

Reforming the EU ETS: give it some work!

The Carbon Market Report published last November by the European Commission launched a debate on structural measures to sustainably address the EU ETS's large surplus and sets out six options for measures which could do so: (a) increasing the EU reduction target to 30% in 2020, (b) retiring a number of allowances in phase 3, (c) early revision of the annual linear reduction factor, (d) extension of the EU ETS to other sectors, (e) limit access to international credits, (f) discretionary price management mechanisms. To assess these options, we must ask: what needs to be improved about the EU ETS's current design?

The EU ETS has been a success in important ways: numerous studies show that it has driven abatement, through fuel switching in the power sector, and in other industries. Phases 1 and 2 have demonstrated that without political uncertainty, carbon prices adjust to market fundamentals to ensure that the emissions target is reached at minimal economic cost. But the current low carbon price has revealed three weaknesses:

- **A strong long-term “investment signal” requires a more credible commitment to long-term allowance scarcity.** The post-2020 cap should decline by 1.74% each year, but the Directive creates a possibility for renegotiating it after 2020. This risk weighs on future carbon price expectations, investment incentives and EUA demand.
- **Strong policy interactions and insufficient ambition left the EU ETS vulnerable to demand shocks.** After accounting for other policies, the EU ETS has been a residual source of abatement, leaving the carbon price too vulnerable to a sharp drop in the event of a changed emissions baseline scenario. This is cost-ineffective and has undermined support for the scheme.
- **A lack of regulatory clarity to respond to extraordinary circumstances.** Political uncertainty has unfortunately made the carbon price increasingly volatile as it follows the political fortunes of the back-loading proposal.

Among the six options presented, option c, which consists in an earlier revision of the annual linear reduction factor scheduled for post-2020, is the most desirable. It is the only one which would directly address the uncertainty over post-2020 allowance scarcity. Ideally, it could be combined with a stronger ETS abatement objective, when post-2020 objectives are discussed, to address the problem of the EU ETS as a “residual policy” in the EU Climate and Energy Package. However, any structural change should take effect from Phase 4, to preserve regulatory stability during Phase 3.

In addition, we believe that three points should be integrated into the current reflections on the EU ETS's future design:

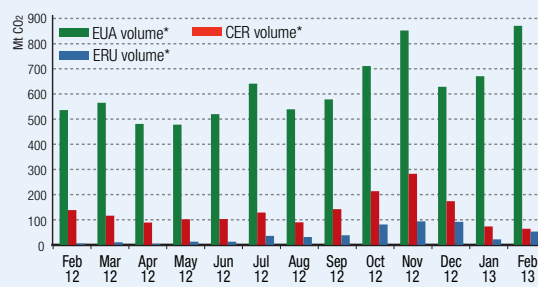
- **Adopt post-2020 emissions objectives at the European level** as soon as possible and clarify the contribution of the EU ETS sectors. This would reinforce confidence in the EU ETS and favor low-carbon investments.
- **Give the EU ETS more work to do.** Improve trust in the EU ETS through better coordination in climate and energy policies. For instance, by setting more precise goals and expected timetables for the phasing out of overlapping policies, as well as assessments of their combined effects on the EU ETS in the case of demand shocks.
- **Clarify the governance of possible future short-term interventions.** A permanent mechanism could be put in place to introduce flexibility in the current system. For example, the Commission could be required to review the calibration between the emissions baseline, the ETS cap, and the impact of overlapping policies and carbon credit availability every 5 years and propose an adjustment of the linear factor if necessary. However, any such flexibility would need to be strictly constrained and subject to political approval to maintain the credibility of the long-term emissions cap, which would always need to be the pre-condition for any short-term flexibility.

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Key points

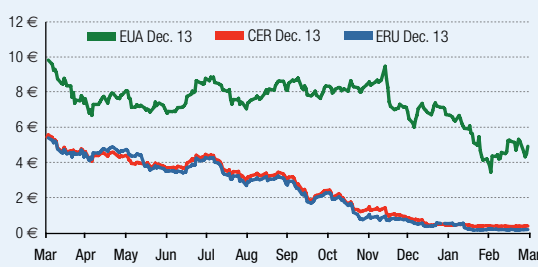
- **Back-loading: the vote in the European Parliament will take place in plenary during the week of 15th April 2013.**
- **Exclusion of international flights from the EU ETS in 2013: on 26th February, the ENVI Committee of the European Parliament voted in favour of the measure that should be voted in plenary in mid-April.**
- **In February, 65 million phase 3 EUAs were sold at auction and generated 284.3 million euros in revenue.**

Trading volumes: EUA +29.9%, CER -12.4%, ERU +140%



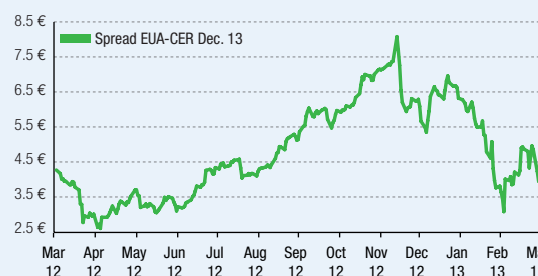
Source: CDC Climat Research calculation, based on data from BlueNext, EEX, ICE Futures Europe, NYMEX, Nasdaq OMX, and LCH Clearnet

Contract price Dec. 2013: EUA +43.3%, CER +47.7%, ERU +12.5%



Source: CDC Climat Research, ICE Futures Europe

Rise in the EUA-CER spread Dec. 2013: +47.7%



Source: CDC Climat Research, ICE Futures Europe

Energy

Primary energy prices and electricity prices

		Feb. 2013	
Coal	API # 2 CIF ARA (First month in USD/t)	87.5	=
Natural gas	NBP (spot in €/MWh)	27.3	=
	TTF (spot in €/MWh)	26.3	▼
Crude oil	Brent (First month in USD/b)	116.1	▲
Electricity	Germany (€/MWh)	Spot	47.0 ▲
		Calendar	42.1 ▼
	United Kingdom (€/MWh)	Spot	59.8 ▲
		Next summer	59.9 ▲
		Next winter	65.7 ▲

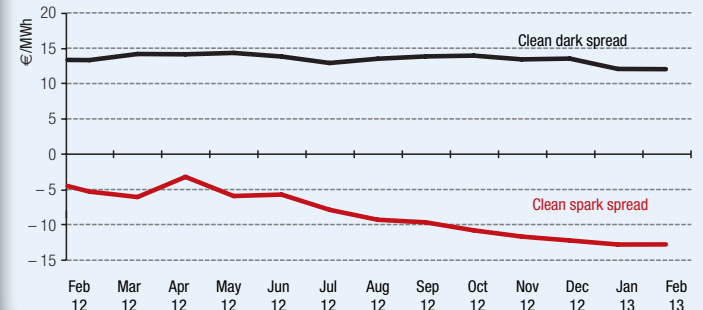
Sources: CDC Climat Research, Thomson Reuters

Clean dark, clean spark spreads and switching price

	Clean spark (€/MWh)		Clean dark (€/MWh)		Switching Price (€/tCO ₂)	
	spot	futures	spot	futures	spot	futures
Germany*	-7.3	-12.7	20.2	12.0	31.0	29.5
United Kingdom*	6.0	5.8	32.3	29.0	32.0	27.6

* Germany, 2014 calendar contract, United Kingdom, summer 2014 contract.

German baseload – monthly average of Cal. 2014 clean dark and clean spark spreads



Sources: CDC Climat Research, Thomson Reuters

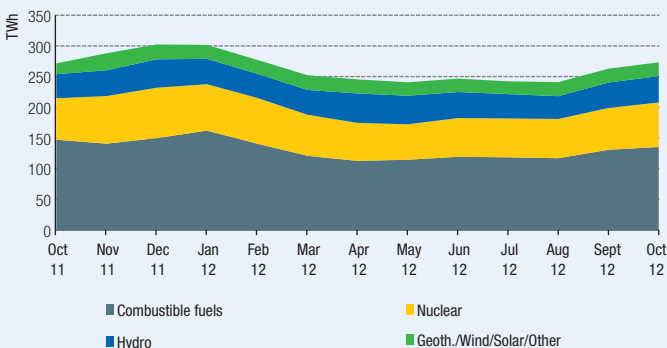
In February, the Brent Crude price fell 3.6% and closed at the end of the month slightly above the 110 USD/b mark, i.e. a lower level since 17th January 2013. In the euro zone, political instability and the recession have caused the EUR-USD exchange rate to plummet 3.1% in one month, to 1.31 on 28th February. The European demand for heating, supported by temperatures below the seasonal norm and the drop in natural gas reserve in the United Kingdom, drove up natural gas prices (+4.2% for the TTF and +6.0% for the NBP). The price of month-ahead CIF ARA coal has risen 3.7% while falling 2.0% for the 2014 contract due to supply disruptions in Colombia. Owing to the rise in the price of fuel and the EUA (+44.6%), the price of electricity is up 5.1% for the baseload cal.2014 contract in Germany and 2.4% for the contract for delivery in summer 2014 in the United Kingdom, respectively. The average margins for gas and coal power plants for 2014 for these two countries are stable compared to the previous month.

Production

Electricity production (TWh)

EU 20 (in TWh)	Nov. 12	Since Jan. 12	Past year (% change)
Production	273.2	2,885.7	0.9%
of which - Combustible fuels	135.1	1,419.9	-3.5%
- Nuclear	72.6	750.8	-2.9%
- Hydro	43.1	465.7	11.5%
- Geoth./Wind/Solar/Other	22.4	249.3	25.1%

* Gas, coal, oil.

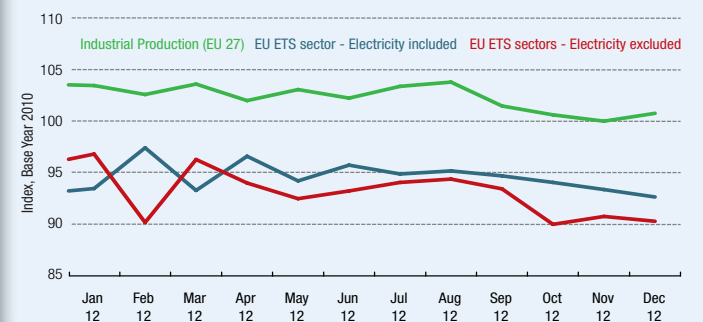


Sources: CDC Climat Research, from IEA data

Production indices (Index base year 2010)

EU 27	Dec. 12	Last month (pts)	Year-on-Year (pts)
Indust. Prod. (excl. construction)	100.8	0.8	-1.8
EU ETS sectors production* (incl. electricity)	92.7	-0.7	-2.1
EU ETS sectors production* (excl. electricity)	90.3	-0.5	-3.4
Electricity, gas and heating	93.9	-0.8	-1.3
Cement	79.9	-1.2	-3.1
Metallurgy	94.4	-1.0	-5.9
Oil refinery	95.8	1.3	-1.0

* Index weighted by EU ETS sectors's weight in average total allocation over 2008-2012



Sources: CDC Climat Research, from Eurostat data

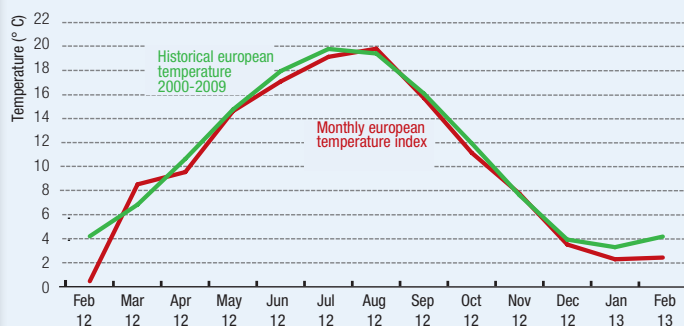
Our production index for EU ETS sectors fell 0.7 points in December, while the production index for the entire manufacturing sector rose 0.8 points. The glass sector posted the strongest monthly hike (+1.1 pt), while the strongest decline was in the ceramics sector (-1.8 pts). Over the last twelve months, the production indices for all EU ETS sectors tumbled, and the three sectors with the largest decline in production are ceramics (-10.6 pts), steel (-5.9 pts) and cement (-3.1 pts). The confidence index for European manufacturers experienced a mild rebound in February with an index of -10.8, a 2.2 point increase over January. The total European production of electricity from January to November 2012 was 2,885.7 TW, up 0.9% compared with the same period in 2011. This rise was accompanied by the increased use of hydraulic power (+11.5%) and other renewable energies (+25.1%) and by a decline in the use of nuclear power (-2.9%) and fossil fuels (-3.5%).

Temperature impact

European temperature index (°C)

- Average of the Climpact Metnext indices for 18 European countries, weighted according to the emission allowances allocated to each country.

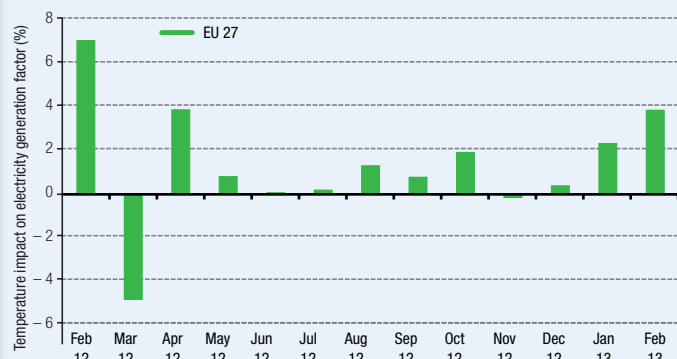
	Jan. 13	Feb. 13
Monthly average (°C)	2.3	2.4
Monthly average (°C) 2000-2009	3.3	4.2
Monthly minimum (°C)	-1.4	0.0
Monthly maximum (°C)	8.2	6.5



Temperature impact on electricity generation factor (%)

- The impact factor, which is calculated on the basis of a statistical electricity generation model, expresses the temperature impact in relation to average weather patterns for the 10 years between 2000 and 2009.

	Jan. 13	Feb. 13
EU 27	2.3	3.8



In February 2013, the average weather & economy index within the EU-27 was lower than its ten-year trend of 1.7°C. Countries in continental Europe experienced the coldest temperatures, with a deviation from their historical trend of -3.2°C for Belgium, -2.6°C for France, -2.8°C for the Netherlands and -2.0°C for the United Kingdom. Countries in Eastern Europe experienced average monthly temperatures in line with or slightly lower than their ten-year trend. According to Climpact Metnext's model, compared with normal conditions, the temperatures observed have boosted gross European electricity generation by 3.8%. Owing to the increase in the use of heating, these temperatures raised electricity production by 13.7% in the Netherlands, 8.5% in France and 4.3% in the United Kingdom. The average reservoir fill rates in the Nordic region and in the Iberian region are below their 10-year levels of 4.1 pts and 4.5 pts, respectively.

Institutional environment

EUA supply

	2008	2009	2010	2011
Total free allocations (Mt)	1,958.5	1,973.7	1,998.3	2,001.2
Combustion	1,259.5	1,269.3	1,289.6	1,293.0
Oil refining	152.7	152.9	156.7	155.4
Coking plants	22.5	22.5	22.8	22.7
Metal ores	21.9	22.0	22.0	22.1
Steel production	185.0	184.8	185.2	185.4
Cement	211.4	214.2	214.6	214.3
Glass	25.2	25.5	25.7	26.2
Ceramic products	18.8	19.1	19.2	18.4
Paper	28.5	39.2	40.1	39.6
Other activities	22.9	24.2	22.3	23.9
Total allocations auctioned (Mt)	44.4	78.4	92.1	93.1

Source: CTL, UK Debt Management Office, EEX

CER and ERU supply

	Feb. 13	Last month change
Number of CDM projects	10,974	+19
<i>of which - registered</i>	6,556	+498
<i>with - CER issued</i>	2,095	+17
Cumulative volume of CER issued (Mt)	1,208	+10
CERs available until 2015, EU ETS eligible - CDC Climat Research estimate (Mt)*	2,080	+9
Number of JI projects	782	+1
<i>of which - registered</i>	595	+2
Cumulative volume of ERU issued (Mt)	622.7	+35.4
<i>via - Track 1</i>	600.0	+35.4
<i>via - Track 2</i>	22.7	+0.1

* CDC Climat Research's model: <http://www.cdcclimat.com/The-risks-of-CDM-projects-how-did-only-30-of-expected-credits-come-through,900.html?lang=fr>

At the end of February, the Commission had received 200 responses to the public consultation on the structural reforms of the EU ETS. After an initial stakeholders' meeting on 1st March, a second meeting is scheduled for 19th April. By then, two measures on the EU ETS should be submitted during the week of 15th April to a vote during a plenary session at the European Parliament, each measure having been voted by the ENVI Committee: the backloading proposal — France and Denmark have announced their support — and the proposal to exclude international flights in 2013. The debate on the EU ETS structural reforms will also be fuelled by the publication before the end of March of a Green Paper on the energy-climate package for 2030. With regard to infrastructure, the Commission launched a public consultation in March on the registry options aimed at facilitating the linking of European and Australian emissions trading systems. In light of the revision in 2014 by the European Commission of the list of sectors exposed to carbon leakage, the United Kingdom (DECC) has launched a public consultation until the end of March. Finally, the 2nd round of the call for proposals in the NER 300 process will begin on 3rd April.

Carbon markets dashboard

Primary market - EUA auctions in Phase 3

		Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Jan-13	Feb-13
Common Auction Platform + United Kingdom & Germany	Price (€/t)	-	-	-	-	-	-	-	-	7.54	7.01	6.31	5.05	4.37
	Volume (Mt)	-	-	-	-	-	-	-	-	3.00	48.19	38.51	59.63	65.03
Auction Revenues (M€)	Germany	-	-	-	-	-	-	-	-	22.62	107.67	35.89	42.61	62.46
	United Kingdom	-	-	-	-	-	-	-	-	-	43.03	32.71	39.40	36.38
	France	-	-	-	-	-	-	-	-	-	24.73	18.73	21.97	19.37
	Others	-	-	-	-	-	-	-	-	-	162.35	155.78	191.70	166.09
	Total	-	-	-	-	-	-	-	-	-	22.62	337.79	243.11	295.68

Sources: EEX, ICE Futures Europe

Primary market - CER and ERU issued (MtCO₂)

		Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Jan-13	Feb-13
Cumulative volume of CER issued UNEP-Risoe (Mt)		877	895	919	943	959	974	995	1,009	1,036	1,094	1,155	1,198	1,208
Cumulative volume of ERU issued (Mt)	Track 1 (Mt)	106.5	114.2	126.8	151.3	152.8	157.1	206.2	214.0	232.7	233.2	385.7	564.6	600.0
	Track 2 (Mt)	12.7	16.0	16.6	16.6	16.8	17.3	18.8	19.1	19.4	20.0	363.8	22.6	22.7

Sources: UNEP-Risoe, CDC Climat Research

Secondary market - Prices (€/t) and volumes: EUA, CER, ERU (ktCO₂)

		Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Jan-13	Feb-13		
ICE Futures Europe	Daily spot	Price EUA phase 2	8.46	7.61	6.93	6.67	7.15	7.45	7.55	7.75	7.86	7.46	6.64	5.18	4.59	
		Volume EUA phase 2	-	-	-	-	-	-	-	-	-	-	265	635	17,518	
		Price EUA phase 3	-	-	-	-	-	-	-	-	-	-	6.79	5.19	4.59	
		Volume EUA phase 3	-	-	-	-	-	-	-	-	-	-	59	322	1,579	
		Price CER	4.47	4.14	3.88	3.58	3.65	3.34	2.90	2.10	1.49	0.89	0.40	0.17	0.15	
		Volume CER	-	-	-	-	-	-	-	-	-	-	-	-	327	1,099
		Spread EUA-CER	3.99	3.47	3.05	3.09	3.50	4.11	4.65	5.65	6.37	6.57	6.24	5.01	4.44	
	Dec. 13	Price EUA	9.42	8.41	7.54	7.21	7.69	7.98	8.05	8.18	8.24	7.78	6.88	5.35	4.71	
		Volume EUA	87,267	97,018	117,472	115,382	86,167	100,827	99,723	125,361	172,430	200,276	189,911	418,524	577,206	
		Price CER	5.18	4.82	4.39	3.90	3.96	3.66	3.24	2.35	1.68	1.07	0.52	0.38	0.34	
		Volume CER	17,595	12,558	10,353	17,842	14,262	13,537	16,445	26,805	38,256	34,684	52,279	41,549	26,190	
		Spread EUA-CER	4.24	3.59	3.15	3.31	3.73	4.32	4.81	5.83	6.56	6.71	6.36	4.97	4.37	
		Price ERU	4.97	4.71	4.60	3.97	3.73	3.44	3.01	2.17	1.46	0.76	0.44	0.25	0.14	
		Volume ERU	-	-	-	-	100	500	665	5,343	12,815	18,506	24,314	9,407	7,344	
Dec. 14	Spread CER-ERU	0.21	0.11	-0.21	-0.07	0.23	0.22	0.23	0.18	0.22	0.31	0.08	0.13	0.20		
	Price EUA	10.15	9.06	8.11	7.69	8.22	8.48	8.56	8.71	8.69	8.20	7.22	5.61	4.94		
	Volume EUA	17,532	33,838	36,978	38,724	36,878	58,473	50,089	37,884	59,562	69,731	42,296	70,721	78,927		
	Price CER	5.44	5.05	4.63	4.14	4.18	3.79	3.43	2.51	1.78	1.15	0.59	0.43	0.38		
	Volume CER	1,587	4,716	5,105	2,552	4,081	12,152	8,270	5,157	11,757	7,128	3,505	5,883	4,361		
Dec. 15	Spread EUA-CER	4.71	4.01	3.48	3.55	4.04	4.69	5.13	6.20	6.91	7.05	6.63	5.18	4.56		
	Price EUA	11.04	9.78	8.68	8.10	8.68	8.98	9.04	9.20	9.08	8.61	7.57	5.87	5.15		
	Volume EUA	3,750	10,255	14,654	28,946	9,110	20,847	22,887	16,553	21,338	24,491	28,890	41,647	57,190		
	Price CER	5.69	5.27	0.49	4.40	4.40	3.91	3.50	2.62	1.89	1.23	0.68	0.51	0.43		
	Volume CER	700	1,079	1,330	1,542	2,980	2,776	2,493	2,520	5,030	4,094	2,738	2,281	2,767		
Spread EUA-CER	5.35	4.51	8.20	3.70	4.28	5.07	5.54	6.58	7.19	7.38	6.89	5.36	4.72			

Sources: ICE Futures Europe

Emission-to-cap by EU ETS sector and country: difference between distributed allocations of allowances and verified emissions

	2008	2009	2010	2011
Combustion	-253.1	-113.5	-125.8	-79.4
Oil refining	-1.4	7.6	14.3	14.6
Coking plants	1.5	6.8	2.9	3.2
Metal ores	4.3	11.0	8.8	9.0
Steel production	51.6	89.3	71.4	71.9
Cement	20.9	61.4	61.0	62.4
Glass	2.5	6.1	5.5	5.4
Ceramic products	5.3	10.0	10.2	9.4
Paper	6.4	10.7	10.0	11.0
Other activities	0.2	4.3	1.3	-1.8
Total (Mt)	-161.3	94.2	59.8	105.9

Source: CTL

	2008	2009	2010	2011
Germany	-84.0	-36.6	-54.4	-49.6
United Kingdom	-50.8	-15.0	-16.8	2.6
Italy	-8.5	24.1	8.5	5.2
Poland	-3.1	10.8	5.9	4.2
Spain	-9.6	13.7	29.5	18.2
France	5.5	17.5	23.4	27.2
Czech Republic	5.2	12.2	10.6	12.3
The Netherlands	-6.8	2.8	0.1	8.9
Romania	7.7	24.9	27.7	23.7
Others	-17.0	39.8	25.3	53.4
Total (Mt)	-163.3	94.2	59.8	105.9

Source: CTL