

**The Implementation of the European Emissions  
Trading Scheme and the Linking Directive in  
Germany**

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**Conference on Financing Renewable Energy  
Projects in China**

**19. Mai 2005  
Bruxelles**

## **Low-Cost Climate Change Policy**

- **Emissions trading and the FlexMechs: an opportunity for a fundamental change in environmental policy.**
- **A new way of thinking: towards flexible structures – away from command and control – priority is to be given to cost efficiency.**
- **Global climate change allows decentralised decision making: no longer are decisions on 'where', 'when', 'how', 'who' and 'how much' based on the state's limited informational horizon. It is the installation operators who now call the tunes.**
- **Market based optimisation versus cost-intensive bureaucratic and rigid legislation.**
- **Reduces deficits in legislative implementation.**

## Climate Protection Targets

- **Kyoto Protocol**  
"Kyoto gases" minus 5.2 per cent 2008 – 2012 compared with 1990  
(between minus 8 and plus 10 per cent)
- **European Union**  
"Kyoto gases" minus 8 per cent 2008 – 2012 compared with 1990
- **Germany**  
"Kyoto gases" minus 21 per cent 2008 – 2012 compared with 1990  
"Kyoto gases" minus 40 per cent 2020 compared with 1990, if the  
EU agrees to a 30% target  
Plus: energy related (e.g. Renewables and Efficiency) and  
technology-focused (e.g. CHP) targets

## **EU – ETS and International emissions trading – two different approaches**

### **International emissions trading (Art. 17 Kyoto Protocol)**

- **Trading between Annex I parties (OECD – countries)**
- **All Greenhouse Gases are tradeable (CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, HFC's, PFC's, SF<sub>6</sub>)**

### **EU – ETS**

- **Trading between companies (operators of energy incentive industries)**
- **only CO<sub>2</sub> is tradeable**

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# **The EU Trading Scheme**

- **EU Emissions Trading Directive (13. October 2003)**
- **The NAP guidance (7. January 2004)**
- **The Monitoring Guidelines (29. January 2004)**
- **The Directive on the Registry**
- **The Linking Directive (13. November 2004)**

# **The German Situation**

# **Germany's Climate Change Programme**

- **Very ambitious targets**
- **Comprehensive structure**
  - covering all sectors (energy, industry, private households, transport, small consumers)
  - including all kinds of instruments (command and control, economic incentives, soft measures like information and education) to remove identified barriers
  - but: EU ETS is the key approach: 60 % of CO<sub>2</sub>-emissions in Germany are covered
- **Therefore: A separate discussion on CDM or JI without taking into account the interdependences within the National Climate Change Programme doesn't make any sense**

## National Allocation – The Strategic Challenge

- **Numerous installations in the energy industry and energy-intensive production sectors – 1849 installations covered**
  - 99 % of CO<sub>2</sub> emissions in public electricity supply**
  - 96 % of CO<sub>2</sub> emissions in the industrial energy sector**
  - 87 % of process-related CO<sub>2</sub> emissions**
  - > 60 % of CO<sub>2</sub> emissions in all other industrial production installations**
- **ET sector represents 500 million t CO<sub>2</sub>**
  - of which 250 million t Co<sub>2</sub> are concentrated among the four largest electricity and energy suppliers: E.ON, RWE, Vattenfall and EnBW.**

## Emission Budgets

	Period 2005 - 2007	Period 2008 - 2012
<b>Greenhouse Gases</b>	<b>974</b>	<b>962</b>
<b>CO<sub>2</sub> - Total</b>	<b>859</b>	<b>846</b>
<b>CO<sub>2</sub> – E+I</b>	<b>503</b>	<b>495</b>
<b>CO<sub>2</sub> – Tertiary+HH+T</b>	<b>356</b>	<b>351</b>
<b>CO<sub>2</sub> - Emissions Trading</b>	<b>499</b>	<b>491</b>
	<b>495</b>	<b>---</b>

## Compliance Factors

- Compliance factor 2005 – 2007: **0,9709**
- Emission reduction of **2.91 %** for incumbents compared to baseline period 2000 – 2002
- Compliance factor = 1 for
  - process-related emissions (CO<sub>2</sub>-emissions resulting from a chemical reaction and not from a combustion process)
  - installation with “early action” (mainly used for installations in the eastern part of Germany)
  - new comers
- Second compliance factor of **4,6 %** for incumbents as result of the application process

## Results of the Allocation

<b>Sektor</b>	<b>Number of Installations</b>		<b>Volume of allowance Trading Period 2005 – 2007</b>	
<b>Energy supply</b>	<b>1.236</b>	<b>66,8 %</b>	<b>1.171</b>	<b>78,9 %</b>
<b>Industry</b>	<b>613</b>	<b>33,2 %</b>	<b>314</b>	<b>21,1 %</b>
<b>total</b>	<b>1.849</b>	<b>100 %</b>	<b>1.485</b>	<b>100 %</b>

## Results of Allocation

<b>Activity</b>	<b>Average Allocation / Installation</b>	<b>Highest Allocation / Installation</b>	<b>Lowest Allocation / Installation</b>
<b>Energy</b>	<b>947.196</b>	<b>86.001.132</b>	<b>12</b>
<b>Steel</b>	<b>2.591.343</b>	<b>21.199.014</b>	<b>723</b>
<b>Refineries</b>	<b>1.981.696</b>	<b>10.913.541</b>	<b>8.070</b>
<b>Cement</b>	<b>1.483.454</b>	<b>4.450.791</b>	<b>107.661</b>
<b>Lime</b>	<b>414.148</b>	<b>6.765.480</b>	<b>12.165</b>
<b>Paper &amp; pulp</b>	<b>122.632</b>	<b>1.178.316</b>	<b>312</b>
<b>Glass</b>	<b>156.268</b>	<b>834.162</b>	<b>6.873</b>
<b>Ceramics</b>	<b>36.669</b>	<b>269.028</b>	<b>840</b>
<b>Zellstoff</b>	<b>1.086.962</b>	<b>2.317.182</b>	<b>42.193</b>
<b>total</b>	<b>803.137</b>	<b>86.001.132</b>	<b>12</b>

**Structure of the Legal Implementation**  
**(TEHG, ZuG 2007, ProMechG)**

# Legal Structure of Implementation in place

- **TEHG – Act on Greenhouse Gas Emissions Trading entered into force on 14. Juli 2004**
- **ZuG2007 – Act on Allocation for the first trading period 2005 - 2007 entered into force on 31. August 2004**
- **ZuV2007 – Ordinance on Allocation for the first trading period 2005 - 2007 entered into force on 1. September 2004**
- **KostV – Kostenverordnung entered into force on 1. September 2004**
- **Act on the implementation of the „linking directive“ („ProMechG“ - Linkage between the EU – ETS and the Kyoto-Mechanisms „Joint Implementation“ and „Clean Development Mechanism“) – Cabinet decision on 4. May 2005 – First Reading of the German Parliament (Deutscher Bundestag) on 13. May 2005**

## Under preparation – to be developed:

- **NAP II und ZuG2012 under preparation**
- **Act on Inventories, Reporting and Monitoring – KSBG – under preparation**

## Compatability With Other Instruments

- Continuation of German industry's voluntary commitment declaration in emissions trading. Basis for the first allocation derived from the 45 million t CO<sub>2</sub> reduction by 2010 (base year 1998) offered by industry itself in its Climate Protection Agreement.
- Emissions trading and ecological tax reform – differentiation between stakeholders and non-stakeholders
- Emissions trading and the Renewable Energy Sources Act
- Emissions trading and the Combined Heat and Power Act and the Voluntary Agreement on CHP
- Emissions trading and IPPC – extent of regulatory requirements for greenhouse gas emissions and energy efficiency

**Emissions trading saves €250 – €550 million per year compared with alternative instruments\***

\* DIW, ECOFYS, Öko-Institut für WWF, September 2003

# **Market Trends and Abatement** **Costs**

## Emerging markets

- **Price for allowances** ~ 16,00 €/t CO<sub>2</sub>
- **OTC – trade (8. april 2005)** 650.000 t CO<sub>2</sub>
- **Daily OTC-Trade (average)** 500.000 – 800.000 t CO<sub>2</sub>
- **Spot market (eex, Leipzig) very limited**

## Abatement Costs in the German Industry and Electricity Sector in 2010

(Source: DIW, ECOFYS, ÖKO-Institut, Study for WWF, September 2003)

Costs (€/t CO <sub>2</sub> reduction)	Potential reduction in million t CO <sub>2</sub>
< - 10	23
- 10 to 0	16
0 to + 10	16
+ 10 to + 20	15
+ 20 to + 50	19
> + 50	5

# **Liquidity of Markets?**

## Potential Buyers – Potential Sellers

EU Member State	GHG Emissions base year	GHG Emissions 2002	Target (burden sharing) in %	Target (burden sharing)	Distance to Target
Belgien	141,2	150,0	- 7,5 %	132,4	- 17,6
Dänemark	69,5	68,5	- 21 %	54,9	- 13,6
Deutschland	1216,2	1016,0	- 21 %	960,8	- 55,2
Finnland	77,2	82,9	+/- 0 %	77,2	- 5,7
Frankreich	746,0	634,8	+/- 0 %	652,8	- 16,0
Griechenland	107,0	135,4	+ 25 %	133,8	- 1,6
Irland	53,4	68,9	+ 13 %	60,4	- 8,5
Italien	508,0	553,8	- 6,5 %	476,2	- 77,6
Luxemburg	12,7	10,8	- 28 %	9,1	- 1,7
Österreich	78,0	84,6	- 13 %	67,9	- 16,7
Portugal	57,9	81,6	+ 27 %	74,1	- 7,5
Schweden	72,3	69,6	+ 4 %	75,2	+ 5,6
Spanien	286,8	399,7	+ 15 %	329,8	- 69,9
United Kingdom	746,0	634,8	- 12,5 %	652,8	+ 16,0
Niederlande	212,5	213,8	- 6 %	199,7	-14,1

## Potential Seller – Potential Buyers

Accession Country	GHG – base year emissions in Mill. t	Base year	Kyoto targets	GHG-emissions in mill. t in 2001	Distance to target: Kyoto target versus GHG-emissions 2001
[Bulgarien	157,7	1988	145,1	77,7	+ 67,4]
Tschechische Republik	192,1	1990	176,7	148,0	+ 28,7
Estland	43,5	1990	40,0	29,4	+ 10,6
Ungarn	102,6	average 1985 - 1987	96,4	84,3	+ 12,1
Lettland	29,0	1990	26,7	11,4	+ 15,3
Litauen	51,5	1990	26,7	11,4	+ 15,3
Polen	565,3	1988	531,4	382,8	+ 148,6
[Rumänien	264,8	1989	243,6	148,3	+ 95,3]
Slowakei	72,2	1990	66,4	50,1	+ 16,3
Slowenien	19,9	1986	18,3	20,2	- 1,9

## Reduction Factors of NAP's

Member state	Relation Base period/first trading period
Danmark	1,08
Germany	0,996
Ireland	1,067
Netherlands	1,065
Austria	1,083
Slowenia	0,97
Sweden	1,13
United Kingdom	0,998
Belgium	0,998
Estonia	1,58
Finland	1,26
Frankreich	1,12 / 1,107

## Reduction Factors of NAP's

<b>Member state</b>	<b>Relation Base period/first trading period</b>
<b>Latvia</b>	<b>1,24</b>
<b>Luxembourg</b>	<b>1,16</b>
<b>Portugal</b>	<b>1,04</b>
<b>Slovakia</b>	<b>1,15</b>
<b>Italy</b>	<b>1,075</b>
<b>Litauen</b>	<b>1,58</b>
<b>Spain</b>	<b>1,05</b>
<b>Poland</b>	<b>1,30</b>

# JI AND CDM

# Government's Position

- **Priority given to 'domestic action'**
- **Use of 'Kyoto mechanisms' supplementary**
- **Intensive involvement in the 'AIJ pilot phase'**
- **Great interest among German industries in the use of JI and CDM – but: no general acceptance of requirements beyond the Marrakesh Accords – Rejection of 'Golden Standards'**
- **German Government interested in demanding projects, particularly for 'improved energy efficiency' and 'use of renewable energy,'**
- **Government's participation:**
  - **KfW Fund ( Volume 50 Mio. €)**
  - **BASREC Fund**

# **The Act on the implementation of the Linking Directive (ProMechG)**

- **Decision by the German Federal Cabinet: 4. May 2005**
- **First Reading by the German Parliament (Deutscher Bundestag): 13. May 2005**

## **Intention:**

- **Implementation of the „Linking Directive“**
- **Implementation of COP – decisions (especially the „Marrakesh Accords“) and the „Kyoto Protocol“**

# Content of ProMechG

- **CDM**
  - Germany as investor - country
- **JI**
  - Germany as investor - country
  - Germany as host – country
- Requirements on reporting, monitoring, verification and certification
- Requirements on the accreditation of verifiers
- ERU's and CER's can directly be used to comply with the requirements under the EU ETS (ZuG 2007 and ZuV 2007)
- Establishment of an new Working Party in the framework of the IMA „CO<sub>2</sub>-Reduction“ (IMA „CO<sub>2</sub>-Reduktion“ AK VII „JI and CDM“) chaired by the BMU – Members of the Working Party: BMWA, BMF, BMZ, AA, BMVEL, BMVBW – first meeting 10. May 2005
- Responsibilities
  - Political decisions and Concept: Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU, Berlin) – JIKO
  - Administrative Management: German Emissions Trading Authority (DEHST, Berlin)
  - No responsibilities of the States (Bundesländer)

## **Tools prepared by the BMU**

- **Check list**
- **Handbook „Guidance to the PDD“**
- **Data Base on „Good practise of JI - and CDM – Projects“**
- **Bilateral and/or multilateral agreements (MoU's)**

## MoU's under negotiation

- CDM

**Brasilien, Chile, VR China, Cuba, Ecuador, Ghana, Indien, Israel, Kolumbien, Marokko, Mexiko, Moldawien, Panama, Thailand, Vietnam,**

- JJ

**Bulgarien, Lettland, Neuseeland, Niederlande, Polen, Rumänien, Russland, Slowakei, Tschechien, Ukraine, Ungarn**

## The role of ERU's and CER's in different MS NAP's

MS	Purchase of ERU's and CER's	Relation ERU's and CER's to „burden sharing“ target	Relation ERU's and CER's to the actual gap (distance to burden sharing target)
Niederlande	17 – 20	133 – 156 %	121 – 142 %
Spanien	20	-	29 %
Österreich	7	69 %	42 %
Island	3,7	-	43 %
Dänemark	3,7	26 %	26 %
Portugal	3,7	-	46 %
Luxemburg	3	86 %	176 %
Belgien	2,5	23 %	18 %
Italien	32,5 - 60	98 – 182 %	41 – 76 %
insgesamt	99,1 – 126,6		

## **Current Information**

**Information on current developments, documents for download, findings of the Working Group Emissions Trading As A Means To Combating Climate Change (AGE):**

**[http: www.bmu.de](http://www.bmu.de)**

**[http: www.umweltbundesamt.de/emissionshandel](http://www.umweltbundesamt.de/emissionshandel)**

**Thank's for listening!!**