Are Bess assets a new asset class?

To some,BESS assets are considered a new asset classthat doesn't necessarily require fixed revenue to be commercially viable from a developer perspective, therefore a more innovative approach to debt financing is needed.

Why should you invest in BW ESS?

As an active investor with development exposure, BW ESS has a strategy to hold assets for the long-term, taking a hands-on approach to unlock value throughout the energy storage asset lifecycle.

What is the future of the Bess market?

Looking to the future, Jacob Lloyd, Head of NatWest's Specialist Asset Finance, is optimistic about the growthof the BESS market and lenders' potential to contribute to progress towards net zero through deploying more capital: "The opportunities are fast flowing across all of Europe. And they don't seem to be slowing down."

Will shell pay the owners a fixed fee for Bess?

Shell will pay the owners a fixed feefor the BESS and keep all the upside. It may be the first tolling deal of this size for a single asset, but the first major UK tolling deal announced in the UK was by Gresham House and Octopus Energy for a 568MW portfolio of operational projects earlier this year.

Is the co-location of a Bess asset commercially viable?

BESS has rapidly transitioned from an emerging technology to a fundamental project component for funders and developers. However, a significant amount of up-front work and due diligence needs to be undertaken to ensure that the co-location of a BESS asset is commercially viable.

Do Bess assets need a generation licence?

BESS assets are considered generating stations for the purposes of the UK Electricity Act 1989. It may therefore be possible, subject to the applicability of any class or individual exemptions, that either or both of the renewable generating asset and the BESS require a generation licence to operate.





According to bp, the projects will be the first new BESS assets bp has contracted to optimise since its acquisition and integration of the digital energy platform Open Energi in 2021. The software developed by Open Energi enables real-time insight and decision-making to connect HEIT's assets with power markets through bp's trading business.

System integrators critical to successful delivery of BESS projects, best-placed to provide servicing too, argues Ray Saka of IHI Terrasun. project, but they are perhaps also best-placed to service the asset once its in operation, argues Ray Saka of IHI Terrasun. The energy storage market is entering a period of exponential growth, and this



BW ESS and its partner Penso Power have signed the first long-term tolling agreement for a single battery energy storage system (BESS) asset in Great Britain with Shell Energy Europe. The seven-year tolling agreement is for the 100MW/330MWh Bramley BESS currently under construction in Hampshire .





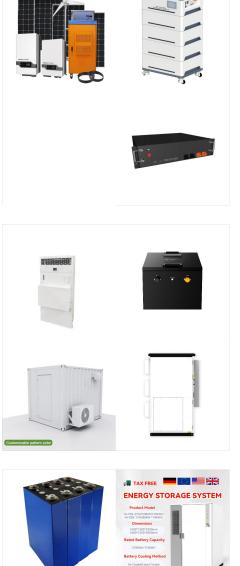
BESS assets are more technically complex than many of the assets that come across the average UK project finance lender's desk. This nascent market is rapidly adapting to several somewhat unpredictable factors ???

The deal is the first announced long-term tolling agreement for a single BESS asset in Great Britain, creating a template for a new revenue structure that will help to unlock energy storage market opportunities across Europe.



This includes financing to the BESS sector where NatWest has arranged, structured and advised multiple "first of their kind" financings across the full spectrum of tenors, revenue models and buildout strategies to support the ???





Lucrative wholesale opportunities for battery energy storage system (BESS) assets have become more prevalent in recent months. As shown in Figure 1 (below), the average wholesale spreads available on a daily basis in power exchanges have been at a five-year record-high, with even larger spreads available for longer duration BESS assets.

As a result, investors are targeting BESS assets as consumers, businesses and regulators increasingly prioritize net zero and other sustainable-energy goals. BESS investment has risen consistently over recent years. ???



However, unlike renewable assets, BESS revenue generation relies on ancillary and wholesale markets, and complex trading strategies to optimize energy buying and selling, exposing investors to market volatility. This revenue uncertainty makes BESS a riskier asset class with more challenging financing options compared to the stable cash flows of





As a result, investors are targeting BESS assets as consumers, businesses and regulators increasingly prioritize net zero and other sustainable-energy goals. BESS investment has risen consistently over recent years. According to Inframation, 227 battery storage M& A deals were announced in 2023, up 15.8 percent from the year before.



Gresham House, the largest owner of battery energy storage system (BESS) assets in the UK, has said it sees tolling deals like the one agreed with Octopus being possible "across the optimiser market". The investment manager, through its Gresham House Energy Storage Fund, has a near-term target portfolio of 1,072MW.



Significant revisions to Dynamic Containment (DC) volume requirements in November 2021 meant that battery energy storage system (BESS) assets could no longer solely rely on the service for revenue. BESS asset owners and operators have been pursuing alternative options to fill the revenue gap DC so consistently provided.





Kona Energy got planning approval in May this year and at the time said the BESS will help increase utilisation of energy from six offshore wind farms, which connect to the grid nearby. The developer said the asset will also perform reactive power services and provide inertia to support the stability of the local grid.

BESS assets are more technically complex than many of the assets that come across the average UK project finance lender's desk. This nascent market is rapidly adapting to several somewhat unpredictable factors and its impact on ???



All of this makes the operation of BESS assets more intricate than ever before. In summary, the evolution of BESS in 2024 is characterised by several key trends: a continued focus on safety, the commercialisation of non-lithium technologies, the extension of battery durations for large-scale systems, and the exploration of additional revenue streams through ???





Underwriting Battery Energy Storage Systems (BESS) as an asset class requires a significantly more granular understanding of power markets than wind and solar. From our conversations with investors, a few ???

A BESS asset needs large expertise to cover each specific equipments and each specific contractors: Battery System, Power Conversion System, Balance of Plant, Grid Connection and Monitoring and Control. ???



The two BESS projects, which are owned by HEIT and expected to come online in the first half of 2024, include Hawthorn Pit (49.9MW/99.8MWh) and Wormald Green (33MW/66MWh). The firm stated that these BESS assets will "help the grid manage greater fluctuations" using energy captured from renewable sources.



Net Asset Value (NAV) per share fell 17% to 129.07p. Falling prices in the ancillary service market was the main reason revenues fell for GRID and other UK BESS owners and operators in 2023. battery energy, battery energy storage system, bess, energy storage, gresham house, gresham house energy storage fund, storage, utility scale

Underwriting Battery Energy Storage Systems (BESS) as an asset class requires a significantly more granular understanding of power markets than wind and solar. From our conversations with investors, a few characteristics are necessary to make BESS investible:



The co-location of BESS assets does not have a one-size-fits-all technical solution. Broadly speaking, a renewable energy generating asset and a BESS asset can be connected by AC coupling and DC coupling. The primary difference between AC coupling and DC coupling is the connection point of BESS with the renewable energy generating asset.

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In February, the firm revealed that its BESS revenues for the year ending October 31 2023 were "markedly lower" than the previous year, owing to a "weak revenue environment for BESS assets". In May, HEIT took the drastic step of cancelling its first quarter dividend for shareholders and announcing that it had appointed JLL to sell some or all of its ???

Battery storage asset owner and operator Varco Energy has added a 47.5MW battery energy storage system (BESS) in Cornwall to its portfolio. Varco has acquired the BESS, dubbed Sambar Power, from Carlton Power, a UK infrastructure development company. It will be situated at the Indian Queens substation, located directly east of Newquay.

This includes financing to the BESS sector where NatWest has arranged, structured and advised multiple "first of their kind" financings across the full spectrum of tenors, revenue models and buildout strategies to support the rollout of BESS assets (see case studies of our most recent transactions below).