



Climate
Strategies

Strengthening The EU ETS

Creating a stable platform for
EU energy sector investment

EXECUTIVE SUMMARY

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About Climate Strategies

Climate Strategies is an international organisation that convenes networks of leading academic experts around specific climate change policy challenges. From this it offers rigorous, independent research to governments and the full range of stakeholders, in Europe and beyond. We provide a bridge between research and international policy challenges. Our aim is to help government decision makers manage the complexities both of assessing the options, and of securing stakeholder and public consensus around them. Our reports and publications have a record of major impact with policy-makers and business.

Introduction

Europe faces the intertwined issues of debt, recession and economic uncertainty. These issues also impact its climate and energy policy, and in particular the EU Emissions Trading System (EU ETS). However, improvement to the EU ETS could enhance European prospects for economic stabilisation, investment and recovery.

This report, *Strengthening the EU ETS*, analyses the underlying issues affecting the EU ETS, and sets out the main response options. The core conclusion is that no individual measure adequately addresses the combined needs: to restore confidence, to stabilise expectations, and to provide a strategic context for huge investment in the EU energy sector. A combination of measures would best meet Europe's needs:

- a. Set-aside of allowances to 'recalibrate' the EU ETS,
- b. A rising reserve price on future auctions, or similar mechanisms that establish a de-facto 'floor price', to restore confidence in its robustness for the purposes of investment and financial stability, and
- c. Accelerated negotiations on post 2020 strategies and commitments.

Context: need and rationales

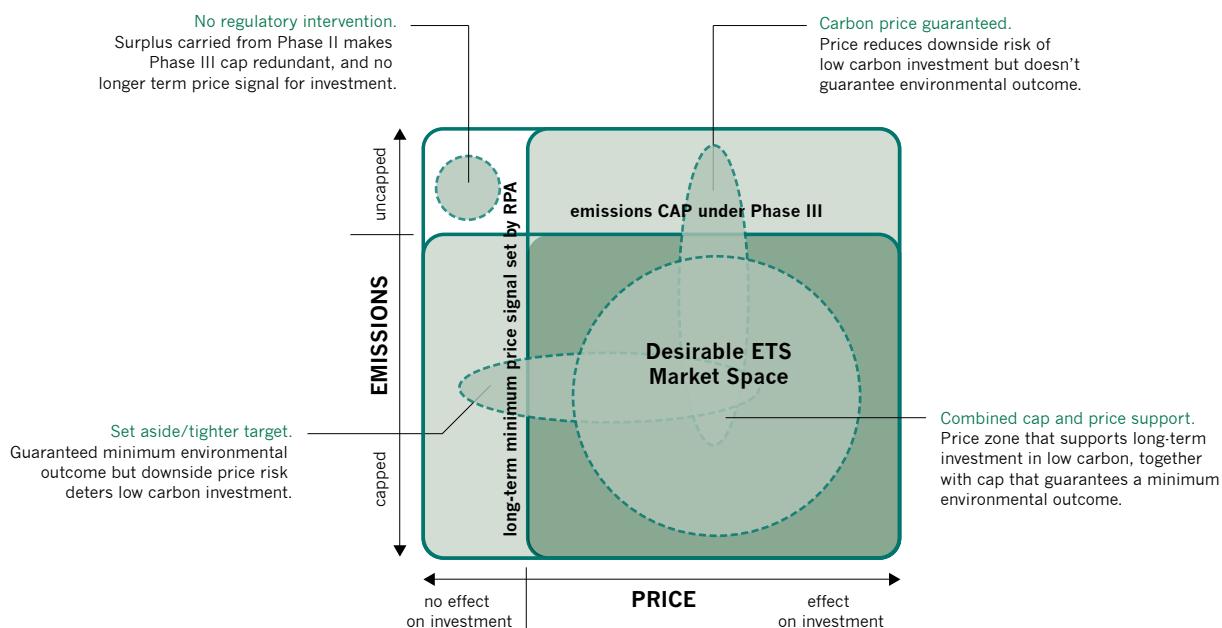
Europe needs a new generation of energy investment, up to €1,000bn in its energy system over the coming decade, and much improved energy efficiency. The EU ETS was expected to provide a rising carbon price to help drive investment in both energy infrastructure and energy efficiency. With the move to auctioning from next year, the EU ETS was also projected to raise €150-200bn in public revenues over Phase III (2013-20). The expectation was that these revenues would be divided between the needs of general public finance, the specific needs for new energy infrastructure, and climate finance including international commitments.

However, the combined impacts of recession, response to the carbon price in 2008-11, and complementary measures, have led to a surplus of emission allowances that will last out to 2020. As a result, EU ETS allowance prices have collapsed. This undermines the EU ETS's value as a driver of either emission reductions or investment. At a time of economic uncertainty and fiscal crisis, EU energy-related industries have lost orientation for investment, and governments have lost an expected €100bn of auction revenue.

Action is needed. The EU is developing strategic roadmaps which require investment of many hundreds of billions of Euros in long-lived energy assets. Such investment must meet Europe's needs for long term energy and climate security, and would also serve macroeconomic goals. However, it is not consistent or credible to expect such investment whilst allowing the carbon price – a price that is ultimately an output of political decisions – to languish well below €10/tCO₂ for several years, instead of the €25 to €40/tCO₂ projected when the EU ETS Phase III Directive was adopted. Industry responds more to what it sees in markets than what it is told about the future, but the massive dichotomy raises the cost and risks of all energy sector investment. The present situation serves neither Europe's economic or environmental interests.

Action is justified. The original policy setting for Phase III of the EU ETS was inconsistent: delivery of multiple goals (including renewables and energy efficiency), and emission offsets, together would anyway have led to an inadequate ETS outcome without a stronger target. This inconsistency was partly justified by the expectation of moving to 30% upon a global deal. While international action on emissions abatement continues to develop, it is unlikely to deliver clarity in a useful timeframe: at the same time, the scale and duration of the European recession – a plausible force majeure on its own – has weakened the outlook so much that a surplus of emission allowances is now projected to last past 2020.

Figure ES-1: Price and Quantity in the EU ETS



The options

Concerns around the EU ETS are not just about the price or quantity of allowances, but also about the credibility of and expectations for future emissions prices. Price and quantity in emissions trading schemes serve different, and potentially complementary, roles over both the short term and longer term (Figure ES-1). Addressing these quantity and price issues requires remedies that are strategic as well as tactical, complementary and not piecemeal.

This report outlines the needs and prospects for longer term clarity, but this cannot on its own address the current situation. For more immediate action we analyse five options summarised in Table ES-1, reflecting different degrees of ambition, effectiveness, timescale, and procedural and political feasibility.

Quantity measures

Earlier studies by Climate Strategies suggested that revisions to the overall 2020 target, involving all sectors and with a complex political history, would make most sense in the context of clarifying longer-term strategy towards 2030. Such targets serve international as well as domestic purposes, and may be linked to the international post-Durban negotiations. But achieving EU ETS price impacts through this approach would require both changing the EU ETS cap and amending the Directive: these actions would be problematic as a near-term response.

Tightening the EU ETS cap trajectory on its own would, by implication, require consensus on changing the long-term default trajectory, and would similarly require revision to the Directive. It would risk conflating this strategic decision with a fix to 'mop up' the current surplus over time, hence also making it quite uncertain how the current price would actually respond.

The immediate solution being politically considered is the set-aside of emission allowances, so as to reduce the current supply of allowances and therefore boost the price. This avoids many of the problems of the above options, and has strong justification. Set-aside is necessary because the extent of oversupply to 2020 makes the system wildly out of balance from either its intended role or strategic needs.

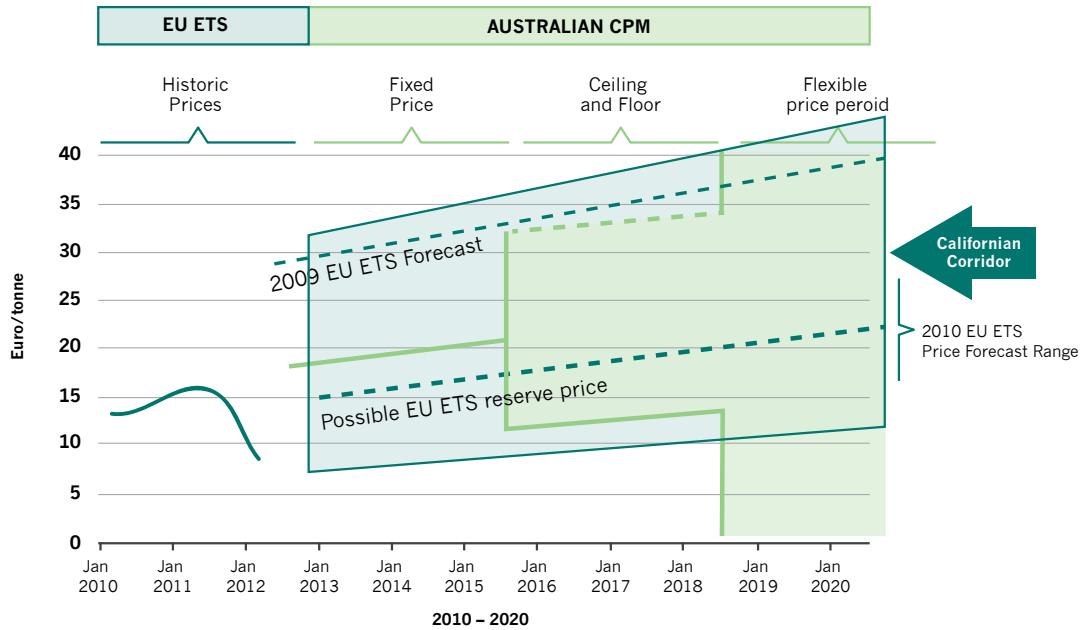
Set-aside could aim to restore the EU ETS to approximately the balance intended at the time of adopting the Phase III rules, a 'recalibration' to take account of the factors noted. If 1,400MtCO₂ were set aside (the level initially proposed in the EU Parliament) and not returned within Phase III, central estimates suggest the price might rise towards €20/tCO₂. If so, corresponding revenues across Europe would rise above €20bn/y, including around €1bn/y in Greece, and €2bn/y in Spain and Italy, for example.

Yet on its own, set-aside would not adequately resolve the problems of deep uncertainty, or address the strategic needs. The uncertainties which stalk the European economy and energy system impact both energy demand and supply mix. If the 1,400MtCO₂ suggested were set aside and not returned within Phase III,¹ and any subsequent adjustment was precluded, a simple 'stress test' suggests that Phase III price developments could still range widely: from below €10/tCO₂ to above €30/tCO₂.

The ETS was established to deliver environmental goals efficiently, at a reasonable balance of cost and environmental ambition, and to support low carbon investment. Supplementary roles include finance and contributions to the international efforts. For the EU ETS to fulfil these objectives, set-aside is necessary, but on its own is insufficient.

Figure ES-2: EU ETS Prices compared against Australian and Californian ETS price corridors

The Figure illustrates trend of EU ETS prices since 2010, compared to the fixed price followed by price corridor in the Australian CPM, and the wider price corridor defined in the Californian ETS.



Price-related measures

The move to auctioning in Phase III introduces an important option which did not previously exist. Negotiating a rising reserve price on future ETS auctions would establish a de-facto floor price for the EU ETS, demonstrably reducing the downside risk for investors and helping to attract badly-needed capital to the energy sector. Some other approaches could perform a similar role, but a reserve price would make explicit the implicit judgement signalled by any intervention, about what constitutes a ‘too low’ price.

Economics research has increasingly emphasised the value of ‘hybrid’ instruments which combine price and quantity features. This reflects explicitly that all environmental policy in reality is a balance of economic and environmental objectives, embedded in uncertainty. Floor prices are a feature in the US State and Australian cap-and-trade systems, and the EU ETS is now alone in not having such a mechanism (Figure ES-2).

A Reserve Price for Auctions (RPA) on its own would not, however, be appropriate, as:

- the current scale of oversupply would then eclipse any purchase from auctions for several years – removing any revenue benefits; and
- the ‘reserve price’ would in fact then just define the price, removing the responsiveness of trading and undermining the strategic value of quantity goals.

An RPA is not a substitute for adequate targets or (in the current circumstances) set-aside. Rather, it provides automatic insurance if the level of set-aside proves inadequate in the face of other economic and policy developments. It would reinforce the system by removing – by design – the scale of downside risk that low carbon investors perceive from the the EU ETS to date. It could set in place an enduring alternative to repeated interventions in the face of uncertainty.

The legal and political scope for such a measure in Phase III remains to be determined; the legal issues appear to be similar to those for set-aside itself. An indicative reserve price beyond 2020, for Phase IV of the EU ETS, could help to stabilise prospects and also provide a clearer framework for negotiations on Phase IV and 2030 goals. A rising trend in reserve prices would send an unambiguous strategic signal.

In the absence of an appropriate EU policy response, some Member States are likely to ‘go it alone’ in a bid to stabilise their investment climate, as the UK has already done with a national carbon floor price defined through adjustments to domestic taxation. This is a ‘double-edged sword’. A coalition of countries taking such measures could establish the principle. Yet, it introduces competitiveness concerns within the single market and could undermine the achievement of a single harmonised EU carbon price through the EU ETS, with fragmentation also at odds the intent of the Third Energy Package. Such an outcome would clearly not be in the long-term interests of the EU, its industry, or the environment. However, given the need for investment, such national responses may be better than a continued vacuum in EU responses.

Table ES-1: The five individual interventions assessed against ETS objectives and deliverability.¹

		Tighter GHG Target	Accelerated ETS Trajectory	Set-Aside	Reserve Price Auction ⁴	National price floors and contracts
Primary Objectives	Efficient near-term emissions reductions ³	Partial	Partial	Yes	Yes	Limited
	Efficient Investment: price stability and certainty	No – but improved if/when post 2020 clarity	No – but improved if/when post 2020 clarity	Depends on clarity of rationales and market reactions	Yes, if level adequate to ameliorate downside risk	Partial – fallback option if no EU-level action
Secondary Objectives	Contribution to EU position in international climate negotiations	Yes	Yes (through higher price and long-run commitment)	Indirectly through increase	Indirectly, and greater predictability might help	No, not an EU position and would reduce ETS prices
	Revenue	Increase depends on level of target and split with ETS cap	Increase depends on level of cap	Less than corresponding cap change (free allocations preserved but price uncertainty)	Similar to corresponding set-aside but much less downside risk	Could increase revenue for countries involved and avoids 12% revenue recycling to Eastern Europe
Delivery	Political possibilities	Varied national positions; effort to move to 25% in 2011 was blocked	Similar to politics of GHG target	Leading proposal from the EU Parliament	May be tensions over clearer fiscal implications	UK introducing price floor and contracts
	Legal possibilities	Any subsidiary change to ETS cap would require amended Directive	Would require amending number in Directive	Probably possible through Comitology, probably would need to release set-aside by 2020	Probably possible without new legislation on similar basis to set-aside	Does not involve EU legislation
	Timing	Past rejection may impede; likely linked with international negotiations	Unclear, but slowed by the long run implications and need for amendment	Fastest option – already in active consideration	Decision in principle could be fast; setting level likely to take longer	Can be fast through national legislation, though implementation is complex

¹ A likely interpretation of the EU ETS Directive is that decisions on timing of emission allowances released through auctions can be made through Committee procedures (not requiring any revisions to the Directive), but that all allowances should be made available by the end of the period. However, if the intent were there, it would be easy to adjust the cap yet to be negotiated for Phase IV so as to absorb any ‘intended’ degree of banked allowances associated with set-aside.

² Note the core finding that no individual instrument offers an adequate response: along with accelerated efforts to clarify post 2020 frameworks, a combination of two measures would be required to first ‘recalibrate’ (through set-aside) and then restore confidence in an adequate degree of stability to support investment.

³ The impact of measures on emissions obviously depends on the strength of the intervention. Tighter 2020 target and lowered ETS trajectory are indicated as “partial” because, with a focus towards 2020, they would not promptly address the current surplus and the analysis of Neuhoff et al (2012) suggests that the scale of this surplus creates a market driven by financial rather than industrial banking, with much higher discount rates. Set-aside would address this promptly, RPAs may do so depending on levels and how the terms are specified.

⁴ The report analyses Reserve Price Actions as the simplest mechanism for automatically adjusting quantities in the market to restore price, if a growing surplus leads to price collapse (which is the historical pattern). The text notes there are also other, less direct, option to achieve similar goals.

Strategic processes: beyond 2020

Major energy-related investments, particularly in infrastructure, need a vision and framework beyond 2020. Negotiations towards 2030 commitments, building on the EU Roadmap processes, are urgently required. They need to start and develop as soon as possible, but involve more than just a focus on 2030 targets and/or the EU ETS cap trajectory.

Roadmaps will be required not just for energy, but for all the main sectors covered by the EU ETS. A comprehensive view will need to integrate these including the impact of complementary measures, investment trends, concerns about carbon leakage, infrastructure and innovation needs.

Longer term targets need to be built upon these foundations. The sheer scale, scope and importance of such commitments means that they are likely to take a long time to resolve, and may be linked also with the 2015 target deadline for global negotiations under the Durban platform. Balance is required: trying to rush a comprehensive post-2020 commitment as a solution to the current market price risks repeating past errors.

A comprehensive adequate agreement may take a long time to reach and with an 8-18 year time horizon from today may be heavily discounted in the current market. Negotiations towards 2030 are essential, and could clarify the needs of strategic investors in key sectors, but cannot sensibly 'fix the current price'.

Conclusions

Alongside the processes for Roadmaps and post-2020 negotiations, the present opportunity lies in how Europe handles the evident need to strengthen the EU ETS, in terms of the both quantity recalibration and price confidence. A triad of measures are required to meet three distinct needs:

- Set-aside to restore the ETS price (and auction revenues) to meaningful levels, and restore confidence that EU policy will provide market signals that are consistent with science, international and strategic processes.
- Rising Reserve Price Auctions or other measures to cap downside risks for investors and to stabilise minimum auction revenue expectations in the face of deep uncertainties; these would also reduce tensions between the ETS and complementary measures, and preclude the prospect of ongoing interventions through further set-aside.
- Negotiations towards 2030 goals, initially based around sector specific needs and building up to a comprehensive agreement on 2030 commitments, set in the realities of both domestic possibilities and international developments.

The three measures address different needs and are mutually reinforcing. Anything less risks leaving the EU ETS, and European industry and its economy, struggling with the consequences for many years to come.



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