

2013

2015

2020

2025

2030

2035

2040

2045

2050



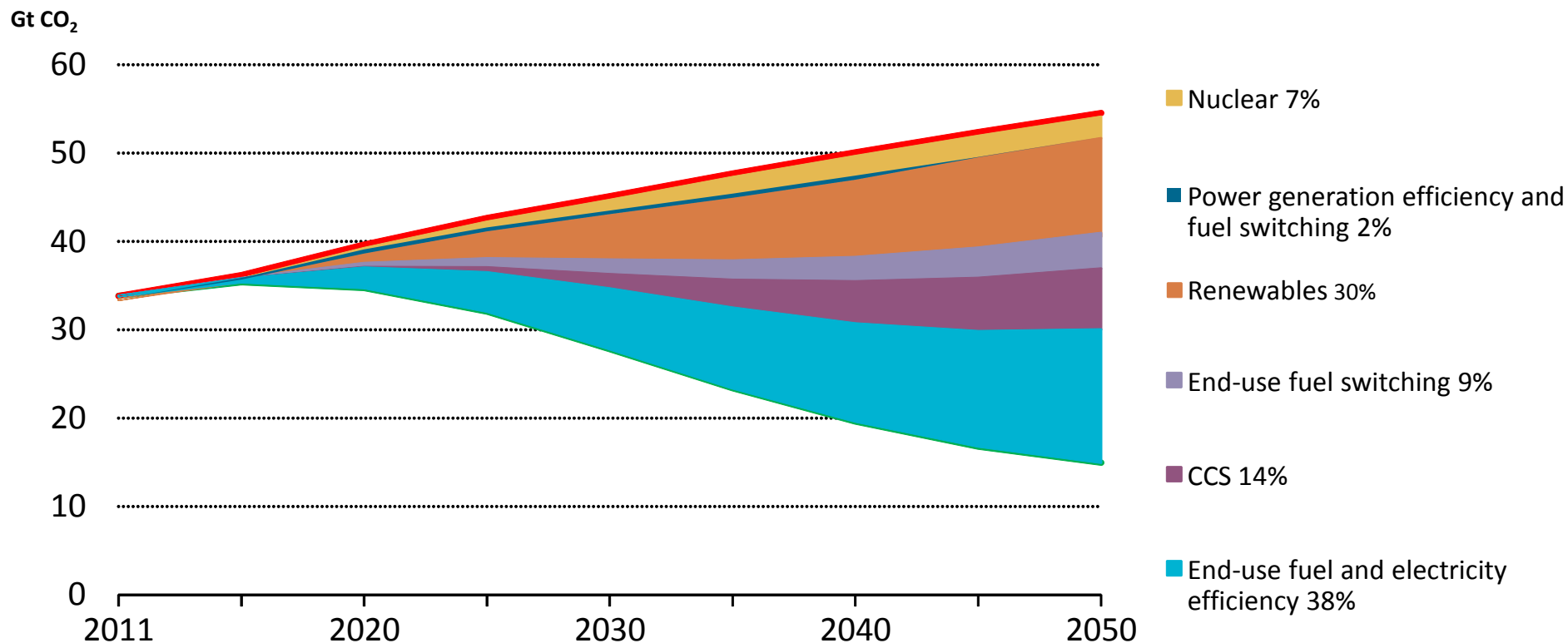
Air capture: what could it mean for climate change mitigation and carbon costs?

UKCCSRC Air Capture Workshop, London, 20 February 2015

Simon Bennett, IEA



How much air capture in IEA scenarios?



In an uncertain future, should the CCS wedge be considered as a proxy for air capture with long-term storage?



Why might DAC enter the portfolio?

- Overshoot (i.e. constrain perfect foresight of models)
- If it were cost-competitive with CCS, BECCS or decarbonisation of transport
 - NRC report USD 400-1000/tCO₂
- If there was confidence about DAC operation at scale
- If scenarios valued social and business preferences for the simplicity of remote air capture, e.g. compared to adding CCS to cement sector operations
- If a quicker route to scale-up through niche markets could be foreseen for DAC compared to other options



A cap on carbon prices?

- In the IEA 2DS scenario, global carbon prices rise to USD 90/tCO₂ in 2030 and 168/tCO₂ in 2050
- Can air capture (plus storage or equivalent) meet these costs?
- Is air capture a technology for 2050, 2100 or perpetuity?
- What do we know about social/political support? How can this fit into people's visions of a sustainable future? Does it need to?



Thank you

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<http://www.iea.org/topics/ccs/ccsroadmap2013>



<http://www.iea.org/publications/insights/insight-publications/ccs-2014---what-lies-in-store-for-ccs.html>