



Press Statement

Paris, 10 July 2015

Scientists cite CCS as a viable and flexible climate change mitigation technology

At the international Scientific Conference “Our Common Future under Climate Change” in Paris from 7 to 10 July scientists presented Carbon dioxide Capture and Storage (CCS) as a viable technology to reduce emissions resulting from fossil fuel combustion and industrial processes and even as an opportunity for negative emissions through integration with renewable energy from biomass. This makes CCS a very flexible technology to mitigate climate change.

Representatives from CO₂GeoNet, the European Energy Research Alliance, the Global CCS Institute and the IEA GHG, are convinced that CCS is a key decarbonisation wedge for reaching the goal of keeping the increment of global average temperature below 2 degrees. This is why we would request positive action by the Parties of the United Nations Framework Convention on Climate Change (UNFCCC) on the inclusion, where appropriate, of the development and deployment of CCS in their Intended Nationally Determined Contributions (INDCs) noting that it is already recognised as an environmentally sound technology by the Convention.

CCS is a proven technology with over 20 million tonnes (Mt) of CO₂ captured from power and gas production and injected into deep geological formations worldwide each year, with 50 Mt already securely stored. CCS is also the only viable mitigation option to decarbonise the production of commodities such as cement, iron and steel that will likely remain irreplaceable for the global economic growth in the medium to long term including for the deployment of renewable energy technologies.

The potential to achieve negative emissions is becoming increasingly viable. Combining the production of renewable energy from biomass and capturing and storing the associated CO₂ in deep geological formations (BECCS) offers real and immediate opportunities to take CO₂ out of the atmosphere. Moreover, BECCS appears the only currently available technology capable of delivering large-scale negative emissions of CO₂.

The Intergovernmental Panel on Climate Change (IPCC) Special Report on CCS indicates that it is likely that the global geological storage potential is at least 2,000 Gt CO₂. To put this into perspective, the world emitted some 32 (±2.7) Gt CO₂ in 2010 from fossil fuel-related CO₂ emissions (IPCC 5th Assessment Report), and so the technical potential of geological storage equates to some 63 years at

100 per cent capture. Research efforts for advancing this storage potential to a stock of storage sites with assured capacity within promising regions should be encouraged to accelerate deployment of CCS.

According to the 5th IPCC Assessment Report, the longer the deployment of key mitigation technologies is delayed, the more expensive and the more challenging it will be to keep global average temperature change below 2 degrees Celsius. Considering the devastating impacts that climate change can inflict on both natural and man-made systems (including public infrastructure and private productive assets) from extreme weather events and changes in local climate regimes, the need for a rapid mitigation of currently unabated fossil energy use is beyond argument. CCS provides a timely, highly scalable and cost effective pathway to pursuing this much needed step-change action.

Encouraging signals exist that the global energy sector can and will decarbonise in the near future: the International Energy Agency (IEA) recently proposed a bridging strategy to achieve a peak in global energy-related emissions by 2020 (IEA Special Report, 2015) with emissions declining after this date. The strategy anticipates measures to foster decarbonisation of the energy sector with the role of CCS in this portfolio explicitly emphasized. Therefore, it is critical that CCS development maintains momentum and support at the highest levels including within the UNFCCC. In order to achieve widespread deployment of CCS, we would hope that the following positive actions could be enacted:

1. Firmer inclusion of CCS in national and international climate and energy policy development, and where appropriate, within INDCs,
2. Equal inclusion of CCS as a mitigation option alongside other low carbon technologies,
3. A global effort in strategic storage characterisation to ensure availability of fully developed storage opportunities,
4. The development of CCS hubs and clusters in industrialised areas to allow the technology to be deployed at least cost across sectors,
5. Combining the production of renewable energy from biomass with CO₂ storage (BECCS) to enable negative CO₂ emissions.

Contacts press :

CO₂GeoNet Secretariat – Sergio Persoglia: +39 329 26 07 303 email:info@co2geonet.com