



Department for  
Business, Energy  
& Industrial Strategy

# Establishing the offshore decommissioning regime for CO<sub>2</sub> transport and storage networks

UK government consultation

Closing date: 26 September 2021

August 2021



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# General information

## Why we are consulting

The government expects Carbon Capture, Usage and Storage (CCUS) to play an essential role in meeting our net zero target. The deployment of CCUS will also be central to supporting the low carbon transformation of the UK's industrial base. To deliver this, the government's Ten Point Plan for a Green Industrial Revolution, published in November 2020, included a commitment to deploy CCUS in two industrial clusters by the mid-2020s, and a further two clusters by 2030 with an ambition to capture 10 MtCO<sub>2</sub> per year by 2030.

Existing UK legislation is clear that when an offshore CCUS storage site is closed, the installations and injection facilities must be removed when decommissioned. In addition, all other items of equipment, infrastructure and materials that have been installed or drilled are expected to be entirely removed for disposal onshore in accordance with our aim to achieve a clear seabed.

This consultation sets out the government's proposals for establishing a CCUS decommissioning regime which aims to achieve this outcome and ensure the Polluter Pays Principle is met, while also encouraging investment in the sector to meet the government's wider objectives.

## Consultation details

**Issued:** 2 August 2021

**Respond by:** 26 September 2021

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**Consultation reference:** Consultation on establishing the offshore decommissioning regime for CO2 transport and storage networks

**Audiences:**

Investors and developers in CCUS projects, the oil and gas sector, individuals and organisations interested in the energy sector.

**Territorial extent:**

The proposals in this consultation will apply UK-wide. However, the government will work with the relevant devolved administrations to ensure that the proposed policies take account of devolved responsibilities and policies across the UK and will continue to engage with those administrations to further develop the policy proposals.

Information received in connection with the consultation may, where relevant, be shared with devolved administrations for the purposes of continuing to develop the policy proposals.

## How to respond

The government would prefer for responses to be provided online through the link provided below. However, if you would prefer to submit your response through alternative means, details of how to do this are also provided.

**Respond online at:** [beis.gov.uk/citizenspace.com/clean-electricity/ccus-decommissioning-regime-transport-storage](https://beis.gov.uk/citizenspace.com/clean-electricity/ccus-decommissioning-regime-transport-storage)

or

**Email to:** [CCUStandsconsultations@beis.gov.uk](mailto:CCUStandsconsultations@beis.gov.uk)

### Write to:

Aaron Deary  
CCUS Transport and Storage  
Department for Business, Energy and Industrial Strategy  
3<sup>rd</sup> Floor, Victoria 2  
1 Victoria Street  
London  
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When responding, please state whether you are responding as an individual or representing the views of an organisation.

Your response will be most useful if it is framed in direct response to the questions posed, though further comments and evidence are also welcome.

## Confidentiality and data protection

Information you provide in response to this consultation, including personal information, may be disclosed in accordance with UK legislation (the Freedom of Information Act 2000, the Data Protection Act 2018 and the Environmental Information Regulations 2004).

If you want the information that you provide to be treated as confidential please tell us, but be aware that we cannot guarantee confidentiality in all circumstances. An automatic confidentiality disclaimer generated by your IT system will not be regarded by us as a confidentiality request.

We will process your personal data in accordance with all applicable data protection laws. See our [privacy policy](#).

We will summarise all responses and publish this summary on [GOV.UK](https://www.gov.uk). The summary will include a list of names or organisations that responded, but not people's personal names, addresses or other contact details.

## Quality assurance

This consultation has been carried out in accordance with the government's [consultation principles](#).

If you have any complaints about the way this consultation has been conducted, please email: [beis.bru@beis.gov.uk](mailto:beis.bru@beis.gov.uk).



# Chapter 1: Background

## The rationale for a regulated decommissioning regime

The government's aim is to achieve effective and balanced decommissioning solutions, which are consistent with international obligations and have a proper regard for safety, the environment, other legitimate users of the sea, economic and social considerations as well as technical feasibility.

International treaties and conventions place obligations on signatory states relating to the management of redundant offshore installations or structures. The UK is a signatory to a number of such obligations, namely The United Nations Convention on the Law of the Sea of 1982 (UNCLOS), London Convention / Protocol, and the OSPAR Convention, all of which prohibit dumping (act of deliberate disposal at sea) of platforms or other man-made structures at sea following the end of its useful life. More generally, the purpose of these obligations is to protect the environment and human health and seek to ensure that other marine activities such as fishing and shipping are not hindered by infrastructure no longer in use.

Existing UK legislation is clear that when an offshore CCUS storage site is closed, the installations and injection facilities must be removed when decommissioned. In addition, all other items of equipment, infrastructure (such as small diameter pipelines including flexible flowlines, cables and umbilicals) and materials that have been installed or drilled are expected to be entirely removed for disposal onshore in accordance with our aim to achieve a clear seabed. This includes all related stabilisation features such as mattresses, grout bags, or contained rock deposits which have been installed to protect pipelines or other infrastructure during their operational life. There is some flexibility for the decommissioning of pipelines. This is determined on a case-by-case basis, in the light of the individual circumstances based on evidence and data.

In addition, the government's policies recognise the need to protect the taxpayer from the risk of funding decommissioning liabilities in the event of company default.

## Existing regulations and requirements for CCUS decommissioning

### Offshore Petroleum Regulator for Environment and Decommissioning

The Petroleum Act 1998 (1998 Act) is the principal legislation governing decommissioning in the UK Continental Shelf (UKCS), and provides a framework for the orderly decommissioning of disused offshore installations and offshore pipelines on the UKCS. Decommissioning of offshore oil and gas and CCUS installations and pipelines is regulated by the Offshore Petroleum Regulator for Environment and Decommissioning (OPRED). One of OPRED's key responsibilities is to protect the taxpayer from decommissioning liabilities. To enable this, it has a regime in place to assess the risk of this cost falling to the taxpayer and can take mitigating actions using powers set out in the 1998 Act.

Owners of O&G and CCUS installations and pipelines are required to decommission their offshore installations and structures at the end of a field's economic or project's life. To

facilitate this, they must set out the measures to decommission disused installations and/or pipelines in a decommissioning programme. A decommissioning programme must identify all the items of equipment, infrastructure and materials that have been installed or drilled and describe the decommissioning solution for each.

Section 29 (s29) of the 1998 Act enables the Secretary of State to serve notices requiring the recipient to submit a costed decommissioning programme for their approval. The expectation for the existing decommissioning regime is that a request for a decommissioning programme will occur at the end of the economic life of the field/storage site and the facilities. There is also a duty that the Oil and Gas Authority (OGA) is consulted before submitting a decommissioning programme for O&G installations.

All relevant s29 notice holders, whether or not they have sold their interest in a field, are treated equally in law and are required to agree the decommissioning programme. The obligation to carry out the approved decommissioning programme is joint and several. This means that if any one of those with a duty to carry out a programme is unable to do so, the other interested parties are responsible for the defaulting party's burden.

The 1998 Act also allows for a s29 notice to be withdrawn at the discretion of the Secretary of State, thereby releasing the notice holder from their decommissioning liability. When an asset is sold, and after robust financial assessment of risk implications for the taxpayer, the Secretary of State will consider whether to exercise this discretion. However, even if a notice is withdrawn, Section 34 (s34) of the 1998 Act provides the Secretary of State with powers to reach back to the withdrawn party and place them under a duty to carry out an approved decommissioning programme should the current parties fail and be unable to do so. This means that the s29 and s34 provisions create a chain of liability that extend through an asset's life.

Alongside this, OPRED undertake assessments to assure themselves that the obligated party can undertake the agreed decommissioning programme. The assessment process takes a systematic approach comprising of a series of financial tests, with the objective of ensuring that decommissioning costs would still be met in the event of the insolvency of one or more parties responsible for decommissioning. The financial assessment process starts before a field is developed and continues throughout the life of a field. The assessment involves tests that compare the decommissioning costs for the field to company value as assessed by the net worth of the company and any corporate group.

Based on the level of risk attributed to the s29 notice holders, OPRED then consider if further mitigation is required to protect the taxpayer. For example, Section 38 of the 1998 Act allows the Secretary of State to act to secure protection of funds set aside for the purposes of a decommissioning programme (including the provision of financial security, such as a letter of credit) to be taken. The existing process and powers mean that financial security is only taken under specific circumstances, and once specific triggers have been met.

Part IV of the 1998 Act also applies to CCUS subject to two qualifications<sup>1</sup>. Additionally, Part IV of the 1998 Act, alongside Part I, Chapter 3 and Part IV of the Energy Act 2008, The Storage

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<sup>1</sup> Firstly, amendments to Part IV made by Schedule 2 to the 2016 Act do not apply to carbon storage installations. This means that some obligations introduced by the 2016 Act, such as the requirement to consult with the OGA before submitting an abandonment to the Secretary of State, do not apply in relation to carbon storage installations.

Secondly, Scottish Ministers are responsible for licencing Carbon Capture and Storage in the territorial sea adjacent to Scotland (i.e. 0 – 12 nautical miles), and for decommissioning decisions in relation to carbon storage installations established or maintained pursuant to such licence under Part IV of the 1998 Act.

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of Carbon Dioxide (Licensing etc.) Regulations 2010 (as amended) and The Storage of Carbon Dioxide (Termination of Licences) Regulations 2011 (as amended) requires that the storage site must be sealed, and installations and injection facilities removed when decommissioned.

In addition to decommissioning regulations, OPRED also administers the offshore environmental regulations in relation to CCUS. OPRED are responsible for considering the environmental implications of an offshore carbon dioxide transport and storage development proposal prior to providing agreement to the OGA to the granting of the proposal. This is in accordance with the Offshore Oil and Gas Exploration, Production, Unloading and Storage (Environmental Impact Assessment) Regulations 2020. OPRED are also responsible for considering the environmental implications of decommissioning offshore infrastructure which would support decisions relating to a decommissioning programme.

### Oil and Gas Authority

The Oil and Gas Authority's role is to maximise the economic recovery of the UK's oil and gas resources, whilst also supporting the move to net zero carbon by 2050. As part of this, the OGA is committed to ensuring that decommissioning is executed in a safe, environmentally sound and cost-effective manner, and works closely with industry to encourage them to minimise greenhouse gas emissions during decommissioning, actively seek ways in which infrastructure can be repurposed and reused, and identify energy transition opportunities where they exist, such as carbon storage sites.

The OGA is also the licensing and permitting authority for the storage of offshore CO2, in accordance with the regulations set out in the Energy Act 2008 and The Storage of Carbon Dioxide (Licensing etc.) Regulations 2010 (the "Licensing Regulations"). However, as noted previously, this does not include the territorial sea adjacent to Scotland.

As part of its licensing regime, the OGA will assess whether a proposed storage site is suitable for the storage of CO2 and is responsible for overseeing that the site will be managed in a manner consistent with relevant regulations, including those relevant to the decommissioning of the storage site. At the end of carbon storage operations, if the OGA determines that the licensee has met all relevant conditions set out in The Storage of Carbon Dioxide (Termination of Licences) Regulations 2011, the OGA may terminate the licence, which will result in certain responsibilities under the licence being transferred from the licensee to the appropriate Minister.

To ensure decommissioning is achieved in line with the relevant regulations, the OGA as part of the process of granting a storage permit, will approve a provisional post-closure plan, to be reviewed over the life of the asset and finalised before closure of the storage site. This will set out the operator's proposals for closing the storage site, including sealing the site and removing any injection facilities, in accordance with the Licensing Regulations and the 1998 Act. Furthermore, the plan will set out the post-closure obligations of the operator, including monitoring of the site and how the licensee will conduct any corrective measures required.

Under the Licensing Regulations, the OGA is required to ensure that the operator has in place financial security covering all relevant obligations prior to first injection. This includes circumstances where the OGA must perform certain duties of the operator if the operator is unwilling or unable to do so, or where the storage permit has been revoked.

Given the well-established nature of the regulations underpinning the requirements for CO2 storage decommissioning in the UKCS, the government is not proposing any significant changes to the broad outline of the different regulatory responsibilities. This includes the role of

other related bodies who also have an interest in UK offshore CO<sub>2</sub> storage, such as the Crown Estate, the Crown Estate Scotland, and the Health and Safety Executive, nor onshore CO<sub>2</sub> storage, such as the Environment Agency.

However, the government has identified a certain number of areas where the legislation or policy may need to be amended to better facilitate the effective establishment of a CCUS sector in the UK. This includes the process for agreeing a post-closure plan with the OGA and ensuring there is no duplication of financial security obligations.

As part of the work to design an effective decommissioning regime for CCUS, it is the government's aim to amend the necessary legislation to achieve this outcome. The government anticipates this work may also draw on other relevant decommissioning regimes, such as those for nuclear power and for offshore renewables.

In addition to this, the government's proposed CCUS decommissioning regime, set out in this consultation, will require two key changes to the regulatory responsibilities set out above. These relate to the calculation of the decommissioning liability and to the treatment of re-used assets. More information on these proposals is set out in Chapters 8 and 11, respectively.

## Scope of a CCUS decommissioning regime

### Activities and assets

The scope of activities that will need to be undertaken to fulfil the decommissioning obligations is well established, and therefore not an area which this consultation will cover. Existing legislation, such as the Petroleum Act 1998 and Energy Act 2008 are clear that the storage site, wells, installations, pipelines and other such assets will need to be decommissioned to the requisite standards as part of the decommissioning activities carried out by the obligated entity. This expectation, and associated liability, will therefore be in scope of the CCUS decommissioning regime.

### Post-closure monitoring

The Storage of Carbon Dioxide (Termination of Licences) Regulations 2011 (as amended) set out a number of obligations related to the post-closure monitoring requirements for the permit holder.

The first of these is the post-closure monitoring period for which the permit holder will need to conduct appropriate monitoring and necessary remediation work to ensure the storage site is returned to the requisite state, as defined by the transfer conditions. The Regulations stipulate that this post-closure monitoring period will be no less than 20 years, at which time the licence will be terminated. However, the OGA has discretion to reduce this time if it deems the transfer conditions are met. The second of these requirements will be for a financial contribution towards the government's costs for the monitoring and management of the site after the licence has been terminated.

Both requirements are set out in the Regulations and are therefore a formal obligation on the permit holder to undertake as part of its decommissioning obligations. As such, these obligations are expected to fall in scope of the CCUS decommissioning regime.

## Onshore/offshore

The government recognises that the majority of decommissioning, and hence associated liability, will relate to offshore activity. The regulations for this activity have been covered in the previous section.

There is also an expectation that a proportion of the transport and storage network for a project will be onshore. However, the regulations underpinning activity relating to onshore decommissioning of infrastructure and installations is set out elsewhere, for example the Town and Country Planning Act 1990. This also means that the regulations are, at least in part, expected to be under the competence of the Devolved Administrations where these relate to Scotland, Wales and Northern Ireland. Further detail on how the onshore decommissioning liabilities will be captured by the CCUS decommissioning regime is set out in Chapter 3.

## Geographical scope

As is currently the case for O&G decommissioning within the UKCS, it is the government's expectation that the offshore CCUS decommissioning regime will apply equally across the whole of the UK, subject to the qualification regarding territorial sea adjacent to Scotland.

As per the current requirements for onshore decommissioning, these will fall to a local level, and hence will be for each of the UK government and Devolved Administrations to dictate how best to meet requirements.

The government will continue to work closely with the Devolved Administrations to ensure CCUS decommissioning policy is coherent across the whole of the UK, and in particular at the boundaries between the different regimes.

## Chapter 2: The case for a funded CCUS decommissioning regime

As set out in Chapter 1 in the consultation, there is a clear obligation on the operator of the CCUS network to undertake the appropriate decommissioning at the end of its life. In the O&G regime, how this obligation is fulfilled, and importantly how it is funded, is left to commercial arrangements, though there are actions the government can take to protect the taxpayer and the environment.

The decommissioning regime for O&G and the requirements around this have been in place for a number of years and are well understood. However, the nature of CCUS, particularly the uncertain nature of the decommissioning costs associated with its operation and the fact that it will be a first of a kind regime for the UK, mean that the government is strongly minded to implement a funded decommissioning regime for CCUS to help manage some of this uncertainty. A funded decommissioning regime for CCUS would also be consistent with the approach taken in other sectors, such as nuclear, where there are similar long-term liabilities.

It is proposed that a funded decommissioning regime for CCUS would be grounded in a core set of principles. This will help establish how different elements of the regime should be best designed, and also guide decisions on where risk should sit. These principles are as follows:

- Polluter Pays Principle – the policy for the CCUS decommissioning regime should have regard to the principle that the cost of addressing the environmental impacts of emissions should be borne by the polluter. This would normally place the obligation on the emitters, although there may be an expectation that, through the service they are paying for, this obligation is being transferred onto the service provider.
- Fair and Reflective – the cost of funding the decommissioning liabilities should be as fair as reasonably practicable across different generations of users, and across different types of users. Previous operators and/or storage operators should not receive any upside benefit without equivalent exposure to downside risk.
- Cost reduction – the cost of funding decommissioning should be efficient. This aligns with the wider role of the OGA who have been working with industry to bring decommissioning costs across the UKCS down.
- Future proof – the decommissioning regime should be designed with sufficient flexibility to respond to potential market and regulatory change.

Finally, it is the government's view that the regulated model for CCUS provides the opportunity to create a funded decommissioning regime, and furthermore one which can deliver on these principles. The allowable revenue of a Transport and Storage Company (T&SCo) will be made up from several different building blocks, reflective of the costs and returns which the T&SCo can reasonably expect to cover. One of these is for liabilities associated with decommissioning of the T&S network. This means that a clear proportion of the allowed revenue will be attributed to the decommissioning of the network. This portion can then be more explicitly earmarked to pay for the decommissioning liabilities, and therefore the polluter pays principle is more explicitly delivered. It is the government's view that this would also be fair and reflective.

## Chapter 3: Scope of a funded CCUS decommissioning regime

### Decommissioning activities

As set out in Chapter 1, the regulations make clear the types of activities which need to be undertaken as part of the decommissioning obligations. These include the removal of infrastructure, the closure and management of the storage site, and the post-closure monitoring associated with this. All of these activities are in scope of the CCUS decommissioning regime, and will therefore be in scope of the funded regime. The government therefore proposes that all liabilities associated with these activities will be covered by the financial provisions put in place to support the T&SCo in discharging its decommissioning obligations.

### Onshore/offshore

Despite the clear rationale for including all decommissioning liabilities within scope, as also set out earlier in this consultation, there are clear distinctions between the underlying legislative framework and regulations relating to onshore and offshore decommissioning. There are therefore different requirements relating to the decommissioning activities for each of these, and hence the government recognises that different provisions might need to be put in place to meet these.

Alongside this, the government also recognises that the risks associated with the decommissioning of onshore and offshore assets will differ due to their nature and the difficulty of carrying out these activities.

Given both of these reasons, the government considers it might be more appropriate to separate out the treatment of these different sets of decommissioning liabilities. As set out more widely for the CCUS regulated model, the government is proposing separating out the network's onshore and offshore elements of the fees which are charged for the transport and storage of CO2. If this is taken forward, this would lend itself further to the splitting of the decommissioning liabilities, as the funding which would be used to accrue these liabilities would already be split in such a way.

On this basis, the government proposes that the funded CCUS decommissioning regime set out in this consultation will apply to the offshore element of the transport and storage installation. This is because this offshore element is deemed to carry the greatest risk, and therefore the provisions set out will aim to manage these.

The government proposes that the decommissioning liabilities associated with the onshore element of the transport and storage network will be treated in the same way as they currently are, under the local planning regulations. That is to say, it will be left to the relevant authorities to make arrangements for the decommissioning of the assets which sit onshore. Though these costs will be treated separately, they will still constitute part of the decommissioning liability associated with the T&S network. As such, they will still be recoverable via the economic model, and specifically through the decommissioning building block of the allowable revenue

formula. The only difference will be the greater freedom for how this onshore portion will be managed to meet the specific requirements.

The government recognises that this split of the onshore and offshore elements of the decommissioning liability, and their treatment, has the potential to create complexity. The government is therefore seeking views on whether this in an appropriate way to manage the associated risks, and how it can best manage the interactions of the two regimes at the border.

**Questions:**

- 1. Do you agree with the government's proposal to split the onshore and offshore liabilities, placing greater emphasis on managing the risk associated with offshore decommissioning?**
- 2. Do you agree with the government's proposal to have all the obligated offshore decommissioning activities be in scope of the funded regime?**
- 3. Do you agree that the onshore element should be managed separately based on the specific local requirements put in place?**
- 4. Do you anticipate any issues or unintended consequences that might arise from this split?**

**Where you do not agree with the government's proposals, please explain your reasoning.**



## Chapter 4: Structure of the CCUS decommissioning fund

### Single fund or multiple funds

The government has considered the case for having a single, centrally held fund to cover all decommissioning liabilities associated with CCUS projects across the UK. This could also be further enhanced to hold additional reserve funding as a contingency against shortfall, such as in the case of underestimation or early closure. Such a fund would be set up to provide cover across all T&SCos in the instance that one could not cover its own decommissioning liabilities.

This would offer cover and additional protection across the CCUS landscape by pooling capital. However, such a system would not meet the Polluter Pays Principle in full. Instead, this obligation would also be pooled across the CCUS landscape, as the allowed revenue from one T&SCo could be used to pay for the decommissioning obligations of another. In addition, drawing on a such a fund would potentially jeopardise the ability of the fund to cover decommissioning liabilities for the other networks unless other users were asked to contribute funding above that required to cover their own liability, which would go beyond the principle of fairness. Finally, it would not be viewed as a particularly efficient use of capital.

As an alternative, each T&SCo could be required to establish and then accrue its own decommissioning fund, which would be paid for through their allowed revenue. This would better ensure fairness and the Polluter Pays Principle, while also encouraging greater accountability for each of the T&SCos. Finally, each decommissioning fund could be adapted to a certain extent to better reflect the specific characteristics of the CCUS network the T&SCo is operating – this principle is discussed in further detail later in the consultation.

Given these benefits, it is the government preferred approach to establish separate decommissioning funds for each T&SCo. However, over time, T&SCos may begin to operate multiple storage sites, particularly once their CCUS networks enter latter phases of operation. Different storage sites are expected to come online at different times over the operational life of the network and will require to be decommissioned to suit their specific circumstances. The storage sites will also be licensed and permitted separately by the OGA.

Based on this expectation that the number of storage sites within a CCUS network may change over time, the government further proposes that each storage site will have its own decommissioning fund which will be built up to fund the decommissioning activities for that site and its supporting infrastructure. As such, each T&SCo's 'decommissioning fund' will in fact be a collective of these separate funds for each of the associated storage sites they operate.

By doing this, the government envisages that each fund will be able to serve the specific nature of each of the storage sites. The aim of this would be to mitigate the risks of any issues which might arise from the decommissioning of a given storage site (particularly those which result in underfunding) and the impact these might have on the ability of the T&SCo to fund its other decommissioning obligations. Furthermore, if the ownership or operatorship of a given storage site changes, then the decommissioning funds which have accrued to date for that specific site can be better isolated and transferred alongside the site. This concept of co-linking the decommissioning funds to the licences is discussed in more detail later in the following section.

## Safeguarding of the CCUS decommissioning fund

The government's view is that the primary purpose of a funded decommissioning regime is to provide assurance that the decommissioning liabilities will be paid, further mitigating the risk that the taxpayer will be required to do so. Given the proposed approach of establishing decommissioning funds to cover CCUS decommissioning liabilities, it is the government's view that appropriate safeguards will need to be put in place to ensure that they carry out their desired function.

### Co-linking of the decommissioning funds to the carbon dioxide appraisal and storage license

The first of these, as mentioned earlier in the consultation, is to establish each of the decommissioning funds as a co-linked asset with the storage sites they are supporting, rather than being considered a separate asset of the T&SCo. In practice, the government envisages that each of the decommissioning funds would be linked to the OGA's carbon dioxide appraisal and storage license, with these providing approval for the licensee to manage both the storage site and the associated decommissioning fund. As part of the licensee's obligations in operating the network, they would be required to build up the decommissioning fund in accordance with the Economic Regulatory Regime (ERR). If the license were to change hands, management of the associated decommissioning fund would also be transferred to the new licensee.

### Conditionality on access to the decommissioning funds

The second proposal is to establish, within legislation, appropriate controls on access to the decommissioning fund. In practice, the government envisages a system whereby only the entity which is designated to decommission the network (or part of it) at end of life, as set out in the decommissioning programme, would be able to access the decommissioning fund to pay for the decommissioning activities. This would be sufficiently flexible to enable the designated entity to carry out its decommissioning obligations through a third party if it chose to. It would also enable the government to access the decommissioning fund in the instance it needed to fulfil its obligations as the decommissioner of last resort.

To further safeguard access to the fund, the government proposes that withdrawal from the fund will need to be agreed by OPRED, and can only be done so to pay for decommissioning related activities. This is discussed in more detail in Chapter 10.

#### Questions:

- 5. Do you agree that decommissioning liabilities should sit with each T&SCo, rather than being pooled across the whole CCUS landscape?**
- 6. Do you agree that each storage site should have a separate decommissioning fund to better reflect the nature of each site and facilitate future transactions?**
- 7. Do you agree with the government's proposals for safeguarding the decommissioning funds?**
- 8. Are there any other safeguarding mechanisms the government should consider?**

**Where you do not agree with the government's proposals, please explain your reasoning.**

## Chapter 5: Options for the fund's mechanism

### Accrual through the economic regulatory regime

The government has considered several options for the mechanism of the fund. These include 'upfront', 'just-in-time', and 'regular' funding approaches.

Despite mitigating the risk around early closure, requiring an upfront payment would act as a significant barrier to entry for prospective developers. Given the overarching aim of encouraging investment in CCUS and removing barriers, the option where all, or even a proportion of, estimated liabilities are provided upfront does not appear proportionate, particularly for the early clusters.

The 'just-in-time' approach is the one used in the O&G sector, and has broadly worked well in managing decommissioning liabilities to date. However, it is worth noting that commercial contracts in the North Sea often set out their own mechanisms for ensuring sufficient funding is built over time, providing assurance to the parties that these liabilities will be managed as agreed. Despite this approach being used for O&G, it is the government's view that this would not make best use of the opportunity provided by the regulated model for CCUS. It is also unlikely to be the best model for mitigating risk to the taxpayer.

The 'regular funding' approach would see the decommissioning fund accrue through regular payments derived from the user fees charged by T&SCo, as set out in the economic regulatory regime. This means, absent any other funding being provided upfront, the fund would build from zero at the start of operations through to the end of operations when the total necessary decommissioning liability had been accrued and was now needed to pay for the decommissioning activity. The government judges this to be the best approach for CCUS, as it makes best use of the opportunity provided through the regulated model, in particular the allowed revenue of the T&SCo.

### Accrual through investment of the fund

In addition to having the fund accrue through the economic regulatory regime, the government also proposes that the fund will be built up over time through investment. This is similar to the mechanism used for the Nuclear Liabilities Fund (NLF). There are two reasons for doing this:

- The first is that it would provide an additional source of funding, thereby lessening the burden on users of the network to contribute towards the total decommissioning liability of the network, which in turn would decrease user fees. This would also allow for more efficient use of the capital which is accruing in the fund.
- The second is that it would allow the fund to retain its value, which is particularly important given the length of time over which funds will be accruing. Encouraging investment to achieve a certain target rate of return would help ensure inflationary impacts do not act against funds which have already been accrued.

However, encouraging investment of the fund also brings risk, and the government is clear that appropriate conditions will need to be adhered to when doing so. These are expected to include controls on the level of risk which particular investments can carry and/or restrictions on the entities which can be invested in. Following the example set out in the NLF, the government is also considering whether it is appropriate to cap the proportion of the fund which would be available for investment. Furthermore, it may be appropriate to adjust the aims of the investment over time, for example moving from emphasis on growth towards security as the fund reaches maturity.

Alongside this, the government will need to agree a target rate of return which the T&SCo would be encouraged to meet in order to deliver the desired outcomes described above. This target will need to be high enough to provide a meaningful level of growth, while also being sufficiently controlled to discourage overtly risky behaviours. The NLF sets a target rate of return of 3.5%. But the government recognises that the different circumstances between nuclear and CCUS decommissioning mean that a different target might be better suited for the CCUS decommissioning funds. In addition, the different contexts and networks that the CCUS decommissioning funds would service might mean that different rates might be justified within the CCUS decommissioning regime. Indeed, the government's latest approach for managing nuclear liabilities seeks to provide greater flexibility by enabling elements of the nuclear decommissioning fund, including investment conditions, to be negotiated. This may also be a suitable option for the CCUS decommissioning funds.

Given this, the government does not at this point in time have any firm proposals on how investment of the fund will work in practice. The government would instead welcome views on how best they think this policy area could be delivered, recognising the balance of risks which the government will need to achieve.

## Upside and downside risk

By removing the need for any upfront payment, there would be no barrier to investment related to the decommissioning costs of the network. However, as the fund would accrue gradually over time, there is a risk that early closure of the network or storage site would mean sufficient funding had not yet accrued to pay for the necessary decommissioning activities. The risk of early closure is however judged to be remote, noting the importance of CCUS to achieve our net zero ambitions and the support we are providing, as well as the mechanisms in the wider economic regulatory regime to best manage this risk.

The government has indicated in the previously published business models updates that it expects the T&SCo to manage the decommissioning shortfall risk, alongside the upside risk. This is because this allocation of risk best delivers on the polluter pays principle. However, there are potential scenarios where the T&SCo is unable to cover this funding gap and the liability ultimately falls to the government. As such, the government is considering additional mechanisms for managing this shortfall risk, with the lead option being an adapted version of the decommissioning securities regime currently in place for O&G and managed by OPRED. This is discussed in more detail in Chapter 7.

In recognising the importance of fairness and reflectivity, the government will continue to review how best to achieve the appropriate balance between management of decommissioning shortfall risk and the potential for upside from any surplus in the decommissioning fund. The government would welcome feedback on this point, bearing in mind the initial positions set out in this consultation, and the structure of a regulated asset

more generally. In addition, the government would welcome information which would help determine the scale of these risks. For example, the cost uncertainty in relation to decommissioning and how this is expected to change over the operational life of the network.

**Questions:**

- 9. Do you agree with the government's proposal to have a 'regular funding' mechanism for the accrual of the decommissioning fund?**
- 10. Do you agree that the fund should also accrue through investment?**
- 11. Recognising the government will need to balance the incentive to invest against the risk this would carry, do you have any proposals for how this should work in practice? Are there any other issues the government should consider when developing this policy area?**
- 12. Do you agree the T&SCo should carry both the windfall and shortfall risk associated with the decommissioning fund?**
- 13. Do you have any further information that could help inform the government's ongoing review of the management of these risks?**

**Where you do not agree with the government's proposals, please explain your reasoning.**

## Chapter 6: Management of the CCUS decommissioning fund

The government's proposals to have separate funds for each network and to encourage investment of the funds to support accrual will mean that management of the funds is an important issue. Based on existing decommissioning regimes, the government judges there to be three main options:

- Operator-managed – Each decommissioning fund is directly managed by the T&SCo as set out by the operating licenses they hold.
- Trustee management – Each of the funds, or more likely a portfolio of decommissioning funds, are placed under the management of a board of trustees.
- Regulator-managed – All decommissioning funds are managed by one of the regulators, most likely either the economic regulator or OPRED.

The choice of which management model to take forward will need to balance the desired outcomes for the decommissioning funds against the certainty that these will be managed appropriately. The trustee and regulator models will provide increasingly greater certainty to government that the funds will be appropriately managed compared to the operator model.

However, the government is confident that the wider safeguards set out in this consultation should provide adequate protection against mismanagement of the decommissioning funds. Coupled with the government's view that the operator model will most easily allow for the government's aim of encouraging their growth through investment, it is the government's proposed position to have the decommissioning funds managed by their associated operator/T&SCo. This proposal is also expected to be the most cost effective in terms of delivery, ultimately reducing business burdens and user fees for each of the networks.

Though the operator will manage each of the decommissioning funds and be expected to carry out their obligations to these, the government envisages that appropriate oversight of the decommissioning funds will still be necessary for the regulators in order for them to discharge their roles and responsibilities. In particular, the economic regulator will need to satisfy themselves that the decommissioning funds are accruing appropriately. In addition, OPRED will likely need to assure themselves in their capacity as the regulator with overall responsibility for decommissioning and their role of approving withdrawal of funds to pay for decommissioning activities, as discussed in Chapter 8.

### Question:

- 14. Do you agree with the government's proposal to have the operators manage each of the decommissioning funds? If not, please explain your reasoning.**

## Chapter 7: Supporting securities regime

As previously discussed, early closure risk means that a decommissioning fund might not always be sufficient to cover the decommissioning liability, and this liability ultimately falls to the government. To help manage this risk, the government is considering an adapted version of OPRED's financial securities regime for O&G to support the decommissioning funds.

OPRED currently undertake assessments of s29 notice holders to determine the level of risk associated with these, and to take a view on whether additional mitigations are required, namely financial securities. The nature of the legislation which provides OPRED with this power will apply equally to the CCUS sector.

OPRED regularly assesses the financial capability of operators, their joint operating agreement partners and other parties with a decommissioning liability to meet their decommissioning obligations, reviewing each on its own merit. The assessment process takes a systematic approach comprising of a series of financial tests that consider the capability of the company to meet its decommissioning obligations with the objective of ensuring that decommissioning costs would still be met in the event of the insolvency of one or more persons responsible for decommissioning.

The financial assessment process starts before a project is developed and continues throughout its life. The assessment involves tests that compare the decommissioning costs for the project to company value as assessed by the net worth of the company and any corporate group.

It is the government's view that the overarching principles of this assessment process will remain in place for CCUS, as they provide the flexibility for OPRED to consider each site individually and take a view based on its specific circumstances. However, given the different circumstances expected within the CCUS sector compared to O&G, such as the regulated model of delivery, the government proposes adapting the assessment process OPRED will use to account for these and the different risks that they might create.

In practice this means that financial securities will only be taken where OPRED judge them to be necessary in order to protect the taxpayer, but that there may be new circumstances more specific to CCUS under which these are sought compared to the O&G sector. The government is not currently proposing requiring financial security be automatically posted for all sites to cover the decommissioning funding gap created by the 'regular funding' approach to the decommissioning fund's accrual. The government will also need to consider further how the costs associated with providing financial security flow through the allowed revenue calculation.

### Question:

**15. Do you agree with the government's proposal of an enhanced financial securities regime to address early closure risk, but that financial securities will only be sought where judged to be necessary? If not, please explain your reasoning.**



## Chapter 8: Estimating the decommissioning liability

### Establishing the initial estimate

To facilitate the accrual of a decommissioning fund, an estimate of the expected decommissioning liabilities the fund is aiming to cover will need to be provided. This estimate will need to first be made before the start of operations of the asset, as this is the point at which the fund would start accruing monies. The estimate will also need to be updated periodically to ensure the decommissioning fund is continuing to accrue the right level of funding. Changes in circumstances of the asset or advancements in technology might mean the final liability could be different to the initial estimate, and it is right that these changes are reflected in the accrual process to ensure fairness.

Under the current regulations, decommissioning liabilities are estimated at different points in the development, construction, and operation phases of the asset's life. These estimates feed into the different regulatory processes required over this lifetime.

As part of the OGA's permitting process, a post-closure plan will be provided during the initial development phase, which will then become a closure plan as the end of the operational phase approaches and decommissioning is due to commence. Both of these will set out the developer's plans regarding post-closure activities, and therefore require an estimate of cost. Separately, the decommissioning programme provided to OPRED towards the end of the operational phase will similarly estimate the expected cost of the decommissioning activities the operator is obligated to undertake.

The government recognises that this requirement to estimate liabilities for different regulatory process over the lifetime of the asset could create unnecessary burdens on business, or even lead to confusion. Given the government's intention to bring forward a decommissioning fund for each network, there is an opportunity to provide greater clarity over how the decommissioning liability will be estimated and refined over time.

To simplify the process, the government proposes that OPRED, as the principal regulator with responsibility for decommissioning, will be the sole body involved in this, and will work with developers to establish this estimate. OPRED will set out the decommissioning expectations in guidance to industry which would in turn inform the cost estimation for the project. The government proposes that this estimate will be based on best available information submitted by the developer. The developer will have a responsibility to provide this information in a fair and honest manner, working openly and transparently with OPRED to reach a reasonable estimate of the liability. However, the government will also ensure the process is proportionate, not placing disproportionate burdens on developers, while also sufficiently managing commercial sensitivities.

### Periodic review of the estimated decommissioning liability

To ensure the accrual of the decommissioning fund remains fair, OPRED will conduct periodic reviews of the decommissioning cost estimate and therefore liability. Appropriate adjustments

will then be made in the allowable revenue to reflect this. As mentioned previously, both changes in circumstances and the uncertainties in the cost estimates will require periodic refinement of the estimate over the operational life of the network.

The government wants to ensure periodicity of reviews strike the right balance between minimising burdens on the operator and providing some certainty to future revenue, while still being often enough to ensure significant changes to the estimated liability are reflected in time to meet these through adjustments to the fees. The government expects that the review periods would likely be most effective if aligned with price control periods, however reviews will also be undertaken if and when additional infrastructure or technology is added to the site. This would also enable alignment of the reviews for the decommissioning liability with related reviews of the accrual profile due to expansion/contraction of the network, as discussed in Chapter 9. However, the government also recognises there is an option of aligning with the OGA's permit review cycle.

If the review periods are aligned with price control periods, periodicity will be determined by the economic regulator. However, the government envisages that the economic regulator will need to work closely with OPRED to ensure periodicity is appropriate to meet its requirements. Flexibility in the periodicity of reviews will also need to be factored in to account for unexpected events which may affect the decommissioning liability or fund. For example, unexpected closure of part of the network which leads to early decommissioning would likely trigger a review to assess the impact on the accrual of the fund moving forward, rather than waiting for the next formal period.

## Use of the decommissioning liability estimate

### Economic regulatory regime

Once the estimate of the decommissioning liability has been established, and all subsequent updates to this, it will then be provided to the economic regulator to feed into the charging regime for the T&SCo. The economic regulator will also play a role in agreeing an appropriate accrual profile for the decommissioning fund, with the aim being that the total expected liability is met over the operational life of the asset/network. This means that the economic regulator will need to set an appropriate allowed revenue to achieve this. This will also need to have regard for the growth of the fund through investment, assuming an appropriate rate of return on investment is met.

In addition to accounting for the updated estimates of the total decommissioning liability, the economic regulator will play a role in adjusting the T&SCo's allowed revenue to reflect other circumstances affecting the accrual of the decommissioning fund. These might include temporary utilisation issues or the rate of return on investment not being as expected.

### Permitting process

Alongside the economic regulator, the decommissioning liability estimate will be provided to feed into the OGA's permitting process, as otherwise set out. This means the OGA will no longer be required to work with developers to establish an estimate of decommissioning liabilities, instead taking this from OPRED. However, in practice the government envisages the OGA's expertise being utilised as part of OPRED's work. The government will also expect the OGA to continue in their wider role of providing benchmarking data, including for decommissioning.

## Summary of the proposed regulatory responsibilities for calculating the liability

Based on the above, the government envisages the broad split of responsibilities between the three regulators as they relate to decommissioning to be as set out below. Where these constitute changes to current roles and responsibilities, the government will make the necessary changes to legislation to facilitate this.

- OPRED – primary responsibility for the CCUS decommissioning. As such, OPRED will have principal responsibility for calculating estimates of the decommissioning liabilities, though it is expected that it will utilise relevant expertise where appropriate. To achieve this, OPRED will work, in the first instance, with developers to estimate the decommissioning liabilities associated with their assets. The initial estimate will be calculated in time to meet other related regulatory activities. It will then conduct regular reviews with the T&SCos over the operational life of the asset/network to reflect any changes in circumstances.
- Economic regulator – Primary responsibility for regulating the ERR, and hence calculating the revenue T&SCo will be able to charge its users. As such, the economic regulator's role will be to take OPRED's estimate of the decommissioning liability, and subsequent updates, and including this in the allowed revenue calculation. This will reflect the agreed accrual profile and any other special circumstances that might be relevant to that network. This means the economic regulator will have a role in ensuring the decommissioning liability is accrued in the fund over the operational life of the asset/network.
- OGA – Continued responsibility for the licensing and permitting of the storage sites and ensuring appropriate financial security is taken to cover operator's obligations relating to this, except for the decommissioning of storage sites. There will no longer be any formal responsibility in the estimation of the decommissioning liability, instead using the estimate provided by OPRED, though there may be a consultative role.

In practice, the government envisages the regulators to continue to work closely with each other to ensure the CCUS decommissioning regime, alongside other related areas, is implemented and overseen in an efficient and coherent manner. The government will set out guidance on this in due course, and commits to update this as necessary.

### Questions:

- 16. Given the need to have an estimate of decommissioning liability during the development phase, do you agree with the government's proposal for estimating this liability?**
- 17. Do you agree with the government's proposal to have OPRED as the primary regulator for calculating this estimate?**
- 18. Do you agree with the government's proposal for periodic review of this calculated estimate, and in particular the alignment of this with price control periods?**
- 19. Do you agree that the economic regulator should have responsibility for including the estimated decommissioning liability in the allowed revenue that the T&SCo is**

**able to collect from user payments, and the wider responsibility of ensuring the decommissioning liability is met through the fund?**

**20. Do you envisage any unintended consequences relating to the government's proposals for calculating the decommissioning liability, and the related regulatory responsibilities?**

**Where you do not agree with the government's proposals, please explain your reasoning.**

## Chapter 9: Dynamic funding arrangements

As set out previously, the government proposes that the accrual of the decommissioning fund will in part be achieved through the 'regular funding' approach. Under this approach, regular user fees, paid over the operational life of the asset, will help the decommissioning fund meet the decommissioning liability associated with the asset.

Despite this, the government recognises that in practice the accrual of a decommissioning fund will not necessarily follow a simplistic straight line accrual profile from the commencement of operations through to its end. Individual circumstances associated with each storage site and its associated decommissioning fund might require slight adjustments in this operation.

### Accrual period

The first of these is the period over which accrual of the decommissioning fund is conducted. As the decommissioning fund will accrue through user fees, revenue allowed to be collected by the T&SCo for decommissioning obligations will be received throughout the operational life of the asset. There is therefore a strong rationale to expect the decommissioning fund to accrue over this period, starting with the commencement of operations/first point user fees are paid, through to the end of operations when the last of these fees is paid.

On this basis, the government proposes this to be the default position for each decommissioning fund. However, the government would welcome views on whether there are circumstances under which the accrual period should be different, or indeed may need to be adjusted during the operational life of the asset. For example, should there be an allowance to pause the accrual of the decommissioning fund for reasons other than a pause in the collection of revenue to pay for this?

### Accrual profile

The accrual profile describes how the accrual rate to the decommissioning fund might change over time. The government recognises that the desire to sufficiently accrue the decommissioning liability in good time will need to be balanced against the desire to ensure contributions to the fund do not deter emitters from using the T&S network.

In practice, the government recognises that this might mean the accrual profile of the decommissioning fund may not be a straight line, but instead more closely resemble a curve. When assessing what shape this curve might take, the government considers there to be two broad mechanisms for determining this:

- Frontloaded/backloaded accrual – the first of these is a more generic approach. The nature of the storage site, for example the profile of users due to come online, might mean that the accrual of the decommissioning fund needs to be frontloaded or backloaded to better deliver fairness to these users. Having a more generic approach to adjusting the accrual profile would be simpler to administer, and potentially easier to agree. However, the extent to which frontloading or backloading is accepted will need to be considered further by government. In particular, the increased risk which early

closure would bring to a storage site with a backloaded decommissioning fund might mean that only a certain level of this is permissible.

- Tracking characteristic of the storage site – the second approach is to better match the accrual profile to a particular characteristic of the storage site. The government expects the most likely characteristic which would be used is the CO2 storage profile of the site. But the government would welcome views on whether there may be other characteristics which could also be used in this case. More closely linking to accrual profile to a particular characteristic of the storage site is likely to be more complex to implement, but could end up being fairer to the users of the network. As with the other option, the government would need to further consider to what extent it might allow an adjusted accrual profile to match characteristics of the fund.

The accrual profile of the decommissioning fund will need to cohere with other elements of the ERR, such as the approach to the depreciation of the Regulated Asset Value. There will also be a link to the financial security which the OPRED might decide to take. For example, a backloaded accrual profile would create additional risk in the case of early closure, so therefore might be more inclined to seek this security.

The government also recognises that the accrual profile may be something that itself is changed over the course of the operational life of the asset. As with other elements of the decommissioning regime, the price control periods offer an opportunity to revisit whether the accrual profile is still suitable for the decommissioning fund. This would lend flexibility over the operational life of the storage site.

Despite the options available, the government proposes that the default position for the accrual profile would be to assume a straight-line accrual profile. However, whether this is adjusted would form part of the negotiation with the economic regulator (BEIS in the first regulatory period). The extent to which a profile could be adjusted from the default straight line will be considered further and to be set out in guidance. The government would welcome views on whether this is an acceptable approach.

## Changes to the circumstances of the storage site

The government recognises that there may be changes in the circumstances of the storage site over the course of its life that might mean the decommissioning fund's overall envelope also changes. An example of this might be the installation of additional infrastructure to meet increased user demand, thereby increasing the total decommissioning liability the fund needs to cover. Under these circumstances, there may need to be either a revision of the fees which are charged or a change in the accrual profile to meet this new target liability.

It is the government's expectation that these circumstantial changes are likely to align with wider price control periods. As such, in a similar way as described above, changes to the user fees or accrual profile can be dealt with at these times through negotiation with the economic regulator. However, the government would welcome any examples of circumstances which would fall outside of these periods, and therefore might require another approach to be factored in.

### Questions:

- 21. Do you agree with the government's proposal that the accrual period will align with the operational life of the storage site, from year 1 through to final injection?**

- 22. Do you agree with the government's proposal that the accrual profile will assume a straight-line trend, but that negotiations might allow some flexibility to better reflect the nature of the storage site?**
- 23. Do you have any suggestions on the level of flexibility that should be permitted and what this should be based on, bearing in mind the added risks which this might bring?**
- 24. Do you agree that the accrual will need to be reactive to wider changes in the network, and therefore changes to the overall decommissioning liability?**
- 25. Are there any other characteristics or circumstances you anticipate emerging which will need to be reflected in the accrual profile of the decommissioning fund?**

**Where you do not agree with the government's proposals, please explain your reasoning.**

## Chapter 10: Drawing on the fund

As stated previously, one of the government's primary reasons for establishing a funded decommissioning regime is to mitigate the risk to the taxpayer. Chapter 4 set out the primary safeguarding mechanisms the government is envisaging putting in place to ensure each decommissioning fund is protected from wider events and remains in place to carry out its objective.

To support this, the government will set conditions on the withdrawal of funds from each of the decommissioning funds. The overarching principle will be that funds can only be accessed by the designated decommissioning entity, and only to pay for decommissioning related activities. This withdrawal will further need to be approved by OPRED.

In practice, the government expects that, once decommissioning is required to take place, the obligated entity will approach the appropriate government body (in this case OPRED) to ensure the decommissioning programme is approved, agree its execution and request access to the decommissioning fund to pay for this activity. It is expected that approval of the funds will align with approval of the programme. Funds made available to the decommissioning entity to carry out the decommissioning of the storage site and its associated infrastructure, or a third party to do so on their behalf, will be expected to be used for that purpose in accordance with the approved decommissioning programme.

Given the fact that networks are likely to change and expand over time, the government will also put in place provision to allow for multiple drawdowns over the operational life of the network. Access to the fund will also be considered for preparatory decommissioning works, prior to decommissioning programme approval. This will mean that funds will be accessible when a particular part of the network is due to be decommissioned, and only usable for the costs associated with these decommissioning activities.

The fund will not be able to be used for any purpose other than to support the payment of decommissioning related activities when these become due, or the ongoing costs associated with decommissioning thereafter (such as post-closure monitoring obligations).

Should there be a surplus after all decommissioning activities are paid in full, only then will the funds be released to be used for other purposes. As discussed elsewhere in this paper, the upside risk of the decommissioning fund is expected to sit with the T&SCo. In such a scenario, OPRED will verify that the decommissioning activities have been completed to the appropriate standards via their review of the Close Out Report. Once this has been done, it will be for T&SCo to determine how this excess funding will be allocated/used. It is the government's expectation that commercial arrangements will dictate these circumstances, for example a form of rebate to users/emitters or a windfall profit to the T&SCo. The government does not envisage that it or any of the regulators will have any say in these arrangements.

In accordance with the principle that the T&SCo will be expected to hold both the upside and downside risk associated with decommissioning, should there be a shortfall between the decommissioning fund and the final decommissioning liability, it will be for the T&SCo to fund this difference. The government will not provide any additional support to cover this eventuality and will ensure that the T&SCo discharges its decommissioning obligations in full through all levers available to government.



**Questions:**

**26. Do you agree that the decommissioning funds can only be drawn on by the designated decommissioning entity to pay for decommissioning-related activities, with the approval of OPRED?**

**27. Do you anticipate these restrictions to create any blockers in terms of ways that decommissioning activities might be undertaken?**

**28. Are there any other restrictions the government should consider in order to adequately ringfence the decommissioning funds?**

**Where you do not agree with the government's proposal, please explain your reasoning.**

## Chapter 11: Incorporating re-used assets into a funded CCUS decommissioning regime

As set out in the government's response to the 2019 consultation on re-use of oil and gas assets for CCUS<sup>2</sup>, the UK currently has an extensive network of offshore infrastructure, put in place to facilitate oil and gas extraction. This includes pipelines, wells, and depleted oil and gas reservoirs, a number of which are due to be decommissioned in the coming years. These are broadly similar assets to those which would be built as part of the transport and storage infrastructure of a CCUS project. Some of these assets could potentially therefore be re-used as part of a CCUS project once they have reached the end of their commercial life for oil and gas extraction.

There is the potential for significant cost savings for some CCUS projects which can re-use appropriate existing oil and gas infrastructure. Whilst the exact value of these cost savings is uncertain, upfront capital costs savings for some projects could be significant compared to the costs to construct new pipeline infrastructure. The re-use of strategic assets can also lower the carbon footprint associated with the construction of infrastructure and improve resource efficiency, aligning with the government's wider Resources and Waste Strategy. There may also be potential benefits for oil and gas owners and operators that transfer suitable assets to CCUS projects, including opportunities to maximise the economic life of their assets, and to potentially reduce or transfer decommissioning costs.

However, the decommissioning costs associated with these assets will need to be incorporated into the CCUS decommissioning regime. This is to ensure the principles of fairness and polluter pays obligations continue to be adhered to for these existing liabilities. As such, existing decommissioning liabilities will form a significant proportion of the commercial negotiation when such assets are transferred into a CCUS network. There will therefore need to be a balance between encouraging re-use of infrastructure for CCUS and ensuring that existing decommissioning liabilities are managed appropriately.

### The chain of liability and Change of Use Relief

As discussed in earlier sections of this consultation, through the issuance of Section 29 and Section 34 (s29/34) notices, the government can call upon all previous owners of O&G and CCUS assets to fulfil the decommissioning obligation, if the current owner is unable to do so. This creates a chain of liability through the asset's life, which would extend into CCUS if an asset is reused.

Feedback provided to date has suggested that this chain of liability is acting as a potential blocker to the re-use of O&G assets for CCUS. O&G owners have expressed concern that the increased uncertainty of CCUS decommissioning liabilities (due to it being a new sector) would constitute too much risk in terms of potential future exposure. This could result in either assets not being transferred, which could increase the costs for CCUS projects as new infrastructure

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<sup>2</sup> [Re-use of oil and gas assets for carbon capture, usage and storage projects - government response](#)

## Consultation on establishing the offshore decommissioning regime for CO<sub>2</sub> transport and storage networks

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must be built, or these assets being transferred at a disproportionate cost which is inefficient and again could increase the cost of CCUS projects.

The government has yet to receive any significant evidence which would support these concerns, and therefore is unable to take a clear view on the extent to which the chain of liability is acting as a blocker to re-use. Despite this, the 2019 consultation proposed expanding a discretionary power, put in place for CCUS demonstration projects, allowing the Secretary of State to issue a Change of Use Relief (CoUR) for offshore pipelines and wells which are transferred to a CCUS project. In effect, this would expand the CoUR from demonstration projects only to all CCUS projects, at the discretion of the Secretary of State. All other elements of the policy and safeguards were proposed to remain in place, though the consultation did seek views on whether any of these should be amended.

A CoUR would mean an individual previously issued a s29 notice could not be issued with a new s29 notice in respect of that asset if not involved in the CCUS development, once a particular trigger event had occurred, nor could they be issued a s34 notice once an abandonment programme for that asset had been approved, thereby removing any obligation to decommission that asset once transferred to the CCUS project. This means that the decommissioning liability would fall solely on the owner of the CCUS project (and any subsequent owners).

The government views a CoUR to have the potential to simplify transactions, reduce competing interests, and remove legacy concerns for green investors. However, the government would need to ensure that the risk to the taxpayer, upon whom decommissioner of last resort costs would ultimately fall, is not increased from the current s29/34 regime. The government envisages that the Secretary of State's decision to issue CoUR will therefore need to have regard for wider government priorities.

To achieve this, the government proposes utilising the decommissioning funds. Specifically, the government is minded to make CoUR available for re-used assets being transferred into a CCUS project on the condition that the associated CCUS decommissioning fund is 'topped-up' by an amount reflective to the existing decommissioning liability associated with the asset. As previously set out, the issuance of a CoUR would remain at the discretion of the Secretary of State, to ensure that the transfer of the asset is being undertaken appropriately. The government also envisages that this approach would be optional, to be agreed as part of the commercial arrangements of the transfer. If any parties involved in the transaction were unwilling to provide this top-up, then the existing s29/34 regime would remain in place for that asset and the associated CCUS decommissioning fund would accrue as if it was a new-build asset.

The trigger event for issuing CoUR currently set out in legislation is the point at which CO<sub>2</sub> is first present at the installation (once the Secretary of State has designated the asset as eligible). However, the conditionality on the proposal means that the government would need to receive evidence to prove that the decommissioning fund has received the appropriate top-up before a CoUR can be issued. The government therefore proposes expanding the trigger event to also include confirmation that the CCUS decommissioning fund has received the agreed estimated existing decommissioning liability associate with the asset. This would provide flexibility to the parties to agree when this top-up is provided, should they wish it. It is also worth noting that the earliest point in time a s29 can be issued for an O&G asset is upon completion of the asset sale or purchase agreement. The government will need to ensure that there is no gap between s29 notices i.e., that there is always at least one s29 notice issued for a given asset.

The government judges that this approach and conditionality will broadly strike the right balance between encouraging re-use of existing infrastructure for CCUS projects and mitigating the risk to the taxpayer. This would also bring wider benefits to the decommissioning fund of the CCUS network. A new network being developed with reused infrastructure would have some of the network's decommissioning liability immediately included at the start of operations, enabling investment of the fund from an earlier point in time. Where a reused asset was brought into the network later during the operational life, the decommissioning fund would receive a top-up to its accruing funds, potentially reducing the reliance on other sources of funding.

### Establishing the existing decommissioning liability

The government recognises that the precise scale of the existing decommissioning liability will be agreed as part of the commercial arrangements for the transfer of the asset. The government envisages that this approach will continue to form the basis as part of the proposed policy for CoUR issuance.

However, the government also recognises that the issuance of CoUR will place greater emphasis on the accuracy of this agreed liability. This is because the risk that differences between the estimated liability and the actual cost will sit with the decommissioning fund, within the wider windfall/shortfall risk associated with it. Regardless of where this overall windfall/shortfall risk sits, the government will still carry decommissioner of last resort obligations. As such, the government will require assurances that this agreed estimation of the existing decommissioning liability is reasonable.

To manage this, the government proposes that, once an agreement has been reached on the estimated existing liability, the parties will need to seek approval from OPRED that this is a reasonable estimate. The government envisages that this will be a relatively light-touch process, purely to provide assurance rather than to dictate the right estimate. In practice, the government recognises that there will be wider checks and balances associated with the agreed purchase price of the asset as this will feed into the regulated model and allowable revenue calculation. Despite this, the government reserves the right to obtain an independent valuation.

Furthermore, the government is considering whether an additional contingency should be required, to further mitigate the risk associated with estimating the liability. It is the government's understanding that the difference between estimates and actuals for decommissioning can be significant. The government envisages that this contingency would likely take the form of an additional percentage of the agreed estimated decommissioning liability, for example +10%, +20%, etc. The government would welcome views on this approach.

### Tax treatment of top-ups to the decommissioning fund

The government recognises that there will be an interaction between the conditional top-up of the CCUS decommissioning fund and tax relief which would have otherwise been available if the asset had been decommissioned at the end of its life as an O&G asset. This interaction may have implications for the proportion of the existing decommissioning liability associated with the asset which can be expected to be paid into the CCUS decommissioning fund.

As with all policy relating to taxation, any decision on the treatment of this tax relief will be a decision for the Chancellor of the Exchequer. The government will continue to consider the interactions and implications of this as part of the wider development of a funded CCUS decommissioning regime.

**Questions:**

- 29. Do you agree with the government's minded-to position of allowing Change of Use Relief to be available for re-used assets, on the condition that the associated CCUS decommissioning fund is topped-up relative to the asset's existing decommissioning liability?**
- 30. Do you agree with the government's proposal that the issuance of change of use relief would remain optional and discretionary?**
- 31. Do you agree with the government's proposal that the estimated existing liability would be a matter for commercial negotiations, but that government will need a role in this for assurance purposes?**
- 32. Do you agree that an additional contingency should also be required, and what level do you judge to be reasonable in balancing the incentives and risks?**

**Where you do not agree with the government's proposals, please outline your reasoning.**

## Summary of consultation questions

1. Do you agree with the government's proposal to split the onshore and offshore liabilities, placing greater emphasis on managing the risk associated with offshore decommissioning?
2. Do you agree with the government's proposal to have all the obligated offshore decommissioning activities be in scope of the funded regime?
3. Do you agree that the onshore element should be managed separately based on the specific local requirements put in place?
4. Do you anticipate any issues or unintended consequences that might arise from this split?
5. Do you agree that decommissioning liabilities should sit with each T&SCo, rather than being pooled across the whole CCUS landscape?
6. Do you agree that each storage site should have a separate decommissioning fund to better reflect the nature of each site and facilitate future transactions?
7. Do you agree with the government's proposals for safeguarding the decommissioning funds?
8. Are there any other safeguarding mechanisms the government should consider?
9. Do you agree with the government's proposal to have a 'regular funding' mechanism for the accrual of the decommissioning fund?
10. Do you agree that the fund should also accrue through investment?
11. Recognising the government will need to balance the incentive to invest against the risk this would carry, do you have any proposals for how this should work in practice? Are there any other issues the government should consider when developing this policy area?
12. Do you agree the T&SCo should carry both the windfall and shortfall risk associated with the decommissioning fund?
13. Do you have any further information that could help inform the government's ongoing review of the management of these risks?
14. Do you agree with the government's proposal to have the operators manage each of the decommissioning funds?
15. Do you agree with the government's proposal of an enhanced financial securities regime to address early closure risk, but that financial securities will only be sought where judged to be necessary?
16. Given the need to have an estimate of decommissioning liability during the development phase, do you agree with the government's proposal for estimating this liability?

- 17. Do you agree with the government's proposal to have OPRED as the primary regulator for calculating this estimate?**
- 18. Do you agree with the government's proposal for periodic review of this calculated estimate, and in particular the alignment of this with price control periods?**
- 19. Do you agree that the economic regulator should have responsibility for including the estimated decommissioning liability in the allowed revenue that the T&SCo is able to collect from user payments, and the wider responsibility of ensuring the decommissioning liability is met through the fund?**
- 20. Do you envisage any unintended consequences relating to the government's proposals for calculating the decommissioning liability, and the related regulatory responsibilities?**
- 21. Do you agree with the government's proposal that the accrual period will align with the operational life of the storage site, from year 1 through to final injection?**
- 22. Do you agree with the government's proposal that the accrual profile will assume a straight-line trend, but that negotiations might allow some flexibility to better reflect the nature of the storage site?**
- 23. Do you have any suggestions on the level of flexibility that should be permitted and what this should be based on, bearing in mind the added risks which this might bring?**
- 24. Do you agree that the accrual will need to be reactive to wider changes in the network, and therefore changes to the overall decommissioning liability?**
- 25. Are there any other characteristics or circumstances you anticipate emerging which will need to be reflected in the accrual profile of the decommissioning fund?**
- 26. Do you agree that the decommissioning funds can only be drawn on by the designated decommissioning entity to pay for decommissioning-related activities, with the approval of OPRED?**
- 27. Do you anticipate these restrictions to create any blockers in terms of ways that decommissioning activities might be undertaken?**
- 28. Are there any other restrictions the government should consider in order to adequately ringfence the decommissioning funds?**
- 29. Do you agree with the government's minded-to position of allowing Change of Use Relief to be available for re-used assets, on the condition that the associated CCUS decommissioning fund is topped-up relative to the asset's existing decommissioning liability?**
- 30. Do you agree with the government's proposal that the issuance of change of use relief would remain optional and discretionary?**

- 31. Do you agree with the government's proposal that the estimated existing liability would be a matter for commercial negotiations, but that government will need a role in this for assurance purposes?**
- 32. Do you agree that an additional contingency should also be required, and what level do you judge to be reasonable in balancing the incentives and risks?**



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This consultation is available from: [www.gov.uk/government/consultations/carbon-capture-usage-and-storage-ccus-offshore-decommissioning-regime-for-co2-transport-and-storage](https://www.gov.uk/government/consultations/carbon-capture-usage-and-storage-ccus-offshore-decommissioning-regime-for-co2-transport-and-storage)

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