

Response to HM Treasury by Technology Initiatives Ltd

Carbon Capture and Storage: a consultation on Barriers to commercial deployment.

1.7 This paragraph somewhat underestimates the present status of individual CCS technologies – these are mature enough to allow the practice of CCS now as is already happening – where development is still required is more in the integration of the individual technologies.

CCS needs a level playing field in fiscal terms with other alternative energy technologies such as renewables especially wind if its introduction is to proceed in a timely manner to assist significant reduction in emissions.

1.31 A key commercial barrier to the commercial adoption of CCS is the large mismatch between the timescale over which there will be a clear market pricing mechanism for CO₂ within the limited time of the EU-ETS scheme and the significantly longer time scale that pertains to the investment in new fossil-fuelled power plant where the plant design lifetime is 30-40 years.

1.34 CCS means capture into geological storage. Thus in terms of options open for the “storage “ phase of CCS it is important to add the term geological – some countries still regard deep ocean storage as an acceptable option – this is firmly not the case with major end-users and regulators including the EU, having rejected this option on the grounds of unacceptable environment impact. It is also the option most likely to engender very significant public and NGO hostility.

1.35 It is felt there are significant benefits to the UK in terms of early adoption in terms of experience gathering that would benefit UK contractors elsewhere.

There are no perceived skills gaps specific to CCS beyond the large general issues of declining & ageing engineering and technical workforce prevalent across a number of strategic sectors of the UK. However these general issues do apply to CCS.

1.41 – The long term liability implications of CCS are incompatible with the timescales of commercial enterprises accordingly they are unlikely to be countenanced. It is thought that Government should accept the ultimate overall long term storage liability for CCS storage sites in a manner analogous to nuclear waste storage arrangements in many countries. Failure to put such guarantees in place is likely to be a very significant barrier to commercial CCS adoption. These sites should be managed by competent organisations several of which are preparing for this business opportunity.

Public acceptance of CCS is a delicate issue, on which a number of groups are working to improve the availability of non-propaganda but technically informed communication materials. The major involvement of senior NGO organisations within the European ZEFFTP working groups is seen as a critical step to a sensible debate.

1.43 The cost of gas-generated electricity cited in Table 1 for the 2020 case looks to be a significant underestimate given the emerging large gas supply /demand imbalance in the UK coupled with the loss of UK self-sufficiency.

1.48 The use of CO₂ for EOR is appropriate for the UKCS and should be promoted by fiscal incentives as it is beneficial in terms of overall UK resource utilisation. Providing incentives for EOR with CCS will not only kick-start the CCS industry but

also lengthen the lifetime of many North Sea fields and their infrastructure permitting satellite developments and reducing hydrocarbon import requirements, postponing abandonment.

The volumes of CO₂ from fossil fired power stations are liable to be insufficient for large scale EOR and infrastructure in the form of a gas –gathering pipeline system, will be required.

1.54 The current UK policy framework is simply NOT positive enough to assist the implementation of CCS on a rapid timescale which is required to make a timely reduction in future CO₂ emissions. The recent Science & Technology Select Committee report on CCS needs to be actioned in full to enable this implementation of CCS to happen in a useful timescale.

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