

Reduction in free allowances for phase 3 of the EU ETS

In early September, the European Commission decided on the amount of free allowances attributed to industrial installations for phase 3 of the EU ETS, thus completing a process begun in 2009. This decision followed the examination of Member State proposals and their National Implementation Measures (NIM) with regard to two principal criteria: their compatibility with harmonized allocation rules and their consistency with benchmark values. The allocation proposals of all States were all approved with the exception of the allocation of 20 installations which are to be revised. In line with the ETS Directive, a correction factor was then applied so that these allocations do not exceed the maximum amount of free allocation allowed.

Taking into account transitional allocation of the heating sector, 43% of this cap will be allocated free (amounting to 6.6 billion allowances for the 2013-2020 period). Thus, 809 million allocations will be allocated in 2013, an amount that will reduce by 1.7% each year to reach 708 million in 2020. This allocation is 11.6% less than the amount initially requested by Member States after the application of the annual cross-sectoral correction factor. The correction factors used by the Commission, ranging from 5.7% in 2013 and 17.6% in 2020, may appear high. However, we have estimated that a correction factor between 7-15% would entail a net reduction of 22-29% of free allocation compared to phase 2. In a context where phase 2 allocations were 25% higher than verified emissions, the correction factor should principally serve to cut the surplus of allowances accumulated in phase 2.

What would be the net effect on the sectoral compliance costs? In a 2020 scenario with a CO₂ price of 20€/t, a phase 2 allowance surplus banked into Phase 3, and CO₂ emissions comparable to their levels before the crisis, the net cost of carbon would be limited to 4.8% of gross value added for a typical lime producer, 3.3% for cement and smaller for other sectors. These estimations are based on the assumption of a 15% reduction factor – close to the 17.6% used by the Commission –, a carbon cost that is not passed on to consumers and no abatement options available by 2020 below 20€/t.

Given the size of the challenge, the introduction of the system of free allocation defined through benchmarks and harmonized rules seems to have been reasonably efficient. Compared to the decentralized system of phases 1 and 2, this new allocation process has been more transparent, more harmonized, and, for the moment, less subject to legal challenge and the accompanying uncertainty.

However, if free allocation is to be conserved in the next climate and energy package as the primary method to reduce carbon leakage risk, then certain rules that affect the cross-sectoral correction factor could be improved. Firstly, the list of sectors considered exposed to carbon leakage risks could be limited to those who are actually exposed to this risk so as to reduce the preliminary amount of allowances that is subsequently revised by the correction factor, - e.g. by removing sectors from the list who are highly exposed to international trade but are subject to only a low carbon cost in their production costs. Similarly, those sectors not on this list should no longer receive free allocations after phase 3. This would help reduce the amount of preliminary free allocation and therefore also the need for a larger reduction factor for the remaining sectors who are genuinely exposed to carbon leakage risk.

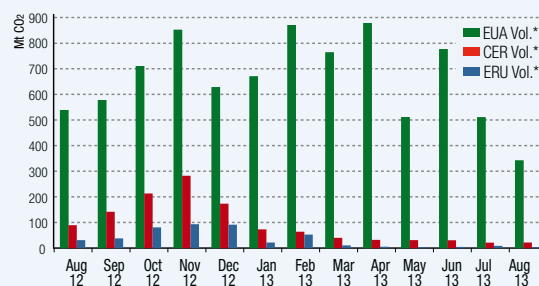
Beyond 2020, CO₂ prices should be higher than today as long as the ambition of the Energy-Climate 2030 package is confirmed. It will thus be more important that measures aiming to mitigate carbon leakage risks be better adapted to the nature and level of the risk of different sectors.

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Key points

- **Forthcoming free allowance allocations:** the European Commission will allocate 6.6 billion EUA for free to industrial installations, which is 11.5% less than what was initially demanded by Member states.
- **The EUA price stabilised between €4 and €5:** despite the uncertainty surrounding the political issue of “backloading”, the EUA price remained just below the €5 per tonne barrier due to the low level of allowances auctioned in August.
- **Low trading levels:** 342 million EUAs were traded in August, i.e. the lowest level since January 2011, while only 3.1 million ERUs and 22.3 million CERs were traded.

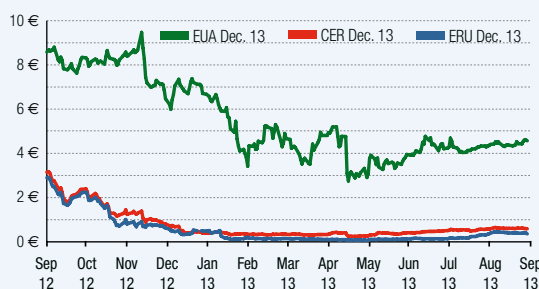
Trading volumes: EUA -33.0%, CER +2.7% ERU - 66.0%



* Spot & futures, exchanges & OTC cleared

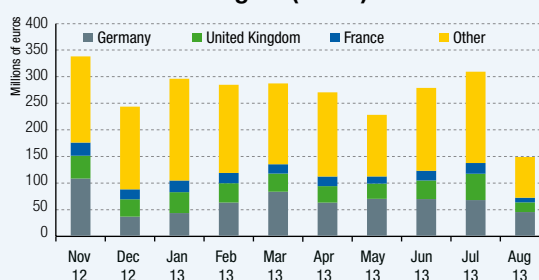
Source: CDC Climat Research calculation, based on data from BlueNext, EEX, ICE Futures Europe, NYMEX, Nasdaq OMX, and LCH Clearnet

Price of the Dec. 13 contract: EUA +6.5%



Source: CDC Climat Research, ICE Futures Europe

Income from Phase 3 auctions: €148.2 million in August (-52%)



Source: CDC Climat Research based on data from ICE Futures Europe, EEX

Energy

Primary energy prices and electricity prices

		Aug. 2013	
Coal	API # 2 CIF ARA (First month in USD/t)	75.5 ▲	
Natural gas	NBP (spot in €/MWh)	25.7 ▼	
	TTF (spot in €/MWh)	25.6 ▼	
Crude oil	Brent (First month in USD/b)	110.5 ▲	
Electricity	Germany (€/MWh)	Spot	39.6 ▲
		Calendar	36.6 ▼
	United Kingdom (€/MWh)	Spot	54.8 ▼
		Next summer	57.3 ▼
		Next winter	64.4 =

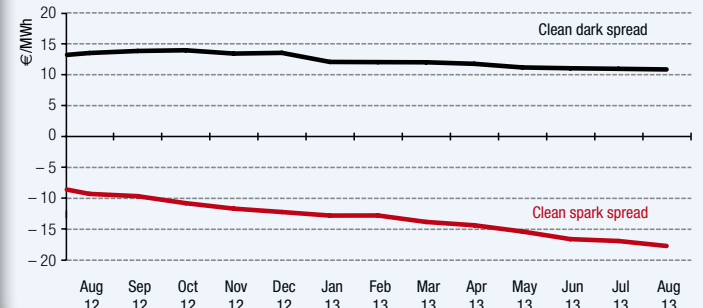
Sources: CDC Climat Research, Thomson Reuters

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*	-13.2	-17.7	16.0	10.9	31.5	31.5
United Kingdom*	9.4	3.5	30.5	31.2	31.1	30.0

* 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

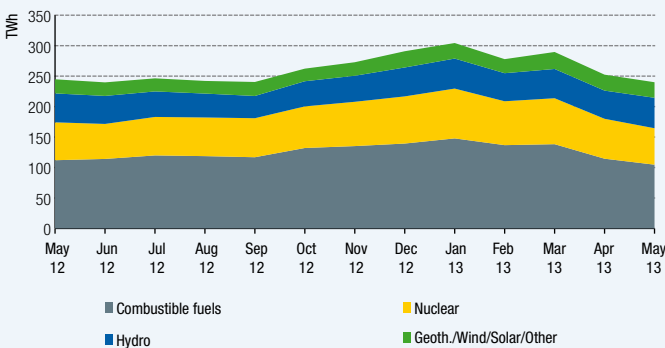
The price of Brent crude reached a level of almost USD 115 per barrel in late August, i.e. the highest level over the past six months. This increase was primarily driven by the improving macro-economic situation in the euro zone and China, as well as by geopolitical tensions in North Africa and the Middle East, which affected production capacity. The price of gas fell due to a fall in European consumption and to the increase of supply by Norway. The price of coal continued its downward trend and posted levels that were as weak as three years ago. As a result, electricity prices ended the month at historically low levels in Germany: following a slight fall in August, the price of the Cal. 2014 contract closed at €36.9 per MWh. The price of the Winter 2014 contract in the United Kingdom ended the month at €64.4 per MWh. Under these conditions, clean dark and spark spreads continued to fall in Germany. In the United Kingdom, however, clean dark and spark spreads continued to narrow on the spot market, even if it increased on the futures market. The fictional price of CO₂ that would trigger a fuel switch was calculated at around €31 per tonne.

Production

Electricity generation (TWh)

EU 20 (in TWh)	May 13	Jan.- May 13	Year-on-Year (% change)
Production	240.0	1,364.2	0.8%
of which - Combustible fuels	104.7	642.0	-5.8%
- Nuclear	59.8	354.5	-2.1%
- Hydro	50.0	239.5	12.3%
- Geoth./Wind/Solar/Other	25.5	128.1	22.1%

* Gas, coal, oil.

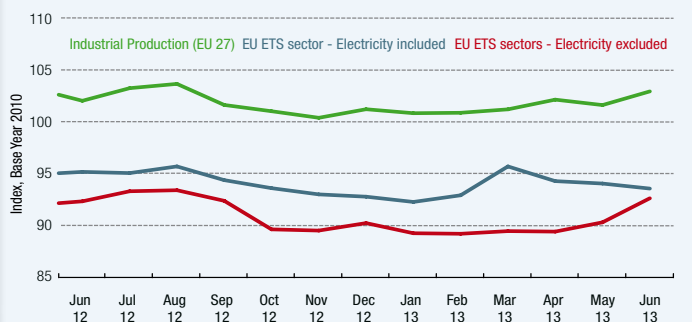


Source: CDC Climat Research, from IEA data

Production indices (Index base year 2010)

EU 27	Jun. 13	Last month (pts)	Year-on-Year (pts)
Indust. Prod. (excl. construction)	102.9	1.3	1.2
EU ETS sectors production* (incl. electricity)	93.5	-0.5	-0.6
EU ETS sectors production* (excl. electricity)	92.6	2.3	1.8
Electricity, gas and heating	94.0	-1.9	1.0
Cement	82.2	3.5	3.4
Metallurgy	97.9	1.9	1.0
Oil refinery	98.2	3.6	3.0

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

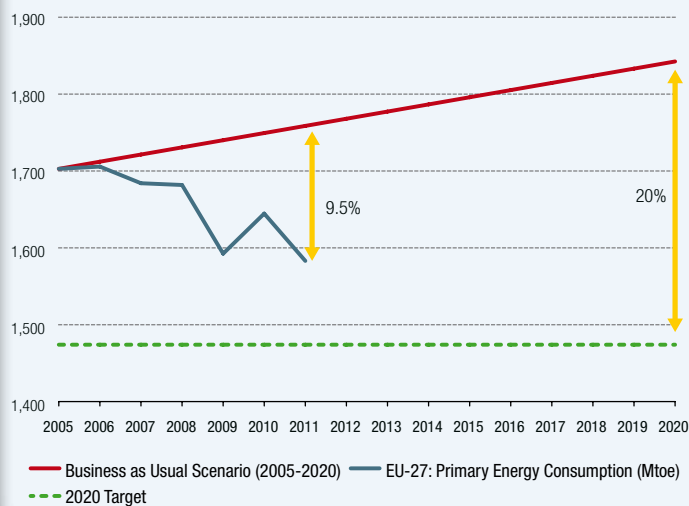


Source: CDC Climat Research, from Eurostat data

The macro economic data for the euro zone was positive in August, indicating a recovery that could gather pace during the third quarter. The GDP growth rate in the 2nd quarter amounted to 0.7% in the United Kingdom, 0.6% in Germany, and 0.5% in France. This improvement was reflected in a 3-pt recovery in EU-27 business confidence indices. Furthermore, the composite euro zone PMI index increased, reaching the highest level since the end of 2011 (51.5 pts). Our EU ETS sector output index contracted by 0.5 pt in June, primarily due to a 1.9 pt contraction in the output of the electricity sector, while output in the manufacturing sector rose by 1.3 pt. Aggregate gross power generation between January and May 2013 amounted to 1,364.2 TWh at the EU-27 level, an increase of 0.8% compared with the same period last year. The increase over the period was accompanied by an increase in hydropower sources (+12.3%) and in renewable sources (+8.7%), while fossil fuel and nuclear power generation decreased by 5.8% and 2.1% respectively.

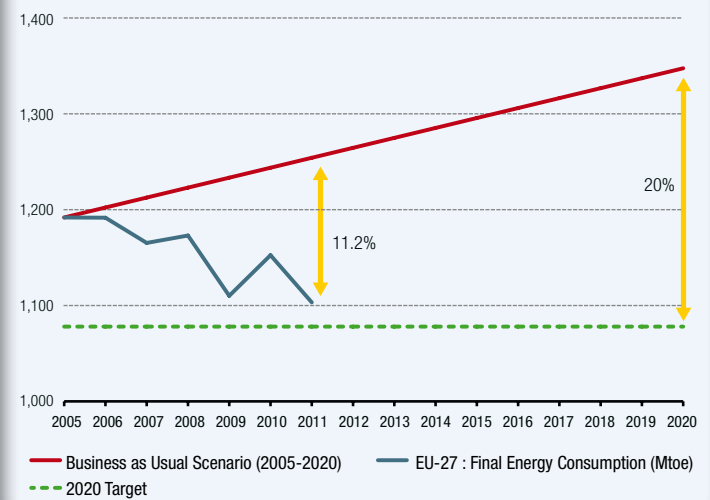
Coordination with the 20-20-20 policies

Primary Energy Consumption compared to 2020 target (EU-27, Mtoe)



Source: Eurostat (June 2013)

Final Energy Consumption compared to 2020 target (EU-27, Mtoe)



Source: Eurostat (June 2013)

The EU commitment to achieving the 20% energy efficiency (EE) target legally defined by the EE Directive is now specified at the Member States' level. At the end of June, 26 Member states notified the EC of their national targets in terms of reductions in primary energy consumption, the sum of 1,526.7 Mtoe is higher than the 2020 target (1,474 Mtoe), or in terms of reduction in final energy consumption for a total of 1,107.3 Mtoe, also higher than the 2020 target (1,078 Mtoe). In the first semester of 2014, the EC will review and report on progress, and assess whether further measures are needed. Based on last data, the EU is on its way to meet this target: as of 2011, EU-27 has recorded 11.2% final energy savings and 9.5% primary energy savings with respect to the 2020 business-as-usual scenario. Furthermore, the EC received almost 600 responses to the consultation on the Green Paper "A 2030 framework for climate and energy policies" which will feed into the Commission's preparations for concrete proposals for the 2030 framework expected by the end of 2013.

Institutional environment

Phase 2 balance

	2008	2009	2010	2011	2012	Total
Free allowances (A)	1,958	1,974	1,998	2,016	2,049	9,996
Auctioned allowances (E)	44	78	92	93	99	407
Verified emissions (VE)	2,120	1,880	1,939	1,904	1,867	9,709
Compliance position (A + E - VE)	-117	172	152	205	282	694
Allowance /credits surrendered						
EUA (R)	2,010	1,839	1,793	1,637	1,383	8,662
URCE	84	77	117	178	214	670
URE	0	3	20	76	279	378
EUA excess (+) or shortfall (-) (A + E - R)	-7	213	297	472	766	1,742

Sources: CDC Climat Research based on EURL, ICE Futures Europe, EEX

CER and ERU supply

	As of 13	Variation mensuelle
Number of CDM projects	11,016	+6
<i>of which - registered</i>	7,217	+89
<i>with - CER issued</i>	2,441	+33
Cumulative volume of CER issued (Mt)	1,369	+7
CERs available until 2015, EU ETS eligible - CDC Climat Research estimate (Mt)*	2,115	0
Number of JI projects	786	2
<i>of which - registered</i>	601	2
Cumulative volume of ERU issued (Mt)	809.8	+28
<i>via - Track 1</i>	785.1	+28
<i>via - Track 2</i>	24.7	0

* 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>

Sources: CDC Climat Research, UNEP, Riseo

The rules for phase 3 of the EU ETS are becoming clearer. Member States approved the European Commission's proposal regarding the rules for using international credits on 10 July; the proposal will now be submitted to the European Parliament and Council. Between 2008 and 2020, the limit on importing international carbon allowances has been set at a maximum level of 11% of the free allocation of those allowances for stationary Phase 2 installations, and to 4.5% and 1.5% of the verified Phase 2 emissions for new entrants and the aviation sector. The Commission approved all of the phase 3 National Implementation Measures (NIM) on September 5, and thus confirmed the total volume of free allowances for Phase 3 (6.6 billion EUA). As a result, some 66.33 million quotas more will be auctioned in 2014. In August, 33.6 million allowances were auctioned via the EEX and ICE Futures Europe platforms, i.e. half of the amount in the previous months, which generated revenues of €148 million for Member States. Poland will sell 3.66 million allowances weekly from September 16th to December 16th via EEX.

Carbon markets dashboard

Primary market - EUA auctions in Phase 3

		Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13	Apr-13	May-13	Jun-13	Jul-13	Aug-13
Common Auction Platform + United Kingdom & Germany	Price (€/t)	-	-	7.54	7.01	6.31	5.05	4.37	4.06	3.85	3.40	4.23	4.16	4.40
	Volume (Mt)	-	-	3.00	48.19	38.51	59.63	65.03	70.61	70.19	66.45	65.89	76.65	33.65
Auction Revenues (M€)	Germany	-	-	22.62	107.67	35.89	42.61	62.46	82.86	62.31	69.46	68.98	67.09	44.50
	United Kingdom	-	-	-	43.03	32.71	39.40	36.38	34.23	31.05	28.69	35.06	49.65	18.30
	France	-	-	-	24.73	18.73	21.97	19.37	17.50	18.14	13.58	18.29	20.16	8.76
	Others	-	-	-	162.35	155.78	191.70	166.09	152.26	158.58	116.04	156.10	172.06	76.64
	Total	-	-	22.62	337.79	243.11	295.68	284.30	286.86	270.07	227.66	278.43	308.96	148.20

Sources: EEX, ICE Futures Europe

Primary market - CER and ERU issued (MtCO₂)

		Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13	Apr-13	May-13	Jun-13	Jul-13	Aug-13
Cumulative volume of CER issued UNEP-Risoe (Mt)		995	1,009	1,036	1,094	1,155	1,198	1,208	1,271	1,308	1,335	1,353	1,362	1,369
Cumulative volume of ERU issued (Mt)	Track 1 (Mt)	206.2	214.0	232.7	233.2	385.7	564.6	600.0	651.3	651.3	714.5	757.0	757.0	785.1
	Track 2 (Mt)	18.8	19.1	19.4	20.0	363.8	22.6	22.7	22.9	22.9	23.9	24.4	24.6	24.7

Sources: UNEP-Risoe, CDC Climat Research

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

			Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13	Apr-13	May-13	Jun-13	Jul-13	Aug-13
ICE Futures Europe	Daily spot	Price EUA phase 3	-	-	-	-	6.79	5.19	4.59	4.09	3.88	3.51	4.25	4.22	4.42
		Volume EUA phase 3	-	-	-	-	59	322	1,579	6,023	78,306	10,801	28,962	24,076	5,564
		Price CER	2.90	2.10	1.49	0.89	0.40	0.17	0.15	0.17	0.09	0.39	0.44	0.53	0.62
		Volume CER	-	-	-	-	-	327	1,099	1,541	1,901	0	112	0	57
	Dec.13	Price EUA	8.05	8.18	8.24	7.78	6.88	5.35	4.71	4.18	3.94	3.56	4.29	4.25	4.44
		Volume EUA	99,723	125,361	172,430	200,276	189,911	418,524	577,206	443,144	494,819	321,897	416,664	316,457	180,625
		Price CER	3.24	2.35	1.68	1.07	0.52	0.38	0.34	0.33	0.32	0.36	0.45	0.54	0.61
		Volume CER	16,445	26,805	38,256	34,684	52,279	41,549	26,190	21,420	20,693	21,014	15,073	10,629	14,912
		Price ERU	3.01	2.17	1.46	0.76	0.44	0.25	0.14	0.13	0.09	0.11	0.14	0.22	0.41
		Volume ERU	665	5,343	12,815	18,506	24,314	9,407	7,344	1,425	4,804	2,940	5,062	8,984	2,234
	Dec.14	Price EUA	8.56	8.71	8.69	8.20	7.22	5.61	4.94	4.37	4.11	3.72	4.46	4.39	4.58
		Volume EUA	50,089	37,884	59,562	69,731	42,296	70,721	78,927	79,675	112,934	59,334	95,104	48,690	74,289
Price CER		3.43	2.51	1.78	1.15	0.59	0.43	0.38	0.37	0.35	0.39	0.48	0.56	0.62	
Volume CER		8,270	5,157	11,757	7,128	3,505	5,883	4,361	2,089	3,885	1,949	8,891	7,134	6,505	
Dec.15	Price EUA	9.04	9.20	9.08	8.61	7.57	5.87	5.15	4.55	4.28	3.88	4.67	4.55	4.75	
	Volume EUA	22,887	16,553	21,338	24,491	28,890	41,647	57,190	49,718	61,556	34,689	91,861	41,204	20,176	
	Price CER	3.50	2.62	1.89	1.23	0.68	0.51	0.43	0.41	0.38	0.46	0.55	0.64	0.70	
	Volume CER	2,493	2,520	5,030	4,094	2,738	2,281	2,767	710	1,706	4,087	6,792	2,617	620	

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	2012
Combustion	-253.1	-113.5	-125.8	-76.9	-40.6
Oil refining	-1.4	7.6	14.3	16.0	24.2
Coking plants	1.5	6.8	2.9	3.1	5.7
Metal ores	4.3	11.0	8.8	8.9	9.8
Steel production	51.6	89.3	71.4	72.8	74.0
Cement	20.9	61.4	61.0	62.8	74.1
Glass	2.5	6.1	5.5	5.4	6.4
Ceramic products	5.3	10.0	10.2	9.6	10.4
Paper	6.9	11.3	10.0	11.1	12.9
Other activities	0.2	4.3	1.3	-0.7	6.2
Total (Mt)	-161.3	94.2	59.8	112.1	183.2

Source: CTL

	2008	2009	2010	2011	2012
Germany	-84.0	-36.6	-54.4	-49.5	-27.8
United Kingdom	-50.8	-15.0	-16.8	2.5	-2.2
Italy	-8.5	24.1	8.5	5.3	12.8
Poland	-3.1	10.8	5.9	4.2	16.1
Spain	-9.6	13.7	29.5	18.4	17.4
France	5.5	17.5	23.4	33.9	35.8
Czech Republic	5.2	12.2	10.6	12.2	17.1
The Netherlands	-6.8	2.8	0.1	8.9	10.6
Romania	7.7	24.9	27.7	23.6	26.9
Others	-17.0	39.8	25.3	52.7	76.6
Total (Mt)	-161.3	94.2	59.8	112.1	183.2

Source: CTL