WWF International
Großе Präsidentenstr. 10
10178 Berlin
Germany

Tel.: +49-30-308742-0
Direkt: -21
Fax: +49-30-308742-50
teriete@wwf.de
www.panda.org

Clearing the Mist:

EU ETS, Competitiveness and Employment

Introduction

In 2005, the European Union Emissions Trading Scheme (EU ETS) came into force. The scheme is a crucial cornerstone of the efforts being made by the EU member states to fulfil their legal obligations under the Kyoto Protocol.
Under Kyoto, the EU has committed to reduce greenhouse gas emissions by 8 per cent by 2008 to 2012. The EU ETS applies to the carbon dioxide (CO_2) emissions of industrial installations in four sectors: energy (e.g. electric power, direct emissions from oil refineries), production and processing of ferrous metals, minerals (e.g. cement, glass) and pulp and paper. It covers almost half of the EU's total CO_2 emissions.

Frimmersdorf in Germany, one of Europe's dirtiest coal plants. The EU ETS is the most cost-efficient way to ensure the CO_2 reductions needed to tackle climate change.
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The scheme establishes a price for CO_2 allowances and businesses are forced to factor in their impact on the climate into their commercial activities, effectively putting the "polluter pays principle" into practice. Investments in carbon-intense technologies are becoming a financial risk. As a market-based mechanism the ETS is designed to ensure that emissions are reduced in the most cost-efficient manner.
However, some companies and industry associations have criticized an anticipated loss of competitiveness due to the ETS and have warned that the scheme could move thousands of jobs out of Europe. WWF has commissioned the Centre for European Economic Research (ZEW) to analyse all scientific studies and models available regarding these issues to arrive at a robust and solid assessment of the impacts of the EU ETS on jobs and competitiveness[1].
ZEW's approach is to review existing simulation and economic theory studies and to form an expert opinion based on this information. WWF's aim is to offer a robust, realistic and progressive contribution to the ETS debate based on best available expertise. Further, WWF calls for an honest and objective debate about Europe's key instrument to tackle one of the biggest threats we are facing today: climate change.

Misinformation:
The EU ETS is too expensive

Under the Kyoto Protocol Europe has committed to reducing CO_2 emissions. In contrast to other policy instruments, emission trading effectively limits climate pollution by setting an enforceable cap on CO_2 emissions. On top of this unique characteristic, ETS is also advantageous when looking at the cost aspect. When discussing the costs of ETS as an instrument to achieve CO_2 emission reductions, one question always has to be of particular interest for stakeholders and decision makers: Are other instruments to reduce emissions

[1] Rennings et al., 2006. The impacts of the European Emission Trading Scheme on Competitiveness and Employment in Europe – a literature review. Please find the download info below.

cheaper or more expensive than the ETS? Comparing the costs of ETS with the costs of inaction is not legitimate, because inaction is not an option for Europe under Kyoto.
In their review, ZEW concluded that emission trading substantially reduces industry's costs of Kyoto compliance and is by far cheaper than most other options. The analysis suggests major benefits from trading as compared to alternative regulations that do not involve trading. For example, one reviewed study shows that non-trading would cost EU member states 79 billion Euros more than perfect trading. In Germany alone, emission trading is expected to lead to cost benefits of between 230 and 545 million Euros. Even compared to an inappropriate scenario – inaction – scientific studies indicate that the aggregate ETS impacts are only slightly negative if at all.
In fact, the ZEW analysis concludes that the ETS could produce two positive effects for a relatively cheap price: significant contributions to CO_2 emission reductions while triggering the necessary structural change in the power sector and other industries to make Europe ready for the future.

Misconception:
The EU ETS greatly damages the competitiveness of European industries

The ZEW analysis concludes that the EU ETS will not be responsible for a significant reduction of EU competitiveness and that the fears of the majority of sectors concerned about negative EU ETS impacts are not justified. Reviewed studies show that, when compared to alternative regulation methods (e.g. taxes), the ETS has mainly positive effects on competitiveness of European industries. Even when compared to the unrealistic scenario of inaction on CO_2 reduction policies, the ETS is expected to result in only modest losses in most traded sectors. For example, according to one reviewed study, the cement and steel sectors could lose productivity by less than half a percent, while other sectors are expected to be able to increase their profits.

A well designed EU ETS sets incentives to switch from CO_2-intense fuels and technologies to clean and efficient alternatives like wind power, solar energy or biomass.
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The EU ETS can create costs for certain industries. However, as a result of the ETS, businesses have to factor in their impact on the climate into their commercial activities, instead of leaving the rest of the society to pay for the external costs of their operations. The "polluter pays principle" ensures that those responsible for CO_2 emissions at least bear some of the financial consequences of the resulting impacts. Although positive effects on Europe's economy are always welcome, the primary goal of ETS is not to improve the competitiveness of Europe's industries, but to combat climate change at minimal costs for the industries involved. According to the ZEW study, most economic studies tend to demonstrate that a well designed ETS does not result in a significant deterioration in competitiveness.

Misinformation:
The EU ETS is a major job killer

In their review, the ZEW concludes that the EU ETS will not be responsible for a significant reduction of EU competitiveness, and consequently the scheme will also not be a job killer. If employment effects of the EU ETS are compared to impacts of alternative regulation methods assuring the Kyoto targets, ZEW rates the arrangement of the EU ETS among the better choices.

Only six studies have been conducted so far on the impacts of the ETS on employment. Only two of them were focused on the European scheme, and five of the six studies do not compare ETS impacts with impacts of alternative regulation, but with EU inaction and zero CO_2 reduction efforts.
Compared to the scenario in which Europe does nothing to tackle climate change, the EU ETS may lead to modest job losses as a result of factors like demand reduction or substitution. However, these job losses should not be overestimated. Job losses at country-wide levels are likely to be barely visible. There will be changes at finer scales: some firms and sectors will lay off workers while others will recruit.

Innovation triggered by an effective ETS can have positive impacts on European competitiveness and employment. First mover advantages for Europe are possible.
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As only two of the reviewed simulation studies model sector-specific employment effects, it would appear to be highly speculative to give an outlook concerning this issue. The results suggest that there may be important differences between different sectors and between sectors in different European countries. However, on the basis of the scientific research available to date one cannot draw solid conclusions regarding the sector-specific ETS impacts on employment. Therefore one can say that the dire warnings of companies and industry associations about heavy job losses in various sectors lack justification and a scientific basis.

Misconception:
The EU ETS is a pure burden to the economy and there is no gain

The costs resulting from ETS are only one cost factor among others. Put in the right context, it is obvious that costs resulting from ETS (e.g., increased energy costs) are much smaller than, for example, labour costs. In addition, a well-designed emissions trading system can trigger innovation, create jobs and increase the competitiveness of European industries on the world market. Therefore there are good reasons why ETS costs can be seen as investments that will pay off to at least some extent in the future. First mover advantages for Europe are one possible result, e.g. in terms of export potentials for low carbon technologies.
The ZEW analysis concluded that it is necessary to consider the significant damage costs of climate change, and that these costs have to be weighed against potential costs of climate policy. Even though the external costs of climate change are uncertain and hard to measure, it seems clear that they will be significant and cannot be neglected. The heat wave in 2003, for example, cost 30,000 lives and over 13 billion Euros in economic losses[2]. In 2005, floods in the Alps caused economic losses of over 2.3 billion Euros. Winter storm Erwin swept through Northern Europe and led to losses of over 4.5 billion Euros. The worst fires in a decade in the Iberian Peninsula burned over 400 000 hectares of forests and agricultural land, costing billions of Euros[3]. These seemingly exceptional and infrequent events are likely to become more commonplace as the global climate continues to change as a result of increasing greenhouse gas concentrations in the atmosphere[4,5,6].

[2] UNEP, 2004. Impacts of summer 2003 heat wave in Europe. Early Warning on Emerging Environmental Threats.
[3] The European Forest Fire Information System Newsletter, Issue 2005 (3).
[4] Stott et al., 2004. Human contribution to the European heatwave of 2003. Nature, vol. 432, 610-614.
[5] Leckebusch et al., 2006. Stormy Europe – the Power Sector and Extreme Weather
[6] Christen et al., 2003. Severe summertime flooding in Europe. Nature, vol. 421, 805.

Conclusions

The analysis conducted by ZEW, based on the models and studies available, concluded that the EU ETS will not be responsible for a significant reduction of EU competitiveness and will not be a job killer. There will be costs and there will be changes, but the fears of the majority of energy intensive industries about EU ETS impacts are not justified. A well-designed ETS could additionally provide incentives for innovation and give European industries a first mover advantage on low-carbon technologies.
However, the ETS can only establish the EU as a lead market for CO_2 reducing innovations if the mechanism delivers sufficient incentives to innovate. During Phase I of the ETS, industries have been allocated allowances to emit at least 44.1 million tonnes of CO_2 more than they actually did[7]. With this massive over-allocation, incentives for innovation, to create new industries and jobs, and the opportunity to lead the world in efficiency and renewable technologies are rendered close to zero.

Improving the system to achieve significantly lower costs – whilst retaining the same ecological performance – is certainly possible.
One of the opportunities is in front of us now during the design of the National Allocation Plans (NAPs) for the second phase of the ETS. By significantly lowering the number of allowances, maximizing the use of auctioning and making other simple but important structural changes to the scheme (see Box), the ETS will be more likely to fulfil its true purpose in reducing emissions from the EU countries and creating incentives for climate friendly innovations.

[7] EU Commission Press Release, 15.05.06. EU emissions trading scheme delivers first verified emissions data. http://europa.eu/rapid/pressReleasesAction.do?reference=IP/06/612 There may be more over-allocation exposed once the four member states of which emission data for 2005 is still missing publish their figures.

12 WWF recommendations for better NAPs in Phase II and the measures to make them happen:

1. Caps must be in-line with meeting Kyoto and stated national emission reduction target, and ensure a downward trend in emissions.
2. Caps must be set in an environmentally and economically effective, fair and transparent way.
3. The 'polluter-pays' principle must be supported.
4. Ensure a balance between the allocation for existing plants and new entrants to guarantee fairness and provide the right incentives for cleaner low-carbon investments.
5. Existing plants: Implement allocation provisions to incentivize emission reductions across different activities (fuel switch, more efficient technologies, change of merit order of plants).
6. Plant closure: Ensure incentives to close old, inefficient and highly polluting plants.
7. New entrants: Ensure higher incentives to invest in low carbon fuels and efficient technology than to invest in less efficient plants and more pollutant fuels.
8. New entrants: Ensure clear definitions and consistent application of relevant provisions to support incentive structures and fairness.
9. Transparency: Ensure clear and well documented allocation methodologies in the NAPs
10. Use of Joint Implementation (JI) and Clean Development Mechanism (CDM) credits with precaution. EU Directive 2003/87/EC (the so-called "Linking Directive") should be observed.
11. Harmonisation: Maximize harmonisation across NAPs, especially in the Commission's guidance and approval processes.
12. Simplicity: Keep the NAPs as simple as possible and avoid special provisions.

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Downloads:

For details on WWF's position regarding the NAPs in the first phase and recommendations for NAPs in the second phase please go to: http://www.panda.org/powerswitch/etsreports

For the full ZEW report "The impacts of the European Emission Trading Scheme on Competitiveness and Employment in Europe – a literature review" please go to: http://www.panda.org/powerswitch/etsimpacts

Contacts:

Stephan Singer, Head Climate and Energy Policy Unit, WWF European Policy Office, tel. +32 2 743 8817; e-mail: ssinger@wwfepo.org

Delia Villagrasa, Advisor on Emission Trading, WWF European Policy Office, tel. +32 2 740 0935; e-mail: europarl@wwfepo.org

Christian Teriete, Communications Leader, WWF International, PowerSwitch! Campaign, tel. +49 30 308742 21; e-mail: teriete@wwf.de