

To: Humber Leadership Board

From: Simon Green, Deputy Chief Executive – North Lincolnshire Council

Date: 18th February 2022

Subject: Humber Decarbonisation Update Paper

1. Background

- 1.1 The paper follows on from the recent submission in March 2021 and subsequent paper to agree the political mandate for the creation of the Humber Energy Board, a private/public sector governance structure to enable the progression of the Humber Cluster on a national and international scale.
- 1.2 The Humber is a significant region for the government to achieve its decarbonisation goal of being a net zero economy. Following on from the success of Cop 26 in highlighting the need for a global effort to become net zero.
- 1.3 The UK has committed to reduce the Greenhouse Gas Emissions (GGE) by at least 100% of the 1990 levels via The Climate Change Act (2008) and amended in 2019, as it was originally set at 80%. Furthermore the UK Government has agreed to the Paris Agreement which sets out a global framework to limit global warming to well be 2°C and pursuing to limit it further to just 1.5°C above pre-industrial levels.
- 1.4 The Humber Plus region has the second highest CO2 emissions per capita of all the UK regions with only Wales having a high CO2 per capita emission. The Humber region faces a unique set of challenges due to the mix of urban & rural living/working locations and a vast array of business sectors within the patch. Due to this, any overarching strategy and programme of support cannot be a 'one-fits all' approach.

2. Humber Energy Board Update

- 2.1 Since the last paper, submitted on the 25 March 2021, the Humber region has, in partnership with the LEPs and private sector, formed the Humber Energy Board which has held its first meeting to discuss the scope of the board and how the board can be enhanced.
- 2.2 The board membership is detailed below and covers the whole of the Humber and Greater Lincolnshire geographical region:

Board Member Name	Company	Region	Role
Pat Doody	Greater Lincolnshire LEP (Chair)	Greater Lincolnshire	Chair of LEP
James Newman	Hull and East Riding LEP (Chair)	Hull & East Riding	Chair of LEP
Simon Green	North Lincolnshire Council (Lead)	Humber and Greater Lincolnshire	Deputy Chief Executive
David Talbot	Catch UK Limited	Humber and Greater Lincolnshire	Chief Executive Officer
Katie Hedges	Catch UK Limited	Humber and Greater Lincolnshire	Head of Membership
Professor Susan Lea	University of Hull / Aura	Humber	Vice Chancellor
Julian Free	University of Lincoln	Greater Lincolnshire	Deputy Vice Chancellor
Peter Campey	Department of Business, Energy and Industrial Strategy	Humber	Area Lead - York & North Yorkshire and Hull and East Yorkshire
Finbarr Dowling	Siemens	Humber	Project Director
Emma Toulson	Orsted	Humber and Greater Lincolnshire	UK Lead Stakeholder Advisor
Darren Cunningham	P66	Humber and Greater Lincolnshire	General Manager
Tanguy Cosmao	Equinor	Humber	Project Director - H2H Project
Lee Adcock	British Steel	Humber and Greater Lincolnshire	Environment and Sustainability Director
Simon Smith	Young's Seafood	Humber and Greater Lincolnshire	CEX Officer
David Gwynne	Eurus Consulting (Freeport Representative)	Humber	Freeport Representative
Hannah Richmond	CBI	Humber and Greater Lincolnshire	Head of Cluster
Richard Gwilliam	Drax	Humber	Head of Cluster Development
Alan Menzies	East Riding of Yorkshire Council	Humber	DCX and Director of Planning and Economic Regeneration

- 2.3 The remit of the board will be to act as the focal point for project co-ordination, lobbying into central government, ambassadorial role and collation of information to give a single access point.
- 2.4 The board will also seek to identify and co-ordinate funding opportunities within the region to help streamline the support offered, ensure it meets the needs of the public/private organisations and remains an inclusive economy for both larger stakeholders and the smaller SME businesses that dominate the regional economy.
- 2.5 The board is currently undertaking a desktop cluster analysis to understand the definition of the regionalised cluster but importantly to understand the current gaps that are preventing the region from maximising the opportunity available. Further work is being undertaken to capture a centralised knowledge store that would enable the region to greater understand the investment being undertake in relation to Carbon Capture Pipeline. It is anticipated that as workstrands emerge relevant workgroups will be established involving Local Authorities and relevant private / third party organisations.
- 2.6 Concurrent to the formation of the Humber Energy Board is the proposed “Opportunity Humber” initiative seeking a private sector led coalition of business leaders with political representation to spearhead Humber wide strategic economic development and advocacy. Whilst welcoming this initiative it is as yet unclear as to its exact remit. The Humber Energy Board welcomes this Government initiative and it is recommended that the HLB and the existing HEB interim chairs accelerate existing dialogue with both the prospective chair Mr Laxman Narasimhan, CEO Reckitt Benckiser, who also sits on the newly formed Government Levelling Up Advisory Council, private sector representatives and relevant Government officials to ensure where possible immediate impact and seamless delivery.

3. Humber & Decarbonisation

- 3.1 The Humber region continues to build upon its recent investments to further improve the understanding of what investment and challenges are being tackled by local businesses.
- 3.2 There is also already a large and growing presence of green energy that forms the foundation for future action within the Humber region. These include:
 - a. the region’s leading offshore wind capabilities, which including both the manufacture, research & development and O&M activities based within the region.

- b. projects related to hydrogen production and use related projects, including VPI Immingham, P66, East Coast Hydrogen, Gigastack and Project Oyster
- c. biofuels initiatives such as Greenergy's Immingham plant which fulfils a significant part of the UK's biodiesel requirement from waste and rapeseed oil, and
- d. several operational energy from waste plants, inland solar parks and a considerable pipeline of further projects planned.

3.3 The region continues to strive to achieve a decarbonised industrial cluster by 2030 and the below visual displays clearly that the investments are broad and cover the full region.



4. Freepart – Decarbonisation Strategy

4.1 As the Humber Region gears up for the launch of the Freeport and associated benefits, a significant element of the bid incorporates the regions decarbonisation agenda.

4.2 The bid seeks to identify existing Net Zero Initiatives which are detailed below, but also enshrine within the Freeport bid the need to incorporate further projects to bring forward the Freeport status:

Initiative	Description	Who is leading	Geography coverage	Freeport engagement
Hull Net Zero	Creating a campaign of activations/events where people can take simple actions to contribute to Hull's goal to achieve Net Zero	Hull City Council working with a range of partners in business and in community	Hull	To support the campaign and some funding through Seed Capital for specific themes, e.g. Ideal Heating scheme see section 7
Humber Industrial Cluster Plan	Seeking to provide strategic architecture for decarbonising energy intensive industries across the Humber, supporting significant decarbonisation of sector by 2030 and the achievement of net zero by 2040	Led by Hull and East Yorkshire LEP supported by a range of private sector partners including British Steel, Drax, Equinor, HCF Catch and others	Humber	To support and work with the Cluster Plan team to accelerate the decarbonisation of key energy intensive companies based in the Freeport Geography
Humber Industrial Decarbonisation Centre	The new centre, to be constructed by NELC and let to CATCH on a commercial basis will enable them to grow and support decarbonisation of the Humber Industrial Cluster	HCF Catch	Humber	To invest Seed Capital to develop the Centre
Zero Carbon Humber	Working on plan to unlock and accelerate decarbonisation in the UK's most carbon intensive industrial region. The plan includes low carbon hydrogen production, CCUS and shared onshore and offshore infrastructure and greenhouse gas removal technology	Led by Equinor and National Grid, the partnership is a consortium of leading energy and industrial companies and academic institutions with a shared vision to transform the Humber region into the UK's first net zero carbon cluster by 2040	Humber	To support their application for the second round of phase-2 of the government's Cluster Sequencing for Carbon Capture, Usage and Storage Deployment, and to work with the consortia to consider what additional support could be provided by the Freeport to accelerate decarbonisation
Humber Zero	Reducing carbon emissions and creating a low carbon future for the Humber's industry	Three key partners including Phillips 66, Vitol and VPI	Incorporates a cluster of energy-intensive industries that lie 1km	To work with partners to assess what Freeport could do accelerate their plans

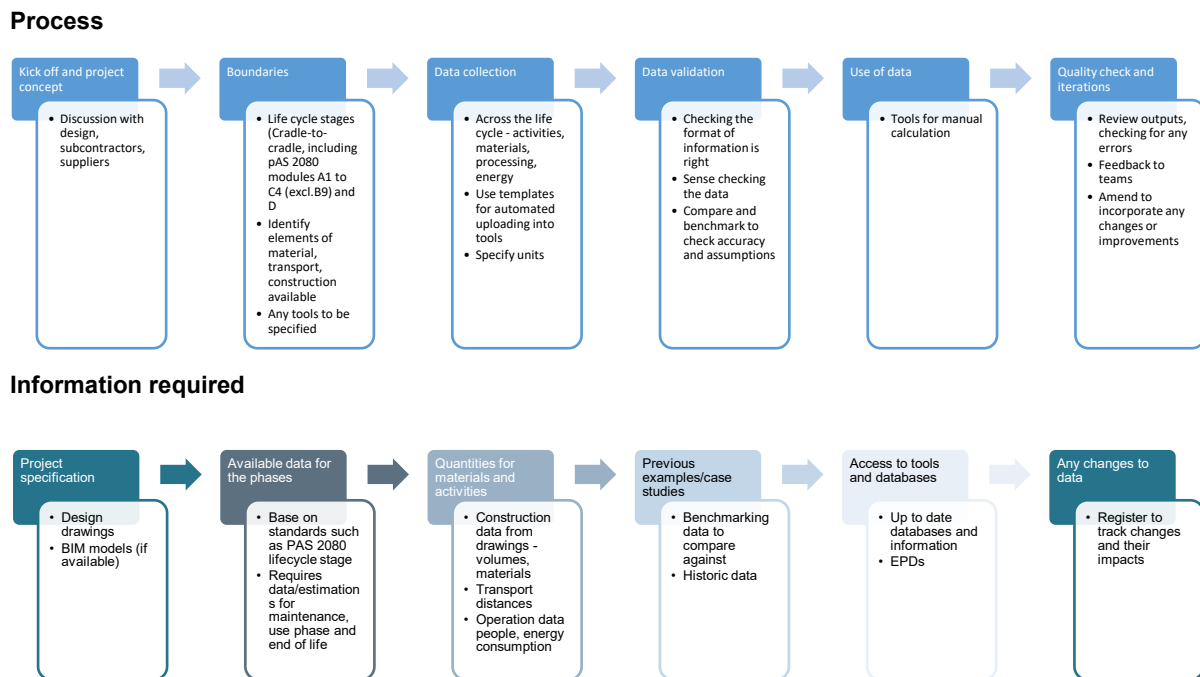
			from the coastline on the south bank of the River Humber	
V Net Zero Humber	Aiming to deliver carbon capture and storage technologies to serve the heavily industrialised Humber region. With the potential to single-handedly deliver the UK Government's carbon capture target of 10MTPA	Collaboration of a range of partners including Harbour Energy, Humber Zero (Phillips 66 and VPI Immingham), EP UK Investments and Prax Lindsey Oil Refinery	South bank of the Humber	To support their application for the second round of phase-2 of the government's Cluster Sequencing for Carbon Capture, Usage and Storage. To work with the consortia to develop a plan that will see the acceleration of the vision
Humber Offshore wind cluster	An opportunity for the Humber to develop into the UK's national hub for the O&M of offshore wind, and for the Humber to be at the forefront of policy as a national demonstrator for clean maritime port activities	Ørsted, RWE, Catapult, ABP, Siemens Gamesa, GRP, MHI Vestas and others	Humber	To work with the Consortia to deliver the Freeport ambition and make a major contribution to longstanding local policy objectives, namely, to strengthen existing high value cluster strengths in offshore wind, process manufacturing and global trade, alongside supporting the agglomeration of far-reaching industry supply chains
East Coast Hydrogen Pipeline	The project is looking at repurposing and building new hydrogen pipelines across the North East of England	Cadent, Northern Gas Network, National Grid	Goole, Immingham, and Hull	To support the project development to build an effective infrastructure in the Humber as part of the wider scheme
Humber Energy Board	The Board will initially focus on advocacy role and provide cohesion on Energy related developments in the Humber	The four LA's, the two LEPs and Private partners	Humber	To work with the Board ensuring that the Freeport and the Board activities on decarbonisation interlink

4.3 The Freeport, and the associated governance structure has identified that their role within the regions agenda is to be:

- a. Convener – encourage collaboration between private and public sector bodies, including the formation of a Decarbonisation Working Group
- b. Influencer – uses its role to influence and promote activity related to decarbonisations

- c. Facilitator to improve co-ordination – the Freeport Company will work with partners to bring together ideas and a joint approach for the regions outputs. This will be in co-ordination with the Humber Energy Board where the Freeport Company is an active board member
- d. Creating an Environment to attract investment – the Freeport will ensure the designated areas attract those investments locally that support the regionalised ambition for net-zero by 2040.
- e. Data Collection & Analysis - The Humber Freeport Company will help collect data from businesses and public sector organisations in the Humber Freeport, evaluating the progress towards net zero and using the results to drive improvements to help the region achieve net zero carbon by 2040.

4.4 The below figure shows how the Freeport will undertake a Life-Cycle assessment for the full period it is operational:



4.5 The Humber Energy Board will continue to work throughout the coming months/years with the Freeport company to ensure a coordinated approach to de-carbonisation.

5. Offshore Wind – Challenges

5.1 Offshore wind remains a significant opportunity for the region to maximise our existing skill set, geographical advantage and reputation to further embed the green agenda within the region. The success seen

with the North Bank Siemens factory demonstrates the knock on benefit to the wider economy.

- 5.2 Currently the main significant challenge within the sector is the delay caused from Central Government on the release of the latest round of Contracts for Difference (CfD). This is in effect a government backed derivative product that allows users to cap the amount they pay for energy. Due to the market volatilities seen in the last 6-12 months' the government has had to hold off from issuing the latest round.
- 5.3 The knock on impact is that due to the uncertainty around energy prices some of the large inward investment opportunities discussed across the Humber region are currently on hold awaiting the outcome and therefore this will have a knock on impact to potential jobs.
- 5.4 However, the regions Offshore Wind cluster is well-established with a number of significant local manufacturers and as a result an emergence of an integrated supply chain supported through a number of groups/collaborations that has allowed the region to embed itself as the UK's foremost wind cluster. The opportunity, alongside the Humber Energy board, to promote this as a cornerstone of the regions decarbonisation agenda.

6. Recommendations

- 6.1 That the Humber Leadership Board notes the contents of this report.
- 6.2 To recognise the potential key role of the Humber Energy Board in advocacy and cohesion for the benefit of the region.
- 6.3 For the Humber Leadership Board to work with Government and explore the best route forward for the emerging "Opportunity Humber" initiative.