



## **Industrial Decarbonisation Policy Update** – December 2021 - January 2022

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#### ***Westminster***

### **BEIS Committee Oral Evidence - Energy National Policy Statements**

18<sup>th</sup> January 2022

The Business, Energy and Industrial Strategy Committee met to receive evidence across two panels as part of a short inquiry scrutinising the Government's [revised energy National Policy Statements \(NPS\)](#). Originally published in 2011, the energy NPS form the policy framework used for decision making on applications for consent to develop energy Nationally Significant Infrastructure Projects (NSIPs). In accordance with commitments set out in the [Energy White Paper](#) (2020), the government has been consulting on their reviewed energy NPS to ensure they are suited to deliver new energy infrastructure consistent with the UK Government's 2050 Net Zero target. The scope of the updated NPS has been extended to include mention of key low-carbon technologies, including CCS and low-carbon hydrogen.

The first panel consisted of Jan Bessel, Julian Boswall and Gareth Phillips from the National Infrastructure Planning Association (NIPA). Key talking points:

- Gareth Phillips highlighted that new Net Zero and CCS policies has been published since the launch of the NPS consultation, and that the draft NPS should be updated to reflect this.
- Jan Bessel highlighted the importance of ensuring that impact assessments of proposed developments give the correct balance to the potential wider benefits of a project, e.g. meeting climate goals, against the potential adverse local effects.
- Representatives from NIPA highlighted the importance of the inclusion of all relevant technologies to be considered under the NPS, pointing the omission of onshore wind which could represent 18 to 27 GW of clean energy generation by 2050, according to the National Infrastructure Commission.

The second panel consisted of LUHC Minister Christopher Pincher MP, BEIS Minister Greg Hands MP and Jeremy Allen, Head of Cost of Energy Review Team at BEIS. Key talking points:

- Christopher Pincher highlighted that the revised NPS are intended to speed up the overall planning and consenting process.
- The UK Government plans to digitise the planning system, to allow interested parties easier access to the details of a proposal.
- Greg Hands explained that, while low carbon infrastructure such CCS and hydrogen had been included in the revised NPS, these are developing technologies and a deliberate decision was made not to include detail that might restrict their growth or be prescriptive regarding their deployment.
- Greg Hands outlined an intention for NPS to be reviewed by BEIS on a more regular basis, stating that ten years has been too long. Although stopping short of committing to a specific review period going forward, citing the need to be able to review on an ad hoc basis, minister Hands suggested a period of five years to the next NPS review was probably "about right".

[More information.](#)

**Scottish Affairs Committee Inquiry - Hydrogen and Carbon Capture in Scotland**

The UK Parliament, Scottish Affairs Committee will be inquiring into hydrogen and carbon capture in Scotland to explore Scotland's role in hydrogen production, including opportunities for carbon capture utilisation and storage. Key areas will be:

- The UK Government's hydrogen strategy,
- Investment in hydrogen in Scotland,
- How Scotland can become a world leader in green hydrogen for domestic use and export,
- A just transition from oil and gas, and
- Any training required for a hydrogen ready workforce.

IDRIC is consulting with partners to collate evidence, in view of submitting a response before the deadline of 1 March 2022. For more info please contact us at [policy@idric.org](mailto:policy@idric.org)

[More information.](#)

## **Parliamentary Office of Science and Technology – Green Steel**

31<sup>st</sup> January 2022

The Parliamentary Office of Science and Technology (POST) is seeking expertise on technologies for the production of green steel, for an upcoming POSTnote briefing. This will also include other approaches that could help lower emissions from this sector such as recycling and reducing demand for steel. The policy context will also be addressed in terms of government support mechanisms and the international perspective. POST seeks expertise from industry, government, academia and the third sector. To contribute expertise and/or literature or as an external reviewer, please e-mail [Lizzie Knight](mailto:Lizzie.Knight@post.parliament.uk)

[More information.](#)

## ***UK Government***

### **UK Government: Falkirk Growth Deal - Heads of Terms**

21<sup>st</sup> December 2021

In July 2020, the Falkirk Growth Deal was announced, committing £80m to the region to support an investment zone for Falkirk and Grangemouth, home to the largest emitters within Scotland's industrial cluster. On the 21<sup>st</sup> of December, Falkirk Council, the UK and Scottish Governments signed the heads of terms, setting out the details of the deal, which included an additional £50.8m from local partners to create a package worth up to £130.8m. Among other stated objectives, the growth deal seeks to:

- Transform Grangemouth's chemicals and related manufacturing industries as an internationally competitive low carbon proposition.

- Re-connect with the Grangemouth community following the pandemic to enable opportunities for place-making and a just transition to net zero.
- Encourage dedicated skills provision focused on new, low carbon technologies.
- Specific initiatives outlined in the Heads of Terms included:
  - £10m for the creation of a Carbon Dioxide Utilisation Centre (CDUC), intended as a test centre for advanced carbon dioxide utilisation technologies.
  - £10m for the creation of a Bioeconomy Accelerator Pilot Plant, co-located with the CDUC, which will test and develop the portfolio of feedstocks necessary for chemical industries to transition from fossil fuels.
  - £10m for the development of strategic innovation sites as “market-ready” locations to attract investment in innovative industry, e.g. chemical sciences, industrial biotechnology, CO<sub>2</sub> utilisation and zero-emission heavy duty vehicles.
  - £4m to develop an Innovation Skills Transition Centre, which will lead on the reskilling and upskilling of the local labour market, providing a pipeline of skills and training required for the Grangemouth Industrial Cluster.

[More information.](#)

## **£26 Million of UK Government Funding to Boost Biomass Production**

20<sup>th</sup> December 2021

BEIS announced £26 million government funding to increase the production of sustainable UK biomass feedstocks for powering homes and business. The funding supports innovative projects focusing on breeding, planting, cultivating and harvesting of organic matter; from water-based materials such as algae, to whole trees through sustainable forestry operations. Funding is restricted to the 25 projects previously supported under Phase 1 of the government's [Biomass Feedstocks Innovation Programme](#) which can now bid for up to £4 million per project (or £5 million for multi-site demonstrator projects) to develop from the design stage into full demonstration projects. The Biomass Feedstocks Innovation programme is part of the government's £1 billion [Net Zero Innovation Portfolio](#), which aims to accelerate the commercialisation of innovative clean energy technologies and processes through the 2020s and 2030s.

[More information.](#)

## **UK Government Hydrogen BECCS Innovation Programme**

12<sup>th</sup> January 2022

BEIS announced support technologies which can produce hydrogen from biogenic feedstocks and be combined with carbon capture. The programme will run in 2 phases. Phase 1 (total budget £5 million) will support multiple projects to scope and develop a feasible prototype demonstration project to be run in Phase 2. Through a pre-commercial,

fully funded procurement Small Business Research Initiative (SBRI), this programme aims to support innovative Hydrogen BECCS technology solutions across 3 categories:

1. Feedstock pre-processing: the development of low cost, energy and material efficient technologies which will optimise biogenic (including biomass and waste) feedstocks for use in advanced gasification technologies.
2. Gasification components: the development of advanced gasification technology components focusing on improving syngas quality and upgrading for generation of hydrogen.
3. Novel biohydrogen technologies: the development of novel biohydrogen technologies which can be combined with carbon capture, such as dark fermentation, anaerobic digestion, waste water treatment.

The Hydrogen BECCS Innovation Programme is part of the government's £1 billion [Net Zero Innovation Portfolio](#), which aims to accelerate the commercialisation of innovative clean energy technologies and processes through the 2020s and 2030s.

[More information.](#)

## **Scotland**

### **Outcomes of Scottish Offshore Wind Leasing Round**

17<sup>th</sup> January 2022

Crown Estate Scotland has announced the outcome of the application process for ScotWind Leasing, the first Scottish offshore wind leasing round in over a decade and the first ever since the management of offshore wind rights were devolved to Scotland. 17 projects have been selected out of a total of 74 applications, and have now been offered option agreements which reserve the rights to specific areas of seabed, cumulatively amounting to just over 7,000km<sup>2</sup>. The projects include both fixed and floating wind technologies, including several proposals linked to proposals for the large scale production of green hydrogen (for example the Flotta Hydrogen Hub). Projects vary in scale from 495 to 3000 MW expected total capacity.

Together, these projects would add an additional 24.8 GW to the existing offshore wind sector capacity. The ultimate offshore wind capacity in Scottish waters has been estimated by OREC as being in the region of some 950GW. A total of just under £700m will be paid by the successful applicants in option fees and passed to the Scottish Government for public spending. Initial indications suggest a multi-billion pound supply chain investment in Scotland.

[More information](#), including details of the 17 successful applicants.

### **Scottish Government to Support Scottish Cluster Carbon Capture Project**

14<sup>th</sup> January 2022

The Scottish Government announced financial support of up to £80 million for the Scottish Cluster carbon capture project from the Scottish Government's Emerging Energy

Technologies Fund. This decision is a response to the UK government's decision to award the Scottish Cluster a reserve status in Track-1 in its carbon capture sequencing process. It is proposed to help work with UK Government support to develop "three CCS clusters for the price of two". Other legislative and regulatory levers, such as business models, are however not in power of the Scottish Government but reserved to the UK government.

[More information.](#)

### **Scottish Government Consultation on the Draft Hydrogen Action Plan**

The Scottish Government has published its [draft Hydrogen Action Plan](#) for consultation. The IDRIC policy team has collated policy priorities from several of our partners and submitted a response to the consultation. Following from this, we are preparing a position paper on hydrogen (UK-wide) and are keen to include input from across the IDRIC community.

For further info please contact us at [policy@idric.org](mailto:policy@idric.org).

### **Wales**

#### **Welsh Government Publish Regional Economic Frameworks**

20<sup>th</sup> December 2021

The Welsh Minister for Economy, Vaughan Gething MS, has announced the publication of Regional Economic Frameworks for each of the four regions in Wales, setting out a series of high-level economic development objectives and principles. Although specific to each region, certain priorities were common to all four documents, including:

- Supporting a low-carbon and low-emission economy,
- Maximising the associated jobs and skills opportunities,
- Encouraging investment and innovation.

In particular, the North Wales Regional Economic Framework highlighted sustainable supply chains, port infrastructure, and just transition as priorities for their low-carbon economic ambitions, and made reference to the ongoing development of specific low carbon energy, green growth and hydrogen route maps. While the South West Wales document set out a mission to establish the region as a UK leader in renewable energy and the net zero economy, with a view to building "*an internationally-significant presence in future fuel technologies and to drive the decarbonisation of our industrial base and the wider economy*".

[More information.](#)

#### **Welsh Government Announce Green Investment to Tackle Climate and Nature Emergency**

20<sup>th</sup> December 2021

The Welsh Government has announced targeted investment of £1.8bn spread over the next three years to respond to the climate and nature emergency. The fund will be spent in a

range of areas including forest, biodiversity, active travel, the circular economy, renewable energy, flooding, and decarbonising housing.

[More information.](#)

## **News**

### **Climate Change Committee: COP26: Key outcomes and next steps for the UK**

2<sup>nd</sup> December 2021

On the 2<sup>nd</sup> of December, the Climate Change Committee (CCC) published a report breaking down the COP26 outcomes and outlining critical next steps for the UK. While the report acknowledged that COP26 had produced strong global consensus on the need to tackle climate change, it also outlined a need for more ambitious emissions reduction targets internationally, and highlighted that few announced targets were legally binding and/or backed by credible delivery plans.

The CCC warned that, while there is now a path to keeping warming to below 2°C if all mid-century Net Zero ambitions are delivered on, current policies do not come close to achieving these aims.

The CCC outlined a number of specific recommendations for the UK, such as:

- That efforts should be focused on strengthening the delivery of Net Zero Strategy, rather than inflating the gap between ambition and implementation,
- That the Treasury should initiate a review of the role of the tax system, including where it can achieve a higher and more consistent carbon price,
- The UK Government Should avoid classifying any fossil fuel subsidies as efficient, thereby justifying their use under the specific language of the Glasgow Climate Pact: “...*phase out inefficient fossil fuel subsidies*”. Furthermore, on this point the report states that a low carbon price can be considered a subsidy.
- Making the UK’s 2030 emissions targets legally binding, including sectoral targets outlined in the Net Zero Strategy, to be met without offsets and with a limited role for CO<sub>2</sub> removal.
- Actions to tackle the UK’s wider carbon footprint, including stronger product standards, carbon border adjustment mechanisms, trade levers, and encouragement of stronger corporate actions to decarbonise supply chains.

The CCC plans to publish additional advice and analysis in 2022 regarding:

- Public engagement
- Governance and enabling delivery
- The role of business
- Workers and skills

- Fair funding

[More information.](#)

## Two Major Hydrogen Project Announcements

The first weeks of 2022 saw announcements for two major hydrogen production projects in the Humber and the Scottish Cluster.

In the Humber Cluster, Equinor has submitted plans for its 600MW hydrogen production facility through phase two of the Government's Cluster Sequencing Process. The Hydrogen to Humber (H2H) Saltend project will be Equinor's largest UK hydrogen project. The project includes a 600MW gas reformer that will produce 'blue' hydrogen – from natural gas with carbon capture (with a 95% expected capture rate). Hydrogen produced by that facility will enable businesses at the Saltend Chemicals Park and the onsite Saltend Cogeneration Power Station to switch to a hydrogen blend, representing a 30% reduction in the Saltend Chemicals Park's total current emissions. A demonstration is due to come online by 2026. The plan is backed by six prospective industrial operators who have signed varying agreements for the development and commercialisation of the project: Centrica Storage, INEOS Acetyls, Pensana, Triton Power, Vital Energi and Vivergo Fuels.

Equinor has outlined plans to deliver 1.8GW of low-carbon hydrogen production capacity in the UK by 2030, primarily through its work on the Zero Carbon Humber industrial cluster. Late last year it was revealed that gas grid operator Cadent and energy giant Equinor are exploring the feasibility of creating hydrogen towns within the Humber region.

Equinor has also submitted three other projects to the Phase-2 sequencing competition: two new carbon capture power stations at Keadby and Peterhead, that will be developed in partnership with SSE Thermal, and the Net-Zero Teesside Power project which is developed in partnership with bp.

[More information.](#)

A second major hydrogen development has been announced in Scotland. After outlining plans for a £1bn hydrogen investment for a blue hydrogen production site in Grangemouth, Scotland, last September, chemicals giant Ineos is now inviting engineering and design contractors to tender for the next stage of the design of a world scale carbon capture enabled hydrogen production plant and major associated infrastructure. The first £500m will include investment into a new energy plant, due for commission in late 2023 which will then be converted to run on hydrogen.

Locally produced hydrogen is aimed to fuel the existing Combined Heat and Power Plant, the KG Ethylene Plant and assets in the Petroineos Refinery. This will require a new hydrogen distribution network throughout the site and modifications to the existing fuel gas network, as well as capability to link the hydrogen production to third parties in the local area to support development of a local hydrogen hub. The project will also gain access to the Scottish Cluster carbon capture and storage (CCS) infrastructure. Last year, Ineos announced that it would invest £1.7bn in green hydrogen production in Europe this decade, including projects in Norway, Germany, Belgium, France and the UK.

[More information.](#)

## **Hydrogen Policy Commission with IDRIC Representation**

31<sup>st</sup> January 2022

A new Hydrogen Policy Commission has been instated to advise policymakers as the green and blue hydrogen sectors scale up in the UK. Members include senior representatives from the Conservative Party, Labour Party and Liberal Democrats as well as the Climate Change Committee's (CCC) former vice chair Baroness Brown and experts in hydrogen from the UK's private sector and senior academics – including IDRIC principal investigator Nilay Shah, professor of process systems engineering at Imperial College London.

The Commission will, in the first instance, conduct an assessment of the UK Government's Hydrogen Strategy, with a report due out later this year. It has planned an eight-month engagement programme with representatives from industry and academia, as well as senior officials from national and local government. The Commission will assess concerns around the existing Hydrogen Strategy, published last August, as well as identifying a pathway for the UK Government to become a global leader in the export of hydrogen and related technologies.