



Final Hurdles: Financial Security Obligations Under the CCS Directive

**Legal policy analysis and recommendations
for enabling Member State involvement in
financial security obligations, and other
approaches to financial liability relevant to
Guidance Document 4.**

**David Holyoake and Karla Hill
with contributions from Marta Ballesteros and Giuseppe Nastasi.**

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ClientEarth is non-profit environmental law organisation based in London, Brussels, Paris and Warsaw. We are environmental lawyers working at the interface of law, science and policy. Using the power of the law, we develop legal strategies and tools to address major environmental issues.

As legal experts working in the public interest, we act to strengthen the work of our partner organisations. Our work covers climate change and energy system transformation, protection of oceans, biodiversity and forests, and environmental justice.

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www.clientearth.org

The Hothouse
274 Richmond Road
London E8 3QW
t +44 (0)20 7749 5970
f +44 (0)20 7729 4568

Avenue de Tervueren 36
1040 Brussels
t +32 (0)2 808 34 65
f +32 (0)2 733 05 27

50 avenue de Ségur
75015 Paris
t +44 (0)20 3030 5957

Aleje Ujazdowskie 39/4
00-540 Warszawa
t +48 22 3070190

info@clientearth.org
www.clientearth.org

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This report is addressed to the European Commission for consideration prior to the adoption of Guidance Document 4, and contains recommendations for state aid guidelines including the upcoming supplement on state aid for certain activities under the Emissions Trading Scheme Directive 2009. It is also addressed to Member States planning the transposition and implementation of the Carbon Capture and Storage Directive 2009.

1. Executive Summary

This legal policy report seeks to provide solutions to a potentially significant barrier to rapid investment in and deployment of commercial carbon capture and storage (CCS) technology in the European Union. The Commission is soon to adopt a number of guidance documents informing Member State transposition and implementation of the substantive requirements of the CCS Directive 2009. The fourth Guidance Document,¹ currently in draft form, deals with financial security requirements under article 19 of the CCS Directive. Many stakeholders have expressed that overly onerous financial security requirements have potential to constitute a significant barrier to the EU's overarching objective of achieving rapid investment and deployment of CCS technology. In particular, significant uncertainties regarding the future price of carbon, in the event of liability under the ETS Directive for CO₂ leakages have led the commercial insurance market to state that certain risks resulting from the CCS Directive are uninsurable. ClientEarth consider that ETS liability under the CCS Directive is a potentially problematic approach to liability for damage to the climate system caused by CO₂ leakage from both an environmental and commercial perspective. This report seeks to solve a number of the commercial barriers via implementation of the Directive.

For this reason, it is essential for the Commission to take necessary steps to find solutions and to guide the transposition and implementation of the CCS Directive either in ways that enable the private sector to provide necessary financial guarantees, or find alternative ways of circumventing the problem through the structuring of financial instruments or approaches to assessing risk. Any solutions must be compatible with the substantive legal requirements of the CCS and ETS Directives, navigate the policy tensions, and make sense from an environmental safety as well as commercial point of view.

Under the Directive, there is a distinction between legal liability and financial security responsibilities. This has corresponding implications for available options for structuring financial securities. We conclude that systems of co-responsibility for financial securities between Member States and operators can be designed in ways that satisfy the policy objectives and substantive requirements of the CCS Directive. If designed in light of the guiding criteria put forward in this report, such measures should be permitted under state aid rules and declared compatible with the internal market. We put forward a number of new ideas and design options that further this debate, drawing on approaches taken in member state re-insurance for terrorist damage, and liability for marine disasters. We urge the European Commission to amend Guidance Document 4 so as to include the new options discussed here, and provide greater attention to the question of how Member States may solve the barriers to CCS currently presented by the Directive.

We find that financial security instruments can be structured in ways that enable operators to proceed by hedging risks without imposing caps on the legal liability of operators, or exclusions in cases of *force majeure*, both of which are very unlikely to be permitted by the CCS Directive. Concepts such as *force majeure* can however be useful to *inform the design* of the structuring of financial securities instruments in a system of co-responsibility. Re-

¹ European Commission, CCS Directive 2009 Implementation Guidance Document 4, *Article 19 Financial Security and Article 20 Financial Contribution*, draft document for consultation, 18 June 2010.

insurance can be designed so as to provide a Member State backstop without exposing the tax payer to any direct burden. For example, pooled funds either contributed to by levies on operators or the power sector could be coupled with re-insurance. It may even be appropriate for the magnitude of any pooled funds to be based on notions of *cumulative* probability, provided the Member State agrees to cover additional damage, thus lowering the required contribution from operators, while maintaining liquid moneys that can be deployed instantly in the event of leakage of a single site.

Additionally, it is important to note that in a system of co-responsibility, Member States need not necessarily assume risk for damage above a total monetary threshold, but can assume risk for discrete or low probability risks only, such as ETS liability where the price of carbon rises above a certain threshold in a certain amount of time, or damage above a threshold caused by natural disasters. In essence, in order to satisfy the proportionality principle, Member States should intervene to the minimum extent necessary to enable the commercial market to provide, with increasing confidence after the empirical experience accumulates, necessary financial securities for CCS liability.

An understanding of state aid rules, as applied and elaborated by the jurisprudence of the European Court of Justice (ECJ) helps shape the approach to designing a system of co-responsibility in ways that are proportionate and likely to be assessed as compatible with the internal market by the European Commission. To enable Member States to take effective measures to overcome market barriers to CCS deployment in their upcoming transposition and implementation of the CCS Directive, we urge the Commission to 'clear the path' for certain options by including them in the upcoming State Aid Guidelines on state aid for certain ETS undertakings, or amend the Environmental Guidelines on State Aid. Such a step is necessary to provide Member States with sufficient certainty about their legal options for taking intervention to enable rapid deployment of CCS.

In addition to recommendations on State Aid guidelines, we propose other recommendations for amendments to Guidance Document 4. This document must detail and evaluate the full range of permissible approaches to financial liability under the Directive. We conclude that while the Commission is correct to state that informing the magnitude of financial security according to better or best case scenarios exposes both the Member State, and the operator to additional risk, considerations such as probability and force majeure can inform the extent of operators required contribution to financial securities in a situation of co-responsibility between Member States and operators. Member State involvement can be designed in ways that do not result in any direct burden on tax payers, by utilizing the ability of the Member State to raise levies, and/or distribute risk between operators or between different sectors of the economy. We draw on analysis of liability for marine oil damage, and for terrorist damage, to illustrate a number of options for pooled funds and hybrid approaches to structuring financial securities.

We will be pleased to discuss these findings with the European Commission and Member State governments.

1.1 Summary of key recommendations– Guidance Document 4

- Draft Guidance Document 4 should be amended so as to identify and anticipate the full range of options that may be deemed acceptable approaches to satisfying financial security obligations under articles 19 of the CCS Directive.
- It should draw attention to the distinction between legal liability and financial security obligations and the scope for a system of co-responsibility for financial security obligations between Member States and operators.
- Draft Guidance Document 4 should include **Member State insurance or re-insurance** as a potentially attractive mechanism to overcome market barriers to financial security obligations. Member State Re-insurance can effectively hedge financial risks for operators and enable the commercial insurance market to provide primary coverage, while retaining strong incentives for operators to select and operate sites with utmost safety. Re-insurance, in exchange for risk based premiums passed on from operators by the primary insurance market, may be structured so that Member States only assume risk for low probability events, or for specific liabilities such as the ETS liability where the price of carbon rises above a designated threshold. Member State re-insurance may be coupled with funds to avoid or minimise any direct burden on the tax payer, since re-insurance policies can be designed to provide *long term* liability cover more effectively than primary insurance alone.
- National or EU wide **CCS liability funds** could be established to pool risk and lessen the magnitude of operator contribution to financial security, based on notions of cumulative probability. Operators may voluntarily contribute to funds, with remaining funds raised by government levies or, potentially, ETS auction revenues under phase 3 of the EU ETS. In the event of certain liabilities arising, or total damage above a certain threshold, the terms of the financial security would require that competent authorities to draw from the fund. Hybrid approaches between funds and insurance should also be discussed.
- Where market failures constitute barriers to CCS deployment, it is incumbent upon the Commission to clear the path for Member State policy intervention to allow CCS to proceed, in ways that are consonant with the objectives and substantive requirements of the CCS Directive and other relevant spheres of EU law. Accordingly Guidance Document 4 should contain some discussion of guiding design factors relevant to **state aid** assessments.
- Greater distinction should be drawn between liabilities that require **highly liquid** financial security arrangements, (such as to cover corrective measures immediately subsequent to damage) and those where liquidity is less important, such as to meet ETS liability in the event of leakage.
- Guidance Document 4 should contain discussion of guiding principles and policy implications informing good design of a system of co-responsibility, as detailed in this report.
- Greater attention should be given to the **role of storage permit** in containing transparent methodologies for risk assessment and facilitating greater predictability of future revisions to the magnitude of total financial security required, as anticipated by the CCS Directive 2009.

1.2 Summary of key recommendations– state aid guidelines

- It is time for the European Commission to determine state aid guidelines for CCS measures. In addition to state aid to support investment in CCS undertakings (such as have already come before the Commission in a number of cases) this report finds it is necessary to clear the path for early movers among Member States wishing to establish a public/private system of co-responsibility for financial security. This is necessary to provide necessary certainty for operators, and Member States moving to transpose and implement the CCS Directive 2009.
- In the event that the Community Guidelines for state aid for Environmental Protection are not revised in the coming 12 months, the upcoming ETS state aid Supplement is a possible location for the incorporation of CCS state aid in the form of Member State re-insurance or other direct or indirect transfer of State resources. This will involve expanding the scope of the ETS supplement to address state aid under both the CCS Directive as well as ETS Directives.
- Guidelines should establish guiding principles for the design and structuring of financial securities in ways likely to be deemed compatible with the internal market and thus satisfy state aid exceptions. Analysis of state aid law and jurisprudence indicates that the proportionality principle will be satisfied where Member States intervene only to the minimum extent necessary to allow the private market to function. This and other requirements of state aid assessments give rise to policy implications for the structure of financial securities in a scenario of Member State involvement or contribution.

The full recommendations for policy makers are set out in greater detail in the final sections of this report.

2. Liabilities and Requirements for Financial Security under the CCS Directive – delineation of legal liability and financial security

2.1 Distinction between scope of legal liability and financial responsibility

A number of types of liability arise under the CCS Directive. These include: i) strict liability on the operator under the Environmental Liability Directive (ELD) where the leakage causes significant (local) environmental damage; ii) financial liability to buy carbon credits under the EU ETS at the prevailing market rate, where CO₂ leaks into the atmosphere or sea and iii) potential liability in tort (negligence) where the leak causes property or health damage to a third party. Additionally, article 16 of the CCS Directive requires operators to take corrective measures in the case of significant irregularities or leakages.

In support of obligations arising under the Directive, article 19 of the CCS Directive requires operators to present proof of financial security or other equivalent to the Competent Authority when applying for a storage permit. The details of this financial security are required to appear in storage permits according to article 9(9). While the Directive stipulates that the purpose of this is to provide assurance that *all obligations* arising under the CCS Directive can be met, it is not prescriptive as to how this is to be achieved.

*Member States shall ensure that proof that adequate provisions can be established, by way of financial security **or any other equivalent**, on the **basis of arrangements to be decided by the Member States**, is presented by the potential operator as part of the application for a storage permit. This is in order to ensure that all obligations arising under the permit issued pursuant to this Directive, including closure and post-closure requirements, as well as any obligations arising from inclusion of the storage site under Directive 2003/87/EC, can be met. This financial security shall be valid and effective before commencement of injection.*
(Emphasis added)

The Directive requires financial security, or 'equivalent.' The terms 'financial security' or 'equivalent' are not defined in the Directive. The form of the assurance required is expressly left to be decided by Member States. The Directive is clear that legal liability for all obligations remains vested with operators, including post closure until transfer to competent authority is complete.

*After a storage site has been closed pursuant to points (a) or (b) of paragraph 1, **the operator remains responsible** for monitoring, reporting and corrective measures, pursuant to the requirements laid down in this Directive, **and for all obligations relating to the surrender of allowances in case of leakages** pursuant to Directive 2003/87/EC and preventive and remedial actions pursuant to Articles 5 to 8 of Directive 2004/35/EC until the responsibility for the storage site is transferred to the competent authority pursuant to Article 18(1) to (5) of*

this Directive. The operator shall also be responsible for sealing the storage site and removing the injection facilities². (Emphasis added.)

Under the ETS Directive, obligations to surrender allowances are also placed on operators. However, the allocation of this legal liability does not however preclude the possibility of Member State involvement in financial securities, or potentially, financial assistance to operators such that they may more easily fulfill their legal obligation to, for example, purchase and surrender allowances, provided such measures were deemed compatible with state aid rules.

The legal text '*on the basis of arrangements to be decided by Member States*' in article 19 of the CCS Directive includes not only the discretion of Member States to determine eligible species of financial instrument, terms, or other administrative arrangements, but also implicitly includes the discretion of Member States in determining the level of risk that the Competent Authority is willing to be exposed to. For example, given the uncertainties involved, including the uncertainties of frequencies of instances requiring corrective measures pursuant to article 16 or contingent liabilities under the ELD, and large uncertainties of the future price of carbon, it is important to recall that any decision made by competent authorities in the determination of the requisite magnitude of financial security will automatically involve an assessment of risk the Competent Authority is willing to be exposed to, and some curtailment of theoretically limitless liabilities given uncertainties of the future price on carbon. This is the case notwithstanding the fact that article 19(2) requires updating the financial security over time so as to take account of *estimated* risks and *estimated* costs. It is precisely in the process of this estimation that the Directive leaves open the possibility for Member States to enable early movers in the deployment of CCS by employing methodology, formulae or parameters in the estimation process so as to require more realistic magnitude of financial security – provided a backstop, such as Member State involvement in financial security such that liquid funds are guaranteed in the event of damage, exists. As will be discussed elsewhere in this report, we consider that a range of policy rationales support the proposition that it is preferable for Member States to contribute to financial securities such as by acting as reinsurer of last resort, rather than solving the problem by basing assessment of the scale of financial security on best on best or better case risk scenarios.

Draft Guidance Document 4 is correct in stating that applications of risk such as probability distributions mean that low probability events may mean the magnitude of the financial security risks being insufficient. This may result in operator defaulting and exposing the Competent Authority to risk. Where the magnitude of total financial security is sufficient due to Member State contribution or involvement, then a number of the objections to determining the scale of the *operators contribution* to the security on bases of probability distribution dissolve. Policy intervention by Member States may well be required to assist operators meet financial security obligations and ensure the adequacy and liquidity of the total security.

The overriding environmental objectives of ensuring rapid, safe demonstration and deployment of CCS technology must inform the design of Guidance Document 4. A number of new options for such policy intervention are put forward in this report. Those given greatest

² Article 19(2)

attention include the Member State acting as an insurer of last resort, Member State levies or requiring CCS operators to contribute to a pooled fund to act as a backstop for the financial security provided by operators. Guidance Document 4 should encourage such co-responsibility by detailing options and guiding criteria in light of the overriding policy objective to rapidly deploy CCS technology. The full range of policy objectives must be weighed and balanced in the determination of optimum measures for member state involvement.

2.1.1 Conclusions

There is a distinction between legal liability and financial responsibility. The operators direct contribution to the financial security does not have to be equal to the total estimated required security, and arguably should not if such a scale prohibits demonstration and deployment of CCS. ClientEarth advises that the CCS Directive does not prevent member State involvement in financial securities. Article 19 states that the purpose of the financial security is “to ensure that all obligations arising under the permit issued pursuant to this Directive, including closure and post-closure requirements, as well as any obligations arising from inclusion of the storage site under Directive 2003/87/EC, can be met”. The legal text does not expressly require that the moneys comprising the financial security need necessarily come from the operator, or limit the range of third party security. While deposits (trusts) or other forms of self assurance may be an option in some situations, or for larger operators, other acceptable options include or anticipate possibility of third party funds. For example, this is the case with insurance or bank guarantees. Indeed in situations such as commercial insurance, purchased by a premium, in real terms a large portion of the funds will come from third parties while the operator remains legally liable for damage in excess of insurance policies.

2.2 Legality of force majeure provisions, caps on liability in Member State transposition of CCS Directive

A number of stakeholders have raised the desirability of Member States, in their transposition and implementation of the CCS Directive, drafting force majeure clauses or caps on liability of operators. Force majeure is a legal concept derived from contract law that typically absolves operators or Member States from liabilities in the event of circumstances beyond their control, such as natural disasters. While there are other solutions to the problem, ClientEarth advises that it is not possible for the *legal* liability of operators to be capped or limited, without leaving Member States vulnerable to judicial challenge on basis of incorrect transposition of the CCS Directive. The CCS Directive states that responsibility for *all* obligations remains vested with the operator until post closure transfer is complete. Force majeure provisions would have the effect of narrowing the scope of these requirements by releasing operators from certain risks in certain circumstances. For this reason, it is unlikely that a Member State could legally draft force majeure clauses exempting operators from certain risks, without being vulnerable to challenges of incorrect transposition.

Regarding caps on liability, article 11(4) states that in the event a permit is withdrawn, the Competent Authority “*shall* recover any costs incurred from the former operator, including by drawing on the financial security referred to in Article 19.” Similarly, Article 16(5) contains mandatory language stating that in the event of leakages or other significant irregularities,

where the competent authority takes corrective measures it “*shall* recover the costs incurred from the operator...*including* by drawing on the financial security provided in art 19.”

The text leaves open the possibility of recovering costs greater than the magnitude of the financial security thus presenting additional risks to the operator as well as in cases where financial security involves insurance or trust funds and not (as an unlikely example) guarantees at the value of the entire liquid assets of the entity. Corrective measures are however, distinct from ETS liability for leakages which is governed under the ETS Directive. In ETS liability will be governed by the ETS Directive until such a time as the site is closed pursuant to ETS closure rules.

ClientEarth considers that these legal stipulations that costs are to be recovered from the operator do not of themselves preclude Member State involvement or even contribution to the financial security or equivalent in article 19. The law does however, prevent the imposition of force majeure provisions or caps on the legal liability of operators in the transposition of the CCS Directive. **However, two legal options remain to achieve quite similar results as caps or force majeure provisions through the terms or structure of financial securities:**

- Member State involvement in financial security instruments above a certain ceiling of damage (for example, member state agrees to provide re-insurance for damage above a certain overall threshold, this fulfilling most of the objectives of a cap by shifting risk)
- Member State involvement in financial securities where the Member State agrees to provide cover for certain discrete or unlikely risks, such as price of carbon rising above a certain threshold, or damage above a certain threshold in the event, for example, of a natural disaster. In this way, force majeure can be utilised and incorporated in the terms of, for example, a re-insurance policy, yet the legal liability for all obligations remains with the operator.

In addition to these options, Competent Authorities as regulators have the discretion to price risks in ways they see fit in the estimation of the required magnitude of financial security. This estimation will entail framing and evaluation of risks and, it may be possible to exclude certain improbable or unlikely risks from the determined scale of the financial security. The CCS Directive does not prevent such an approach. However, it must be stressed that this will not alter the legal liability of operators. Underpricing risks will expose both operators, and eventually Member States to additional risks, unlikely as they may be. Furthermore, underpricing risks in the determination of the scale of financial securities detracts from the environmental and safety objectives of the CCS by casting doubt on the ability to instantly deploy liquid funds necessary for example, to take corrective measures. Funds necessary to acquire and surrender ETS allowances in the event of leakage are slightly different in that they will not require immediate deployment but will instead be required to be surrendered at the end of each calendar year pursuant to the ETS Directive. Accordingly the requirement of *liquidity* in financial instruments may be less pressing for funds necessary to purchase ETS allowances, than for the other obligations arising from the CCS Directive. This distinction may be worth exploring in the context of different segments of financial security attaching to different obligations arising from the CCS Directive.

2.3 Policy Implications

ClientEarth considers that it is more in keeping with the objectives and substantive provisions of the CCS Directive to recommend Member State involvement in financial securities *rather than* simply advocating for basing the required level of financial security on lower or more realistic probabilities of risk (i.e., best or better case scenarios). This is because the Directive provides that recoverable costs are not limited to the maximum amount of the financial security. Underestimating the financial security exposes not just the Member State, *but also the operator*, to risk beyond the magnitude of the agreed financial security, and may detract from the environmental and safety objectives of article 19 by ensuring adequate and liquid funds. However, as analysed elsewhere in this report, an estimation of risk will always be involved, and it may be acceptable to decide the magnitude of member state contributions or involvement in financial security according to notions of *cumulative probability*, which could lower the overall scale of necessary pooled funds.

We acknowledge that avoiding placing costs of CCS on tax payers is an important policy consideration. In section 4 of this report we discuss options for member state involvement or contribution to financial securities that need not involve placing direct burden on tax payers. While some may argue that Member State involvement or contribution to financial securities runs the risk of overly externalising the risks for polluters, we do not consider this to be a valid objection in a scenario of member state co-responsibility, particularly where Member State involvement is limited to ETS liability in constrained circumstances such as where the price of carbon rises above a certain defined level. In a scenario of Member State re-insurance, premiums may be adjusted and continuation of cover dependent upon the operator fulfilling all its obligations under the storage permit. In other scenarios such as a national pooled fund contributed to on a one off basis by operators, the effect of externalising risk is again held in check by the fact that operators must continue to meet all safety conditions contained in storage permits.

It must be remembered that the CCS Directive contains other measures to ensure safe deployment of CCS. Article 28 requires Member States to introduce penalties for infringements of national legislation implementing the CCS Directive. The scale of these penalties is not guided by the CCS Directive, however it does require they be 'effective, proportionate and dissuasive.' In combination with the fact that legal liability remains vested with operators both during and after closure until post closure obligations are complete, and the fact that operators may also be liable for negligence (tort law in common law countries) for damage caused, it is clear that member state contribution to financial securities, including by acting as reinsurer and assuming responsibility for certain risks (such as the price of carbon rising above a certain level) is a proportionate response to enable deployment and will not result in less environmentally stringent behaviour.

2.4 Conclusions on Legality of Member State Contribution to Financial Security

ClientEarth concludes that while caps, force majeure clauses or other measures limiting the *legal liability of operators* are not permitted by the CCS Directive, and an underestimation of the magnitude of financial instrument will result in risks to both operator and Competent Authority, the Directive leaves open the possibility of Member States contributing to or being involved in the financial security instruments. This is underscored by the language “on the basis of arrangements agreed by the Member State” and the open ended nature of the requirement for financial security *or any other equivalent*. Guidance Document 4 should be amended to reflect the desirability of member state contribution to or involvement in financial securities, and identify other new options as identified in section 4 of this report. A number of potential options exist to achieve similar degrees of certainty for operators and commercial insurers as force majeure or caps. The next section analyses the implications of design of a system of co-responsibility in light of state aid law.

3. Analysis of Options in Light of State Aid Rules

This section will analyse key options identified and evaluated in this report in light of their compatibility with state aid law. The key options are, Member State insurance, Member State acting as re-insurer of last resort, and Member States establishing or requiring pooled funds. While it is found that a number of measures under consideration would constitute state aid, not all state aid is illegal and this report aims to put forward legal arguments and guiding principles that should inform the balancing test undertaken by the Commission on a case by case basis for measures that do or may constitute state aid. In Section 6 and 7, ClientEarth puts forward recommendations to ‘clear the path’ for member state involvement in CCS financial security instruments in upcoming revisions to state aid guidelines. We argue that this is a necessary step to overcome Member State inertia by providing greater certainty of the legality of Member State’s taking such measures to enable rapid investment and deployment of CCS as an urgent environmental priority for the Community.

3.1 Determining when Member State involvement in financial security instruments will constitute state aid

The state aid provisions are contained in Articles 107 and 108 of the Treaty of the Functioning of the European Union (TFEU.) Their aim is ‘to prevent trade between Member States from being affected by advantages granted by public authorities which, in various forms, distort or threaten to distort competition by favouring certain undertakings or certain products.’³ Article 107(1) provides:

1. *Save as otherwise provided in the Treaties, any aid granted by a Member State or through State resources in any form whatsoever which distorts or threatens to distort competition by favouring certain undertakings or the production of certain goods shall, in so far as it affects trade between Member States, be incompatible with the internal market.*

³ *SFEI and others v La Poste and others*, C-39/94, [1996] ECR I-3547, par. 58

The scope of this article has been elaborated and delineated by jurisprudence of the ECJ and by guidance documents from the European Union. In general this briefing finds that many scenarios of Member State involvement in financial securities would be captured by the broad definitions of state aid. However, a number of complexities arise that have the potential to affect or nuance this general conclusion, depending on the approach to structuring financial security instruments taken. For example a scenario where the Member State did not contribute any Member State resources, but instead required or allowed CCS operators (or other sectors, such as the power sector) to have entered into trusts or other fund agreements, with pooled moneys being held and mobilised by an entity appointed by the State, the question of characterisation is more complex, but in light of state aid jurisprudence may well also constitute state aid in some circumstances.

In the 'Altmark' case,⁴ the ECJ expressed and summarized the conditions requested by art 107 TFEU (ex Article 87(1) Treaty of the European Community) for determining whether a national measure constitutes state aid as follows:

"First, there must be an intervention by the State or through State resources. Second, the intervention must be liable to affect trade between Member States. Third, it must confer an advantage on the recipient. Fourth, it must distort or threaten to distort competition."

There has been controversy among legal commentators as to the alternative or cumulative character of these conditions as regards the presence of the word "or" in the pronouncement and in the Treaty.⁵ However, the Court of Justice has recently affirmed the cumulative character of these requirements, that all conditions must be satisfied, and thus the aid must be due to an act or intervention of the state *and* be granted either directly or indirectly through State resources.⁶ The European Commission's Vademecum on state aid rules frames the requisite criteria in a similar fashion: 1) transfer of state resources, 2) conferring economic advantage 3) be selective, and 4) have potential to affect competition and trade between Member States.

Hence, state aid rules only apply where there is a 'transfer of state resources.'⁷ Some of the scenarios of member state involvement in CCS operator financial security may involve transfer of state resources immediately, such as by the establishment of certain types of funds or trusts where the Member State is one of the settlors. Other scenarios may involve guarantees that state resources will be released in the future in the event of damage. ClientEarth do not consider that there is a material distinction between these two scenarios for the purposes of determining the applicability of state aid rules. The case law and the European Commission's Vademecum acknowledges that a broad range of financial transfers, including loan guarantees,⁸ may amount to state aid.

⁴ *Altmark Trans GmbH v Regierungspräsidium Magdeburg*, Case C-280/00, 24.7.2003, par. 75

⁵ Swiss National Centre of Competence in Research, De Sepibus, P, *The European emission trading scheme put to the test of state aid rules*, working paper 2007/34

⁶ *France v Commission*, Case C-482/99, 16.5.2002

⁷ European Commission, *Vademecum: Community Law on State Aid*, 30 September 2008

⁸ European Commission, *Vademecum, Community Law on State Aid*, 30 September 2008 at page 6

In the event of a Member State acting as either primary insurer or reinsurer of last resort, this clearly involves an act or intervention that is attributable to the state and anticipates the possibility of Member State resources in the event of a large leakage, particularly in the early years of a scheme where small numbers of CCS projects will exist and collective premium payments will of course not be sufficient to completely shield the Member State from exposure to financial risk. Jurisprudence affirms that for the measure to count as state aid need not require the state to be acting directly, so long as the measure is *imputable* to the state and that the state acted with control and discretion over the resources.⁹ Therefore, scenarios where public entities, or a government's insurance company provided re-insurance for CCS projects rather than the Member State executive, this would likely also constitute state aid depending on the factual matrix and provided the other criteria of the treaty were satisfied.

Finally, it is important to consider the legal implications of temporality - at which moment in time resources become state resources. In the case of *France v Commission*, the Court held:

*It follows from the Court's case-law that State resources are not involved where the public authorities at no stage enjoy or acquire control over the funds which finance the economic advantage in issue. In Van Tiggele the State fixed a minimum retail price for gin. (38) In PreussenElektra the State combined a minimum price for electricity from renewable energy sources with a purchase obligation. (39) In those cases the economic advantages for the distributors of gin and for producers of electricity from renewable sources respectively were 'financed' exclusively with funds **which at no stage came under the control** of the State.*

*On the other hand, the Court has held that State resources within the meaning of Article 87(1) of the Treaty **need not necessarily come from the State budget**. Where the funds used for a measure are financed through compulsory contributions (e.g. parafiscal charges) and then distributed according to State legislation they must be regarded as State resources even if they are collected and administered by institutions distinct from (but none the less controlled by) the public authorities¹⁰. (Emphasis added.)*

Pooling funds is another way to distribute risk that is not adequately addressed in Guidance Document 4. We recommend Guidance Document 4 be amended to address this. Such measures are likely to count as state aid particularly if they are compulsory measures taken pursuant to state legislation establishing, for example, a CCS liability fund as part of the financial security. Regarding taxation measures specifically, state aid case law has affirmed that if taxation measures constitute the form of funding for the state aid measure, such that they form *an integral part* of the measure, they may constitute state aid.¹¹ This would

⁹ *France v Commission*, ('stardust') C-482/99 [2002] ECR I-4395

¹⁰ *France v's Commission*, paras 38 and 39

¹¹ *Streekgewest*, C-174/02, 13 January 2005, "Furthermore, the Court has held that where a method of financing aid by means of a tax forms an integral part of the aid measure, the consequences of a failure by the national authorities to comply with the last sentence of Article 93(3) of the Treaty must also apply to that aspect of the aid (Joined Cases C-261/01 and C-262/01 *Van Calster and Others* [2003] ECR I-0000, paragraph 52). In those circumstances, it follows that the national authorities are therefore required in principle to repay charges levied in breach of Community law (Joined Cases

certainly be the case for levies on CCS operators or the power sector to finance, for example, member state re-insurance or a CCS liability fund forming part of the financial security arrangements.

In scenarios where a Member State pooled collective funds from operators (either such that the fund provides the liquid moneys to supports member state re-insurance, or potentially, the pooled fund itself comprised the financial security,) this could be achieved by compulsory levies or taxes or voluntary contributions by operators. For most of the options for Member state involvement considered in this report, this element is satisfied and the measure can said to involve or anticipate state resources. This is certainly true of Member State insurance or re-insurance, or legislation or arrangements governed by contract law that compel contribution to funds held and directed by the State in the event of leakage and financial liability above a certain threshold. Scenarios where operators establish trust funds of their own volition as one way of satisfying the Competent Authority that financial security requirements have been met, will generally be unlikely to constitute state aid as will not entail state resources or intervention.

Consider now a scenario where a non-discretionary trust was established with one or more CCS operators putting forward the funds (acting as settlor(s)) but with the State acting as trustee, mobilising the funds to the Competent Authority as regulator in the event of a leakage or disaster. In light of jurisprudence of the ECJ, where a Member State legislated or otherwise made compulsory the contribution of resources to either a fund or a trust administered directly or indirectly by the State (for example as public trustee or to finance Member State insurance), it is likely this will also constitute state aid provided the other criteria were satisfied. This is the case even if the resources were administered by a private body appointed or designated by the State. In the case of *PreussenElektra* the court held:

*"...the case-law of the Court of Justice shows that only **advantages** granted directly or indirectly through State resources are to be considered aid within the meaning of Article 92(1). The distinction made in that provision between 'aid granted by a Member State' and aid granted 'through State resources' does not signify that all advantages granted by a State, whether financed through State resources or not, constitute aid but is intended merely to bring within that definition both advantages which are granted directly by the State **and those granted by a public or private body designated or established by the State** (see Case 82/77 *Van Tiggele* [1978] ECR 25, paragraphs 24 and 25; *Slooman Neptun*, paragraph 19; Case C-189/91 *Kirsammer-Hack* [1993] ECR I-6185, paragraph 16; *Joined Cases C-52/97, C-53/97 and C-54/97 Viscido* [1998] ECR I-2629, paragraph 13; Case C-200/97 *Ecotrade* [1998] ECR I-7907, paragraph 35; Case C-295/97 *Piaggio* [1999] ECR I-3735, paragraph 35).⁴²*

Clearly, other options for member state contribution to financial securities, such as guarantees or loans would also fulfil this first element of article 107(1) TFEU. These cases of Member State involvement are to be distinguished from other scenarios where the Member State lists or requires eligible forms of financial security. For example, a normal trust scenario,

C-192/95 to C-218/95, *Comateb and Others* [1997] ECR I-165, paragraph 20, and *Van Calster and Others*, paragraph 53)" at para 16

¹² *PrussenELEktra*, case C-379/98 judgment of the court, 13 March 2001, at para 58

such where operators *choose* to enter into an irrevocable trust with a third party as one way of meeting financial security obligations, will generally not count as state aid as is difficult to characterise as imputable to the state and will not involve a transfer of state resources.

3.1.1 Conferring an economic advantage

Clearly, in the current market where commercial insurance market has expressed that ETS liability for CCS leakages is essentially uninsurable, any system of co-responsibility will clearly confer an economic advantage on CCS undertakings in the sense of assisting them to proceed and operate. This element is clearly satisfied. A situation of Member State involvement in the financial security differs from this in so far as it is not expressly anticipated by the CCS Directive, and would entail anticipation of Member State security for operators, shielding them from the requirement to have financial security at a scale required by the risk assessment. In such a situation is likely to be amenable to being characterised as state aid.

3.1.2 Selectivity

Article 107 of the Treaty states that only measures that distort or threaten to distort competition by favouring *certain undertakings or the production of certain goods* constitute state aid. This is known as the 'selectivity principle.' The selective nature of a measure is inferred in contrast with 'general measures'¹³ or reference frameworks.¹⁴ In practice, even State measures available to all undertaking in one industrial sector have been considered selective¹⁵ regardless of the recipients not being individually identifiable in advance but only by applying certain objective criteria.¹⁶ The measures under question in this report seek primarily to confer benefit on a particular sub sector – primarily CCS operators. However there are other potential beneficiaries that may be considered by the Commission and the ECJ. In a scenario of re-insurance, selective benefit will be conferred on primary insurance undertakings by enabling them to provide CCS liability insurance. More broadly, and particularly in the future assuming stricter regulatory requirements mandating CCS technology, power plants and manufacturing companies may also derive benefit from the state aid measures.

Even if a measure applies to an entire sector, or several sectors, the measure can be deemed to be selective. The Court has affirmed:

*It should be observed that the specific nature of a State measure, namely its selective application, constitutes one of the characteristics of State aid within the meaning of Article 87(1) EC. In that regard, it is necessary to determine whether or not the measure in question entails advantages accruing exclusively to certain undertakings **or certain sectors of activity** (CETM v Commission, paragraph 148 above, paragraph 39; see also,*

¹³ *Adria-Wien Pipeline v Finanzlandesdirektion für Kärnten*, Case C-143/99, [2001] ECR I-8365, at para 42.

¹⁴ Particularly with regard to taxation, the ECJ has held that existence of an advantage may only be established in comparison with 'normal' taxation. See *Portugal v Commission*, Case C-88/03, [2006] ECR I-7115, at para 56.

¹⁵ See, for example, *Heiser v Finanzamt Innsbruck*, Case C-172/03, [2005] ECR I-1627, at para 41.

¹⁶ *CETM v Commission*, Case T- 55/99, [2000] ECR II-3207, at para 40.

*to that effect, Belgium v Commission, paragraph 142 above, paragraph 26).*¹⁷ (emphasis added.)

At heart, the selectivity principle is satisfied when the measure 'does not apply to all the undertakings or all the sectors of industry which...would be capable of benefiting from it.'¹⁸ The fact that an undertaking benefits from a measure is in itself irrelevant for the application of the state aid rules¹⁹—the only question is whether the state measure is such as to favour certain undertakings in comparison with others 'which, in the light of the objective pursued by the measure, are in a comparable factual and legal situation.'²⁰

Additionally, it must be noted that in a situation of Member State re-insurance, certain actors in the primary private insurance market (and potentially private reinsurers), namely those entering into the scheme, will also selectively benefit from the state aid measure. In the Danish re-insurance case, the Commission found that Member State re-insurance was not selective *in so far as the policy holders were concerned*, because it applied equally to all policy holders taking terrorist insurance cover, and because the Commission stated that the risk of terrorist attack was equal for all policy holders. This does not hold true of all CCS sites however, and as such it is likely that state aid to support financial securities for CCS liability would be found selective even in a scenario where the scheme applied indiscriminately to all operators. However, the Member State cover was still found to be selective as it applied and conferred benefit only to certain insurance companies.²¹

Even in scenarios other than re-insurance, such as Member State funds where the only beneficiaries are CCS operators, we consider selectivity requirement may still be satisfied as would entail the Member State selectively supporting CCS liability, and not other undertakings subject to mandatory requirements to achieve financial security. Thus, a scenario of member state re-insurance will very likely satisfy the selectivity requirement, and for this reason will be required to be notified to the Commission for its assessment pursuant to the Treaty of the Functioning of the European Union.

3.1.3 Liable to affect trade and competition

In order to constitute state aid, the measure must also be liable to affect trade and competition. Guidance Document 4 already acknowledges that Competent Authorities may be exposed to financial risk in unlikely event of damage where the financial liability exceeds the financial security required of operators. In other words, the scale of financial security that member states choose to adopt, based on Member State assessment of risk, will not be uniform among Member States, and accordingly there will not be a level playing field among Member States as regards favourable environments for investment. Despite this, it is clear

¹⁷ *Diputación Foral de Álava and Gobierno Vasco v Commission*, [2008] joined cases T-227/01 to T-299/01, para 158.

¹⁸ *Opinion of Mr Advocate General Darmon*, in *Slovan Neptun v Seebetriebsrat*, Joined cases C-72/91 and C-73/91, [1993] ECR I-00887, at para 58.

¹⁹ *Adria-Wien Pipeline v Finanzlandesdirektion für Kärnten*, Case C-143/99, [2001] ECRI-8365, at para 41.

²⁰ *BNL v Commission*, Case T-335/08, [2010], at paragraph 160.

²¹ Commission State Aid N 637/2009– *Denmark Danish Terror Insurance Scheme 2009*

that member state involvement, particularly in ways that hedge the uncertainty for operators facing the prospect of continually updated requirements for financial security requirements and an uncertain price on carbon, has potential to affect competition between member states by creating a more favourable investment environment for CCS projects taking place in the territory of those states where the Member State intervenes.

Additionally, in a scenario of an increasingly rising price on carbon, or where the necessary regulatory framework is put in place to compel CCS on power generation, Member State involvement in financial securities could be seen as affecting competition between different sources of electricity production.

3.1.4 Conclusions on characterizing Member State involvement as state aid

Thus, we conclude that many of the most attractive forms of Member State involvement in financial securities discussed in this report will be, or are very likely to be characterized as state aid, and will therefore be required to be notified to the Commission for its assessment of compatibility with the internal market. Certainly this is true of Member State re-insurance, and is *likely* to be true of many examples of Member State guarantees or pooled funds required or administered by the State, even, when the advantage conferred is equal to all CCS operators in that country and confers equal advantage on all CSS operators. Having reached this conclusion, this report will now examine whether various options should be assessed as permissible by the Commission. While the default position is that state aid measures are incompatible with the internal market, the principle of incompatibility does equate to an absolute prohibition. The treaty provides a number of instances in which state aid shall or may be considered compatible. Community guidelines have, over time, defined both block exemptions and guidelines informing the Commission's assessment of the compatibility of notified measures with the internal market.

3.2 Legality of state aid – exceptions, compatibility with state aid rules

The European Commission is responsible for the assessment of whether state aid measures are permissible and compatible with the internal market. Pursuant to article 108(3) of the TFEU, Member States are required to notify the Commission of measures which may constitute state aid. Member States are not permitted to proceed with a measure until a final decision has been made by the Commission. The Vademecum on state aid, citing Regulation EC 794/2004²², sets out the timing and procedural aspects associated with notifications and assessments.²³ For measures not exempt from notification under the General Block Exemptions Regulation, Member States must notify planned measures to the Commission via their permanent representation. In the event that the notification information is incomplete, the Commission will request additional information, which the Member State has 20 days to provide. The Commission will assess the proposed measure within 2 months of receiving all the information it requests. If the Commission decides not to raise objections, Member States

²² Regulation No. EC 794/2004 implementing Council Regulation (EC) No 659/1999 laying down detailed rules for the application of Article 93 of the EC Treaty

²³ European Commission, Vademecum, Community Law on State Aid, 30 September 2008, at 14

will be free to implement the measure. If the Commission doubts the compatibility of the measure with the internal market, a formal investigation will occur resulting in a final decision by the Commission, which may involve placing conditions on the application of the measure.²⁴ The very maximum timeframe foreseen for this investigation process is 18 months, and final decisions being subject to review by the ECJ.

In addition to the financial security measures put forward in this report, investment aid, including where Member States utilise NER300 funding under the EU ETS Directive will be required to be notified and cleared by the Commission. While the Commission's decision is final, in exceptional circumstances the European Council is empowered to override the Commission's assessment, however this requires a unanimous decision of the Council. (Art 108(2)).

The Treaty provides that some categories of state aid either will, or may, be deemed compatible with the internal market and allowed as exceptions to state aid rules. As one pertinent example, article 107(2)(c) TFEU states that provides that 'aid to facilitate the development of certain economic activities or of certain economic areas, where such aid does not adversely affect trading conditions to an extent contrary to the common interest' may be compatible with the internal market. The exemptions are either located in the General Block Exemption Regulation, or assessed on a case by case basis informed by various Commission guidelines on state aid.

3.2.1 General Block Exemption Regulation

The Union is empowered to make regulations exempting certain categories of state aid from the requirement to be notified to the Commission (art 109 TFEU). No form of state aid for CCS is currently included in the general block exemptions. A future option is that Commission includes certain forms of Member State contribution to CCS financial securities within the general block exemptions, and thus exempt from the requirement to notify the Commission. This option would provide the highest legal certainty for Member States and the CCS industry.

Article 18 of the General Block Exemption Regulation is entitled *Investment Aid Enabling Undertakings to go Beyond Community Standards for Environmental Protection or Increase the Level of Environmental Protection in the Absence of Community Standards*. However, a number of problems exist in making a persuasive argument that this is capable of capturing the scenarios at hand. Arguably, state aid in the forms considered in this report would enable CCS undertakings to increase the level of environmental protection as there do not exist any Community standards for CO₂ emissions from the power sector. However, even if all the requirements of article 18 were satisfied, Member State involvement in financial securities is not 'investment aid' in the ordinary sense of the term. Whilst there is no legal definition of investment aid in the General Block Exemptions to provide a definitive answer to this question, we consider that the Commission would likely determine a material distinction between investment aid, and aid in the form of contributions or guarantees on financial securities for the purposes of liability. Combined with the fact that neither the General Block Exemption Regulation nor the Community guidelines mention CCS, (and indeed the

²⁴ European Commission, *Vademecum, Community Law on State Aid*, 30 September 2008, at 15

environmental guidelines specifically state that it is too early to formulate guidelines for such aid) it is clear that the legislator's intent was not to include CCS state aid within the General Block Exemption.

In reality, we acknowledge that it is likely that the Commission would first choose to amend the guidelines on state aid for environmental protection, or include Member State involvement in CCS financial instruments in the upcoming supplementary guidelines on state aid for certain ETS –related activities. In the absence of a measure appearing within the General Block Exemption, measures will be required to be notified to the Commission who will assess their compatibility with the internal market according to the procedure and timelines previously outlined. This assessment is informed by various guidelines on exemptions to state aid rules permitted under the treaty, including the Guidelines for state aid for Environmental Protection.

3.2.2 Guidelines for State Aid for Environmental Protection

State aid for CCS activities is expressly not currently included in the Community Guidelines on state aid for Environmental Protection. However, the guidelines do state that:

*Given the strategic importance of this technology for the Community in terms of energy security, reduction of greenhouse gas emissions and achievement of its agreed long-term objective to limit climate change to 2 °C above pre-industrial levels and given also the Commission's stated support for the construction of industrial-scale demonstration plants up to 2015, provided that they are environmentally safe and contribute to environmental protection, **the Commission will have a generally positive attitude towards State aid for such projects.***²⁵ (emphasis added)

ClientEarth considers that it is now time to include CCS aid within the Environmental Guidelines. However, as CCS activities are currently expressly excluded, the Commission will have to undertake its own balancing test on a case by case basis until such a time as member state involvement in CCS financial securities is anticipated in state aid guidelines.

3.2.3 Methodology used in state aid assessments – guidance for assessment of CCS financial security aid

The issue of state aid for CCS projects has already come before the Commission in the context of investment aid in a number of instances. As previously examined, the Guidelines on state aid for environmental protection state that CCS aid would likely be assessed under ex art 87(3) b) or c), Treaty of the European Community, now article 107(3)b) or c) of the TFEU. These provisions read as follows:

107) 3) b)

aid to promote the execution of an important project of common European interest or to remedy a serious disturbance in the economy of a Member State;

c)

²⁵ European Commission, Community Guidelines on State Aid for Environmental Protection, (2008/C 82/01)

aid to facilitate the development of certain economic activities or of certain economic areas, where such aid does not adversely affect trading conditions to an extent contrary to the common interest;

UK state aid for CCS demonstration study

In the UK CCS Demonstration study case, the UK notified the Commission of aid under subsection c). This case concerned aid for undertaking technical feed studies. The measure would have come in the form of a direct grant and clearly constituted state aid. The Commission stated that in order for the aid to be compatible with subsection 107)3) c) "an aid must pursue an objective of common interest in a necessary and proportionate way."²⁶ In its reasoning, the Commission analysed a number of questions in order to determine whether the measure met this criteria.

It concluded that CCS was an objective of common interest in the Union generally, reiterating its importance for the environment in reducing CO2 emissions, citing the recital in the guidelines on state aid for environmental protection indicating that the Commission will generally take a positive attitude to state aid for CCS projects, and that the FEED studies would assist to make CCS safer.²⁷

In addition to questioning whether the objective was one of common interest, the Commission questioned the following:

- Whether the measure was well designed to meet its objectives, including:
 - Whether there are any better placed instruments?
 - Is there an incentive effect? Does it change behaviour of firms?
 - Is the aid proportional?
- Are the distortions of competition and effect on trade limited, such that the overall balance is positive?

Thus it can be seen that the form and design of member state involvement in financial securities, or other approaches to liability that may entail state aid, will be scrutinised by the Commission and may have a bearing on the decision of whether or not it is permissible. Alternative options may be considered in the Commissions' assessment. In the UK CCS FEED study case, the Commission noted that that the UK could have established the necessary regulatory environment by making CCS mandatory as an alternative to granting aid for CCS demonstration. Making CCS mandatory would overcome the current barriers to implementation by encouraging much larger amounts of private sector investment from the fossil fuel sector that may make it easier to meet financial security requirements. However, the Commissions acknowledged that the EU has not itself made the decision to make CCS mandatory and thus it could not be expected as an alternative.

²⁶ European Commission, *State aid N 74/2009 – United Kingdom CCS Demonstration Competition – FEED*, Brussels, 8.04.2009 C(2009) 2480 final at Point 27

²⁷ European Commission, *State aid N 74/2009 – United Kingdom CCS Demonstration Competition – FEED*, Brussels, 8.04.2009 C(2009) 2480 final at Point 28

In defining whether the incentive effect exist, the Commission stated that “ *state aid* provides an incentive effect ***if the aid changes the recipients' behaviour towards reaching the objective of common interest.***²⁸” The Commission’s Vademecum on state aid rules describes the incentive effect in the following terms:

*Is there an **incentive effect**? Does the aid change the behaviour of the beneficiary? The beneficiary should, as a result of the aid, engage in activities that it would (i) not carry out without the aid at all or (ii) carry out only in a restricted or different manner. The aim is to avoid State aid for an activity which the company would undertake in any case, even without the aid, in the same extent (e.g. a training which the company would have to do for its employees in any case in order to operate).*

In a situation where inability to secure financial security for uncertain ETS liability is a genuine obstacle to CCS deployment, it may well be the case that without it, either CCS will not occur at all, or it will occur in a more restricted manner, such as fewer sites or with smaller storage capacity per operator, thus reducing the scale of required financial security.

While on the one hand state aid in the form of contribution or involvement in financial securities can be seen as assisting operators to fulfil obligations that would have already been required to do under the CCS Directive in order to operate (regulatory compliance), we consider that such an argument relies on an overly narrow interpretation of incentive principle, and one that is not in line with the Commission’s previous reasoning such as in the CCS UK FEED study case.

It must be recalled that there are no mandatory CO₂ standards for EU power, nor any legal requirement in the CCS Directive that compels CCS to occur at all. The Commission’s broad definition in the UK FEED study state aid case linked the incentive *with the objective of common interest*. In the case at hand, the objective of such a measure would be to overcome the negative externality of commercial insurers and third party funders being unwilling to cover uncertain ETS liabilities (a market failure), thereby jeopardising prospects of CCS demonstration and deployment commencing on timescales necessary to save the planet. It will fall to the Member State to provide evidence that the private market was not capable of adequately providing necessary financial security to enable art 19 CCS Directive obligations to occur. If this is and other elements of the balancing test required for measures notified under subsection 107)3)c) are satisfied, we consider that the incentive effect should be regarded as fulfilled in most scenarios of Member State involvement in financial securities analysed in this report. As a measure that will enable more operators, or larger projects, this can only advance the overriding environmental objective of aggressively decarbonising the European power sector.

Proportionality raises some interesting implications for the form and scale of member state involvement in financial securities. The Commission has stated that a state aid measure is proportional “if the aid as such *is kept to the minimum* and if the beneficiaries are selected in

²⁸ European Commission, *State aid N 74/2009 – United Kingdom CCS Demonstration Competition – FEED*, Brussels, 8.04.2009 C(2009) 2480 final at Point 33

a non-discriminatory, transparent and open process.”²⁹ This calls into play the consideration of the *intensity* and *quantum* of Member State contributions or involvement. It is common in the general block exemptions and various state aid guidelines to specify maximum permissible aid intensities, such as x% of total cost. The proportionality and aid intensity requirements point to the conclusion that as regards insurance, a scenario of member state acting as re-insurer or re-insurer of last resort is more compatible with state aid rules, and various policy rationales.

Member State re-insurance – Commission state aid approval of Danish Terror re-insurance scheme³⁰

The issue of compatibility of Member State re-insurance has come before the European Commission in the context of insurance for terrorist damage. The analogy to CCS liability is appropriate given the difficulties and uncertainties in quantifying extent of liabilities. In 2008, the Danish government responded to a market failure in the insurance industry and adopted its Terrorism Insurance Act 2008, which sought to provide a solution to the then inadequate coverage by setting up a combined private/public intervention. The scheme was designed such that the Member State only stepped in to the extent that the international re-insurance market did not have sufficient re-insurance capacity.

The risk premium is adjusted according to the Danish government’s updated assessments of risk. This is similar with the requirement in article 19(2) of the CCS Directive 2009 for financial securities to be adjusted over time. In the scheme, the insurance industry always remain liable for the first 2 billion Danish krone worth of damages. The scheme contained a ‘claw back’ element, such that in the event of a terrorism attack before the fund from accumulated premiums reached a threshold amount, the excess of damage would have to be paid by *all* policy holders, thus protecting the tax payer while distributing risk. However, it may be necessary to distinguish this approach from appropriate ways of structuring financial instruments under the CCS Directive in so far as a much larger pool of policy holders exists in the case of terrorist damage cover. It may be more difficult to completely shield the Member State from risk in the case of CCS. However, the Danish approach provides a useful possible drawing board and will be revisited further in this report along with other analogous approaches.

In conclusion, ClientEarth considers that, as regards Member State insurance, Member State *re-insurance* has potential to be designed in such a way as to satisfy the proportionality requirement more easily than a situation of Member State acting as primary insurer and assuming all risk as flagged by the Commission in the stakeholder response. Member State transfer of state resources should be kept to the minimum necessary to overcome the current market obstacle arising largely from an uncertain future price on carbon. Member State acting as reinsurer or reinsurer of last resort will enable the commercial insurance market to provide coverage for CCS liability and spread risk between the private market and the Member State. This may be preferable to a scenario where the Member State assumes all the risks, as this

²⁹ UK FEED study case, paragraph 37.

³⁰ European Commission, State Aid N 637/2009– Denmark, *Danish Terror Insurance Scheme 2009*

avoids subjecting the full potential costs to the Member State. Potentially, re-insurance could also be designed with an exit strategy such that, over the long term, the Member State decreases its involvement for new CCS contracts in light of increased empirical data and increasing confidence from the private insurance sector. In this manner, an exit strategy could be designed within the terms and structure of the financial security provided.

Other forms of Member State involvement, such as trust funds or guarantees also have potential to satisfy state aid exemptions provided they meet the criteria previously discussed. This report will now draw on other spheres of law to discuss and illustrate possible approaches to structuring financial security instruments in light of the conclusions on state aid, and the environmental, safety and commercial objectives implicit in the CCS Directive.

4. Approaches to Structuring Financial Security Instruments

It is important to present Member States and operators with the maximum number of acceptable instruments and approaches to meeting financial security obligations. Draft Guidance Document 4 currently identifies a number of potential financial instruments and approaches. These include deposits to Competent Authorities, irrevocable trusts, escrows, bank and commercial guarantees, commercial insurance, or forms of self-assurance. These are a valuable starting point. However it is essential to identify and evaluate the full range of acceptable instruments and approaches, informed by careful consideration of overcoming a number of commercial barriers already identified by the Commission.

This report focuses on two main new options in Guidance document 4. The first is Member State re-insurance, whereby a Member State either acts as reinsurer of last resort, or as reinsurer for discrete risk or risks in exchange for premiums. Such discrete risks could be limited exclusively to assistance to meet ETS liability requirements where the price of carbon rises above a certain level, or for damage above a certain threshold sustained by natural disasters. The second involves Member States requiring or operationalising pooled funds that may comprise payments both from CCS operators and levies from, for example, the fossil fuel sector, who will ultimately benefit and be required to utilise CCS in order to proceed. In reality, given the small number of CCS operators and the objective of shielding tax payers, the preferred approach to member state involvement in financial securities may ultimately be re-insurance coupled with a pooled fund. If co-responsibility between Member States and operators in financial security instruments is to be pursued, this may represent one approach that should be assessed as compatible with state aid rules.

Resulting from the analysis previously put forward in this report, in addition to the general considerations put forward in Guidance Document 4, we suggest the following criteria guiding optimal design of a system of co-responsibility between Member States and operators:

- The scale and method of government intervention must be proportionate to the objective in order to satisfy state aid rules. This means that the Member State intervention should only be at the minimum extent necessary to allow the market to provide sufficient financial securities to enable CCS to proceed.

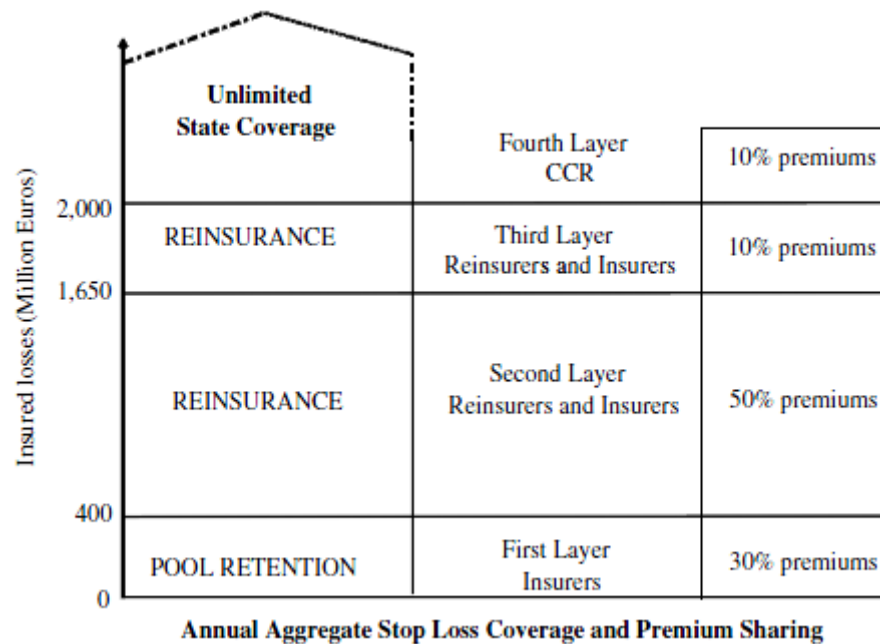
- The objective of shielding the tax payer should inform the design of a system of co-responsibility and the spreading of financial burden. This objective favours coupling re-insurance with a fund, which could be financed by levies on certain sectors or subsectors as well as CCS operators. Exit strategies for MS involvement should be considered or built in.
- To satisfy objectives of non-discrimination and minimising effect on trade between member states could be achieved by opening up eligibility for MS involvement for all companies planning CCS in the territory of the Member State.
- Pooling funds can spread financial burden. Given the fact that there are likely to be a small number of CCS operators in each member state in the early years, and that pooled funds from levies take time to accumulate, it may be necessary to expose the Member State to risk in the short term. This may be mitigated to some extent by linking levies with actual amounts of CO₂ stored, such that operators pay a levy towards a pooled fund of, for example a certain amount of money per tonne of CO₂ injected.
- In a scenario of several instruments comprising the financial security (for example, trust funds coupled with primary commercial insurance backed up by Member State re-insurance) certain risks may lend themselves more to particular types of security than others. For example, funds to purchase ETS allowances in the event of leakage do not require the same degree of liquidity as financial security for other obligations, such as to take corrective measures, which for environmental and safety reasons must be instantly available.
- In a situation of pooled funds financing member state re-insurance in the event of damage above a certain threshold, or in the event the price on carbon rises above a certain level, it *may* be acceptable to base the magnitude of the total pooled fund on notions of cumulative probability
- Ensure legal liability and incentives for regulatory compliance and best practice is maintained for safety and environmental integrity of CCS projects.

This section will first present examples of Member State re-insurance in the context of terrorism damage. It will then draw on IMO examples of pooled funds drawn upon in the case of liability for damage offshore damage.

4.1 France – public-private partnership for re-insurance in the case of terrorist damage

The GAREAT (*Gestion de l'Assurance de la Reassurance des risqué attentats et Actes de Terrorisme*) is a national pool of co-re-insurance for damage resulting from terrorist damage based on a public-private partnership, or system of co-responsibility. It was created through an agreement signed in 2001 between the French government and the two major representative institutions of the French insurance market—FFSA and GEMA. It became the first post-9/11 terrorism liability pool.

GAREAT is a re-insurance scheme organised under a four-tier structure of risk sharing operating under an aggregate annual excess of loss basis.³¹ The State steps in as a re-insurer of last resort to enable the private market to function.



Source: Erwann Michel-Kerjan and Burkhard Pedell, *Terrorism Risk Coverage in the Post-9/11 Era: A Comparison of New Public-Private Partnerships in France, Germany and the U.S.*, The Geneva Papers on Risk and Insurance – Issues and Practice, 2005, 30, p. 144-170, available at <http://grace.wharton.upenn.edu/risk/downloads/archive/arch58.pdf>;

The figure shows the structure of the GAREAT as of 2004. The first layer (aggregate capacity of €400m) aggregates the risk among all members of the pool through a system of co-re-insurance. Members share losses proportional to their respective share in the section in question. The second and third layers are made up of reinsurers and some insurers that also participate in the first layer. The fourth layer is an unlimited guarantee by the French government provided through the *Caisse Centrale de Reassurance* (CCR), a state-owned insurance company.

The premiums levied by insurers are transferred to GAREAT and shared. GAREAT keeps approximately 30%, the second layer 50%, the third 10%, the government nearly 10%. Terrorism insurance coverage is mandatory for all firms above a certain threshold in France, so every firm is covered by its insurer, which can then be reinsured by GAREAT if the risk is eligible for coverage. This way the system offers a combination of major risks insured by the pool and normal market capacity for simple risks. The pool is divided into two sections: large risks (starting from €20m) and small-medium sized risks. The structure is similar for both

³¹ GAREAT, *2010 French Terrorism Schemes*, February 2010, presentation available at [http://www.gareat.com/gareat/rtaccueil.nsf/de4b19c7dfe08585c1256bd500387728/9f0911dc4569253dc125746e005a0dfc/\\$FILE/GAREAT%202010%20RE-INSURANCE%20PRESENTATION%20%20FEB%202010.pdf](http://www.gareat.com/gareat/rtaccueil.nsf/de4b19c7dfe08585c1256bd500387728/9f0911dc4569253dc125746e005a0dfc/$FILE/GAREAT%202010%20RE-INSURANCE%20PRESENTATION%20%20FEB%202010.pdf)

sections. However, unlimited state guarantee only applies across the board to the large risk section and for policies for which coverage is mandatory by law. Other risks are covered on a case-to-case basis and subject to limits. Re-insurance rates by GAREAT are calculated independently of the terrorism insurance premiums charged by its members under the contracts used by them. Instead, they are calculated as a function of the size of the risk.

The pool was initially set up for one year only, but has been extended and is still operational. The total number of layers however varies over the years. The 2010 scheme is made up of 7 layers for the large risks section and of 4 layers for the small-medium sized risks section, plus the unlimited state coverage. For the CCS context, it is noted that Member State re-insurance need not necessarily be designed according to layers and ceilings of overall damage, but could be restricted to particular risks (such as ETS liability where price on carbon rises above a certain level, thus hedging the risk.)

4.2 United Kingdom re-insurance for terrorist damage – ‘Pool Re’

Pool Re-insurance Company Limited³² is a bona fide mutual re-insurance company formed in 1993 by the ABI and legislation³³ from the British Government following a series of terrorism incidents in the 1990s. Insurers and reinsurers began to refuse to offer protection against the risk of terrorism due to the high potential cost of losses and the lack of any reliable method of estimating such future losses. In the UK scheme, in the event of a policyholder suffering a loss from an ascertained terrorist act falling within the statutory definition in the Re-insurance Act,³⁴ the insurer will sustain the losses up to a certain threshold. Beyond this threshold, the loss will be borne by Pool Re, thus spreading the risk over the whole insurance industry taking part in the mechanism. Should the funds of Pool Re be insufficient, it will then draw funds from the UK government to meet its obligations. Insurers taking part in Pool Re pay a premium for the cover it offers; Pool Re, in turn, pays a premium to the UK government for its cover and is liable to repay any funds drawn from its future income.

The protection offered to the policyholder is made up of different layers. The first layer of additional protection is the excess on the underlying policy. The second is a £100,000 cover per policy section provided directly by the insurers (without re-insurance) for damage caused by terrorism; this threshold means that insurers continue to bear the risk of the insurance cover offered to small businesses. The successive layers of protection are offered by Pool Re. If a company wishes to purchase additional cover from Pool Re, then it must purchase the cover for all property, —it cannot choose only high-risk property. Premiums are determined following criteria typical of most insurance agreements (e.g. value of property, location, target risk). If the premiums paid to Pool Re are insufficient to cover the losses caused by a terrorist attack, then an additional 10% call is levied on the member insurers in the pool. Beyond this amount, the UK government acts as a reinsurer of Pool Re—that is, as a retrocessionaire, or reinsurer of last resort. The participation of the British Government means that theoretically, part of the cost of re-insurance is spread throughout the whole British

³² See generally <http://www.poolre.co.uk/>

³³ United Kingdom, *Re-insurance (Acts of Terrorism) Act 1993*

³⁴ United Kingdom, *Re-insurance (Acts of Terrorism) Act 1993*, article 2(2)

economy. This need not however, necessarily be the result of Member State re-insurance. We consider that new levies or taxes on various sectors could establish a fund which couples and feeds potential, which could be funded by new levies or taxes. Additionally, and perhaps more appealing, ETS auctions revenues from phase 3 of the EU ETS could be directed to generate critical mass for capital without burden on tax payers. Where this fund accumulated over time to exceed the highest possible assessed risk, excess moneys could potentially be returned to operators. Re-insurance will be given effect by careful design of policies and premiums, and may entail new legislation (for example to establish levies).

4.3 International Convention on Civil Liability for Oil Pollution Damage 1969 - Pooled funds and pooled insurance

The International Convention on Civil Liability for Oil Pollution Damage 1992³⁵ (CLC) was originally adopted in 1969 to ensure adequate compensation to persons who suffer oil pollution damage resulting from maritime casualties involving oil-carrying ships. The international regime was completed by the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage and the International Oil Pollution Compensation Supplementary Fund. Various Protocols to the CLC have been adopted since its inception, most notably the 1992 Protocol (extending the scope of the Convention and raising the liability limits)³⁶ and the 2000 Amendments (again raising the liability limits). The ships covered by the Convention are required to maintain insurance or other financial security equivalent to the owner's total liability for one incident. A de minimis rule exempts smaller vessels from compulsory insurance.

The regime comprises three tiers of liability. The first tier consists of the ship-owners liability and its insurance, which is compulsory for vessels above a certain tonnage.³⁷ The ship owner's insurance is normally provided by a protection and indemnity association, known as a P&I Club. The second tier is made up by the Fund, with an obligation to pay where the ship-owner is exempt, financially incapable (and insurance insufficient), or the damage exceeds

³⁵ International Convention on Civil Liability for Oil Pollution Damage (1992)

³⁶From 16 May 1998, Parties to the 1992 Protocol ceased to be Parties to the 1969 CLC due to a mechanism for compulsory denunciation of the "old" regime established in the 1992 Protocol. However, for the time being, the two regimes are co-existing, since there are a number of States which are Party to the 1969 CLC and have not yet ratified the 1992 regime—which is intended to eventually replace the 1969 CLC.

³⁷ For incidents occurring on or after 1 November 2003, the maximum payable by the ship-owner for a small ship is 4.5 million SDR (US\$7.1 million). The maximum for a large ship is 89.8 million SDR (US\$140.4 million).

the ship-owner's liability. Finally, the third tier consists of the Supplementary Fund.³⁸ So far no incidents have occurred involving the Supplementary Fund.³⁹

Protection and Indemnity 'clubs' are common interest group poolings of the risks of individual operators in order to obtain insurance cover. The UK P&I Club,⁴⁰ for example, is a non-profit mutual owned by its insureds. As such, it does not aim to make a profit and thus provides coverage at lower cost than fixed premium insurers. The ultimate control of P&I Clubs is in the hands of the ship-owner assureds, through elected ship-owner boards/committees which decide policies on e.g. scope of cover, claims payments, premium calling etc. P&I Clubs regularly pass back to the ship-owner the benefit of a good underwriting year through reduced or returned premiums.

As regards the CCS industry, it is true that the low number of CCS operators makes an adequate pooling difficult in the early years and until such a time as CCS becomes mandatory in some or all Member States. However, the P&I Clubs and their international organizations provide a possible template that could be used in the CCS sector. By grouping together all the CCS operator acting on the (national or, better) international level, re-insurance would be much easier to obtain. Moreover, it would come at lower cost and higher capacity.

The second tier, the pooled Fund, is organized at intergovernmental level and financed by levies on certain types of oil carried by sea. The levies are paid by oil-receiving entities after the oil has been transported,⁴¹ and normally not by States.⁴² Pooled funds could also be useful in the design of a system of co-responsibility for CCS financial securities. The Funds may also be a useful template for the CCS sector. The fund's assets could be provided by means of a levy on the operations of CCS installations, potentially coupled with a carbon tax on other industries and government support.

4.4 Environmental Liability Directive

The CCS Directive amended the Environmental Liability Directive⁴³ to include CCS sites within its scope. Financial security under the Environmental Liability Directive does not present a

³⁸ The maximum payable by the 1992 Fund for any incident occurring on or after 1 November 2003 is 203 million SDR (Special Drawing Rights, equivalent to approximately US\$317.5 million). The maximum amount payable by the Supplementary Fund for one incident is 750 million SDR (US\$1,173.1 million), less the compensation paid by the ship owner and the 1992 Fund.

³⁹ The Funds' intervention is conditional on the State affected by the damage being member of the Fund. The USA are not part of this international regime, having a system of their own, which is based on unlimited liability.

⁴⁰ UK P&I Club webpage: <http://www.ukpandi.com/>

⁴¹ More specifically, the Funds are financed by contributions paid by any entity which receives, in a calendar year, in excess of 150 000 tonnes of crude oil or heavy fuel oil (contributing oil) in ports or terminal installations in a Member State, after carriage by sea.

⁴² Normally, States do not pay any contributions. However a State can choose to pay the contributions instead of the individual receivers if it wishes, but only a few States have chosen to do this. Where the aggregate quantity of contributing oil received in a Supplementary Fund Member State in a given calendar year is less than one million tonnes, that Member State will be liable to pay contributions for a quantity of contributing oil corresponding to the difference between the aggregate quantity of actual contracting oil receipts reported in respect of that State, and one million tonnes.

⁴³ Directive 2004/35/EC

particularly useful template for a number of reasons. By way of comparison to the CCS Directive, the Environmental Liability Directive does not oblige operators to take out financial security but requires MSs to 'take measures to encourage the development of financial security instruments and markets.' Some Member States, however, have introduced a system of compulsory financial security.⁴⁴ Recent market reports show that operators have little knowledge of their environmentally-related liabilities under the Environmental Liability Directive⁴⁵. For those wishing to cover environmental risks, however, insurance has often been the preferred choice. A number of policies appear to be available on what has been described as a growing and competitive market. The upper limits of liability for the insurance products available range from €1m to €25m. The majority of insurers believe these limits may be renegotiated in the future, when more information on ELD claims become available. Some studies determine that lack of interest from operators is considered to be the biggest obstacle to the further growth of the market, rather than high premiums or uninsurability of risks.⁴⁶

4.5 Conclusions: new options for structuring financial security instruments that should appear in Guidance Document 4.

A scenario of Member States assuming full financial risk is unnecessary and at odds with the polluter pays principle, the objectives of the CCS Directive, and the proportionality principle in state aid law. Even allowing for the fact that the amounts of injected CO₂ may begin in a small way and grow over time, it is unlikely that some options identified in draft Guidance Document 4 will be viable for most operators in the absence of complementary measures. Tiered or hybrid approach may be necessary and Guidance Document 4 should anticipate and discuss a range of options for Member State involvement such as those analyzed from a legal and policy perspective in this report including:

- Member State re-insurance policy. There are many ways to structure this. One option could be that Member State re-insurance coverage is only for ETS liability in the case where the price of carbon rises above a certain threshold projected, for example, from now until 2050. Another is for the Member State to cover overall damage above a certain ceiling, thereby enabling the private insurance and re-insurance market to offer CCS liability policies. Policies could be designed, as in the Danish Terrorist Re-insurance example, with an exit strategy for Member State involvement once premiums paid to private insurers and reinsurers reached a certain total threshold, or according to other criteria demonstrating the efficient operation of the CCS insurance market. Alternatively, to ensure shielding tax payers, Member State re-insurance could be coupled with a levy on CCS operators or, for example, the power sector to compensate for the fact that in the early years of CCS deployment premiums paid by operators are unlikely to be sufficient. Re-insurance could be designed to provide long

⁴⁴ These include Hungary, Romania and Slovenia. By 2010, Greece, Portugal and Spain; by 2011, Bulgaria; by 2012, Slovakia; by 2013, Czech Republic.

⁴⁵ European Commission, *Study on the Implementation Effectiveness of the Environmental Liability Directive (ELD) and Related Financial Security Issues*, November 2009, at page 57

⁴⁶ Ibid.

term cover by Member States for damage above certain thresholds or for discrete risks.

- Requirement to establish a pooled state administered fund with the operator contribution to the fund comprising the financial security. The modalities for calculating the scale of the fund could include notions of *cumulative probability*. Where the probability of two independent events occurring within a given timeframe is lower than just one happening.

One of the primary objectives of the CCS Directive is to ensure that the technology proceeds in a safe manner. It may be more in keeping with the objectives of the Directive to envisage a situation where Member State only accepts part of the risk, such that adequate incentives remain for operators to proceed with utmost caution. However, as discussed a variety of other checks and balances, including the requirements of the storage permit, will hold safety in check. Additionally, complete risk transfer may fail the proportionality element of the balancing test undertaken by the Commission to determine whether or not a state aid measure can be deemed compatible with the internal market.

In the case of Member State acting as insurer, either through a public insuring entity or by other means, operators would pay premiums in exchange with either full or partial risk being transferred to the Member State. For the purposes of legal liability of the CCS and ETS Directives, this is no different to a situation of commercial insurance, where legal responsibility remains with the operator but financial responsibility and risk being transferred to the insurance company in exchange for premiums. The underlying policy rationale however, does distinguish the scenarios of Member State insurance from commercial insurance. The objective of minimising Member State involvement and avoiding placing the burden on tax payers is one such factor. For these and other policy reasons, we consider that Member state acting as reinsurer of last resort could be more promising, more in keeping with the objectives of the CCS directive, and more in line with the proportionality principle as discussed in section 3 of this report. A situation of member state acting as re-insurer may also be preferable in so far as this would encourage commercial and re-insurance insurance market to adjust to CCS liability market. Member state re-insurance could itself be designed with a ceiling, (sufficiently high such that prospect of damage exceeding is negligible), or could be unlimited.

A fundamental distinction between CCS liability and other insurable assets relates to the indeterminate and uncertain nature of the future price on carbon. If financial security could be structured in such a way such that Member States act as reinsurers only where the price of carbon rises above a certain defined figure (which could be enshrined in legislation/policy to ensure uniform and non-discriminatory terms in financial security contracts entered into with operators) this may solve many problems and represent an important step forward in enabling the rapid deployment of CCS technology.

5. Scope for using storage permits to provide greater predictability to future operator contributions to financial security based on risk-based approaches

The decision of the Competent Authority as to what is the required magnitude of financial security will automatically an assessment of risk. Article 9 of the CCS Directive contains a *non-exhaustive* list of the contents of storage permits. One of these requirements is the requirement to establish and maintain financial security or any other equivalent pursuant to article 19. The UK regulations transposing key elements of the CCS Directive list financial security provisions within the contents of the storage permit in Regulation 8. There is no reason why this requirement could not be expanded so as to provide conditions or formulae measuring risk in such a way as to link either with the total required size of financial security, or with the structure. For example, conditions stipulating that that member state re-insurance, or other type of Member State guarantee only became activated in the event that the price on carbon rose above a certain distribution, or the risk of accident as assessed by the competent authority (which is required to update financial security requirements based on updated risk and total cost estimates over time.)

To satisfy the objectives of transparency and non-discrimination, it would be useful for all involved, including the private insurance market to be able to see such a formula or criteria for evaluating risk and magnitude of total required financial security appear in the storage permit. We imagine this would be likely to appear anyway. As previously discussed, we consider that, in a system of co-responsibility, probability of risk approaches are more appropriate in determining the required operator contribution and not the overall magnitude of the financial security, which must be sufficient to cover all estimated costs in a given time frame. In reality, an assessment of risk will always be undertaken by competent authorities, and the details of this balancing process is beyond the scope of this report. It suffices to say that in a situation of Member State intervention either above a certain ceiling or assuming responsibility for certain risks (such as where the carbon price rises above a certain level) it will be useful for storage permits to contain metrics of risks or other formula specifying when and how the Member State will become involved, and to assist private insurers in their evaluation process.

It may be appropriate for this section of storage permits to stipulate which low probability risks are to be excluded in the determination of the scale of the required financial security. Conceivably, in a situation where Member States pool funds, the determination of overall scale could be based on notions of cumulative probability reflecting the lower likelihood of certain independent events happening simultaneously over a given time frame compared to the likelihood of than one events occurring. However, such an approach must be taken with caution, as operators will remain liable for any damage exceeding the financial security, and liquidity of adequate funds is essential from an environmental and safety perspective.

6. Recommendations – Guidance Document 4 and Member State implementation of the CCS Directive 2009

Guidance Document 4 should be amended so as to identify and evaluate the full range of options that may be deemed acceptable approaches to implementing financial security obligations. It should draw attention to the distinction between legal liability and financial security obligations and the scope for a system of co-responsibility between Member States and operators that this allows. Where market failures constitute barriers to CCS deployment, it is incumbent upon the Commission to clear the path for Member State policy intervention to allow CCS to proceed, in ways that are consonant with the objectives and substantive requirements of the CCS Directive and other relevant spheres of EU law, namely state aid rules.

Whereas draft Guidance Document 4 currently does not recommend probability based approaches to determining scale of financial security, where the magnitude of total financial security is sufficient due to Member State contribution or involvement, then the objections to determining the scale of the operators contribution to the security on bases of probability distribution dissolve. Guidance Document 4 should be amended to reflect this.

In particular, Guidance Document 4 should be amended to include and discuss design considerations for 2 broad categories of member state involvement: Member State acting as reinsurer of last resort, and Member State establishment of CCS liability funds. Policy makers in Member States moving to transpose and implement the CCS Directive should give serious consideration to the need and desirability of these approaches, or find other solutions to known barriers. While draft Guidance Document 4 currently highlights the problems and uninsurability of ETS liability under the CCS Directive⁴⁷, it proposes no solutions to the problem. Assuming the ETS Directive is not amended so as to remove liability of CCS operators, the above scenarios of Member State involvement in financial securities present viable options to overcome these significant uncertainties.

Member State re-insurance can be designed as a proportional response that will allow the commercial insurance industry to provide cover, and may be designed with Member State exit strategies and coupled with funds during the early years of operation. Broad design options include the Member State providing long term cover either for total damage above a certain threshold, assuming financial risk for low probability risks such as natural disasters, or for discrete risks such as for ETS liability where the price on carbon rises above a designated threshold in a certain timeframe, or connected to post closure liability obligations. The re-insurance agreement may stipulate that Member State cover is unlimited, or, less desirably, up to a certain maximum ceiling only. Cover is in exchange for risk based premiums, typically passed on by primary insurance market, and thereby provide a secondary tier of risk evaluation holding safety in check via the alteration of premiums.

⁴⁷ European Commission, CCS Directive Implementation, Guidance Document 4, draft document for consultation, 18 June 2010, at page 7, ("the CEA has stated that "the purchase of emission rights in the case of leakage of CO₂ is an entrepreneurial risk and not a core line of business for the insurance industry." (CEA, *Tackling Climate Change: The Vital Contribution of Insurers*.)

National or EU wide CCS liability funds could be established on a voluntary basis with operators to facilitate spreading of risk based on notions of cumulative probability. In the early years of operation, these could contain a combination of operator and MS resources. The initial critical mass of Member State resources may be acquired by new fiscal measures such as levies on certain sectors, or by direction of existing revenue streams such as ETS auction revenues under phase 3 of the ETS Directive 2009. Pooling funds can spread financial burden. Given the fact that there are likely to be a small number of CCS operators in each member state in the early years, and that pooled funds from levies take time to accumulate, it may be necessary to expose the Member State to risk in the short term. This may be mitigated to some extent by linking levies with actual amounts of CO₂ stored, such that operators pay a levy towards a pooled fund of, for example a certain amount of money per tonne of CO₂ injected. Alternatively critical mass for funds may be generated by direction of existing revenue streams, such as ETS auction revenues under phase 3 of the EU ETS, with excess moneys returning to the Member State as operator contributions accumulate over time.

The objective of shielding the tax payer should inform the design of a system of co-responsibility and the spreading of financial burden. This objective may favour coupling re-insurance with a fund, which could be financed by levies on certain sectors or subsectors as well as CCS operators. The desirability of incorporating exit strategies for Member State involvement should also appear in Guidance Document 4.

In a scenario of several instruments comprising the financial security (for example, trust funds coupled with primary commercial insurance backed up by Member State re-insurance) certain risks may lend themselves more to particular types of security than others. Guidance Document 4 should make this distinction with greater clarity and note that, for example, funds to purchase ETS allowances in the event of leakage do not require the same degree of liquidity as financial security for other obligations, such as to take corrective measures, which for environmental and safety reasons must be instantly available.

We recommend that Guidance Document 4 contain greater attention to the potentially important role of the storage permit in connection with financial security obligations. Effective use of storage permits to enshrine risk assessment methodologies and factors can ensure legal liability and incentives for regulatory compliance and best practice is maintained for safety and environmental integrity of CCS projects. It can also help constrain future uncertainties posed by the requirement of the Directive for regulators to update financial security requirements over time. Furthermore, to satisfy the objectives of transparency and non-discrimination, it would be useful for all involved, including the private insurance market to be able to see such a formula or criteria for evaluating risk and magnitude of total required financial security appear in the storage permit.

In amending Guidance Document 4 to highlighting the potential for a scenario of co-responsibility between Member States and operators, it should also acknowledge and discuss state aid review. The document should give an indication that most forms of Member State involvement will constitute state aid and therefore require notification to the Commission. It should include identification of the guiding design criteria that will be considered by the Commission during state aid review. For example, to satisfy state aid rules, Member State involvement should be proportional to the market failure in order to satisfy state aid rules. This leads to the conclusion that Member States should

either only assume financial responsibility for certain discrete and uninsurable risks (for example, ETS liability where the price of carbon rises above a certain threshold, or for damage above a threshold caused by earthquakes or other natural disasters) or for the excess of overall damage above a certain threshold.

7. Recommendations – Upcoming Revisions to State Aid Guidelines

In light of the urgent and overriding Community objective of deploying CCS technology as very important tool in fight to reduce greenhouse gas emissions, it is time to include a variety of CCS state aid measures within state aid guidelines. Currently, the guidelines for environmental protection specifically exclude CCS, but contain a faint 'green light' by stating that the Commission will generally take a favourable approach to CCS state aid.

In addition to the need to promulgate guidelines for investment aid, such as has already come before the Commission in a number of assessments, it is necessary for state aid guidelines to anticipate and guide state aid in the form of contributions or involvement in financial security requirements under article 19 of the CCS Directive.

Such discussion may contain guiding criteria of factors concerning design approaches, what is permissible in light of the substantive requirements and general objectives of the CCS Directive and other legal instruments. It should also contain discussion of the need for Member State involvement to be proportional to the benefit it seeks to confer. If appropriate, an indication of maximum aid intensities may be provided, (for example the split between operator and Member State contributions to total financial securities in a scenario of combined public/private funds, or thresholds for cover in a scenario where Member State acts as a re-insurer of last resort in exchange for premiums.)

The most logical location for these necessary amendments would be the Community Guidelines on State Aid for Environmental Protection. However, as these are not currently scheduled for review, ClientEarth highlights that the upcoming supplement on state aid anticipated under the ETS Directive is also a viable option. This would likely require broadening the scope of the anticipated ETS supplement. Being guidelines, there are no legal obstacles to broadening the scope of these guidelines to include state aid under both the ETS and CCS Directives. This option should be seriously considered.