

Leading the charge on battery technology

Titanvolt's Neill Richardson explains how lithium titanium oxide batteries can be a gamechanger for real estate

Titanvolt is a new UK-based business that is bringing lithium titanium oxide (LTO) technology to the UK and Europe.

LTO technology has been in existence for about 25 years, but the plan now is to commercialise it and make it viable for the market, particularly the real estate sector.

"It has got several key attributes that make it suitable for the built environment," Titanvolt's chief executive Neill Richardson told *Real Asset Insight's* Richard Betts.

These advantages include: no risk of fire; high depth of discharge, a very long life; good temperature tolerances; and recyclability

"At a chemistry level, it's a completely safe technology. Because it has zero risk of fire, it's the first battery technology that can be present in a building or in public spaces, so things like mobility are addressed," explains Richardson. "In terms of real estate it's equitable – energy for everybody – because we can finally enter flats, apartments, mews and maisonettes and not just detached homes.

"It will make energy accessible for all. Not only can it go inside buildings like apartments, it can go into small businesses," Richardson adds.

"We are also working with energy companies to bring in a tariff on which the battery can store energy when it's cheap, but then deliver it when it's needed most."

The technology has the capacity to bring about a fundamental change to the renewable energy scene, he says. "It definitely is a game changer because we've got renewable energy being

installed all over the country, including solar power, hydroelectric and wind turbines, and now there's going to be somewhere to put that energy and you can realise the benefits from inside your house.

"It will benefit the energy companies too, because they've got somewhere to store the energy when the energy is cheap and it will directly benefit the consumer because they'll be able to access that energy whenever they need it."

The technology is highly versatile because the storage systems are scalable. "We've developed the energy storage system to be modular, so we can stack modules on top of one another up to 25 kilowatts to suit a range of smaller homes, or even caravan parks, all the way up to SMEs and large businesses," Richardson says.

The green advantages go further too. "Traditional battery technologies are generally 50% to 60% recyclable at the end of their life, which means that half of the product is sent to waste. It is normally sent to third-world countries for recycling and that is a massive political and environmental challenge," he explains.

But Titanvolt batteries are 98% recyclable at end of life, meaning that every battery it



has on the market today can go back into the supply chain for future use.

"I see Titanvolt as a global business," says Richardson. "We may be based in the UK at the moment, but the requirement for safe, equitable energy storage is paramount across the world so we're starting in the UK to prove the model and then we'll move out into Europe and then worldwide." ●



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