



Department
of Energy &
Climate Change

Updated short-term traded carbon values used for modelling purposes

16 September 2013

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2013 short-term carbon values

The following estimates for EU Allowance (EUA) prices have been used in the latest update to DECC's emissions projections model¹ and will be used in other models of electricity generation and investment across Government. These are shown graphically in Annex A.

Table 1: DECC's updated traded carbon values for modelling purposes, £/tCO₂e in real 2013 terms

	Low	Central	High
2013	0.00	3.49	15.57
2014	0.00	3.59	16.73
2015	0.00	3.67	18.01
2016	0.00	3.79	19.39
2017	0.00	3.92	20.89
2018	0.00	4.22	22.49
2019	0.00	4.53	24.19
2020	0.00	4.87	25.98
2021	0.12	4.99	27.20
2022	0.25	5.12	27.89
2023	0.38	5.25	28.60
2024	0.51	5.38	29.32
2025	0.65	5.52	30.07
2026	0.79	5.66	30.83
2027	0.93	5.80	31.61
2028	1.08	5.95	32.41
2029	1.23	6.10	33.23
2030	1.39	6.25	34.07

Note that these values are identical to those used for appraisal purposes up to 2020.² After 2020, the values rise at the cost of carry implied by market prices of EUA futures contracts (estimated at about 4.8% p.a. for nominal prices). This is justified in the absence of a clear understanding of the likely policy mix post-2020. Key uncertainties are around the quantity of access to international offsets that will be available in the system and the extent to which abatement will be brought on by wider EU policies. For modelling purposes, carbon prices need to be consistent with the current legislative framework, as modelling work is partly used to

¹ Report available online at <https://www.gov.uk/government/publications/updated-energy-and-emissions-projections-2013>

² Available online at <https://www.gov.uk/government/publications/traded-carbon-updated-short-term-values-used-for-uk-public-policy-appraisal>

determine the extent to which current legislation is sufficient to drive the required level of decarbonisation.

These estimated values should not be considered as “forecasts” of future prices and DECC accepts no responsibility for any liability arising from the use of these figures.

2013 carbon values for electricity investment and generation models

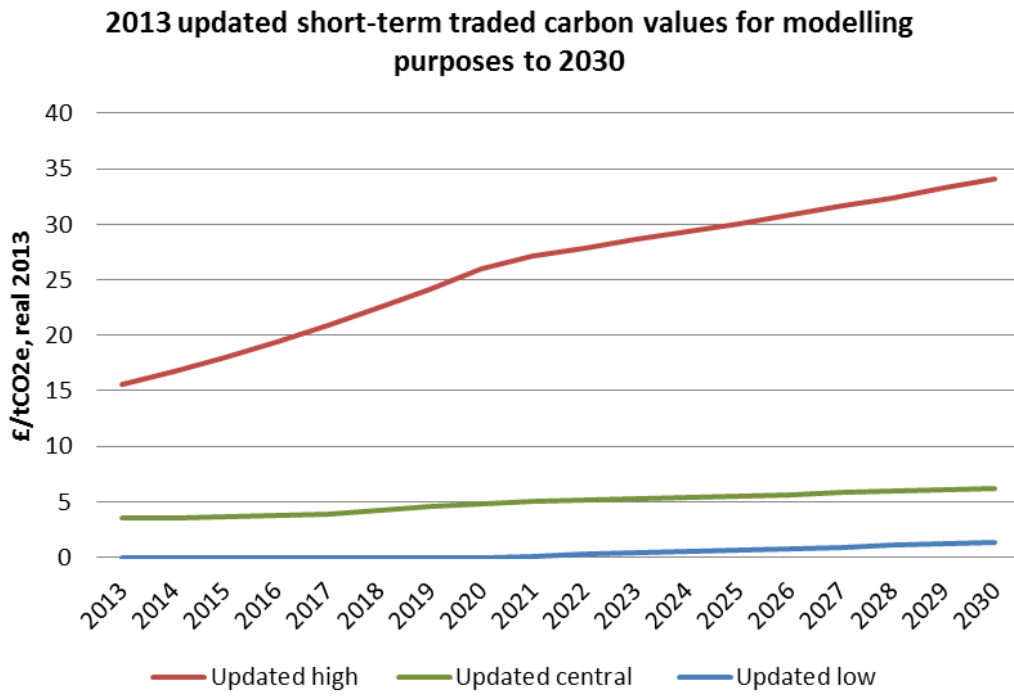
Most electricity generation and investment models will need to consider not just the price of EUAs but also the impact of the Carbon Price Floor (CPF). Government has announced a trajectory out to 2030 in real terms for the total carbon price (EUA price plus the Carbon Price Support rate) that electricity generators will face, while the level of the Carbon Price Support (CPS) rates has been set for financial years 2013/14, 2014/15 and 2015/16 in nominal terms. These have been converted into corresponding rates for calendar years using a weighted average approach. The following table shows the total carbon price (including the CPS rates) which has been used in electricity investment and generation models. This has been calculated as follows:

- For 2013, 2014 and 2015, the announced levels of CPS rates have been added to the EUA price
- For 2016 onwards, the carbon price for each year is set as either CPF or the EUA price for that year whichever is higher.

Table 2: DECC’s updated estimated total carbon prices including CPS, £/tCO₂e in real 2013 terms

	Total carbon price including CPS
2013	7.20
2014	11.82
2015	19.03
2016	23.05
2017	26.00
2018	28.22
2019	30.45
2020	32.67
2021	37.03
2022	41.38
2023	45.74
2024	50.09
2025	54.45
2026	58.81
2027	63.16
2028	67.52
2029	71.88
2030	76.23

Annex A



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