Carbon Countdown

Emissions Trading to combat Climate Change

A WWF review of Phase 1 of the European Emissions Trading Scheme and recommendations to improve its environmental effectiveness and economic efficiency for Phase 2.

In conjunction with EU-wide research reports commissioned by WWF, led by ILEX Energy Consulting (UK) and Öko-Institute (Germany).

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PowerSwitch!

CAMPAIGN

How Emission Trading can help to combat climate change

The European Emission Trading Scheme (EU ETS) is a crucial cornerstone of climate change policy in Europe and the first international trading system for carbon dioxide (CO_2) emissions in the world. The ETS is a major part of the solution to one of the biggest challenges humanity is facing: global warming.

Global warming is a reality. During the 20th century the global average temperature increased by 0.6ºC, and the average temperature in Europe has risen by 0.95ºC. Impacts related to global warming and rapid climate change are hitting Europe harder and more frequently: floods, rainstorms, heatwaves, droughts.

The average number of climate-related disasters in Europe doubled during the Nineties, as compared to the previous decade.

A cost effective way to keep global warming below 2ºC

The main cause of global warming is the build-up of atmospheric greenhouse gases, in particular CO_2. It accounts for over 80 per cent of the total amount of greenhouse gases. WWF believes that a strong European Emission Trading Scheme (ETS) will contribute to the CO_2 emission reductions we need. And the scheme can be a cost-effective way to keep the world below 2ºC global warming compared to pre-industrial levels – the crucial tipping point which would have devastating consequences for people and wildlife.

The need for deep cuts in CO_2 emissions is urgent: to stabilize carbon dioxide concentrations in the atmosphere at their present level we have to reduce the emissions by 60 to 80 per cent by 2050. However, we are currently seeing an increase in CO_2 emissions in Europe. According to the latest Greenhouse Gas Inventory by the European Environment Agency (EEA), CO_2 emissions in the EU15 have increased by 59 million tonnes (1.8 per cent) between 2002 and 2003. This is equivalent to putting an extra 14 million cars on the road.

However, the EU15 Member States have committed to an 8 per cent reduction of 1990 greenhouse gas emission levels by between 2008 and 2012 under the legally binding Kyoto Protocol. The EEA projects that this target will not be reached on the basis of existing domestic policies and measures already being implemented and additional policies and measures currently planned.

Existing policies must be strengthened and extra measures have to be implemented. WWF believes that a strong ETS is the key to cost-effective and speedy emission reductions in Europe.

Emission Trading and CO_2 reductions

The European ETS, which came into force in 2005, is a “cap and trade” scheme regulating industrial CO_2 emissions in EU25 countries. Its first phase runs from 2005–2007, the second phase from 2008–2012, coinciding with the first Kyoto Protocol commitment period.

Almost half (46 per cent) of the EU’s CO_2 emissions are covered by the scheme, highlighting its significance. It is targeted at large individual energy-using installations in defined

economic sectors: mainly energy production, metals, construction materials, and paper. As a market-based mechanism the ETS ensures emissions are reduced most cost-efficiently, the cap giving effective control over total levels of emissions.

Whether the ETS will be successful to reduce the amount of greenhouse gas emissions and combat climate change largely depends on how Member States design their National Allocation Plans (NAPs). Each country's NAP outlines the total number of emission allowances (i.e. cap) and how they will be allocated to the individual installations covered by the scheme. The European Commission then assesses each NAP for approval. At the end of a year, each site must surrender (i.e. take out of the market forever) sufficient allowances to cover their CO_2 emissions for that year. Failure to do so will result in fines – 40 Euros per tonne of CO_2 in the first period, and 100 Euros in 2008–2012. In addition, the deficit must be compensated for in the following year.

Putting a price on carbon: the more you pollute, the more you pay

The scheme is a critical tool to achieve the EU's Kyoto targets, as well as Member States' national climate change targets. Provided it is designed and put in place robustly with tight caps on emissions, it will ultimately deliver long-term environmental benefits in efforts to combat climate change.

Under the scheme carbon dioxide has got a price. For the first time, businesses have to factor in their impact on the climate into their commercial activities. For the companies covered by the ETS scheme this means: the more you pollute, the more you pay. Investments in carbon-intense technologies are becoming a financial risk. At least a small part of the external environmental costs of CO_2 pollution will start to be paid by the responsible companies. In addition, these extra costs have to be factored into decisions about how they run their business. Ultimately, ETS has the potential to encourage the companies to reduce their energy consumption and to switch from carbon-rich technologies to cleaner and more efficient alternatives, such as natural gas or renewable energy.

The EU ETS is also the first working example of a mandatory cap-and-trade scheme against climate change in the world, setting an important role model for other similar schemes which are under development around the globe. Even countries which have not ratified the Kyoto Protocol are mimicking the EU ETS in developing their own system, such as a number of Australian states and some US states. This gives European policymakers, both in national governments and the EU institutions, an international responsibility to ensure that the second phase of the EU ETS will be successful.

WWF's PowerSwitch! campaign

The single greatest contributor to man-made CO_2 emissions is the power sector. It produces 37 per cent of global CO_2 emissions and 39 per cent of Europe's. The biggest share of these EU power sector emissions comes from coal (72 per cent), followed by gas (18 per cent) and oil (10 per cent). Coal is the most carbon-intense of the fossil fuels, and burning it generates up to 70 per cent more CO_2 per unit of energy produced than natural gas.

The next 20 years will offer a historic window of opportunity for Europe to dramatically reduce the level of power sector emissions. Over that period, most of Europe's dirtiest coal power stations and many other power stations will be decommissioned. If they are replaced with new coal-fired power stations, the continent will be locked into high levels of CO_2 pollution for decades to come. However, if current coal-fired plants are replaced by renewable

energies and other clean and efficient alternatives, Europe would lead the world towards a low-carbon economy with all the economic and environmental benefits that would follow.

The goal of WWF's global PowerSwitch! campaign is to ask governments to cut the CO_2 pollution produced by coal power stations and force a switch to cleaner, more efficient power.

Tough CO_2 pollution limits under the European ETS - combined with a powerful financial incentive to invest in cleaner, more efficient technologies - would transform the power sector and automatically reduce its CO_2 emissions. Unfortunately, EU governments have set weak limits and weak incentives in the first phase of the ETS. The second phase presents a major opportunity to set climate change goals back on track, and give business the certainty they need for choosing the right investments.

The PowerSwitch! campaign aims at lobbying governments in all 25 EU Member States, with a special focus on Germany, Italy, the Netherlands, Spain, Poland and the UK. The NAPs of these countries include about 68 per cent of the allowances allocated under the European ETS. As a result, the policy decisions taken in these countries will have a strong impact on the environmental effectiveness of the scheme.

WWF is pushing for stricter caps on CO_2 pollution and stronger incentives within the second phase NAPs due for completion in 2006. Only tough limits and well-crafted NAPs will force utilities to replace dirty coal plants with cleaner gas or clean renewable energies. For WWF, the success of the EU ETS depends on three points. From an environmental point of view it will be successful if:

- it delivers CO_2 emission reductions that ensure a downward trend in emissions below business-as-usual and historic levels, and
- it ensures that EU Member States meet their Kyoto targets and stated national emission reduction targets, and
- the system gives strong short, medium and long term incentives and price signals for investments in energy efficiency measures and low carbon fuels and technologies.

The success of the ETS will also depend on simplicity and transparency. An overly complex and opaque scheme and process would undermine environmental and economic goals of the scheme.

WWF review of ETS Phase 1 and recommendations for Phase 2

The following pages provide recommendations for improvement of the ETS on the basis of findings from two WWF-commissioned research reports, designed to review the first phase of the European ETS and to derive recommendations for the second round of NAPs. Now – as EU Member States enter the drafting process - is the right time to ensure that second phase NAPs are set right to maximise their environmental effectiveness and economic efficiency.

WWF has commissioned a consortium of consultants lead by ILEX Energy Consulting (UK) and Öko-Institut (Germany). The ILEX report *The environmental effectiveness of the EU ETS: Analysis of caps* provides an independent analysis of the NAPs in Germany, the UK, Italy, Spain, Poland and the Netherlands. It focuses on the evaluation of the total number of

emissions (caps) allocated by these Member States. The Öko-Institut report *The environmental effectiveness and economic efficiency of the EU ETS: Structural aspects of the allocation* evaluates the way these allowances have been distributed to individual installations. The question of allowance distribution heavily affects the incentives for investing in cleaner, less carbon-intense technologies and the economic efficiency of the scheme.

A European consortium for a European view on ETS

Both reports analysed the first phase NAPs for Germany, the UK, Italy, Spain, Poland and the Netherlands against criteria for environmental effectiveness and economic efficiency, and provided best practice recommendations for the second phase as well as key improvements for each country. The research done by ILEX and Öko-Institut also provided options for harmonisation across countries on various elements of the NAPs, and listed some key considerations for the scheme beyond the end of the second phase in 2012, both in terms of setting caps and the allocation provisions.

The criteria included transparency and fairness. In addition, the ILEX report assessed the cap levels in the different NAPs in relation to emissions projections, Kyoto targets and national emission reduction targets. Öko-Institut's structural report evaluated the simplicity of allocation rules in the NAPs. The evaluation for Phase 1 and Phase 2 relied on quantitative and qualitative analysis. Both reports mainly focussed on the power sector, the biggest CO_2 emitting sector in Europe. ILEX's cap analysis for Phase 1 covered the traded sector, not strictly the power sector only.

The research involved consultants across the EU: Avanzi (Italy), ESC (Poland), ILEX Energy Consulting (UK and Netherlands), ILEX Iberia (Spain), Öko-Institut (Germany). All provided input on country-specific issues and data, and wider comment on the approaches used and findings of both reports. Please refer to the full reports and the executive summaries for detailed information about criteria, methodologies and major findings: http://www.panda.org/powerswitch/etsreports

Review of Phase 1: shortcomings and a lack of ambition

In general, the NAPs for Phase 1 have shown a number of serious shortcomings, decreasing the economic efficiency and environmental effectiveness of the scheme and undermining the delivery of the Kyoto and other stated national emission reduction targets. A lack of harmonisation in the first allocation process saw a multitude of methodologies for setting caps and allocation provisions, thereby creating very different systems from Member State to Member State.

The ETS research led by ILEX Energy Consulting and Öko-Institut highlights the inconsistencies in the scheme and the general lack of transparency in both the process of developing NAPs and the information provided. While there were some effective elements in the NAPs, the analysis shows that on the whole none of the six countries met all the criteria of environmental effectiveness and economic efficiency in terms of setting caps and allocation rules applied. WWF would summarise the review of the first phase of the ETS set out in the two reports as follows:

- **Cap levels:** In some countries the starting point for setting the cap was projections instead of setting caps on the basis of historic base data. Additionally, in at least one instance the emissions projections were fixed and agreed late in the process. The Kyoto and national targets were not considered sufficiently in setting caps in some NAPs, and serious reductions on recent emissions will need to be made in Phase 2 by some countries in order to meet targets. It has also been argued that the inflation of business-as-usual scenarios resulted in over-allocation of emission allowances in some countries, essentially giving industry more allowances to pollute and – by doing so – overshooting targets.

- **Economic efficiency:** In setting caps, the contribution on the non-traded sector was not often quantified and set out clearly in the NAPs, calling into question how far costs to reduce emissions by different sectors (i.e. abatement costs) were considered properly by the governments. Many countries rated weak or average regarding their allocation rules for new and existing installations, which failed to provide strong incentives for closing down old, inefficient plants and replacements with new, cleaner investments.

- **Fairness:** Most of the six NAPs did not take into account sufficiently the contribution of different sectors to reductions when setting the caps for the traded sector, including what realistically the non-traded sector could deliver. NAPs were also weak on fairness between countries, where assessment at a high level showed that levels of reduction did not broadly reflect the distribution of abatements required under the burden sharing agreement, with some allowing the traded sector to increase their allowances. And overall, certain allocation provisions meant that new cleaner plants were unfairly treated in Phase 1, for example in unequal access to allowances under the New Entrants Reserve.

- **Transparency:** The NAP should be laid down in a transparent way involving the participation of different sections of society. In most Member States, however, the required transparent procedure was substituted by obscure, highly political solutions with just a few selected parties, and detailed information behind the caps and allocation methodologies was lacking in many cases.

- **Simplicity:** While stakeholders agree in principle to have a simple and consistent scheme, the different methodologies used in the NAPs for allocating allowances (to existing and new installations) in fact increased the complexity in some countries.

Please refer to the full reports and their executive summaries for details on how each country rated against the criteria and on potential key improvements in the next round: http://www.panda.org/powerswitch/etsreports

Recommendations for Phase 2: Major improvements possible

There are significant opportunities to improve the NAPs designed for Phase 1 and to ensure a higher level of economic efficiency and environmental effectiveness in Phase 2. Based on the lessons learnt from Phase 1 and best-practice recommendations from the research, WWF requests a dozen key principles for EU Member States entering the NAP drafting process for Phase 2, and suggests specific cap-setting and allocation measures to support the second phase NAPs[1].

12 principles for better NAPs in Phase 2 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.

- ✓ The cap for the second phase NAP must be set at a level below the first phase cap.
- ✓ The trading sector must at least deliver its share of emission reductions under the national burden agreement and the Kyoto Protocol.
- ✓ If there are already voluntary targets on a national or sector level in place that go beyond Kyoto targets, they should be the basis for setting a cap for the traded sector.
- ✓ Member States must set targets for the non-traded sectors (e.g. domestic, transport) and clearly state and justify these contributions to their Kyoto targets and other national targets in the NAPs.
- ✓ Policies and measures for non-traded sectors for delivering targets should be in place and Member States must prove to the Commission that they are reliable and effective.

2. Caps must be set in an environmentally and economically effective, fair and transparent way.

- ✓ Caps should not be directly based on emission projections. Projections are wrought with uncertainties, very sensitive to the input assumptions used and - as seen in some Member States - can be subject to political influence. This approach is also inconsistent with the basis upon which overarching national, EU and international targets are set (including Kyoto for which the ETS was established).
- ✓ Instead, Member States should use a 'distance-to-target' approach which sets a percentile reduction on a fixed historic baseline. This baseline should not change over time, and be consistent across Member States as far as possible.
- ✓ Caps must be fixed early, in line with the timescales as foreseen by the relevant EU Directive, in order to provide certainty and assist in the optimisation of investment decisions.
- ✓ Where projections are used e.g. to calculate the emissions for the non-trading sectors, the underlying assumptions, methodology and uncertainties should be presented explicitly.

[1] These principles, and the measures to make them happen, are recommendations from WWF and do not necessarily reflect the views of the consultants who wrote the two reports.

- ✓ Wide stakeholder consultation should be formalised, both to increase the transparency of the way that governments take into account stakeholders views and to ensure that all stakeholders are given a comparable opportunity to input at an early stage.
- ✓ All information should be published on a single website to ensure access to details of the process and plans to the public.

3. The 'polluter-pays' principle must be supported.

- ✓ Requiring that installations buy allowances through auctioning is the most efficient and environmentally effective approach. All other allocation methodologies that give allowances for free (e.g. grandfathering, benchmarking) fail to provide the non-distorting incentives needed to drive investment in cleaner technologies and fuels.
- ✓ Member States must employ the maximum amount of allocation by auctioning (10 per cent in Phase 2), at least for the power sector.
- ✓ The allocation of the remaining 90 per cent of allowances in Phase 2 should be based on a product specific benchmarking system, in order to reward investments in low-carbon fuels and highly efficient technologies. Product-specific benchmarking means that an allocation benchmark should be defined for certain products, e.g. producing one unit (kWh) of electricity should be benchmarked with a certain allowance across the whole power sector, independent of the generation technology and fuel used.
- ✓ A move to full auctioning in subsequent phases is key, for the power sector in particular. For the energy user this will not mean significant difference in energy prices as the power company will pass the certificate prices to electricity prices even where a grandfathering system is established.

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.

- ✓ The allocation provisions for new entrants should be carefully balanced against the allocation provisions for existing installations. The auctioning of allowances to new entrants could ensure a comprehensive and non-distorted carbon price signal for investment decisions. However, in the framework of a generous allocation to existing installations, significant incentives will arise to invest in the lifetime extension of old plants. Clearly, this would not deliver an environmentally effective outcome.
- ✓ Where there is a generous allocation to existing installations, Member States should also provide a similar generous allocation to new entrants in order to ensure an incentive for early replacement of existing power plants by new power plants with lower emissions.
- ✓ Less generous allocation for both existing and new plants is critical to the environmental effectiveness of the scheme over time.
- ✓ Allocation to new entrants under a new entrants reserve must decrease in a parallel with reductions in allocations to existing installations.

5. Existing plants: Implement allocation provisions to incentivize emission reductions across different activities (fuel switch, more efficient technologies, change of merit order of plants).

- ✓ Ex-post adjustments must remain forbidden. Ex-post adjustments distort the market and increase uncertainty for all market actors by providing Member States with the ability to intervene in the market after the allocation is done, and to redistribute the issued allowances among the participating companies during the trading period. Ex-post adjustments remove any incentives for existing plants to operate more efficiently and install emissions reduction measures.
- ✓ Ensure a transition towards a product-specific benchmarking scheme for allocation of allowances not auctioned. Any benchmark scheme for allocation should be designed as a provisional approach to maintain the phase-in of auctioning.
- ✓ Ensure appropriate incentives for Combined Heat and Power generation (CHP), such as a benchmark approach based on an allocation for electricity and heat production ('double benchmark').

6. Plant closure: Ensure incentives to close old, inefficient and highly polluting plants.

- ✓ Plant closures could be treated with an incentive-based approach, where the operators get an incentive to shut down old plants and replace them with less emitting plants. If a free allocation (e.g. grandfathering) is still the preferred allocation method, the transfer provision should be used with strong incentives to invest in low carbon fuels (e.g. long transfer period of at least 6 years).
- ✓ Strong efficiency benchmarks and related reduction requirements should be established for inefficient and old plants.
- ✓ See principle 3.
- ✓ Where a plant shuts down, the operator is able to retain the allowances for the duration of the period in Phase 2. Allowing plants to keep allowances for a certain defined period but not for subsequent periods will provide incentives for early replacements of old plants.
- ✓ Member States should clearly define 'closure' and notification processes by installations, where their NAPs do in fact include closure provisions.
- ✓ Closure provisions for existing plants must be balanced against new entrant rules (see Principle 4)

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.

- ✓ Where there is free allocation to new entrants, allocations must be based on product specific benchmarking. Fuel-based benchmarking should not be accepted.
- ✓ Benchmarks should be based on pre-defined load-factor production data rather than installation-specific production projections, in order to increase simplicity and transparency. Windfall profits arising from exaggerated plant-specific projections or the need for additional provisions (e.g. ex-post adjustments) could be avoided under this approach.
- ✓ Provisions for Combined Heat and Power generation (CHP) should be made reflecting their high efficiency and related low CO_2 emissions.

8. New entrants: Ensure clear definitions and consistent application of relevant provisions to support incentive structures and fairness.

- ✓ If Member States allow for free allocation of allowances to new entrants, a new entrant reserve (NER) for these allowances must be established. The NER should differentiate between 'known new entrants' and 'unknown new entrants' to ensure the same level of availability and fairness for all new players in the market. A NER sized in such a way should provide allocation under a 'first come first served' approach.
- ✓ Replenishment of the NER should not be allowed. This means that Member State governments should not be allowed to buy additional allowances from the market to replenish a NER once the original NER has run out of allowances (which could lead to significant public expenditure from the taxpayers).
- ✓ Rules for new entrants should remain for the lifetime of the installation. New entrants should never be treated as old (pre-2005) installations.

9. Transparency: Ensure clear and well documented allocation methodologies in the NAPs. For the notification of the Phase 2 NAPs the EU Commission should demand:

- ✓ a clear documentation of the allocation provisions for individual installations in a harmonised format;
- ✓ the demonstration of incentives for the different allocation provisions and their interactions for existing and new entrants (an exercise with a standardised set of installations and a standardised set of case studies could help to present these incentive structures);
- ✓ to demonstrate that the size of a NER (if applicable) is appropriate to the projected demand;
- ✓ that the quantification of the NER and the assumptions and methodologies used to calculate the size of the NER was subject to the public participation process;
- ✓ transparency in the costs of the scheme (carbon emissions reductions should be significant to outweigh the administrative and transactional costs associated with the ETS). This is critical to ensure economic efficiency in the ETS in the medium to long term.

10. Use of Joint Implementation (JI) and Clean Development Mechanism (CDM) credits with precaution. WWF supports decisions in the EU Directive 2003/87/EC (the so-called "Linking Directive"), which lay down that:

- ✓ credits from JI/CDM nuclear projects will not be recognised in EU emission trading up to 2012;
- ✓ in approving JI/CDM hydropower projects in excess of 20 MW, Member States have to take into account international environmental guidelines including the recommendations of the World Commission on Dams;
- ✓ credits from JI/CDM from land use, land use change and forestry activities remain excluded from EU emissions trading.

Additional measures:

- ✓ The guidelines of the Directive must give clearer guidance to Member States on the supplementary nature and level of credits generated through JI and CDM.
- ✓ For Member States that choose to source overseas credits, qualitative requirements based on the Gold Standard criteria for CDM projects should be set. The Gold Standard is an independent best-practice benchmark scheme set up to ensure that JI and CDM deliver credible projects with real environmental benefits. In doing so, it gives confidence to host countries and the public that projects represent new and additional investments in sustainable energy services.

11. Harmonisation: Member States and the EU Commission should make a serious effort to maximise harmonisation across NAPs. This applies in particular to the Commission's guidance and approval processes.

- ✓ Ensure comparable evaluation of Phase 2 caps against historic emission information.
- ✓ Consider development and publication of a single set of projections, for both emissions from installations covered by the EU ETS and also from sectors and gases outside the scheme that affect the EU Kyoto target, to inform the setting of caps in the NAPs (e.g. determining abatement costs).
- ✓ Ensure the way in which Kyoto and national targets have been incorporated - and the implied burden on the non-traded sector - are evaluated and approved in a consistent way.
- ✓ Harmonise auctioning across Member States, as well as allocation provisions and benchmarks for new installations, as recommended in principles above.
- ✓ Harmonisation of the way that the cap calculation methodology is explained and presented could facilitate comparison of the caps and provisions between countries and also the evaluation of their level.
- ✓ For all allocation provisions, an assessment of incentives should be presented with a transparent and traceable approach and in a harmonised format.
- ✓ The EU Commission must set out guidance that requires the NAPs submitted as part of the approval process to include the points listed above in clear, publicly accessible documentation.

12. Simplicity: Keep the NAPs as simple as possible and avoid special provisions.

- ✓ Auctioning will avoid the problems created by special provisions for new entrants and existing installations (see Principle 3).
- ✓ Where full auctioning does not exist, one possibility could be to introduce an updating system with strong benchmarks to minimise 'gaming' by companies (i.e. where installations can play the system to their economic advantage but not necessarily to the benefit of the environment nor to other market players, e.g. plant operators increase emissions to receive a higher allocation in future phases). This could also help to remove the need for closure provisions. While updating is one possible option it is not a perfect solution to the problem.
- ✓ Ex-post adjustment must remain forbidden.

Cap levels for Phase 2: a total 8.7% change from Phase 1

Since the 'cap' on emissions set by Member States under the EU ETS is a critical part in ensuring the environmental effectiveness of the scheme, WWF has quantified Phase 2 cap levels for the NAPs in the six Member States which were analyzed in both reports: Germany, the UK, Italy, Spain, Poland and the Netherlands. WWF applied the 'distance-to-target' approach, recommended in the ILEX report (2005) as a best-practice way to express caps[2] (see Recommendation 1 above). This was applied to countries in several ways according to Kyoto and burden sharing agreements (Italy, Spain, Netherlands), national targets where stated (Poland, UK), and voluntary industry emission reduction agreements for Germany.

In the WWF analysis, the proposed caps in Phase 2 for six key countries are all shown to be lower than the caps in Phase 1, representing a total 8.7 per cent change from Phase 1 levels, equal to an annual additional reduction of 127.5 $MtCO_2$ compared to Phase 1. This is equivalent to removing 30 million cars off the road each year. The total allocation for the traded sector in these six countries represents over one third of the overall emissions level needed to be achieved under the EU Kyoto 8 per cent target by 2012.[3]

The cap levels for NAPs in Phase 2 are presented below in Table 1. Refer to the full document and descriptions of approaches at: http://www.panda.org./powerswitch/etsreports

Table 1. Phase 2 cap levels for the six Member States

	Germany	Italy	Netherlands	Poland	Spain	UK	Total (6 countries)
Phase 1 cap ($MtCO_2$/yr)	499	233	95.5	239	160	245	1471.5
Phase 2 cap ($MtCO_2$/yr)	**473**	**196**	**90**	**224**	**137**	**224**	**1344**
Percentage change between Phases	-5.2%	-16%	- 6%	- 6.3%	- 14.4%	- 8.5%	-8.7%

Source: *Cap levels for Phase 2 of European Emissions Trading Scheme (WWF, 2005)*

Post 2012: European ETS setting a global standard

While discussions are still in progress regarding the future action countries will take on an international level to address climate change, the ETS provides a solid and effective long-term platform for delivering Europe's share of emission reductions in future regimes. It also forms a strong basis of any global ETS.

[2] The ILEX best-practice approach also advocates taking account of economic efficiency in the setting of caps. This factor has not been considered in the derivation of the illustrative cap levels for Phase 2 presented in Table 1. See WWF's cap analysis for Phase 2 at: http://www.panda.org./powerswitch/etsreports

[3] EU15 Kyoto base year emissions = 4245.2 MtCO2(equivalent) (EEA, 2004). The 8% reduction target is equivalent to a total of 3905.6 MtCO2(equivalent) in 2012. Total Phase 2 cap for the six countries (1344 MtCO2) equals about 35% of total emissions level in 2012 if Kyoto is met.

It is therefore crucial that decisions should be made as early as possible not just on the cap levels in the scheme, but on the principles and targets for the long-term operation of the scheme. Linking the scheme to delivery of the EU medium target of 30 per cent emission reductions by 2020 would be a good start. This will provide the investor with the certainty and long term price signals required by business to make the switch.

Ideally, the total number of allowances in the scheme is set centrally (i.e. at an EU level). Given the uncertainties surrounding projections, targets and commitments should be described against a historical base.

Harmonising of cap-setting and allocation approaches at all levels would help keep things simple, reducing the range of methodologies that interested parties need to understand and facilitating the like-for-like comparison of each aspect.

In addition, rules and decisions must be explained in as transparent a way as possible. A move to full auctioning is a key step to create incentives for the right low-carbon investments.

Conclusion

Phase 2 will be the first of a number of crucial steps defining whether the European ETS will be a successful policy to protect the global climate. The Member State governments and the EU Commission need to ensure that National Allocation Plans put tough caps on climate pollution and trigger a continuous downward trend of CO_2 emission in key industry sectors, in line with the EU Kyoto target and national targets.

The need for replacement of existing power generation infrastructure across Europe in the next two decades coincides with the opportunity to give strong incentives for low carbon technologies and fuels through a robust ETS. The scheme is not only an environmental policy. It is also a policy to foster structural change and innovation in the EU's industrial sectors, thereby also contributing to the EU's overall climate change, economic and energy strategies. A successful European ETS will set the standard for carbon trading schemes around the globe – a key step towards addressing climate change seriously. The EU must show leadership at this critical time and ensure ETS is a success.

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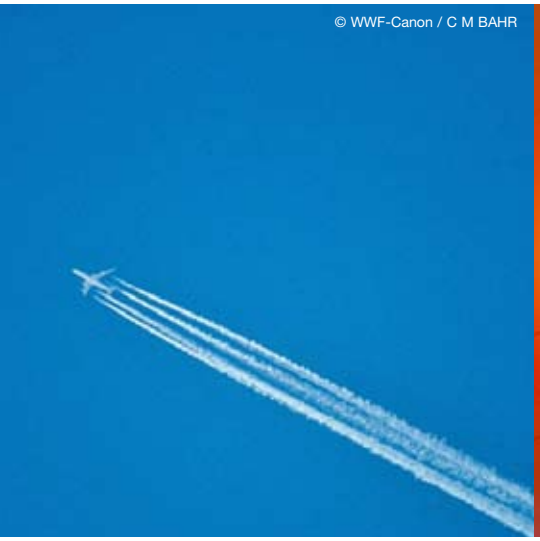

The mission of WWF is to stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature, by:
· conserving the world's biological diversity
· ensuring that the use of renewable resources is sustainable
· reducing pollution and wasteful consumption

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