

Doha opens partway the door to shift to -25% for the EU

The Doha Conference in Qatar followed two conferences that yielded relatively significant results, namely Cancun (2010) and Durban (2011). These previous conferences had most notably agreed on a second commitment period for the Kyoto Protocol (KP-CP2), begun a negotiation process aimed at achieving an international post-2020 agreement, as well as furthered progress on the issue of financing. The aim of the Doha Conference was therefore to provide a link between the process drawn up by the Bali Roadmap (2007) and the one launched in Durban in 2011, with the aim of arriving at an international post-2020 agreement. In the end, the Doha Conference enabled the definition of the rules of the second period of the Kyoto protocol and provided direction for a global agreement in 2015, but was however unable to give a strong signal on the issue of funding¹.

The progress made on the KP-CP2 is the most visible and concrete outcome: it is expected to involve a maximum of 37 countries, accounting for 14% of current global emissions, over the period between 2013 and 2020. Countries with commitments under the second period will be authorised to carry-over their allowances (UQAs), and credits from project-based mechanisms (CERs and ERUs) from the first period, although limits are put on their use. Further, a system preventing any commitments above current emission levels automatically avoids more hot air being created during KP-CP2. Determined in the final moments of the conference, these rules could however jeopardize the participation of Belarus, Kazakhstan and Ukraine to the KP-CP2. When excluding these three countries, the new rules and commitments are expected to result in greenhouse gas (GHG) emission reductions of 2% over the period between 2013 and 2020 compared to 2008-2010 average levels.

In terms of CERs and ERUs, the willingness of most countries not to buy AAUs for their compliance could also, lead to a marginal increase in the demand for credits from project mechanisms, depending on how they implement these statements of intent.

In the end, the reaction of attendees and observers at the Doha Conference was mixed. As at earlier Conferences of the Parties, most of the criticism was directed at a UN process that appears to be immune to the urgency of the need to take action on climate change which has been both recognized and quantified by an increasing number of international institutions. COP 18 seems nonetheless to have met the modest expectations that it raised. The negotiation timetable, now based on an agreement planned for 2015, did not impose any major political decision this year beyond an agreement on the KP-CP2.

Moving forward, the countries with commitments under the KP-CP2 have agreed to review their commitments by 2014. They are invited to align commitments with a shared reduction between -25% and -40% compared to 1990. If Belarus, Kazakhstan and especially Ukraine do not reconfirm their support for the KP-CP2, the EU would need to shoulder the bulk of the recommended effort.

The review of the European commitment could open the way for a move to -25% from the current -20% for the EU emissions reduction target, with potential implications for the EU ETS. Nevertheless, an agreement within the European Union would be a prerequisite for such a change, and in this context, the position of Poland will be a determining factor. As luck would have it, the next COP will be held in November 2013 in Warsaw. The role of host of the COP 19 could encourage Poland to further its climate engagements – as seen with Gulf countries in Doha, launching work on the diversification of their economies, as well as in the case of emerging countries in Durban in 2011 – by supporting a new global agreement to be decided by 2015. A good resolution for 2013?

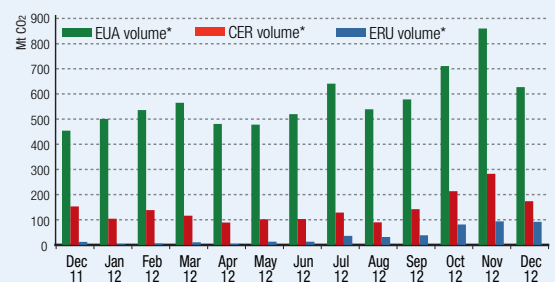
Romain Morel and Benoît Leguet - CDC Climat Research
romain.morel@cdcclimat.com, benoit.leguet@cdcclimat.com

1. See Morel, R., Leguet, B. and Bellassen, V. (2012), *Climate Brief* n°24 - <http://www.cdcclimat.com/Climate-Brief-no24-International-climate-negotiations-at-COP-18-the-art-of-the-Doha-ble,1237.html>

Key points

- On 13 December, the European Commission published proposed amendments to the Registry Regulations, which clarified the use of ERUs and the exchange between EUAs and EUAs; these amendments will be put to the Climate Change Committee's vote on 23 January.
- On 18 December, the Commission published an initial list of "innovative" projects that are entitled to financing under the NER 300 Initiative. No CSC project was selected.
- On 28 December, the price of CERs and ERUs for delivery in March 2013 hit historical lows of €0.15 and €0.12 per tonne respectively.

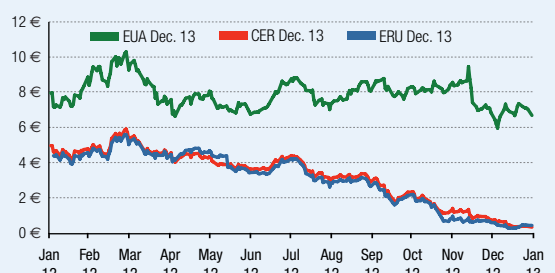
Trading volumes: EUA -21.1%, CER -38.5%, ERU -2.0%



* 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

Dec.13 contract prices: EUA +3.1%, CER -51.9%, ERU -19.0%



Source: CDC Climat Research, ICE Futures Europe

Increase in the Dec. 13 EUA-CER spread: +11%



Source: CDC Climat Research, ICE Futures Europe

Energy

Primary energy prices and electricity prices

		Dec. 2012	
Coal	API # 2 CIF ARA (First month in USD/t)	90.3 ▲	
Natural gas	NBP (spot in €/MWh)	27.8 ▼	
	TTF (spot in €/MWh)	27.2 ▼	
Crude oil	Brent (First month in USD/b)	109.2 ▼	
Electricity	Germany (€/MWh)	Spot	45.8 ▼
		Calendar	45.3 ▼
	United Kingdom (€/MWh)	Spot	60.3 ▼
		Next summer	60.4 ▼
		Next winter	66.7 ▼

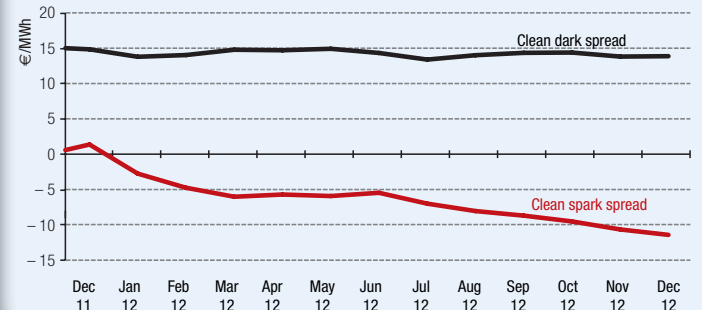
Sources: CDC Climat Research, Thomson Reuters

Clean dark, clean spark spreads and switching price

	Clean spark (€/MWh)		Clean dark (€/MWh)		Switching Price (€/tCO ₂)	
	spot	2013	spot	2013	spot	2013
Germany*	-11.2	-11.4	16.3	13.9	32.0	30.8
United Kingdom*	9.6	4.6	29.6	27.8	32.1	28.5

* Germany, 2013 calendar contract, United Kingdom, winter 2012 contract.

German baseload – monthly average of Cal. 2013 clean dark and clean spark spreads



Sources: CDC Climat Research, Thomson Reuters

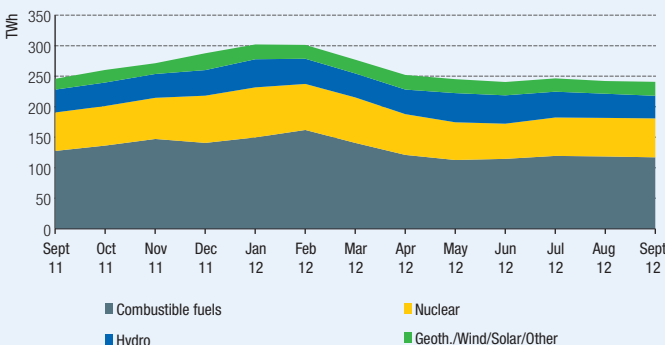
The Brent Crude price ranged between USD 107 and 111 per barrel in December, and remained stable overall, despite the abundant supply. IEA, EIA and OPEC reports showed a slowdown in oil demand growth due to the downbeat outlook for Europe and to the increase in oil output in the US as a result of shale oil. The month-on-month TTF price fell by 3.3% due to the higher temperatures recorded at the end of the month, which reduced European gas demand. The 2012 coal price followed this downward trend, and hit an average price of USD 95.60 per tonne, an average fall of 27.1% compared with March 2011. In Germany, the price of 2013 base-load electricity fell by 3.9%; clean dark spreads stabilised at €13.80 per MWh, while clean spark spreads dropped to -€11.40 per MWh. In the United Kingdom, the summer 2013 contract fell by 2.9%, although average clean dark and spark spreads stabilised at €27.80 and €4.60 per MWh. The average 2013 CO₂-switch price reached €30.80 in Germany and €28.50 in the United Kingdom.

Production

Electricity production (TWh)

EU 20 (in TWh)	Sep. 12	Since Jan. 12	Past year (% change)
Production	241.0	2,349.6	0.9%
of which - Combustible fuels	116.9	1,154.1	-2.8%
- Nuclear	64.0	610.0	-4.7%
- Hydro	37.1	381.2	12.2%
- Geoth./Wind/Solar/Other	22.9	204.2	27.0%

* Gas, coal, oil.

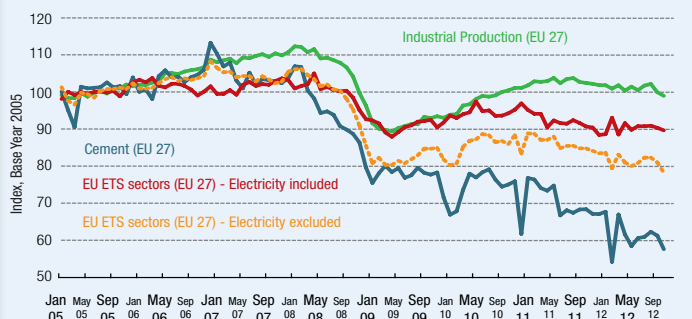


Source: CDC Climat Research, from IEA data

Production indices (Index base year 2005)

EU 27	Oct. 12	Last month (pts)	Year-on-year (pts)
Indust. Prod. (excl. construction)	99.0	-1.0	-2.6
EU ETS sectors production* (incl. electricity)	89.7	-0.7	-0.8
EU ETS sectors production* (excl. electricity)	78.3	-2.8	-4.2
Electricity, gas and heating	95.7	0.4	1.0
Cement	57.7	-3.7	-5.8
Metallurgy	87.7	-3.5	-4.1
Oil refinery	85.2	-2.4	-2.6

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



Source: CDC Climat Research, from Eurostat data

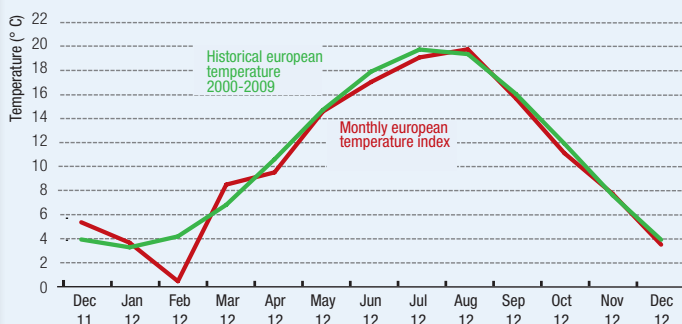
In December 2012, the ECB downgraded its growth forecasts for the euro zone significantly, to -0.5% for 2012 and -0.3% for 2013. Our EU ETS sector output index posted a 0.7 pt decrease in October, which was smaller than that of the manufacturing sector as a whole (-1 pt). Conversely, the EU ETS sector output index excluding electricity fell by 2.7 pts. The cement, steel, and oil refining sectors saw steep falls in their output, which amounted to -3.7 pts, -3.5 pts, and -2.4 pts respectively. Over the past 12 months, the three sectors that experienced the most significant fall in output were still the ceramics (-6.0 pts), cement (-5.8 pts) and glass manufacturing (-5.6 pts) sectors. Aggregate European electricity generation amounted to 2,349.6 TWh between January and September 2012, up 0.9% compared with the same period in 2011. This increase was accompanied by increased use of hydraulic power (+12.2%) and other renewable energies (+27.0%), and by a decline in the use of nuclear power (-4.7%) and fossil fuels (-2.8%).

Temperature impact

European temperature index (°C)

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

	Nov. 12	Dec. 12
Monthly average (°C)	7.8	3.5
Monthly average (°C) 2000-2009	7.6	3.9
Monthly minimum (°C)	3.4	-1.0
Monthly maximum (°C)	9.1	7.2

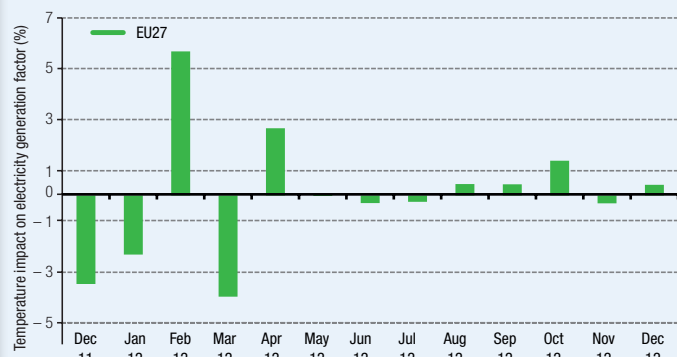


Source: Metnext Weather

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.

	Nov. 12	Dec. 12
EU 27	-0.3	0.4



Source: Metnext Weather

In December 2012, the average weather & economy index within the EU-27 was slightly lower than its ten-year trend of 0.4°C. Countries in Northern Europe experienced the coldest temperatures, with divergences from the historical trend of -4.2°C in Finland and Sweden, and of -2.5°C in Denmark, Norway and Poland. Continental European countries experience warmer temperatures, particularly in France (+1.6°C), and the Netherlands (+0.8°C). Compared with normal conditions, the temperatures recorded in France and the Netherlands put downward pressure on electricity generation, which was estimated to be down 5.1% and 3.3% respectively due to a decrease in the use of heating. In Spain, the divergence between the monthly and ten-year average dam fill-rates reached 11%, while dam levels in the Nordic Region dropped slightly below the ten-year level for the first time since September 2011.

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

Sources: CTL, UK Debt Management Office, EEX

CER and ERU supply

	Dec. 12	Last month change
Number of CDM projects	10,934	+ 17
<i>of which - registered</i>	5,547	+ 353
<i>with - CER issued</i>	1,986	+ 90
Cumulative volume of CER issued (Mt)	1,155	+ 61
CER available until May 2013* - CDC Climat Research estimate (Mt)	1,214	0
Number of JI projects	763	+ 49
<i>of which - registered</i>	576	+ 81
Cumulative volume of ERU issued (Mt)	385.7	+ 132.5
<i>via - Track 1</i>	363.8	+ 130.6
<i>via - Track 2</i>	21.9	+ 1.9

* 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 Risoe

On 11 December, the Commission published a set of questions & answers regarding the exemption enjoyed by international airlines in 2012 where the compliance of their CO₂ emissions within the EU ETS was concerned. The exchanges have published their allowance auction timetable for 2013: the sales from 24 States, Poland, and three EEA States will take place on the EEX on Monday, Tuesday, and Thursday; Germany's sales will take place on Friday, while the United Kingdom's auctions will take place on ICE on Thursdays. On 13 December, the Commission published proposed amendments to the Registry Regulations regarding the rules for using ERUs within the EU ETS after January 2013, and the procedures for exchanging EUAs and EUAs. These proposals will be put to the Climate Change Committee's vote on 23 January with a view to taking effect eventually after April 2013. On 18 December, the Commission published an initial list of "innovative" projects that are entitled to financing under the NER 300 Initiative. No CSC project was selected, as the Commission took the view that such projects did not meet all the required criteria. A second list is expected to be published in mid-2013.

Carbon markets dashboard

Primary market - EUA auctions in Phase 2 (MtCO₂)

Countries		Dec-11	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	
United Kingdom	Price (€/t)	-	-	8.11	8.55	-	6.67	-	8.12	-	8.11	7.47	-	-	
	Volume (Mt)	-	-	3.50	3.50	-	4.00	-	4.00	-	4.00	4.32	-	-	
Germany	Price (€/t)	Spot	-	6.90	8.44	7.56	6.64	6.55	6.95	7.49	7.64	7.61	7.87	7.78	-
		Futures	-	6.98	8.59	7.79	6.72	6.72	7.12	7.52	7.46	7.67	7.90	-	-
	Volume (Mt)	Spot	-	1.50	1.20	1.20	1.20	1.20	1.50	1.50	1.20	1.20	1.50	3.17	-
		Futures	-	2.58	3.23	2.58	1.93	3.23	3.40	3.40	4.25	3.40	3.40	-	-
Others	Price (€/t)	7.13	7.36	-	7.34	6.93	-	6.59	-	-	-	7.77	7.09	6.47	
	Volume (Mt)	0.85	1.85	-	1.85	1.03	-	1.00	-	-	-	1.50	1.50	4.75	

Sources: EEX, UK Debt Management Office, Athens Stock Exchange*

Primary market - CER and ERU issued (MtCO₂)

		Dec-11	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12
Cumulative volume of CER issued UNEP-Risoe (Mt)		816	852	877	895	919	943	959	974	995	1,009	1,036	1,094	1,155
CER available until May 2013 - CDC Climat Research estimate (Mt)		1,268	1,276	1,276	1,271	1,271	1,271	1,271	1,250.5	1,230	1,198	1,190	1,214	1,214
Cumulative volume of ERU issued (Mt)	Track 1 (Mt)	96.8	106.2	106.5	114.2	126.8	151.3	152.8	157.1	206.2	214.0	232.7	233.2	385.7
	Track 2 (Mt)	11.6	12.7	12.7	16.0	16.6	16.6	16.8	17.3	18.8	19.1	19.4	20.0	363.8

Sources: UNEP-Risoe, CDC Climat Research

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

		Dec-11	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12		
Daily spot	Price EUA phase 2	7.40	6.89	8.46	7.61	6.93	6.67	7.15	7.45	7.55	7.75	7.86	7.46	6.64		
	Volume EUA phase 2	-	-	-	-	-	-	-	-	-	-	-	-	265		
	Price EUA phase 3	-	-	-	-	-	-	-	-	-	-	-	-	6.79		
	Volume EUA phase 3	-	-	-	-	-	-	-	-	-	-	-	-	59		
	Price CER	4.77	3.77	4.47	4.14	3.88	3.58	3.65	3.34	2.90	2.10	1.49	0.89	0.40		
	Volume CER	-	-	-	-	-	-	-	-	-	-	-	-	-		
	Spread EUA-CER	2.63	3.12	3.99	3.47	3.05	3.09	3.50	4.11	4.65	5.65	6.37	6.57	6.24		
	ICE Futures Europe	Dec. 13	Price EUA	8.42	7.74	9.42	8.41	7.54	7.21	7.69	7.98	8.05	8.18	8.24	7.78	6.88
			Volume EUA	56,595	68,819	87,267	97,018	117,472	115,382	86,167	100,827	99,723	125,361	172,430	200,276	189,911
			Price CER	5.33	4.60	5.18	4.82	4.39	3.90	3.96	3.66	3.24	2.35	1.68	1.07	0.52
			Volume CER	11,176	12,329	17,595	12,558	10,353	17,842	14,262	13,537	16,445	26,805	38,256	34,684	52,279
			Spread EUA-CER	3.09	3.14	4.24	3.59	3.15	3.31	3.73	4.32	4.81	5.83	6.56	6.71	6.36
		Dec. 14	Price ERU	5.09	4.36	4.97	4.71	4.60	3.97	3.73	3.44	3.01	2.17	1.46	0.76	0.44
			Volume ERU	-	-	-	-	-	-	100	500	665	5,343	12,815	18,506	24,314
Spread CER-ERU			0.24	0.24	0.21	0.11	-0.21	-0.07	0.23	0.22	0.23	0.18	0.22	0.31	0.08	
Price EUA			8.95	8.31	10.15	9.06	8.11	7.69	8.22	8.48	8.56	8.71	8.69	8.20	7.22	
Volume EUA			14,738	24,633	17,532	33,838	36,978	38,724	36,878	58,473	50,089	37,884	59,562	69,731	42,296	
Dec. 15	Price CER	5.61	4.84	5.44	5.05	4.63	4.14	4.18	3.79	3.43	2.51	1.78	1.15	0.59		
	Volume CER	2,807	1,834	1,587	4,716	5,105	2,552	4,081	12,152	8,270	5,157	11,757	7,128	3,505		
	Spread EUA-CER	3.34	3.47	4.71	4.01	3.48	3.55	4.04	4.69	5.13	6.20	6.91	7.05	6.63		
	Price EUA	9.50	8.94	11.04	9.78	8.68	8.10	8.68	8.98	9.04	9.20	9.08	8.61	7.57		
	Volume EUA	2,493	2,003	3,750	10,255	14,654	28,946	9,110	20,847	22,887	16,553	21,338	24,491	28,890		
Dec. 15	Price CER	5.88	5.08	5.69	5.27	0.49	4.40	4.40	3.91	3.50	2.62	1.89	1.23	0.68		
	Volume CER	1,921	2,660	700	1,079	1,330	1,542	2,980	2,776	2,493	2,520	5,030	4,094	2,738		
	Spread EUA-CER	3.62	3.86	5.35	4.51	8.20	3.70	4.28	5.07	5.54	6.58	7.19	7.38	6.89		

Sources: ICE Future Europe

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

	2008	2009	2010	2011		2008	2009	2010	2011
Combustion	-253.1	-113.5	-125.8	-79.4	Germany	-84.0	-36.6	-54.4	-49.6
Oil refining	-1.4	7.6	14.3	14.6	United Kingdom	-50.8	-15.0	-16.8	2.6
Coking plants	1.5	6.8	2.9	3.2	Italy	-8.5	24.1	8.5	5.2
Metal ores	4.3	11.0	8.8	9.0	Poland	-3.1	10.8	5.9	4.2
Steel production	51.6	89.3	71.4	71.9	Spain	-9.6	13.7	29.5	18.2
Cement	20.9	61.4	61.0	62.4	France	5.5	17.5	23.4	27.2
Glass	2.5	6.1	5.5	5.4	Czech Republic	5.2	12.2	10.6	12.3
Ceramic products	5.3	10.0	10.2	9.4	The Netherlands	-6.8	2.8	0.1	8.9
Paper	6.4	10.7	10.0	11.0	Romania	7.7	24.9	27.7	23.7
Other activities	0.2	4.3	1.3	-1.8	Others	-17.0	39.8	25.3	53.4
Total (Mt)	-161.3	94.2	59.8	105.9	Total (Mt)	-163.3	94.2	59.8	105.9

Source: CTL

Source: CTL