

Building bridges

Linking the raft of emissions trading systems springing up across the globe is an important step towards forging a worldwide carbon market. But if not implemented correctly, the process could undermine emission reduction efforts, warn **Claudia Gibis** and **Alexandra Zirkel**

The EU has been the main flag bearer for carbon trading in recent years. But now its Emissions Trading System (ETS) is being joined by others that are currently emerging worldwide.

Linking of these emissions trading systems can gradually lead to a global carbon market, the most cost-effective solution to the global challenge of climate change. However, linking should not happen at any cost: the integrity of the environment must not be compromised.

A comprehensive international climate agreement at the UN level will come into force in 2020 at the earliest, thus seamlessly connecting to the second commitment period of the Kyoto Protocol. However, many states are already planning measures to limit their greenhouse gas emissions, including trading in emissions allowances.

After the EU ETS started in 2005, numerous other emissions trading systems have been developed. California and Quebec launched theirs in early 2013, Australia will start trading in emissions allowances in 2015 after a fixed-price period, some Chinese regions and cities are launching pilot emissions trading schemes this year, and South Korea will initiate a trading system in 2015 (or possibly earlier) – to name just a few examples.

In addition, there are initial efforts to link the trading systems with each other so that the allowances of the systems involved are mutually (or unilaterally) recognised. Links between California and Quebec, the EU ETS and Switzerland, and the EU ETS and Australia are expected or to be negotiated in the foreseeable future. Australia and California have recently signed a memorandum of understanding to share information on the design and implementation of their carbon markets, which could facilitate a linking in the future.



Linking emission trading systems could lead to a global carbon market (Photo: flickr - eutrophication&hypoxia)

The benefits of linking are obvious: a larger market increases stability and liquidity; the influence of individual players is reduced and price fluctuations are contained; and the allowance price in the linked systems becomes similar – this reduces competition distortion, resulting in an even greater effect the closer the economic ties between the linking partners are.

A linking of emissions trading systems must be designed so that the common reduction target is achieved not only on paper but also in reality

However, linking can have different effects that have to be taken into account. If a system is a net buyer of emission allowances due to higher abatement costs, the installation operator benefits from the lower abatement costs in the other system or from a lower allowance price. This, however, reduces the incentives for investment in low-carbon technologies in the home country. In contrast, the net seller system is subject to increasing prices. Funds from foreign buyers flow into this system and may be used to finance low-carbon technologies, for example.

Due to the common allowance price, the linking partners are subject to the influence of political decisions and economic developments in the other system. If an economic downturn reduces the demand for emission allowances in a partner system, emissions in the other system could possibly rise above the politically desired level. Tax or subsidy policies may also affect the demand for emission allowances. The larger a system is in comparison with the other linking partners, the greater is its influence.

A linking of emissions trading sy



The EU is expected to link its carbon market with Australia (Photo: flickr - mcmay)

common reduction target and the respective contributions of the linking partners (burden sharing).

stems must be designed so that the common reduction target is achieved not only on paper but also in reality, and the right incentives are set in both systems to introduce the necessary transformation to a low-carbon economy.

A key prerequisite for a successful linking is therefore stringent cap setting, which results in lower emissions than in the reference scenario to provide the necessary scarcity in the system. Not all linking partners need to make the same reduction effort, but unity must exist about the

integrity of the systems involved is also important. Linking partners must be confident that one tonne of CO₂ equivalent in one system corresponds to one tonne in another system. Strict rules for monitoring, reporting and verification, and their credible application are just as important as effective sanctions for non-compliance. If the linking must also contribute to the implementation of international mitigation commitments, global accounting rules are necessary.

Attention should also be focused on the admissibility of credits from carbon offset projects: if one system allows more offsets than another, this effectively leads to a weakening of the cap in the other system. The differences in the type and quality of offsets, when calculating the reduction amounts or determining the additionality of an action may also obstruct a linking.

The question of whether, and to what extent, the linked systems should be harmonised or converge over the medium term also arises for other design elements: while differences in the scope of emissions trading may still exist in principle, arrangements such as floor and ceiling prices in the two systems should be comparable, since the rules can otherwise be bypassed in the other system.

The linking of emissions trading systems may be a new opportunity for the gradual establishment of a global carbon market and international climate change mitigation efforts

With regard to issues of market supervision and registry security, both sides will thoroughly consider before a linking whether the conditions are equal in both systems for market participants and that manipulations can be ruled out as much as possible. Different allocation mechanisms, in particular the allocation of any allowances free of charge, are initially irrelevant as far as achieving the reduction targets of the linked systems is concerned. Over the long term, in view of creating a level playing field, there will probably be a tendency towards a harmonisation of allocation rules.

A linking is therefore preceded by an extensive negotiation process that should lead to a clear agreement about minimum criteria, possible extensions, but also a possible withdrawal from the partnership. In some cases, emission allowances may not be completely exchangeable, but only within certain pre-set quotas.

Given the difficult and protracted negotiations at UN level, the linking of emissions trading systems may be a new opportunity for the gradual establishment of a global carbon market and international climate change mitigation efforts. Related to this is the hope that the linking partners motivated by climate policy cooperation with other states and the benefits that they derive from linking their systems, agree on more ambitious mitigation targets than they would have done without linking. Then, the linking of emissions trading systems encourages not only cost-savings, but also more effective greenhouse gas abatement. Countries or regions that have implemented or are preparing an emissions trading system should work towards it.

Claudia Gibis and Alexandra Zirkel are scientific experts at the German Emissions Trading Authority (DEHSt), based in Berlin. Email: emissionshandel@dehst.de