

# Aldbrough Hydrogen Pathfinder

SSE Thermal would like to introduce you to the Aldbrough Hydrogen Pathfinder project. This Project proposes to construct and operate a green hydrogen production, storage and energy generation facility, which is at our existing site, by converting one of the site's existing natural gas storage caverns.



## What is the Pathfinder project?

Located at SSE Thermal's Aldbrough Gas Storage site, the Aldbrough Hydrogen Pathfinder project is an important building block in the development of a thriving Humber hydrogen economy, underpinning the region's decarbonisation and supporting economic growth locally and nationally.

The Pathfinder Project is within our existing site at Aldbrough Gas Storage, and all visible infrastructure will be within the site boundary.

The Pathfinder Project intends to use one of the storage caverns that is already existing, and repurposing it to develop a project in the Humber that would unite hydrogen production, storage and power generation in one location.

This first-of-a-kind green energy project would unite hydrogen production, storage and power generation in one location by the middle of the decade. Pathfinder will support the evidence base for wider deployment of flexible hydrogen power in the UK's net zero journey and is a major enabler of SSE Thermal's wider Humber ambitions.

## How will it work?

The Aldbrough Hydrogen Pathfinder project will integrate electrolytic hydrogen production, storage, and power generation. Electrolytic hydrogen will be produced by taking green power sourced from the grid, in compliance with government policy, and using that to split water into hydrogen and oxygen.

One of Aldbrough's existing natural gas storage caverns will be converted and repurposed to store the hydrogen produced from the development.

The hydrogen will then be transported via an on-site pipeline to a gas turbine to generate electricity, which will export power back to the grid during times of low renewable power availability.

## Who is SSE Thermal?

SSE Thermal operates an industry-leading fleet of flexible generation and energy storage assets, with over 600 direct employees across the UK and Ireland.

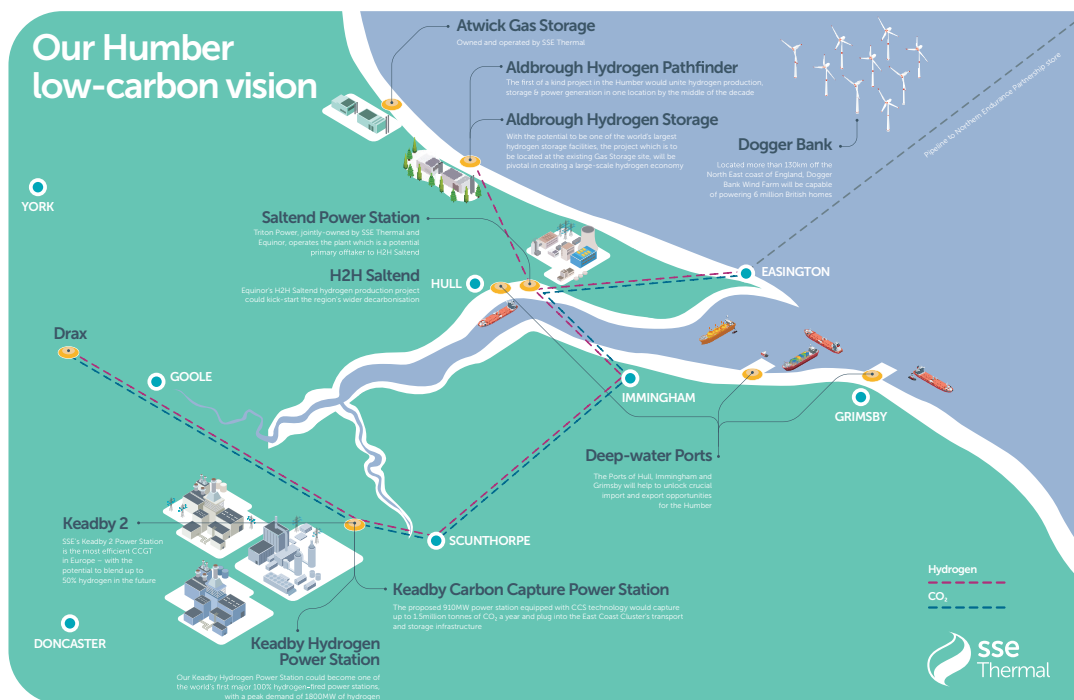
We believe flexible and efficient thermal energy will play a critical role in the transition to a net zero future, complementing renewable generation and maintaining security of supply. To achieve this, we are working on cutting-edge carbon capture and hydrogen solutions cross the UK.

The Aldbrough Gas Storage facility, which is owned and operated by SSE Thermal and Equinor, has been safely operating nine gas storage caverns since commercial operation in 2012. When full, the site can supply up to 10% of the country's gas requirements for around 10 days. The facility plays a large part in providing the valuable flexibility to ensure that the UK's energy requirements are met.

## Community Benefits

Since operation commenced, there have been close links forged between SSE Thermal and the local community. A local woodland has been developed to provide an area for walkers to enjoy the surrounding countryside with nesting boxes recently erected to encourage birds to inhabit the area and wildflowers sown. SSE Thermal volunteers have assisted with bulb planting and the Aldbrough village fêtes supported.

Hydrogen has an integral role to play in reaching net zero and we're bringing forward projects across hydrogen value chain, with a particular focus on the Humber region. This will bring energy and opportunities to a new generation, building a pipeline for low-carbon careers.



## Scoping Report

The team have recently submitted a scoping report to East Riding of Yorkshire Council (ERYC) for feedback, as part of the Environmental Impact Assessment (EIA), that is required to be submitted with the planning application later in 2023.

To read the full Scoping Report, you can scan the QR code to be taken directly to the report, or visit the ERYC website.

If you would like a printed copy of the Scoping Report, please send a request by email or phone.

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## Next Steps

As plans are further developed, we will be holding a public consultation on the results of the Scoping Report, where you can view the information and provide us with your feedback. This will be both online and in-person.

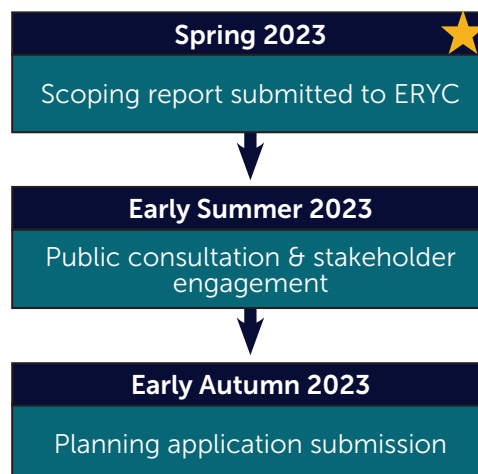
Following the public consultation, we will consider all feedback received from stakeholders and the community, and incorporate these comments where relevant.

We plan to make an application for planning consent to East Riding of Yorkshire Council later in 2023, which if successful could be operational in 2026.

## Community Liaison Group

Our local Community Liaison Group (CLG) meetings are held monthly and there are representatives from Aldbrough Parish Council, East Garton Parish Council, St. Michael's Church, Aldbrough Sport's Hall, Aldbrough Primary School & the local Equestrian Community. The meetings are a key part of the relationship between SSE Thermal and the wider community, providing a forum for discussions, updates, and opportunities to support activities and events.

Minutes from these meetings are available on the project website.



## Contact us

Stay up to date on the project by viewing our project website or scanning the QR code.

**Web:** [www.ssethermal.com/flexible-generation/development/aldbrough-hydrogen-pathfinder/](http://www.ssethermal.com/flexible-generation/development/aldbrough-hydrogen-pathfinder/)

You can also contact our Engagement Manager via email and phone:

**Phone:** 07467 652088

**Email:** [rachel.fox@sse.com](mailto:rachel.fox@sse.com)

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