

# Infra Dig – Highview Power, innovation in action

Angus Leslie Melville

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Liquid air energy storage (LAES) technology has been in the pipeline for years, but now it's come of age as Highview Power leads the charge with a demonstrator plant in the UK... and plans for a lot more down the line.

This latest episode of the Infra Dig podcast sees IJGlobal editorial director Angus Leslie Melville pull up a fireside chair with Richard Butland – co-founder and chief executive of Highview Power – to hear more about the fascinating demonstrator project in Carrington, Manchester.

The podcast – which runs for almost 25 minutes – focuses on an emerging technology (it's been emerging for a while) that is starting to punch its weight and looks set to play a significant role in international energy storage.

This latest episode can be accessed on Spotify (embedded above) as well as through [Apple Podcasts](#) and on the [Amazon service](#). It is also hosted across a slew of other platforms and is open access on all of them.

Richard takes the listener through the technology, explaining how it is based on established systems that have been in play for 50-100 years, taking excess energy from the likes of offshore wind farms.

"We use that excess energy that would otherwise be wasted, and put in compressors that come out of the LNG industry – or the industrial gases space – and we literally compress and liquify ambient air," says Richard.



"We pull the air out of the atmosphere, pressure it down and convert it into a liquified form at minus 160 degrees Celsius cryogenically. That then gets stored in very large stainless steel vessels.

"It is as simple as using energy to compress air and effectively freezing it – though it stays in liquid form – and putting it in a giant thermos.

"Then, when we need power, we add some heat and we take that frozen energy – or the air – and we re-expand it to a gas form. It expands 800-fold and turns a turbine to create electricity to put into the grid.

"It is as benign as that."

Tune into this latest episode for a fascinating chat on the procurement of Highview's demonstrator project and its plans

to roll out more facilities in the UK, Japan and Australia.



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