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CCSA response to the Green Paper
A 2030 framework for climate and energy policies

The CCSA welcomes the release of both the European Commission Green Paper on the 2030 framework for climate and energy policies in Europe and the consultative Communication on the future of CCS in Europe. Together these are a critically important piece of work that will help determine the future direction of climate and energy policies in Europe.

The CCSA brings together a wide range of specialist companies across the spectrum of CCS technology, as well as a variety of support services to the energy sector. The CCSA exists to represent the interests of its members in promoting the business of Carbon Capture and Storage (CCS) and to assist policy developments in the UK, EU and internationally towards a long-term regulatory framework for CCS as a means of abating carbon dioxide (CO_2) emissions.

The CCSA has not provided answers to each of the detailed questions listed below and has instead provided an answer that addresses each of the headline themes contained in the Green Paper.

1. QUESTIONS

1.1. General

- Which lessons from the 2020 framework and the present state of the EU energy system are most important when designing policies for 2030?

The CCSA welcomes the launch of the discussion on the 2030 framework for EU climate and energy policies and the continued commitment to the decarbonisation of the EU economy. The Green Paper is timely given the long-term planning needs and investment cycles of the electricity and industrial sectors. Providing longer term visibility on the decarbonisation trajectory of Europe will assist decision making by investors in low-carbon technologies.

It is essential that the 2030 framework develops an inclusive approach to the decarbonisation and energy agenda that adequately incentivises the full range of low-carbon technologies, including CCS. Specifically the CCSA strongly believes that the workstream resulting from the CCS Consultative Communication should converge with the 2030 framework to ensure the development of coherent and efficient climate and energy policies. It is very important that the CCS Communication should not be treated as an issue separate but as an integral part of the 2030 framework discussions.

The CCSA is concerned that the 2030 Green Paper makes no reference to the contribution that CCS will need to make despite the CCS Consultative Communication correctly emphasising the critical importance of CCS to Europe's climate, energy and industrial strategies. The Commission's own analysis has clearly demonstrated the important role that CCS must play in Europe and it is essential that the 2030 framework adequately accounts for the need of CCS technology.

The EU ETS is and should remain the long-term driver of electricity and industrial sector decarbonisation in the EU. However, one lesson from the 2020 framework is that the EU ETS is not driving the necessary investment in low-carbon technology due to the low price of EUAs and urgently needs to be restructured if it is to provide longer-term support for low-carbon technologies.

Structural reform of the EU ETS should be undertaken as a matter of urgency. However, it is recognised that this will not raise prices sufficiently to drive the necessary investment in fairly new low-carbon technologies, such as CCS, at the pace that is needed in order to meet EU's carbon reduction ambition. Therefore in addition to structural reforms, robust complementary policies will also be required to deliver such low-carbon technologies in Europe.

Technology specific targets such as the 2020 renewable target encouraged MSs to incentivise investment in renewables and have consequently been very effective at driving investment in renewable technologies. This has resulted in MS implementing policies that support the development of renewables within those particular markets.

However, technology specific targets have also had a number of negative impacts which should be adequately considered in the design of the 2030 framework. These include;

- The focus on delivering increased renewable capacity to meet the legally binding renewable target has stifled investment in other low-carbon technologies, including CCS, which did not benefited from such a legally binding target.
- Mandating that a very high proportion of the energy sector has to be provided by particular technologies restricts the freedom of MSs to deploy technologies that best meet their national circumstances.
- Technology specific targets limit competition between different technologies and introduces economic inefficiencies which mean that climate change objectives may not be achieved at the lowest cost.

1.2. Targets

- Which targets for 2030 would be most effective in driving the objectives of climate and energy policy? At what level should they apply (EU, Member States, or sectoral), and to what extent should they be legally binding?
- Have there been inconsistences in the current 2020 targets and if so how can the coherence of potential 2030 targets be better ensured?
- Are targets for sub-sectors such as transport, agriculture, industry appropriate and, if so, which ones? For example, is a renewables target necessary for transport, given the targets for CO_2 reductions for passenger cars and light commercial vehicles?
- How can targets reflect better the economic viability and the changing degree of maturity of technologies in the 2030 framework?
- How should progress be assessed for other aspects of EU energy policy, such as security of supply, which may not be captured by the headline targets?

The adoption of an ambitious EU GHG reduction target should remain the cornerstone of the policy measures adopted under the 2030 framework as this will send a strong signal on the political commitment to the climate change policy and create the conditions which will help to drive future investment in all low carbon technologies. A legally binding 2030 renewables target which was not

accompanied by an equivalent policy measure to deliver other key low carbon technologies like CCS must be avoided as this will act as a disincentive for MS to invest in CCS.

For example, in the event that Europe intends to establish a 2030 target to drive renewables then this should matched by a 2030 CCS target or expanded into a 2030 sustainable energy target that includes CCS. Under this approach MSs would have the flexibility to choose to develop either renewable or CCS projects in order to comply with such target or invest in alternative low-carbon options. The CCSA would prefer the latter of these two options as it moves away from technology specific targets and towards a technology neutral approach.

Given that EU policies have not yet driven investment in CCS, and CCS is a fairly new low-carbon technology, it is important that a minimum volume of CCS is brought forward over the period to 2030. For example a 2030 sustainable energy target could include a minimum CCS capacity threshold which ensures investment in a minimum volume of CCS is needed. This will help develop early projects which will provide Europe with practical experience with CCS, develop initial CO_2 transport and storage infrastructure and stimulate the beginning of a CCS supply chain. Delivering this will help position CCS to deliver the significant capacity additions that the Commission's 2050 analysis suggests are likely to be needed in the period from 2030 to 2050.

To help assess progress against all aspects of EU energy policy Member States should be required to develop electricity and industrial sector roadmaps that establish how they will make the relevant contribution to EU 2030 carbon reduction targets while addressing security of energy supply and economic competitiveness. These roadmaps will enable MSs to better understand the contribution of different technologies to their national circumstances, the total costs of the selected approach and provide greater certainty to industry helping them to plan their investments more effectively. Member State roadmaps should also consider the impact and potential impacts of the national approaches beyond individual MSs, e.g. at the regional and European level.

1.3. Instruments

- Are changes necessary to other policy instruments and how they interact with one another, including between the EU and national levels?
- How should specific measures at the EU and national level best be defined to optimise cost-efficiency of meeting climate and energy objectives?
- How can fragmentation of the internal energy market best be avoided particularly in relation to the need to encourage and mobilise investment?
- Which measures could be envisaged to make further energy savings most cost-effectively?
- How can EU research and innovation policies best support the achievement of the 2030 framework?

As stated in response to Q.1.1 above the CCSA does believe that the EU ETS should remain the long-term driver of electricity and industrial sector decarbonisation in the EU. However, the EU ETS is clearly not driving the necessary short-term investment in low-carbon technology due to the low price of EUAs and urgently needs to be restructured if it is to provide longer-term support for low-carbon technologies.

Whilst the CCSA supports structural reform of the EU ETS to drive effective carbon prices, and believes these should be undertaken as a matter of urgency, it is recognised that this will not raise prices sufficiently to make new low-carbon technology investment, like CCS, economic. Therefore in

addition to these structural reforms, robust transitional complementary policies will be required to deliver a viable and vibrant CCS market in Europe which supports investment in projects and the CCS supply chain.

Unless the private sector has a credible expectation that there will be a future CCS market then companies will see little rationale to invest finite capital resources into First-Of-a-Kind CCS projects. Similarly without the expectation of a CCS market the supply chain will see little justification for investment. The stimulation of a competitive supply chain is key to delivering cost reductions in the technology and ensuring the maximum contribution of CCS to the green growth agenda.

The CCSA would strongly welcome the Commission coming forward with a proposed new policy instrument as part of the 2030 framework to support the development of CCS projects and begin the deployment of this strategically important technology in Europe. It is clear that without a bold move from the Commission the necessary investments in CCS will not occur. This is inconsistent with the requirement to materially reduce the carbon intensity of both the electricity and industrial sectors over the coming decades.

CCS support should be designed, as far as is practicable, to limit any adverse impacts on the EU ETS and the power market and should be largely equivalent to the support measures used to drive renewables to 2030 while recognising that CCS has not yet received the level of investment that many renewable technologies have. As mentioned in the answer to Q. 1.2 on targets above any European 2030 renewable target should be expanded into a technology neutral low-carbon generation target for 2030 which includes CCS. To ensure that there is some sufficient investment to fully demonstrate CCS then the 2030 low-carbon target should include a minimum volume of CCS.

Finally the policies that drive investment in all new low-carbon technologies should be designed so that over time the principal incentive for investment transitions from the interim supporting measures and back to the EU ETS.

1.4. Competitiveness and security of supply

- Which elements of the framework for climate and energy policies could be strengthened to better promote job creation, growth and competitiveness?
- What evidence is there for carbon leakage under the current framework and can this be quantified? How could this problem be addressed in the 2030 framework?
- What are the specific drivers in observed trends in energy costs and to what extent can the EU influence them?
- How should uncertainty about efforts and the level of commitments that other developed countries and economically important developing nations will make in the on-going international negotiations be taken into account?
- How to increase regulatory certainty for business while building in flexibility to adapt to changing circumstances (e.g. progress in international climate negotiations and changes in energy markets)?
- How can the EU increase the innovation capacity of manufacturing industry? Is there a role for the revenues from the auctioning of allowances?
- How can the EU best exploit the development of indigenous conventional and unconventional energy sources within the EU to contribute to reduced energy prices and import dependency?

- How can the EU best improve security of energy supply internally by ensuring the full and effective functioning of the internal energy market (e.g. through the development of necessary interconnections), and externally by diversifying energy supply routes?

To ensure continued public and political support for European climate and energy policy it is essential that policies deliver the outcomes sought in the most economically efficient manner. Providing MSs with flexibility on the low carbon technologies they deploy to meet EU carbon reduction targets enables the selection of technologies which delivers the CO_2 reductions at least cost thereby making the European economy more competitive.

A robust CCS policy should also include industrial emitters of CO_2 that are able to utilise common CO_2 transport and storage infrastructure with the power sector helping them to make a significant contribution towards EU climate goals. For a number of industrial sectors CCS is the only technology which enables significant emission reductions and the developing a European CCS industry will be critical for retaining industrial jobs and avoiding carbon leakage for CO_2 emitting industrial sectors.

Finally CCS makes an important contribution to Security of Supply by enabling abundant and cost competitive fossil fuels to continue to contribute to energy supply as the European economy decarbonises. The use of reliable and flexible fossil fuels in the electricity system complements technologies with different generation characteristics, e.g. technologies that are intermittent or inflexible, further enhancing the security of European energy supply. CO_2 captured in CCS projects may also be stored in enhanced oil recovery projects, increasing utilisation of indigenous energy resources.

1.5. Capacity and distributional aspects

- How should the new framework ensure an equitable distribution of effort among Member States? What concrete steps can be taken to reflect their different abilities to implement climate and energy measures?
- What mechanisms can be envisaged to promote cooperation and a fair effort sharing between Member States whilst seeking the most cost-effective delivery of new climate and energy objectives?
- Are new financing instruments or arrangements required to support the new 2030 framework?

The 2030 framework should promote greater cooperation and flexibility of implementation between MSs to deliver cost-effective climate and energy policies. In the event that a 2030 low-carbon energy target is agreed then some of the flexibility arrangements that have been established under the Renewable Directive should be retained. For example, MSs should have the ability undertake statistical transfers of low-carbon energy between MSs and enable the development of joint projects between MSs.

Further policies are needed to support the development of shared CO_2 transport and storage infrastructure. Enabling multiple power and industrial CO_2 emitters to utilise common infrastructure is an important opportunity to deliver lower-cost CCS. In addition the development of transboundary CCS infrastructure will be critical for MSs that do not have access to geological formations suitable for storing CO_2.