flexION energy

Developing Battery Energy Storage Systems

INCREASE THE RETURN FROM YOUR PORTFOLIO BY MAXIMISING ITS UTILISATION

In any land portfolio there are those land parcels that are too small, are poor quality due to high upgrade costs or awkward shape, have lengthy void periods or have a problematic history which makes them difficult to extract any return from. We are seeking landowners with these parcels of land which we can bring into service by hosting a battery energy storage system which will provide you with a stable, long-term rental revenue.

Flexion Energy provide a fully wrapped service of site analysis, development, construction and operation which can help bring those non-contributing parcels of land into use.

If you have one or more plots of land of between 2,500 and 16,000 square meters that you think can provide you with a better return, we can help you understand the benefits a battery energy storage system could bring.

We can review and process whole portfolios and provide recommendations at no cost

Bring brownfield land back into service

Utilise those small and awkward corners of land that have sat empty

Increase your ESG position by taking on green energy infrastructure which will help achieve Net Zero

PLOT SIZE:	***5,750m²***
INDICATIVE ANNUAL INCOME:	***£82k***
ANNUAL INCOME PER M²:	***£14.30***
BASE LEASE PERIOD:	***40 YEARS***

PRODUCE FROM £30,000 PER YEAR* OVER 40 YEARS FROM PLOTS IN EXCESS OF 2,500m²

This example shows a site of approximately 5,750 square meters hosting a Flexion Energy battery energy storage system.

1. This layout could provide a rent of over £82,000 per year
2. We would be your tenant for a basic lease of 40 years, with full responsibility to clear the site away at the end of the term
3. We are looking for land which is free of any environmental designations, has good access to the highway and is close enough to the grid
4. We manage all the necessary planning and connection agreements as well as contributing to your professional fees to negotiate the land agreements. You even receive interim milestone payments ahead of the entering the lease

WHAT IS A BATTERY ENERGY STORAGE SYSTEM?

A grid connected battery energy storage system comprises a set of batteries stored in containers, and associated electrical equipment which are enclosed within a secure fenced site.

The compound is connected to the grid via underground cables which we would install. The batteries are able to take electricity from the grid to charge, as well as discharge the electricity onto the grid.

These schemes operate in a number of ways. When the national level of generation is high but the demand for electricity is low the batteries charge up and hold the electricity. When the situation is reversed they discharge their energy onto the grid network to supplement the electricity generated from other power sources.

Batteries are also able to help maintain the stability of the national grid, to ensure it is operating correctly and we obtain service contracts to do so. Lastly, battery systems can help manage the electrical networks to prevent wires and substations from becoming overloaded.

Battery systems can provide the electricity to fill the imbalance between demand and generation, which might otherwise come from back up gas and diesel generators. As such, this example project could prevent over 10,000 tonnes of CO_2 a year from being emitted.

Given that battery systems allow for greater amounts of renewable generation to connect to the grid, this CO_2 saving gets even higher as more batteries are connected to the grid.

* Dependent on the capacity of grid connection available

ABOUT US

We Develop, Build and Operate

Flexion Energy assess, develop, build, own, and operate energy storage assets in the UK, specifically large-scale battery systems connected to and serving the grid.

UK Based and Financed

Flexion Energy is a modern utility and energy storage infrastructure specialist, which is bridging the gap between development and finance.

We have solid and secure UK based financial backing to make long term investments in UK green energy infrastructure, enabling us to work quickly to bring energy storage systems on stream.

Experienced Development Team

Our people have been pioneering renewable energy, in particular battery technology since its first introduction to the GB grid.

The team consists of experts in grid connections, planning applications and property agreements as well as the design, construction and operation of these assets.

WHY DO WE NEED ENERGY STORAGE?

We are all aware of the climate crisis we are facing and the need to reduce our carbon emissions. From the historic dominance of fossil fuels in electricity generation to the current increasing drive to electrify our heating and transportation, it is imperative that we move to a cleaner, electrical grid which allows for a greater contribution of clean energy sources.

Generating more electricity from renewable sources like wind and solar means we require greater flexibility in how we store electricity and how we move it around our grid.

Battery energy storage systems not only provide an efficient means of storing and delivering electricity when there is a mismatch between demand and generation, they help maintain the stability of the national grid as a whole. They help grid network operators to overcome the twin challenges of preventing network components becoming overloaded and spreading out the need for reinforcements.

We are going through a period of modernising and cleaning our electricity supply. Battery energy systems play a key part in this transition to both make electricity generation more environmentally friendly and to keep the network stable and operating effectively.

YOUR QUESTIONS ANSWERED

How much land is required?

Depending on the shape of the site and the existing vehicular access, our sites could fit on plots as small as 2,500 square meters. Due to the modular nature of the site components, we can work with any shaped piece of land. This also means that we can scale up the sites to fill plots of up to 16,000 square meters, depending on the size of the nearest grid connection. Suitable sites for battery schemes include disused yards, areas between other utilised plots, surplus areas on larger plots with ongoing operations, or awkwardly shaped plot corners which are difficult to utilise.

How do you review sites?

We use in-house developed, Geographic Information System (GIS) computer models to assess individual sites and land portfolios. Using multifactor assessment to determine site feasibility, we review land plots with respect to their grid connection prospects, success in achieving planning consent, site constructability and cable connection feasibility. We provide informed and realistic recommendations on the prospects of site success.

Will the site be sold on?

Flexion Energy's primary business model is to derive revenue from operational sites which it has developed itself. To that end you will be dealing with Flexion Energy right from the start, through construction and into the operation of the site.

Will there be much operational disturbance?

Battery energy storage sites are remotely operated and require minimal on-site presence. There will be between one and two visits a month to ensure the site is kept in good order and the equipment is fully operational.

Can the battery support existing onsite operations?

Because of the high power rating of these battery sites, existing supply connections to all but the largest of industrial facilities would be too small for these batteries to connect onto. Therefore, we arrange for our own grid connections directly into nearby substations or onto the higher voltage overhead lines or cables.

Do I have to pay legal or development costs?

No, we carry out all our appraisals for free, including site visits where necessary. We also pay your reasonable legal fees and handle all the planning application and grid connection costs. In order to reserve the land, we will make payments to you in the period leading up to entering the lease.

How long will construction last?

Depending on the size of the site and the specifics of your location, construction could last between 8 and 12 months. Construction broadly follows four phases: ground works, deliveries, commissioning then demobilising the construction works. Heavy vehicle traffic is generally confined to the first two stages.

Can you work on contaminated land?

We can work with areas of contaminated land. Generally, battery energy storage sites do not require deep foundations and we can effectively construct on top of the site and leave the deeper ground undisturbed.

OUR PROCESS

1 Initial Agreement and Letter of Authority

We discuss what is involved in developing a battery project on your land.

We discuss the suitability of your land and how we could access your land.
This could include a site visit.

We ask you to sign a Letter of Authority which means you are giving us permission to discuss a grid connection on your land with the network operator.

2 Grid Network Application

We submit a formal application to obtain a connection to the network operator and they provide us a written connection offer in around 3 months.

Whilst the application is being considered we can discuss the Heads of Terms for the Option to Lease and Lease.

We also start on some early survey work which would contribute to the design and planning application.

3 Option and Lease Negotiation

We negotiate the Option to Lease and draft Lease Agreements, which will cover the pre-construction, construction, operation and decommissioning phases.

We will complete all the necessary design and environmental surveys to inform the site design and the planning application.

We will engage with your local authority and community to gather views on the project.

4 Planning Application Determination

We submit the planning application to your local authority and await their feedback, providing any further information as it is requested.

We may start conducting some buildability tests at the site to better understand the ground conditions.

A planning decision is usually forthcoming in around three to six months.

5 Construction

Construction will start with ground preparation works ahead of the delivery of the equipment.

The equipment arrives ready to place onto its foundations and connect together.

You will have a Flexion Energy representative to speak to at any time, in addition to getting hold of anyone of us that you have been working with to date.

6 Operation

The site will happily operate without any on-site staff, but it will be monitored 24/7 from a control room.

One to two vans per month will visit the site to keep the site tidy and make checks.

At the end of the site's operation we will clear the installation away and return your land to how we found it.

ABOUT FLEXION ENERGY

Flexion Energy is a joint venture platform between ion Ventures Ltd and GLIL Infrastructure LLP, to develop, build and operate energy storage projects in the UK.

ion Ventures is an international developer, expert adviser and partner for the growth of renewable generation, clean electrification schemes and optimised, flexible power infrastructure.

GLIL is an UK based Alternative Investment Fund with £3.6 billion of committed capital. GLIL is backed by Local Pensions Partnership Investments, Northern LGPS and the government-established DC workplace pension provider Nest. These are all large, local UK pension schemes, with access to competitive capital with a long term focus.

Flexion Energy
27 Old Gloucester Street
London
WC1N 3AX

+44 (0)20 7947 9661
development@flexion.energy
www.flexion.energy