EU Emissions Trading Scheme (at a glance)

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<!–[if !supportLists]–>1<!–[endif]–>The EU Emissions Trading Scheme

<!–[if !supportLists]–>1.1<!–[endif]–>Introduction / Characteristics

Since January 1st 2005 the EU Emissions Trading Scheme (EU ETS) is in place.<!–[if !supportFootnotes]–>[1]<!–[endif]–> It covers five sectors, which emit almost half of all EU CO_2 emissions. About 11,500 installations are covered in the sectors of Electricity and heat production, mineral oil refineries and coke ovens, iron and steel and metal industries, glass, pottery and building materials (including cement), paper and printing (including paper pulping).<!–[if !supportFootnotes]–>[2]<!–[endif]–> Other sectors and further GHGs can be included in future. The directive highlights the desire to include chemicals, transport and aluminium sectors from 2008.

The EU ETS intends to put a value to reducing CO_2 emissions and leaves it to the market to find the least cost way to do this. The market it has formed is worth tens of billions annually.<!–[if !supportFootnotes]–>[3]<!–[endif]–> If the Emissions Trading Scheme had not been adopted, other â€“ more costly â€“ measures would have had to be implemented.<!–[if !supportFootnotes]–>[4]<!–[endif]–> This could be a tax on carbon emissions, for example.

The first phase is running from Jan 2005 to Dec 2007 and the second phase from 2008 to 2012. A third period is planned from 2013 on. Reduction targets are set and penalties for non-compliance exist. The penalties are â‚¬ 40 per tonne of shortfall during Phase-I and â‚¬ 100 per tonne of shortfall in Phase-II. Payment of the penalty does not liberate from making up for the shortfall in the following year.

Each Member State must decide on allocations to installations through the National Allocation Plan (NAP), which must be submitted to the European Commission for approval. [see 3.4.1]

Through the EU linking directive<!–[if !supportFootnotes]–>[5]<!–[endif]–>, the EU ETS offers interfaces to other Emissions Trading systems. [see 3.5]

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The following Graph 3â€‘1 shows a map of the participants in the EU ETS.

Graph 3â€‘1Â :EU-ETS Participants<!–[if !supportFootnotes]–>**[6]**<!–[endif]–>

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<!–[if !supportLists]–>1.2<!–[endif]–>Burden Sharing Agreement

The EU 15 states made use of a part of the Kyoto Protocol that allowed them to create a so-called â€œbubbleâ€. They signed up for a legally binding Burden Sharing Agreement.<!–[if !supportFootnotes]–>[7]<!–[endif]–> His agreement sets an 8% reduction target for the EU 15 as a whole but enables the member states to set their own targets within the bubble.

The following table shows the redistributed target for each member state.

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New targets under the EU Burden Sharing AgreementÂ			
CountryÂ	**ReductionÂ**	**CountryÂ**	**ReductionÂ**
AustriaÂ	-13,00%Â	ItalyÂ	-6,50%Â
BelgiumÂ	-7,50%Â	LuxembourgÂ	-28,00%Â
DenmarkÂ	-21,00%Â	NetherlandsÂ	-6,00%Â
FinlandÂ	0,00%Â	PortugalÂ	27,00%Â
FranceÂ	0,00%Â	SpainÂ	15,00%Â
GermanyÂ	-21,00%Â	SwedenÂ	4,00%Â
GreeceÂ	25,00%Â	United KingdomÂ	-12,50%Â
IrelandÂ	13,00%Â	European CommunityÂ	-8,00%Â

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Table 3â€‘1: EU Burden Sharing Agreement<!–[if !supportFootnotes]–>**[8]**<!–[endif]–>

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The targets vary widely between a allowed increase of 27% for Portugal and a required reduction of 28% for Luxembourg.

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<!–[if !supportLists]–>1.3<!–[endif]–>Entities within the EU ETS

<!–[if !supportLists]–>1.3.1<!–[endif]–>Community Independent Transaction Log (CITL)

For EU member states the Community Transaction Log<!–[if !supportFootnotes]–>[9]<!–[endif]–> exists. It monitors and confirms the transactions of the EU member states. On 24/08/2006 the CITL consisted of 9,769 installations for the 2005 compliance period.

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<!–[if !supportLists]–>1.3.2<!–[endif]–>European Commission (EC)

The EC is the watchdog of the emissions Trading Scheme. It has to approve the NAPs.Decision has to be taken within three months of the NAP having been notified to it. It can also reject a NAP partially or in full, if it is not in line with the criteria. If Member States whose plans are partially rejected implement the proposed changes they do not have to submit their plans to the Commission a second time but can proceed to take their final allocation decision.<!–[if !supportFootnotes]–>[10]<!–[endif]–> If a plan is accepted the member state can still amend the allocations on installation level.

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<!–[if !supportLists]–>1.4<!–[endif]–>Allocation of Allowances

Allowances are allocated via National Allocation Plans (NAP). These are lists of all ETS covered installations and the allocated allowances for a commitment period. The allowances are free and can be banked across years but not cross phases. A NAP is prepared by each member state each year by 28 February and builds the foundation of the emissions trading.

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About 95% of the emissions allowances have been allocated via grandfathering using the firmâ€™s emissions in the past and setting a reduction target accordingly.

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The EU Burden Sharing Agreement adjusted the individual emissions targets of the member states to meet an overall EU target of 8% from 1990 emissions levels. The Agreement lets some member states increase their emissions while it imposes reduction target greater than 8% on others. Germany for example has to reduce its emission to 79% whilst Greece is allowed to emit 125% compared to 1990 emissions.

The detailed allowance allocation under the Burden Sharing Agreement is available in section 9.2 of the appendix.

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<!–[if !supportLists]–>1.4.1<!–[endif]–>National Allocation plans

Under the EU ETS, the member states define their emissions cap in their National Allocation Plans (NAP). In these NAP every installation from one of the covered sectors is allocated a certain amount of greenhouse gas permits. The member-states must ex-ante decide how many allowances to allocate for the trading period and what share each installation gets. The allocation should create scarcity in order to guarantee a functioning market and a need for emissions reductions. For Phase-I about 6.3billion allowances where issued. This is still 300million tonnes less than what the member states applied for.

For new companies there is a so-called â€œNew-Entrants-Reserveâ€ (NER) of about 2.1 billion allowances each year. Unused allowances from the NER could be auctioned or cancelled.

NAPs are drawn up periodically. For Phase-I they had to be published by 31 March 2004 and for Phase-II they had to be published by 30 June 2006.<!–[if !supportFootnotes]–>[11]<!–[endif]–>

The European commission assesses the NAPs against the requirements and approves the plans.

On February 28th each year the EU Emissions Allowances (EUAs) for the installations will be transferred to their account holders. By April 30th EUAs required for the previous year have to be submitted by the owner of the installation for compliance. EUAs can be banked between different years but not between Phase-I and Phase-II of the EU ETS. A penalty of â‚¬40 for Phase-I and â‚¬100 for Phase-II will be imposed for non-compliance. Further to the penalty the reduction target has still to be met.

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The subsequent Graph 3â€‘2 illustrates important dates during the two phases of the EU ETS.

<!–[if !vml]–><!–[endif]–>

Graph 3â€‘2Â : EU ETS Timeline

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For the following phase 2013-2017 the NAPs will be notified by 30/09/2011.

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In the next two sections we will look deeper into the NAPs for Phase-I and II and elaborate on some of the issues arising there.

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<!–[if !supportLists]–>1.4.2<!–[endif]–>Assessment of the allocation in Europe Phase-I

With hindsight we are now able to report a gap between the forecasted value of carbon emissions and the reality. Companies were allocated about EUAs similar to 1.848 billion tonnes of carbon in 2005. This amount was grandfathered based on historical figures. In reality companies only emitted 1.785 billion tonnes of carbon as reported in May 2006<!–[if !supportFootnotes]–>[12]<!–[endif]–>. Most countries had given their industries too many allowances even though the EU had already cut some of the initial plans. The generous allocation was also seen as an incentive to start off the market in the pilot phase 2005-2007 and insight in the market could be gained.<!–[if !supportFootnotes]–>[13]<!–[endif]–> It can be seen as a success that power generators needed to compare the price of coal together with the required EUAs against the higher gas price which requires less EUAs even when the Russia-Ukraine dispute drove up gas prices.

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The following table shows the current (25/08/06) status of compliance in the Community Independent Transaction Log.

<!–[if !vml]–><!–[endif]–>

Table 3â€‘2: Excerpt from CITL for 2005<!–[if !supportFootnotes]–>**[14]**<!–[endif]–>

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The *Allowances to distribute* reflect the allocated amount from the NAPs. The *Verified Emissions* compared against the *Amount surrendered* results in the *Compliance amount*. Currently 12 EU ETS participants are not in compliance.

The Emissions to Cap (*E-t-C*) in this table is calculated by substracting the *Verified Emissions* from the *Allowances to distribute*. A positive value means that this member state has emitted more than it was assigned and therefore is in demand of EUAs. Only 6 member states are currently in demand and the verified emissions lie about 73.5 million below the assigned amount for 2005.

The allocation for 2006 is about 32.3 million tonnes of CO_2 less than 2005. An overview per sector is provided in the appendix

Emitting the same amount in 2006 as in 2005 would still result in an oversupply of 41.2 million tonnes. Â

<!–[if !supportLists]–>1.4.3<!–[endif]–>Assessment of the allocation in Europe Phase-II

The new allocation plans for the second Phase 2008-2012 are based on the past experience but so far there is only little change. Germany has set the planned reduction of carbon emissions at a mere 1.25% for the industry sector (although power companies are given a target of 15%).<!–[if !supportFootnotes]–>[15]<!–[endif]–> The NAP mentions the possibility of an auction of 10% of the certificates, but it is not planned. Until today (14/09/06) only 11 member states have notified their allocation plans to the commission whilst 16 have published their plan for public consultation. Many member states are still submitting their NAPs after the deadline.

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Greece is going to increase its annual amount of allocations by 1.5% compared to the first period allocation. It restricts the power sector allocation to 95% of the first period. Luxembourg shows an increase to 3.95-million t CO_2 p.a. and will auction 5% of the allocation. The country itself runs a buying programme for CERs to comply with the Burden Sharing agreement. The tax situation in Luxemburg leads to high transport fuel exports, which boost the countryâ€™s emissions. Slovakia increases its allocation about 29.45% compared to Phase-I.

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The subsequent table shows the yearly-allocated allowances 2008-2012 for some of the NAPs notified to the Commission.

Member states can restrict the amount of credits from the flexibility mechanisms to force the installation owners to really curb their own emissions.

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Â	Allowances to distribute (Cap) million-tCO_2 p.a.2008-2012	Amount flexibility mechanism under Kyoto
GermanyÂ	482	<=10%
GreeceÂ	75.5	?
IrelandÂ	22.64	<=50%
Luxemburg	3.95	?
SlovakiaÂ	39.46	?

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Table 3â€‘3: Excerpt of some Phase-II allocation plans<!–[if !supportFootnotes]–>**[16]**<!–[endif]–>Â

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<!–[if !supportLists]–>1.5<!–[endif]–>Connectivity to other systems

The EU ETS is not a self-contained system. A company or state can choose to achieve its reduction target through different options. Firstly it can either implement changes like energy saving measures and technology improvements to reduce its own emissions. Secondly CERs generated by investing in CDM projects can be used to a limited extent to offset the emissions. Thirdly ERUs generated from projects through the JI in Annex I countries can be used in the period from 2008 to 2012 to offset emissions. Lastly there is an indirect connection to voluntary systems since these will also be competing on the projects to generate allowances. If the demand for voluntary or certified emissions credits increases, the limited number of projects of available projects will lead to a price increase in both systems.

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The EU linking Directive<!–[if !supportFootnotes]–>[17]<!–[endif]–> entered into force in September 2004 included carbon credits from JI and CDM into the EU ETS. To comply with their reduction targets, companies and countries will be able to accrue CDM credits (CERs) from 2005 onwards and JI credits (ERUs) from 2008 onwards. The transfer of CERs can only happen if the national registry and the International Transaction Log are up and running. Each member state can impose an individual limit on the number of CDM/JI credits that can be used by companies in their country. Further the directive opened the EU ETS for possible connections with other countries or trading schemes.

The schemes of other countries that ratified the Kyoto protocol are linked through the CDM and JI mechanism to the EU ETS.

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<!–[if !supportLists]–>1.6<!–[endif]–>Summary / Issues

The market-based approach of the EU ETS provides a means to reach the imposed Emissions target at the lowest cost. The seller of EUAs will be the one who is able to reduce his emissions at lower costs. This creates another source of income for companies who proactively reduce their emission. The price for the allowances will be determined by the supply and demand in the market but is capped by the 40â,¬ penalty per ton of CO_2 for non-compliance during the first phase of the EU ETS.

When the EU ETS was set up it not only increased the awareness on global warming, it also required the countries to implement a system which enables them to monitor and report their emissions. Previously this was only based on estimations.

The integration with CDM and JI supports emissions reducing projects in other Annex I countries (JI) and in developing countries (CDM). The transferability of these project-generated units ensures that there are no distractions in the price determination. Of course prices will still differ because of different project risks or the countryâ€™s risk.

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Although the EU ETS has created a functioning market, it has done even more for its biggest polluter, the power producers. The carbon permits were allocated for free, which could be interpreted as a form of subsidy. Especially in the case of power producers this leads to inequality in the market. When manufacturing companies implement new technologies to curb emissions and increase efficiency, their improvements will create windfall profits for the energy generating companies. They will have to generate less energy because of the manufacturerâ€™s investment, but will still have the initially allocated allowances. Therefore the UK ETS excluded power generators from its scheme.

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One of the major detriments of the EU ETS is that the Allowance allocation has to be done in a way that there are fewer allowances allocated than needed. With hindsight this did not happen in 2005. Based on grandfathering 1.848 billion tons of carbon were allocated were the actual emissions were only 1.785 billion.<!–[if !supportFootnotes]–>[18]<!–[endif]–> No proper measurement of carbon emission has been in place before the scheme started. Therefore the emissions allowances allocated by national governments were generous. Now that the monitoring is in place we could expect a more accurate allocation in the future.

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Some economists also criticise that the permits were allocated for free and have not been auctioned.<!–[if !supportFootnotes]–>[19]<!–[endif]–> Under current EU law only 10% of allocations can be auctioned from 2008 to 2012. Issuing the carbon permits through an auction each year would come closer to the â€œthe polluter paysâ€ principle.<!–[if !supportFootnotes]–>[20]<!–[endif]–> One of the risks of auctioning would be that a big buyer could exercise his market power.

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The unexpected high price of EUAs has presented the permit holders a valuable property. According to IPA Energy Consulting, the scheme awarded British Power Generators with about Â£800m extra profits a year.Â

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A report from the IETA and the World Bank explains the influence of the emissions trading on the power sector. To the extent that a substitution between coal and gas is feasible, the power generators will compare the dark-spread (buy coal/sell power) and the spark spread (buy gas/sell power) and produce accordingly. <!–[if !supportFootnotes]–>[21]<!–[endif]–> These spreads have changed since the introduction of the EU ETS. The cost of EUAs will be added on the buy side and

was expected to make the cleaner gas more competitive against coal. But currently there are no significant signs of a switch to cleaner fuel. One of the reasons is that gas is still relatively more expensive than coal. The subsequent graph shows the short run marginal cost for a coal and for a gas fired power plant. It illustrates that it is still cheaper to generate electricity by burning coal instead of burning the much cleaner gas.

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<!–[if !vml]–><!–[endif]–>

Graph 3â€‘3: Short run marginal cost for coal and gas<!–[if !supportFootnotes]–>**[22]**<!–[endif]–>

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Only a fall in gas prices or an increase in the price of EUAs<!–[if !supportFootnotes]–>[23]<!–[endif]–> can change this picture. Another study from the IEA suggests the breakeven between the coal and the gas-fired plant (CCGT) to lie at an emissions price of about â‚¬ 19.<!–[if !supportFootnotes]–>[24]<!–[endif]–>

There are further reasons why a switch cannot be seen at the moment. Normally high investments are required to build a new power plant or to change an existing one to burn a different fuel and also these investments take time. The time horizon of 3 years for the first phase of the EU ETS is very short. Investments in emissions reductions would at least require a payback period of 5 years but are likely to require more. This might hold back some investors.Â

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When looking at the market one can see that it still lack enough transparency and liquidity. Power generators will have â€œinsider knowledgeâ€ since they know when and how much they are generating.Some moves have already been undertaken to get rid of the asymmetric information. The EEX in Leipzig provides weekly generation data from Germanyâ€™s four big power producers.<!–[if !supportFootnotes]–>[25]<!–[endif]–> But there is still no European data available.

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The EU ETS is already the biggest market for carbon emissions in the world and it could become even bigger when other countries introduce carbon emission quotas compatible to the EUAs. This would probably solve the lack of liquidity in the market and maybe lead to a global carbon market in the future. The scheme is also open to include other sectors. One of the main sectors in discussion is the airline industry. Planes are causing twice as much pollution per passenger mile as a typical car.<!–[if !supportFootnotes]–>[26]<!–[endif]–> CO_2 emissions from Aircraft are currently growing at 3% per year and according to the IPCC they are about 2.7 times as destructive as the effect of its CO_2 alone. This is due to the fact that they are emitted in high altitude. But including them is not an easy task. The allocation to a certain country poses a problem and it is more likely that they will be attached to the EU ETS through a separate Gateway system. In this system airlines would be allowed to purchase EUAs from the EU ETS but would be allocated Aircraft Only Allowances (AOAs), which cannot be sold into the EU ETS. This way the additional system would not distort the EU emissions market.<!–[if !supportFootnotes]–>[27]<!–[endif]–>

Firstly the allocation of allowances through grandfathering, secondly the lack of â€œrealâ€ emissions data at the time of allocation and thirdly the time horizon especially of the first phase are seen as the main problems of the EU ETS.

Apart from these starting problems we will see in section 4 that the market is starting to get out of its infancy and the future will show how it will evolve.Â

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<!–[if !supportLists]–>1.7<!–[endif]–>Other Emissions Trading Schemes

Although the EU ETS is the worldâ€™s biggest Emissions Trading Scheme the following should give a brief overview of other ETS.

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<!–[if !supportLists]–>1.7.1<!–[endif]–>United Kingdom Emissions Trading Scheme

At its start in March 2002 UK ETS was the first cross-industry, national GHG emissions trading scheme in the world. It runs until December 2006, with final reconciliation in March 2007. The emissions reductions were measured against 1998-2000 levels and companies could voluntarily participate in the system. Thirty-three organisations committed to reducing their emissions by 3.96m tonnes of carbon dioxide equivalent by the end of the scheme.Â

They have committed to reducing their emissions by 3.96m tonnes of carbon dioxide equivalent (CO_2e) by the end of the Scheme. Over the lifetime of the scheme (2002-2006), this equates to 11.88m tonnes of CO_2e emissions releases avoided. About 6000 companies with climate change agreement can also participate in the scheme. Participating companies who manage to meet their reduction targets receive an 80% discount from the Climate Change Levy (Tax on business energy use). Overachieving companies can sell their allowances whilst underachieving companies are on the buyerâ€™s side to reach their targets. Since the scheme began in 2002, it has brought about emissions reductions of over 7 million t CO_2e.<!–[if !supportFootnotes]–>[28]<!–[endif]–>

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<!–[if !supportLists]–>1.7.2<!–[endif]–>Greenhouse Gas Abatement Scheme (Australia)

The GGAS commenced 1 January 2003 in New South Wales (NSW) and 1 January 2005 in the Australian Capital Territory (ACT). Its aim is to reduce GHGs associated with the production and use of electricity.

It establishes an annual state-wide GHG benchmark for the electricity sector and then requires the benchmark participants to meet their allocation based on their share of the electricity demand. The participants are electricity retailers and some large electricity customers who have elected to manage their own benchmark. The allocation is met by surrendering abatement certificates created from project-based emission reduction activities. This offsets a portion of the GHGs released with their electricity purchases.

Abatement certificates, for example, can be generated by improving emission intensity in generation, reducing consumption and the capture of carbon in forests (Sequestration).

Currently a penalty of AU$ 11 per tonne of carbon is set for falling short of the mandatory benchmark.<!–[if !supportFootnotes]–>[29]<!–[endif]–>

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<!–[if !supportLists]–>1.7.3<!–[endif]–>Chicago Climate Exchange

CCX is the worldâ€™s first and North Americaâ€™s only voluntary, legally binding rules-based greenhouse gas emission reduction and trading system.<!–[if !supportFootnotes]–>[30]<!–[endif]–>

The CCX members commit to reduce their GHG emissions 1% per year between 2003 and 2006 in relation to their 1998 to 2001 average. The program-wide emissions have to be 4% below this baseline during 2006. Members who reduce their level below the target are enabled to sell surplus allowances or bank them. Members who are not able to reach their target internally are able to meet their compliance commitment by purchasing allowances through CCXâ€™s electronic trading platform. Offsets from methane collection or carbon sequestration projects are accepted for compliance too.

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<!–[if !supportLists]–>1.7.4<!–[endif]–>Canadian Emissions Trading Scheme

Canada is also planning to set up an emissions trading scheme. Emphasis will be placed on ensuring market liquidity also through the provision of access to other Emissions trading systems. A banking of Emission permits during the first period is part of the plan.<!–[if !supportFootnotes]–>[31]<!–[endif]–>

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<!–[if !supportFootnotes]–>

<!–[endif]–>

<!–[if !supportFootnotes]–>[1]<!–[endif]–> As set up in directive (2003/87/EC) entering into force 25/10/2003

<!–[if !supportFootnotes]–>[2]<!–[endif]–> Emissions Trading Directive 2003/87/EC, Annex

<!–[if !supportFootnotes]–>[3]<!–[endif]–> The Carbontrust, Allocation and competitiveness in the EU Emissions Trading Scheme Options for Phase II and beyond, June 2006

<!–[if !supportFootnotes]–>[4]<!–[endif]–> EU Press Releases, MEMO/05/84

<!–[if !supportFootnotes]–>[5]<!–[endif]–> EC, http://ec.europa.eu/environment/climat/emission/linking_en.htm

<!–[if !supportFootnotes]–>[6]<!–[endif]–> http://www.dehst.de/cln_027/nn_76138/DE/Emissionshandel/Emissionshandel__in__der__EU/Emissionshandel_20in_20der_20EU__node.html__nnn=true

<!–[if !supportFootnotes]–>[7]<!–[endif]–> Council Decision 2002/358/EC of 25 April 2002

<!–[if !supportFootnotes]–>[8]<!–[endif]–> http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/02/120&format=HTML&aged=0&language=EN&guiLanguage=en

<!–[if !supportFootnotes]–>[9]<!–[endif]–> EC, http://ec.europa.eu/environment/ets/

<!–[if !supportFootnotes]–>[10]<!–[endif]–> http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/06/2&format=HTML&aged=0&language=EN&guiLanguage=en

<!–[if !supportFootnotes]–>[11]<!–[endif]–> EU Press Releases, MEMO/05/84

<!–[if !supportFootnotes]–>[12]<!–[endif]–> Economist, So much hot air, 04/07/06

<!–[if !supportFootnotes]–>[13]<!–[endif]–> World Bank and IETA: State of the carbon market 2006

<!–[if !supportFootnotes]–>[14]<!–[endif]–> Data of Cyprus reflects only the Republic of Cyprus and was not available

<!–[if !supportFootnotes]–>[15]<!–[endif]–> Economist, So much hot air, 04/07/06

<!–[if !supportFootnotes]–>[16]<!–[endif]–> Only the plans, notified to the commission, that were available in German or in English can be considered here

<!–[if !supportFootnotes]–>[17]<!–[endif]–> EU linking directive, http://ec.europa.eu/environment/climat/emission/linking_en.htm

<!–[if !supportFootnotes]–>[18]<!–[endif]–> Economist, Buttonwood, July 2006

<!–[if !supportFootnotes]–>[19]<!–[endif]–> Economist, Cleaning up, 04/05/06

<!–[if !supportFootnotes]–>[20]<!–[endif]–> Economist, So much hot air, 04/07/06

<!–[if !supportFootnotes]–>[21]<!–[endif]–> World Bank and IETA: State of the carbon market 2006

<!–[if !supportFootnotes]–>[22]<!–[endif]–> Point Carbon (2006): â€Carbon 2006.â€ Hasselknippe, H. and K. RÃ¸ine eds.

<!–[if !supportFootnotes]–>[23]<!–[endif]–> In Feb 2006 the EUA price to make coal and gas equal was expected to be at â‚¬ 40

<!–[if !supportFootnotes]–>[24]<!–[endif]–> IEA, Emissions Trading and its possible impacts on power producers, Dec 2003Â

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<!–[if !supportFootnotes]–>[25]<!–[endif]–> European Energy Exchange, www.eex.de

<!–[if !supportFootnotes]–>[26]<!–[endif]–> Economist, So much hot air, 04/07/06

<!–[if !supportFootnotes]–>[27]<!–[endif]–> Emissions Trading Module, Aviation and Emissions Trading, June 2006, Christopher Smith

<!–[if !supportFootnotes]–>[28]<!–[endif]–> UK Emissions Trading Group, http://www.uketg.com/

<!–[if !supportFootnotes]–>[29]<!–[endif]–> NSW Greenhouse Gas Abatement Scheme, http://www.greenhousegas.nsw.gov.au/

<!–[if !supportFootnotes]–>[30]<!–[endif]–> CCX, http://www.chicagoclimateexchange.com

<!–[if !supportFootnotes]–>[31]<!–[endif]–> Ineosfluor, www.ineosfluor.com/CDM/Trading/canada.asp