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WWF's ASSESSMENT

Key National Allocation Plans for phase II of the EU Emissions Trading Scheme

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Introduction

WWF presents its assessment of 6 key National Allocation Plans (NAPs) for Phase 2 of the European Emissions Trading Scheme (EU ETS): France, Germany, Italy, Poland, Spain and UK. These countries' emissions cover 73% of overall EU emissions[1], therefore the development of their NAPs is a key indicator for the future of EU emissions trends in the industry and power sectors. If NAPs are strict, representative of the covered sectors' contribution to climate change, and pursue a clear reduction in emissions, then the EU is on the right track towards complying with Kyoto commitments and achieving at least 30% greenhouse gas reductions by 2020. If NAPs are weak, climate suffers and EU industry is stuck in the same old inefficient production pattern, neither achieving a competitive edge nor becoming more independent from fossil energy imports.

WWF's assessment is not encouraging – clearly the Member States have disregarded the Commission's guidance. Caps of most NAPs are very weak and the "polluter pays" principle has not been respected. To name just a few of the major shortcomings: allowances are mostly allocated for free or based on benchmarks incentivising the most polluting technology (coal) and too many external credits can be used to comply with commitments without quality criteria for projects, undermining technological change in the EU.

WWF does not stand alone in its negative assessment. Deutsche Bank[2] and economists from the University of Cambridge[3] have analysed similar shortcomings: NAPs II will strongly lower the price of carbon, which disincentivises emissions reductions. The University of Cambridge report further states that the market could be flooded by projects credits.

WWF hopes that the Commission will reject the underperforming NAPs and ensure that the EU ETS becomes what it is supposed to be: a cost efficient tool to significantly cut CO_2 emissions in the European Union.

[1] of the EU-25 CO2 equivalents 2004 overall emissions. Source: Annual European Community greenhouse gas inventory 1990–2004 and inventory report 2006 Submission to the UNFCCC Secretariat.
[2] Europe Utilities, 25 July 2006, Phase-2 NAPs under scrutiny, Mark-C Lewis, Richard Smith
[3] 27.9.2006, Emission projections 2008-2012 versus NAPs II1**,** Karsten Neuhoff, Federico Ferrario, Michael Grubb, University of Cambridge, *Available from www.climate-strategies.org*

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France

Zero change in caps, zero ambition in NAP

Not only is the cap of Phase II 0.1% higher than that of Phase I, but massive overallocation, exaggerated emissions projections and the inclusion of nitrous oxides (N_2O) based on a weak emission factor, effectively remove all ambition from France's NAP II.

Weak cap and overallocation

France's cap of Phase I of the ETS was about 150.4[4] $MtCO_2$/yr. Verified emissions in 2005 covered 1,075 installations and were 13% below the cap. When only the installations that participated in Phase I are considered, France's cap for Phase II is set at 150.6 $MtCO_2$, which is 0.1% higher than that for Phase I. Additional installations and a unilateral opt-in of nitrous oxide (N_2O) installations will be included in Phase II, which make the final cap 155.6 $MtCO_2$.

Exaggerated emissions projections

The cap has been decided using emissions projections based on projected growth rates of industries and taking into account actual emissions during 2004-5. Growth rates used to define the cap were greatly exaggerated and were one to eighteen times greater than those published by the National Institute for Statistics and Economic Studies (INSEE). By taking into account the emissions of 2004-5 in the design of its cap, Phase II favours installations that emitted the most during Phase I and disincentivises emissions reductions.

Banking

France and Poland are the only countries that allow the banking of unused allowances from Phase I to Phase II. The massive overallocation in Phase I means that many excess allowances will be available for Phase II, completely removing any incentives for emissions reductions.

Unilateral opt-in of nitrous oxides

During Phase II, France will be the first country to include N_2O emissions from the chemical industry into the EU ETS. During the period of 1990-2004, France's N_2O emissions have already been reduced by 24%. Therefore, it is essential that the ETS delivers N_2O

[4] Takes into account adjustments made after the publication of NAP I. At publication, cap of Phase I was at 156.5 MtCO2/yr

emissions reductions that will exceed those that are achieved through existing policies and measures. However, allowances will be allocated based on an emissions factor of 2.47 kg N_2O per tonne of nitrous acid produced, which is far more generous than the benchmark of 1 kg N_2O per tonne of nitrous acid produced, estimated by The European Fertilizer Manufacturing Association, based on best available technology. In addition, the margin of uncertainty in the monitoring of N_2O ranges between 8 and 12%, bringing into question the reliability and the environmental effectiveness of including N_2O into Phase II of the EU ETS.

Poor public consultation

The public consultation process did not improve greatly from that of the NAP in Phase I. Consultation was conducted uniquely via the internet. No effort was made to incite public participation. A complicated questionnaire was the only interface used for receiving comments, and no additional information was provided to explain what is at stake. Overall, 80% of the responses of the questionnaire were submitted by individuals, demonstrating the interest of the civil society in the subject. The public has demanded for a 10% reduction in the cap and the use of auctioning to allocate 10% of the allowances. However, neither of these requests has been included in the final NAP.

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Germany

A paradise for climate killers - new coal power stations welcome

A weak cap, the lack of auctioning and borrowing from future periods will shift the burden of emissions reductions in Germany to non-ETS sectors, thus increasing the cost of reductions, and putting Germany's reduction targets in jeopardy.

Weak cap and overallocation

Germany's cap for Phase I of the ETS was set at 499 $MtCO_2$. Verified emissions in 2005 covered 1,842 installations, and amounted to only 95% of the cap designated for Phase I, indicating an overallocation of 5%, or 25 $MtCO_2$. Germany's cap for Phase II is at 474 $MtCO_2$ when only the installations that participated in Phase I are considered. Additional sectors will be included in Phase II, which adds 11 $MtCO_2$ to the final cap, making it 485 $MtCO_2$. Taking into account the proposed cap of 482 MtCO2, the cap for Phase II is merely 3 $MtCO_2$, or 0.6% lower than that of Phase I.

Germany still needs to reduce their emissions by around 30 $MtCO_2$, in order to meet their Kyoto target by 2012. The weak cap set for Phase II means that 90% of the emissions reductions will have to be achieved by installations and sectors not covered by the EU ETS. Non-ETS sectors, including households, transportation and services, will have to reduce their emissions massively - by 27-38 $MtCO_2$ over the next six years, which is highly improbable in view of current trends, policies and measures that are in place.

No auctioning

Germany's NAP contains no provision for auctioning. Free allocations allow large emitters to continue to pollute more without paying for it. Under Phase I of the EU ETS, electricity prices rose sharply across the country in 2005, partly because the cost of the allowances was included in the price of electricity. However, since the allowances were allocated for free, the increase in electricity prices immediately translated into windfall profits for power companies. Together, the five largest power producers in the country – E.ON, RWE, Vattenfall Europe, EnBW and STEAG – attain windfall profits of an estimated 31 to 64 billion Euros over the first two phases of the EU ETS (eight years).

14 year free ride for new entrants

As in Phase I, power plants built during Phase II are guaranteed a compliance factor "one" for the following 14 years. This level of compliance means that these installations will have no obligation to reduce emissions or improve their efficiency during this timeframe.

Borrowing against the Emissions Trading Directive

At the same time, Germany has a banking provision which allows a state-owned bank to replenish the New Entrants Reserve (NER) from the open market. The bank will then be compensated for its expenses with allowances from the following phase, i.e., allowances will be borrowed from Phase III to replenish the NER in Phase II – a provision that is expressly prohibited under the Emissions Trading Directive. Apart from constituting a breach in the directive, borrowing also means that Germany will have to reduce 20-30 $MtCO_2$ as a mortgage from Phase II, before one single tonne of CO_2 can be reduced in Phase III, making it even less probable that the country will be able to meet its long-term reduction targets.

No incentives for low-emitting fuels and technologies

New entrants in the power sector will be allocated allowances based on fuel-specific benchmarks. Benchmarks range from 365 to 750 g CO_2/kWh, with high-emitting coal installations being given twice as many allowances as low-emitting gas installations for equivalent production amounts. As a result, there are no incentives to switch from high-emitting to low-emitting fuels and technologies.

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Italy

The rise and fall of ambitions: How a strong NAP turned weak

At the draft presentation the Italian NAP looked like one of the most ambitious among the countries with the highest emissions. However, during the process of the NAP's finalisation it has changed direction and the cap has turned out to be weak. Furthermore, the delay in submitting the NAP has led Italy to become the object of an infringement procedure.

No overallocation but still far from the target

During Phase I of EU ETS the Italian cap was set at 223.1[5] $MtCO_2$ covering 950 installations[6]. There was no overallocation since verified emissions amounted to 104% of the average annual number of allowances allocated in Phase I (215.8 $MtCO_2$[7]). Italy, however, is not on track to meet its Kyoto target (a reduction of 6.5% in greenhouse gas emissions under the "burden-sharing" agreement). In fact, Italy's global greenhouse gas emissions increased by 12.1% from 1990 to 2004, thus setting the reduction commitment to meet the 2008-2012 Kyoto target to a challenging -19% from actual emissions.

A weaker cap

According to the latest news, the cap for Phase II has been reviewed upwards from the initially foreseen 194 $MtCO_2$ to 206 $MtCO_2$, including 6 $MtCO_2$ reserved for auctioning. If this cap is confirmed it will be 11.4% lower than the one for Phase I. The principle behind the NAP2 draft was to allocate to the ETS sectors an amount of allocation, in line with Kyoto commitments, proportional to their responsibility (38% of total emission in 2005). In 2005 the distance to the Kyoto target amounted to 94Mt. This reviewing of the cap would bring the contribution of the traded sectors to the Kyoto target down to 25.7%, from the previous 38.1%. Moreover the quota for buying external credits from CDM/JI projects will probably be extended to 25% of allocated permits from the original 10%, which was in line with the government Kyoto strategy.

3% auctioning

The Italian NAP seems to start with some auctioning, which however is set at a mere 3% of the overall amount (6 $MtCO_2$) of the allowances. It is desirable that this auctioning is

[5] CITL data, including new entrants reserve and auctioning, http://ec.europa.eu/environment/climat/emission/pdf/citl_pr.pdf
[6] Source: EEA report No 9/2006: "Greenhouse gas emission trends and projections in Europe 2006"
[7] Source: presentation from APAT, Agenzia per la Protezione dell'Ambiente e per i servizi Tecnici (Italian Environmental Protection Egency)

increased to the maximum 10% allowable in order to guarantee to every operator the same chances and make the whole process as cost-effective as possible for the traded sectors as well as incentivising reductions from the most polluting sectors.

The "untouchables" of the CIP6

Many installations in the electricity sector benefit from the protection of an Italian legislative shield provided under the CIP6 convention. The CIP6 is a sort of long-term power purchasing agreement between independent producers and the government, signed before the liberalisation of the electricity market. This price agreement with the government allows power companies to pass on extra costs to the public if any changes influence the agreed amount of income for their installations.

For Phase II it is likely that these operators will be excluded from the free initial allocation, forcing them to buy the allowances from the market, thus provoking two main effects. First, the consumers would directly pay the emission cost (through a specific component in the electricity bill called A3), on behalf of the polluter which reduce incentive for emission reductions. Second, a considerable amount of allowances would then be made available to other installations thus reducing their incentive for emission reductions.

It is strongly desirable that this allocation will be examined by the Commission under the State Aid regulations.

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Poland

Dream a little dream of growth: Europe's most ridiculous cap

Poland's NAP II continues to reward large polluters by setting a weak cap, and making use of fuel-specific benchmarking and over-generous emissions projections.

Weak cap and overallocation

Poland's cap for Phase I of the ETS was set at 239.1 $MtCO_2$. Verification of 2005 emissions is still underway, but published data, which covers at least 90% of installations, indicates that emissions amounted to only 88% of the cap designated for Phase I, which is equivalent to an overallocation of 12%.

Poland's cap for Phase II of the ETS is set at 279.6 $MtCO_2$, a 17% increase from Phase I, but still puts the country on track to meet its Kyoto target.

In 2003, the Polish government adopted a climate policy, which provided for a strategic objective of emissions reductions of 40% by 2020 when compared to the base year of 1988. The average annual national CO_2 emissions cap that is proposed in the NAP for Phase II is 36% above the planned objective. If the climate policy objective is to be achieved, the cap of Phase II needs to be reduced by 40%.

SO_2 emission limits and fuel-specific benchmarking favour high-emitting installations

Poland's power sector will be given sufficient free allowances to cover all of its emissions during Phase II. Allocation will be based on sulphur dioxide (SO_2) emissions. Installations with SO_2 removal facilities receive noticeably more allowances than installations with no flue gas desulphurization facilities. Allocations are distributed based on fuel-specific benchmarks, with high-emitting fuels such as coal and lignite receiving more allowances than low-emitting fuels such as gas. This removes any incentive to encourage the change from high-emitting fuels to fuels that emit less CO_2.

Over generous emissions projections

The cap level for Phase II has been decided based on emissions projections. However, projections were only available for the energy sector and not for other sectors or trades. This leads to unequal treatment of the different sectors and makes it impossible to verify the credibility of the projections. Where there are projections, they tend to be over generous and optimistic with regards to production. The NAP for Phase II projects a 50% increase in

electricity production for the period 2005-2015. However, over the last ten years, the consumption of primary energy carriers has actually decreased by almost 8%, while maintaining a steady level of consumption during the period 2000-2004. In fact, an increase in electricity production on such a large scale is not probable, as Poland lacks the ability to support the construction of the necessary facilities.

Public – or industry – consultation

Poland's NAP was subject to a public consultation period of three weeks, mostly involving sectoral associations, chambers of commerce and scientific organisations but also NGOs. Approximately 200 letters were received, mainly from installations that were concerned about not receiving sufficient allowances for 2008-2012. Some of these comments were taken into account. Other comments have led to the increase of the New Entrants Reserve, and an increase of 10 $MtCO_2$ to the cap. The NGOs' demand of reducing the cap by 30 $MtCO_2$ was not taken into account.

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Spain

Cutting Spanish emissions without cutting emissions in Spain

Apart from a tight cap, Spain's NAP II leaves much to be desired. Excessive use of project credits, lack of auctioning, use of emissions projections and benchmarks that are overly generous nearly obliterate any incentives for emissions reductions.

Tight cap and no overallocation

Spain's cap for the Phase II of the EU ETS is set at 152.7 $MtCO_2$, 16% lower than its cap in Phase I, but still putting the country in line with its Kyoto target. Verified emissions in 2005 exceeded the actual allowances allocated by 13%. Spain is one of the few countries which did not overallocate during Phase I.

Excessive use of project credits

Up to 50% of the country's allowances can be covered by credit imports from flexible mechanisms. In the case of project credits purchased by the government, priority will be given to energy efficiency and renewable energy projects, but how much the government's total purchases will be made up of these projects has not been specified. In the case of project credits purchased by private companies, there are no requirements on the quality of projects.

Such a large and indiscriminate use of project credits risks putting domestic action on the backburner, against the Commission's guidelines issued in 2005. It is likely to disincentivise the development of energy efficiency and clean technologies in industries and could provide a perverse incentive, in which companies sell their free allowances at the higher market price and purchase project credits at the lower price to meet their emissions needs.

Over-generous benchmarks and emissions projections

A large part of the emissions reductions will come from the power sector. Allowances will be allocated based on technology-specific benchmarks which favour coal over lower emitting technologies. In addition, compared to other countries, Spain's coal benchmark (0.92 tCO_2/MWh) is unusually generous (e.g., Germany's coal benchmark is set at 0.75-0.80 tCO_2/MWh).

Other industrial sectors will receive allocations based on product-specific benchmarks. However, they will be receiving allocations that will exceed their emissions projections. In particular, the refining industry will receive allocations that amount to an increase of 25.6%

over their 1990 emissions, cement will receive an increase of 37%, and paper will receive an increase of 38.8%.

Incentives for co-generation removed

All the incentives that were in place in Phase I to encourage the deployment of co-generation as an energy-efficient technology have been completely removed from the NAP of Phase II. Allocations for co-generation installations have been reduced from 23.1 $MtCO_2$ in Phase I to 17.2 $MtCO_2$, and new installations no longer receive preferential treatment.

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The United Kingdom

Going once, going twice, sold: Buying the idea of auctioning

The UK as a self-styled leader in climate change has a responsibility to step up to the mark and make bold commitments for Phase II of the ETS. The current NAP – though it has some positive aspects, for example, it has committed to auction 7% of the allowances – still leaves room for improvement.

No overallocation in Phase I, passable cap in Phase II

The UK's cap for Phase I of the ETS was set at 245.3 $MtCO_2$ per year. Verified emissions in 2005 covered 768 installations and amounted to 116% of the average annual number of allowances allocated in Phase I. The UK is therefore one of the few countries which did not overallocate during Phase I. However, this is primarily due to the fact that, in 2005, the power sector went back to burning more coal, which is a fuel that emits a large amount of CO_2 for each unit of power that it produces. Other energy intensive industries received more allocations than they actually emitted during the course of the year.

When only the installations that participated in Phase I are considered, the UK's proposed annual cap for Phase II is set at 236.7 $MtCO_2$, a mere 3.5% reduction. In Phase II, additional emissions from glass, mineral wool, gypsum, flaring from offshore oil and gas production, petrochemicals, carbon black and steelworks sectors will be included – bringing the total annual cap to 246.2 $MtCO_2$.

The UK is on track to meet its Kyoto target (a reduction of 12.5% below 1990 levels in greenhouse gas emissions between 2008 and 2012). However, it currently looks set to miss its more ambitious domestic CO_2 target of a 20% cut by 2010. The cap for Phase II puts the UK on track to reducing its CO_2 emissions by only 16.2% by 2010.

Pushing up emissions projections

Emissions projections have been used as a basis for setting the cap for Phase II. These projections were revised upwards in June 2006. The revised emissions projections included an increase of 11$MtCO_2$ nationwide, of which 4$MtCO_2$ comes from the traded sector. Using this method, together with free allocation, clearly incentivises industry sectors and companies to inflate their emissions projections in order to maximize the number of allowances that they will receive.

7% auctioning

The UK is the only country which has proposed a significant amount of auctioning, although it still falls below the maximum allowed amount of 10%. Up to 7% of allowances can be auctioned and will be deducted from the allocations to the power sector. In addition the UK intends to auction surplus allowances from the new entrants reserve, as well as allowances that have not been allocated as a result of closure. Therefore, in reality, more than 7% may be auctioned.

Treatment of new entrants disincentivises combined heat and power

Although some effort has been made to promote the uptake of Good Quality Combined Heat and Power (GQ CHP) plant - GQ CHP is still disincentivised under the proposed allocation rules to new entrants. CHP plant will not receive enough allowances to cover their emissions and conventional boilers will still get proportionally more allowances.

Only Fuel-specific for old, but best available technology benchmarks for new installations

Allowances given to the power sector will be allocated based on five fuel-specific benchmarks. By establishing several fuel benchmarks, rather than a single product specific benchmark for incumbents, the government is sending a clear signal to old, inefficient coal fired power stations that they will receive generous allocations in Phase II of the scheme. In contrast new entrants to this sector will receive an allocation based on a best available technology benchmark (combined cycle gas turbine).

Project credits of dubious quality allowed

Up to 8% of the total allocation can be met by the use of credits imported from Clean Development Mechanisms (CDM) and Joint Implementation (JI) projects. However, there will be no further qualitative limits placed on the use of credits. Initial estimates show that up to one third of the project credits available during 2008-2012 will be from non-CO_2 gas abatement projects. One of the key aims of the CDM is to help developing countries achieve sustainable development. Industrial gas abatement projects often have little or no wider sustainable development benefits. They do not help to catalyse the transition to non-fossil fuel based energy systems in project host countries, nor do they encourage greater energy efficiency.

Broad public consultation

The public consultation exercise conducted by the UK government was relatively well done, involving a broad group of stakeholders. All information was published on a single website and stakeholders were emailed and invited to participate in the consultation.

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A brief WWF glossary to the EU Emission Trading Scheme

Allocation/Overallocation/Auctioning - During Phase I almost the total amount of the allowances has been given to installations for free (grandfathering approach). Some NAPs have been found to be too generous in fixing the cap thus creating an overallocation and taking away incentives to invest in cleaner fuels and more efficient technologies to reduce emissions. The alternative allocation method is by auctioning, the maximum possible for Phase II is 10% of the Cap. Under an auctioning approach the installations have to buy allowances on the carbon market, thus putting the "polluter pays" principle into effect.

Benchmarks/CO_2 intensity - The benchmarking approach is an alternative method to allocate allowances. This approach does not use historic emission data but fixes an average value of the emissions per unit of output (CO_2 intensity). This value would be the benchmark on which basis the allocations would be made to installations. In principle the more an installation pollutes the less allowances it should receive; in this view product-based benchmarks are the most effective as they reward a lower CO_2 intensity per unit of output.

Borrowing/banking - Borrowing allows installations to borrow allowances from the following year of the same period to cover an allowance shortage in the current year. Banking let operators save EU allowances for future years within the same ETS period.

Cap - The Cap is the maximum amount of CO_2 that one Member State plans to emit for the traded sectors during one year. Each Member State adopted a different methodology to calculate this amount using past sectorial trends, growth projections and the tightening of the emissions in order to comply with the target.

Cogeneration/Combined Heat and Power generation - Cogeneration/Combined Heat and Power (CHP) generation is a definition used to describe facilities that produce both heat and electricity from a single source. The heat produced and stored can then be used for various purposes such as space heating or water heating. The difference is that CHP produces electricity and then heat, while cogeneration produces electricity and heat simultaneously. These two systems can potentially improve the efficiency level of power plants of up to 70-90% from the 50% of a new traditional power plant.

Eligibility - The system covers about 11,400 installations in the power sector, oil refining, cement production, iron and steel manufacture, glass and ceramics, paper and pulp production. Together these installations are responsible for about half of Europe's CO_2 emissions. The ETS Directive applies for two periods, named Phases, from 2005 to 2007 and from 2008 to 2012. The Commission will review the Directive by 2007 which may include additional sectors after 2012. The system currently covers only CO_2 emissions, which may also change in the future.

Flexible Mechanisms: JI/CDM credits - Beside the Emission Trading Scheme the Kyoto Protocol includes two more flexible mechanisms: the Joint Implementation (JI) and the Clean Development Mechanism (CDM). They are the two project-based mechanisms of the Kyoto Protocol. JI is a mechanism that permits one Annex I Party, with a commitment inscribed in the Annex B, to implement an emission reduction project in an another Annex I Party. This emission reduction generates Emission Reduction Units (ERUs) valid to meeting the implementing Party's Kyoto target. The CDM provides for Annex I Parties to implement project activities that reduce emissions in non-Annex I Parties, in return for certified emission reductions (CERs) valid to meeting the emission targets.

$MtCO_2$ - These initials stand for Millions of tonnes of Carbon Dioxide (CO_2), the common unit of measurement of the emissions in the atmosphere of the most important greenhouse gas. In the Emission Trading Scheme 1 $MtCO_2$ corresponds to 1 allowance of emission.

National allocation plans - The ETS Directive establishes that each Member State periodically has to develop a National Allocation Plan (NAP) in order to establish the emissions target for the covered sectors, as well as deciding how this target is divided among the various installations covered by the system. Each NAP is supposed to be put together in a way that is objective, transparent and open to public comment.

New entrants (reserve) - New entrants are brand new installations which enter a traded sector of the Emission Trading Scheme in one Member State after having obtained emission permits. Member States can choose whether they let new entrants buy their allowances on the market, make use of the possibility to set aside some allowances for periodic auctioning, or foresee a reserve in the National Allocation Plan to issue allowances to new entrants free of charge.

WWF European Policy Office

36 avenue de Tervurenlaan
Box 12
1040 Brussels
Belgium

Tel: +32 2 743 8800
Fax: +32 2 743 8819

www.panda.org/eu