



Gresham House
Specialist investment

Sustainable investment update: New Energy

April 2024

Real Assets

Our range of real asset investment products provide protection from inflation through proven, long-term sustainable, asset-backed investments.

In many cases, they also provide the potential for uncorrelated returns to equity markets as well as diversified sources of income.

How we integrate ESG

Our Real Asset investments sit within the Sustainable and Impact categories of our Spectrum of Capital. ESG factors are assessed from a risk and opportunities perspective to generate at least market-level investment returns. Our funds also aim to actively contribute towards solutions to some of the largest environmental and societal challenges and produce positive real-world outcomes.

ESG integration into the investment process for our Real Assets

1. Sourcing

Sustainability considerations are integrated from the point of investment product design and in the initial sourcing of new investment opportunities.

2 Initial Appraisal

ESG risks and opportunities are considered at this stage. This may lead to further investigation at Due Diligence stage. If certain risks are unlikely to be managed or mitigated, we may not proceed.

4. Investment Appraisal and Acquisition

A summary of ESG findings are included in Investment Committee papers. This will include proposed action plans to mitigate or capitalise on ESG factors.

3. Due Diligence

The ESG Decision Tool and stakeholder meetings, including with specialised consultants, ensure our teams assess material ESG risk or opportunities to be managed or that could drive value.

5. Ongoing management and asset operation

Plans developed at the Appraisal and Acquisition stage are implemented by our teams. All assets are managed in line with relevant sustainability requirements or standards for the asset class.

New Energy

The Gresham House New Energy strategy invests in three growth technologies supporting the shift from a world powered by finite resources to a rapidly evolving new energy system: Wind, Solar and Battery Energy Storage Systems (BESS).

We aim to support the decarbonisation of energy systems by investing in and developing new renewable energy generation and BESS assets and demonstrate additionality through developing new technology capacity over time.

Real world outcomes	2022	2023
Scope 1&2 GHG emissions (tCO ₂ e)	14,572	12,882
Scope 3 GHG emissions (tCO ₂ e)	1,876	2,082
Carbon intensity (Scope 1,2&3 tCO ₂ e/£mn invested)	44.0	35.4
Renewable energy generation (GWh) ¹	487	418
<i>Equivalent homes powered²</i>	<i>138,700</i>	<i>129,136</i>
<i>Carbon emissions avoided (tCO₂e)³</i>	<i>210,300</i>	<i>177,348</i>
New renewable generation capacity (GWh)	0	0
Operational BESS capacity (MW)	550	690
<i>Carbon emissions avoided (tCO₂e)⁴</i>	<i>510,219</i>	<i>677,775</i>
New operational BESS capacity (MW)	125	140
BESS capacity under construction (MW)	477	377
Community benefit fund contribution (£)	483,000	531,668
Renewable assets with habitat management plans	88%	91%

1. Disposal of assets left a smaller generating base alongside low wind speeds

2. Calculated for 2023 using the BEIS average annual household energy usage of 3.239MWh (DESNZ, January 2024). This decreased from an average annual household usage of 3.509MWh in 2022

3. Calculated for 2023 using a 424g tCO₂e/GWh carbon intensity figure for "all non-renewable fuels" (DESNZ, July 2023, table 5.1) and applying the Renewable UK methodology

4. Carbon Responsible. In 2024 we are working with industry peers to agree upon a common methodology

Supporting the global transition to net-zero emissions

The New Energy team is fully committed to investment in and development of new renewable energy generation assets and BESS that will power the renewable energy transition.

We are focused on investing in additional BESS and renewable energy asset capacity, as well as engaging with key stakeholders to drive industry change.

BESS assets

BESS enable a cost-effective energy transition to a renewables-based energy economy by supporting security of supply and providing balancing mechanisms for the grid.

The New Energy team invests in and constructs BESS via Gresham House Energy Storage Fund plc (GRID), the UK's largest fund investing in utility-scale battery energy storage systems.

In 2023, we increased our BESS operational capacity with the completion of Coupar Angus (40MW/40MWh), Grendon (50MW/100MWh), and West Didsbury (50MW/50MWh) projects. This takes total operational capacity as of 31 December 2023 to 690MW, an increase of 26% from the 550MW operational as of the previous year end.

We are increasingly focused on adding longer duration BESS assets to the portfolio, either by constructing new-build, 2-hour systems or by increasing duration of current assets. In 2023, operational megawatt-hours (MWh) increased 32% from 598MWh to 788MWh.

The addition of Grendon in the year marks the first 2-hour operational project in the portfolio and in 2024 three more 2-hour systems, Shilton Lane (40MW/80MWh), West Bradford (87MW/174MWh), and Elland (50MW/100MWh) are to be commissioned along with adding 330MWh of capacity to operational sites.

This increased average duration provides greater flexibility for the shifting of renewable power from times of excess supply to excess demand, thereby supporting the energy transition.

Wind and solar assets

We invest in efficient, long lasting new-build solar and wind projects with the lowest possible levelised cost of electricity (LCOE) to help drive the transition towards a fully renewable energy generation mix, supporting the UK's net-zero 2050 target.

In 2023, we made significant strides in our commitment to renewable energy. Construction began for five solar parks, with a collective capacity of 139MW, all scheduled to be operational during 2024. Simultaneously, progress was made towards the development of two onshore wind projects and the divestment of some smaller legacy assets. Looking ahead the division will look to progress the onshore wind assets and source additional solar capacity.

Our contribution to industry change

We engage with key industry bodies and government representatives to encourage policies and regulation that support accelerated decarbonisation of energy systems and the technologies that underly this transition.

We regularly engage with other relevant parties, including the Department for Energy Security and Net-zero (DESNZ) (formerly the Department for Business, Energy & Industrial Strategy (BEIS)), National Grid Electricity System Operator (ESO) and consultants, to support market changes.

In 2023, we joined Solar Energy UK's Responsible Sourcing Steering Group. This group aims to work with key stakeholders and unravel the complexity of the sector's supply chain, engaging with suppliers and business partners to implement a responsible sourcing programme.

The Group developed a new responsible sourcing statement designed to promote the highest possible levels of transparency and sustainability throughout the solar value chain. It also developed the Solar Stewardship Initiative, a solar-specific supply chain assurance scheme with a dedicated environmental, social and governance standard.



Case study: delivering a two-hour battery at Grendon



Grendon is a newly built 50MW/100MWh battery in Northamptonshire and is the first two-hour operational project for Gresham House Energy Storage Fund (GRID).

Two-hour batteries are able to support the grid during high or low renewable output over a longer period than shorter duration assets.

They are an important part of the energy transition, allowing more renewable power to be stored and then released over a longer timeframe.

By storing electricity produced by excess renewable generation, the site can deliver power to 100,000 homes for a continuous two-hour period.¹ Using this renewable energy rather than burning gas to produce electricity could save 13,140 tCO₂e per year.² This is the same amount of CO₂ generated as 4,530 return flights between London and Hong Kong.³

1. 1 MWh is enough energy to supply the average power requirement for 2,000 homes for an hour – OFGEM, ofgem.gov.uk

2. Assuming 2 cycles a day and emissions from natural gas are 0.18kgCO₂e/KWh – BEIS 2022 assets.publishing.service.gov.uk. $2 \times 100\text{MWh} \times 0.18\text{kgCO}_2\text{e/KWh} \times 365 = 13,140,000\text{kgCO}_2\text{e}$.

3. An economy return flight to Hong Kong is 2.9 tCO₂e – BEIS 2021, sgr.org.uk

Case study: community engagement at Harborough



Developing and retaining strong relations with local communities is a key aspect of the New Energy team's sustainable investment commitments. It is also increasingly important in the approval process for new asset development.

In 2022, Gresham House acquired project rights to Harborough, a ground mount utility scale solar park currently under construction near Rugby, Warwickshire, and due to become operational in 2024.

- 100 acres
- 49,000 solar modules
- Capable of supplying enough electricity to power over 7,700 homes annually¹
- Avoiding around 11,500t of CO₂²

1. Based on 27GWh of generation based on the site's technical studies and an annual average household consumption of 3509 kWh per annum (BEIS December 2022)

2. Based on 27GWh of generation based on the site's technical studies and Carbon intensity 424g CO₂ per kWh



Community benefit

During the planning phases of the project, developers engaged with various stakeholders including the local community through the parish council. The fund will make an upfront payment aimed at assisting the local community in achieving its objectives. This payment will be crucial for the construction of a new child's play park in the village as other sources of funding will become available to the community once a deposit has been made. Furthermore, the fund is dedicated to providing an annual recurring payment to support future projects within the local community.

Environmental benefit

Harborough will see over 2.1km of new native hedgerows planted to facilitate habitats for local wildlife. The grassland among the arrays will be seeded with an enhanced mix suitable for sheep grazing, which is mutually beneficial for the fund and the farmer.

A biodiversity field will be established with a wildflower meadow mix and a pond will be created in this field to provide habitats for a range of local wildlife. Across the site there will be several bat, bird and dormouse boxes as well as a hibernacula, a refuge for reptiles, amphibians and invertebrates.

Outside of the leased area the fund has committed to the creation of 20 Skylark plots, which will be created in the adjacent arable fields.





Supply chain management

The New Energy team remains cognisant of the operational, environmental and social risks that exist within their supply chains, and continues work to understand and manage associated risks. The focus to date has been on potential human rights related risks.

In 2022, we undertook an audit of our primary battery supplier, CATL, which verified that it had a framework in place to manage ESG risks, and that its policies were deemed to be satisfactory.

In 2023, we built on this to identify a provider who could evolve our approach to supply chain management in the following ways:

- Review, evaluate and update our supply chain policies across each of our New Energy asset types, ensuring they effectively address material risks and upcoming regulation
- Undertake additional ESG due diligence on our core suppliers in line with our updated policies and industry standards

We aim for the above work to be carried out in 2024.

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