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The path to cost-efficient decarbonisation: the advantages of carbon markets

We face rapidly accelerating climate change, where the scale of the effort required to mitigate the impact of man-made global warming is unprecedented. Industry, therefore, needs a strong price signal to incentivise a swift switch to carbon-free and, where this is difficult, to low-carbon technologies. By putting a price on carbon emissions, carbon markets offer this strong decarbonisation signal in the sectors that they cover.

In the context of the ongoing global forum on climate change - COP 26, **EFET calls upon governments across the world to introduce without delay cap and trade schemes, to ration emissions of carbon dioxide and other greenhouse gases by power generators and energy intensive industries.**

Offering the most cost-efficient signal for carbon abatement

Carbon pricing schemes involving the trading of emission allowances exist in Europe and in other parts of the world. They put a price on the emission of a tonne of carbon dioxide and require the emitter to purchase an emission allowance for every tonne that is emitted.

Emissions are purchased in an auction and can be traded in a secondary market, where more efficient parties can sell their excess allowances and benefit from their decarbonisation efforts.

The requirement to buy an emission allowance for every tonne of carbon dioxide emitted can be a strong incentive to seek ways to switch to low-carbon or carbon-free alternatives; it can be a signal for innovation and investment in clean technologies. **However, the price of allowances needs to be at levels that would trigger a change in behaviour and a move to sustainable solutions.**

Cap and trade schemes are a cost-efficient

mechanism for stirring a behavioural change. In a liquid market for emission allowances, where many buying and selling interests meet, transaction costs are reduced, trades can be executed quickly, and the price is set at the level where supply meets demand.

Carbon markets are also technology-neutral, which helps to ensure that the cheapest carbon abatement solutions are deployed. They should also be expanded into other sectors of the economy, once the most energy-intensive applications are covered.

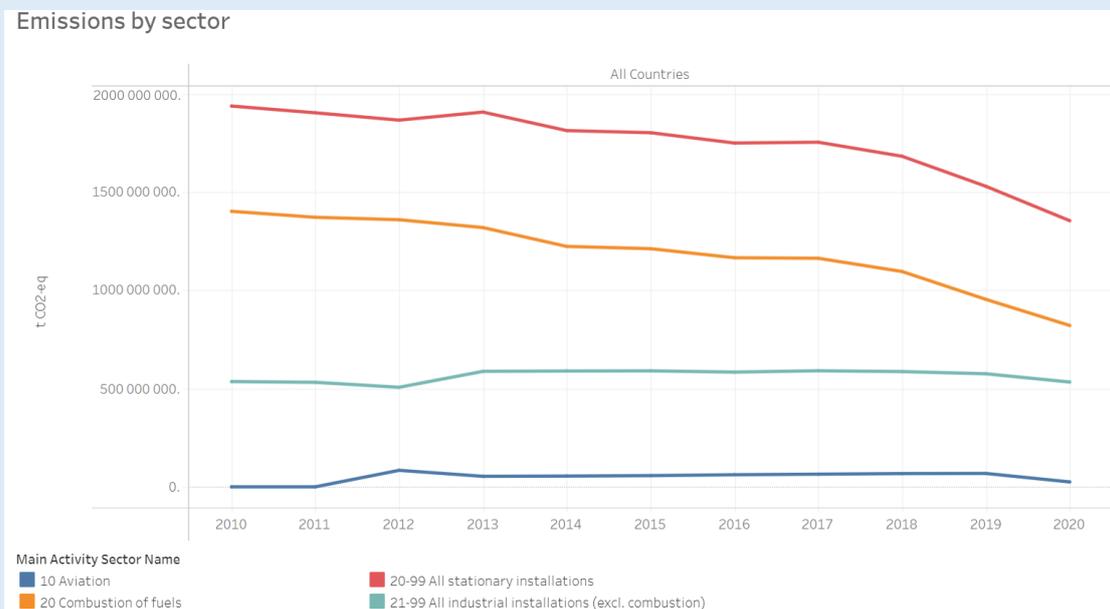
Furthermore, while financial support may still be needed to encourage innovation and investment in new technologies, when it comes to mature solutions, a competitive, market-based mechanism offers a far more cost-efficient path to carbon abatement.

Beyond the advantages of single schemes, linking several, compatible carbon pricing systems could add further value by expanding the liquidity pool. Greater liquidity helps to reduce transaction costs and ultimately, leads to improved market efficiency.

Case study: The EU ETS - a mechanism that delivers on decarbonisation objectives

The EU ETS is the cornerstone of Europe’s climate policy and a mechanism that has demonstrated its ability to deliver on decarbonisation objectives. Since its launch in 2005, it has contributed to significant emission reductions - 42.8% in the main sectors that it covers, i.e., power and heat generation and energy-intensive industrial installations,¹ as illustrated in the chart below.

As a pan-EU mechanism, the EU ETS gives a single European carbon abatement signal and offers a greater pool of liquidity than national schemes could possibly manage. The advantage of having a wider market with more buying and selling interests in it is also the reason behind the linking of the Swiss ETS with the EU ETS, and a potential future linking of the UK ETS with the EU ETS.



Source: European Environment Agency, <https://www.eea.europa.eu/data-and-maps/dashboards/emissions-trading-viewer-1>
¹European Commission, Q&A - Putting a price on carbon, https://ec.europa.eu/commission/presscorner/detail/en/qanda_21_3542

The scale and short timeframe of the decarbonisation effort required to address the challenge of climate change come at a considerable cost to society. Maintaining a balance among the three aspects of the energy trilemma – sustainability, affordability, and security of supply – has become ever more difficult. Focusing on the most cost-efficient mechanisms to achieve our decarbonisation objectives would help us to maintain this fragile balance without compromising on our carbon-neutrality commitments.

For more information, please see: [EFET discussion paper on the Future role of the EU ETS in achieving Europe’s decarbonisation targets](#)

The European Federation of Energy Traders (EFET) promotes and facilitates European energy trading in open, transparent and liquid wholesale markets, unhindered by national borders or other undue obstacles. We build trust in power and gas markets across Europe, so that they may underpin a sustainable and secure energy supply and enable the transition to a carbon neutral economy. We currently represent more than 100 energy trading companies, active in over 27 European countries. For more information, visit our website at www.efet.org.