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Via email: clustersequencingconsultation@beis.gov.uk

Carbon Capture Usage and Storage Policy Team
Department for Business, Energy and Industrial Strategy
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**Response to BEIS Consultation –
Carbon Capture Usage and Storage: Market Engagement on Cluster Sequencing**

Dear Sirs,

UKPIA represents the eight main oil refining and marketing companies operating in the UK. The UKPIA member companies – bp, Essar, Esso Petroleum, Petrolneos, Phillips 66, Prax, Shell and Valero – are together responsible for the sourcing and supply of product meeting over 85% of UK inland demand, accounting for a third of total primary UK energy¹.

UKPIA welcomes the opportunity to respond to the consultation on cluster sequencing, which is supported by the majority of our member companies, except bp. Responses to the questions posed in the consultation document are given in Attachment 1.

The refining and downstream oil sector currently lies at the heart of the UK economy. It provides a secure supply of affordable energy for road and rail transport, aviation and marine applications, as well as for commercial and domestic heating. It also supplies feedstocks for the petrochemicals sector, along with specialised non-energy products such as lubricants, bitumen for use in road surfacing, and graphite for use in electric vehicle batteries and as electrodes in steel and aluminium manufacture.

The six UK refineries are all located in or within geographical proximity to cluster identified in the BEIS Cluster Mission and all have decarbonisation projects under consideration, some already supported by funding available under the Government Industrial Decarbonisation Challenge and BEIS Energy Innovation Programme. UKPIA is convinced there is a major potential opportunity for the broader downstream oil sector to play a central part in the UK's

¹ [BEIS Digest of UK Energy Statistics \(DUKES\) 2019 Tables 3.2-3.4.](#)

energy transition, with companies leveraging their scale, expertise and resources to participate in clusters and to act as enablers for the transition to Net-Zero.

UKPIA has a number of concerns regarding the proposed two-phase process for cluster sequencing and project support, largely due to the levels of uncertainty introduced. This may lead to a number of consequences, including loss of business confidence developed following Government support for projects under the Industrial Decarbonisation Challenge and BEIS Energy Innovation Programme.

Given the magnitude of the Net-Zero challenge, it is important that all of the CCUS cluster projects are progressed as soon as possible. In reality, the projects will proceed at different rates depending on many factors including the complexity involved, availability of project finance and timescales for planning and regulatory approvals. In place of the sequencing proposed, the Government should make a commitment to support all cluster proposals meeting key eligibility criteria.

Yours faithfully,



Dr Andrew Roberts
Director – Downstream Policy

cc:	Michael Duggan	BEIS
	Simon Stoddart	BEIS
	Mike Mackay	BEIS

Response to BEIS Consultation – Carbon Capture Usage and Storage: Market Engagement on Cluster Sequencing

1. Do you have any comments on the two-phase process where provisional sequencing first takes place at the CCUS cluster level, followed by final selection at the individual project level?

UKPIA has a number of concerns regarding the proposed two-phase process for cluster sequencing and project support, largely due to the levels of uncertainty introduced. This may lead to a number of consequences, including loss of business confidence developed following Government support for projects under the Industrial Decarbonisation Challenge (IDC) and BEIS Energy Innovation Programme (EIP):

- Further progression of projects funded under the IDC and EIP beyond the current phases may be delayed, when a number of these projects are important to the broader Cluster Mission objectives.
- Greater difficulty in securing investment funding for key carbon capture and transport and storage infrastructure projects.
- Delays to industry bringing forward new project proposals.

These concerns are well-founded, given past experience with the Government CCS Competition (which ran from April 2012 to January 2016) and the White Rose and Peterhead CCS projects. The bidders for both projects chose not to proceed in the absence of capital funding support, following the government's decision to close the competition.

Given the magnitude of the Net-Zero challenge, it is important that all of the CCUS cluster projects are progressed as soon as possible. In reality, the projects will proceed at different rates depending on many factors including the complexity involved, availability of project finance and timescales for planning and regulatory approvals. In place of the sequencing proposed, the Government should make a commitment to support all cluster proposals meeting key eligibility criteria.

2. Do you have any comments on the indicative timeline? Specifically, does the 10-week window give enough time for industry to gather and submit information for Phase-1 (further information on application information is included within Section 3)?

UKPIA believe the indicative timeline for submission of a cluster plan and supporting information is far too short and should not be constrained by arbitrary deadlines. Greater flexibility would also see all clusters develop at a pace more befitting to each of them, and have a greater chance of success, being able to comply with robust project management processes (for example, the widely used phase/decision gate process), which will be critical in delivery of such complex projects with multiple stakeholders. Similarly, projects that have the ability to accelerate development should not be constrained by arbitrary dates.

Development of a detailed cluster plan, potentially involving a number of stakeholders will require strong leadership and coordination. Although structures are in place for many of the proposed clusters, development of a robust cluster plan will require strong leadership to develop a shared vision and commitment across all of the stakeholder

involved. Again, this will depend on many factors, including the level of complexity and number of stakeholders involved and progress thus far in convergence around a shared future vision.

3. Do you have any concerns about the proposed overlay of Phase-2 (Final Project Selection) and Phase-1 (Provisional Cluster Sequencing)?

See response to Question 1.

4. Do you agree that the process should focus on identifying clusters for Track-1? Does the commitment to bring forward details of a process to select clusters for Track-2 mitigate the risks associated with not naming the second Track in 2021?

As UKPIA does not support the proposed sequencing process (see response to Question 1), we have no response to this Question.

5. What should the allocation process for Track-2 clusters look like? What factors will it be important for government to consider?

As UKPIA does not support the proposed sequencing process (see response to Question 1), we have no response to this Question.

6. Do you have any comments on the proposed eligibility criteria?

Although UKPIA does not support the proposed sequencing process for the reasons given in the response to Question 1, there is a need for clear eligibility criteria for Government support under the CCUS Programme. These should include necessarily that the cluster must be in the United Kingdom and that it must credibly demonstrate that it can be operational by 2030. However, greater flexibility should be allowed in the definition of a CCUS cluster to allow inland or coastal clusters located away from current potential transport and storage (T&S) infrastructure to collaborate with other clusters with ready access to T&S networks. Additional criteria currently included as evaluation criteria may also be appropriate earlier in the process, for example, a minimum CO₂ capture tonnage and inclusion of other non-CCUS decarbonisation projects in the cluster plan.

7. Do you have any comments on the proposed requirement that an applicant has to meet the definition of a CCUS cluster to enter the process? Do you have any comments on the proposal to relax this requirement when considering Track-2 cluster?

See response to Question 6.

8. We are suggesting that the T&SCo take on the role of Cluster Lead. Are there any challenges associated with T&SCo being an effective Lead for the cluster?

Although T&SCOs will clearly play a key role in the successful development of CCUS Clusters, UKPIA believe greater flexibility is required in the identification of the Cluster Lead. Strong leadership will be required in the development of the Cluster Plan alongside development of the T&S proposal and individual stakeholder project proposals; all are likely to contain confidential information, which may be subject to competition and financial reporting constraints. This supports identification of an

independent third-party Cluster Lead, perhaps financed jointly by potential stakeholders, designed specifically for the purpose intended and with the ability to broker and enter into contracts for CO₂ supply with emitters, carbon capture plants and T&SCos. This would also avoid the situation where:

- The selection of individual carbon capture projects is suboptimal or unduly influenced by the T&SCo, who may also have other commercial interests. For example, a T&SCo also involved in natural gas supply may favour hydrogen production with carbon capture projects.
- The T&SCo seeks to minimise the costs associated with linking carbon capture projects to pipeline infrastructure.
- The T&SCo has undue leverage over projects being progressed by other parties, introducing additional uncertainties and project risks.
- The development and linking of T&S projects themselves is not optimised, due to appointment of a single T&SCo as the Cluster Lead.

UKPIA note also that the Humber Cluster (the largest potential cluster) has potentially, at least two options for connection to pipeline and storage infrastructure (via the Zero Carbon Humber² and Humber Zero³ projects), along with the potential to link to the Teesside Cluster, as envisaged by the Northern Endurance Partnership⁴. All of these projects will be required to deliver Net-Zero, with the potential also to provide additional resilience and a competitive market for T&S.

9. We state that there should be a level of commitment from a capture project for it to be included on the Cluster Plan. Is an MoU an appropriate and achievable form of commitment?

Based on our understanding of progress within the Hynet and Gigastack projects, UKPIA believe MoUs are an appropriate form of commitment in the development of a Cluster Plan, although stronger contractual arrangements will be required in later phases of cluster development.

10. What should government be doing to facilitate remote sites and shipping and when should government be doing this?

UKPIA supports government involvement in facilitation of remote site access to T&S networks, whether this be provided using pipeline transport or shipping and intermediate storage. In such cases, the government role could extend to provision of additional support tailored specifically for this purpose and in brokering arrangements between remote sites, receiving cluster organisations and T&SCos. The development of onshore storage should also be explored for sites without ready access to T&S networks linked to offshore storage.

Again, given the magnitude of the Net-Zero challenge, it is important that all of the CCUS cluster projects are progressed as soon as possible, and that remote site access is considered at the same time to optimise cluster configuration and design.

² See <https://www.zerocarbonhumber.co.uk>.

³ See <https://www.humberzero.co.uk>.

⁴ See <https://www.bp.com/en/global/corporate/news-and-insights/reimagining-energy/northern-endurance-partnership-to-develop-offshore-ccus-infrastructure.html>

11. Do you have any comments on the proposed evaluation criteria?

Although UKPIA does not support the proposed sequencing process for the reasons given in the response to Question 1, the headline evaluation criteria appear appropriate for longer term government support for cluster development. However, additional criteria may also be needed, for example, an assessment of overall cluster project risks from non-government financing, built up from evaluation of individual project risks. This may identify projects or risks where ultimately government may need to provide additional risk mitigation measures to guarantee delivery of the overall project objectives.

Under the more detailed descriptions for the evaluation criteria, UKPIA note the expectation under “Learning and innovation” that each cluster will “Have clear plans in place to disseminate knowledge within the cluster, to other clusters and projects and to government”. Inevitably, many of the cluster projects will involve use of proprietary technology and there may be constraints on further dissemination of confidential or proprietary information.

12. Do you agree with weighting ranges proposed for the evaluation criteria?

See response to Question 11 – the weightings would require revision to accommodate an additional criterion on overall project finance risks.

13. Do you have any comments on the proposal to consider portfolio factors when selecting the Track 1 clusters? In particular, do you have any comments on the potential portfolio factors that the Government should have regard to?

See response to Question 1.

14. Do you agree with the proposed approach for allocating the first power CCUS contract(s)?

UKPIA has no response on this Question.

15. Do you agree with the proposed approach allocating the first industrial carbon capture contracts?

As explained in the response to Question 1, UKPIA does not support the proposed sequencing process. Although many of the criteria and associated metrics seem appropriate for overall project assessment as part of the allocation process, there may be over-emphasis on competitive criteria such as emissions reduction potential and average cost of abatement, as the transition to Net-Zero will require delivery of the maximum potential available from all of the clusters currently identified by BEIS.

UKPIA understand that each of the cluster developments is also at a different level of maturity and with different levels of complexity. This will inevitably result in completion of cluster plans and bilateral negotiation over an extended timeline, introducing difficulties in side-by-side assessment against the qualification criteria. Threshold levels may therefore be required as part of the allocation process. If due diligence supports delivery of, for example, emissions reduction potential above this threshold, then the project could be further considered for support. The government may also need to support projects with a higher average cost of CO₂ abatement to deliver the higher emissions reduction potential available from major projects.

- 16. If a developer has prepared a capture project bid and then the cluster it was planning to connect to is not sequenced onto Track-1, could it be feasible for the project to submit a revised bid to connect to a different cluster (i.e., one that was sequenced onto Track-1)?**

As UKPIA does not support the proposed sequencing process (see response to Question 1), we have no response to this Question.

- 17. Do you have any comments on the proposal to swap out a Track 1 cluster, to begin negotiations with a reserve list cluster instead? In particular, do you have any views on the feasibility of a reserve list cluster replacing one of the Track 1 clusters?**

As UKPIA does not support the proposed sequencing process (see response to Question 1), we have no response to this Question.