

Sharing the Load:

Poland's coming of age on climate policy



20th March 2014

About Sandbag

Sandbag is a UK based not-for-profit campaigning organisation dedicated to achieving real action to tackle climate change and focused on the issue of emissions trading. Our view is that if emissions trading can be implemented correctly, it has the potential to help affordably deliver the deep cuts in carbon emissions the world so badly needs to prevent the worst impacts of climate change.

Through producing rigorous but accessible analysis we aim to make emissions trading more transparent and understandable to a wider audience than those already involved in the market. In particular, we hope to shed light on the challenges the EU Emissions Trading System (EU ETS) faces in becoming a truly effective system for cutting emissions and to advocate the solutions that can help it to work better.

We are always interested to receive feedback on our work and would welcome any reactions, comments or corrections. Please email us at info@sandbag.org.uk.

20th March 2014

Author: Damien Morris

Supporting research: Rob Elsworth

Cover image: **The Golden Apples of the Hesperides** by Jun-Pierre Shiozawa
<http://junpierre.net>

This scene from the Twelve Labours of Heracles, shows a moment where Atlas and Heracles are jointly holding up the heavens.

Introduction

As the European Council prepares to meet for the first time since the Commission published its 2030 energy and climate framework, Poland has already indicated that it intends to block any attempt to agree the proposed package at this stage.¹ This comes in the wake of a series of occasions in which Poland has exercised its power of veto to reject the post 2020 climate targets implied by the Commission’s Low Carbon Roadmap to 2050.²

Poland’s reluctance to adopt new climate targets is surprising given the scale of its current carbon emissions and the lenient terms it has received to date under international and EU effort-sharing agreements. Poland is the 4th largest greenhouse gas polluter in Europe, emitting 387 million tonnes of carbon dioxide in 2012. This equates to 10 tonnes of CO₂ per citizen, making Poland the 10th largest European emitter even on a per capita basis. But despite its sizeable emissions, the carbon budgets set for Poland under the Climate and Energy Package for 2013-2020 are, on average, 3% *higher* than its current emissions levels. These growth budgets follow on from a Kyoto Commitment for 2008-2012 that allowed Poland to grow its annual emissions by 44% from when it ratified the protocol in 2002.

Poland was granted these carbon concessions in acknowledgement of the special challenges it has faced in its transition from Communism to a market economy while simultaneously enlisting its political support for a binding global climate regime. While average income in Poland remains amongst the lowest in the EU, Poland is today a far more prosperous country than the one that signed the Kyoto Protocol or agreed the 2008 EU package, and it is expected to be considerably wealthier by 2020 when that package comes to an end. Poland’s economy is now 7.5 times larger than it was in its Kyoto base year (1988). Furthermore there has been a profound decoupling of growth from emissions with carbon intensity falling by 90% over that timeframe. As Poland’s economy matures it should be weaning itself off special concessions and taking on more climate responsibilities, not shirking them, and certainly not holding back the wider European effort.

The 2030 target proposed by the Commission – a 40% cut in domestic carbon emissions relative to 1990 levels – is a conservative estimate of the reductions required to cost-effectively reach the EU’s 2050 climate goals.^{3 4} It is the minimum target that Europe should adopt if it is not to incur additional and unnecessary costs. A 40% target in 2030 is also a very lenient interpretation of Europe’s equitable share of international effort under a 2 degree carbon budget.⁵

Until Poland can present a convincing alternative account of how Europe can cost-affordably reach its 2050 climate goals and take on its fair share of effort internationally, it should *immediately*

¹ See remarks from Deputy Prime Minister Janusz Peasant here (in Polish): http://energetyka.wnp.pl/piechocinski-nie-wyklucz-weta-ws-pakietu-2030,218025_1_0_0.html echoed by Economy Minister Janusz Piechocinski here: <http://www.bloomberg.com/news/2014-02-17/eu-leaders-said-to-delay-decision-on-2030-carbon-target.html>

² In March 2012, Poland vetoed the Roadmap milestones in the Council of Ministers:

<http://www.euractiv.com/climate-environment/poland-defies-europe-2050-low-ca-news-511380>

³ Independent analysis from the Potsdam Institute finds that a 47% cut in domestic emissions by 2030 is a more realistic estimate of what is required to cost-effectively meet even the weaker 80% target in 2050.

https://www.pik-potsdam.de/members/knopf/publications/Knopf_EMF28_overview_final.pdf

⁴ The European Council endorsed an 80-95% 2050 target on the October 29-30th 2009, and reaffirmed this on 2nd Feb 2011. See https://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/ec/110889.pdf and http://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/ec/119175.pdf

⁵ Ecofys explores this here: <http://www.ecofys.com/en/blog/what-is-a-fair-contribution-of-the-eu-to-the-2c-limit/>

embrace a 40% domestic target as a starting point from which to negotiate an ambitious global deal.

If Poland continues to stand in the way of a suitably ambitious 2030 target, other Member States should prepare to aggressively renegotiate the burden-sharing arrangements Poland can expect to face for the budgets and instruments set to meet that target, including a stricter budget under the EU Effort Sharing Decision, and a reduced share of auction revenues under the EU ETS.

Key facts about Poland:

- After a decade of flat-lining GDP during the 1980s, the transition to a market economy has delivered dramatic growth: the Polish economy is 7.5 times larger in 2012 than it was in 1988 (its Kyoto base-year), with GDP rising to \$US 490 billion.⁶ Poland is currently Europe’s 7th largest economy, and the world’s 22nd largest.⁷ Despite this, Polish GDP per capita remains amongst the lowest in Europe, ranking 25th out of 28 Member States⁸. Also, this transition has not come without significant hardship. Following full-employment under Communism, the shift to a market economy saw unemployment rise as high as 20% in 2002 before dropping to current levels of 10.1%, slightly below the EU average (10.5%).
- The transition to a market economy has seen a dramatic decoupling of growth from emissions. Since 1988 Poland’s emissions have fallen by 31% and the carbon intensity of the economy has fallen by 90%. Nonetheless, Poland remains the fourth largest emitter in the EU28, with CO₂e emissions of 387 million in 2012. Poland is also the 10th largest EU emitter on a per capita basis, emitting 10 tonnes per person in 2012.⁹
- Over the first compliance period of the Kyoto Protocol (2008-2012), Poland secured a carbon target that allowed it to *grow* its emissions. Poland’s target was to reduce emissions by 6% relative to its 1988 baseline year, but translated into a standard 1990 baseline this allowed Poland to grow its emissions by 16%. By the time Poland ratified the Kyoto Protocol in December 2002, its emissions were already 19% below 1990 levels.
- At the end of the first Kyoto Period (2008-2012) Poland has been left with 679 million spare carbon allowances, enough to cover its national emissions for nearly two years. 34 million of these allowances fall under the EU Emissions Trading Scheme and can be carried forward for later use, but the other 645 million are Kyoto Protocol allowances that have been blocked from use in the non-traded sectors covered by the EU Effort Sharing Decision. As of today, Poland has sold 138 million of these Kyoto allowances directly to other countries and international institutions and converted a further 20 million into Joint Implementation offset credits.¹⁰ Some 11 million of these Polish offsets have then made their way back into the EU emissions trading, with 3 million of these being surrendered by Polish installations.¹¹
- For the second Kyoto compliance period (2013-2020), Poland has *again* managed to secure a growth budget via the EU Energy and Climate Package. Poland’s average annual allocation of carbon allowances across the next period will be 13 million tonnes (3%) higher than its current emissions.
 - Under the EU Effort Sharing Decision, Poland is explicitly allowed to grow its emissions in the non-traded sectors by 14% in 2020 relative to 2005 levels
 - Under the EU ETS, Poland has been awarded additional emissions set aside from the Community auction pool for the purposes of “community solidarity” and “early effort”. Poland has been the biggest beneficiary from these special provisions receiving 37% of these allowances amounting to 369 million EUAs in total.
- Poland is currently the biggest single beneficiary under the EU budget. In 2011 Poland received €14.4 billion, four times the amount it paid in (£3.6bn). Of that, €9.6 billion is dedicated to structural and cohesion funds designed to assist growth and development in Poland, while the remainder mostly consists of payments under the Common Agricultural Policy.

⁶ The World Bank via Google Public Data

⁷ <http://www.businessinsider.com/largest-economies-world-gdp-2013-6>

⁸ International Monetary Fund, World Economic Outlook Database (Accessed on 9 October 2013).

⁹ *Approximated EU GHG Inventory: Early Estimates for 2012* (EEA, September 2013)

¹⁰ <http://cdmpipeline.org/ji-projects.htm#3>

¹¹ EUTL and JI pipeline data curated by Sandbag.

Poland in the first Kyoto Commitment Period (2008-2012)

Under the Kyoto Protocol, Poland committed to reducing its emissions by 6%, but Poland’s target is unusual. While most Kyoto countries use 1990 as a baseline year, Poland managed to secure an exceptional baseline of 1988.¹² That year was significant for being the last full year of Communist rule in Poland, but notably emissions had fallen by a staggering 19% in the two years between 1988 and 1990.

In essence, beneath some unusual accounting, the international community agreed to award Poland a very generous Kyoto carbon budget in recognition of the challenges it faced in the transition to a market economy. Described in conventional terms, Poland’s Kyoto target allows it to grow its emissions by 16% relative to 1990 levels.¹³

Such concessions were not unique to Poland. Other “economies in transition” also received headroom to grow their emissions against actual 1990 levels, though none by quite so much. However, by the time these countries formalised their emissions limit by ratifying the Kyoto Protocol, it was evident that the headroom in these targets was far greater than most of them could possibly require. Some countries (Bulgaria, Estonia, Latvia, Lithuania, Ukraine) had room to double their emissions and still comfortably meet their targets. Ratifying the Protocol, then, meant gaining an asset, not an obligation, as it was clear that it would provide spare Kyoto allowances (AAUs) that could be sold to countries struggling to meet more challenging commitments.

Table 1: Kyoto targets relative to emissions in 1990 and ratification year

Economies In Transition	Kyoto target relative to 1990 emissions	Kyoto target relative to emissions in year KP ratified	Kyoto Protocol ratification year
Belarus*	TBC	TBC	2005
Bulgaria	+11%	+104%	2002
Czech Republic	-9%	+23%	2001
Estonia	-3%	+131%	2002
Hungary	+10%	+39%	2002
Latvia	-9%	+123%	2002
Lithuania	-7%	+112%	2003
Poland	+16%	+44%	2002
Romania	+5%	+88%	2001
Russian Federation*	-1%	+55%	2004
Slovakia	-8%	+29%	2002
Slovenia	+2%	-6%	2002
Ukraine*	-1%	+121%	2004

*Non-EU country

Source: UNFCCC and Sandbag calculations

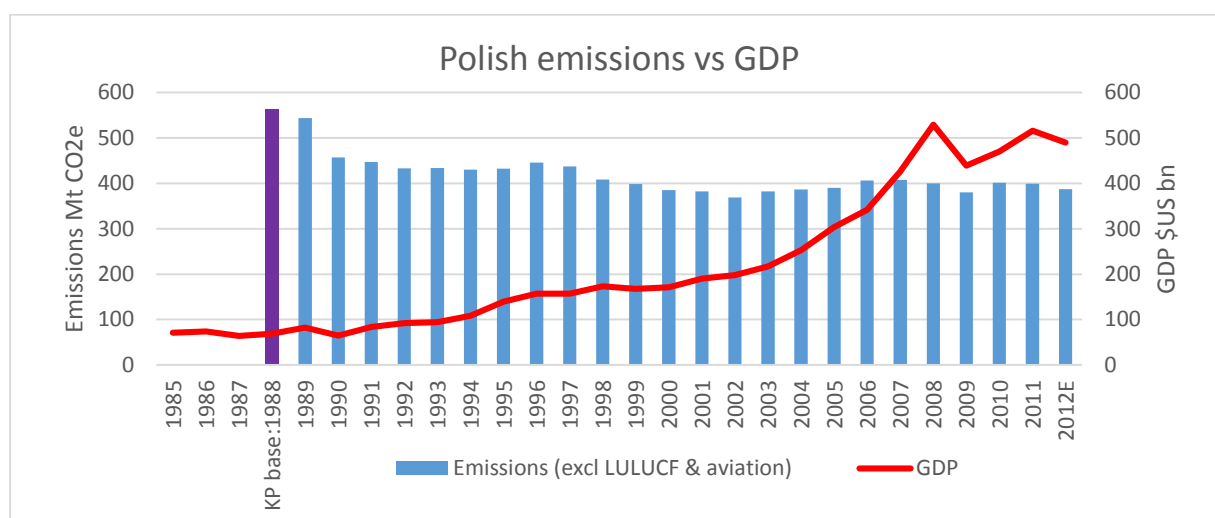
¹² To be exact, Poland’s Kyoto base year is 1988 for CO₂, CH₄ and N₂O and 1995 for F gases. See table in http://unfccc.int/ghg_data/kp_data_unfccc/base_year_data/items/4354.php

¹³ The only other countries to gain exemptions to the 1990 standard baseline were Bulgaria (1988), Hungary (1985-1987 avg.), Romania (1989), and Slovenia (1986).

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Richer countries covered by the Protocol were happy to concede these weak targets to the transition economies, both as a means of making their own commitments easier to meet (through emissions trading) and also to ensure that the Kyoto Protocol entered into force at all. It was necessary for countries accounting for at least 55% of 1990 emissions in developed countries to ratify the Protocol for it to become legally binding.¹⁴

In Poland’s case this is precisely what has come to pass. As Poland restructured its economy, emissions continued to fall even as GDP climbed aggressively. By the time Poland legally formalised its carbon budget by ratifying the Kyoto Protocol in 2002¹⁵, emissions were already a third lower than they’d been in 1988 despite the fact that GDP had nearly tripled over that period. By 2012, the economy had grown sevenfold, while the carbon intensity of the economy had fallen by 90%. Early estimates of Poland’s 2012 emissions suggest it has accrued **679 million** spare Kyoto allowances first commitment period (2008-2012).



Source: EEA, UNFCCC and the World Bank

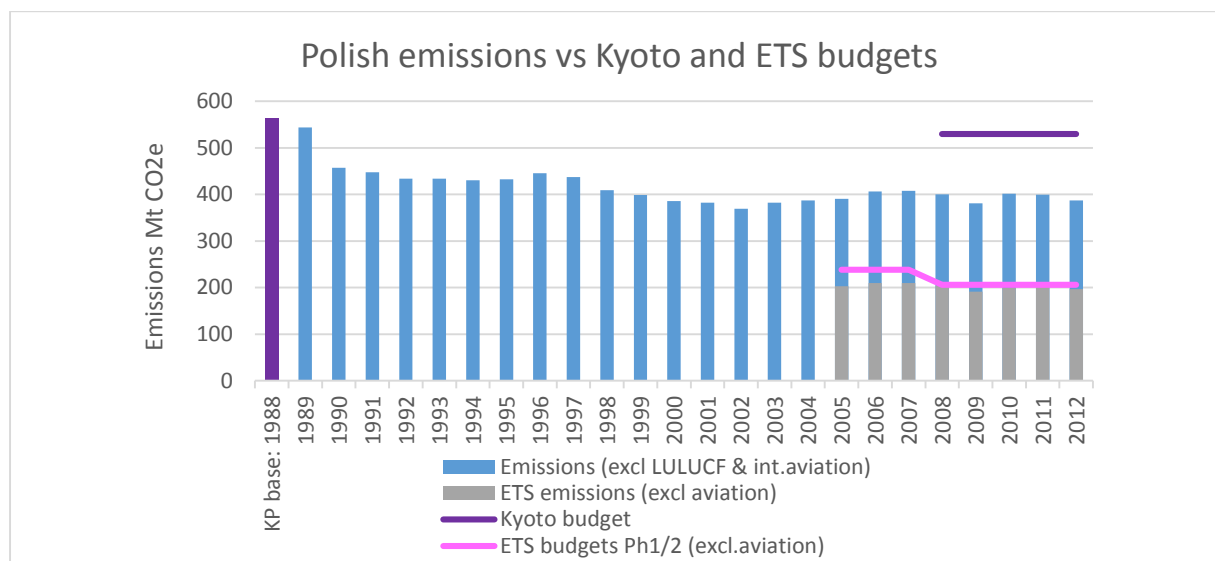
Poland’s Kyoto commitments in the traded sector

As an EU Member State, Poland agreed to meet a large part of its Kyoto commitments through the EU Emissions Trading Scheme (ETS). Under that policy, Poland converted 1,029 million of its 2,648 million Kyoto carbon allowances (AAUs) into special “European Union Allowances (EUAs) and distributed these across its large power stations and factories.

¹⁴ See Article 25 of the Kyoto Protocol <http://unfccc.int/resource/docs/convkp/kpeng.pdf>

¹⁵ See <http://unfccc.int/resource/docs/dpr/pol1.pdf>

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Source: EEA, UNFCCC and EUTL

Poland’s carbon budgets in its traded sector were much tighter than its economy wide budgets under Kyoto – the traded sector accounts for 51% of Poland’s Kyoto emissions, but only received 39% of its Kyoto allowances. Thus while Poland was left with 679 million spare Kyoto allowances, only 34 million of these consist of spare EUAs in the Emissions Trading Scheme. A full breakdown is provided in the table below.

Table 1: Breakdown of Poland’s Kyoto emissions and allowances between traded and non-traded sectors

All values in MtCO ₂ e	A: Allowances	B: Emissions	C: Spare Allowances (A-B)	D: Offsets	E: Surplus with offsets (C+D)
F: Whole economy	2,648	1,969	679	96	775
G: Traded sector	1,029	995	34	96	130
H: Non-traded sector (F-G)	1,619	974	645	0	645

Source: EEA, UNFCCC and EUTL

Clearly, then, Poland’s climate commitments within the EU ETS were more challenging than those under the Kyoto budgets. They would have been considerably less stringent, if the Commission had not roundly rejected Poland’s initial National Allocation Plan which would have seen 382 million additional Kyoto allowances converted into ETS allowances.¹⁶ This would have seen most of Poland’s spare Kyoto allowances accrue within the traded sector.

Of course the “stringency” of the EU ETS described here is only relative, insofar as it still left Poland’s traded sector with more around 3% more allowances than it ultimately needed to surrender against its emissions. It did, at least, *threaten* to require mitigation of individual sectors and installations in a way that the Kyoto scheme definitely did not – or at least it did prior to the recession. In Table 2 overleaf we explore how different sectors fared against their free allowances.

¹⁶ In the initial application Poland had applied for annual allocations that were 76.5 million higher than those that were finally approved. See <http://euobserver.com/environment/29896>

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Table 2: Polish sectors in the Phase 2 of the EU Emissions Trading Scheme

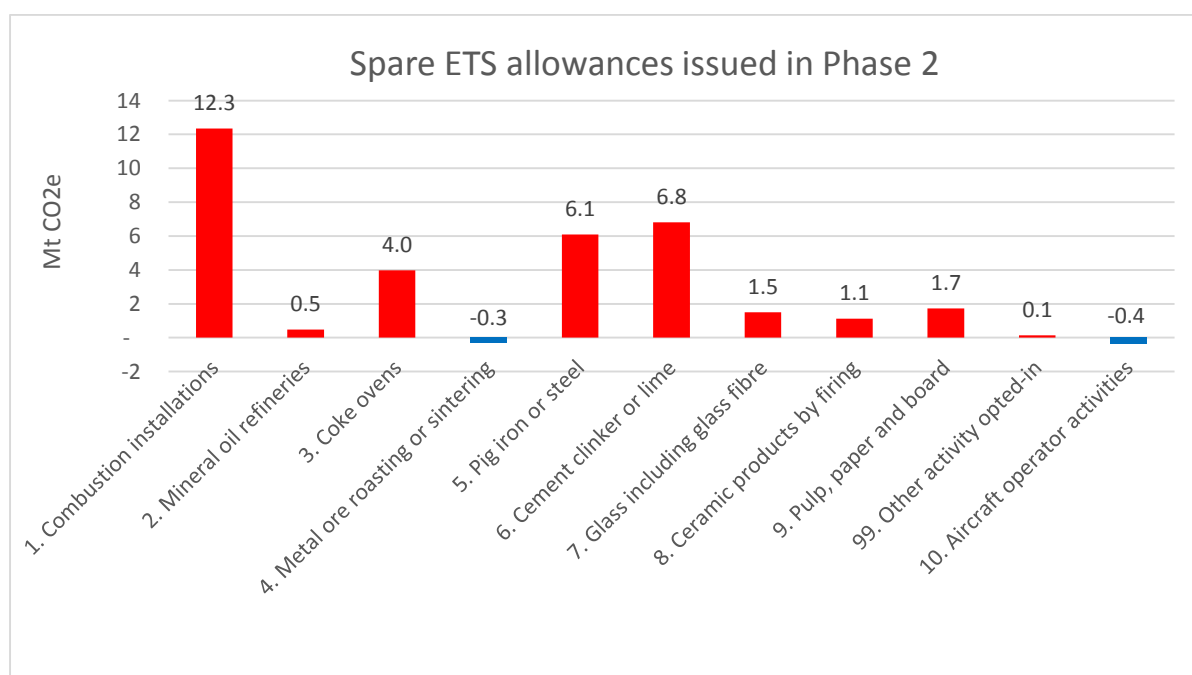
All values in tonnes of CO ₂ e	A: Allowances	B: Emissions	C: Spare Allowances (A-B)	D: Offsets	E: Surplus with offsets (C+D)
1. Combustion installations	877,377,248	865,027,346	12,349,902	81,289,798	93,639,700
2. Mineral oil refineries	16,643,986	16,164,094	479,892	1,652,351	2,132,243
3. Coke ovens	15,306,539	11,331,987	3,974,552	1,507,731	5,482,283
4. Metal ore roasting or sintering	7,045,045	7,334,648	- 289,603	462,069	172,466
5. Pig iron or steel	25,274,967	19,177,007	6,097,960	2,525,446	8,623,406
6. Cement clinker or lime	66,264,538	59,445,069	6,819,469	6,599,734	13,419,203
7. Glass including glass fibre	8,524,488	7,023,253	1,501,235	751,374	2,252,609
8. Ceramic products by firing	3,882,257	2,761,057	1,121,200	306,820	1,428,020
9. Pulp, paper and board	7,950,174	6,218,190	1,731,984	453,186	2,185,170
99. Other activity opted-in	324,291	188,729	135,562	32,400	167,962
10. Aircraft operator activities *	254,866	641,424	- 386,558	95,493	- 291,065
Auctioned/sold**	309,998	NA	NA	NA	NA
Total all sectors	1,029,158,397	995,312,804	33,931,860	95,590,458	129,522,318

*Aviation allowances have been corrected for the “stop the clock” decision

**Auctions here includes any allowances from the Phase 2 NAP which have not been allocated by the end of Phase.

Source: EEA, DG Climate Action and Sandbag calculations

The only sectors where we see net shortfalls are the “metal ore roasting” sector, where these shortfalls are quite modest, and the aviation sector. While the shortfalls in the aviation sector are quite large, the sector itself is small, and is one sector where the Commission went to some pains to engineer a shortfall of free allowances. Otherwise, we see all of the manufacturing sectors oversupplied allowances, with cement and steel sectors holding particularly large surpluses (following a broad trend across the EU ETS). Poland bucks the wider EU trend, by also awarding excess allowances to its combustion/power sector, more in fact than any other sector.



Source: EEA ETS Data Viewer

Note that *all* sectors have surrendered offsets to meet a substantial share of their ETS compliance obligations even when most were oversupplied with free allowances in Phase 2. While some installations in oversupplied sectors will have needed these offsets to cover real shortages, in most cases this signifies that firms have been purchasing and surrendering the cheapest offset credits while they are still eligible for use.¹⁷ Doing this frees up EU allowances which can either be banked forward for later compliance or sold into the market where they command a higher premium than offsets.

While this behaviour is by no means unique to Poland, Polish installations have exploited an unusually high proportion of the offsets available to them in Phase 2, using 93% of all offset allowed compared with an average of 76% across the Community Scheme.¹⁸

Spare Kyoto allowances in Poland’s non-traded sectors

We noted earlier that Poland has much larger surpluses in its non-traded sector over 2008-2012 than it has accrued in Phase 2 of the EU ETS. But, while spare allowances in the traded sector can be banked forward indefinitely, strict conditions have been imposed on those Kyoto allowances that were not converted into ETS allowances.

Firstly, the EU made spare Kyoto allowances ineligible for use in its Effort Sharing Decision, which sets European carbon budgets for the non-traded sector over 2013-2020. In this way, some 645 million Polish Kyoto Allowances (AAUs) remain locked out of the European compliance system until at least 2021. Secondly, at COP18, the international community agreed that spare Kyoto allowances from Commitment Period 1 could not be sold to external countries for use in later Commitment Periods. With their spare allowances blocked from external use indefinitely, and blocked from European use until at least 2021, the fate of Poland’s spare AAUs remains highly uncertain.

Poland has been enterprising in preventing these carbon assets from becoming stranded, though. Over the course of 2008-2012 it has managed to sell 138 million allowances directly to institutions like the World Bank and to countries such as Spain, Ireland and Japan who were struggling to meet their Kyoto commitments.¹⁹ They have also managed to convert a further 20 million Kyoto allowances into Joint Implementation credits.²⁰

Joint Implementation credits do not face the same barriers as Kyoto allowances: they can still be used for compliance after 2012, whether it be non-EU countries surrendering them into the second Kyoto commitment period, or EU countries using them in Phase 3 of the EU ETS or in the EU Effort Sharing Decision. Converting allowances into offsets also allowed Poland to sell spare allowances from its non-traded sector into Phase 2 of the EU ETS. 11 million of Poland’s Joint Implementation credits have already been sold into the ETS, with 3 million of these purchased by Polish ETS installations.²¹

We can see a perverse chain of events then, where excess Polish Kyoto allowances are substituted into the traded sector as offset credits, which Polish installations then use to free up ETS allowances, which they can sell for profit or store for later use (as described above).

¹⁷ E.g. Industrial gas credits are ineligible for ETS compliance in Phase 3

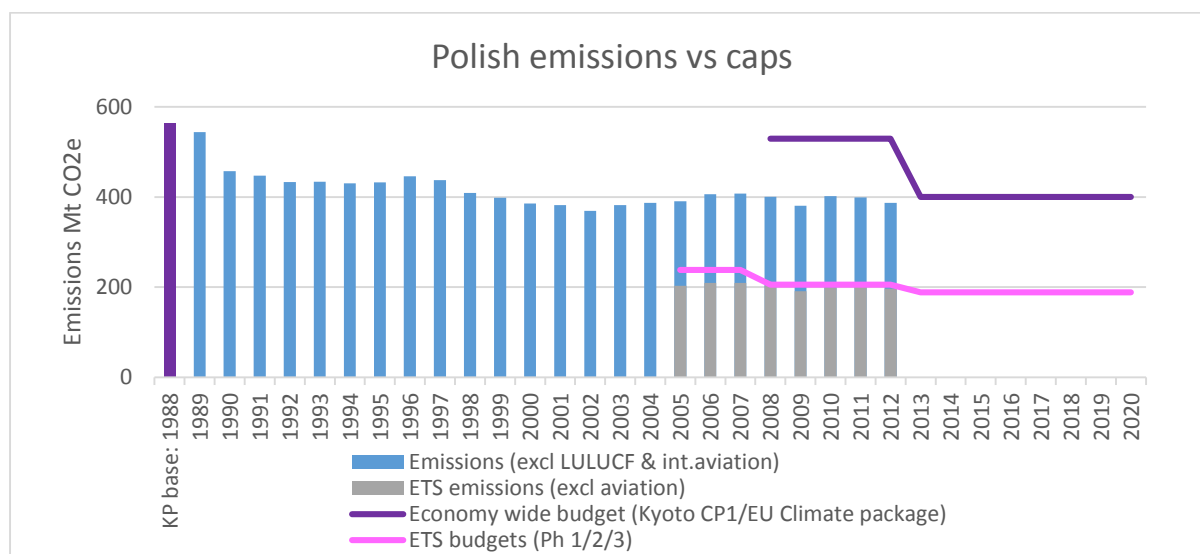
¹⁸ See Table 2.4 in <http://www.eea.europa.eu/publications/trends-and-projections-2013> p.34

¹⁹ <http://cdmpipeline.org/ji-projects.htm#3>

²⁰ <http://cdmpipeline.org/ji-projects.htm#3>

²¹ EUTL and JI pipeline data curated by Sandbag.

Poland in the second Kyoto Commitment Period (2013-2020)²²



Source: EEA, UNFCCC, EUTL, DG Clima website and Sandbag calculations

For the purposes of Kyoto compliance the EU28 is treated as a single entity over 2013-2020. Member State’s efforts towards that common obligation are assigned within the twin carbon budgets in the EU Energy and Climate Package: the EU Emissions Trading Scheme governing Europe’s large power stations and factories, and the EU Effort Sharing Decision limiting emissions from all other sectors (heating, waste, surface transport, agriculture).

Just as Poland managed to secure very generous budgets under the first Kyoto commitment period, it has also received very favourable emissions caps under these two EU carbon budgets within the second Kyoto Period. Poland controls 8.4% of all the emissions rights issued in Europe over 2013-2020.²³

Table 3: Poland’s share of EU carbon budgets over 2013-2020

	Total budget (MtCO ₂ e)	Poland budget (MtCO ₂ e)	Poland’s share of budget	Poland’s share of population
Emissions Trading Scheme (Ph3)	15,603	1,531	9.8%	7.5%
Effort Sharing Decision	22,687	1,693	7.5%	7.6%
Combined budget	38,290	3,224	8.4%	NA

i) The EU Effort Sharing Decision

The Effort Sharing Decision limits the carbon pollution that the EU28 is allowed to emit from those sectors of the economy that are not covered by the EU Emissions Trading Scheme, and is designed to reduce total EU emissions in the relevant sectors by 10% in 2020 compared with 2005 levels.

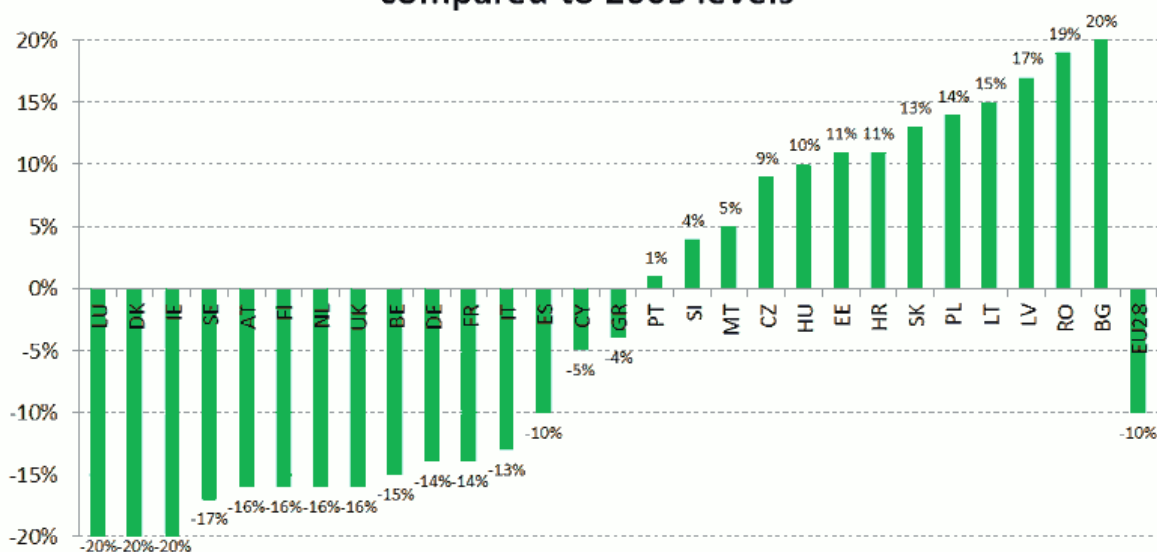
²² The chart depicts Poland’s annual allowances over 2013-2020 as a straight line. In fact, annual effort sharing allowances will increase year-on-year while annual ETS allowances will decline year-on-year. Until an annual breakdown of Poland’s ETS allowances are published it is impossible to depict the precise trajectory of the combined Polish carbon budget. These are due to be published shortly.

²³ Note that this does not coincide with the EU as the EU ETS also covers Norway, Iceland and Lichtenstein.

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However, because burden-sharing under the Effort Sharing Decision is based on GDP per capita, Poland managed to secure very advantageous carbon budgets, allowing it grow its emissions in 2020 by 14% compared to 2005 levels. Owing to the size of its emissions in 2005 and also owing to its low income levels, Poland has secured 1.7 billion emissions rights under the Effort Sharing Decision accounting for 7.5% of the total volume issued. This corresponds very closely with Poland’s share of EU population (7.6%).²⁴

Member State greenhouse gas emission limits in 2020 compared to 2005 levels



Source: DG Clima

ii) Phase 3 of the EU Emissions Trading Scheme

The EU ETS contains a medley of different allocation methodologies, and it is here that Poland has managed to secure multiple advantages compared with other European Member States. Poland only accounts for 7.5% of the population of the 31 countries participating in the scheme, but is due to receive at least 9.8% of all ETS allowances.²⁵

Table 4: Poland’s share of Phase 3 EU ETS allowances

Category	Share of total allowances	Total Ph3 ETS allowances (Mt CO ₂ e)	Poland’s Ph3 ETS allowances (Mt CO ₂ e)	Poland's share of each category
All ETS allowances	100%	15,603	1,531	9.8%
- Auctioned	53%	8,321	1,108	13.3%
- Benchmarked free allowances	42%	6,502	423	6.5%
- New Entrants Reserve	5%	780	TBC	TBC

Source: DG Clima, ETS Directive and Sandbag calculations

The rules determining which manufacturing installations receive free allowances are harmonised across the Emissions Trading Scheme, with all European installations gaining allowance based on common carbon-intensity benchmarks and carbon leakage criteria. This is the one area where

²⁴ Population figures from Eurostat.

²⁵ Population figures from Eurostat. The EU ETS covers the EU28 plus Norway, Iceland and Lichtenstein

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Poland will not have benefitted from special treatment; Poland received favourable terms, however, under every other aspect of Phase 3 allocations.

Poland’s privileged access to auctioned emissions rights

Poland has managed to secure 13.3% of all auction rights, despite accounting for only 7.5% of the population. Several special provisions in the ETS Directive confer this advantage:

- Firstly, Poland benefits from being a large historical emitter. 88% of auctioned allowances are divided between nations based on their share of ETS emissions over 2005-2007.
- Secondly, 10% of total auctioned allowances have been reserved for “Community Solidarity” to be distributed to countries with lower than average incomes. Poland is the major beneficiary, gaining 39% of these.
- Thirdly, Poland gains privileged access to a further 2% of auction receipts, which are held aside to reward “early effort” from countries that reduced their emissions before the ETS was in place.

A detailed breakdown is provided in Table 5 below.

Table 5: Poland’s share of Phase 3 EU ETS auctioned allowances

Auction breakdown		Total (Mt CO ₂ e)	Poland (Mt CO ₂ e)	Poland's share of each
All auctions	100%	8,321	1,531	13.3%
- General	88%	7,322	739	10%
- Solidarity	10%	832	325	39%
- Early effort	2%	166	45	27%

It seems somewhat generous to award Poland additional emissions rights to boost national growth and employment, when Poland currently receives nearly €10 billion in Structural and Cohesion funds from the EU budget for this purpose. It also seems generous to reward “early effort” when the Kyoto Protocol has already conferred so many spare emissions rights on this basis.²⁶

Transitional free allocations to Poland’s electricity sector

Separate to the question of how many ETS allowances Poland has received, there are persistent questions about how some of these allowances have been distributed. As we noted in our section on the first Kyoto Commitment Period, Poland took unusual lengths to protect its electricity sector from compliance costs under Phase 2 of the EU ETS, awarding the combustion sector 12 million allowances more than it ultimately needed over 2008-2012. In Phase 3, Poland has been allowed to continue insulating its electricity sector from EU ETS costs under special provisions in the Emissions Trading Directive. These enable it to reassign some of the allowances reserved for auction and award them for free to electricity generators.

Article 10c of the ETS Directive grants this concession to Member States to help them clean and diversify their electricity sector and to better integrate it with the European energy market. This provision was only available to ten Member States, based on their weak interconnection with

²⁶ Unless this concession is perceived as a consolation for blocking Kyoto CP1 allowances from use in the Effort Sharing Directive, and/or for limiting the volume of Polish AAUs that could be turned into EUAs in the Phase 2 NAP, and hence banked forward.

Europe or on their over-reliance on a single fossil fuel.²⁷ In Poland’s case around 90% of all electricity generated is from coal.²⁸

Poland’s application for these transitional free allowances attracted negative publicity, though, when critics claimed it was seeking free allowances for installations that were ineligible or non-existent, and was effectively using Article 10c to subsidize the construction of new coal-fired power plants.

Poland applied for free allowances to 145 existing installations and 31 new installations.²⁹ A due diligence report submitted by Client Earth to the European Commission argued that 14 of the largest new installations in Poland’s application had failed to “physically initiate” construction by the December 2008 deadline.³⁰ Further investigations by journalists at Euractiv in July 2012 confirmed that one of these proposed plants, Łęczna, “was a phantom installation, currently being used by local farmers to grow maize crops”.³¹

In its final decision on the Polish application, the Commission determined that Poland had, in fact, technically met the criteria to “physically initiate” construction by the agreed deadline for all 31 new installations, based on private evidence submitted by the Polish government. It did, however, decline one installation on the basis that it had not acquired its Greenhouse Gas Emissions Permit on time, a concern Client Earth had raised for 13 installations.³²

The Commission separately declined 30 specific projects (across 24 new installations) on the basis that these did not deliver “added value in terms of the modernisation of the electricity generation sector” because the projects described were “identical” to those listed as already “physically initiated”.³³ This suggested that either the modernisation projects were non-additional and would have taken place without free allowances, or the commercial viability of these new installations might significantly depend on the free allowances and would represent an undue distortion of the market.³⁴

The final Commission decision allows Poland to award a maximum of 405 million free allowances to its electricity sector across Phase 3, equating to 60% of its total auctioned allowances. These allowances will only be issued if the approved installations make appropriate upgrades which match or exceed the value of the allowances granted for free. Given the high profile of these free allowances, Poland can expect its obligatory annual reports to come under particular scrutiny from the Commission, from journalists and from civil society groups.

²⁷ Article 10c paragraph 1c of the Revised ETS Directive (2003/87/EC)

²⁸ <http://www.iea.org/newsroomandevents/agencyannouncements/2011-03-02.html>

²⁹ Recital 6, C(2012) 4609 final

http://ec.europa.eu/clima/policies/ets/cap/auctioning/docs/c_2012_4609_en.pdf

³⁰ <http://www.clientearth.org/reports/clientearth-due-diligence-report-executive-summary-january-2012.pdf>

³¹ <http://www.euractiv.com/climate-environment/eu-rules-climate-funding-polish-news-514051>

³² All installations receiving a permit after 30th June 2011 date are considered New Entrants and are ineligible for refurbishment under Article 10c

³³ Recital 20-21 C(2012) 4609 final http://ec.europa.eu/clima/policies/ets/cap/auctioning/docs/c_2012_4609_en.pdf

³⁴ Recital 20-21 C(2012) 4609 final http://ec.europa.eu/clima/policies/ets/cap/auctioning/docs/c_2012_4609_en.pdf

Poland’s carbon challenges

Carbon leakage across Eastern borders

Carbon leakage is a core concern for all EU Member States. All countries want to make sure climate and energy policy is well designed and does not merely serve to relocate emissions, investments and jobs elsewhere. Poland has voiced concern about the unique challenges faced by countries on Europe’s Eastern border. In particular they have expressed fears that their “close UE neighbours (i.e. Ukraine, Belarus) will gain competitive advantage.”³⁵

To address this question, IDDRI, a Paris-based think-tank, conducted an “Empirical Assessment of the Risk of Carbon Leakage in Poland”.³⁶ That report found that:

- “Energy intensive manufacturing sectors play a small role in the overall Polish economy, accounting for 5.1% of total gross value added”³⁷
- “When mitigating measures such as free allocation are taken into account [...] the risk of carbon leakage arising from direct carbon costs [...] seems negligible, even with a carbon price of €30/ton.”³⁸
- Even under a €30/ton carbon price, indirect carbon costs could be kept below 5.5% GVA for non-ferrous metals and below 3.5% GVA for iron and steel using approved State Aid measures funded through ETS auction revenues.³⁹
- 79% of trade across thirteen key Polish sectors is with the EU.

IDDRI concludes overall that “there is a negligible risk of carbon leakage in Poland under current policy settings” and that “EU climate policy can be made more stringent without inducing risks of significant carbon leakage.”

While this seems to largely settle the question of whether carbon leakage poses a distinctive problem to Poland’s energy-intensive sectors, questions have also been raised about the possibility of carbon leakage in the electricity sector. Poland is one of several Eastern Member States that purchase electricity from the Ukraine, importing 850 GWhrs over Jan-October of 2012⁴⁰. At around 0.8% of total electricity demand in Poland, this represents only a limited risk of carbon leakage at present.⁴¹ It does, however, raise the prospect that the EU needs to consider regulating electricity imports to mitigate this potentially growing risk, for example by requiring countries like Ukraine to purchase and surrender ETS allowances reflecting the carbon intensity of the power sold.

This need will be assuaged to the extent that non-EU countries bordering on the EU, or seeking business with the EU, adopt environmental regulations of their own, and this will be easier the more compatible that those policies are. In this respect, it is encouraging to see that Ukraine has made early attempts to introduce an emissions trading scheme and, as of 2012, has applied a carbon tax to its stationary installations of €0.02 per tonne.

While Ukraine clearly has some way to go, it should be noted that the climate efforts of other countries should not necessarily be equivalent in stringency to European legislation, but should reflect their

³⁵ http://ec.europa.eu/clima/consultations/articles/0007/ms/poland - ministry_of_economy_en.pdf

³⁶ O. Sartor and T. Spencer, *An Empirical Assessment of the Risk of Carbon Leakage in Poland* (IDDRI, 2013)

³⁷ *Ibid* page 5

³⁸ *Ibid* page 6

³⁹ *Ibid* page 21

⁴⁰ http://www.ukrinform.ua/eng/news/ukraine_ups_electricity_exports_by_16_times_in_ten_months_293705

⁴¹ Indicative only. Polish electricity consumption was 121,940 GWhrs in 2011 (IEA Statistics)

respective capacities and responsibilities for addressing climate change. In a global climate regime in which all countries embrace their common but differentiated responsibilities, cleaner economies with less environmental costs to internalise will naturally gain some competitive advantage. It must be anticipated that some degree of jobs and investment leakage may be implied by an equitable global climate regime, which corrects for what Lord Stern called “the greatest market failure the world has seen.”

Reducing dependency on coal

Poland’s resistance to new climate targets has no doubt been fuelled by the country’s heavy reliance on coal, which account for around 55% of Poland’s Primary Energy Supply and 90% of its electricity⁴², but Poland is starting to diversify its energy supply to better meet its climate and energy security challenges.

On January 28th, the Polish cabinet adopted its nuclear power programme, which proposes to have a first 3GW plant up and running by 2024 and a second online by 2035⁴³. While progress will be slower than envisaged in Poland’s 2009 energy plan – which foresaw three nuclear plants in place and generating 17% of Poland’s electricity by 2030 – Poland is beginning to plan a route towards a lower carbon future.

Meanwhile, Poland has also started adopting measures to increase the security and affordability of its supply of natural gas, further helping to wean it off coal. While Poland has been dependent on Russia for up to 63% of its gas⁴⁴, it has started construction on an LNG terminal in Świnoujście, which is currently due to be completed by the end of 2014.⁴⁵ Poland’s shale gas programme is also starting to get underway in earnest. On January 23rd San Leon Energy PLC announced a “major milestone” had been passed towards commercial shale gas production in Poland after its horizontal Lewino test well started flowing at 60,000 cubic feet per day.⁴⁶ New shale gas laws passed by the Polish Environment Ministry on February 5th also aim to accelerate exploration by cutting red-tape.⁴⁷

Finally, the EU renewable energy directive already requires Poland to source 15% of its energy from renewables sources by 2020. Poland’s National Renewable Energy Action Plan foresees that translating into a 19% renewable share in electricity, with a further 17% share coming from heating and cooling, and a 10% share in transport.⁴⁸

⁴² <http://www.iea.org/newsroomandevents/agencyannouncements/2011-03-02.html>

⁴³ <http://www.economist.com/blogs/easternapproaches/2014/01/polish-energy>

⁴⁴ <http://www.euractiv.com/energy/poland-takes-decisive-step-lng-t-news-516165>

⁴⁵ <http://uk.reuters.com/article/2013/09/10/poland-lng-idUKL5N0H628W20130910>

⁴⁶ <http://www.bloomberg.com/news/2014-01-23/europe-nears-first-commercial-shale-gas-production-in-poland-1.html>

⁴⁷ <http://www.economist.com/news/europe/21595954-poland-moves-step-closer-its-own-nuclear-energy-different-energiawende>

⁴⁸ http://ec.europa.eu/energy/renewables/action_plan_en.htm

Conclusions and recommendations:

Despite all of the special arrangements that have been put in place to assist Poland in the transition to a lower carbon economy, Poland has been steadfast in resisting efforts to agree new climate targets after 2020, vetoing council conclusions on both the Low Carbon Roadmap⁴⁹ and the Energy Roadmap to 2050⁵⁰, and warning that they will veto a 2030 climate target if leaders attempt to agree one in the European Council this March.⁵¹

Polish ministers and officials have often maintained that Europe is in the midst of a negotiation and, as such, should not “show its cards” by adopting an unconditional unilateral target so far in advance of the UN Climate Conference in Paris in December 2015. There is definitely merit to the argument that Europe should maintain some bargaining chips as it seeks to elicit more ambitious pledges from other large emitters, but as the UK government has shown, this negotiating space can be preserved by adopting a unilateral target of 40% that can be *conditionally increased* if other parties come to the table.^{52 53} Europe also has other bargaining chips it can use, such as technology transfer, to incentivise stronger commitments from other parties.

The Commission’s Low Carbon Roadmap found that 2030 emissions needed to be cut by at least 40% for Europe to reach its existing 2050 targets in a cost-effective manner. Failure to support a target of 40% is, then, effectively an attempt to renege on that commitment, or to reach it at unnecessary expense.⁵⁴ Furthermore, that 40% target is an extremely minimal interpretation of what constitutes Europe’s fair contribution to avoiding 2 degrees.⁵⁵

Poland has yet to make clear how Europe’s 2050 emissions goal might be met by a more cost-effective route than prescribed by the Roadmap. Neither has it shown how Europe’s fair share of international climate effort under a 2 degree climate budget might be better defined than by the Roadmap trajectory. The desire for uninhibited growth is not a sufficient argument to defer Poland’s climate responsibilities, since, as Poland itself has shown, growth can be largely decoupled from carbon emissions.

Going forward, then we recommend that Poland should:

- 1) Immediately come out in support of the Commission proposal to cut EU greenhouse gas emissions by at least 40% (domestic) in 2030 compared to 1990 levels.**

⁴⁹ In June 2011 and March 2012. See <http://www.ft.com/cms/s/0/c633d912-9c3c-11e0-acbc-00144feabdc0.html?siteedition=uk> and <http://www.ft.com/cms/s/0/c8665b2c-6a1a-11e1-b54f-00144feabdc0.html>

⁵⁰ June 2012. See: <http://www.endseurope.com/29061/poland-vetoes-energy-roadmap-to-2050>

⁵¹ See remarks from Deputy Prime Minister Janusz Peasant here (in Polish): http://energetyka.wnp.pl/piechocinski-nie-wyklucza-weta-ws-pakietu-2030,218025_1_0_0.html echoed by Economy Minister Janusz Piechocinski here: <http://www.bloomberg.com/news/2014-02-17/eu-leaders-said-to-delay-decision-on-2030-carbon-target.html>

⁵² <https://www.gov.uk/government/speeches/edward-davey-speech-ambitious-and-flexible-europes-2030-framework-for-emissions-reduction>

⁵³ This echoes the UK domestic position. The 2008 Climate Change Act requires Britain to reduce its emissions by 80% relative to 1990 levels, but does not seek to prescribe the UK’s position in international negotiations.

⁵⁴ Independent analysis from the Postdam Institute finds that a 47% cut in domestic emissions by 2030 is a more realistic estimate of what is required to cost-effectively meet even the weaker 80% target in 2050. https://www.pik-potsdam.de/members/knopf/publications/Knopf_EMF28_overview_final.pdf

⁵⁵ <http://www.ecofys.com/en/blog/what-is-a-fair-contribution-of-the-eu-to-the-2c-limit/>

This unilateral commitment can help elicit stronger starting pledges from other non-EU countries at the Ban Ki Moon summit in September. Poland can also start to work with other Member States to agree the conditions under which that unilateral target might be strengthened ahead of the Paris Climate Conference in December 2015.

2) Support ambitious structural reforms to the EU Emissions Trading Scheme

An ambitious 2030 target is also likely to see a steeper trajectory introduced to the EU ETS after 2020,⁵⁶ but separate to the question of Europe’s next greenhouse gas target, Poland should move to support new proposals which better ensure the EU ETS delivers the cost-effective emission reductions for which it was first designed.

- **Support the Commission proposal for a Market Stability Reserve**

At present, political uncertainties about the future of the scheme finds market participants inadequately accounting for the longer-term scarcity of allowances expected in ETS cap when determining current prices. This is failing to incentivise appropriate levels of low carbon investment today, making it unnecessarily costly to keep to our budgets in the future.

The Commission’s proposal to introduce a *market stability reserve*⁵⁷ will help to address these issues of market confidence and short-sightedness, by setting some auctioned allowances aside when there is a supply glut and returning them to the market when there is a shortage.

- **Adjust the ETS cap to correct for the current surplus**

The proposed Market Stability Reserve is however, an inadequate response to the 2 billion surplus allowances that have accumulated within the scheme to date. Research published by both Sandbag and Ecofys show how the carbon budgets are now misaligned with Europe’s headline climate targets and threaten to drag Europe’s 2030 targets off course by 7% or more.

To redress these distortions, we therefore advise making a one-off cancellation of some 2 billion allowances due for auction in either the Phase 3 or Phase 4 carbon budget.

If Polish policymakers fail to support appropriately ambitious climate targets and carbon budgets, other EU policymakers should consider:

- **Initiating legislation on specific carbon budgets and instruments to deliver a 40% domestic climate target in 2030, without waiting for a high level consensus**

New environmental legislation initiated by the Commission can be passed by the Parliament and the Council of Ministers without needing a unanimous agreement between heads of state. This would require the Council of Ministers to overturn the “gentleman’s agreement” of voting by unanimity, and instead resort to qualified majority voting on environmental matters as stipulated by the Treaties.⁵⁸

- **Aggressively renegotiate the burden-sharing rules governing the EU ETS, the Effort Sharing Decision and other instruments to reduce the concessions given to Poland**

⁵⁶ The Commission proposal suggests a 40% target in 2030 implies that the linear reduction factor governing the ETS cap increase from 1.74% to 2.2% in 2021.

⁵⁷ http://ec.europa.eu/clima/policies/ets/reform/docs/com_2014_20_en.pdf

⁵⁸ <http://www.euractiv.com/climate-environment/polish-climate-veto-based-hot-ai-news-515649>

If Poland successfully blocks efforts to agree ambitious climate targets, other policymakers might choose to review the burden-sharing rules in the instruments under the 2030 framework to make them less favourable to Poland. As part of the continued harmonisation of effort across the traded sector, privileged access to ETS auction receipts on the basis of “early effort” or “community solidarity” might be removed. The primary method of dividing auctioned allowances between Member States – currently done on the basis of Phase 1 ETS emissions – might also be reviewed. Finally, the current income based allocation of national carbon allowances under the Effort Sharing Decision might also be reviewed.

As part of a Joint Statement from the Visegrad Group (plus Bulgaria and Romania), Poland has insisted that “effort for the non-ETS sector must be allocated among the individual Member States in a fair, equitable and transparent manner on the basis of robust data, reliable calculations and fair burden sharing, corresponding [to] Member States capacities.”⁵⁹ But it remains far from clear that “fair” and “equitable” burden sharing should be based on capacity alone (without consideration for historical responsibility, for example). Neither is it clear that average national income is the best measure of a Member States’ capacity to reduce emissions going forward.

Poland risks hypocrisy here. If the same burden sharing criteria it seeks to secure within Europe were applied internationally, these would almost certainly require Europe to undertake much steeper emissions reductions than 40% by 2030, owing to Europe’s relatively high average income compared to most of the world.

Indeed, as a general principle we feel the EU could benefit from a more consistent approach to burden-sharing both *within* its borders, and *beyond* its borders. As Europe prepares its 2030 climate and energy framework, it should look to embrace one set of consistent burden-sharing principles that apportion emissions rights fairly across all Member States. At the same time, the EU should seek to apply the same principles when determining its appropriate share of international effort under a 2°C climate goal, and when setting its 2030 climate target.⁶⁰

This grand debate about international effort-sharing principles is yet to take place between EU Member States and institutions, but is essential if Europe’s targets are to reflect a fair and rational response to the challenge of climate change.⁶¹

⁵⁹ http://www.mos.gov.pl/g2/big/2014_02/1f2fcbe4313eb55fe0b1c3c4a759b855.pdf

⁶⁰ It has been encouraging to see the UK government publish an effort sharing paper as part of its contribution to the 2030 debate. In that paper which calls for a 50% conditional offer, One of the effort sharing systems presented is roughly similar to that used to determine the UK’s domestic targets under the Climate Change Act (i.e. convergence on equal per capita emissions in 2050) <https://www.gov.uk/government/publications/analysis-of-eu-2030-greenhouse-gas-emission-reduction-target-options>

⁶¹ Sandbag’s report *The Sovereign Emissions Rights Framework* (June 2013) aims to reignite that debate by comparing effort sharing approaches and promoting a “budgets” approach. See http://www.sandbag.org.uk/site_media/pdfs/reports/The_Sovereign_Emissions_Rights_Framework_1.pdf

Appendix 1: Poland’s largest polluters

Poland harbours the single largest emitting installation in Europe, Elektrownia Bełchatów, releasing 35 million tonnes of carbon dioxide last year, 13% more than the next largest polluter (RWE’s Kraftwerk Neurath power station in Grevenbroich, Germany). At 5GW of capacity, it is the largest thermal power station in Europe, and the fourth largest fossil fuelled power station in the world. It provides around a fifth of Poland’s power. It accounts for **16%** of Poland’s traded sector emissions and **8%** of its economy wide emissions during the first Kyoto Commitment Period.



Image of Elektrownia Bełchatów courtesy of G.Mordalski www.mordalski.com

Poland’s ten largest emitting installations are all combustion plant. Together they accounted for **483 million tonnes** of CO₂e over 2008-2012. That’s nearly half of Poland’s ETS emissions and a quarter of its Kyoto emissions.

Ten largest emitting installations in Poland (all are Combustion sector)

Installation	Company	Avg. annual emissions	Total Ph2 Emissions
PGE GiEK S.A. - Elektrownia Bełchatów	PGE	31,602,489	158,012,444
PGE GiEK S.A. Oddział Elektrownia Turów	PGE	11,367,489	56,837,444
ENEA WYTWARZANIE S.A.	Enea Group	10,350,340	51,751,701
EDF RYBNIK S.A.	EDF	7,955,039	39,775,196
PGE GiEK S.A. - Elektrownia Opole	PGE	6,843,873	34,219,363
ELEKTROWNIA POŁANIEC	GDF Suez	6,390,200	31,951,000
ELEKTROWNIA PAŃNÓW I	ZE PAK SA	5,998,347	29,991,737
Oddział Elektrownia Jaworzno III w Jaworznie	Tauron	5,932,930	29,664,650
PGE GiEK S.A. - Elektrownia Dolna Odra	PGE	5,394,699	26,973,496
Oddział Elektrownia Łaziska w Łaziskach	Tauron	4,676,374	23,381,871
TOTALS	-	96,511,780	482,558,902

Source: EUTL

Other things we do



Sandbag is the NGO leading in research-led campaigning for effective emissions trading. Our informed reports, briefing papers, consultation responses and workshops have reached and influenced European policymakers at the highest levels and been widely reported in the European and international press.

Sandbag can provide your organisation with:

- **Commissioned reports:** our reports combine rigorous research with clear and targeted messaging.
- **Research and data analysis:** Sandbag has extensive experience analysing the key EU ETS data, and has developed some unique tools (such as our offset and emissions trading maps) to make these more transparent. Sandbag has also developed extensive profiles of specific sectors, companies and countries within the scheme.
- **Workshops:** We have led workshops for MEPs, UNFCCC delegates, international NGOs, journalists and businesses

For more information on our research consultancy services please contact info@sandbag.org.uk

