revolving credit facility and two recent fundraises suggests that further expansion is likely. A 5p per share dividend is being targeted for 2021.

### *Pantheon Infrastructure (market cap. £420m)*

Pantheon Infrastructure's investment plans are certainly wide-ranging. In its Prospectus, it identified the following as possible targets: digital infrastructure, renewables and energy efficiency, power and utilities, transport and logistics, and social and others. Under the transport and logistics head, ports, rail, road and airports were cited. In terms of timing, Pantheon Infrastructure is seeking to acquire between eight and 12 assets by the autumn of 2022 – a quite ambitious target. In time, Pantheon Infrastructure's portfolio may begin to resemble that of 3i Infrastructure – but with less risk and lower returns.

Pantheon Infrastructure's IPO was very strongly supported in that its £300m fundraising target was easily reached; eventually, a figure of £400m was prescribed – and, even then, some scaling back was necessary. For 2022, Pantheon Infrastructure has confirmed a 2.0p dividend target.

### *ThomasLloyd Energy Impact (market cap. £94m)*

ThomasLloyd Energy Impact breaks new ground for the REIFs. Its planned investments are in Asia – a geographical spread that is unique to the existing sector. India, the Philippines, Indonesia, Vietnam, Bangladesh and Sri Lanka have all been confirmed as target markets. Undoubtedly, the economies of each of these countries have real growth potential, and additional power capacity is much-needed. Already, ThomasLloyd has nine solar power projects operating in the Philippines. Clearly, in so vast a potential market, project selection will be key, which will presumably be underpinned by long-term PPAs.

At its IPO in December 2021, ThomasLloyd Energy Impact confirmed the issue of 100m new shares, raising gross proceeds of £100m – falling well below its Prospectus target. A further 34.6m shares are to be issued as consideration for acquiring seed assets from an anchor investor. The 2022 dividend target of 2.5p is not unduly aggressive, but the longer-term dividend policy – stated in the Prospectus as yielding 7%+ by year 3 – probably is, in our view.







### *Triple Point Energy Efficiency (market cap. £100m)*

Triple Point Energy Efficiency, whose IPO took place in October 2020, is focused on three specific sectors: low carbon heat (local and distributed), social housing retrofit and industrial energy efficiency, and distributed generation (hydro and solar). Given that all three of these sub-sectors are complex and that any deal will necessarily involve several parties, it is perhaps not surprising that investment initiatives, to date, have been distinctly cautious.

In seeking acquisitions within the £5m to £30m band, Triple Point Energy Efficiency has invested, via the Teesside-based Spark Stream, in CHP-related assets. In addition, six operational small hydro plants in Scotland have been acquired at a cost of almost £27m. There is also a £289m pipeline of possible acquisition assets.

As part of its IPO, Triple Point Energy Efficiency raised £100m (gross) of proceeds; part of these proceeds seems likely to fund UK acquisitions in the specified fields within the next few months. A dividend of 5.50p per share has been flagged for the 2021/22 financial year.

### *US Solar (market cap. £233m)*



US Solar's declared aim is to invest 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. While, in time, investments in Canada and Mexico are also possible, the current focus is very much on states on the US east and west coasts, as well as on its Milford plant in Utah.

To date, US Solar has assembled a portfolio of 493MW of solar generation capacity across 42 projects. Within US Solar's portfolio, its largest investments – 28 in all – are now in North Carolina, with a capacity of 168MW. Aside from the 128MW Milford facility in Utah, the 140MW of capacity in Oregon is also pivotal to US Solar's underlying valuation.

In April 2019, as part of its listing on the London market, US Solar raised proceeds of \$200m (gross); in May 2021, a further \$132m (gross) was raised. Given its overtly expansionist aims, the issue of further equity is likely. A 4.08p (c5.50) dividend per share is planned for the 2021 financial year, increasing to perhaps 4.35p (c5.87) in 2022.

### *Victory Hill GSEO (market cap. £334m)*

Victory Hill GSEO plans to “invest in a diversified portfolio of global sustainable energy infrastructure assets”. It has identified a seed portfolio – “the enhanced pipeline” – of potential investments, with a total cost of c.£305m.

To date, Victory Hill GSEO has signed commitments for investments in three projects. Its lead UK project – at a total of £78m – is to fund two flexible CHP plants, with a combined capacity of 45MW, one of which is in Nottingham and the other in County Durham (it has already completed the acquisition of a 10MW plant at Nottingham). Its two other well-advanced projects are in Brazil and Australia. In the former case, £45m is being set aside for investment in 18 remote solar distribution plants in 10 Brazilian states. In the latter case, £50m is being earmarked for distributed solar generation in Australia, using battery storage technology.

At its IPO in January 2021, Victory Hill GSEO raised over £242m of gross proceeds, much of which seem destined to finance the seed portfolio. In November 2021, a further £101m of new equity was raised. Victory Hill GSEO is planning a 5p per share dividend in its 2022 financial year.





## Environmental Investment Trusts (EITs)

Although their business models are somewhat different from those of the 31 IICs and REIFs analysed in this document, we also assess briefly the three Environmental Investment Trusts (EITs), which are classified as “Environmental” by the AIC.

The three stocks concerned are Impax Environmental Markets, which was capitalised at £1,633m at the December 2021 year-end – its market value has subsequently fallen back, due, in part, to lower NAV figures – and the much smaller Jupiter Green and Menhaden Energy Resources.

### *Impax Environmental Markets (£1,633m)*

Set out below are the key elements of the investment policy of Impax Environmental Markets – and its marked success in growing its NAV from 250p at the end of December 2018 to 485p at the end of September 2021.

**Investment sector:** As an EIT that invests in the expanding environmental sector, Impax Environmental Markets focuses on four key areas: clean energy and energy efficiency, water treatment and pollution control, water technology and natural resource management, and sustainable food.

**Fund aims:** In terms of its funds, Impax Environmental Markets confirms that it “seeks to achieve sustainable, above-market returns over the longer term by investing globally in companies active in the growing Resource Efficiency and Environmental Markets”. Importantly, no investment is permitted to represent over 3% of the fund’s value.

**Portfolio:** In terms of country exposure, Impax Environmental Markets has 49% of its investments in the US, 35% in Europe and 15% in Asia Pacific. The sector representation is as follows: energy efficiency at 30%, water infrastructure and technology at 18%, food, agriculture and forestry also at 18%, and waste management and technology at 13%. More specifically, Impax’s three largest holdings, at June 2021, were American Water Works, Koninklijke DSM (the former KPN Telekom’s business) and Generac; each of these holdings accounted for 2.7% of the fund’s value.

**Latest results:** Impax Environmental Market’s latest results for its half-year period to June 2021 are reproduced below. The figures are very heavily distorted by FV accounting adjustments, which produced heavy gains, as financial markets recovered following their plunge as the COVID-19 crisis deepened. In terms of dividends, its distinctly modest 2020 payment of 2.3p per share is likely to increase to c.2.5p for 2021.

### Impax Environmental Markets – half-year income statement 2021

£000	Six months to 30/06/2021	Six months to 30/06/2020
Gains/losses on investments	147,848	-14,326
Net forex gains/losses	166	-1,167
Income	8,945	5,105
Investment management fees	-4,486	-2,709
Other expenses	-709	-532
Activities before finance costs and tax	151,764	-13,629
Finance costs	-726	-625
Return on ordinary activities before tax	151,038	-14,254
Tax	-1,383	-419
Return on ordinary activities after tax	149,655	-14,673
Return per ordinary share (p)	54.09	-6.58

Source: Hardman & Co Research



### *Jupiter Green (market cap. £58m)*

Jupiter Green is an investment trust. It “invests globally in companies which have a significant focus on environment solutions”. More specifically, it looks to invest across three key sectors – infrastructure, resources efficiency and demographics. In terms of markets, c.37% of its assets are invested in US stocks and c.10% in Japanese stocks. Denmark, France and the UK account for c.6% each. No stock accounts for more than 4%, with Holland’s Koninklijke DSM being the largest component, followed closely by Vestas, the Danish wind generation business.

Jupiter Green is currently trading at just below its September 2021 NAV of 277p. Owing to Jupiter Green’s revised policy to switch its investment strategy more towards small, innovative companies, future dividend payments are expected to be either very modest or to be passed.

### *Menhaden Resource Efficiency (market cap. £90m)*

Like Jupiter Green, Menhaden Resource Efficiency is a conviction-driven investment trust, which “seeks to generate long-term shareholder returns, predominantly in the form of capital growth, by investing in businesses and opportunities that are demonstrably delivering or benefiting from the efficient use of energy and resources” (admirable sentiments indeed).

More prosaically, Menhaden Resource Efficiency’s portfolio has a 60% exposure to the US, with a 22% exposure to Europe. It has 17 core holdings, led by Alphabet – the owner of Google – at 28%. Almost 18% is accounted for by Charter Communications, a US-based connectivity business. The Microsoft holding represents a further c.12%. Holdings in these major companies have been justified on the basis of their data storage activities – surely a wide interpretation of their investment criteria. The unquestionably energy-orientated X-ELIO, an expanding Spanish solar generation company, is the fourth-largest component of Menhaden Resource Efficiency’s portfolio. But its Brazilian ports business, Ocean Wilson, has been struggling in a depressed local economy.

In terms of its finances, Menhaden Resource Efficiency is expected to pay, at best, a very modest dividend for 2021; otherwise, it will be passed. Importantly, Menhaden Resource Efficiency continues to trade at a very pronounced discount – currently 26% – to its latest NAV. Management continues to review the share buyback option in its quest to narrow the current large trading discount.



## Databoxes

### 3i Infrastructure

Issue	Comments
Status	IIC
Ticker/website	3IN/ <a href="http://www.3i-infrastructure.com">www.3i-infrastructure.com</a>
Fund aim	"To maintain a balanced portfolio of infrastructure investments delivering an attractive mix of income yield and capital appreciation for shareholders"
Key sectors	Utilities, transportation
Key markets	EU, UK and Norway
Core portfolio	c.20 infrastructure assets
NAV per share	291.2p (09/21)
Discount rate	10.8%
Market cap./share price	£3,156m/354p
Premium/discount to NAV	+21.6%
Prospective DPS/yield	10.45p/3.0%
Return record	Since its IPO in 2007, TSR has averaged 12.4% per year

Source: 3i Infrastructure, Bloomberg

### Aquila Energy Efficiency

Issue	Comments
Status	REIF
Ticker/website	AEET/ <a href="http://www.aquila-energy-efficiency-trust.com">www.aquila-energy-efficiency-trust.com</a>
Fund aim	The fund "focuses on investments in small to medium-sized energy efficiency projects in the private and public sectors"
Key sectors	Energy efficiency
Key markets	UK, EU, Switzerland
Core portfolio capacity	n/a
NAV per share	98.0p (est., 05/21)
Discount rate	n/a
Market cap./share price	£95m/95p
Premium/discount to NAV	-3.1%
Prospective DPS/yield	nil/n/a
Return record	n/a

Source: Aquila Energy Efficiency, Bloomberg

### Aquila European Renewables

Issue	Comments
Status	REIF
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"
Key sectors	Wind, solar and hydro generation
Key markets	Nordics, Iberia
Core portfolio capacity	332MW
NAV per share	(c101.0)/84.8p (09/21)
Discount rate	6.3%
Market cap./share price	£342m/84p
Premium/discount to NAV	-0.9%
Prospective DPS/yield	(c5.00)/4.20p/5.0%
Return record	Since its IPO in June 2019, TSR has been 17.8%

Source: Aquila European Renewables, Bloomberg

## REIFs revisited – a compendium

Atrato Onsite Energy	
Issues	Comments
Status	REIF
Ticker/website	ROOF/ <a href="http://www.atrato.roof.com">www.atrato.roof.com</a>
Fund aim	"The company's investment objective is to support the net zero agenda whilst delivering capital growth and progressive dividend income to its shareholders"
Key sectors	Solar – roof installations
Key markets	UK (commercial, especially supermarkets)
Core portfolio capacity	n/a
NAV per share	98.0p (est., 11/21)
Discount rate	n/a
Market cap./share price	£164m/109p
Premium/discount to NAV	+11.2%
Prospective DPS/yield	nil/n/a
Return record	n/a

Source: Atrato Onsite Energy, Bloomberg

BBGI	
Issue	Comments
Status	IIC
Ticker/website	BBGI/ <a href="http://www.bb-gi.com">www.bb-gi.com</a>
Fund aim	We are "an Infrastructure Investment Company that invests in and actively manages, for the long term, a globally diversified, low-risk portfolio of essential social infrastructure investments. We are committed to delivering stable and predictable cash flows with progressive long-term dividend growth and attractive, sustainable, returns to shareholders"
Key sectors	Roads, bridges, schools, hospitals, blue light (fire and police stations)
Key markets	Canada, UK
Core portfolio	54 investments
NAV per share	137.8p (06/21)
Discount rate	6.56% (06/21)
Market cap./share price	£1,253m/176p
Premium/discount to NAV	+27.7%
Prospective DPS/yield	7.33p/4.2%
Return record	Since its IPO in 2011, TSR has averaged 10.8% per year

Source: BBGI, Bloomberg

Bluefield Solar	
Issue	Comments
Status	REIF
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"
Key sectors	Solar generation
Key markets	UK
Core portfolio capacity	625MW (pre Good Energy deal)
NAV per share	117.2p (09/21)
Discount rate	6.0%
Market cap./share price	£615m/124p
Premium/discount to NAV	+5.8%
Prospective DPS/yield	8.12p/6.5%
Return record	Since its IPO in 2013, TSR has been 75%

Source: Bluefield Solar, Bloomberg

## REIFs revisited – a compendium

### Cordiant Digital Infrastructure

Issue	Comments
Status	IIC
Ticker/website	CORD/ <a href="http://www.cordiantdigitaltrust.com">www.cordiantdigitaltrust.com</a>
Fund aim	"The Company invests principally in operating digital infrastructure assets (that exhibit a number of attractive investment features which drive value growth, including recurring long-term contracts ....with predictable cash flows"
Key sectors	Digital infrastructure
Key markets	Czech Republic, US, Poland
Core portfolio	Digital networks in Eastern Europe
NAV per share	Ordinary 101.6p , C shares (being converted) 98.1p (both 09/21)
Discount rate	n/a
Market cap./share price	£595m/112p
Premium/discount to NAV	+10.6%
Prospective DPS/yield	3.0p/2.7%
Return record	n/a

Source: Cordiant Digital Infrastructure, Bloomberg

### Digital 9 Infrastructure

Issue	Comments
Status	IIC
Ticker/website	DGI9/ <a href="http://www.d9infrastructure.com">www.d9infrastructure.com</a>
Fund aim	As an investment trust, it "actively invests in critical digital infrastructure assets with a target annual return of 10% per annum"
Key sectors	Digital infrastructure
Key markets	RoI, mainland EU, Middle East, India
Core portfolio	Digital networks via Aqua Comms
NAV per share	103.3p (06/21)
Discount rate	n/a
Market cap./share price	£823m/114p
Premium/discount to NAV	+11.1%
Prospective DPS/yield	4.50p/3.9%
Return record	n/a

Source: Digital 9 Infrastructure, Bloomberg

## REIFs revisited – a compendium

### Downing Renewables and Infrastructure

Issue	Comments
Status	REIF
Ticker/website	DORE/ <a href="http://www.doretrust.com">www.doretrust.com</a>
Fund aim	It “aims to achieve stable and sustainable returns by investing in a diversified portfolio of renewable energy and other infrastructure assets”
Key sectors	Hydro and wind generation
Key markets	UK, Sweden
Core portfolio capacity	121MW
NAV per share	102.5p (09/21)
Discount rate	7.3%
Market cap./share price	£141m/103p
Premium/discount to NAV	+0.5%
Prospective DPS/yield	3.50p/3.4%
Return record	n/a

Source: Downing Renewables and Infrastructure, Bloomberg

### Ecofin US Renewables Infrastructure

Issue	Comments
Status	REIF
Ticker/website	RNEP/ <a href="http://www.uk.ecofinvest.com">www.uk.ecofinvest.com</a>
Fund aim	“To provide shareholders with an attractive level of current distributions by investing in a diversified portfolio of mixed renewable energy and sustainable assets, predominantly located in the US”
Key sectors	Solar generation
Key markets	US (California, Massachusetts)
Core portfolio capacity	79MW
NAV per share	(c100.7) 74.6p (09/21)
Discount rate	n/a
Market cap./share price	£92m/73p
Premium/discount to NAV	-1.8%
Prospective DPS/yield	(c2.50)/1.85/2.5%
Return record	n/a

Source: Ecofin US Renewables, Bloomberg

### Foresight Solar

Issues	Comments
Status	REIF
Ticker/website	FSFL/ <a href="http://www.fsfl.foresight.group.eu">www.fsfl.foresight.group.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 cashflow”
Key sectors	Solar generation
Key markets	UK, Australia, Spain
Core portfolio capacity	1,019MW solar (inc.723MW in UK, 146MW in Australia and 125MW in Spain)
NAV per share	104.1p (09/21)
Discount rate	6.71%
Market cap./share price	£616m/101p
Premium/discount to NAV	-3.0%
Prospective DPS/yield	6.98p/6.9%
Return record	Since its IPO in 2013, TSR has been 50.7%, equivalent to 5.5% per year

Source: Foresight Solar, Bloomberg

## REIFs revisited – a compendium

### GCP Infrastructure

Issues	Comments
Status	IIC
Ticker/website	GCP/ <a href="http://www.graviscapital.com">www.graviscapital.com</a>
Fund aims	"Our investment objective is to provide shareholders with regular, sustained, long-term dividends and to preserve the capital of (our) investment assets"
Key sectors	Renewable energy, PPP/PFI, social housing
Key markets	UK
Core portfolio	c.47 investments, mainly energy and PPP/PFI stakes
NAV per share	103.9p (09/21)
Discount rate	4.6%-10.4% for Level 3 assets
Market cap./share price	£954m/108p
Premium/discount to NAV	+3.9%
Prospective DPS/yield	7.0p/6.5%
Return record	Since its IPO in 2010, TSR has exceeded 102%

Source: GCP Infrastructure, Bloomberg

### Gore Street Energy Storage

Issues	Comments
Status	REIF
Ticker/website	GSF/ <a href="http://www.gstenergystoragefund.com">www.gstenergystoragefund.com</a>
Fund aims	"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"
Key sectors	Energy storage systems
Key markets	UK, RoI
Core portfolio capacity	210MW (operational as at 09/21) of battery storage systems
NAV per share	103.3p (09/21)
Discount rate	6.0%-9.5% for GB assets/7.0%-8.5% for NI assets
Market cap./share price	£404m/117p
Premium/discount to NAV	+13.3%
Prospective DPS/yield	7.00p/6.0%
Return record	Since its IPO in 2018, TSR has been 26.5%

Source: Gore Street Energy Storage, Bloomberg

### Greencoat Renewables

Issues	Comments
Status	REIF
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"
Key sectors	Wind generation
Key markets	RoI, France, Nordics
Core portfolio capacity	686MW of wind, mainly in RoI
NAV per share	(c101.4) 85.2p (09/21)
Discount rate	6%-7%
Market cap./share price	£830m/93p
Premium/discount to NAV	+9.4%
Prospective DPS/yield	(c6.06)/5.10p/5.5%
Return record	Since its IPO in 2017, TSR has been 42.4%

Source: Greencoat Renewables, Bloomberg

## REIFs revisited – a compendium

### Greencoat UK Wind

Issues	Comments
Status	REIF
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”
Key sectors	Wind
Key markets	UK
Core portfolio capacity	1,209MW – all UK wind
NAV per share	129.0p (09/21)
Discount rate	7.0%
Market cap./share price	£3,267m/141p
Premium/discount to NAV	+9.3%
Prospective DPS/yield	7.18p/5.1%
Return record	Since its IPO in March 2013, TSR has been c.9.7%

Source: Greencoat UK Wind, Bloomberg

### Gresham House Energy Storage

Issues	Comments
Status	REIF
Ticker/website	GRID/ <a href="http://www.greshamhouse.com">www.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”
Key sectors	Energy storage
Key markets	UK
Core portfolio capacity	425MW of battery storage systems in the UK
NAV per share	111.9p (09/21)
Discount rate	10.7%
Market cap./share price	£569m/130p
Premium/discount to NAV	+16.2%
Prospective DPS/yield	7.00p/5.4%
Return record	Since its IPO in November 2018, TSR has been 42.7%

Source: Gresham House Energy Storage, Bloomberg

### Harmony Energy Income

Issues	Comments
Status	REIF
Ticker/website	HEIT/ <a href="http://www.harmonyenergy.co.uk">www.harmonyenergy.co.uk</a>
Fund aim	“Its investment objective is to provide investors with an attractive and sustainable level of income returns, with the potential for capital growth by investing in commercial scale energy storage and renewable energy generation projects...”
Key sectors	Energy storage, wind generation
Key markets	UK
Core portfolio capacity	n/a
NAV per share	98p (est., 11/21)
Discount rate	n/a
Market cap./share price	£210m/100p
Premium/discount to NAV	+2.0%
Prospective DPS/yield	nil/n/a
Return record	n/a

Source: Harmony Energy Income, Bloomberg



## REIFs revisited – a compendium

HICL	
Issues	Comments
Status	IIC
Ticker/website	HICL/ <a href="http://www.hicl.com">www.hicl.com</a>
Fund aim	"HICL's investment proposition is to deliver sustainable income from a diversified portfolio of investment core infrastructure"
Key sectors	Health, transport
Key markets	UK
Core portfolio	Over 100 investments
NAV per share	155.4p (09/21)
Discount rate	6.60%
Market cap./share price	£3,434m/177p
Premium/discount to NAV	+13.9%
Prospective DPS/yield	8.25p/4.7%
Return record	Since its IPO in 2006, TSR has averaged 8.9% per year

*Source: HICL Infrastructure, Bloomberg*

HydrogenOne Capital Growth	
Issues	Comments
Status	REIF
Ticker/website	HGEN/ <a href="http://www.hydrogenonecapitalgrowthplc.com">www.hydrogenonecapitalgrowthplc.com</a>
Fund aim	"HydrogenOne Capital Growth was established to provide investors with opportunities in clean hydrogen and energy storage for energy transition"
Key sectors	Hydrogen
Key markets	UK, Germany
Core portfolio capacity	n/a
NAV per share	97.5p (11/21)
Discount rate	n/a
Market cap./share price	£127m/119p
Premium/discount to NAV	+22.1%
Prospective DPS/yield	nil/n/a
Return record	n/a

*Source: HydrogenOne Capital Growth, Bloomberg*

Impax Environmental Markets	
Issues	Comments
Status	EIT
Ticker/website	IEM/ <a href="http://www.impaxenvironmentalmarkets.co.uk">www.impaxenvironmentalmarkets.co.uk</a>
Fund aim	"It seeks to achieve sustainable, above-market returns over the longer term by investing globally in companies active in the growing Resource Efficiency and Environmental Markets"
Key sectors	Energy, waste, water
Key markets	US, Europe
Core portfolio	All investments are below 3% of its portfolio
NAV per share	485.1p (09/21)
Discount rate	n/a (virtually all investments are quoted)
Market cap./share price	£1,633m/548p
Premium/discount to NAV	13.0%
Prospective DPS/yield	1.3p/n/m
Return record	Since 2/2002, its share price has risen by over 5x – modest dividends have been paid in some years

*Source: Impax Environmental Markets, Bloomberg*

## REIFs revisited – a compendium

INPP	
Issues	Comments
Status	IIC
Ticker/website	INPP/ <a href="http://www.internationalpublicpartnerships.com">www.internationalpublicpartnerships.com</a>
Fund aim	"We aim to provide investors with long-term, inflation-linked returns, by growing our dividend and creating the potential for capital appreciation"
Key sectors	Energy, transport
Key markets	UK
Core portfolio	Electricity, gas and water price-regulated assets
NAV per share	145.1p (6/21)
Discount rate	6.81%
Market cap./share price	£2,890m/169p
Premium/discount to NAV	+16.5%
Prospective DPS/yield	7.55p/4.5%
Return record	Since its IPO in 2006, TSR has been 8.5% per year

*Source: INPP, Bloomberg*

JLEN	
Issues	Comments
Status	REIF
Ticker/website	JLEN/ <a href="http://www.jlen.com">www.jlen.com</a>
Fund aim	"To provide shareholders with a sustainable dividend paid quarterly, that increases progressively in line with inflation and to preserve the capital value of its portfolio on a real basis over the long term"
Key sectors	Renewable generation
Key markets	UK
Core portfolio capacity	39 investments with 372MW capacity, 169MW of which is wind and 80MW solar – almost entirely UK
NAV per share	98.4p (9/21)
Discount rate	7.3%
Market cap./share price	£631m (pre-ongoing c.£61m fundraise)/105p
Premium/discount to NAV	+6.7%
Prospective DPS/yield	6.80p/6.5%
Return record	Since its IPO in March 2014, TSR has been 63.6%

*Source: JLEN, Bloomberg*

Jupiter Green	
Issues	Comments
Status	EIT
Ticker/website	JGC/ <a href="http://www.jupiteram.com">www.jupiteram.com</a>
Fund aim	"It invests globally in companies which have a significant focus on environment solutions"
Key sectors	Energy, waste, technology
Key markets	UK
Core portfolio	EU, UK, US
NAV per share	277.4p (09/21)
Discount rate	n/a
Market cap./share price	£58m/272p
Premium/discount to NAV	-1.9%
Prospective DPS/yield	0.64p/n/m
Return record	Since its launch in 2006, its shares have risen by c.170%

*Source: Jupiter Green, Bloomberg*

## REIFs revisited – a compendium

### Menhaden Resources

Issues	Comments
Status	EIT
Ticker/website	MHN/ <a href="http://www.menhaden.com">www.menhaden.com</a>
Fund aim	"Seeks to generate long-term shareholder returns...by investing in business opportunities that are demonstrably delivering or benefiting from the efficient use of energy and resources"
Key sectors	Resource and energy efficiency
Key markets	US, Europe
Core portfolio	Alphabet and Charter Communications stakes
NAV per share	151.2p (09/21)
Discount rate	n/a (c.88% of assets are quoted)
Market cap./share price	£90m/112p
Premium/discount to NAV	-25.9%
Prospective DPS/yield	nil/n/a
Return record	Since July 2015, its shares have risen by less than 10%

*Source: Menhaden Resources, Bloomberg*

### NextEnergy Solar

Issues	Comments
Status	REIF
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"
Key sectors	Solar generation
Key markets	UK, Italy
Core portfolio capacity	895MW solar, 860MW in UK, 35MW in Italy
NAV per share	103.1p (09/21)
Discount rate	6.3%
Market cap./share price	£596m/101p
Premium/discount to NAV	-2.0%
Prospective DPS/yield	7.16p/7.1%
Return record	Since its IPO in 2014, TSR has been 6.2% per year

*Source: NextEnergy Solar, Bloomberg*

### Octopus Renewables Infrastructure

Issues	Comments
Status	REIF
Ticker/website	CORIT/ <a href="http://www.octopusrenewablesinfrastructure.com">www.octopusrenewablesinfrastructure.com</a>
Fund aim	"Seeks to provide investors with an attractive and sustainable level of income returns, with an element of capital growth by investing in a geographically and technology-diversified spread of renewable energy assets"
Key sectors	Solar and wind generation
Key markets	France, UK, Nordics, Spain
Core portfolio capacity	315MW – pan-European assets
NAV per share	99.2p (09/21)
Discount rate	6.6%
Market cap./share price	£622m/110p
Premium/discount to NAV	+10.9%
Prospective DPS/yield	5.00p/4.5%
Return record	Since its IPO in 2019, TSR has been 9.1%

*Source: Octopus Renewables Infrastructure, Bloomberg*

## REIFs revisited – a compendium

### Pantheon Infrastructure

Issues	Comments
Status	IIC
Ticker/website	PINT/ <a href="http://www.pantheoninfrastructure.com">www.pantheoninfrastructure.com</a>
Fund aim	We “will enable investors to gain exposure to a high-quality mix of yielding and growth infrastructure assets with strong downside and inflation protection in developed markets”
Key sectors	Digital infrastructure, renewable energy generation, transport infrastructure
Key markets	Developed countries
Core portfolio	n/a
NAV per share	98.0p (est., 11/21)
Discount rate	n/a
Market cap./share price	£420m/105p
Premium/discount to NAV	+6.9%
Prospective DPS/yield	nil/n/a
Return record	n/a

Source: Pantheon Infrastructure, Bloomberg

### SEEIT

Issues	Comments
Status	REIF
Ticker/website	SEIT/ <a href="http://www.seeitplc.com">www.seeitplc.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”
Key sectors	CHP, gas generation/networks and biomass
Key markets	US, Spain, Sweden
Core portfolio	Various portfolios of energy assets
NAV per share	104.5p (09/21)
Discount rate	7.2%
Market cap./share price	£1,057m/117p
Premium/discount to NAV	+12.0%
Prospective DPS/yield	5.62p/4.8%
Return record	Since its IPO in 2018, TSR has been 32.4%

Source: SEEIT, Bloomberg

### Sequoia Economic Infrastructure

Issues	Comments
Status	IIC
Ticker/website	SEQI/ <a href="http://www.seqifund.com">www.seqifund.com</a>
Fund aim	Sequoia Economic Infrastructure “invests in income-generating economic infrastructure debt, creating attractive risk-adjusted returns for shareholders from its diverse portfolio of private debt and bond investments, across 12 mature jurisdictions and a range of sectors and sub-sectors”
Key sectors	Economic infrastructure debt
Key markets	US, EU, UK
Core portfolio	TMT, transport, power
NAV per share	102.9p (09/21)
Discount rate	Varied
Market cap./share price	£1,891m/107p
Premium/discount to NAV	+4.0%
Prospective DPS/yield	6.25p/5.8%
Return record	Since its IPO in 2015, TSR has been 50.0%

Source: Sequoia Economic Infrastructure, Bloomberg

## REIFs revisited – a compendium

### ThomasLloyd Energy Impact

Issues	Comments
Status	REIF
Ticker/website	TLEP/ <a href="http://www.tlenergyimpact.com">www.tlenergyimpact.com</a>
Fund aim	"The infrastructure investment platform offers unique access to the growth market for infrastructure in Asia – based on a broad range of dependable investment solutions that reflect two key investor demands – real assets with stable valuations and attractive potential returns, and responsible and sustainable investments"
Key sectors	Renewable generation
Key markets	Philippines, India, East Asia
Core portfolio capacity	32MW
NAV per share	72.6p (est., 12/21)
Discount rate	n/a
Market cap./share price	£94m/82p
Premium/discount to NAV	+13.1%
Prospective DPS/yield	nil/n/a
Return record	n/a

Source: ThomasLloyd Energy Impact, Bloomberg

### TRIG

Issues	Comments
Status	REIF
Ticker/website	TRIG/ <a href="http://www.trig-ltd.com">www.trig-ltd.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"
Key sectors	Wind and solar generation
Key markets	UK, Nordics, Germany, France
Core portfolio capacity	1,941MW – c.1,180MW of which are in the UK
NAV per share	114.3p (06/21)
Discount rate	6.50%
Market cap./share price	£3,036m/134p
Premium/discount to NAV	17.2%
Prospective DPS/yield	6.76p/5.0%
Return record	Since its IPO in 2013, TSR has been 9.2% per year

Source: TRIG, Bloomberg

### Triple Point Energy Efficiency

Issues	Comments
Status	REIF
Ticker/website	TEEC/ <a href="http://www.tpenergyefficiency.com">www.tpenergyefficiency.com</a>
Fund aim	"We target UK-based, institutional-grade energy efficiency infrastructure assets whilst helping to ensure our shareholders receive an attractive long-term income source with a positive impact"
Key sectors	CHP systems, distributed generation, energy efficiency
Key markets	UK
Core portfolio	CHP and hydro-power investments
NAV per share	94.5p (09/21)
Discount rate	n/a
Market cap./share price	£100m/100p
Premium/discount to NAV	+5.8%
Prospective DPS/yield	5.50p/5.5%
Return record	n/a

Source: Triple Point Energy Efficiency, Bloomberg

## REIFs revisited – a compendium

### US Solar

Issues	Comments
Status	REIF
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 North America and other OECD countries in the Americas"
Key sectors	Solar generation
Key markets	US (East Coast, Oregon and Utah)
Core portfolio capacity	493MW of solar plant in US
NAV per share	(c94.7) 70.1p (09/21)
Discount rate	n/a
Market cap./share price	£233m/70p
Premium/discount to NAV	+0.3%
Prospective DPS/yield	(c5.50)/4.08p/5.8%
Return record	n/a

Source: US Solar, Bloomberg

### Victory Hill GSEO

Issues	Comments
Status	REIF
Ticker/website	VICT/ <a href="http://www.vh-gseo.com">www.vh-gseo.com</a>
Fund aim	"Seeks income yield and NAV growth by investing in stable, yielding, sustainable energy infrastructure investments that are in operation, in construction or "ready-to-build"..."
Key sectors	CHP generation
Key markets	UK
Core portfolio capacity	nil (10MW under construction)
NAV per share	99.8p (09/21)
Discount rate	n/a
Market cap./share price	£334m/107p
Premium/discount to NAV	+7.2%
Prospective DPS/yield	1.25p/1.2%
Return record	n/a

Source: Fund website, Bloomberg

## Conclusion

### Is the going getting tougher?

Both the IIC and the REIF sectors, as defensive investments, still look to be well-placed. After all, their earnings are high-quality – often backed by public sector contracts or PPAs– while their dividend payment profiles are sound and, in most cases, secure, although any increases may be modest.

### Higher interest rates and lower power prices are key risks

IICs are exposed to risks, with higher interest rates being one obvious concern, along with the revenue risk of holding demand-based assets. Both the leading REIF sub-sectors – wind and solar generation – are exposed to potentially lower power prices, despite the valuable PPA protection, and higher interest rates, which would adversely affect all funds – although some to a greater extent than others.

### COVID-19's comparatively marginal impact on infrastructure stock

Unlike some other sectors, including travel and hospitality, COVID-19 has had a somewhat marginal impact on the sector, but it is noticeable that, for varying reasons, dividend cover has become quite thin for several REIFs – as indeed it has for some IICs.

### Inflation protection

Nonetheless, quoted IICs and REIFs continue to offer appeal on several fronts, with dividends expected to rise at least in nominal terms, on the back of a sector yield of between 4% and 6.5%. In addition, there is significant protection against higher inflation, although rising interest rates would clearly be a negative factor.

As such, despite their low profile, IICs and REIFs are expected to be of increasing interest to the discerning investor.

# Appendix 1

## Glossary

Glossary	
AD	Anaerobic Digestion
AIC	Association of Investment Companies
CfD	Contract for Difference
CHP	Combined Heat and Power
CPI	Consumer Price Index
Discount to NAV	Amount at which a fund's shares trade below NAV
EV	Enterprise Value
EIT	Environmental Investment Trust
FM	Facilities Management
FV	Fair Value
GWh	Gigawatt hour – electricity generation per hour
IFRS	International Financial Reporting Standards
IIC	Infrastructure Investment Company
IPO	Initial Public Offering
MWh	Megawatt hour – electricity generation per hour
NAV	Net Asset Value
NI	Northern Ireland
NTMA	National Treasury Management Agency
PFI	Private Finance Initiative
PPA	Power Purchase Agreement
PPP	Public/Private Partnership
Premium to NAV	Amount at which a fund's shares trade above NAV
RAV	Regulatory Asset Value
REC	Regional Electricity Company
REIF	Renewable Energy Infrastructure Fund
RoI	Republic of Ireland
ROC	Renewable Obligation Certificate
RPI	Retail Price Index
SPV	Special Purpose Vehicle
TMT	Technology, Media and Telecom
TSR	Total Shareholder Return
TWh	Terawatt hour - electricity generation per hour

*Source: Hardman & Co Research*



## Appendix 2

### Possible questions

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

- ▶ What is the impact on your business model of higher inflation and higher interest rates?
- ▶ How is your NAV calculated?
- ▶ What is the blended discount rate that you use for your NAV calculations?
- ▶ What percentage of your revenues is subsidy-driven?
- ▶ To what extent have you been adversely impacted by COVID-19?
- ▶ How difficult is it for you to find new investments at an attractive price that meet your financial return requirements?
- ▶ What is your policy regarding investment in demand-based assets?
- ▶ How do you account – in valuation terms – for “tuck-in” acquisitions?
- ▶ Which overseas markets do you see as the most attractive for IIC/REIF investment – and why?
- ▶ What is your target annual growth rate?
- ▶ What has been your TSR since your IPO?
- ▶ What percentage of your revenues is covered by PPAs?
- ▶ What long-term power price assumptions are used in your NAV calculations?
- ▶ What is your latest dividend cover?
- ▶ What is your long-term dividend policy?
- ▶ How damaging is the 2017 closure of the RO for new solar investment?

### About the author

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