Welcome

Welcome to the Equinor H2H Saltend Second Public Consultation

Thank you for visiting Equinor's public consultation on the Hydrogen to Humber (H2H) Saltend project, a groundbreaking new low-carbon hydrogen facility at the forefront of decarbonising the Humber region.

This is the second phase of public consultation and a key part of our programme of ongoing engagement activity, providing members of the public and wider stakeholders with the opportunity to learn more about the proposed H2H Saltend project.

Detailed within this exhibition is an overview of the project, its proposed location, the outputs from the scoping stage of the Environmental Impact Assessment, and the wider role of H2H Saltend in kick-starting the delivery of net zero carbon ambitions in the Humber and across the East Coast Cluster.

Our virtual consultation runs from the **4th of April to the 6th of May 2022** and stakeholders are also invited to attend our in-person events:

- **4th April 2022, 2pm – 8pm** Paull Village Hall, 67 Main St, Paull, Hull, HU12 8AW
- **5th April 2022, 2pm – 8pm** Hedon Town Hall, 36 St Augustine's Gate, Hedon, HU12 8EX
- **6th April 2022, 2pm – 8pm** Jubilee Central, 62 King Edward St, Hull, HU1 3SQ
- **8th April 2022, 12pm – 5pm** Preston Village Hall, Main Street, Hull, HU12 8SA

Find out more

Explore our consultation boards to discover more about:

- Equinor's Role within the Humber
- The H2H Saltend Project
- Selecting the Right Location
- Safety through Design, Construction and Operation
- Introduction to the EIA and Scoping
- Outcomes of the EIA Scoping Stage
- Maximising Socio-Economic Benefits in the Region
- Engagement, Consultation and Next Steps

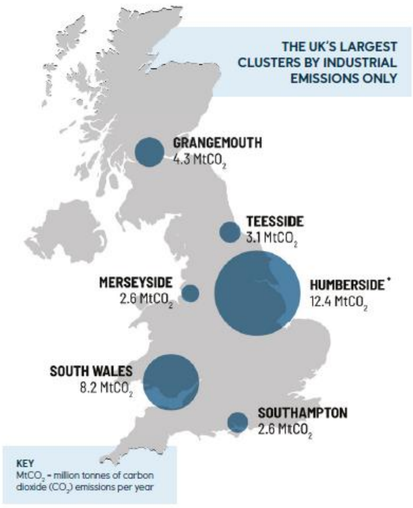
Feedback

We value your feedback and are committed to an open dialogue with all our stakeholders. Please let us know what you think, ask questions or leave comments through our feedback form.

H2H Saltend within the Humber

Providing Hydrogen to Humber

The Hydrogen to Humber (H2H) Saltend Project is an important stepping stone for Equinor's Hydrogen to Humber ambitions, to establish at least 1.8 GW of hydrogen production in the Humber by 2030.



** Updated Humber industrial emissions provided in the "Humber Cluster – update to the 2020 Business Local Emissions Assessment" report are 14.6MTCO$_2$/yr*

Reducing emissions using hydrogen and carbon capture can not only help to tackle climate change and achieve the UK's net zero targets, but can also deliver new jobs, opportunities and investment to the region.

The Project can be scaled up to roll-out low-carbon hydrogen across the whole of the north of England, decarbonising a wide variety of industries, as well as other sectors such as domestic heat, transport and power.

The Project forms part of the UK East Coast Cluster and H2H Saltend will be the first step towards delivering the world's first net zero industrial cluster by 2040.

Please follow the link below to listen to our podcast on what the UK needs to do to achieve net zero by 2050, and the projects currently in development in the North East of England, which will help to deliver this goal.
https://shows.acast.com/equinor-presents-destination-zero

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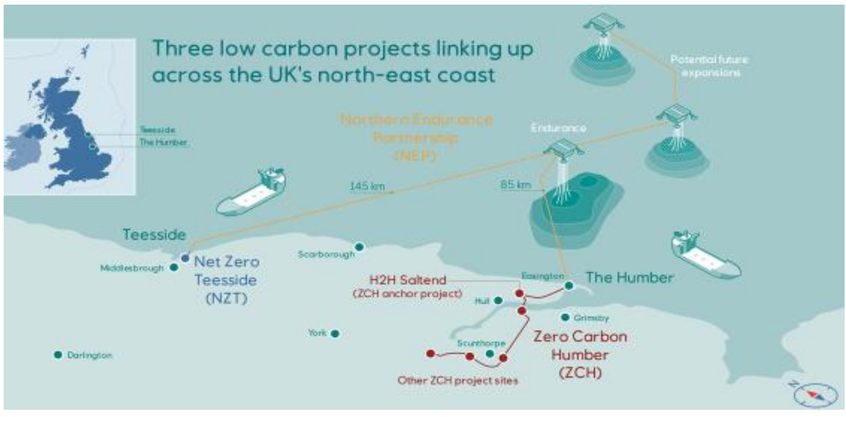
The East Coast Cluster

In October 2021, the East Coast Cluster was selected as one of the UK's first carbon capture, usage and storage "Industrial Clusters", following a successful bid to Phase One of the Department for Business, Energy and Industrial Strategy's (BEIS) Cluster Sequencing Process.

The East Coast Cluster is composed of three regional partnerships: Zero Carbon Humber, Net Zero Teesside, and the Northern Endurance Partnership, as shown in the image below. H2H Saltend is identified as the anchor project within the United Kingdom Research and Innovation (UKRI) grant co-funded Zero Carbon Humber proposals. It is a vital kick-starter for the wider East Coast Cluster group of proposed projects.



The Humber and Teesside regions that constitute the East Coast Cluster, are responsible for nearly 50% of the UK's total industrial cluster emissions. The proposals offer the opportunity to establish the region as a globally-competitive hub for low carbon industry and innovation, whilst protecting thousands of jobs.

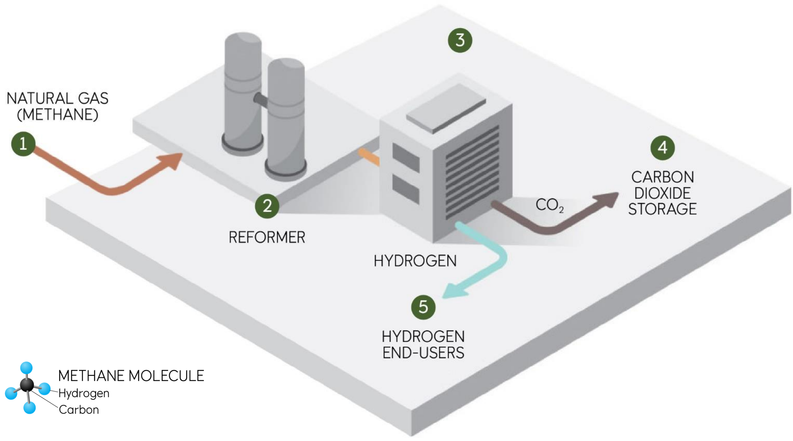
The H2H Saltend Project

What is H2H Saltend?

The Hydrogen to Humber (H2H) Saltend Project will be the first at scale 600 megawatt hydrogen production facility, with the capability to convert natural gas to hydrogen and capture and safely store the CO_2 that is produced in the process.

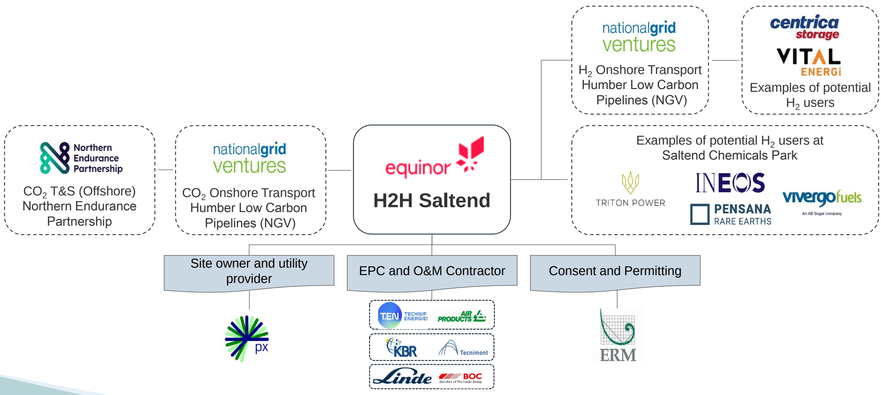
The hydrogen that is created can be used to produce energy or as feedstock for industrial/chemical processes, producing no carbon emissions when used. Low-carbon hydrogen and carbon capture are the leading technologies available to address the need to decarbonise energy-intensive industries.

The scheme is proposed to be located within Saltend Chemicals Park. It will integrate into existing infrastructure and industrial processes to enable customers in the Park, and nearby, to switch from fossil fuels to low carbon hydrogen feedstock. Over time, the Project will also provide hydrogen to industrial users in the wider region. H2H Saltend is planned to be operational in Q4 2026.



1. Natural gas (methane) is transported to Saltend Chemicals Park from the Easington Terminal via the National Transmission System. The natural gas is then fed into a reformer.
2. A chemical reaction takes place across a catalyst (at high temperature) to convert the natural gas to hydrogen (H_2) and carbon dioxide (CO_2).
3. The synthetic gas produced is then separated creating pure streams of H_2 and CO_2.
4. Approximately 95% of the CO_2 produced is captured and then transported through the proposed Humber Low Carbon Pipeline to the Northern Endurance Storage Site in the North Sea.
5. The H_2 is provided to users within Saltend and transported through the proposed Low Carbon Hydrogen Pipeline to users further afield for use in power, transport, industry and heat.

H2H Saltend Industry Stakeholders



Selecting the Right Location

Detailed Site Selection Process

The process of selecting the right location for H2H Saltend has involved a rigorous evaluation process involving a multidisciplinary assessment across the criteria listed below. The assessment was undertaken by environmental, stakeholder, engineering, property and commercial teams in order to identify the optimum site for the proposed development, concluding with Saltend Chemicals Park.

Environment/Social
- Physical
- Cultural
- Ecological
- Community impact

Planning
- Land use
- Planning history
- Technical and public consultees

Health & Safety

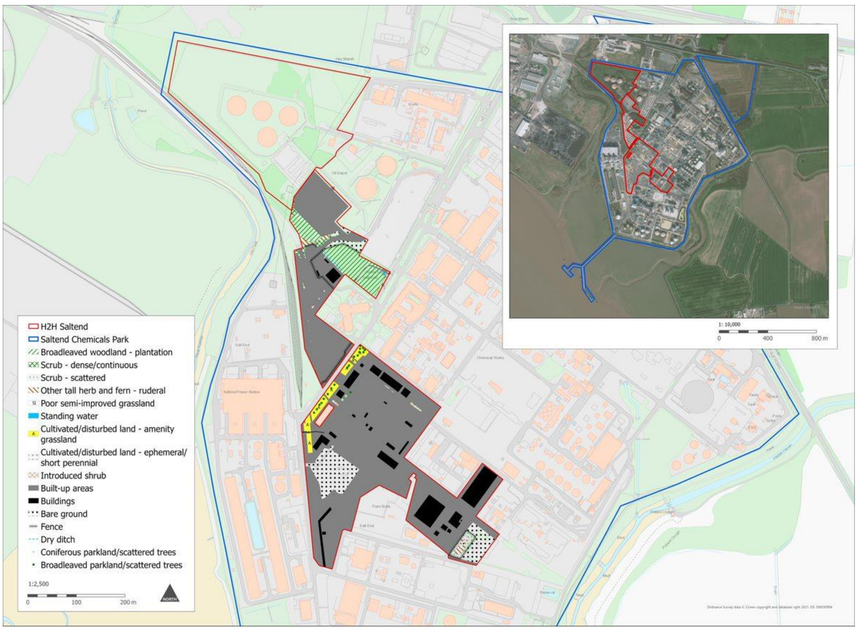
Technical
- Safety
- Accessibility
- Flexibility

Commercial
- Deliverability
- Financial viability
- Timescales

Description of the Site

After detailed assessment, the H2H Saltend Project site is proposed to be located within px Group's Saltend Chemicals Park: https://www.saltendchemicalspark.com

Saltend Chemicals Park is the location of a range of manufacturing, chemicals and renewable energy businesses, including potential hydrogen users.



Map showing the three possible Project site locations and the existing Saltend Chemicals Park boundary.

Environmental and Social Benefits of the Site

The H2H Project site, set within an existing industrial complex, offers a number of environmental and social benefits, including:

The site is on previously developed industrialised land, ensuring minimised disruption to the natural environment.

The site avoids sensitive ecological and water resources, protecting biodiversity.

The site avoids areas adjacent to communities to minimise disruption to residents and community facilities.

The site is near a port and offers good transport access which would be managed to avoid or minimise impacts to local communities.

There is an opportunity to share utilities with existing on-site infrastructure.

The site has a high concentration of potential hydrogen users.

The site is an existing COMAH site, experienced in dealing with hydrogen.

Safety through Design, Construction and Operation

Always Safe: Safety is Our Top Priority

Equinor has supplied energy to the UK for over 35 years. We are Europe's only commercial carbon capture and storage operator, with over 25 years of experience in safely storing carbon emissions and producing hydrogen from natural gas. We follow industry best practice and are committed to sharing our learning and experience via the Always Safe web platform to make our industry safer. This is accessible via:
https://www.equinor.com/en/sustainability/health--safety-and-security.html

We will operate in accordance with industry best practice to deliver the highest standards of safety for the project. At Equinor, we aim to continuously develop a proactive culture where safe and secure operation is incorporated into everything we do. Our priority is to ensure we are Always Safe.

Safety Through Selecting the Right Location

Safety was a key criteria for the site selection process. The proposed location of the project at the Saltend Chemical Park is an existing Control of Major Accident Hazards (COMAH) site, subject to rigorous Health & Safety regulations and closely monitored by the Health and Safety Executive (HSE) and Environment Agency. This means that the facilities surrounding H2H Saltend have been designed and are operating under the highest safety standards and subject to ongoing monitoring. This will also apply to H2H Saltend itself.

H2H Saltend is being designed and will operate in compliance with the requirements of the Environmental Permitting (England and Wales) Regulations 2016, as amended. This will require an application for a new Environmental Permit and compliance with established and emerging Best Available Techniques. Detailed engagement will be undertaken with the Environment Agency to support this process.

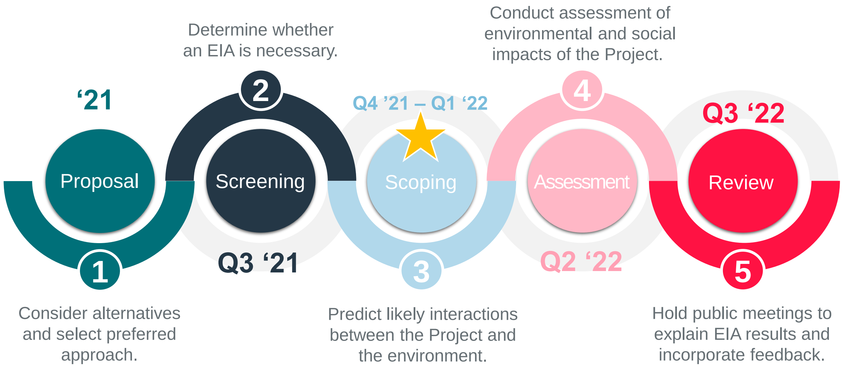
Safety Through World Class Technology

Equinor has selected three front-end engineering and design contractors, with recognised world class expertise in hydrogen technology. The depth of experience which these contractors bring in delivering hydrogen projects will ensure H2H Saltend benefits from industry leading knowledge in optimising safety through design, operation and maintenance. One contractor will be selected in Q3 2022, supporting Equinor to design, construct and operate the facility.

Introduction to the EIA and Scoping

The Role and Timeline for the EIA

An application for planning consent will be made in Q3 of 2022 to the East Riding of Yorkshire Council under the Town and Country Planning (Environmental Impact Assessment (EIA)) Regulations 2017. The role of an EIA is to inform the local planning authority and stakeholders of the likely significant environmental effects of the development during its construction, operation and decommissioning. An EIA ensures that the implications of the Project are considered and appropriately addressed before consent is provided. The key stages of the EIA process are shown in the image below.



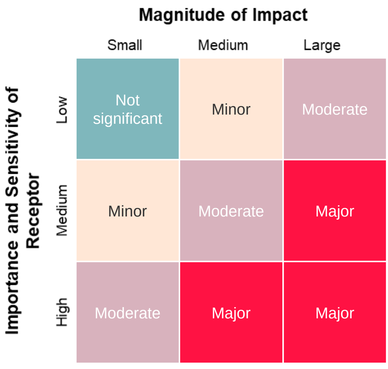
Scoping is a key step in the EIA process whereby a Scoping Opinion is sought from the Council and its statutory consultees, such as Natural England and the Environment Agency. The Scoping Report shows how each topic will be taken forward in the EIA process and the degree of effort and emphasis that will be applied to each.

1. **Baseline environmental conditions are compared** with the conditions that would prevail were H2H Saltend to be constructed and operated.

2. Potential significant effects are identified for each relevant EIA topic in relation to receptors, including:

- People
- Built resources
- Natural resources

3. The assessment methodology is set out, including the approach to assessing significance, as shown in the diagram on the right.



Assessment matrix showing the magnitude of effect and the importance and sensitivity of the receptor.

Key EIA Topics Identified through Scoping

- Ground Conditions and Contamination
- Air Quality and Climate Change
- Landscape and Visual Amenity
- Health
- Noise and Vibration
- Ecology and Nature Conservation
- Water Resources and Flood Risk
- Traffic and Transport
- Archaeology and Cultural Heritage
- Major Accidents
- Socio-economic Characteristics
- Waste Management

EIA Scoping Results

Water Resources and Flood Risk

Existing Conditions

There are a number of water bodies near the Project site, which are hydrologically connected to the protected Humber Estuary. An initial assessment indicates a very low probability of flooding at the site (0.5%).

Assessment & Mitigation

Assessment will identify and mitigate any potential effects on surface water, including from fuel spillage, fresh concrete, foul water and mobilisation of sediment during construction.

All potential impacts can be adequately avoided through mitigation, including through shut off mechanisms detailed in the drainage philosophy.

Landscape and Visual

Baseline

There are no landscape designations or woodlands within 5km of the study area. The surrounding area largely comprises a landscape of industry, port uses, industrial complexes, power generation and chemical facilities.

Assessment & Mitigation

Assessing and mitigating any construction impacts from large plant and cranes. These are largely already masked by existing facilities.

Assessing and mitigating any potential visual impacts arising from elements of the completed development to be achieved through design and blending within the Saltend Chemical Park.

Ecology and Nature Conservation

Baseline

There are three international statutory designated nature conservation sites within 5km of the Project and one UK statutory designated site within 2km, all part of the Humber Estuary which is 60m south of the Project site.

Jubilee Copse (deleted local wildlife site) is located in the Project site and three more non-statutory designated sites are within 2km.

Habitats

The site is predominantly built-up land and buildings with hardstanding (roads and carparks). Priority habitat such as coastal saltmarsh, mudflats, marine intertidal mud and gravel substrate and open mosaic habitat exist outside of the site boundary.

Species

Low value habitat for roosting or foraging bats. Further surveys are required.

Negligible foraging or sheltering habitat for amphibians.

Likely negligible habitat for reptiles, subject to completion of Phase 1 Habitat Survey.

Habitats of limited value for birds. However, Perigrin falcon (*Falco peregrinus*) has been recorded in nearby survey. The wider Humber Estuary area supports important populations of birds.

Likely negligible supporting habitat for otters and water voles.

Likely negligible supporting habitat for invertebrates, subject to completion of Phase 1 Habitat Survey.

Assessment & Mitigation

Assessing and mitigating any potential impacts caused by construction activity disturbance, especially for birds using the nearby protected areas.

Assessing and mitigating any potential effects of operational emissions to air on nearby protected areas.

Assessing and mitigating any minor loss of on-site habitats.

EIA Scoping Results

Ground Conditions and Contamination

Baseline

The site is underlain by Tidal Flat deposits of clays and silt, glacial clays, sands and gravels. There is also an “unproductive aquifer” with low permeability which will have negligible significance on water supply or the river.

Assessment & Mitigation

	Assessment and mitigation to address the unlikely scenario of chemical spillages impacting ground quality.
	Assessing and mitigating any potential for removal of surface hardstanding or vegetation, or remediation of contaminated soils to mobilise contamination.
	Assessing and mitigating any potential for leaks from underground drains

Air Quality and Climate Change

Baseline

As per standard practice, baseline data on human health consideration including nitrogen dioxide, particulate matter and amines, will be monitored in local area.

Data on sensitive ecological sites will be gathered from the Air Pollution Information Service (APIS).

Assessment & Mitigation

	Assessing and mitigating construction dust and traffic.
	Assessing and mitigating potential point source emissions during operation of boiler, emergency flare and CO_2 capture process.
	Traffic during operation is unlikely to lead to significant effects and will be scoped out of the air quality assessment.
	Assessing and mitigating emissions of some greenhouse gases, whilst noting the Project will also involve the capture and pipeline transport of CO_2.

Noise and Vibration

Baseline

The site is already an industrial area and is unlikely to experience novel noise levels from the Project.

Assessment & Mitigation

	Assessing and mitigating any potential noise at residential receptors (and possibly ecological receptors) from on-site construction activities.
	Assessing and mitigating any impacts to noise levels due to an increase in road traffic due to the delivery and removal of materials.
	Assessing and mitigating any vibration impacts on close by industrial premises.
	Assessing and mitigating any operational noise from fixed plant.

Mitigation measures, such as the restriction on construction working hours and use of localised noise barriers will be explored in the EIA.

Major Accidents

Baseline

The site is an existing industrial site with operators dealing with potentially hazardous substances (e.g. acetic acid, ethanol and ammonia) with obligations under the COMAH regulations (2015).

Assessment & Mitigation

The Project will meet stringent safety requirements in design, construction and operation. It must demonstrate to the relevant authorities that it has met such standards, before it can commence commissioning and operation.

EIA Scoping Results

Archaeology and Cultural Heritage

Baseline

There are no designated assets within the Project site. But there are two scheduled monuments, two conservation areas and a number of listed buildings within 1-3km of the site.

Assessment & Mitigation

	It is anticipated that there will be no impacts on buried cultural assets during construction.
	Assessing and mitigating any potential impacts on the setting of off-site heritage features but noting the context of the H2H Saltend Project within the Saltend Chemical Park.

Health

As per standard practice, a health impact assessment (HIA) will address potential effects on health and wellbeing. The HIA will:

- Determine health and wellbeing impacts of the Project;
- Assess extent of impacts and potential benefits;
- Identify ways to maximise positive benefits and minimise negative health and wellbeing impacts; and
- Inform the planning process and respond to health and wellbeing issues.

Waste Management

Baseline

Hull and East Riding of Yorkshire Councils have a broad range of waste management capacity. The EIA will establish the capacity of the local authorities to handle the waste that is likely to be generated by the Project.

Assessment & Mitigation

	Assessing solid waste generation during construction that might include contaminated material.
	Assessing generation of solid waste during operation, which will be handled within Saltend.

Socio-Economic Characteristics

Baseline

A demographic profile has been developed for Hull and East Riding of Yorkshire using publicly available data on population demographics, health, deprivation and employment. A range of facilities and amenities have been included in the assessment, including tourism, recreation and residential properties.

Assessment & Mitigation

	Assessing and mitigating any potential general disturbance during the construction phase.
	Assessing the positive effects of inward investment and employment during construction and operation.

Traffic and Transport

Baseline

Access to the site is available via Salt End Lane which provides a link to the A1033 via Salt End Roundabout. The majority of construction vehicles will likely use the west entrance.

An assessment will be undertaken to understand how to avoid or mitigate any potential impacts to traffic and transport in the surrounding area.

Assessment & Mitigation

	Assessing and mitigating any construction traffic (including abnormal loads) impacts on users of the local road network.
	Assessing and mitigating any potential noise and air quality impacts of construction traffic.

Maximising Socio-Economic Benefits in the Region

H2H Saltend

During construction and operation of H2H Saltend there will be substantial **inward investment** to the region, with **employment and expenditure in the local economy** during construction, and **job creation** during construction and operation.

There will also be economic benefits arising from **direct and indirect expenditure associated with the Project**, for example through placing local orders for goods and services and maintenance. Equinor is committed to maximising the benefits which H2H Saltend can deliver to the economy of the Humber.

Supporting local people and businesses

Equinor is committed to creating opportunities for local people and businesses in the region. Collaboration is underway with the University of Hull and UTC Ron Daring, to support skills development and training in the region. Working in partnership with the University of Sheffield Advanced Manufacturing Research Centre and the Supply Chain Network, Equinor has also hosted H2H Supplier Events for local businesses to learn more about opportunities connected to the H2H Saltend project. A further event is being held for suppliers across the UK, in May 2022.

For further information on our procurement processes and working with us, please visit: https://www.equinor.com/en/supply-chain.html.

H2H Saltend within the East Coast Cluster

The East Coast Cluster unites the Humber and Teesside with infrastructure to decarbonise industry and establish a platform for economic growth in the wider region.

By uniting Net Zero Teesside, Zero Carbon Humber and the Northern Endurance Partnership, the East Coast Cluster represents the UK's biggest opportunity to:

Decarbonise industry: Helping to reduce, capture and store CO_2 in the most carbon intensive regions of the UK, with knock on benefits for the environment, local health and wellbeing.

Support levelling-up: Creating and supporting an average of **25,000 jobs per year to 2050** and underpinning new low carbon industries in the north of England.

Skilled jobs in exciting new industries, including industrial carbon capture, low-carbon hydrogen production, negative emissions power, and power with carbon capture, can play an important part of levelling up in the UK.

Demonstrate global leadership: Establishing the Humber and Teesside as a globally competitive low carbon hub for industry and innovation, increasing the attraction for inward international investment.

Engagement, Consultation and Next Steps

We are committed to an open and ongoing dialogue with our stakeholders. The H2H Saltend Project team has already undertaken a range of early virtual and in-person engagement activities with community members, local authorities and wider statutory stakeholders. We will continue to engage stakeholders throughout the development of the Project. The diagram below summarises the key phases of our programme of engagement, noting that this second round of consultation forms part of our Phase 3 delivery.

Programme of Engagement

Phase 1
Introductory engagement with statutory stakeholders and local authorities.

Phase 2
Continuing engagement with local authorities and statutory stakeholders. First round of public consultation launched in November 2021.

Phase 3: Current Phase
Second round of public consultation, focusing on site selection and the Environmental Impact Assessment (EIA) Scoping outputs, launched April 2022. Further detailed engagement with all stakeholders.

Phase 4
Third round of public consultation on detailed environmental assessment findings and Project design, later in 2022. Further detailed engagement with statutory stakeholders to support the planning application and permitting.

We will continue to consult with the public and wider stakeholders at key stages of the development of the EIA and planning process. We want to ensure that consultation is accessible to all and welcome your feedback on how best we can achieve this.

Get in Touch with Us

If you would like more information or would like to get in touch with us about any wider issues, please contact us at:

Email: H2HSaltend@equinor.com

Website: equinor.co.uk