EU Emissions Trading – Current Status of its Implementation in Germany and Europe

by

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The current situation

Germany's climate protection target: 21 % reduction in greenhouse gas emissions in the period 2008 – 2012 versus 1990

Status as at end of 2006: minus 18 %

The problem: In 2006 the greenhouse gas balance increased again by 0.7 % against 2005

Principal cause: Lack of voluntary commitment by German industry on climate prevention (CHP agreement of 2001/2004 – instead of promised 20 million tonne reduction in CO_2 by 2005, significant increase in CO_2 emissions by the energy industry by 30 million t)

Consequence: "We cannot carry on like this!"

Targets

EU Council, 9 March 2007:

- **Binding: 20 % reduction in GHGs by 2020 versus 1990**
- **Conditional: 30 % reduction in GHGs by 2020 versus 1990, provided other industrialised countries are willing to make comparable reductions**
- **For Germany, a 30 % reduction in GHGs by 2020 translates into minus 40 %**
- **Compared with the present day, this requires a reduction in GHGs of 270 million t/a compared with the emissions volume in 2006!**

The new climate protection programme

2005 update to the 2000 climate protection programme under the patronage of the Greens was completely ineffective

"Climate protection acceleration act" planned

Under preparation

Comprehensive treatment of all sectors with a focus on

- **Private households**
- **Transport**
- **Trade/commerce/services**
- **Industry and energy sector, where not subject to emissions trading**
- **Waste management, sewage purification, sinks**

Outlook to 2020 and 2050

Cabinet to address in autumn 2007

The planned raft of measures

leasure	Reduction contrib. in million t/a CO_{2equ}
1 % reduction in electricity consumption	40
pgrade of the power plant portfolio	30
ncrease the proportion of electricity generated from enewables	55
oubling in the share of electricity generated from HP plants to 23 %	20
eduction in energy consumption via building enovation, efficient household technology and roduction processes	41
lse of renewable energies to generate heat - ncrease to 14 %	14
ncrease in transport efficiency and increase in the se of biofuels to 17 %	30

On the significance of emissions trading

- **Emissions trading is the cornerstone of Germany's climate protection programme, covering around 60 % of Germany's CO_2 emissions**
- **Massive cut in the emissions budget in the second trading period 2008 – 2012**
- **Ambitious post-2012 climate protection targets necessitate a further drastic cut in the emissions trading budget**
- **Post-2012 allocation methods: Benchmarking and/or auctioning**
- **Auctioning in the second trading period: Subject of parliamentary debate**

What happened in 2005 and 2006?
What conclusions may be drawn?

Annual CO_2 emissions from the ET sector in million t (2006 provisional)

	2000	2001	2002	2003	2004	2005	2006
T total	471.8	473.4	478.3	488.4	487.4	473.7	477.3
nergy	369.3	375.5	384.3	392.5	388.8	378.6	380.5
dustry	102.6	98.0	94.1	95.9	98.6	95.1	96.8

Allocation results for Germany, 2005 + 2006

21 million t (2005) + 18 m t (2006) Difference between allocation and actual emissions ⟶ Over-allocation

Difference (2005)

- **in the energy sector "only" 2.4 % of allocated certificates**
- **in industry 10.6 % of allocated certificates**

2005: "Genuine" reductions (measures induced) proven

2005: Massive over-allocation (inaccurate, i.e. excessively high production figures – e.g. option rule, new entrant rule, plants with registered emissions)

Particularly those sectors of the industry which are again demanding special regulations (iron & steel, lime, cement, glass) had a huge surplus in 2005 and 2006 !

2005: Over 10 million t retained ex post

2005: Spread for individual plants ranges from more than 20 % surplus to more than 20 % deficit

2005 + 2006: Claims that "emissions trading" is a “brake on growth" and a "job killer" are untrue – even with a good economy, German industry is over-supplied and earning from emissions

The framework for NAP II and ZuG 2012

Experiences with NAP I

The various allocation regulations are extremely complex, and the effort involved in submitting an application and in monitoring is comparatively large.

The allocation result was impossible to predict *ex ante*, either for individual plant operators or for the German Government.

A number of allocation rules are rather counter-productive in terms of incentification (*ex post* amendments, process-differentiated benchmarks for new plant).

A number of allocation regulations (*ex post* amendments) were contested by the Commission . A ruling has yet to be reached in the European Court hearing .

Several allocation regulations were contested for distorting competition (e.g. transfer ruling) ahead of the first trading period

The allocation guarantees given for long periods (transfer regulation, new installation ruling, early action without evidence) are rejected by Brussels.

Rejection of…

- **Government intervention in the emissions trading market … Price caps for emissions certificates – French proposal for a so-called "safety valve"**
- **Intervention into the electricity market … Price caps for electricity**
- **Incompatible requirement-based allocation or *ex post* corrections, both downwards and upwards**
- **Over-allocation**
- **Choices (reliability and controllability at risk) and uncontrollale interpretation scope**

ecisions by the German Bundestag (Lower House of Parliament)

Amendments to the Government draft

- **Auctioning of 40 million certificates per annum – burden on electricity-generating new installations and incumbents**
- **Increase in the quota for CDM/JI from 20 % to 22 %**
- **Top-up for the specific hardship ruling from 1 million t/a to 1.6 m t/a**
- **Increase in the standard capacity utilisation factor for new plants in the glass industry from 8,000 h/a to 8,500 h/a**
- **Increase in the standard capacity utilisation factor for new CHP plants for the production of bioethanol from 7,500 h/a to 8,000 h/a**
- **Inclusion of the pulp industry in the CHP plant category: 8,000 h/a**
- **Clarification of the treatment of mixed-fuel furnaces among incumbents**

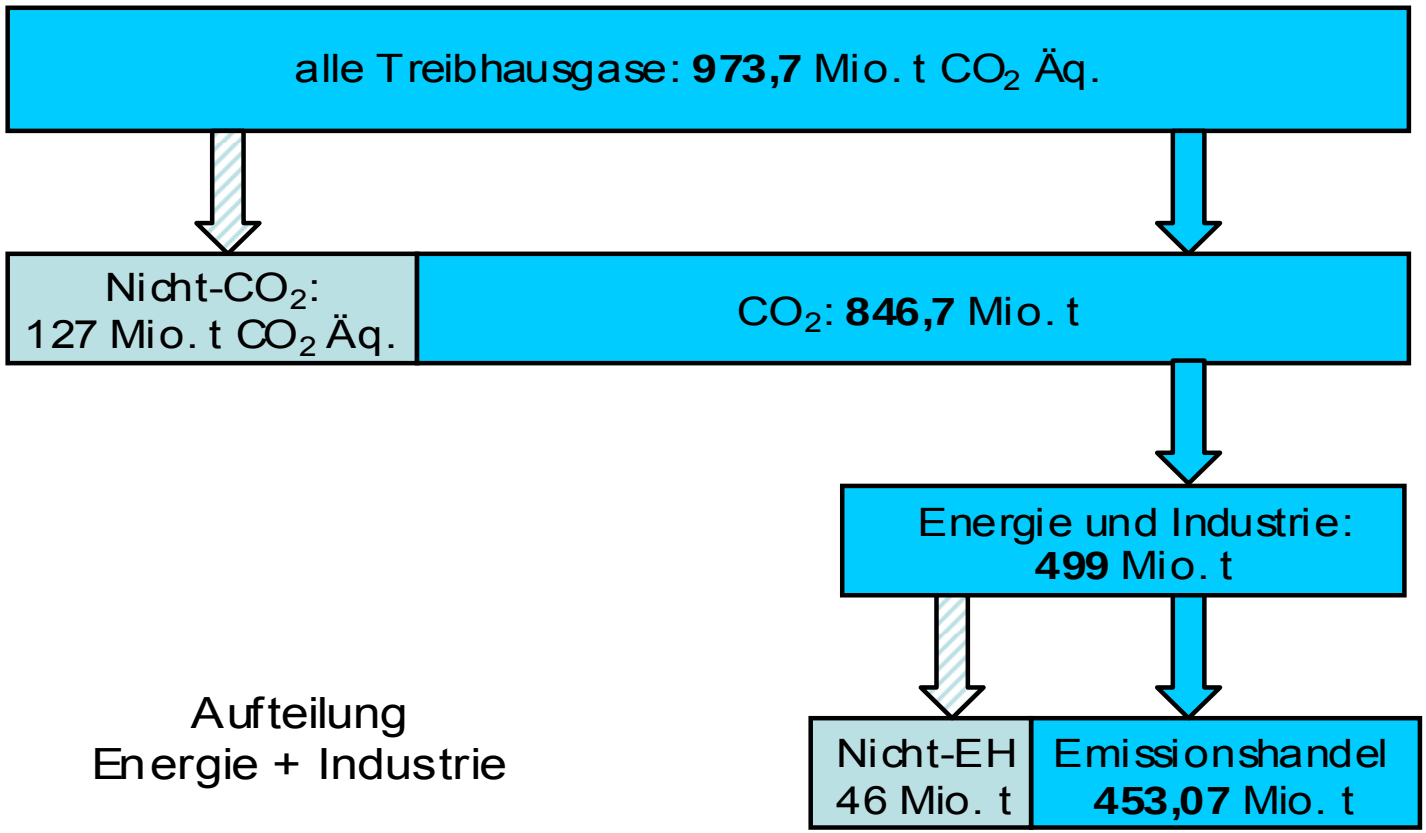
Amendments to the Government draft

- **Agreement of the German Bundestag (Lower House of Parliament) to the Auctioning Ordinance, which is due to enter into force by 2010 at the latest**
- **Dispense with the withdrawal from publication of authorised experts in case of the misuse of verification and certification (DHIK - internal solution)**
- **Reduction in the annual emissions budget from 453.1 million t to 453.07 million t**

The new caps

Derivation of the "cap"

Emissionsbudget 2008-2012



NAP II – Macroplan "cap"

	Cap 2005-2007	Cap 2008-2012
Total cap	495 million t/a	453.1 million t/a
Reserve	3 million t/a	25 million t/a
Budget for incumbents	495 million t/a	453 million t/a -25 or 23 million t/a reserve -11 million t/a additional installations = 417 or 419 million t/a. - 40 million t/a auction

New structures in NAP II

- **Benchmarks for power plants (incumbents and new installations)**
- **Consistent benchmarking system for CHP plants**
- **Concessions for small emitters**
- **Use of CDM and JI emissions credits (external opening of the system)**
- **Greater transparency – Significantly reduced complexity**
- **No time guarantees**

Dispense with special provisions in NAP II

- **Transfer rule**
- **Nuclear power plant substitution**
- **Malus rule**
- **Option rule**
- **"Early action rule" with evidence - will expire as planned**
- **Ex post corrections**
- **Explicit rule on process-related emissions**

NAP II and ZUG 2012 are now substantially more transparent and calculable – Allocation rules are based on objective yardsticks

Wishful thinking and reality – Demands in the parliamentary process and their implementation

Summary: Only a few amendment applications were successful!

Amendment applications and their fate

	Proposal	Decision
	Auctioning of 10 % of the allocation volume – Exemptions requested for new installations, CHP plant, industrial power industry, early action installations	Sale of 40 million t/a – Burden on both newcomers and incumbents – large group of bidders
	Expansion of the interface with capacity extensions	Rejected
	Definition of "trial operation"	Accepted
	Expansion of the specific hardship rule	Accepted (from 1 million t/a to 1.6 m t/a)
	Dispense with benchmark allocation for industrial process heat	Rejected – Impossible to administer – New option rul
	Softening of the interface for plant modernisation	Rejected

Amendment applications and their fate

	Proposal	Decision
	Clarification of "production takeover"	Accepted
	Clarification of "JI/CDM"	Accepted
	Increase in the budget for JI/CDM	Increased from 20 % to 22 %
0	Introduction of a lignite benchmark	Rejected
1	Clarification for mixed-fuel furnaces – Incumbents as before	Accepted
2	Special benchmark for special glass	Rejected

Amendment applications and their fate

	Proposal	Decision
13	Clarification in Appendix 3	Accepted
14	Clarification in Appendix 4 (pulp industry)	Accepted
15	Higher standard capacity utilisation factor for the glass industry	Rejected
16	Clarification in Appendix 4	Accepted
17	Shift in the interface between industrial and power plants	Rejected – Incompatible with the system
18	Monitoring under the Greenhouse Gas Emissions Trading Act (TEHG)	Withdrawn

Amendment applications and their fate

	Proposal	Decision
9	TEHG authorised experts – Revocation by German Emissions Trading Authority (DEHSt) for authorised experts as defined in § 36 of the Trade and Industry Code (GewO)	Rule deleted
0	Compulsory input/output balance sheet in the petroleum industry	Rejected – unnecessary, because there is a choice
1	Federal enforcement	Rejected
2	Reintroduction of the Malus rule (in addition to pro-rata reductions)	Rejected
3	Increase in the decommissioning limit from 20 % to 30 %	Increase from 20 % to 25 %
4	Deletion of the starting point for the pro-rata reduction of 990 g/kWh for	Rejected

Amendment applications and their fate

	Proposal	Decision
25	No generation of certificates for plants subsidised under the Renewable Energy Sources Act (EEG)	Postponed until the amendment to the Project Mechanisms Act (ProMechG)
26	Increase in the standard capacity utilisation factors for glass, propylene and ethylene production	Accepted
27	Top-up of the reserve	Rejected

Allocation budgets (provisional estimate)

- **Industrial plant** — **125 million t/a**
- **Energy sector** — **280 - 290 million t/a**
- **Small emitters** — **10 million t/a**
- **Reserve** — **25 million t/a**
- **Hardship clause for small and medium sized enterprises** — **1 million t/a**

- **11 million t/a for additional installations already included in categories 1 and 2**

Allocation details

- Industrial plant including additional installations: 98.75 % of average emissions over the reference period 2000 – 2005
- Energy sector: Benchmarking with compliance factor – for CHP: Double benchmark
- Small emitters: Compliance factor 1
- Early action installations with evidence: Compliance factor 1
- New entrants: Based on differentiated bat benchmark (e.g. electricity generation: 2-benchmark system: Coal 750 g CO_2/kWh – Gas: 365 g CO_2/kWh)
- Standard capacity utilisation factor For all new power plants (e.g. condensation machines hard coal/gas: 7,500 h/a – Lignite 8,250 h/a
- "Newer installations" are plants which began operation between 2003 and 2007 – they are subject to the allocation rules for new installations with application of the "sliding pro-rata reduction"
- Introduction of the "sliding pro-rata reduction" whereby inefficient installations are penalised more than efficient installations
- Average historical capacity utilisation for existing installations
- No time guarantees – Rules only apply up to the end of the second trading period

Key points for power plants

- 2-benchmark concept: 750 g/kWh coal and 365 g/kWh gas
- New lignite power plants receive 8,250 h/a as the standard capaci utilisation factor – New hard coal and gas power plants receive 7,500 h/a as the standard capacity utilisation factor
- For new installations (commissioned on or after 1 January 2008) the pro-rata reduction will be waived
- "Newer installations" are plants which commenced operation between 2003 and 2007 – they are subject to the allocation rules f new installations with application of the "sliding pro-rata reductio
- The pro-rata reduction for power plants is differentiated accordin to the efficiency factor of the installation. Start of the curve for lignite at 41 % net efficiency or 990 g/kWh)
- CCS installations – where they are connected to the grid during t second trading period – will receive an appropriate allocation.
- Early action installations with documentation will continue to receive privileges
- Heat benchmark for coal is 345 g/kWh – for gas 225 g/kWh
- Start of curve for "sliding pro-rata reduction" for coal-fired heat - generating plants + CHP at 400 g/kWh

Auctioning in Germany

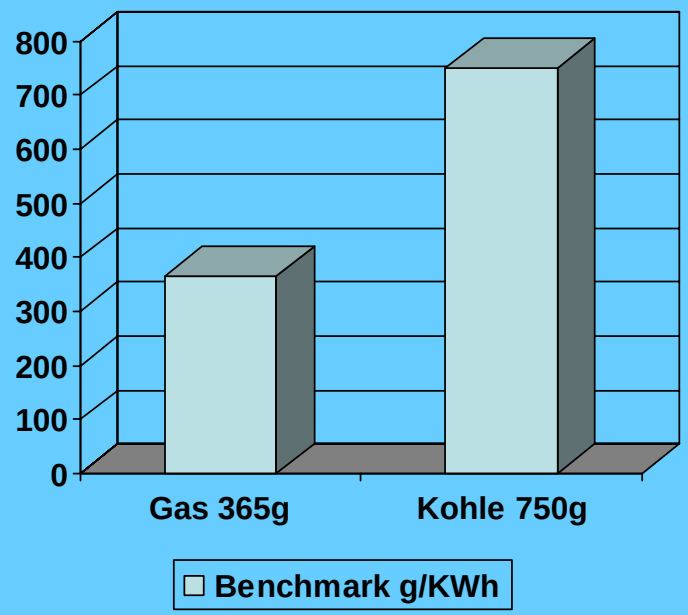
- 40 certificates per annum are sold or auctioned (8.8 % of the allocation volume)
- No price setting – The market determines the price
- Without exception, the volume for the auction originates from all electricity-generating plants (new and old)
- Auction leads to an (additional) reduction in the free allocation for electricity-generating plants of 17 %
- The bidder group is not limited
- Start with selling – switch to auctioning by 2010 at the latest
- Technical implementation of the auction within the context of an ordinance (Auctioning Ordinance, VerstVO)

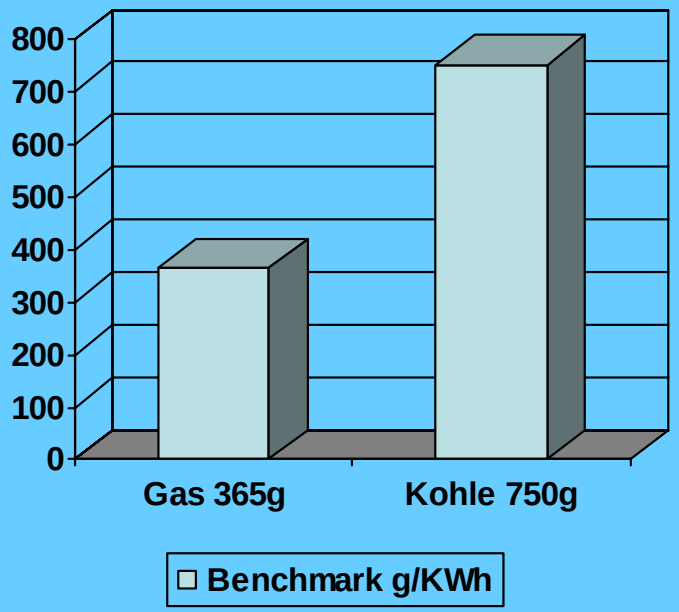
The allocation procedure

Benchmarks for condensation power plants

Incumbents
less "sliding pro-rata reduction„ less auction quota
(17 % reduction in allocation)

New entrants
17 % reduction in allocation due to auctioning





Central allocation cases

Power plants

- New installations
  - Standard capacity utilisation factors (lignite 8,250 h/a; hard coal/gas 7,500 h/a)
  - Benchmarks: Coal 750 g/kWh – gas 365 g/kWh
- Old installations
  - Historical capacity utilisation (average 2000 – 2005)
  - Benchmarks: Coal 750 g/kWh – gas 365 g/kWh
  - Application of the "sliding pro-rata reduction"

Cogeneration

- New installations
  - Double benchmarks (Electricity: coal 750 g/kWh – gas 365 g/kW – Heat: coal 345 g/kWh – gas 225 g/kWh
  - Standard capacity utilisation factors 7,500 h/a and 8,000 h/a)
- Old installations
  - Double benchmarks (Electricity: coal 750 g/kWh – gas 365 g/kW – Heat: coal 345 g/kWh – gas 225 g/kWh
  - Historical capacity utilisation (average 2000 – 2005)

Central allocation cases

Heat generation plants

- **New installations (commenced operation on or after 1 January 2008)**
  - **Benchmarks (coal 345 g/kWh – gas 225 g/kWh)**
  - **Standard capacity utilisation factors for process heat 8,000 h/a for public heating plants 2,500 h/a – for other process heat installations 7,500 h/a**
- **"Newer installations" (commissioned between 2003 and 2007)**
  - **Benchmarks (coal 345 g/kWh – gas 225 g/kWh)**
  - **Standard capacity utilisation factors for process heat 8,000 h/a for public heating plants 2,500 h/a – for other process heat installations 7,500 h/a**
  - **Application of the "sliding pro-rata reduction"**
- **Old installations**
  - **Benchmarks (coal 345 g/kWh – gas 225 g/kWh)**
  - **Historical capacity utilisation (average 2000 – 2005)**
  - **Application of the "sliding pro-rata reduction"**

Central allocation cases

Creation of compressor stations

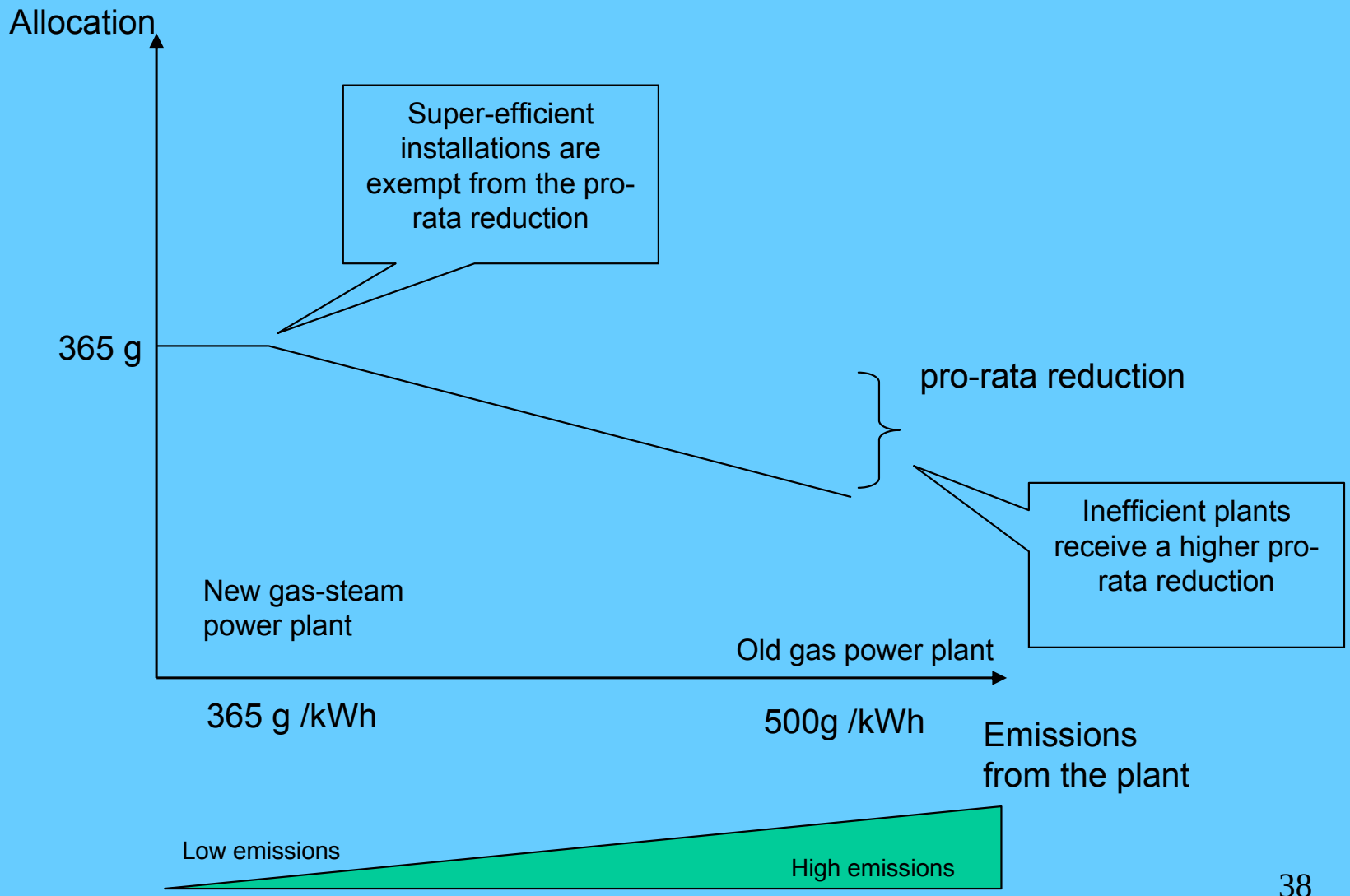
- **New installations**
  - **Benchmark 530 g/kWh**
  - **Standard capacity utilisation factors for transport compressors 4,200 h/a – for storage compressors 3,100 h/a)**
- **Old installations**
  - **Benchmark 530 g/kWh**
  - **Historical capacity utilisation (average 2000 – 2005)**
  - **Application of the "sliding pro-rata reduction"**

Allocation to CHP power plants

- **Consistent benchmark system (incumbents and new installations)**
- **Benchmarks for electricity (365 g/kWh and 750 g/kWh) and heat (225 g/kWh and 345 g/kWh)**
- **Application of the "sliding pro-rata reduction" – Start of the curve for heat at 225 g/kWh for gas and 400 g/kWh for coal**
- **Capacity utilisation: Average historical capacity utilisation 2000 – 2005 for incumbents**
- **Capacity utilisation: Standard capacity utilisation factors for new installations – 7,500 h/a (public supply) and 8,000 h/a (industrial power industry)**
- **Auctioning for the electricity portion**

The "sliding pro-rata reduction"

Example of the "sliding pro-rata reduction – Application to incumbents



Starting points for the pro-rata reduction curve

	Starting point of the curve
Power plants	
Lignite	**990 g/kWh**
Hard coal	**750 g/kWh**
Gas	**365 g/kWh**
CHP	
Electricity	
Lignite	**990 g/kWh**
Hard coal	**750 g/kWh**
Gas	**365 g/kWh**
Heat	
Gas	**225 g/kWh**
Coal	**400 g/kWh**

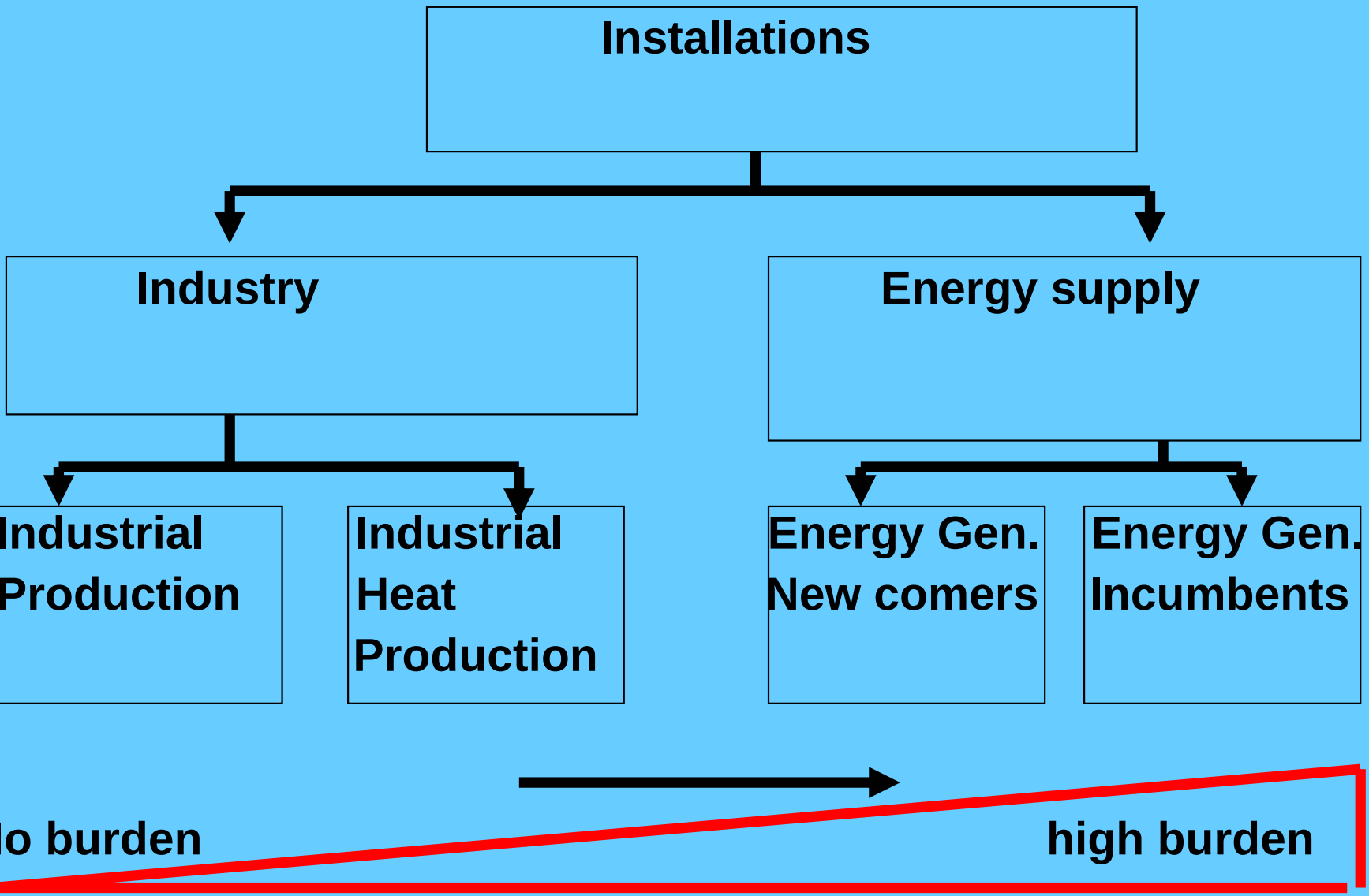
Starting points of the curve

	Starting point of the curve
Heat generation (heating plants)	
Gas	**225 g/kWh**
Coal	**400 g/kWh**
Creation of compressor stations	**530 g/kWh**

Determination of the precise "pro-rata reduction"

- **Precise determination of the pro-rata reduction is only possible at the end of the allocation procedure**
- **The applicable volume is derived from the difference between the certificate volume applied for and the cap of 453.1 million t**
- **In this way, the incline of the curve can only be calculated after the allocation procedure is completed (depending on the starting point and the volume to be reduced)**

Allocation of different activities



Brussels

Outcome of the COM review of NAPs

mber State	Cap NAP I in million t/a	Cap NAP II in million t/a	COM decision in million t/a	VET 2005 in million t	Minimum COM requirement (%)
gium	62	63	59	55	- 7 %
rmany	499	482	453	474	- 6 %
nce	157	161 revised to 132.8	not yet adopted		
ece	74	71	69	76	- 3 %
and		41	31		- 25 %
via		7.76	3.28	2.8	- 58 %
huania		17	9	7	- 47 %
xembourg		4	3		- 32 %
ta		3	2	1.97	- 29 %
herlands	103	90	85.8	88	- 5%
eden	23	27	23	19	- 16%
vakia		41	31		- 25%
	275	246	246	272	+/- 0%

Potential buyers – Potential sellers I

Source: EUA, 2005

EU member state	GHG emissions, base year	GHG emissions, 2005	"Burden sharing"	Target 2008 - 2012	Target deviation in million t	Target deviation in %
Belgium	146.9	150.2	- 7,5 %	135.9	- 14.3	- 9.5
Denmark	69.0	63.7	- 21 %	54.5	- 9.2	- 14.4
Germany	1230.3	993.6	- 21 %	972.0	- 21.6	- 2.2
Finland	71.2	69.8	+/- 0 %	71.2	+ 1.4	+ 1.9
France	570.8	562.8	+/- 0 %	570.8	+ 8.1	+ 1.4
Greece	108.8	136.5	+ 25 %	136.0	- 0.5	- 0.3
Ireland	55.6	69.9	+ 13 %	62.8	- 7.1	- 10.2
Italy	519.8	583.9	- 6.5 %	486.0	- 97.9	- 16.8
Luxembourg	12.7	14.2	- 28 %	9.2	- 5.0	- 35.4
Netherlands	213.0	219.8	- 6 %	200.2	- 19.6	- 8.9
Austria	79.0	94.1	- 13 %	68.7	- 25.4	- 27.0
Portugal	60.1	83.9	+ 27 %	76.4	- 7.5	- 9.0
Sweden	72.5	69.0	+ 4 %	75.4	+ 6.5	+ 9.4
Spain	287.2	441.6	+ 15 %	330.2	- 111.4	- 25.2
United Kingdom	764.5	657.6	- 12.5 %	668.9	+ 11.4	+ 1.7
Total	4,261.4	4,210.4	- 8	3,918.2	- 292.3	- 6.9

Potential buyers – Potential sellers II

Source: EUA, 2005

EU member state	GHG emissions, base year	GHG emissions, 2005	Kyoto target	Target 2008 - 2012	Target deviation in million t	Target deviation in %
Estonia	42.6	21.2	- 8.0	39.2	+ 18.0	+ 84.7
Latvia	25.9	10.8	- 8.0	23.8	+ 13.0	+ 119.9
Lithuania	50.9	20.8	- 8.0	46.9	+ 26.0	+ 124.8
Malta	2.2	3.2	-	-	-	-
Poland	459.8	387.0	- 6.0	432.2	+ 45.2	+ 11.7
Slovak Republic	73.4	52.4	- 8.0	67.5	+ 15.1	+ 28.7
Slovenia	20.2	20.1	- 8.0	18.6	- 1.4	- 7.2
Czech Republic	196.3	148.1	- 8.0	180.6	+ 32.5	+ 21.9
Hungary	122.3	84.8	- 6.0	114.9	+ 30.1	+ 35.5
Cyprus	6.0	9.0	-	-	-	-
Total accession countries	999.6	757.7		923.7	+ 178.4	+ 23.9
Total EU - 25	5,261.0	4968.0		4,841.9	- 113.9	- 2.3

Indications from the EU region

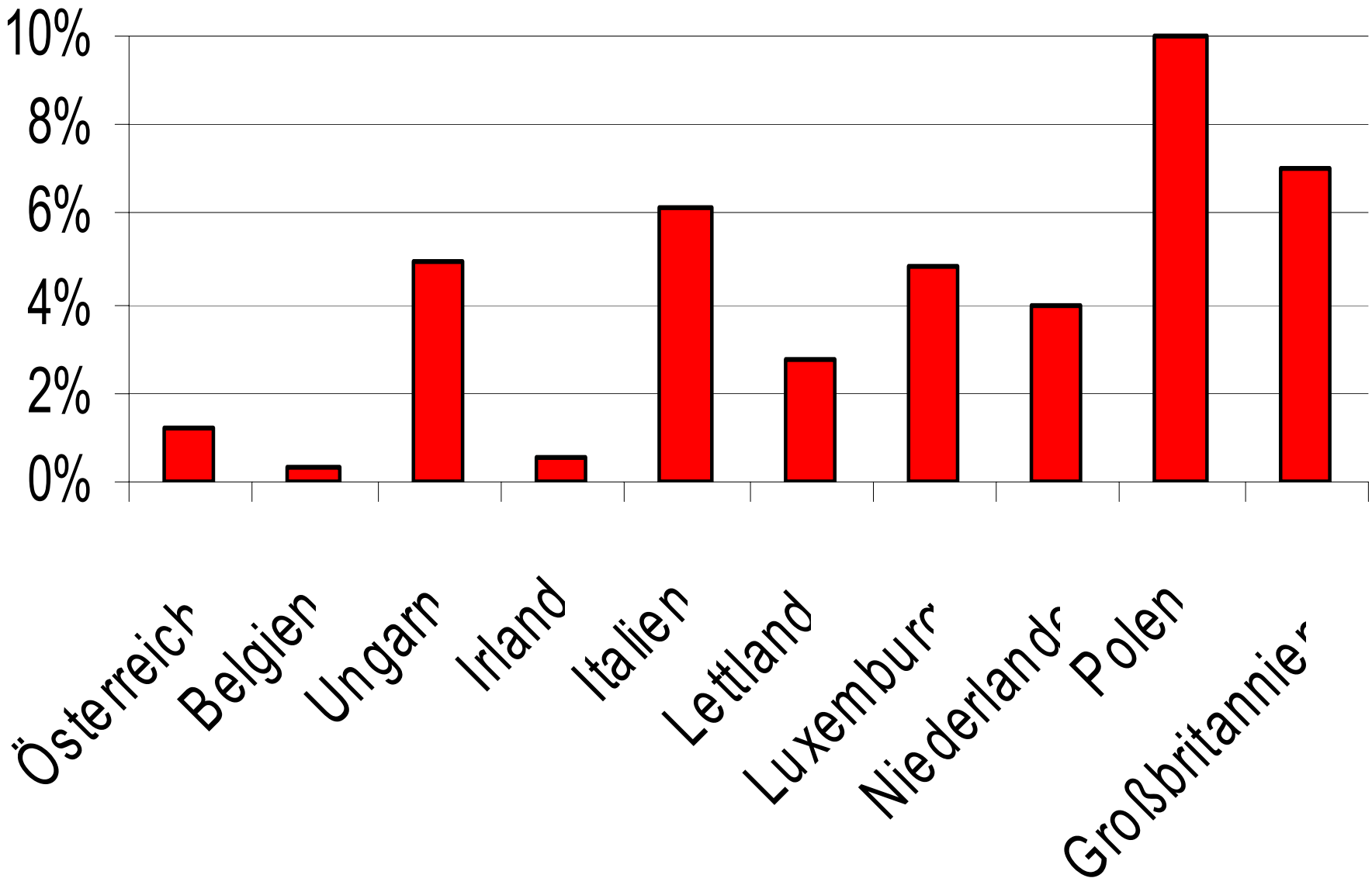
Sectoral differentiation between industry and energy sector is standard – Reasons: International competitive reference – Free emission certificates priced in by the electricity industry

Accelerated procedure remains the norm for allocation to new installations – Germany is the sole exception for guaranteed free allocation to new emitters – German allocation rules for new installations significantly better than in other Memer States

Various Member States provide auctions for varying levels of the allocation volume

Emission credits from JI/CDM are used by the vast majority of MS to achieve the cap

Auctioning in the NAP II of other EU Member States (EU volume status 16 June 2007: approx. 100 million t/a)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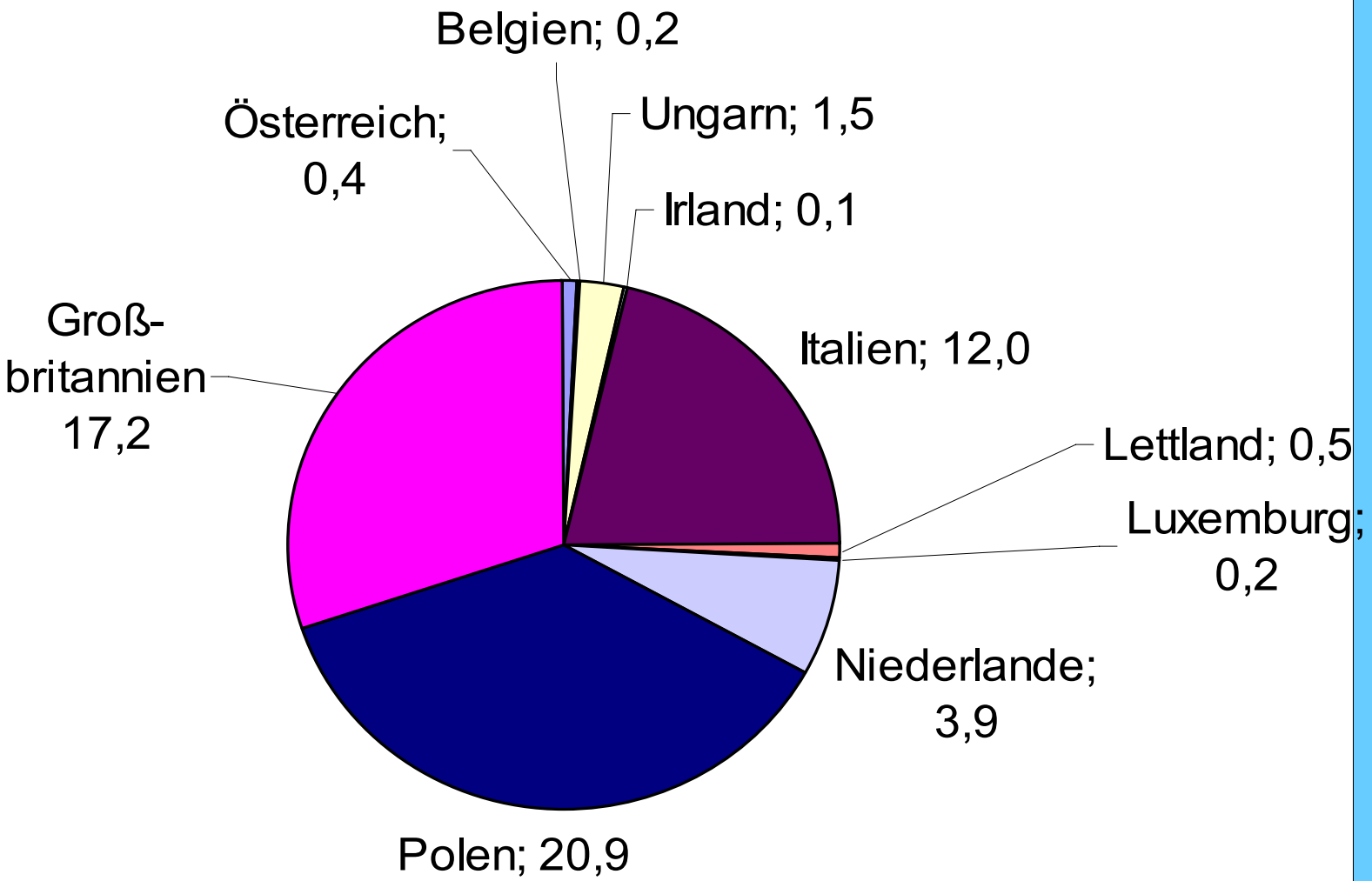

Belgien; 0,2
Österreich; 0,4
Ungarn; 1,5
Irland; 0,1
Groß-britannien 17,2
Italien; 12,0
Lettland; 0,5
Luxemburg; 0,2
Niederlande; 3,9
Polen; 20,9

Cost, potential and prices

Certificate prices (15 June 2007)

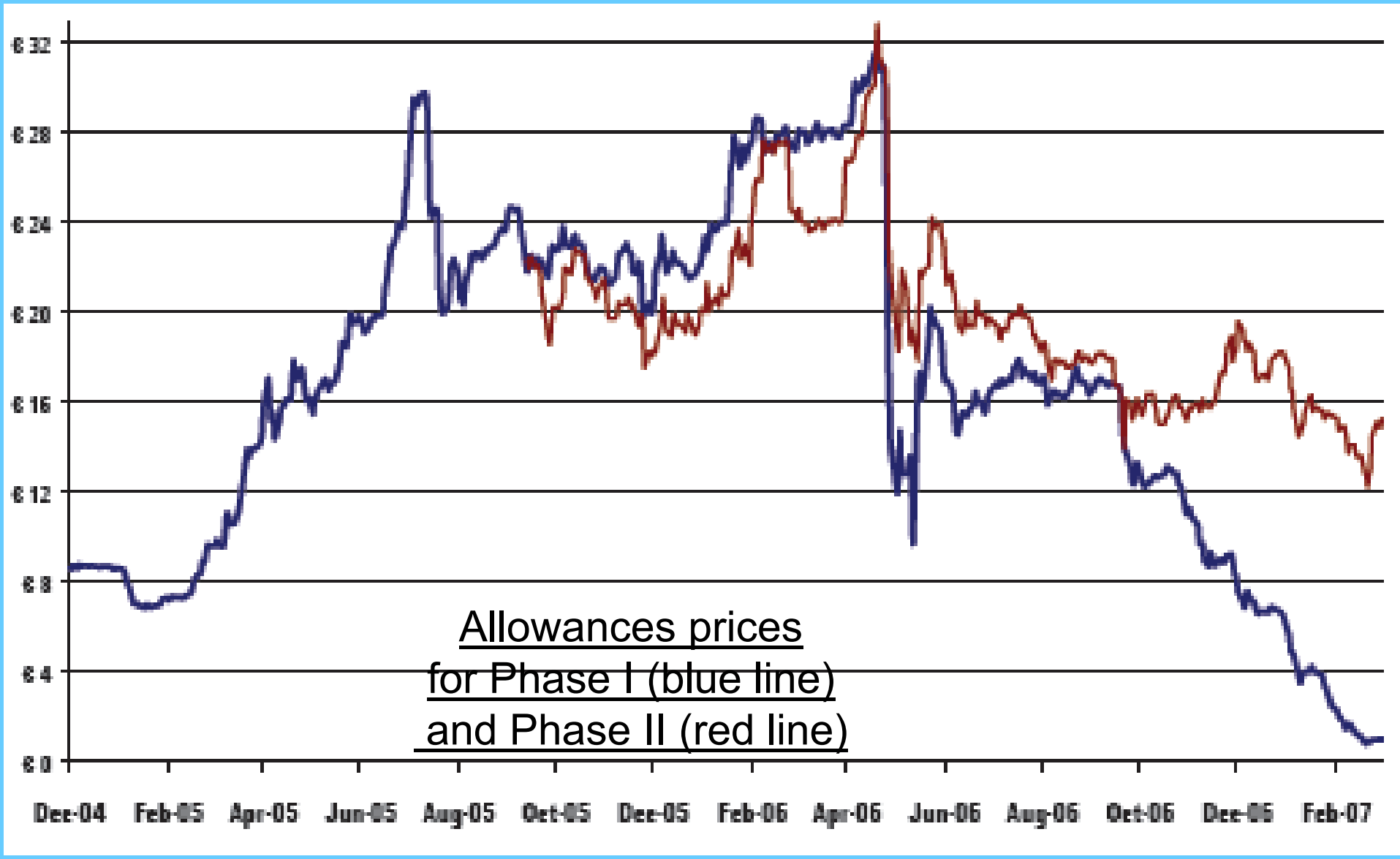
- **Initial trading period 2005 – 2007**

  Spot **0.13 €/t CO_2**
  Trend: falling
  Future **0.17 €/t CO_2**
  Trend: falling

- **Second trading period 2008 – 2012** **22.87 €/t CO_2**
  Trend: Steady

In recent months the spread has become huge.
Reasons: No "banking" at the 2007/2008 interface plus massive over-allocation

Development of the EU ETS: Prices



Source: Point Carbon

Germany also has considerable potential for inexpensive reductions! The Ecofys study

ost range (€/t CO_2 reduction)	Reduction potential in million CO_2/a
< - 10	23
- 10 to 0	16
0 - + 10	16
+10 - + 20	15
+ 20 - + 50	19
over 50	5

Opportunities for the reduction of CO_2 emissions in Germany ("co_2ncept study" by the Association of Enterprises in Lower Saxony, Hannover 2005)

No. of installations	Total emissions from included installations	CO_2 reduction
60	780,000 t	
41		225,000 t = 28 % technically feasible
29		210,000 t < 10 €/t CO_2

Brussels again
– review and aviation –

Review - Report

- **Procedure: Formation of a working party comprised of representatives of the social groups within the context of the European Climate Change Programme (ECCP) – Discussion in the Environmental Council during Germany's Presidency of the EU Council**

  - **15 members from the Commission**
  - **21 members from governments of the Member States**
  - **25 industry representatives**
  - **5 NGO representatives**
  - **4 representatives from academia**
  - **2 representatives of other institutions (EEA, EFTA)**

Meeting dates: 8/9 March 2007; 26/27 April 2007; 21/22 May 2007; 14/15 June 2007

Submission of a proposal to amend the Directive: Late 2007/early 2008

Review - Report

- Expansion to other greenhouse gases (CH_4 and N_2O)
- Expansion to other sectors (transport, private households)
- Harmonisation of plant delimitation
- Harmonisation of central allocation rules (new entrants, decommissioning, cap-setting)
- Change to the allocation method (benchmarking, auctioning)
- Interactions with other mechanisms
- Treatment of offset projects
- Clarification of the treatment of small emitters
- Extension of the trading period to ten or fifteen years
- Inclusion of governments and regions outside of the EU
- Strengthening of the EU Commission's position
- Treatment of CCS
- Monitoring, reporting, verification, register

Trends

- **Extension of the third trading period to eight years**
- **Benchmarking and auctioning to become the dominant and binding allocation methods**
- **Cap-setting will become more transparent and predictable**
- **Central allocation rules will be harmonised (creation of a "level playing field")**
- **Emissions trading will be extended beyond the EU**
- **Emissions trading will probably be extended to other sectors and greenhouse gases**
- **Project-related mechanisms will remain a component of emissions trading**

Inclusion of air traffic

- **Close links with the European emissions trading system**
- **Logging of all flights taking off and landing**
- **Clarification of the recording of greenhouse gas emissions (CO_2, H_2O, NO_x)**
- **Base year 2004/2005?**
- **Central allocation at European level?**

- **Procedure: Discussion in the European Council (Council of Environmental Ministers) - Discussions have already started**

Use of the project-related mechanisms "Joint Implementation" and "Clean Development Mechanism"

Creation of a national framework

Use of CERs and ERUs in emissions trading
2% = 90 million certificates p.a. = 450 million certificates in 2008/12

At an average reduction achievement of 50,000 t CO_2eq/a per project, this upper limit offers scope for 1,800 projects!!!

Statutory basis – "ProMechG"

ProMechG = Project Mechanisms Act

Legal philosophy

1. **CDM and JI 2nd track are largely prescribed by international provisions (COP/MOP and EU-Linking Directive)**

2. **Independent certifiers ensure the credibility of the projects**

3. **Against this background, it is sufficient for the DEHSt to check for completeness, consistency and plausibility**

Exception: **Projects in Germany**

Reasons: **Additionality and greenhouse gas inventory**

Help from the German Government

- Short check (update available shortly)
- Manual (update available shortly)
- CDM/JI introduction brochure (new edition in 2006)
- CDM/JI "best practice" database (to be installed at the DEHSt, access via the Internet)
- JIKO-Info (publication frequency to be increased)
- Web portal for the mechanisms (under development)
- Web-based CDM platform for Latin America (under development)
- Development of project portfolios (BMU)
- CDM initiative (BMU)
- KfW fund (BMWi/BMU)
- JI initiative (BMU)
- Member of the UNFCCC JISC (BMU)
- Negotiation of MoUs (30 countries – BMU))

CDM and JI in Germany

		Total	CDM	JI abroad	JI Germany
Total		111	45	6	60
Application for Endorsement*		22	4	6	12
	approved	5	2	3	
	rejected	3			3
	under examination	14	2	3	9
	inactive	0			0
Application for Approval		89	41		48
	approved	22	22		
	rejected	0			
	under examination	58	13		45
	inactive	6	6		
	withdrawn	3			

Project categories

	Total	CDM	JI abroad	JI Germany
Biogas	6	4		2
Landfill gas	6	5		1
Fuel Switch	12	2	2	8
Solar Energy	2	2		
Hydro Power	9	9		
Biomass	15	14		1
Wind Power	3	1	2	
HFC 23 Destruction	2	2		
N20 Destruction	7	6		1
Mine Gas	49		2	47

Host countries I

	Total	CDM	JI abroad
South Africa	3	3	
Indonesia	3	3	
Brasil	5	5	
Thailand	1	1	
Costa Rica	1	1	
Colombia	2	2	
China	3	3	
India	10	10	
Egypt	1	1	
Azerbaijan	1	1	
Paraguay	1	1	
Ukraina			1
Bulgaria	1		1
Poland	2		2

Host countries II

	Total	CDM	JI abroad
Honduras	1	1	
Peru	1	1	
Nepal	2	2	
Argentina	1	1	
Moldau	2	2	
Malaysia	2	2	
Korea	1	1	
Israel	2	2	
Madagaskar	1	1	
Armenia	1	1	
Russia	1		1
Lithuania	1		1
Estonia	1		1

The raft of legal measures

Legislation

- **Allocation Act 2012 (ZuG2012) – Statutory implementation of the NAP II**
- **Amendment to the Greenhouse Gas Emissions Trading Act (TEHG) – in particular, amendment to the Appendix to include additional installations**
- **Amendment to the Project Mechanisms Act (ProMechG) – in particular, reduction of fees in § 14 of the ProMechG**

Under preparation/negotiation

- **Allocation Ordinance 2012 (ZuV2012) – Operationalization and detailed specification of the ZuG2012 – Cabinet Decision on 18. July 2007**

Timeline - currently critical

Subsequent procedure - Timetable

Start of public participation following consultation of the *Länder* and departmental agreement on 13 April 2006 – Public participation ends on 30 May 2006

May 2006: further consultation with the *Länder*

Revision of the NAP II draft after 26 May 2006

Departmental agreement late May to mid-June 2006

Cabinet resolution on 28 June 2006

Communication to Brussels on 30 June 2006

Start of coordination of the ZuG 2012: Late September 2006

Data collection and evaluation for the years 2003 and 2004 (verified bottom-up data): by the end of October 2006

COM communication on the German NAP II: 29 November 2006

Coordination at the periphery of the Cabinet regarding the COM notification: 20 December 2006

Notification by the German Government: 21 December 2006

Defining notification by the German Government: 29 January 2007

COM response: 5 February 2007

Subsequent procedure - Timetable

ZuG2012: Formulation and coordination by 17 April 2007

Preliminary agreement with the COM 13 April 2007

Adoption by the Cabinet on 18 April 2007

Reading before the German Bundestag <Lower House of Parliament>: 11 May 2007

Consultation with the Environment Committee of the German Bundestag: 11 June 2007

Parallel discussion in the German Bundestag (Lower House)and Bundesrat (Upper House) by the end of June / beginning of July 2007

Final discussion by Bundestag Environment Committee: 20 June 2007

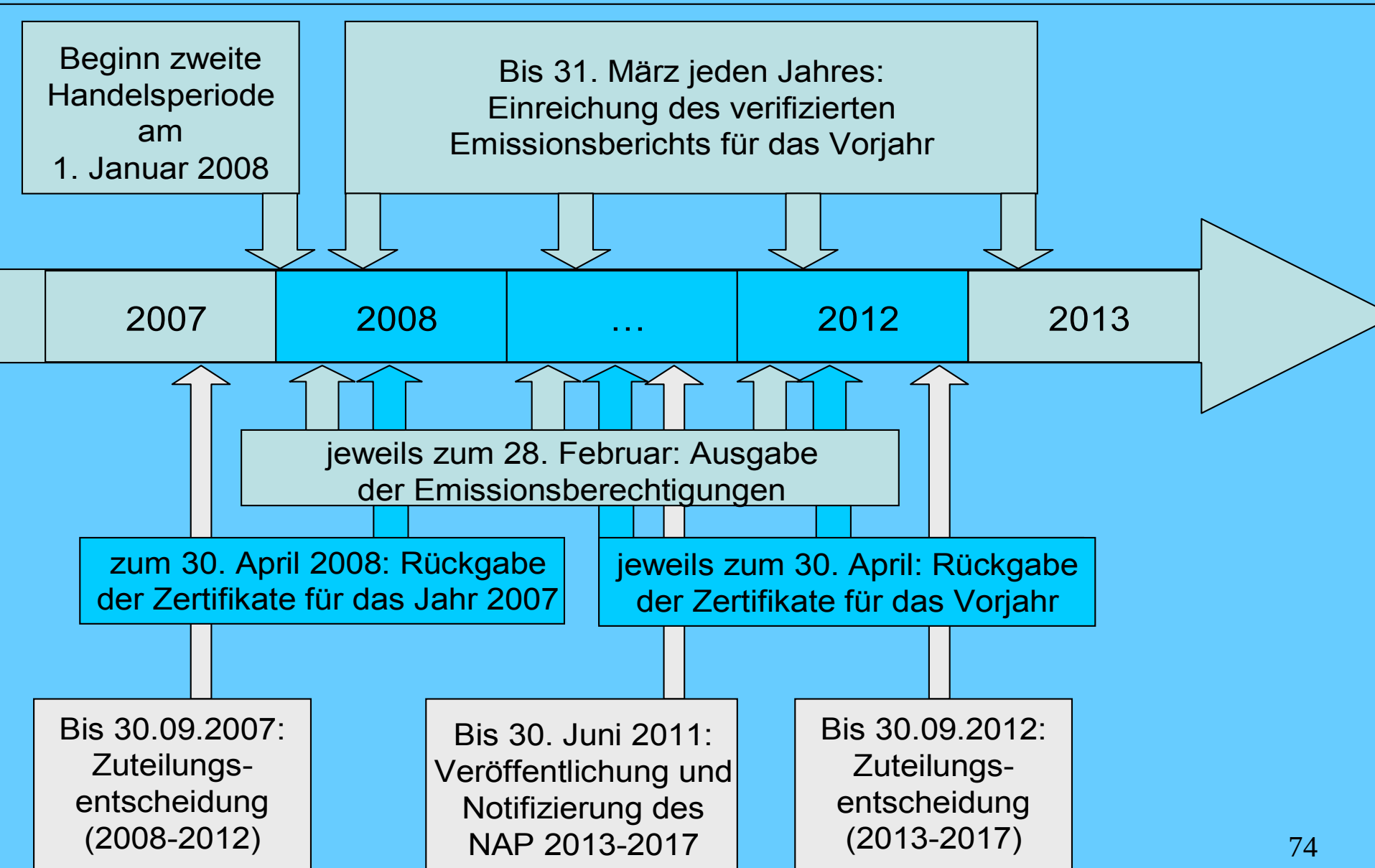
2nd/3rd reading before the German Bundestag: 22 June 2007

Entry into force of the ZuG2012, the revised TEHG, the revised ProMechG and the ZuV2012 in August 2007

Application for allocation: Autumn 2007

Allocation for the second trading period: Second half of 2007 (probably December 2007) – Date according to EU ETS Directive: 30 September 2007

Process stages



Brussels perspectives (incorporation into the overall climate protection and energy policy concept)

The subsequent timetable - 3rd trading period

- **EU-ETS review – Completion in June 2007**
- **Submission of a draft to amend the EU ETS Directive by the Commission: late 2007/early 2008**
- **Discussions in the Council and Parliament: probably by late 2008/early 2009**
- **Publication in the Official Journal of the European Communities: by mid-2009**
- **Implementation in national law: 2009/early 2010**
- **Formulation of the NAP III: 2010/2011**
- **Presentation of the NAP III in Brussels: 30 June 2011**

Perspectives (European Council 15 Feb. 2007 (energy), 20 Feb. 2007 (environment) and 8/9 March 2007 (Heads of Government)

limate protection targets "beyond Kyoto"

- **Binding in all cases: Reduction of GHG emissions by the European Union by 20 % by 2020 versus 1990/1995 levels**
- **Conditional (requirement: involvement of other industrialised countries with comparable reductions and appropriate contributions by newly industrialising countries): Reduction of GHG emissions by the European Union by 30 % by 2020 compared with 1990/1995 levels**
- **Improvement in the energy efficiency of the European Union by 20% compared with projected consumption**
- **Renewable energies to account for a binding share of 20 % of primary energy consumption by 2020**
- **Binding share of biofuels in 2020: 10%**

Perspectives (European Council 15 February 2007 (energy), 20 February 2007 (environment) and 8/9 March 2007 (Heads of Government)

- Burden sharing as the next step
- Creation of an internal European market for electricity and gas (severing the link with production and grids)
- Commission to establish an energy monitoring agency
- Action plan on energy efficiency
- Construction of interconnectors
- R&D on the development and advancement of future-oriented energy technologies

What does this mean for energy supply in Germany?

Validity of allocation rules

- **Allocation rules on emissions trading only apply until 31 December 2012**
- **From 1 January 2013 new rules will apply – Changes to the allocation method (combination of auctioning and benchmarking)**
- **Procedure to amend the EU Directive is ongoing. Objectives:**
  - **Greater transparency**
  - **Greater harmonisation**
- **Restriction of the interpretational scope of the Member States**

New coal-fired power stations may still be built up until 2012

Probable investments until 2012

- 8 natural gas power plants with an output of 4711 MW
- 6 hard coal power plants with an output of 4990 MW
- 3 lignite power plants with an output of 2,760 MW

Emissions from these new plants: 61 million t/a

Emission reductions from decommissioned power plants: 42 million t/a

Possible investments until 2020

- 7 natural gas power plants with an output of 4300 MW
- 4 hard coal power plants with an output of 2,630 MW
- 1 lignite power plant with an output of 500 MW

Emissions from these new plants: 30 million t/a

From 2013 the air gets even thinner

- **Energy scenarios for the Energy Summit (PROGNOS/Energy Industry Institute, Cologne University): After 2013 only gas-fired new plants admissible – coal-fired power plants require the purchase of certificates or the import of CERs or ERUs from international climate protection projects**
- **CCS not technically and commercially available before 2020**
- **Internalisation of external effects takes hold – Carbon has a price**

Framework, requirements and consequences

- **Phasing-out of nuclear power**
- **Stepping up climate protection**
- **Global carbon market – Greenhouse gas emissions have a price!**
- **Resource availability – Price volatility – availability of CCS as a technical solution → the crash barriers for future investment decisions**
- **Obtain diversity in energy supply – Reduce dependencies**
- **Tap into alternative energies and technologies**
- **Fully maximise efficiency potential**

Thank you for your attention.

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