

# The world must urgently invest in green energy infrastructure

✓ **Graham Matthews explains why the time is now for pension fund investors to explore green energy infrastructure**

**T**he challenges facing the world in 2022 can appear dramatic and unprecedented. Yet, half a century ago, in 1973, during the oil crisis, we faced similar issues, when we saw a surge in petrol prices and a deep recession in most Western countries.

## The more times change

The West German government was among the first to act, and in 1970 announced the creation of a Federal Crude Oil Reserve at the Etzel salt caverns near Wilhelmshaven. Later to be known as Storag Etzel, these caverns were designed to hold Germany's strategic reserves of crude oil (65 days' worth, to abide by the European directive) and, later, to hold reserves for Belgium and the Netherlands too.

## Where the times differ

Our atmosphere is more saturated with carbon dioxide than at any point in the last four million years, with CO<sub>2</sub> the primary greenhouse gas emitted through human activities. Consequently, climate change and global warming will significantly threaten the quality of life of future generations.

There is a vital need, just as in the early 1970s, for investment in energy infrastructure to prepare our cities for the enormous challenges ahead. If we fail to do so, the Intergovernmental Panel on Climate Change's reports make clear what will happen.

This year's unprecedented drought in Europe, following on from worldwide extreme weather events last year, is only a foretaste of what is to come. The world is already 1.1 degrees Celsius warmer than it was 150 years ago, and each further fraction degree increase will bring greater rainfall, higher rises in sea levels and more intense droughts and wildfires.

Once again, Storag Etzel will play a crucial role in meeting these challenges by ensuring energy supply and security are seamlessly aligned with the challenges of the energy transition.

## Proofing mass storage of hydrogen

Since 2008, PATRIZIA has been the sole owner of the caverns through two special alternative investment funds, and Etzel remains one of our most significant infrastructure investments.

In fact, our experience there, and our conviction of the opportunities available in the infrastructure sector led us, in 2021, to acquire Whitehelm Capital, an independently owned international infrastructure manager. For PATRIZIA's corporate operations, we have the clear goal of achieving net-zero carbon 'status by 2040 or earlier, with a clear ambition to execute as fast as external and our stakeholder requirements permit.

We, therefore, are particularly interested in a unique project being conducted at Etzel to test the feasibility of large-scale hydrogen storage using existing infrastructure and two industrial-scale caverns with a combined

volume of 293,000 m<sup>3</sup>. Storage is a vitally important enabler of the shift away from fossil fuels and towards a hydrogen economy and energy security.

First, it balances out the volatility in energy production caused by the shift to renewables. Second, it means that countries such as Germany can use imported hydrogen to maintain a steady flow of energy, which will be essential given that such countries cannot produce nearly enough through their own efforts.

Other developments close to Etzel are turning the area into an ever-more important energy node, known as the Energy Hub – Port of Wilhelmshaven. For example, in response to the Ukraine war, the government is building an LNG terminal. An interconnector between the German and UK grids, which is a critical piece of energy infrastructure, is also being constructed. And a pipeline to connect the LNG terminal with the grid in Germany is also underway.

Germany is again leading the way with these various developments, and other countries are starting to respond. They are also investing in renewable energy infrastructure and developing initiatives to switch to a hydrogen economy.



✓ **Written by PATRIZIA Infrastructure CEO, Graham Matthews**

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