The evolution of European CCS policy

Matthew Billson¹, Mohamed Pourkashanian¹

¹University of Sheffield

Abstract

The European Carbon Capture and Storage (CCS) industry is still grasping for an effective policy structure which will support deployment of commercial CCS projects. This paper will consider the current context of CCS policy given three significant developments: (a) the agreement in 2014 for a technology neutral 2030 EU emissions reduction target; (b) a binding commitment at COP21 in Paris, Dec 2015, for a global emissions reduction target; (c) the collapse of the UK’s CCS Commercialisation Programme in Nov 2015.

The period 2010-2015 saw continued stagnation in the European CCS industry, with a series of projects proposed but then subsequently cancelled. A major common factor in the three most significant – the Dutch ROAD project; the Norwegian full-scale Mongstad project; and the UK CCS Commercialisation Programme – was political fear over the headline “cost” of the projects. This hints as three problems (1) an industry which is weak in communicating why CCS is important, and failed to engage a wider stakeholder base; (2) incumbent governments which are not willing to fund the initially high costs of the first CCS projects; (3) weak market based structures which force industrial consortia to rely on government subsidy, thus leaving projects vulnerable to political forces.

Given the context of the EU 2030 and COP21 agreements, it is the collapse of the UK’s CCS Commercialisation Programme which is perhaps most disappointing. As evidenced by its high ranking in the GCCSI Regulatory Indicator¹, the UK had the most coherent policy framework in Europe – set out in the 2012 CCS Roadmap, and expanded in the 2014 “Next Steps for CCS”. In particular, an approach which offered most hope of tackling problem (3) above, set around a contract-for-difference feed-in-tariff.

The tension within that framework could still offer lessons from the defunct Programme for other potential CCS projects in Europe; and inform policy developments at the UK and European level. Namely (i) payment flows between the emitter / capture plant to the transport & storage provider, and the risk apportionment between those partners; (ii) the cost-benefit of oversized infrastructure and the challenges of a first project to finance the bulk of these costs.

Specifically, the successor programme to the NER300 financing mechanism combined with EU ETS reform and the 2030 targets could create enough incentives for projects to come forward. Within the European context, a greater appreciation for whole energy system costs may address

problem (1) above. The issue of effectively engaging stakeholders is distinct from the often quoted challenge of “public support” for CCS per se. The remaining problem, of political appetite, will still need to be tackled. Again, the UK programme may offer lessons of closing deals within the lifetime of governments where political risk increases significantly around election periods.

It is apparent that two areas are gaining attention to fill the vacuum of power CCS: (A) industrial CCS and (B) carbon capture and utilisation. Both these sectors will still suffer many of the challenges set out in this paper, but an increasing policy focus on these may assist the wider CCS sector in regaining momentum in the post-COP21 world.

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