

Trading Strategies

Trading Carbon in the CRC Energy Efficiency Scheme

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Why Trade Carbon?

- Regulation
- Reputation
- Remuneration



Timeline

- Apr 2010 / Mar 2011 will now just be for reporting and will not involve trading.
- Use this year to compare your predicted carbon savings before trading for real.
- First trading year will be Apr 2011 / Mar 2012.
- Buy allowances in April 2011.
- Receive recycling payment in October 2011.



Timeline (cont)

- Sale of allowances will be unlimited in April 2011 and April 2012.
- Cap and trade auction starts in April 2013.
- Trading Carbon between participants begins April 2013 on the ‘secondary market’.




Pre Requisites to Trading

- Energy use, baseline (footprint) from previous year.
- Identified areas for carbon savings.
- Costed these carbon savings.
- Use of MACC (Marginal Abatement Cost Curve) graph to assess viability.
 - See Ian Batemans presentation at <http://www.carbonaction-yorkshire.org.uk/index.php?id=72>

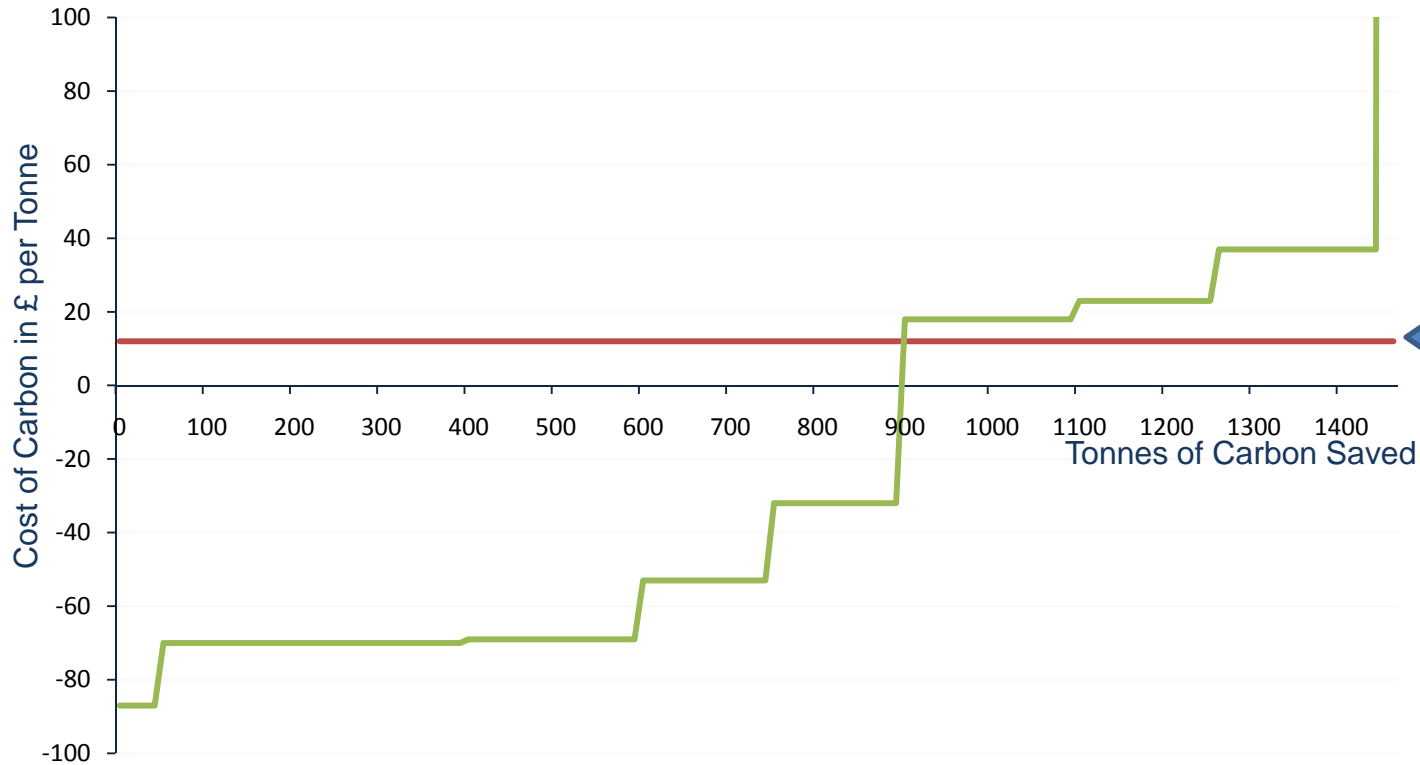


MACC Table



Project Portfolio										
Project Name	Capital Cost	Annual Benefit/Cost	Simple Payback	Annual CO ₂ Savings	Cumulative Annual CO ₂ emissions savings	Project Life	NPV	MAC (carbon not discounted)	Discounted life savings of carbon	MAC (carbon discounted)
	£	£	Years	tonnes		years	£	£/tonne	tonnes	£/tonne
Energy Awareness Campaign	£10,000	£6,000	1.7	50	50	10	-£26,867	-£54	307	-£87
Biomass Boiler	£200,000	£57,000	3.5	350	400	10	-£150,240	-£43	2,151	-£70
Cavity Wall Insulation	£100,000	£30,000	3.3	200	600	10	-£84,337	-£42	1,229	-£69
Lighting Adapters	£80,000	£21,000	3.8	150	750	10	-£49,036	-£33	922	-£53
Voltage Optimiser	£75,000	£17,000	4.4	150	900	10	-£29,458	-£20	922	-£32
Part Night Street Lighting	£145,000	£20,000	7.3	200	1100	10	£22,109	£11	1,229	£18
Dimming Street Lighting	£35,000	£2,000	17.5	160	1260	10	£22,711	£14	983	£23
Low Energy Street Lighting	£55,000	£2,000	27.5	190	1450	10	£42,711	£22	1,167	£37
Solar PV Array	£24,000	£500	48.0	2	1452	10	£20,928	£1,046	12	£1,703

MACC Graph



Government allowances price of £12 per tonne

Calculation

- The MACC graph shows that we can save 900 tonnes of carbon at a price lower than the £12 per tonne allowance price.
- In commercial terms implementing up to 900 tonnes reduction and buying remaining allowance is the cost effective approach.
- Take 900 tonnes from the predicted carbon output for the year, implement those projects identified, and buy the remaining volume as allowances.



Example

- A company emits 10,000 tonnes CO₂ per year.
- We have identified 900 tonnes of savings through projects we will implement.
- The company then buys 9,100 tonnes CO₂ allowances in April, for that compliance year.



Projects to be Implemented

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Trading

- Initial purchase of allowances based on government set price of £12 per tonne.
- Opportunity to trade once a month throughout the year with the ‘safety valve’.
- ‘Safety Valve’ purchases will be a minimum of the EU ETS price plus £300 ‘purchase charge’.



Remember

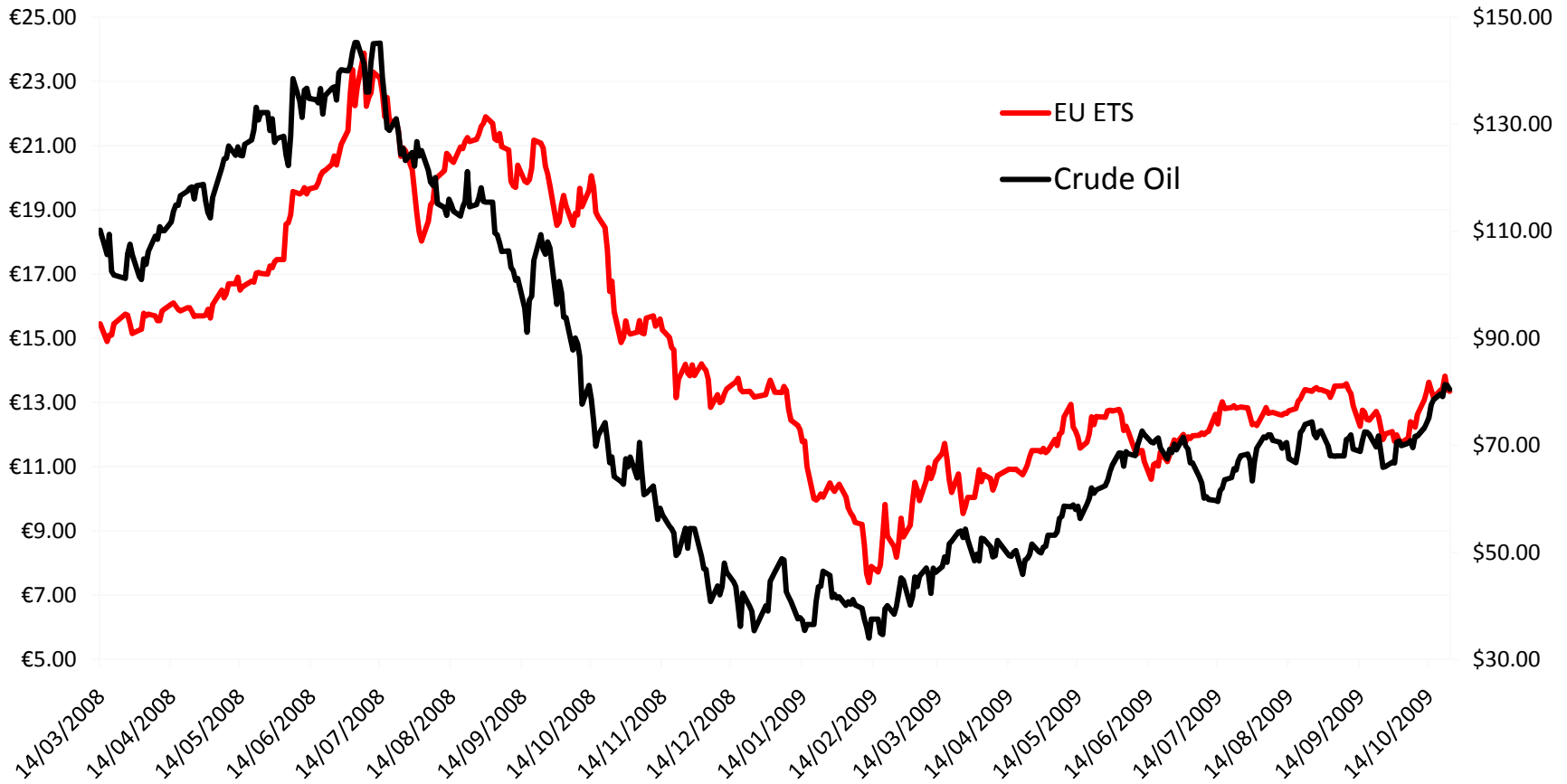
- CRC is a non profit making scheme.
- Recycling payment is affected by league table position determined by:
 - Early Action Taken
 - Absolute Carbon Reduction
 - Relative Carbon Reduction



Remember (cont)

- Buying CO₂ after the allowance sale, is only to plug the gap between your allowances bought and your predicted carbon output.
- Safety Valve mechanism is an option of last resort.
- EU ETS price can go up as well as down.

EU ETS vs Crude Oil Relationship



Thank You

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