The Monthly Bulletin on the European Carbon Market



February 2016 A newsletter of I4CE - Institute for Climate Economics

Bringing road transport into the EU ETS: reasons of a false good idea

Beginning of April 2016, the European Commission (EC) released its indicative roadmap on the decarbonisation of the transport sector. Within this roadmap, the EC refers to some studies showing that the inclusion of road fuels use in the EU ETS would not achieve significant greenhouse gases (GHG) emissions reductions in the transport sector. The EC also adds that this option has to be analyzed carefully and does not seem to consider resorting to it.

However, some other emissions trading schemes such as in California-Québec and New Zealand are currently experiencing the inclusion of road transport. Why in the case of the European Union this inclusion within the EU ETS could actually be a false good idea?

First and foremost, the inclusion of the road transport in the EU ETS would have two main economic effects according to modeling assessments. First, these assessments conclude that the price of the EUAs would strongly increase, between €126 and $€370^{1}$, to achieve the new EU ETS target. However, the minimum assessed price of €126 still remains too low to trigger structural abatements in the road transport sector (Enerdata). Besides, modelling results show that the new EU ETS effort sharing would mainly be supported by the power sector.

On the other hand, in terms of climate policy, including the EU ETS into the road transport policy mix would require defining the role of the EU ETS (primary or complementary tool). This inclusion would require calibrating a new and appropriate policy mix which would enable the sector to follow the most efficient decarbonisation pathway by taking notably into account emissions reduction efforts from other policies (vehicle emissions standards and biofuel targets) and future mobility optimizations. In addition, four other design challenges need to be addressed:

- Identifying the most efficient point of regulation: In California-Québec and New Zealand ETSs, the points of regulation are fuel suppliers and importers. It seems that the EC would prefer this option. This choice would limit the number of covered entities and streamline transaction costs of GHG monitoring. However, it could create border leakage effects to non-ETS countries with high fuel price differentials.
- **Dealing with biofuels:** Under the EU Renewable Energy Directive, a set of sustainability criteria was defined to ensure that the use of biofuels in transport guarantees real GHG emissions reductions. The EU ETS definition of biomass has been aligned with this rule. An important challenge for the EU Commission would be to ensure that when taking into account biofuels, all the sustainability criteria lead to real decreases in GHG emissions.
- *Recalibrating the EU ETS emission cap:* The revision of the current EU ETS emissions cap should take into account all road transport climate and energy policies leading to GHG emissions abatements.
- Providing compliance flexibility to the road transport sector: If no free allowances are allocated to fuel suppliers and importers, flexibility mechanisms such as domestic or international offsets credits should be considered to alleviate the carbon burden.

Beyond technical and political conditions of the inclusion of road transport in the EU ETS, the direct economic effect of the carbon price on fuel prices, resulting of the pass-through cost of EUAs, should be analyzed. Including road transport in the EU ETS would cause a direct but very moderate rise in retail fuel prices due to a high level of existing taxes. The reaction of end-use consumers to an increase in fuel prices is highly inelastic and complex. Therefore, an increase of the carbon price would not necessary impact consumers' long term behavior, which could undermine the efficiency of including road transport in the EU ETS.

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1. See I4CE – Institute for Climate Economics "*Exploring the EU ETS beyond 2020*", Chapter 4 - Reference section, December 2015, http://www.i4ce.org/wp-core/wp-content/uploads/2015/11/15-11-30-COPEC-FULL-REPORT.pdf

Key points

- **COP 21:** EU leaders agreed on the necessity to ratify the Paris Agreement as soon as possible.
- **COP21 and European targets:** Member States are divided over the possibility of raising the ambition of European targets.
- **EU ETS:** ENVI and ITRE Committees need to reach an agreement on the post-2020 reform of the EU ETS by the end of 2016.

EUA trading volume on ICE Futures Europe



Source : I4CE, from ICE Futures Europe datas.

Dec. 16 contract price



Monthly proceeds from Phase 3 auctions: 355.34 M€ in February 2016 (+11.7%)



Energy



The Brent price increased slightly during February, to a monthly average of \$33.4/bl, boosted by the hope to see producing countries reach an agreement on cuts in oil output. Coal prices went up compared to January, to reach a monthly average of \$44.3/t. An abundant supply and the upcoming end of winter have offset the increase in oil prices for spot gas prices, which have kept decreasing, to $\in 12.8$ /MWh for NPB and $\in 12.2$ /MWh for TTF. In a context of low fossil fuel prices and abundant renewable generation, German spot power prices dropped to $\in 19.3$ /MWh and German Calendar 17 to $\in 21.9$ /MWh over the last month. The German clean dark spread dropped to $\in 1.1$ /MWh on spot markets and to $\in 4.9$ /MWh on futures markets. The clean spark spread remained steady, at $-\in 7.1$ /MWh on spot markets and at $-\approx 7.0$ /MWh on futures markets. The CO₂ theoretical switching price dropped to $\notin 18.8$ /tCO₂ on the German spot market and to $\notin 25.7$ /tCO₂ on the British spot market.

Production

Electricity generation (TWh)

* Gas, coal, oil.

EU 20 (in TWh)	Nov. 15	Cumulative from Jan. 15	Year-on-Year (% change)		
Production	268.5	2,846.1	4.2%		
of which - Fossil fuels*	124.6	1,281.2	5.3%		
- Nuclear	67.6	730.5	-0.5%		
- Hydro	38.3	465.2	-3.0%		
- Geoth./Wind/Solar/Other	38.0	376.6	25.3%		



Production indices (Index base year 2010)

EU 27	Nov. 15	Last month (pts)	Year-on-Year (pts)
Indust. Prod (excl. construction)	111.5	5.14	7.31
EU ETS sectors production* (incl. electricity)	96.5	2.77	5.63
EU ETS sectors production* (excl. electricity)	94.2	2.52	2.71
Electricity. gas and heating	97.7	2.90	7.15
Cement	82.5	6.97	2.82
Metallurgy	106.1	6.01	4.18
Oil refinery	96.4	-3.78	2.79
110			
Industrial Production (EU 27) EU ETS sector - Electric Industrial Production (EU 27) EU ETS sector - Electric 95 95	city included EU	ETS sectors - Elec	tricity excluded
85	y Jun Jul 15 15	Aug Sep 15 15	Oct Nov 15 15

The industrial production of EU 27 countries increased by 5.1 pts in November 2015 compared to the previous month and by 7.3 pts compared to November 2014. The production of durable consumer goods dropped by 1.0% compared to October, while the production of non-durable consumer goods and the production of capital goods remained steady. Energy production increased by 1.0%. Among the Member States for which data is available, the biggest increases in industrial production were registered in Greece (+2.1%), the Luxembourg (+1.7%) and Germany (+1.6%), and the biggest cuts in Malta (-9.5%), Estonia (-5.9%) and Italy (-5.7%). Our production index for EU ETS sectors (including electricity) went up to 96.5 pts, while the index excluding electricity generation increased to 94.2 pts. Electricity production in EU 20 countries was 268.5 TWh in November 2015, up 2.0% from the previous month level. Compared to 2014, the cumulated annual production increased by 4.2%, with a slight decline in nuclear and hydro generation, and a sharp rise in generation from other renewables.

4CE from Eurostat data

Coordination of CO₂, EE and RES policies

The EU 2030 emission reduction target: impact on Member States

GHG emission reduction by 2030 compared to 2005





Note: Reference refers to the scenario with no additional climate and energy policies on the trajectory of the 2020 objectives; GHG 35, 40 et 45 refer to the scenario with a 35%, 40% and 45%, GHG target, RES 35 refers to the scenario with a 35% EU level renewable energy target in the final consumption.

The European Commission communicated on March 2nd its analysis of the COP 21 aftermath, claiming that the target of 40% GHG emissions reductions by 2030 was in line with the medium-term ambition of the Paris Agreement. At the Environment Council meeting on March 4th, Ministers did not reach an agreement on whether to raise the ambition of European targets. Climate and energy-related issues were barely approached during the European Summit on the 17th and 18th of March, EU leaders only agreed on the necessity to ratify the Paris Agreement as soon as possible and to finalize the 2030 climate and energy policy framework. The EU released in February its statistics on the share of renewables in the energy mix for 2014. It rose to 16.0% on average over the 28 countries, one percentage point more than in 2013. France, with a 2020 target of 23.0% and a share of 14.3% in 2014, is the furthest from reaching its objective. Nine countries have already reached the level required to meet their national 2020 targets, among them Croatia and Sweden for example. The Joint Research Center (JRC) has published an assessment of measures implemented by Member States to transpose Article 4 of the Energy Efficiency Directive on building renovation. Ten Member States, including the Czech Republic, France and Greece have developed adequate strategies, while only five countries' strategies do not meet basic requirements.

Institutional environment

CER and ERU supply

Phase 3 supply balance table

	2013	2014	2015*	2016*	2017*	2018*	2019*	2020*
Auctions (MtCO ₂)	804	532	644	763	969	976	985	1,016
Free allocation (MtCO ₂)	862	815	793	769	745	721	697	673
Total	1,666	1,347	1,437	1,532	1,714	1,697	1,682	1,689
* Estimations								

Free allocation status table

EU Member State	2013	2014	2015*							
France	82	81	77							
Germany	169	163	159							
United Kingdom	66	64	57							
Others	526	459	437							
TOTAL	843	767	730							
* Until 31 st March										

Feb. 16 Last month change Number of CDM projects 11,275 +5 of which - registered 7.696 +7 with - CER issued 2,880 +7 Cumulative volume of CER issued (Mt) 1,651 +6 Number of JI projects 788 _ of which - reaistered 604 Cumulative volume of ERU issued (Mt) 864 via - Track 1 838 via - Track 2 25

On March 11, UK and France published a joint non-paper on a proposal to reform the principles of free allocation in the EU ETS. They recommend a tiered approach, depending on the trade intensity and carbon intensity of companies. Nine sectors exposed to a high risk of carbon leakage would receive 100% of free allocation against their benchmarks, while industries deemed at no risk would not receive any free allowance after 2027. Their proposal aims at focusing support on sectors at greatest risk, while avoiding the need to rely on the Cross-sectoral Correction Factor to adjust the supply of free allowances to the total amount available for industry. Besides, in February, France had suggested to introduce a "soft collar" for allowance prices, whose implementation could rely on the MSR. The ENVI Committee, called upon the reform on the EU ETS for Phase IV, will however have to reach an agreement with the ITRE Committee on some parts on the text, including those which deal with support measures for industrials. ITRE's vote is planned for October 13, and ENVI's for December 8. In case of a disagreement between the two committees, the points of contention will be decided in a plenary session.

Carbon markets dashboard

Primary market - EUA auctions in Phase 3 Feb-15 Mar-15 Apr-15 May-15 Jun-15 Jul-15 Aug-15 Sep-15 Oct-15 Nov-15 Dec-15 Jan-16 Feb-16 7.01 7.39 7.44 7.70 8.06 8.06 6.14 4.86 Common Auction Platform Price (€/t) 7.20 6.72 8.35 8.48 8.27 + United Kingdom & Germany Volume (Mt) 57.00 64.67 52.55 49.09 56.97 63.96 27.03 63.88 60.95 60.76 32.75 51.83 73.10 93.96 122.71 Germany 101.65 84.94 67.35 95.40 51.63 103.55 139.71 108.48 52.76 66.75 72.80 44.97 41.54 25.22 52.53 United Kingdom 65.55 45.63 46.75 47.78 75.33 52.97 26.08 45.92 32.73 Auction 31.52 31.47 France 26.76 28.96 23.96 20.46 32.18 30.10 16.12 38.11 20.86 20.40 22.48 Revenues (M€) 291.99 124.97 304.54 Others 236.84 279.33 211.53 202.74 249.46 285.22 315.59 171.27 185.00 227.33 515.15 Total 410.23 434.77 368.40 362.79 423.79 492.57 217.94 514.94 508.93 270.97 318.08 355.34 Sources: EEX, ICE Futures Europe

Primary market - CER and ERU issued (MtCO₂) Feb-15 Mar-15 Apr-15 May-15 Jun-15 Jul-15 Aug-15 Sep-15 0ct-15 Nov-15 Dec-15 Jan-16 Feb-16 Cumulative volume of CER issued 1,540.8 1,544.7 1,551.3 1,595 1,598.4 1,605.0 1,614.0 1,618.8 1,627 1,634 1,641 1,645 1,651.4 UNEP-DTU (Mt) Cumulative volume Track 1 (Mt) 838.1 838.1 838.1 838.1 838.1 838.1 838.1 838.1 838.1 838.1 838.1 838.1 838.1 of ERU issued (Mt) Track 2 (Mt) 25.4 25.4 25.4 25.4 25.4 25.4 25.4 25.4 25.4 25.4 25.4 25.4 25.4

Sources: UNEP-DTU, I4CE

	Secondary market - Prices (€/t) and volumes: EUA, CER (ktCO ₂)														
			Feb-15	Mar-15	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	0ct-15	Nov-15	Dec-15	Jan-16	Feb-16
		Price EUA phase 3	7.27	6.80	7.10	7.44	7.46	7.73	8.08	8.10	8.38	8.51	8.29	6.48	5.15
	Daily	Volume EUA phase 3	25,327	23,640	23,244	13,768	16,321	19,536	16,810	17,760	11,058	17,160	10,627	18,112	10,957
	spot	Price CER	0.42	0.41	0.49	0.45	0.40	0.44	0.48	0.51	0.59	0.64	0.53	0.44	0.39
		Volume CER	4,436	3,202	833	161	83	726	11	1,159	719	1,277	31	9	298
		Price EUA	7.35	6.85	7.14	7.48	7.50	7.76	8.11	8.13	8.40	8.51	8.32	0.00	0.00
D 45	Dec 15	Volume EUA	377,226	394,219	268,144	200,863	211,772	256,749	170,592	285,220	264,064	262,403	246,341	0	0
	Dec. 15	Price CER	0.42	0.41	0.49	0.45	0.40	0.44	0.48	0.51	0.59	0.64	0.53	0.00	0.00
ICE Futures		Volume CER	2,796	1,408	3,440	3,048	2,108	4,996	3,265	7,607	3,684	0	3,899	0	0
Europe		Price EUA	7.47	6.93	7.22	7.56	7.58	7.85	8.19	8.21	8.47	8.58	8.36	6.53	5.17
	Dec 16	Volume EUA	46,588	50,070	39,148	35,365	72,609	65,575	38,537	43,022	76,818	116,680	268,078	433,155	405,216
	Dec. 16	Price CER	0.42	0.40	0.49	0.44	0.39	0.42	0.46	0.49	0.52	0.56	0.51	0.40	0.36
		Volume CER	0	0	200	298	654	979	979	1,769	4,300	3,490	927	1,419	284
		Price EUA	7.63	7.06	7.34	7.67	7.68	7.96	8.31	8.32	8.58	8.69	8.46	6.62	5.23
	Dec.17	Volume EUA	19,340	28,076	8,049	27,783	32,838	36,075	28,925	24,543	27,696	32,041	47,893	45,986	35,571
		Price CER	0.42	0.40	0.49	0.44	0.39	0.41	0.45	0.48	0.52	0.56	0.51	0.41	0.36
		Volume CER	0	0	0	0	0	2	500	112	600	1	225	16	0

Emission-to-cap by EU ETS sector and country: difference between distributed allocations of allowances and verified emissions														
	2008	2009	2010	2011	2012	2013			2008	2009	2010	2011	2012	2013
Combustion	-253.1	-113.5	-125.8	-76.9	-42.4	-137.8		Germany	-84.0	-36.6	-54.4	-49.5	-28.6	-106.3
Oil refining	-1.4	7.6	14.3	16.0	20.2	-36.7		United Kingdom	-50.8	-15.0	-16.8	2.5	-2.5	-52.0
Coking plants	1.5	6.8	2.9	3.1	5.7	-1.5		Italy	-8.5	24.1	8.5	5.3	12.2	21.5
Metal ores	4.3	11.0	8.8	8.9	9.7	-0.2		Poland	-3.1	10.8	5.9	4.2	15.6	-76.4
Steel production	51.6	89.3	71.4	72.8	73.9	38.5		Spain	-9.6	13.7	29.5	18.4	17.0	31.7
Cement	20.9	61.4	61.0	62.8	70.3	26.7		France	5.5	17.5	23.4	33.9	25.2	24.8
Glass	2.5	6.1	5.5	5.4	5.0	-1.2		Czech Republic	5.2	12.2	10.6	12.2	17.1	-18.3
Ceramic products	5.3	10.0	10.2	9.6	9.2	2.0		The Netherlands	-6.8	2.8	0.1	8.9	10.5	-3.0
Paper	6.9	11.3	10.0	11.1	11.6	4.1	L	Romania	7.7	24.9	27.7	23.6	25.8	15.1
Other activities	0.2	4.3	1.3	-0.7	1.4	-1.0	.ce:	Others	-17.0	39.8	25.3	52.7	72.3	55.7
Total (Mt)	-161.3	94.2	59.8	112.1	164.5	-107.1	ino	Total (Mt)	-161.3	94.2	59.8	112.1	164.5	-107.1



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