

Starting point + banking: a fatal combination for the ESR?

September 2016

Summary

In July, the European Commission presented a proposal to achieve the 2030 target for transport, buildings, agriculture and waste. The Effort Sharing Regulation (ESR) proposal formally requires a 30% cut compared to 2005 and distributes the efforts amongst member states. However, it has several shortcomings, including an allowance to use ETS and LULUCF credits. Moreover, the way the ESR's starting point has been set, will create a surplus of emission allowances which can be carried over towards the second part of the period.

This paper analyses the impact of the proposed starting point in combination with unlimited banking. The main findings are:

1. The combination of the starting point with unlimited banking of credits reduces the stringency of the proposal from -30% to -26%.
2. Setting the ESR's starting point based on a linear trajectory from 2016-2018 emissions (capped by 2020 target) would increase emission cuts throughout the period by over 500 megatons.

There are several options to limit the damage caused by the current starting point. The most obvious is to change the starting point. Alternatively putting a cap on banking – as currently exists for borrowing – would limit the negative impact on the 2030 target and would contribute to increase the real emission cuts.

1. Context

In July, the European Commission presented a [proposal](#) on national climate targets for the sectors that are not included in the European Emissions Trading System (ETS). The headline target of the Effort Sharing Regulation (ESR) is to achieve a 30% cut in European transport, building and agriculture emissions by 2030, compared to 2005 levels. The combination of the ETS and the ESR target should bring the EU to achieve what it promised in Paris: to reduce emissions by 2030 by 40% compared to 1990. If either the ETS or the ESR individual targets are not achieved, the EU commitment would be at risk. This is all the more problematic since the -40% target puts us on a trajectory that makes achieving a minus 80-95% target very hard.

In reality the ESR Commission proposal does not require a -30% emission cut. The proposal includes several loopholes (LULUCF credits, ETS credits, too-high starting point) that undermine the stringency of the national climate targets. Combined, these loopholes could lower the stringency of the ESR from -30% to -23.1% by 2030ⁱ. The biggest reduction in stringency stems from the choice of the “starting point” combined with unlimited banking, which are both discussed in this paper.

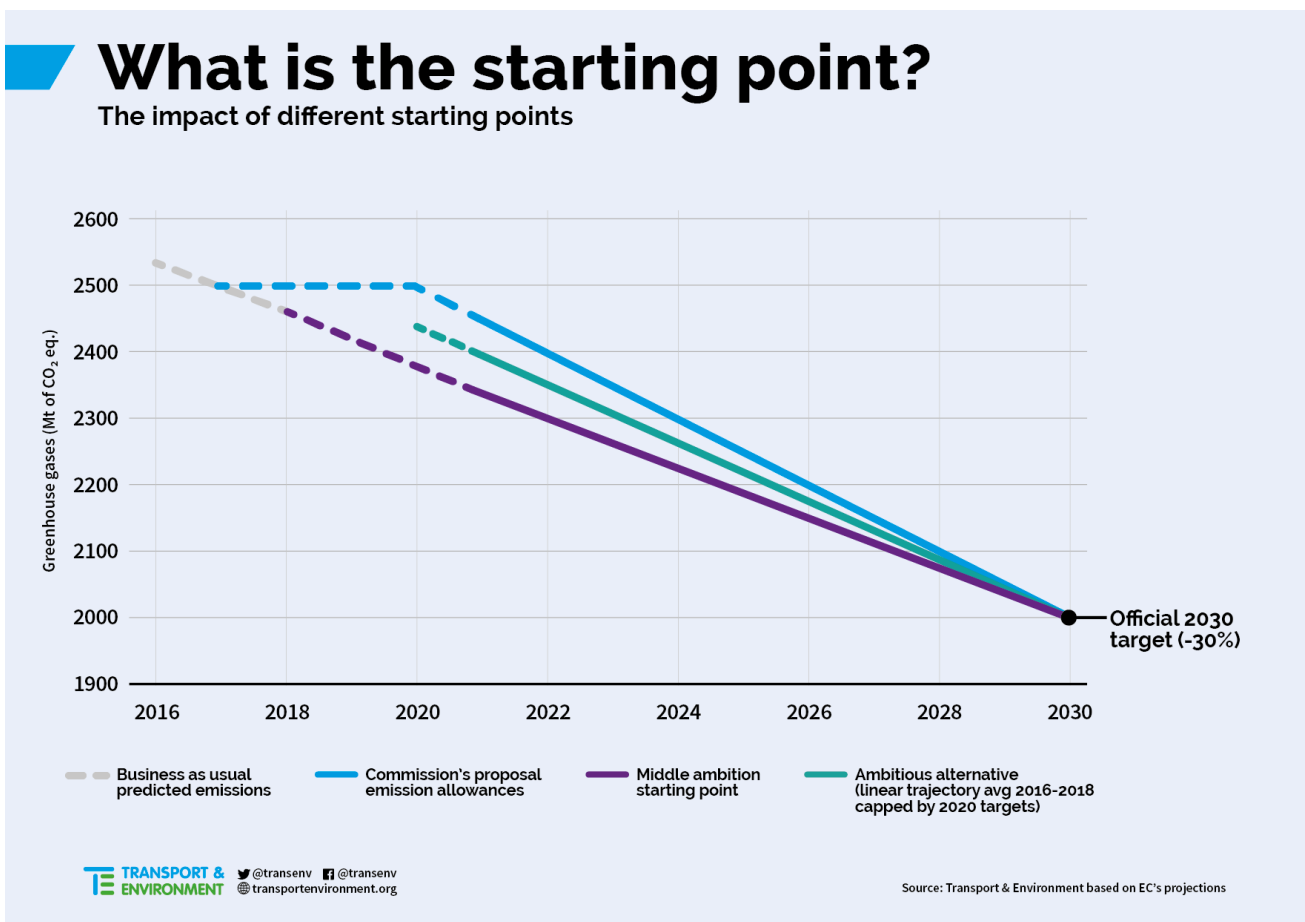
The ESR proposal will now be discussed by EU governments and the European Parliament. This will be an opportunity to improve the Commission proposal. Particular attention should be given to fixing the problems associated with the choice of starting point. This paper explains what the starting point is, why it is important for the stringency of the 2030 target and which options are available to fix it.

2. Starting point

Under the ESR, each member state will have an annual allocation of emissions it can emit. This is the member state's carbon budget. If a member state exceeds its carbon budget, it can buy emission permits from other member states or use some other of the existing flexibilities (such as borrowing allocations from subsequent years) or loopholes (ETS and LULUCF credits).

The allocation – and thus the annual targets – will be based on a linear decreasing trajectory between 2020 and 2030. The 2030 final value is clear: minus 30% compared to 2005 levels. However, the starting point was not set when the target was agreed upon and had to be defined by the Commission in its proposal. This is an important decision: indeed, the higher the starting point, the smaller the cumulative emission reductions throughout the period.

The Commission proposes to take as a starting point the average emissions between 2016 and 2018. Then a horizontal line would be drawn to 2020. Finally, a line will be drawn between that value and 2030 which then becomes the annual emissions trajectory.



As explained in the Commission impact assessment, from a climate point of view a better approach would have been to use member states' *real* emissions as the starting point, although there are many other alternatives as explained in the section below. The current proposal implies an inflated carbon budget – i.e. it's less ambitious than what would happen in business as usual until ca. 2024 – compared to the most environmental integral option, as explained in the figure in page 4.

The proposed starting point is problematic for the following reasons:

- The starting point proposed is among the highest of all possible options. The higher the starting point is, the smaller the cumulative emission reductions are throughout the period. Based on that, the proposal clearly does not “pursue efforts to limit [climate] to 1.5°C”.
- Some member states, even before considering any of the proposed loopholes, will be able to cumulatively emit more throughout the period than their projected emissions (read box 1 for details). The list includes: BG, CZ, EE, EL, ES, HR, LV, LT, HU, MT, PT, RO, SI, SK.
- Within the group above, some member states will even be able to have an upwards trajectory between 2021 and 2030. That is the case for BG, EL, HR, HU, PT and RO. Each year these countries will be able to increase their emissions compared to 2021, even before considering all other loopholes.
- On top of that, countries that are on track to miss their 2020 targets will be rewarded with more cumulative allowances throughout the period in comparison with those that took measures to reduce their emissions. This is the case for BE, IE and LU.
- Finally, given that most member states will achieve by far their 2020 targets, the proposed starting point dis-incentivizes any additional measures at national level in most member states between now and 2019. In fact, for many member states it creates a perverse incentive, the less action a member state takes, the higher the allowances between 2021 and 2030 will be.

Box 1: Which projection to use?

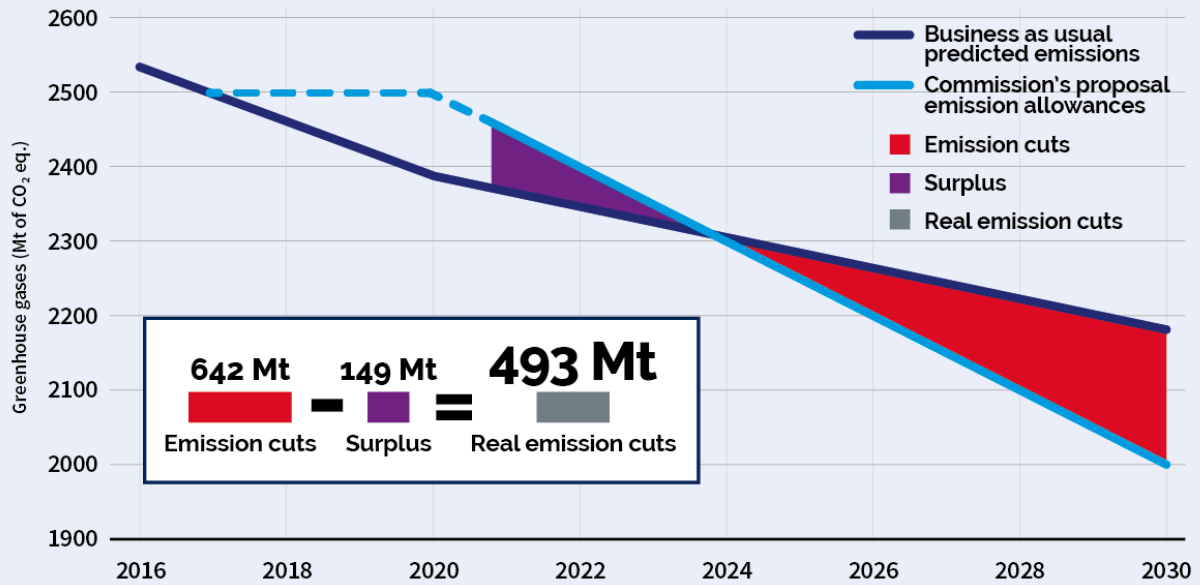
There are two main sources: the new EU Reference Scenarioⁱⁱ, or projections submitted by member states and compiled by the European Environment Agency in its latest trends and projections reportⁱⁱⁱ. There are differences between the two, especially towards the end of the ESR period (2030). When calculating the impact of different starting points in the ESR, the source for the projections used is important. Member states in their projections tend to be more “pessimistic” than the EC. They project their emissions to be larger than those projected by the EC. If projections by member states are used, potential emission reductions are larger, because projected emissions are larger. For this paper, we have used the new reference scenario of the Commission as a basis, but our model incorporates the possibility to switch the basis projection.

The graph in the next page shows the difference between the most environmental integral starting point, delivering the most cumulative reductions, compared to the option presented by the European Commission.

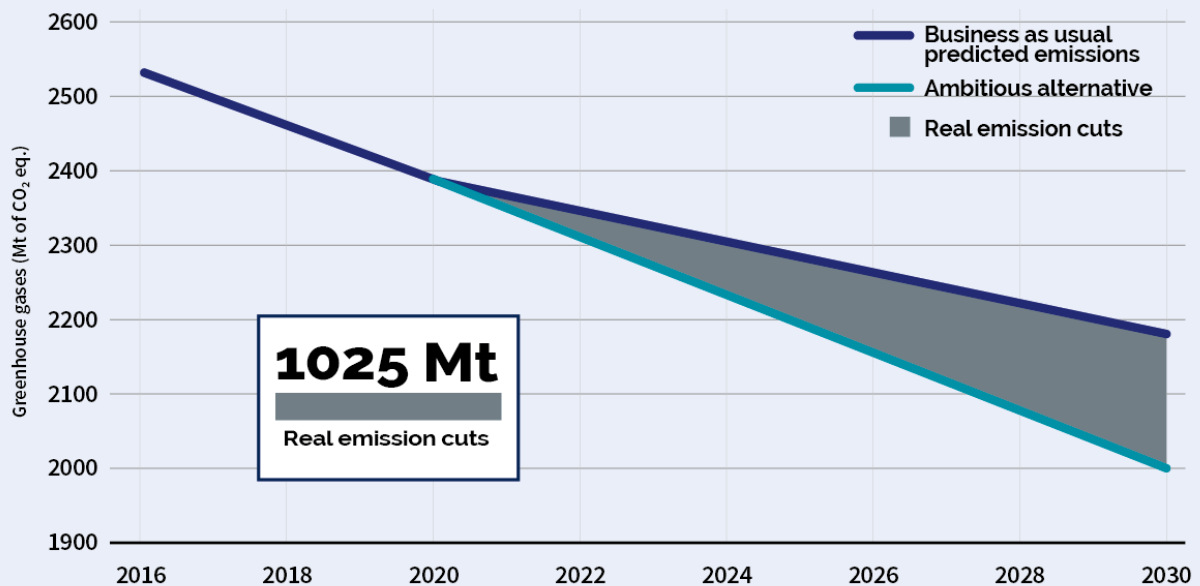
Avoiding emission cuts?

Improving the starting point in the effort sharing regulation

Commission's current proposal



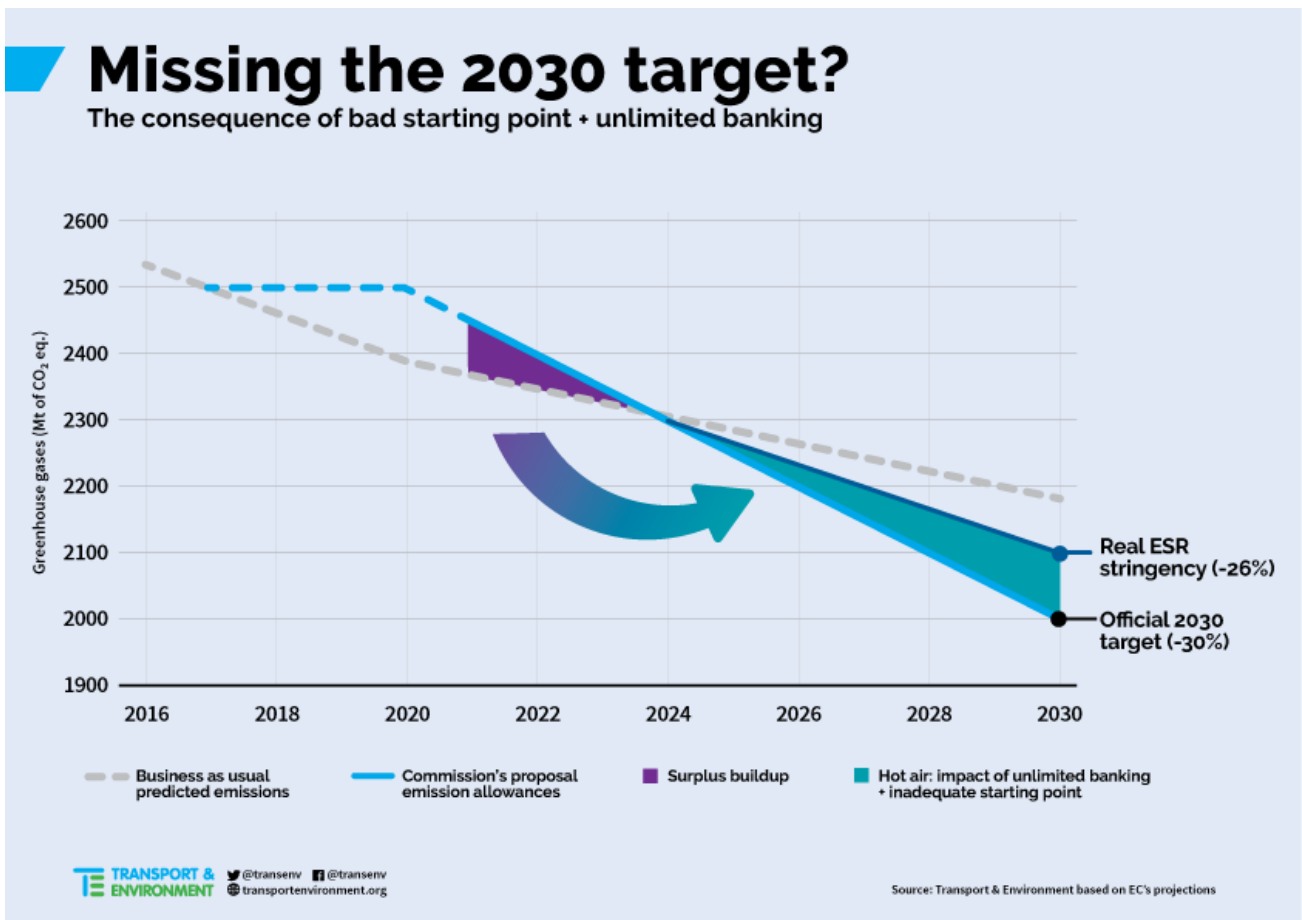
Ambitious alternative (linear trajectory avg 2016-2018 capped by 2020 targets)



Banking

The choice of starting point has an impact on the cumulative emission reductions throughout the period, but also on the 2030 target. This is because the ESR allows member states to bank emission allowances that they haven't used. As explained above, in 2021 member states' emissions will already be significantly *below* the 2016-2018 starting point and this is projected to remain the case until the mid-2020s. So the 2016-2018 starting point enables EU countries to build up a significant reservoir excess emission allowances in the period 2021-2024. They can use these allowances in the 2025-2030 period to comply with the ESR targets.

Overall, the combination of the 2016-2018 starting point with the banking provision lowers the stringency of the ESR from -30% to -26.3%, as explained in the figure below. The Commission assumes in a "business as usual scenario" ESR emissions would be 23.7% below 2005 levels. If you factor in LULUCF and ETS credits there is little difference between business-as-usual and what the Commission proposal requires.



3. Options to fix the problem

It is clear that the combination of an artificially high starting point with unlimited banking leads to a major weakening of the ESR's stringency. Below we discuss several alternative options to enhance the ESR's environmental integrity.

3.1. Changing the starting point

The first and most straightforward option would be to change the starting point itself. There are several possibilities, and each of them has its pros and cons.

Starting point option	Pros	Cons	Extra emission reductions compared to Commission's proposal (Mt CO ₂ eq)	Projected 2030 reduction compared to 2005
2020 targets in the effort sharing decision	- Countries that are not going to achieve their targets would have a more restricted carbon budget, punishing non-compliance.	- As most countries will overachieve their targets, complying countries would inflate the carbon budget. - Countries expecting to achieve the target have no incentive to keep action in the next years.	+ 177 Mt compared to projections	21.5%
2016-2018 average starting point (Commission's proposal)	- Not the worst of all options.	- Cons explained in detail in the previous section.	-	26.3%
2016-2018 average starting point capped by 2020 target	- Countries on track not to meet their target will not have even additional benefits	- As most countries will overachieve their targets, complying countries would inflate the carbon budget. - Countries expecting to achieve the target have no incentive to keep action in the next years.	-93 Mt	26.9%
2020 real emissions	- Countries overachieving their 2020 targets would have a steeper reduction trajectory in 2021-2030.	- Countries not meeting their targets would have an inflated carbon budget, rewarding non-compliance in the first period. - Countries planning to achieve their 2020 targets have no incentive to keep action in the next years. - It creates a perverse incentive, the less action a member state takes in the next years, the higher the allowances in the ESR will be.	- 481 Mt compared to EC proposals	29.6%
Linear trajectory 2016-2018	- Almost all countries would have a relative tight carbon budget, although it would not be the most environmental integral solution.	- With current projections, certain countries could still increase their emissions in 2021 compared to their 2020 target.	-517 Mt	29.9%
2020 target capped by real 2020 emissions	- Most lower income member states achieve their targets, and they even generate surpluses - Almost all countries would have a relative tight carbon budget, although it would not be the most environmental integral.	- Difficulty to do the allocations because information is not available until 2022. It could be based on projections and then adjust it. - Even in this case, some member states are allowed to increase their emissions between 2021 and 2030.	-523 Mt	29.9%

<p>Linear trajectory 2016-2018 capped by 2020 target</p>	<p>- Most environmental integral option (most cumulative reductions throughout the period) - Most lower income member states achieve their targets, and they even generate surpluses</p>	<p>- Countries expecting to achieve the target have no incentive to keep action in the next years. - Certain member states are projected to have lower emissions in 2020 than both the linear trajectory and the 2020 target.</p>	<p>-532 Mt</p>	<p>30%</p>
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All options have their pros and cons. However, the option chosen by the EC is one of the worst ones, especially from an environmental perspective. Changing the starting point to one of the options above is one of the solutions. However, it is not the only one.

3.2. Lower the 2021-2030 emission trajectory

Most of the alternative starting points presented above deliver more emission reductions compared to the starting point proposed by the Commission. They all imply an inflated carbon budget compared to the most environmental integral option in the table above.

An alternative to change the starting point would be to establish a cap on how “inflated” the carbon budget can be compared to the most environmental integral option in the table above. With the proposed starting point rules and compared to the 2016 reference scenario, there is a bubble of 532 Mt of CO₂ equivalent. The tighter the cap, the more environmentally integral the ESR would be. This is also the approach the Commission has taken for ETS and LULUCF credits, which are limited in scope to minimize the risk of missing the 2030 target.

An example might be the best way to explain how it could work. Let’s take a 100 Mt cap as an example. As the projected bubble will be 532 Mt, 432 Mt would need to be subtracted from the allocations. This number would be divided among member states based on a specific criteria, e.g. 2030 allocation, although there are several options. Then, this number could be divided throughout the 10 year period. Allowances of member states would be reduced by this number. On this way, the damage created by the starting point would be seriously limited without the need to change the starting point.

3.3. Capping banking

A third option to improve the proposal would be to establish a cap on the amount of allocations that can be banked until the next year. A 5% cap already exists for the borrowing and transferring of emission allowances (ESR proposal article 5). Extending this 5% cap to banking would have a double positive impact

- The **theoretical** emission cuts (comparison between the reference scenario and the annual targets, before considering how inflated the budget is) increase considerably. It would depend on the specific annual percentage limitation. If 5% is chosen (as it is currently the case for borrowing), the theoretical emission cuts throughout the period would increase by 250 Mt of CO₂ eq compared to the Commission’s proposal.
- The size of **actual** emission cuts (real stringency required, after considering all the proposed loopholes and how inflated the budget would be), would increase significantly. Leaving everything as in the existing proposal, the actual emission reductions throughout the period (compared to the reference scenario,) considering the inflated carbon budget and the other loopholes, the actual emission cuts would only be 77 Mt of CO₂ eq. However, if a banking limitation of 5% annual is established, and everything else is left as in the current proposal, the actual emission reductions would go up to 456 Mt of CO₂ eq.

- Regardless of the starting point and the 2021-2029 carbon budget, a cap on banking will ensure that in 2030 the EU's emissions will be actually 30% below 2005 levels (at least if we temporarily ignore the LULUCF and ETS provision).

Compared to the other alternatives, limiting banking has the advantage that it is politically more neutral, as it would affect all member states equally. Limiting banking provides member states with a relatively easier trajectory towards 2030 compared to changing the starting point – thereby reducing overall emission cuts throughout the period as explained above - but reduces the impact on the all-important 2030 target.

Many member states would still be able to cumulatively not reduce their emissions compared to business as usual (as in the reference scenario), but still it would be much more reduced than without the banking limitation.

A cap could be expressed in percentage terms (like current borrowing limitations) or in absolute terms. This is the way the Commission has chosen to limit the negative impact of using ETS (100 Mt cap) and LULUCF credits (280 Mt cap). A similar cap could limit the use of allowances banked by specific member states.

4. Conclusion

The current ESR proposal is not fit for purpose, because it translates into an oversupplied system that puts the EU at risk of achieving its 2030 target. The 2030 target is already short of what is needed to keep global warming below 2°C - let alone 1.5°C. A climate law that allows member states and the EU to miss this insufficiently ambitious target is simply not an option. The combination of the proposed starting point, unlimited banking and all other loopholes is fatal for the ESR ambition. However, it can still be fixed. Among the three options presented above, all individually or combined in different degrees can bring the EU carbon budget more in line to the Paris Agreement.

Further information

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Endnotes

ⁱ Considering that the loopholes would be mostly be used towards the end of the period (wedge approach). Carbon Market Watch, 2016. The 2030 Effort Sharing Regulation.

ⁱⁱ European Commission, 2016. EU Reference Scenario. Energy, transport and GHG emissions. Trends to 2050.

ⁱⁱⁱ European Environment Agency, 2015. Trends and projections in Europe 2015.