

# BESS SITES SCOTLAND SINGAPORE



What is the largest Bess approved in Scotland? This development is the largest standalone BESS approved in Scotland. Image: Apatura Energy. Energy storage specialist Apatura has gained planning approval for a 700MW battery energy storage system (BESS) in Inverclyde, Scotland.



Which energy company is building the largest Bess in Scotland? The Toronto-based energy company has secured planning permission to install the systems which will supply power to Scotland and other regions in the UK. The largest BESS in Scotland will be built by Amp Energy. It will be known as the Scottish Green Battery Complex. When complete it will provide 800MW/1,600MWh of battery storage.



What is a Bess system? These systems play a crucial role in managing the variability and intermittency of renewable energy sources like solar and wind. During periods of excess energy production, such as when the sun is shining and the wind is blowing strongly, a BESS system stores the surplus energy.



What is the biggest Bess in Scotland? This will be by far the biggest BESS in Scotland, let alone Europe. Minity BESS in Wiltshire is currently (in 2022) the largest in the UK. However the new BESS in Scotland will be well over five times as big at 800MW. The Scottish Green Battery Complex will provide grid stability and power management services across the central belt of Scotland.



Which Bess projects are attracting the most attention in Scotland? While Apatura Energy has recently had some smaller planning wins in Scotland, with the approval of three projects totalling 85MW of capacity since December, it is the larger BESS proposals in Scotland that have been drawing the sector's attention the most.

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How many Bess units will be built in Inverclyde? The BESS will be situated on around 16.39 hectares of land near Port Glasgow, Inverclyde, with permission secured for the construction of 240 BESS units, 140 BESS transformers, 280 BESS inverters, three 33kV switchrooms, a 400kV control building, and a 400kV to 33kV transformer compound.



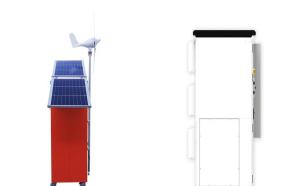
This includes a 50MW.100MWh BESS site, being delivered by Wartsila, and an EV charging network. The first Energy Superhub project had been developed by the now EDF-owned Pivot Power in Oxford. As part of the GBP41 million project, the "largest lithium-vanadium hybrid BESS in the world" was integrated at the Oxford Energy Superhub, it was



The use of BESS are growing at an unprecedented rate, helping to future proof Scotland's energy system, and creating the low carbon infrastructure needed to power more of our lives with clean and reliable energy. The replacement of landscaping and planting at the other BESS site (located adjacent to the Grid substation) is a



The BESS would have been built on a plot of land off Barnsdale Road in south-east Leeds. Plans to build a battery plant on greenbelt land in West Yorkshire have been rejected. Harmony Energy had



Officially inaugurated in early 2023 on the island which houses much of Singapore's industrial and energy infrastructure, the BESS project is the biggest of its kind in Southeast Asia. It was developed by Sembcorp in collaboration with the Singapore Energy Market Authority (EMA) after winning an EMA contract through a solicitation.

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ZenobA? s BESS site in Kilmarnock South, Scotland Earthworks activities included the clearing of vegetation and topsoil, excavation and reshaping of subsoil to create a gentle slope onto which aggregate is placed to create a level development platform to support the batteries and other a?



2MW / 5MWh  
Customizable

Battery Energy Storage Systems or BESS are the hoped for answer to the problem of variable renewable energy (VRE) generators such as wind farms or solar parks. Winter months (especially in Scotland) can cause problems with very high rainfall, high humidity or water penetration, potential flooding and snow melt on top of BESS containers.



Other large-scale BESS in the UK include Amp Energy's two 400MW / 800MWh assets in Scotland, as well as a 360MW Sembcorp Energy UK BESS. The Uskmouth BESS is expected to become operational towards the a?



YLEM Energy, the Salford-based renewable energy firm, has submitted planning applications for two new battery storage sites in Scotland: one at Dounreay in Caithness and another at Ardencaple Farm in Helensburgh. Combined, the sites should offer 84MW of energy storage, with the Helensburgh site alone having a storage capacity of 50MW.



Battery energy storage system (BESS) and EV solutions firm ZenobA? Energy has started construction on a 300MW/600MWh project in Scotland, after securing project financing. ZenobA? Energy will use the GBP147 million (US\$187 million) funding arranged by retail banking company NatWest to build the Kilmarnock South project which is anticipated to

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Bluestone Energy has submitted three 69MW battery energy storage system (BESS) project proposals for Scottish Water sites in Renfrewshire. The proposals, which have been submitted to the Scottish Government, will be situated at Scottish Water's Laighpark Waste Water Treatment Works (WWTW), Stanely Water Treatment Works (WTW) and Linwood a?|



Clean energy enterprise TagEnergy has reached financial close on its 49.9MW/99.8MWh Pitkevy facility in Fife, Scotland. Pitkevy is TagEnergy's first split-contract project, with Tesla providing the Megapack 2 XL battery a?|



ZenobA? yesterday (15 November) officially opened its 50MW/100MWh battery energy storage system (BESS) in Wishaw, North Lanarkshire, Scotland. According to the developer, the battery is "one of the largest" in Scotland and the first to connect directly to the transmission network.



A 200MW battery energy storage system (BESS) in Bathgate, Scotland, has passed through West Lothian Council's executive committee with no objections. Ministers at the Scottish government's Energy Consents Unit will now consider the proposals and decide whether to grant consent.



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ESB said the co-location with the BESS will ensure the maximum use of the grid connection, implying the two technologies will share one connection, while RSK project manager Joe Somerville said: "The on-site battery storage means it will also contribute to a reduction in energy curtailment and providing grid stability."



Paying operators to switch off wind farms in Scotland cost billpayers GBP920 million (US\$1.2 billion) in 2023, and BESS developer and operator Field recently did some analysis showing that BESS could help reduce that by up to 80%. Kona's project is among the larger ones, though not the largest, to have been granted planning consent in Scotland.



On 15 September 2020, a fire at a BESS site in Liverpool took 59 hours to extinguish and created a "significant blast", South Scotland. Energy firm slams "troubling" battery plan refusal. 5



Coalburn BESS Site. Scotland. Coalburn BESS Site. Acquisition of a 38.7-acre, grid-connected freehold site located in South Lanarkshire, Scotland, expected to become one of Europe's largest battery energy storage system (BESS) facilities. acquisition date. May 2024. size. 38.7 acres. INVESTMENT TYPE.



Our BESS projects. Our inaugural 50MW BESS site in Burwell, Cambridgeshire, was successfully energised in January 2022. Find out more about the project. 50MW Registered in Scotland under Company Number SC367563. Registered office at 2nd Floor, 48 St Vincent Street, Glasgow, G2 5TS. SMS Ltd's main area of operations is the UK.



Apatura said of the planned Auchentiber Road BESS: "When it comes online, it will make a substantial contribution to the Scottish Government's goal of generating 50% of Scotland's overall

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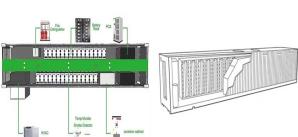
Sembcorp Energy UK is a subsidiary of Singapore's Sembcorp Group, which entered the UK energy market in 2003. Image: Sembcorp. Sembcorp Energy UK is planning on building what it claims will be Europe's a?|



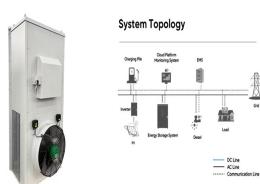
Applicant Fiskerton BESS said the site would have a robust fire safety management plan. The system is designed to store electricity while it is plentiful and release it to the grid when it is needed.



National Grid ESO estimates show that constraint costs could reach as high as GBP3 billion in 2029, with the bulk of this coming from curtailing wind in Scotland. Projects such as the Smeaton BESS are vital in bringing these costs down, reducing bills for consumers, and preventing the waste of clean energy generation.



Once completed, the Aunchetiber BESS will be Scotland's largest standalone BESS, while also marking the largest project Apatura has received approval for across its 10GW pipeline. The BESS will be situated on around 16.39 hectares of land near Port Glasgow, Inverclyde, with permission secured for the construction of 240 BESS units, 140 BESS



The new BESS will double Scotland's installed capacity when completed. Image: ZenobA?. ZenobA? Energy has secured GBP147 million and started construction on its 300MW/600MWh Kilmarnock South battery energy storage system (BESS).



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The land requirement varies, BESS projects can be as small as two acres, or as large as 30 acres. Typically, BESS developers look for between two to 15 acres of relatively flat-lying land. Battery sites should be located a?