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Response to: Decarbonisation Readiness Consultation on updates to the 2009 Carbon Capture Readiness requirements
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Uniper

Düsseldorf-based Uniper is an international energy company with activities in more than 40 countries. With around 7,000 employees, it makes an important contribution to security of supply in Europe. Uniper's core businesses are power generation in Europe, global energy trading, and a broad gas portfolio.

Uniper procures gas – including liquefied natural gas (LNG) – and other energy sources on global markets. The company owns and operates gas storage facilities with a capacity of more than 7 billion cubic meters. Uniper plans for its 22.5 GW of installed power-generating capacity in Europe to be carbon-neutral by 2035.

The company already ranks among Europe's largest operators of hydroelectric plants and intends to further expand solar and wind energy, which are essential for a more sustainable and autonomous future.

Uniper is a reliable partner for communities, municipal utilities, and industrial enterprises for planning and implementing innovative, lower-carbon solutions on their decarbonisation journey. Uniper is a hydrogen pioneer, is active worldwide along the entire hydrogen value chain, and is conducting projects to make hydrogen a mainstay of the energy supply.

In the UK, Uniper owns and operates a flexible generation portfolio of seven power stations and a fast-cycle gas storage facility.

Our views in summary:

- Decarbonisation Readiness (DR) requirements should be implemented through the planning consent process to avoid introducing unnecessary uncertainty and investment risk that reviews inherent in the environmental permitting process bring.
- We do not agree with requiring developers to update reports every two years as neither technology nor the roll out of hydrogen or CO_2 infrastructure changes substantially in a two year timeframe.
- We welcome the removal of the 300 MW minimum capacity threshold.

Response to consultation questions:

1. Do you agree with Government's proposal for the definition of "fully decarbonised"?

We agree with the intent of the proposed definition but have some concerns about detail. In view of increased societal scrutiny and concerns about greenwashing the phrase "fully decarbonised" may not be appropriate given the residual carbon emissions associated with imperfect carbon capture processes.

In similar vein "100% hydrogen-firing" may be considered misleading. It would be more prudent to refer to hydrogen gas standards and/or in future the as yet undeveloped best available techniques (BAT) guidance to more accurately reflect the purity of the hydrogen fuel.

To meet the proposed definition, operators will be reliant on third parties, for example the CO_2 transport and storage operator, or the hydrogen supplier. Fuel supply interruptions or unavailability of the CO_2 network could mean that the CO_2 capture rate to comply with the definition is not achieved. Failures attributed to third parties should not be treated as non-compliance by operators.

2. What are your views on our proposals that eligible combustion power plants would be subject to Decarbonisation Readiness requirements unless they can demonstrate they have met the definition of being "fully decarbonised"?

We agree with the proposal.

3. Do you agree with the three proposed objectives of the Decarbonisation Readiness requirements?

We agree with the two proposed objectives listed in the consultation. It is unclear why the consultation question refers to three proposed objectives.

4. Do you agree with our proposal to remove the 300 MW threshold and to align the scope of decarbonisation readiness with the existing scope of environmental permitting for combustion power plants?

We agree with the proposal to remove the 300 MW threshold. We do not agree with implementing DR through environmental permitting and set out our reasons in our response to the 2021 Decarbonisation Readiness Joint call for evidence on the expansion of the 2009 Carbon Capture Readiness requirements. The DR requirements are based on having the space available to site decarbonisation plant, and space is primarily considered by the planning process. In addition, environmental permitting is subject to more frequent reviews and may change during a plant's operational lifetime, which introduces uncertainty and additional investment risk.

5. Do you agree with our proposals to include both new build and substantially refurbishing plant within scope of DR? What are your views on using the definition of "substantially refurbishing" from the environmental permitting legislation in the context of DR?

Yes, we agree with these proposals.

6. Do you agree with enabling existing plants to voluntarily submit a DR report?

As set out in our response to the recent Capacity Market 2023 consultation, we need clarity on the processes that enable generator capacity to transition between the CM and decarbonisation support mechanisms. In the absence of any detailed proposals, it is difficult to comment on the government proposal of a voluntary DR report as part of the transition process but, if introduced, it is clear that any voluntary DR report should be recognised as valid by all regulators, including Ofgem and the EMR delivery body.

7. Do you agree with our proposals to include biomass, EfW and CHP in DR?

Yes, we agree with the proposals to include these technologies in DR.

8. What are your views on including heat generation in DR at a later date?

To meet net zero targets the production of heat will need to be decarbonised and heat generation should be added to DR as heat policy develops.

9. Do you agree with our proposed approach to exemptions from DR requirements?

Yes.

10. Do you agree with our proposed approach to transitional arrangements from DR requirements?

Yes.

11. Do you have any comments on our proposal to move the DR requirements to the environmental permitting regime?

Our preference is that the DR requirements remain in the planning system. The DR provisions are primarily a requirement that space is available to install an identified decarbonisation solution, and use of land is considered and granted in the planning consent. Environmental permitting arrangements may be flexible and easier to update but cannot retrospectively create land space. The consultation lists the benefits and drawbacks but underplays the investment risk and consequences of an in parallel consenting and permitting process followed up by the potential scale of retrospective application of DR requirements through environmental permitting. If DR requirements are moved to the environmental permitting regime government will need to incorporate measures to help manage this risk, for example grandfathering rights to fix DR requirements for a specific site. Whichever approach government takes it is important that the implementing parties are adequately resourced to process applications in a timely way.

12. How do you see the proposed changes impacting the planning system (Nationally Significant Infrastructure Projects (NSIP) and/or Town and Country Planning Act (TCPA) regimes), including decision, and plan-making?

The proposed changes to consider DR as part of the environmental permitting regime will require greater co-ordination between the planning authority and the EA, as in the present system environmental permitting takes place at a later stage than planning.

13. Do you agree with our proposed approach to DR appeals?

The approach to not introduce any additional stages to the environmental permitting regime for DR appeals is appropriate.

14. Do you agree with the proposal for developers of eligible plants to submit update reports every two years from the start of their combustion power plant's operations? What are your views on what the report should cover?

As set out in our response to the 2021 Decarbonisation Readiness Joint call for evidence on the expansion of the 2009 Carbon Capture Readiness requirements, we do not agree with updating reports every two years. Neither technology nor the roll out of hydrogen or CO_2 infrastructure changes substantially in a two year timeframe.

15. Do you agree with our proposal for a regular review of Decarbonisation Readiness requirements as part of any review carried out and report published under regulation 80 of the Environmental Permitting Regulations 2016?

We agree with the proposed intervals not exceeding five years frequency of a regular review of DR requirements. A more frequent review of new technologies which could offer alternative decarbonisation pathways would be useful. This could be similar in form to the annual capacity market consultation on new generating technologies and facilitate the early inclusion of new resources, for example larger scale production of liquid biofuels.

16. Do you agree with our proposed outline for a hydrogen readiness space requirement test?

Yes, the proposed outline for a hydrogen readiness space requirement test seems appropriate.

17. Do you agree with our proposed outline for a hydrogen technical feasibility assessment?

Yes, we agree with the "no known barriers" approach to the a hydrogen technical feasibility assessment.

18. Do you agree with our proposed outline for a hydrogen fuel access assessment, and our proposal to make it non-mandatory to pass in the short-term?

Yes, we agree with the assessment and the non-mandatory pass in the short-term.

19. Do you agree with our proposed outline for a hydrogen economic feasibility assessment, and our proposal to make it non-mandatory to pass in the short-term?

Yes, we agree with the assessment and the non-mandatory pass in the short-term.

20. Do you agree with Government's proposal to require all eligible new build or substantially refurbishing combustion power plants which opt to meet DR requirements through hydrogen conversion to also have to demonstrate capability of burning 100% hydrogen if they are put into operation after 1 Jan 2030?

We agree with the proposal to review the date to demonstrate capability of burning 100% hydrogen as part of the period review of DR. Our concern is that any 100% hydrogen turbines that are available in the run up to 2030 will be FOAK and carry a significant cost premium over a competitive CCGT plant.

21. Do you agree with Government's position of not requiring demonstration of plants' capability of burning a blend of hydrogen?

Yes.

22. Do you agree with our proposals for CCR? In your answer please also outline whether you agree with the proposed changes to the technical feasibility test, economic feasibility test, and the space requirement?

Yes, we agree with the overall proposals for CCR and the proposed changes to the technical feasibility test, economic feasibility test, and the space requirement. We have assessed the CCGT costs in the technical report and in our view the costs are too low for an early adopter of carbon capture plant. Although it will not be necessary to pass the economic feasibility test in the near future the costs used in the assessment need to be reflective to allow a robust and meaningful assessment.

23. Do you agree with our proposed updates to the transport and storage test?

Yes, we agree with the proposed updates to the transport and storage test.

Uniper UK Limited