

Government response to the consultation on implementing the third party access provisions of the European Union Carbon Capture and Storage Directive

Department of Energy and Climate Change
3 Whitehall Place
London SW1A 2HH

Telephone 0300 060 4000
Website: www.decc.gov.uk

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Office of Carbon Capture and Storage
Department of Energy and Climate Change
3 Whitehall Place
London SW1A 2HH

email: OCCS@decc.gsi.gov.uk

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Introduction

Background

1. The EU Directive on the Geological Storage of Carbon Dioxide¹ (“the CCS Directive”) requires the Government to introduce arrangements to ensure that potential users are able to obtain access to carbon dioxide transport networks and storage sites.
2. Those arrangements must be provided in a transparent and non-discriminatory manner. They should take into account any incompatibility in technical specifications that cannot be reasonably overcome and any duly substantiated reasonable needs of the operator and other users of transport or storage sites. Access may be refused on grounds of lack of capacity; where this is the case the CCS Directive requires that Member States must ensure that operators who refuse access make necessary enhancements so far as it is economic to do so or when a potential customer is willing to pay for them, provided this does not negatively impact on the environmental integrity of the transport or storage infrastructure.
3. Member States must also put in place arrangements that are independent of the party seeking access and the operator of the transport or storage infrastructure, to enable disputes over third party access to be settled efficiently and quickly.
4. The UK and Scottish Governments’ consulted on their preferred way of meeting the requirements of the CCS Directive between 10 December 2010 and 4 February 2011. This was part of a wider consultation on developing Carbon Capture and Storage Infrastructure. We will respond to Section 3 of that consultation (A

¹ Directive 2009/31/EC of the European Parliament and of the Council of 23 April 2009 on the geological storage of carbon dioxide

Call for Evidence on the Long-Term Development of CCS Infrastructure) separately.

5. The proposals in the consultation were based on a process of negotiated access between the party seeking access and the owner of the transport or storage infrastructure, with the ability of the party seeking access to appeal to an independent authority in the event that access cannot be secured voluntarily. Similar arrangements are already in place for securing access to pipelines (including carbon dioxide pipelines) offshore and on land in Great Britain and apply both at the point when the initial construction authorisation is granted for the pipeline and once the pipelines are in use. A list of all who responded can be found at Annex A.

Summary of responses

6. A total of twelve responses were received to the consultation with the majority from prospective carbon dioxide storage site and pipeline operators and their representatives. There were fewer responses from prospective users of the carbon dioxide infrastructure.
7. We are grateful to all of those who took the time to respond. The majority of respondents recognised the importance of developing third party access arrangements that are fair to all parties, open and non-discriminatory, and which encourage the development of a common infrastructure. The majority of those responding also favoured the negotiated access approach on which our proposals were based. Respondents also recognised that the development and provision of an integrated infrastructure will be an important factor in enabling CCS and ensuring the UK is able to meet its carbon dioxide reduction targets.
8. Concerns were, however, raised about some aspects of detail of our proposals. As a result, we have modified the draft Regulations to clarify that in the case of an already permitted storage site, a determination by the appropriate authority (for the purposes of the regulations the “appropriate authority” in relation to a storage site is, either, the Secretary of State, or Scottish Ministers) could not require an increase in the total quantity of carbon dioxide

authorised under the permit to be geologically stored . We believe this change is justified because the storage permit is one of a number of measures in the CCS Directive which is intended to secure the environmental integrity of the storage site, and the total quantity of carbon dioxide is one of the factors that must be included in such a permit. Any determination by the appropriate authority that compromises environmental integrity would in our view be contrary to the CCS Directive's requirements.

9. As a consequence of this change we have further modified the draft Regulations to allow the carbon dioxide storage site or pipeline operator a year to publish capacity information following the granting of the original storage permit or the initial construction authorisation being granted and after that whenever the capacity information changes. For a pipeline that is not initially constructed as a carbon dioxide pipeline, the information must be published within one year of the pipeline starting to be used to convey carbon dioxide and thereafter whenever the information changes.
10. Finally, we intend to produce guidance which sets out the approach the appropriate authority would take if asked to make a determination over access and the principles against which financial terms would be determined. Such guidance will also provide a benchmark against which those seeking to negotiate access can assess their positions. As a first step we have asked industry, through the Carbon Capture and Storage Association (CCSA), to propose a list of topics that they would wish to see covered by this guidance. We will then develop this guidance and publish a draft for consultation later this year.

Responses to specific questions

The consultation posed four questions to consultees.

Consultation Question 1: approach to third party access provisions

- **Do you agree with our proposed approach to implementing the third party access requirements of the CCS Directive?**
- **If not, then what other measures do you think we should take?**
- **What would be the benefits of this alternative approach compared with the one we are proposing?**

11. This question attracted the majority of responses. Virtually all of those who responded recognised that delivering CCS at the scale required to meet the UK's carbon dioxide reduction commitments will require the efficient development and use of CCS infrastructure. Key to meeting this challenge was having third party access arrangements which were fair to all parties and open and non-discriminatory. Our approach was welcomed as encouraging the development of a common infrastructure. Some respondents, however, felt that in practice there would not be significant amounts of spare and available CCS infrastructure.

12. One respondent, however, questioned the timing of implementing the CCS Directive. In their view, since CCS was still an unproved energy technology, there was a risk that mandatory third party access regulation of the nature of that employed for upstream oil and gas pipelines could discourage investment in this emerging industry. It was argued that only when the industry becomes commercial, with vigorous competition occurring, that a stronger economic regulatory framework may be required. We also have obligations under European law that require us to introduce third party arrangements, and believe that the arrangements we proposed represent a reasonable balance. We recognise the early stage of development

but consider that third party access should bring forward CCS projects as it is aimed at reducing the costs of follow on projects.

13. The majority of respondents also favoured the negotiated access approach on which our proposals were based. They viewed this as a pragmatic approach that would encourage interested parties to reach commercially acceptable terms before requiring regulatory intervention from the appropriate authority.
14. There were, however, concerns that the proposed approach did not adequately distinguish between pipelines and storage sites. Most respondents viewed these differences as significant to the extent that they questioned the assumption that third party access arrangements for pipelines could be applied in the same way to storage sites. The main characteristics and differences identified by respondents are summarised below in Table 1.

Transportation	Storage
<u>Capacity</u> : relatively easy to define (CO ₂ /unit time)	<u>Capacity</u> : two types I. Injection capacity (CO ₂ /unit time) II. Accumulated reservoir capacity
<u>Spare capacity</u> : additional or “spare” capacity relatively easy to define in man-made structures	<u>Spare capacity</u> : storage sites are part of a natural geological environment, hence spare capacity is subject to a large degree of uncertainty
<u>Increasing capacity</u> : Relatively easy	<u>Increasing capacity</u> : Technically far more challenging
<u>Third party volumes</u> will have limited impact on other users owing to structure of pipelines. Pipeline line operators will require very long contracts to recover asset costs and the contracted flow rates will be quite consistent. There maybe, however, some unsecured volumes available in the pipeline which could be utilised by a third party with limited impact on the first volumes as long as the total volumes are within the physical constraints of the pipeline	<u>Third party volumes</u> will alter the risk profile (and potential prolongation of obligations) for initial volumes and limits future storage
<u>Liabilities</u> : once CO ₂ exits pipelines all liabilities and responsibilities are removed from the pipeline operator	<u>Liabilities</u> : for stored CO ₂ the operator’s liabilities are materially different – both in magnitude and timescale

Table 1: Characteristics and differences of transportation and storage of carbon dioxide

15. The majority of these differences derive from the fact that carbon dioxide storage sites are natural rather than engineered facilities and there is therefore inherent uncertainty about the ability of a storage site to accommodate additional carbon dioxide beyond its permitted capacity. In our view the best way to address these differences is to clarify in the Regulations that the capacity of an already permitted storage site is limited to the total amount of carbon dioxide the store is allowed to contain under the terms of its storage permit. The storage permit is one of a number of measures in the CCS Directive intended to secure the environmental integrity of the storage site, and the total quantity of carbon dioxide authorised to be stored must be stated in each permit. Any determination by the appropriate authority that compromised the environmental integrity of carbon dioxide storage would be contrary to the aims of the CCS Directive's requirements. There are also significant technical challenges to determining accurately the theoretical geological capacity of a store, and any estimate is therefore inherently uncertain.
16. The draft Regulations did not define the basis on which the total capacity of a storage site would be measured (and therefore by extension the basis on which any spare capacity would be calculated). We are therefore adjusting the regulations to clarify that for an already permitted storage site any determination to require third party access is limited to access to the authorised storage capacity of the site and could not require an increase in the total quantity of carbon dioxide authorised under the permit to be geologically stored.
17. This does not mean that the arrangements would not apply to already permitted stores. In circumstances where the permitted capacity exceeds the reasonable needs of the owner, the process of recourse to dispute resolution will still be available to a third party seeking access. Those arrangements could, for example, require the injection facilities to be modified or more injection wells to be constructed in order to accommodate the additional carbon dioxide volumes of the third party, and could also determine and give effect to the financial arrangements that give effect to such a determination.
18. For a storage facility that was yet to be permitted, it would also be possible for a third party to request that the storage site be designed to accommodate a larger volume of carbon dioxide than

judged to be necessary by the primary developer. Any determination that required such an expansion or a change to an existing permit would be conditional on the appropriate authority being satisfied that such a change was likely to secure regulatory approval in through the storage permitting process and the necessary property rights from The Crown Estate.

19. The majority of respondents also questioned whether we had misinterpreted the CCS Directive in requiring publication of spare capacity in order to meet transparency requirement. In our view the CCS Directive requires us to take action to ensure that potential storage and pipeline capacity is transparent to third parties, and making that information public is the most obvious way of achieving this.
20. Our proposals for achieving transparency were set out in paras 2.31 to 2.34 of the consultation document and require infrastructure owners to put into the public domain information about their spare capacity (and where there is such capacity to publish information about the minimum technical specification of the carbon dioxide that must be met). Whilst we appreciate the views expressed on this point as part of the consultation, our view is that our proposals provide meaningful information to those requiring access, without imposing an excessive regulatory burden.
21. We, however, do not intend to change the regulations in this regard. However, we will clarify in the draft Regulations that storage operators will be required to publish information about available capacity on the basis of the difference between the total permitted capacity (not potential physical capacity) and the reasonable needs of the operator, its associates and customers. Moreover, capacity information will be calculated as the difference between the permitted capacity of the storage site and their reasonable needs over the lifetime of the store.
22. We have also amended the draft Regulations to allow the storage operator a year to publish initial capacity information following the issue of a permit, (or, in the case of a converted pipeline, following that conversion), or as soon as reasonably practicable following any changes to previously published information; we had previously asked storage operators to publish this information annually.

Consultation Question 2: approach to powers of the Authority

- **Are the proposed conditions attached to the exercise of the powers of the Authority a reasonable balance between the interests of the parties?**
- **If not, what additional points should be included and why?**

23. There was concern expressed regarding the lack of detail in the consultation about the basis on which the appropriate authority would determine the terms of access in the event they were called upon to do so. Respondents were concerned that under the draft Regulations they may be required to:
- store significantly more carbon dioxide than had originally been planned, with consequent impact on their legal liability for any carbon dioxide that might subsequently be emitted to the atmosphere;
 - accept carbon dioxide on financial terms that were unacceptable to them.
24. We believe that the amendments to the draft Regulations discussed in paragraphs 15 to 18 of this document largely address these concerns.
25. We do, however, accept that more guidance is needed on how the powers available to the appropriate authority will be exercised in practice. In the consultation document we provided three examples of the criteria upon which a determination would be made, based on the principles used to guide similar arrangements in the upstream oil and gas sector. The first of these was that the terms of a determination would reflect the incremental costs and risks imposed on the infrastructure owners. The second was that any determination would take into account the risks involved and set a reasonable return on the costs incurred. The final principle was that where there was competition for limited capacity the appropriate authority would be unlikely to require the owner to make the capacity available to a prospective user who valued the capacity less than other potential users.

26. We accept the need to provide more complete guidance to prospective infrastructure developers, particularly on the financial terms that would accompany any determination. As a first step to developing this guidance we have asked the industry to propose a list of topics to be covered. We will subsequently develop guidance on these points and consult on these before they are finalised.
27. Neither this guidance nor the Regulations will, however, extend to providing infrastructure operators with an absolute veto over the ability of a third party to secure access for which some respondents have argued. In our view, this would not be consistent with the requirements of the CCS Directive. Nor would it provide for the efficient utilisation of infrastructure. It is intended that the parties will be able to enforce rights and modification requirements (and associated payment obligations) imposed in a determination against each other in the same way as if these rights and obligations were contractual.
28. One of the responses argued that demonstration projects should be exempt. We have considered this, but we consider that there is no flexibility in the CCS Directive to exempt such projects even if it were justified on wider grounds.
29. Finally, a number of respondents argued that the resolution of disputes should be independent of the Secretary of State or Scottish Ministers, the argument being that wider policies determined by the Secretary of State or Scottish Ministers meet this description. would in effect determine the need for CCS infrastructure. The CCS Directive requires the dispute settlement mechanism to involve an authority independent of the parties with access to all relevant information and in our view the Secretary of State or Scottish Ministers meet this description. It would be inappropriate for such powers to be vested in a body other than the Secretary of State or Scottish Ministers, who are the regulators of carbon storage generally and will be in the possession of the technical engineering and economic expertise required to make the determinations as described by the new regime in a way that a stand-alone tribunal would not be. Moreover, we do not consider that the more general interest in policy that the Secretary of State possesses would compromise his independence in resolving an individual dispute over access between parties. The oil and gas sector has successfully operated with this approach for many years.

The decisions of the Secretary of State or Scottish Ministers would ultimately be subject to judicial control by the courts.

Consultation Question 3: the draft Impact Assessment

- **Do you have any comments on the draft Impact Assessment that accompanies this Consultation?**
- **Do you think our estimate of the regulatory impact of these measures is reasonable?**

30. This attracted very few responses. The most significant response suggested some areas of costs from the policy had not been included in the Impact Assessment. We have considered these points and made revisions to the Impact Assessment where we felt it was necessary to reflect these points. The revised impact assessment can be downloaded from the DECC website at [www.decc.gov.uk /en/content/cms/consultations/closed/closed.aspx](http://www.decc.gov.uk/en/content/cms/consultations/closed/closed.aspx)

Consultation Question 4: the draft Regulations

- **Do you have any comments on the draft Regulations that accompany this Consultation?**

31. There were no specific comments on the regulations beyond those covered elsewhere in this response.

Annex A – List of Respondents

- Carbon Capture & Storage Association
- EDF Energy
- Environment Agency
- EON
- Global CCS Institute
- Greenheat Systems
- National Grid
- Oil & Gas UK
- RWE
- SEPA
- Shell UK
- Statoil

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3 Whitehall Place
London SW1A 2AW
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