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N°86

COP... Operation towards 2015: MRV, the first stepping stone towards a new international agreement?

The Warsaw Conference took place against a specific backdrop. Various events succeeded one another, like Typhoon Haiyan, the sacking of the Polish Minister for the Environment and the Chairman of the CoP, the holding of a parallel conference on "clean" coal, the decrease in Japan's commitments, the jettisoning of the Australian carbon tax, and even the departure of non-governmental organisations before the end of the negotiations.

And yet, what were we expecting from Warsaw, two years before the date when we are hoping that a new world-wide agreement will be reached? Indeed, Warsaw did not offer anything substantial, apart from a negotiation timetable, to those who were hoping for "stringent" emission reduction commitments from the agreement scheduled for 2015. However, for people who were primarily expecting the emergence of common and internationally recognised monitoring, reporting and verification (MRV) tools from Paris 2015, Warsaw marked a major advance.

First up was the emission MRV process, due to the decisions on REDD+. The issue has been looming at negotiations for several years. This time, the countries agreed on an ambitious joint framework, which sets the conditions for financing dedicated to combating deforestation and damage to soils, and for reforestation. Forestry emissions in countries that wish to receive REDD+ financing will be subject to an MRV process that is as stringent as the one currently in effect for Appendix I countries. This requirement applies to UNFCCC funding, including the Green Climate Fund, although it is highly likely that it will also apply to ongoing bilateral or multi-lateral REDD+ financing, where the major donors and recipients are signatories to the UNFCCC.

This is the first time that developing countries have agreed to an internationally audited MRV process, where the rules are similar to those applied to Appendix I countries. This is likely to create a precedent that will be hard not to take into account in future discussions, including regarding the MRV process for NAMAs² which receive international financing. It is an encouraging sign in the run-up to the 2015 agreement, which "will apply to everyone".

In the same vein, the MRV process for emission reduction policies has made significant process, once again on the REDD+ issue, as the aim is actually to reward the results of land usage policies, but also more broadly due to the updated bi-annual reports for developing countries. These countries will actually be subject to an international review that is similar to the review for the bi-annual reports for Appendix 1 countries, although their format is more restrictive. In both cases, however, the review guidelines are undoubtedly still too vague for working on the reliability and comparability of policies' MRV processes.

There are other technical advances worth noting, including, *inter alia*, the Warsaw mechanism for losses and damages, which is responsible for improving the dissemination of methods to manage risk and look for synergies among stakeholders, and should provide a boost for technical and financial support initiatives. This mechanism is expected to be fully operational as from the next CoP in late 2014.

Ultimately, the international negotiation ship did not run aground in Warsaw, and even made steady progress in terms of MRV processes and overcoming the Appendix 1-Non-Appendix 1 dichotomy. Heavy weather is expected from September 2014, at the time of the New York Climate Summit, until the end of the first quarter of 2015: the expected date for countries "that are ready" to make their contributions. The Warsaw Conference showed that the negotiation captains know how to go full steam ahead and make progress even in a critical situation. We should, however, be careful not to remain bound by navigation considerations, and to sail smoothly to Bourget.

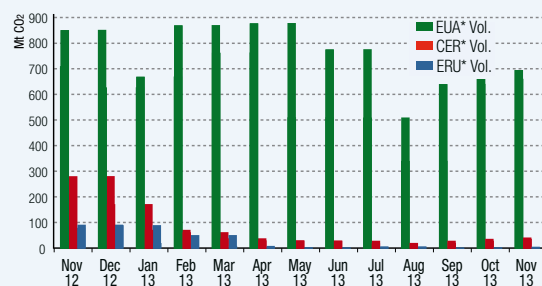
Valentin Bellassen - CDC Climat Research

1. See *Climate Brief* No. 33 for further details on the Warsaw Conference.
2. Nationally appropriate mitigation actions: mitigation policies implemented in developing countries.

Key points

- **Backloading and reforms of the EU ETS:** on 10th December, the EU Parliament voted the backloading proposal. The vote of the Council is scheduled on 17th December. The postponement of EUA will be made in 2014 and in 2015 (not in 2013).
- **2030 climate and energy package:** the EC is planning to release its White Paper, which will include 2030 targets as well as a section on structural reforms of the EU ETS, on 21st January 2014.
- **Fall in EUA prices and a rise in volumes:** the EUA spot price continued its fall averaging €4.53 in November (a monthly fall of 8%). Total traded volumes of carbon credits (EUA, CER and ERU) increased by 6% in November to 748 million.

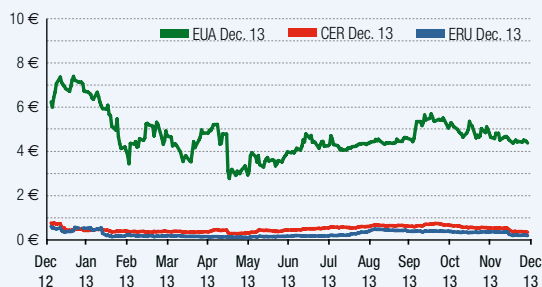
Trading volumes: EUA +5.0%, CER +14.0% ERU +62.0%



* Spot & futures, exchanges & OTC cleared

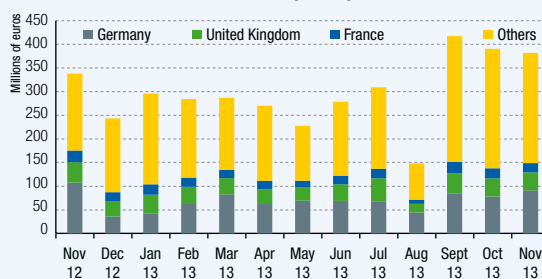
Source: CDC Climat Research calculation, based on data from BlueNext, EEX, ICE Futures Europe, NYMEX, Nasdaq OMX, and LCH Clearnet

Price of the Dec. 13 contract: EUA -8%



Source: CDC Climat Research, ICE Futures Europe

Income from Phase 3 auctions: 381.64 M€ in November (-2%)



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

Energy

Primary energy prices and electricity prices

		Nov. 2013	
Coal	API # 2 CIF ARA (First month in USD/t)	83.9 ▲	
Natural gas	NBP (spot in €/MWh)	27.9 ▲	
	TTF (spot in €/MWh)	27.2 ▲	
Crude oil	Brent (First month in USD/b)	107.9 ▼	
Electricity	Germany (€/MWh)	Spot	42.6 ▲
		Calendar	37.5 ▼
	United Kingdom (€/MWh)	Spot	63.3 ▲
		Next summer	59.3 ▲
		Next winter	65.9 ▲

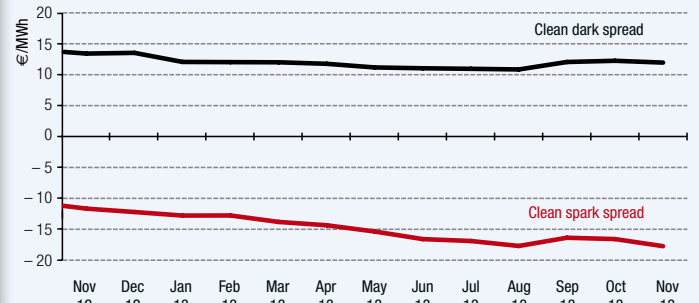
Sources: CDC Climat Research, Thomson Reuters

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*	-13.4	-17.7	17.1	12.0	33.1	31.9
United Kingdom*	16.4	4.2	37.0	33.8	33.7	31.4

* 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

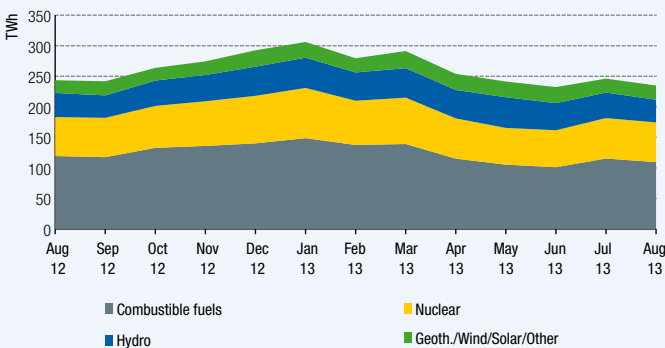
The price of Brent crude continued its fall owing to the relatively successful talks between Iran and the USA. The onset of colder weather pushed gas prices upwards: TTF spot prices increased by 5% and NBP spot prices rose by 6%. Calmer and colder weather contrived to prop up electricity prices. While there was strong wind power output in the first half of November, calmer weather in the second half resulted in its decline, and colder weather increased electricity demand. German and British baseload spot prices thus increased by 11%. A Colombian government statement indicating that Drummond would not get an extension to load coal after 31 December led to a marginal increase in the API#2 price in the last week of November. Clean dark and spark prices rose on the German spot market but fell on the forward market. In the UK, clean dark and spot prices increased on the spot and forward market. The fictional price of CO₂ that would trigger a fuel switch was calculated at €33 for the spot market and €31 on the forward market.

Production

Electricity generation (TWh)

EU 20 (in TWh)	Aug. 13	Jan.-Aug. 13	Year-on-Year (% change)
Production	233.5	2,073.4	-1.4%
of which - Combustible fuels	108.8	966.0	-6.6%
- Nuclear	64.6	545.2	-0.2%
- Hydro	37.0	362.2	6.4%
- Geoth./Wind/Solar/Other	23.1	200.0	9.7%

* Gas, coal, oil.

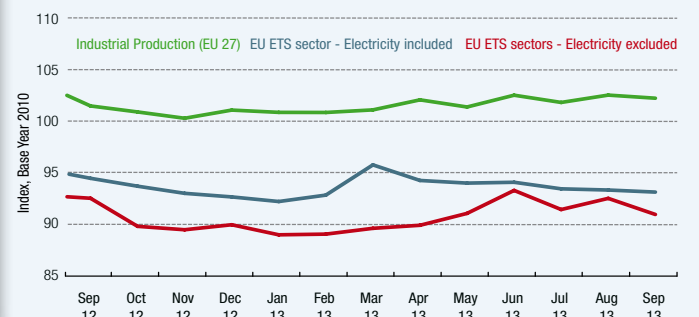


Sources: CDC Climat Research, from IEA data

Production indices (Index base year 2010)

EU 27	Sep. 13	Last month (pts)	Year-on-Year (pts)
Indust. Prod (excl. construction)	102.2	-0.3	0.8
EU ETS sectors production* (incl. electricity)	93.1	-0.2	-1.3
EU ETS sectors production* (excl. electricity)	91.0	-1.6	-1.6
Electricity, gas and heating	94.3	0.5	-1.2
Cement	79.1	-3.2	-3.2
Metallurgy	98.0	-1.2	-0.2
Oil refinery	91.9	-2.6	-4.6

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

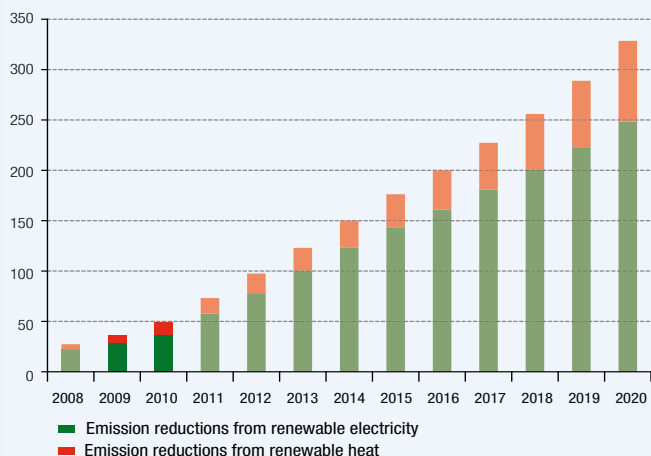


Sources: CDC Climat Research, from Eurostat data

The eurozone manufacturing PMI rose to 51.5 in November up from October's 51.3, however, the composite PMI slipped to 51.5 from 51.9 in October owing to underperformance of the service sector. On the other hand, the EU-27 business climate index rose for the seventh consecutive month and turned positive for the first time since March 2012. It increased by 0.26 points to 0.18. Our EU ETS sector index fell by 0.2 pts. in September, primarily due to a 3 pt. fall in the cement sector. While manufactural production decreased by 0.3 pts. monthly, it is 0.8 pts. above September 2012 levels. The cumulative electricity generation for EU-27 between January-August 2013 was 2 073.4 TWh, which represents a 1.4% decrease over the same period last year. This decrease in cumulative electricity generation was accompanied by an increase in renewable energy (+9.7%) and hydroelectric energy (+6.4%) and a decline in the use of fossil fuels (-6.6%) and nuclear energy (-0.2%).

Coordination with the 20-20-20 policies

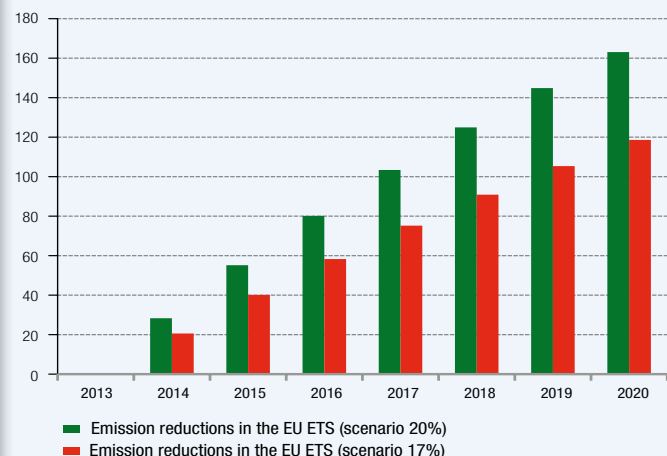
Annual CO2 emission reductions caused by the "RE" Directive across the EU ETS scope



Note: The amounts estimated on the basis of the forecasts made by Member States in their renewable energy action plans are lighter in color.

Sources: CDC Climat Research, based on the interim reports on the development of renewable energies delivered to the European Commission by Member States (2011) and on PRIMES baseline scenario (EC, 2009)

Annual CO2 emission reductions brought about by the "EE" Directive across the EU ETS scope



Source: CDC Climat Research, based on the impact assessment of the draft directive on energy efficiency (2011)

On 5th November, the EC gave guidelines to Member States on state intervention in electricity markets including three key points: the design and reform of national support schemes for renewables, the back-up capacities designed in a cost-efficient way and the role of consumers to use cheapest and most plentiful electricity. The EC disclosed a working document on the impact assessment for a 2030 climate and energy policy framework: as indicated by CDC Climat Research, it mentions that 40% of CO₂ reduction till 2020 will come from RNE legislation and 10 % from EE Directive and presents different scenarios but none propose an EE target (only include moderate or ambitious levels of EE). Regarding infringements on the implementation of the EU legislations, the EC referred Austria in November to the ECJ for failing to transpose the Renewable Energy Directive. The EC requested Austria, Cyprus, Hungary, Ireland, Sweden and Slovenia to adopt the necessary measures to fully transpose the "CCS Directive". It formally requested Malta and Greece to ensure full compliance with the energy efficiency in buildings legislation and requested the Netherlands and the UK to ensure the correct implementation of the requirements for the issuing of Energy Performance Certificates.

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 EUTL, ICE Futures Europe, EEX

CER and ERU supply

	Nov. 13	Last month change
Number of CDM projects	11,074	+11
<i>of which - registered</i>	7,400	+34
<i>with - CER issued</i>	2,497	+13
Cumulative volume of CER issued (Mt)	1,409	+9
CERs available until 2015, EU ETS eligible - CDC Climat Research estimate (Mt)*	2,060	-20
Number of JI projects	787	0
<i>of which - registered</i>	602	0
Cumulative volume of ERU issued (Mt)	828.9	0
<i>via - Track 1</i>	803.5	+1
<i>via - Track 2</i>	25.4	-1

* Modèle de CDC Climat Recherche : <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 10th December, the Parliament in plenary voted the backloading proposal. The Council will have now to approve of the final text on 16th or 17th December. On the implementation calendar, the EU Commission (EC) looks into different options on how the distribution of the above amounts can be changed from 2014 (not in 2013). On November 8th, the EC adopted legislation on international credit entitlements for operators during phase 3 of the EU ETS. EU ETS participants operating stationary installations will be entitled to use credits during the 2008-2020 period up to the higher of two limits: 1) the international credit entitlement specified in the national allocation plan for the phase, 2) 11% of the free allocation of EU allowances. On November 11th; the EC started publishing regular information on the status of free allocation by Member States for phase 3: on December 9th, only 31% of free EUAs have been allocated. On November 15th, the EC published information concerning track 1 ERUs: only those issued before end of 2012 will be marked as eligible. On November 18th, the EC has published the auctioning calendar for 2014: 926 Mt will be auctioned without including backloading.

Carbon markets dashboard

Primary market - EUA auctions in Phase 3

		Nov-12	Dec-12	Jan-13	Feb-13	Mar-13	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13
Common Auction Platform + United Kingdom & Germany	Price (€/t)	7.01	6.31	5.05	4.37	4.06	3.85	3.40	4.23	4.16	4.40	5.19	4.83	4.51
	Volume (Mt)	48.19	38.51	59.63	65.03	70.61	70.19	66.45	65.89	76.65	33.65	80.33	80.62	84.53
Auction Revenues (M€)	Germany	107.67	35.89	42.61	62.46	82.86	62.31	69.46	68.98	67.09	44.50	84.82	78.19	91.29
	United Kingdom	43.03	32.71	39.40	36.38	34.23	31.05	28.69	35.06	49.65	18.30	42.33	38.40	37.87
	France	24.73	18.73	21.97	19.37	17.50	18.14	13.58	18.29	20.16	8.76	24.28	21.28	19.65
	Others	162.35	155.78	191.70	166.09	152.26	158.58	116.04	156.10	172.06	76.64	265.65	252.38	232.84
	Total	337.79	243.11	295.68	284.30	286.86	270.07	227.66	278.43	308.96	148.20	417.08	390.25	381.64

Sources: EEX, ICE Futures Europe

Primary market - CER and ERU issued (MtCO₂)

		Nov-12	Dec-12	Jan-13	Feb-13	Mar-13	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13
Cumulative volume of CER issued UNEP-Risoe (Mt)		1,094	1,155	1,198	1,208	1,271	1,308	1,335	1,353	1,362	1,369	1,388	1,400	1,409
Cumulative volume of ERU issued (Mt)	Track 1 (Mt)	233.2	385.7	564.6	600.0	651.3	651.3	714.5	757	757	785	801.5	802.4	803.5
	Track 2 (Mt)	20.0	363.8	22.6	22.7	22.9	22.9	23.9	24	25	25	25.1	26.7	25.4

Sources: UNEP-Risoe, CDC Climat Research

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

			Nov-12	Dec-12	Jan-13	Feb-13	Mar-13	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-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	5.22	4.91	4.53
		Volume EUA phase 3	-	59	322	1,579	6,023	78,306	10,801	28,962	24,076	5,564	14,672	10,483	7,136
		Price CER	0.89	0.40	0.17	0.15	0.17	0.09	0.39	0.44	0.53	0.62	0.65	0.56	0.42
		Volume CER	-	-	327	1,099	1,541	1,901	0	112	0	57	170	0	47
	Dec.13	Price EUA	7.78	6.88	5.35	4.71	4.18	3.94	3.56	4.29	4.25	4.44	5.25	4.93	4.54
		Volume EUA	200,276	189,911	418,524	577,206	443,144	494,819	321,897	416,664	316,457	180,625	382,486	394,960	412,863
		Price CER	1.07	0.52	0.38	0.34	0.33	0.32	0.36	0.45	0.54	0.61	0.64	0.55	0.42
		Volume CER	34,684	52,279	41,549	26,190	21,420	20,693	21,014	15,073	10,629	14,912	14,377	11,308	23,272
		Price ERU	0.76	0.44	0.25	0.14	0.13	0.09	0.11	0.14	0.22	0.41	0.36	0.31	0.24
		Volume ERU	18,506	24,314	9,407	7,344	1,425	4,804	2,940	5,062	8,984	2,234	5,095	4,773	7,744
	Dec.14	Price EUA	8.20	7.22	5.61	4.94	4.37	4.11	3.72	4.46	4.39	4.58	5.38	5.07	4.69
		Volume EUA	69,731	42,296	70,721	78,927	79,675	112,934	59,334	95,104	48,690	74,289	93,620	135,862	163,545
Price CER		1.15	0.59	0.43	0.38	0.37	0.35	0.39	0.48	0.56	0.62	0.62	0.52	0.41	
Volume CER		7,128	3,505	5,883	4,361	2,089	3,885	1,949	8,891	7,134	6,505	12,753	7,949	16,224	
Dec.15	Price EUA	8.61	7.57	5.87	5.15	4.55	4.28	3.88	4.67	4.55	4.75	5.59	5.28	4.89	
	Volume EUA	24,491	28,890	41,647	57,190	49,718	61,556	34,689	91,861	41,204	20,176	46,207	57,629	55,672	
	Price CER	1.23	0.68	0.51	0.43	0.41	0.38	0.46	0.55	0.64	0.70	0.71	0.60	0.48	
	Volume CER	4,094	2,738	2,281	2,767	710	1,706	4,087	6,792	2,617	620	3,184	5,586	4,158	

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