4th Industrial Decarbonisation Policy Forum

9th October 2024, London

The 4th IDRIC Policy Forum brought together representatives from industry, academia and the public sector for a constructive discussion on current policy priorities for industrial decarbonisation, and opportunities for multi-stakeholder collaboration.

Harnessing collective expertise across organisations, the discussions focused on policy lessons to be learned from the cluster experience in the UK and abroad, how collaboration on Net Zero can be supported going forward, and critical priorities for government action.

Agenda

Session 1 – Setting the scene and insights from the clusters

- Welcome - Prof. Mercedes Maroto-Valer, IDRIC
- Scene setting - Anna Pultar, IDRIC
- Emerging learnings for UK industrial decarbonisation from advanced clusters
    - Hynet and Peak cluster – John Egan, Progressive
    - Humber – Jonathan Oxley, CBI Humber
    - Teesside – Gareth Fletcher, TVCA

Session 2 – Priorities for policy and collaboration

- Government updates and priorities for 2024/25
    - Edmund Ward, DESNZ
    - Kevin Friis, Welsh Government
    - Nicholas Young, Scottish Government

Discussion

Themes from the discussion:

- The purpose of a cluster
- Policy priorities going forward
- Energy system and balancing supply and demand

1. The purpose of a cluster

The UK's industrial decarbonisation strategy has been underpinned by a cluster-based approach which focused on kick-starting the decarbonisation of major centres of co-located industry, supported through programs like the Industrial Decarbonisation Challenge, the CCUS cluster-sequencing process and the Local Industrial Decarbonisation Plans.

Reflecting on the experiences of place-based collaboration across the UK's clusters in the past years, and taking a look ahead we discussed the strengths and limitations of a cluster-based approach. Looking to the future, what is the purpose of a cluster? Is it mainly a delivering mechanism for CCS infrastructure, or a governance mechanism for broader place-based collaboration for decarbonisation? Or something more intangible to do with trust, vision, leadership for decarbonisation?

Points raised in the discussion:

- Clusters are primarily about **shared infrastructure**.

  - Supporting infrastructure is critical for industrial decarbonisation as well as decision making for that infrastructure and how it can be integrated. More clarity is needed if and when infrastructure can be delivered.
  - What happens to those places that don't have the infrastructure they might need or where it will be too expensive? Do we need to reconfigure industries within the UK, move it near resources or will it go elsewhere? Lots of SMEs which are not part of cluster plans are at risk
- Do clusters have the **governance structure** to deliver on their plans?
  - Work in progress, some clusters have more advanced governance structures, including incorporated structures etc., but governance structures are not simple to construct.
  - Strong industry leadership is important from the start
  - Clusters are industry-led but need a strong links between private and public sectors, especially when relocation of industry is involved.
  - Developing governance structures is more difficult where cluster spans across local authorities, and easier where there are combined authorities. A challenge in the UK, especially in England, is the variety of regional governance structures, which not all line up with cluster boundaries. We need to think more holistically about a policy for regional development.
  - Community voices need to be incorporated into governance structure to build trust and avoid community disagreement becoming a barrier to the progress of these projects
- An industrial cluster is **more than an infrastructure project**.
  - Clusters are where different industries come together to collaborate, and which brings in the community.
  - This needs the right governance to enable discussion in a save way, avoiding anti-competition laws and other legalities.
  - Shared infrastructure is only a part of a cluster, which then need project developers who run this as a project to deliver the infrastructure with defined partners.
  - With the right governance structures, clusters can do other relevant activities that is more difficult to do by individual companies such as help with community engagement or help manage challenges around water constraints
- The cluster concept is about **regional advantage**
  - What makes places successful: resources and workforce.
  - Which clusters will gain regional advantage and how are we going to decarbonise those places which will never be in a cluster?
- Industrial clusters or **carbon clusters**?
  - We should not divorce industry from the wider society they're involved. Infrastructure needs to serve both industry and the wider economy around it.
  - Are the industrial clusters that were initially set up to serve economic advantage still operating that zero-sum game or should we try to reshore industry so that we can expand the size of the cake?
- Clusters don't magically appear, they grow and evolve over time, it needs **trust building**, connecting people, sharing resources. **Competition** can damage this, we need to find a different model than competition

2. Policy priorities

We largely have the technology we need to decarbonise UK industry and there would be enough money out there, but how can we unlock this? What are the big policy gaps? Doe we need new policies or improve existing ones?

Points raised in the discussion:

- There has been important **progress** in the past years:
  - There is now an extensive framework for Hydrogen and CCS around the business models, which has taken years to develop it, while not perfect, there has been considerable progress.
  - Recent developments like the Supercharger policy and the Steel Deal in Port Talbot are important.
  - The Industrial Energy Transition Fund (IETF) for technologies that are not yet commercialised remains critical.
- What is **missing**:
  - Incentives for electrification and resource efficiency
  - Demand side levers such as carbon pricing and incentives for fuel switching
  - Support for industry outside clusters.
  - Should there be technology specific business models or a single, technology-neutral carbon contract for difference?
- Is there a '**Cold War between molecules and electrons'** (hydrogen and electrification)?
  - The recent drive to electrification happened due to the efficiency gains from technological progress. Heat pumps are now more efficient than burning gas
  - Low hanging fruits of the transition: electricity is the network that already exists, reinforcement and capacity of the electricity network is therefore a priority, as well as addressing the UK's uncompetitive electricity prices.
  - If we are struggling to get electricity to where we need it, why don't we use the gas network that's already there to move hydrogen now?
  - Part of the reason why we don't have hydrogen in pipelines currently is public acceptance. We need to think more about what are we going to do when are reach implementation.
  - Would a lower price of electricity undermine the progress achieved with the CCS and H2 business models?
  - Electricity is also needed for CCS and hydrogen.
  - We need more of everything, while finding the most socially responsible pathway.
- The challenge for government is to get the **balance** right, not to prejudge long-term outlook, but also be clear about major options so people can make decisions.
  - The principle of grandfathering may be useful, to protect decisions that investors have made on the basis of policies in place at the time, not expect investors to anticipate future policy.
- '**Pace not perfection'** is needed to get projects off the ground and keep the momentum going
  - The low risk mindset needs to change, need more high risk appetite
  - Skills & supply chains: critical that infrastructure projects get off the ground and get investment, reach FID, place orders – that gives business confidence. We can't negotiate business models forever until every risk is accounted for. Getting projects moving unlocks many other things.
  - Important decisions are needed on "build or buy" that both depend on and impact on skills and supply chains

- Not policy but politics is putting on the breaks, especially when it comes to delivery and public acceptance – as we've seen with decarbonising homes, onshore wind, past CCS. Who is talking to the ministers, communities and voters?

3. Energy system and balancing supply and demand

Points raised in the discussion:

- The energy transition is more about **resources and geography** than ever before. CCS and storage exists only in parts of the UK. Where this isn't available, industry will move or need a strategic plan for alternative decarbonisation options.
- **Grid connections** are a key challenge and there is increasing awareness of the challenges on the **demand side**, i.e. fuel-switching projects from industry.
  - There are lots of projects in the queue, including those where informal conversations are taking place (e.g. for major steel plants), which may not be captured anywhere.
  - Challenges will increase with more fuel-switching projects being developed.
  - TN and DN processes are disjointed.
- Most industry relies on the **distribution network**, which can make obtaining grid connections more difficult.
  - DNOs may not be able to give an answer if a new connection also requires reinforcement in the transmission network. Also: all DNOs are working differently.
  - Connections reform is needed to manage the queue better, but this will need to be adequately resourced. The National Infrastructure Commission is currently conducting a study on the distribution system with findings expected early next year.
- The new **National Energy Systems Operator** (NESO) has been launched early October and will take a **whole systems perspective** including electricity and gas network planning, and over time potentially hydrogen network planning and CCS.
  - Connections are a primary concern from the supply side: the Strategic Spatial Energy Plan (SSEP) will identify the best location generation assets and infrastructure.
  - But awareness that demand side needs more focus and different solutions to ensure the right projects get connected. There are ongoing discussions with DESNZ and Ofgem.
  - Connections reform will always produce winners and losers, which will be controversial but necessary – NESO is independent from industry and government.
  - Connections for industry where it is located? Some are flexible and can move to where generation is, e.g. data centres and electrolysers, but existing industrial sites are less flexible and need decarbonisation options where they are – that is being thought about in NESO's work on future demand scenarios.
  - The Regional Energy Strategic Plans will involve bottom-up data input to make sure regional plans fit and have local buy-in. Policy will be decided in January.
- Important to **work with clusters** to understand current and future energy demand and connection needs.
  - Important that these plans reflect the economic interest of different places and that SMEs have a voice in the process.
- How will RESP be integrated into **spatial planning** and feed into defining the needs case for certain developments in spatial planning?

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