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Four-hour battery storage projects announced by AMP

2 years ago

Energy company AMP Clean Energy has announced it will begin construction of several battery storage projects which will feature new long-duration batteries.

These will be designed to allow renewable energy to be stored for up to four hours, significantly longer than most storage solutions currently available in the UK.

Urban Reserve Storage, which is backed by a £45m debt facility from Allianz Global Investors, is comprised of four projects which in combination will be able to store 90MWh of electricity, using the latest high energy density lithium-ion cell produced by global leading renewable energy technology company and EV manufacturer, BYD.

While most batteries deployed to date in the UK are only able to store excess energy for one to two hours and are connected at high voltage levels, the company is deploying four-hour batteries which will be connected at 11kV and installed in urban areas.

This means they can be connected to local networks and respond quickly during times of high demand, discharging stored renewable electricity when and where it is needed most, including morning and evening peaks.

With long-duration energy storage seen as a key component of the UK's net zero plans, Urban Reserve Storage will support both the low-carbon energy transition and help the UK achieve its energy security and climate ambitions.

Chief executive Mark Tarry said:

“To successfully move to a smarter energy future and support the rapid deployment of technologies such as electric vehicles and heat pumps, we need to see a significant increase in flexible assets alongside upgrading the capacity of networks. Increasing the amount of energy storage will be key to this, particularly when it comes to supporting the intermittency of renewable energy from wind and solar.

“Upgrading the grid infrastructure will take time and money. Flexible assets like the Urban Reserve Storage solution not only provides a market-leading duration time – at least twice as long as what is currently typically available – it will also connect to local networks so that renewable electricity is stored close to where it’s needed most. This means that more people will be able to lower their emissions by installing a heat pump or buying an EV without putting as much strain on the grid.”

Due to come online later in 2024, Urban Reserve Storage is designed to build on the company’s portfolio of natural gas peaking plants, which have successfully provided flexible capacity to distribution networks during times of high demand and low wind for more than five years.