ERCST

Roundtable on Climate Change and Sustainable Transition

2019

Summary Note on "Incentivising Carbon Dioxide Removal Technogies" Brainstorm Session (24/09/2019)

Andrei Marcu

Federico Cecchetti

Maria Antonia Reis Teixeira da Costa

ERCST

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Summary

There is a current lack of incentives for Carbon Dioxide Removal Technologies (CDRTs), with clear financial and/or regulatory frameworks missing in some cases. This is despite the vital need for developing these nascent CDRTs in order to remain within the 1.5-degree goal, as highlighted by multiple scenarios from the IPCC, European Commission and other key actors. This summary note focuses on the questions and issues surrounding the enabling regulatory and financial framework necessary for deploying these technologies at scale.

1. Key Issues

The session was intended to discuss, and discover, the key issues on what needs to be done to make CDRTs a viable approach in helping the EU meet its targets, especially that of carbon neutrality which it is currently contemplating. One issue that was discussed was that of the **difference between carbon neutral and carbon negative technologies and approaches**. In order to keep moving forward in this area, clarity needs to be made on what exactly is the difference, and whether or not there should be a difference.

The focus of this summary note will be on:

- **On-site plant capture** (capturing emissions produced from an on-site point source, e.g. CCS);
- **Direct air capture** (directly removing emissions from the atmosphere, e.g. DAC);
- **Natural capture** (removing emissions directly from the atmosphere through natural carbon sinks, e.g. land management to increase and fix carbon in soils)

2. Innovation Gap

There are currently gaps in the development, implementation and operationalisation of the three approaches outline above, in order for them to be effective at the European and international level. This innovation gap can only be addressed through filling the financial and regulatory gaps. If successfully done, abatement costs and financial incentives will eventually meet. There is an opportunity for the EU to take the lead in pioneering this enabling framework.

3. Financial and Regulatory Framework

So far, public funds allocated to CDRT projects have not been sufficient and it is unlikely that they will be, given the scale of projects needed. Incentives are needed for private investment, allowing these technologies to tap into this resource and get on track in reaching global capacity goals. A system needs to be set up so that the market would be able to pay for the services provided by CDRTs. To enable this, we need an accompanying regulatory and financial framework.

- *On-site plant capture*

Under the current **EU ETS framework**, there is an **incentive for on-site plant capture** under Art.49 of the Commission Regulation 601/2012.[1] This allows installations to subtract those emissions covered by CCS facilities from the total number of allowances they need to surrender. Despite this incentive, the current price of EUAs has not been enough to trigger the needed level in investments. **New incentives under, or next to the EU ETS framework for on-site plant capture could be explored**, including the potential introduction of minimum requirements for technologies like CCS.

Voluntary market credits for on-site plant capture are **currently not recognised under the EU ETS and the Effort Sharing Regulation frameworks**. Looking forward, the question is whether there might be an avenue for getting approval for including voluntary market credits under the EU ETS and the ESR.

The Innovation and Modernisation Funds could both finance on-site plant capture. However, there is a shared perception among stakeholders that the Innovation Fund will play a more prominent role in the overall financing of CDRTs. In order to enable funding, there is a need for developing a model which allows for **split financing for the multi-stage chain technology of on-site capture** (capture, transport, storage).

There is also potential to **incentivise on-site capture** under **Art. 6 of the Paris Agreement**, to be further explored once the negotiations on the Paris Agreement rulebook will be finalised, as global carbon neutrality requires carbon negative projects in some places.

- *Direct air capture*

Under the current **EU ETS framework**, there is **no existing incentive for direct air capture**, as direct air capture is not included in the list of activities eligible for exemptions included in Annex I of the Directive 2003/87/EC.

Voluntary market credits do not seem to have current market access. Looking forward, the question is whether there might be an avenue for getting approval for including voluntary market credits under the EU ETS or the ESR.

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[1] Art. 49 Commission Regulation 601/2012 on Monitoring and Reporting (MRR):
The operator shall subtract from the emissions of the installation any amount of CO2 originating from fossil carbon in activities covered by Annex I to Directive 2003/87/EC, which is not emitted from the installation, but transferred out of the installation to any of the following:
(a) a capture installation for the purpose of transport and long- term geological storage in a storage site permitted under Directive 2009/31/EC;
(b) a transport network with the purpose of long-term geological storage in a storage site permitted under Directive 2009/31/EC;
(c) a storage site permitted under Directive 2009/31/EC for the purpose of long-term geological storage.

The Innovation and Modernisation Funds could both finance direct air capture, and as we mentioned above with on-site capture there is also a need for a split financing model for the multi-stage chain technology of direct air capture.

There is also potential to **incentivise direct air capture** under **Art. 6 of the Paris Agreement**, to be further explored once the negotiations on the Paris Agreement rulebook will be finalised.

- *Natural capture*

Under the current **EU ETS framework**, there is **no existing incentive for natural capture**, as natural capture activities are also not included in the list of activities eligible for exemptions included in Annex I of the Directive 2003/87/EC. **Incentives exist under the ESR Directive, and these should be further explored and expanded**.

Voluntary market credits for natural capture are **currently not recognised under the EU ETS or the ESR frameworks**. Looking forward, the question is whether there might be an avenue for getting approval for including voluntary market credits under the EU ETS or the ESR.

The Innovation and Modernisation Funds could both finance natural capture, and there could be room to create tailored 'call for proposals' for natural capture projects.

Under the **LULUCF Regulation (EU) 2018/841,** Member States must ensure that emissions from land use are balanced through equivalent removals of CO2 in this sector under the **"no debit" rule**, i.e. incentivising carbon neutrality. Member States are also able to use allocation under the Effort Sharing Regulation in order to meet the "no debit" commitment, therefore allowing the **use of LULUCF credits under the ESR (up to 280 million credits over the period 2021-2030)**. To go even further with this progress, the number of LULUCF credits recognised under the ESR could be expanded, and new incentives for natural capture could also be explored under the **Common Agricultural Policy (CAP)**.

At the international level, there is potential to **incentivise natural capture** under **Article 5** of the **Paris Agreement** through **REDD+**.

4. Conclusions

ERCST will keep focusing on these legislative gaps, looking at ways to introduce specific provisions for promoting CDRTs in the existing legislative framework, both at the European and international level.
The next meeting will continue exploring options in this area, to kick-off a broader discussion in the EU on Carbon Dioxide Removal Technologies.