



Mersey & Dee Basins Carbon Capture Scheme

Inaugural Discussions

Meeting Chaired by

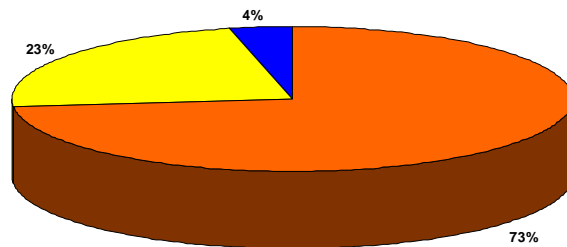
Mark Crowther

GASTEC at CRE and c:sense verification



To Re-Cap..technical aspects of the scheme

- Mersey & Dee Basins
- 20mtpa CO2 within a 20 mile radius
- 3 Tiers & 3 operational network pressures



■ Tier 0 Sites ■ Tier 1 Sites ■ Tier 2 Sites



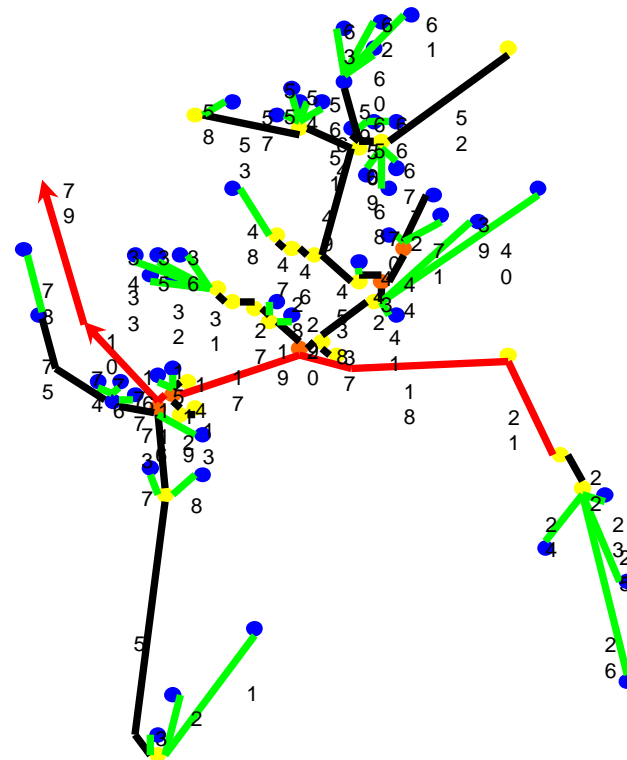


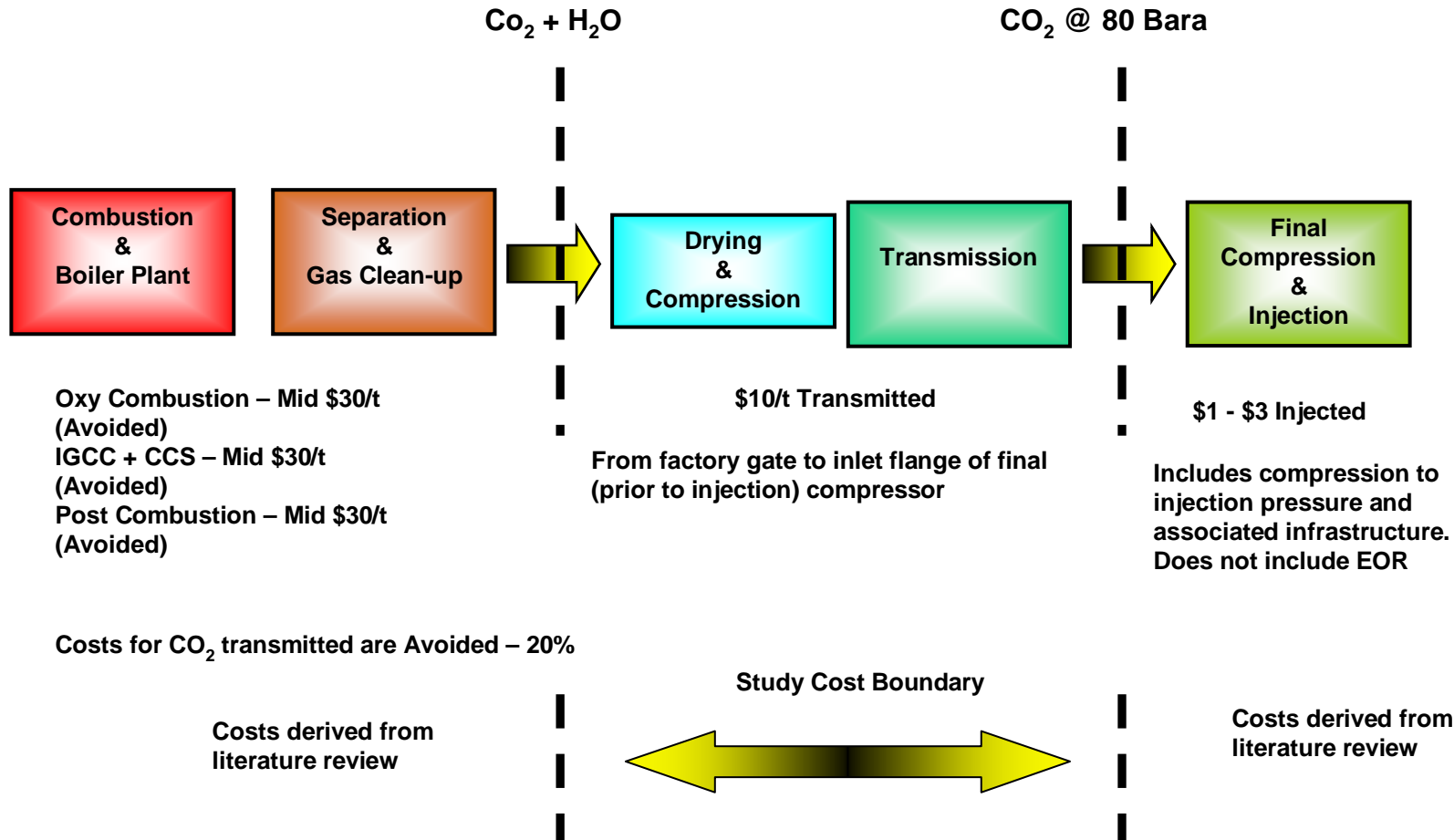
To Re-Cap

- High Pressure – Supercritical Flow
80bar+
- Medium Pressure – 10bar
- Low Pressure – 800mbar
- Considerable cost savings of
negative pressure network for small
sources

Detailed cost estimates....AMEC

Initial safety cast discussed with UK HSE







Estimated Capital Costs

Element in Scheme	£ million
Capture (very loose estimate) (all Tiers)	2,800 – 3,000
Transmission	
Tier 0 only	580
Tiers 0 & 1	820
Tiers 0, 1 & 2	1,200
Disposal (platform & well alterations)	40 - 60
TOTAL SCHEME (all Tiers)	4,040 – 4,260



IN SUMMARY

Likely cost of CO₂ disposal from the M&DCCB scheme:-
\$50/tonne ~ 37euro/tonne

Cf value of CO₂ from EUETS (avoided emissions):-

15 to 20 euro/tonne

Difficult

30 to 40euro/tonne

Possible

>50euro/tonne

Reasonable to good return

Possibility of extremely good margins if price of carbon rose
to capping price of 100euro/tonne



OUTSTANDING ISSUES

Value of CO₂ against essentially a politically defined price....very different to almost every other market.

Is the risk to the industry of Mersey & Dee basin GREATER by not proceeding ie might CO₂ reach 100euro/tonne?

Corporate structure (Drainage board model? Garbage model?)

Gas quality

Sizing of lines vs Timing of start up for collection plant
