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## **EMISSIONS TRADING IN GERMANY:**

### **ALLOCATION OF ALLOWANCES FOR THE FIRST COMMITMENT PERIOD 2005-2007**

**Facts and Data on the allocation of allowances to 1,849 installations in Germany**

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## 1. INTRODUCTION

Preparations for the start of the European Emissions Trading Scheme (ETS) in Germany are nearly completed. The c. 1,200 participating companies have received individual allocation notices for each installation subject to the German Greenhouse gas emission allowance trading law (TEHG).

Only one year ago, in October 2003, the Directive 2003/87/EC of the European Parliament and of the Council came in effect. It took until August 2004 to transpose it into national legislation, two laws and two ordinances:

- Greenhouse gas emission allowance trading law (TEHG) of 15.07.2004,
- Allocation law 2005-2007 (ZuG 2007) of 31.08.2004,
- Allocation ordinance 2005-2007 (ZuV 2007) of 01.09.2004 and
- Cost ordinance (EHKostV) of 01.09.2004.

Thanks to extensive preparations the allocation process for the participating companies - now completed - started immediately when the laws came in effect on 31. August.

The German Emissions Trading Authority (DEHSt) presents first results of the allocation of allowances in Germany. Information on allocated amounts refers to the entire commitment period 2005 to 2007, unless stated otherwise.

## 2. OUTLINE

In total 1,849 installations of the energy sector and emissions-intensive industry sector in Germany participate in the EU ETS in the first commitment period 2005 to 2007. The German Emissions Trading Authority assumes that with the recently completed allocation process virtually all eligible installations will have been supplied with allowances. The rest of the 2,060 valid applications the German Emissions Trading Authority received was sent mainly by companies trying to obtain a negative notice as to prove they are non-obligatory to the ETS.

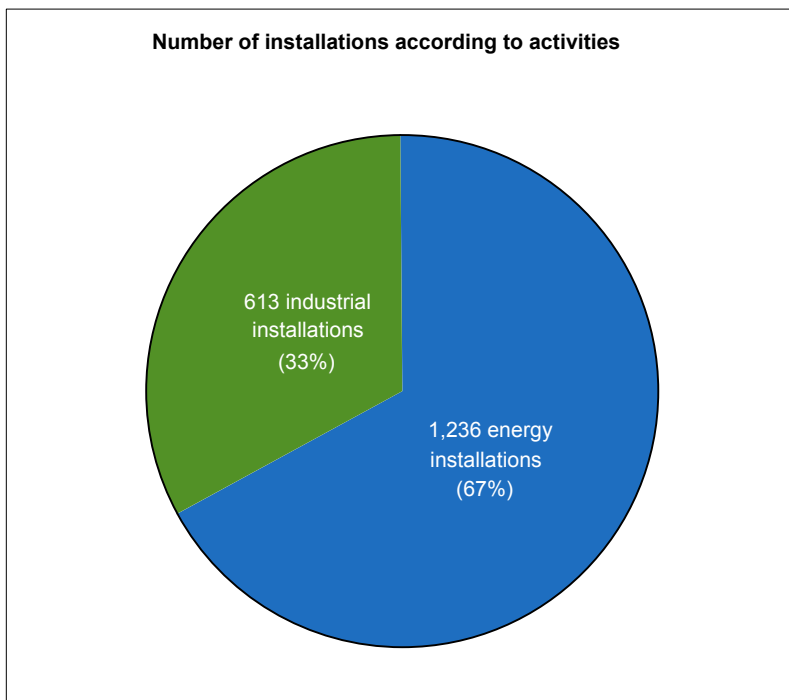


Figure 1:  
Of the 1,849 installations 1,236 belong to the energy sector, 613 to different activities of the emissions-intensive industry

In the 2003 voluntary data collection on emissions trading, c. 2,350 installations potentially liable to the ETS were reported to the German federal states. The number of now actually participating installations is not equivalent to the 2003 estimations as the distribution of installations shifted, e.g. due to amalgamation or changes in capacities. The amount of allowances applied for exceeds the max. budget set by the legislators of 1,485 million allowances for the years 2005 to 2007 (495 millions of allowances per year).

For the three-year period the budget is exceeded by 42.3 million tons (c. 14.1 million tons per year), i.e. the total budget is exceeded by 2.8 %. In order to adhere to the max. budget certain allocations are subject to a proportionate adjustment according to § 4 (4) ZuG 2007.

#### Proportionate Adjustment (§ 4 (4) ZuG 2007)

Further information on the proportionate adjustment according to § 4 (4) ZuG 2007 is provided by DEHSt on the Internet. A document ("Kürzung der Zuteilungsmengen für die erste Zuteilungsperiode nach § 4 Absatz 4 ZuG 2007"; paper available in German only) can be downloaded under the navigation "Anlagenbetreiber".

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### 3. ACTIVITIES UNDER THE ETS

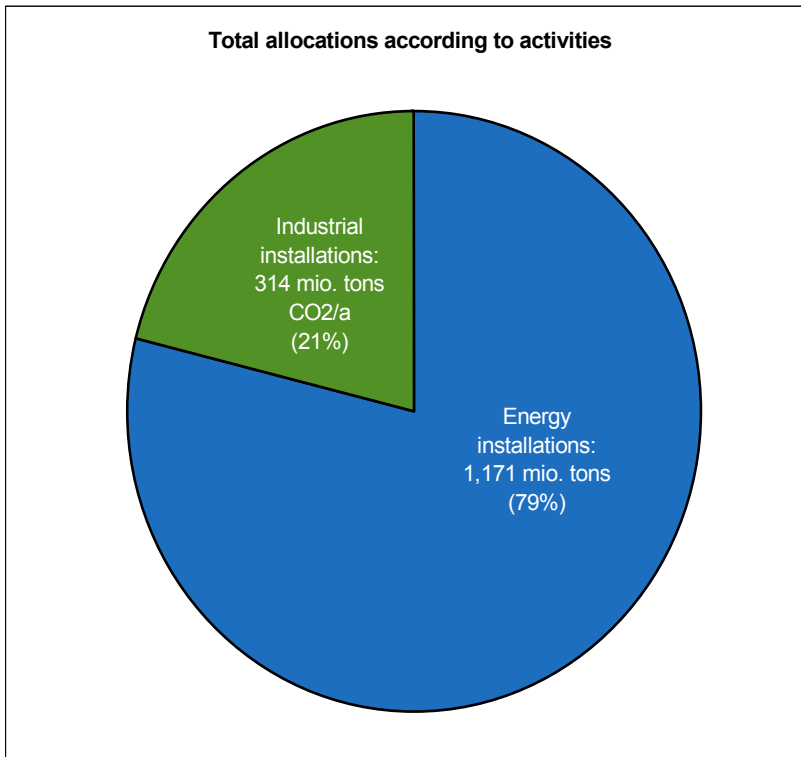


Figure 2:

Of the 1,485 million allowances for the next three years 1,171 million are allocated to the energy sector, 314 million to different installations of the emissions-intensive industry

Participants on the ETS are defined by both the EU directive on emissions trading and the national law (TEHG). Accordingly in Germany operators of large combustion installations (with a rated thermal input above 20 MW) and emissions-intensive industry installations participate. It is differentiated between 15 activities. For the sake of clearness of this first evaluation DEHSt has subsumed some activities.

#### Activities and Sectors of Industry

Activities subject to the TEHG are stated in the law's first annex and can be found on the internet. This, however, does not assign installations to sectors of industry. An installation to generate energy may well be part of a paper mill. DEHSt will publish an analysis of sectors of industry at a later time.

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

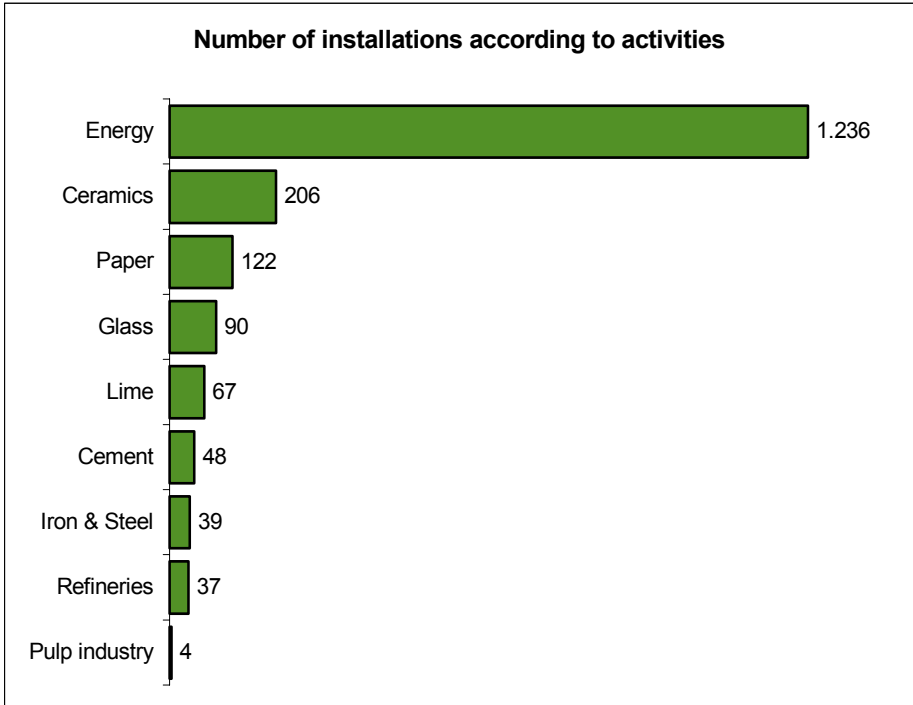


Figure 3:  
Two thirds of installations are installations for energy conversion. Merely four installations for the pulp industry currently participate on the ETS

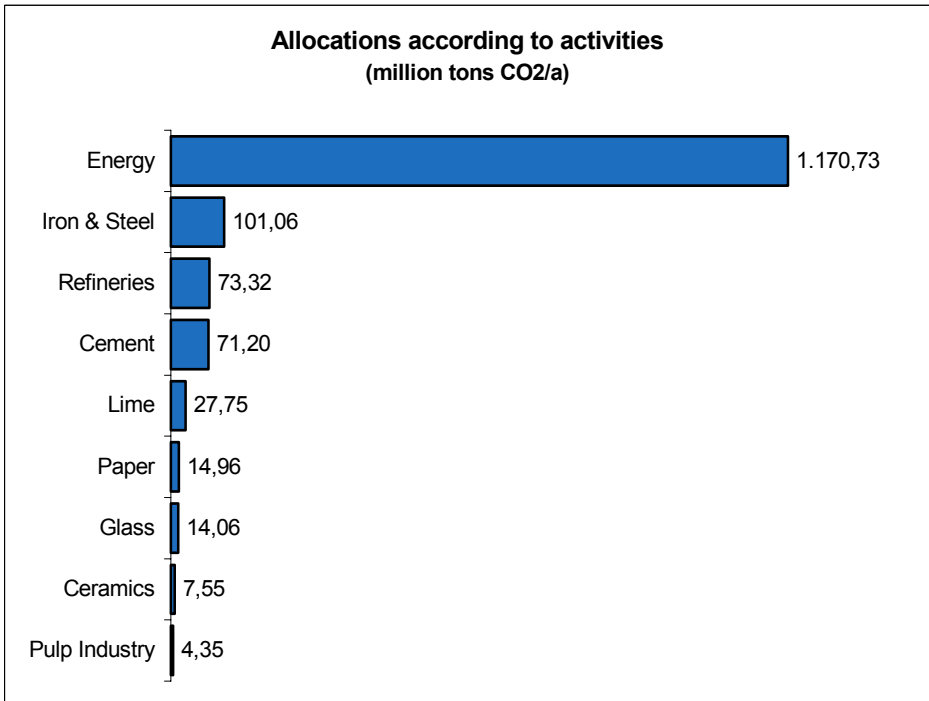


Figure 4:  
Installations for energy production and conversion hold four fifths of allowances for the first commitment period

## 4. DISTRIBUTION OF INSTALLATIONS ACCORDING TO GERMAN FEDERAL STATES

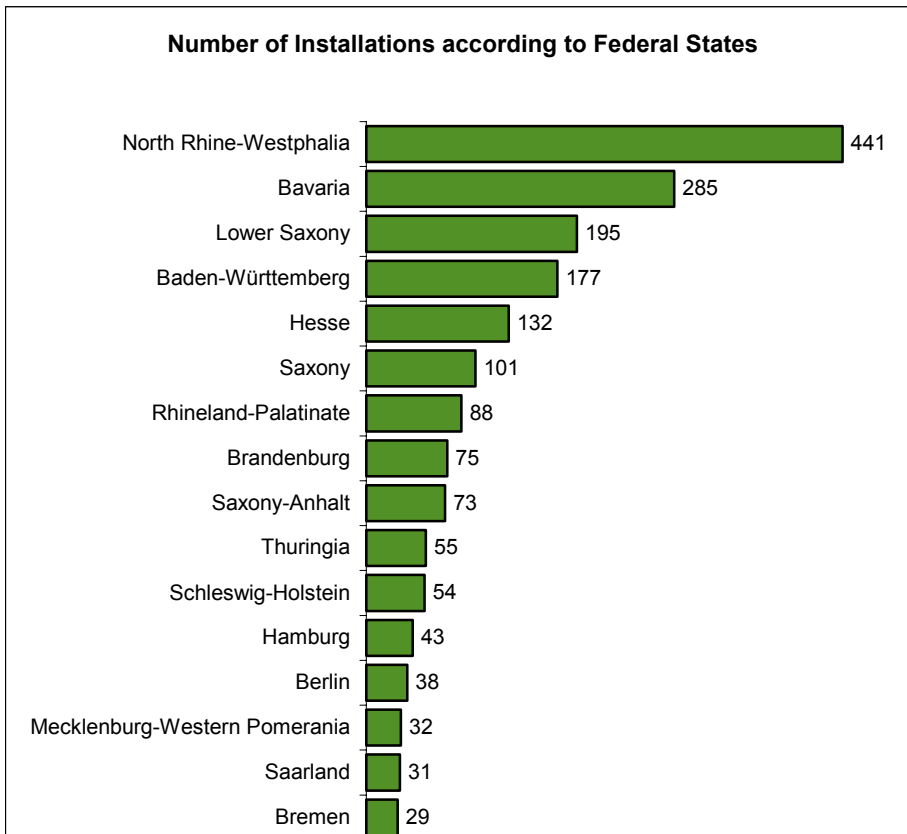


Figure 5:

In North Rhine-Westphalia 441 installations participate on the ETS – the highest number for all German federal states – in Bremen there are 29, in Saarland 31 and in Mecklenburg-Western Pomerania 32 installations

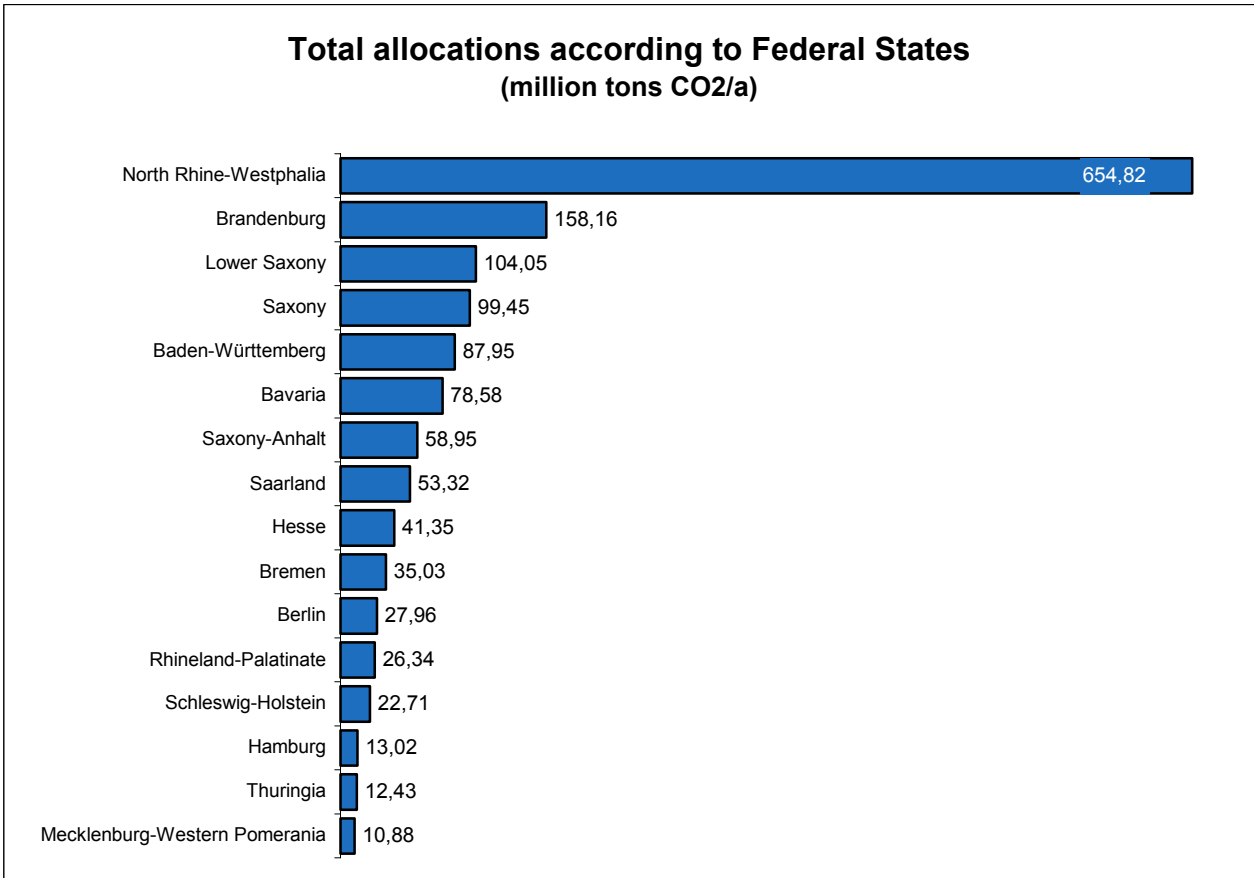


Figure 6:

North Rhine-Westphalia holds almost half of the German emissions budget. Mecklenburg-Western Pomerania, Thuringia or Hamburg, however, hold less than 1 % of the over-all allowances each

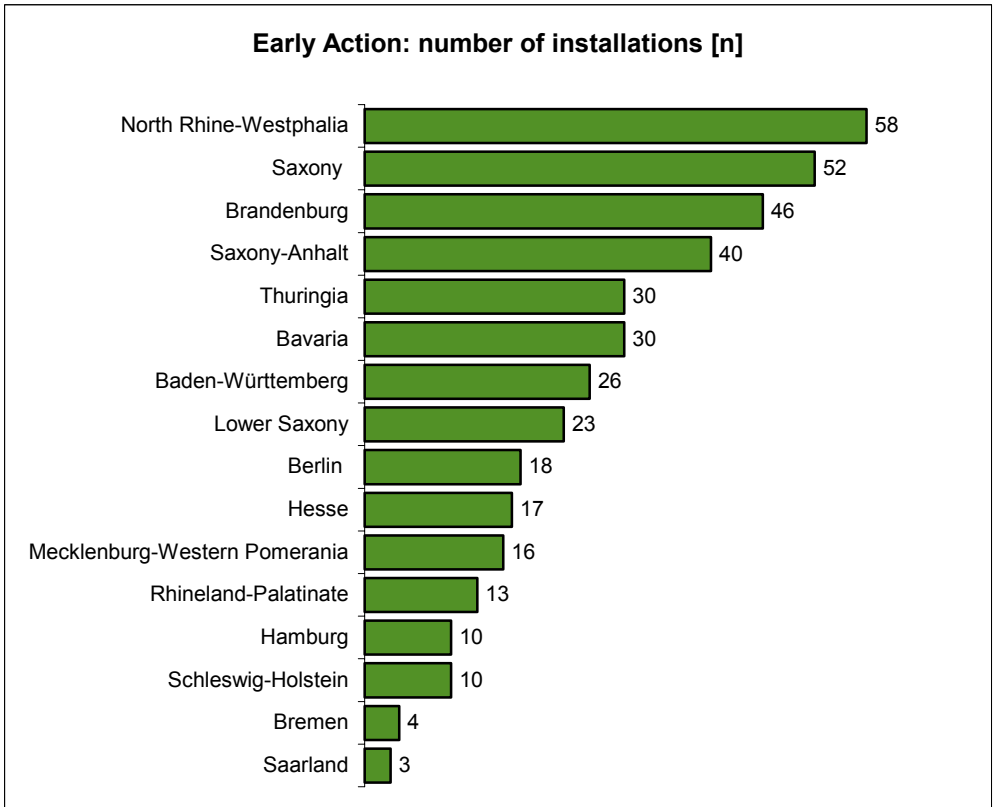


Figure 7:  
Especially in the “new” (i.e. eastern) states and North Rhine-Westphalia numerous installations made use of the rule for early actions

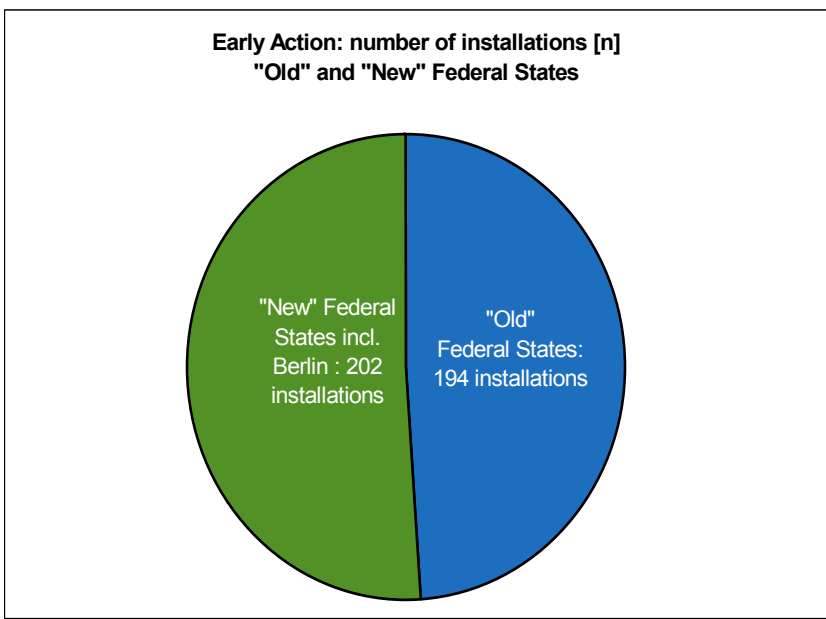


Figure 8:  
In the five “new” states including Berlin a total of 202 installations made use of the rule for early actions, in the ten “old” states it was 194 installations

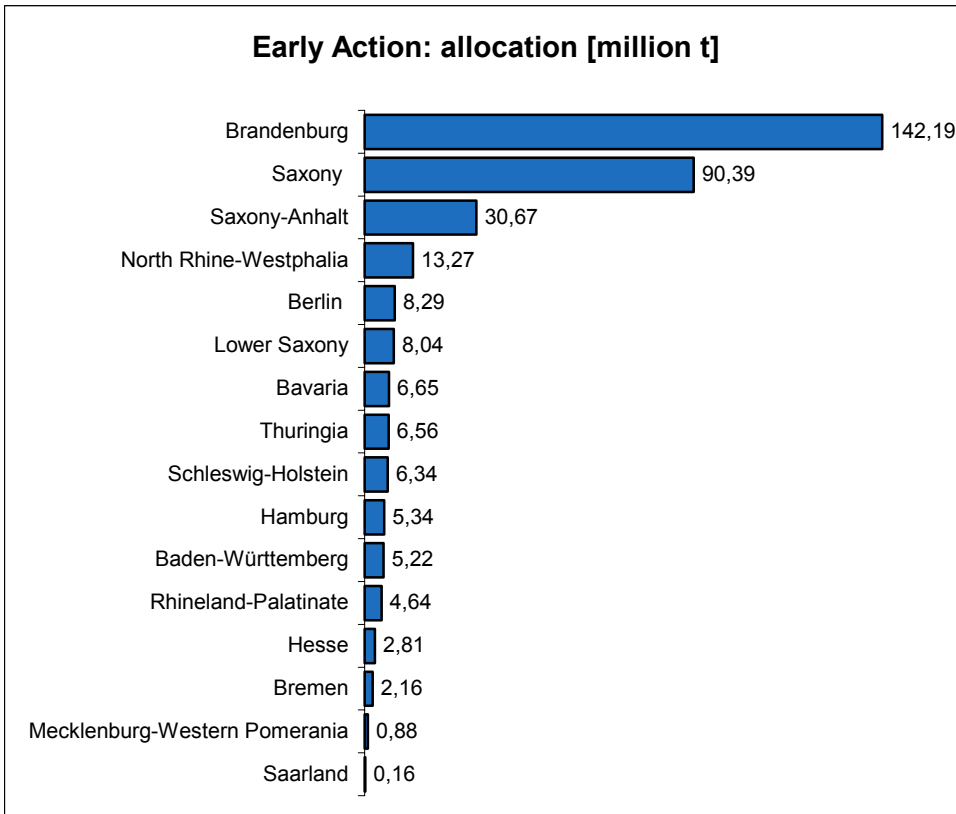


Figure 9:  
The highest number of allowances allocated according to the rule for early actions is found in Brandenburg and Saxony, followed by Saxony-Anhalt (Brandenburg 43 %, Saxony 27 %, Saxony - Anhalt 9 %)

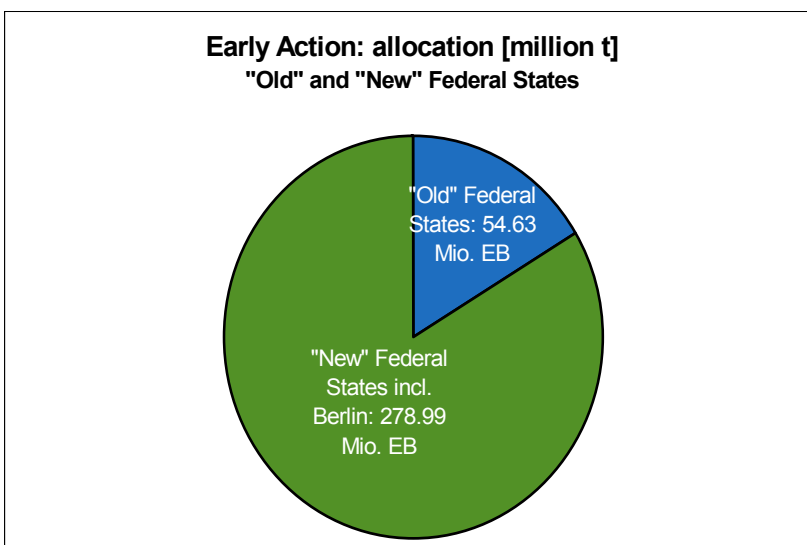


Figure 10:  
279 million allowances for the next three years or nearly 84 % of the budget for early actions can be found in the "new" states and Berlin

North Rhine-Westphalia is the German state with the highest number of installations, the greatest amount of allowances as well as largest single installation. Brandenburg, however, is the state with the largest average installations. Bavaria, along with Thuringia, is the state with the smallest installation on average. Although Bavaria ranks second in the total number of installations, in allowances it comes sixth.

## 5. SIZES OF INSTALLATIONS UNDER THE ETS

For installations with less than 30,000 allowances for the next three years (10,000 per year) there is special relief: The German Emissions Trading Authority (DEHSt) may abstain from levying certain fees. Compared to larger installations, the requirements concerning verification of applications and reports are also reduced. This is to relieve the companies in question of some of the organisational costs of emissions trading. The classification of installations in different sizes impinges on the degree of accuracy in the annual reports on actual emissions. The European Commission has adopted special "Monitoring and Reporting Guidelines".

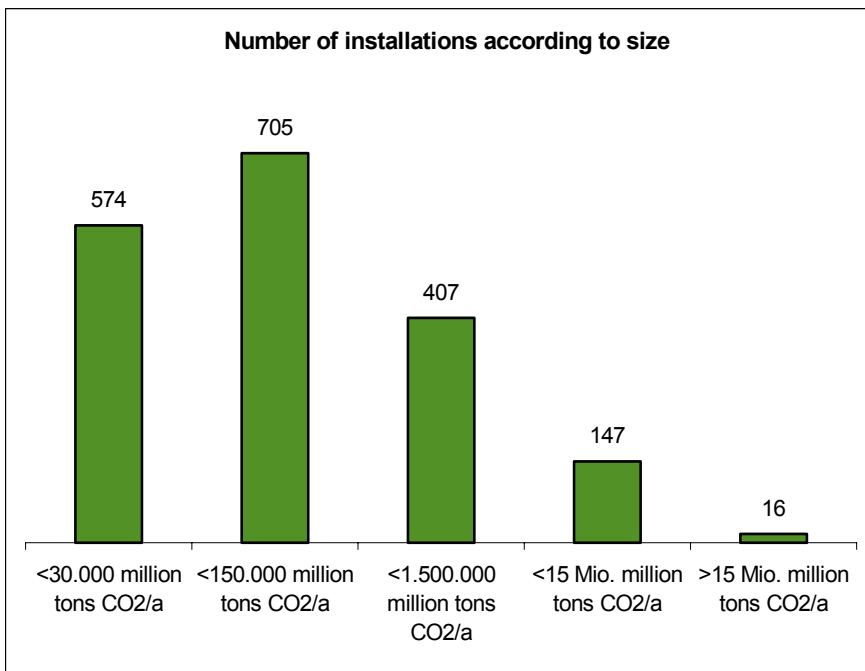


Figure 11:  
16 installations are allocated more than 15 million allowances. Two thirds of installations received less than 150,000 allowances per installation

### Average sizes of installations according to activities

Activities	Average allocation per installation	Max. allocation per installation	Min. allocation per installation
Energy	947.196	86.001.132	12
Iron & Steel	2.591.343	21.199.014	723
Refineries	1.981.696	10.913.541	8.070
Cement	1.483.454	4.450.791	107.661
Lime	414.148	6.765.480	12.165
Paper	122.632	1.178.316	312
Glass	156.268	834.162	6.873
Ceramics	36.669	269.028	840
Pulp industry	1.086.962	2.317.182	42.183
<b>Total</b>	<b>803.137</b>	<b>86.001.132</b>	<b>12</b>

Figure 12:

The largest of all installations is a lignite fired power station in North Rhine-Westphalia with an allocation of 86 million allowances. The smallest installations on average are those for the production of ceramics, e.g. tiles. The installation with the fewest number of allowances – allocated twelve allowances – is a reserve heating station in Schleswig-Holstein.

## 6. USE OF ALLOCATION RULES

In the allocation law ZuG 2007 the legislator admitted the greatest possible flexibility in applying for allowances. How highly this flexibility was appreciated is evident in the fact that a total of 58 different combinations of the rules was used in the applications.

### General and special rules

Companies had to apply for allowances either based on their historic emissions of the basis period (usually 2000 to 2002) or according to emissions prognoses. DEHSt explains these rules in its guideline "Zuteilungsleitfaden" (available in German only):

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

### Use of Budgets for Special Rules

For certain cases the legislator has provided special rules for in the allocation law ZuG 2007:

- Early Actions from 1994 onwards
- Process emissions which could only be reduced by cuts in production
- CHP: highly efficient power generation in cogeneration system
- Closing nuclear power stations: compensation for additional power generation in conventional power plants by decommissioning of nuclear power stations

For these special cases certain amounts were calculated in the allocation law (NAP).

Allocation Rules	NAP - Budget*	Actual Allocations*
§ 12 ZuG "Early Action"	114	111
§ 13 ZuG "Process Emissions"	69	71
§ 14 ZuG "CHP"	1,5	2
§ 15 ZuG "Compensation for nuclear power"	1,5	1,5

\* in million tons CO<sub>2</sub>/a.

Figure 13:

In general, allocations according to the special rules correspond to the estimations on which the National Allocation Plan was based in spring 2004. The budget for “process emissions“ as well as the “cogeneration systems rule” was used more heavily than planned. The early action budget, however, fell short 3 million allowances per year or 9 million for the entire first commitment period

## Reduction Obligations

Which individual reduction obligation applies to the installation varies according to allocation rules chosen and approved of. In addition to the reduction effort of the participating sectors as provided for in the law, there is also a proportionate adjustment according to § 4 (4) ZuG 2007 due to the overused budget. When certain special rules apply these further reduction obligations are cancelled.

### Individual Reduction

Which reduction effort applies is explained on DEHSt's Internet. A document („Kürzung der Zuteilungsmengen für die erste Zuteilungsperiode nach § 4 Absatz 4 ZuG 2007“; paper available in German only) can be downloaded under the navigation “Anlagenbetreiber”.  
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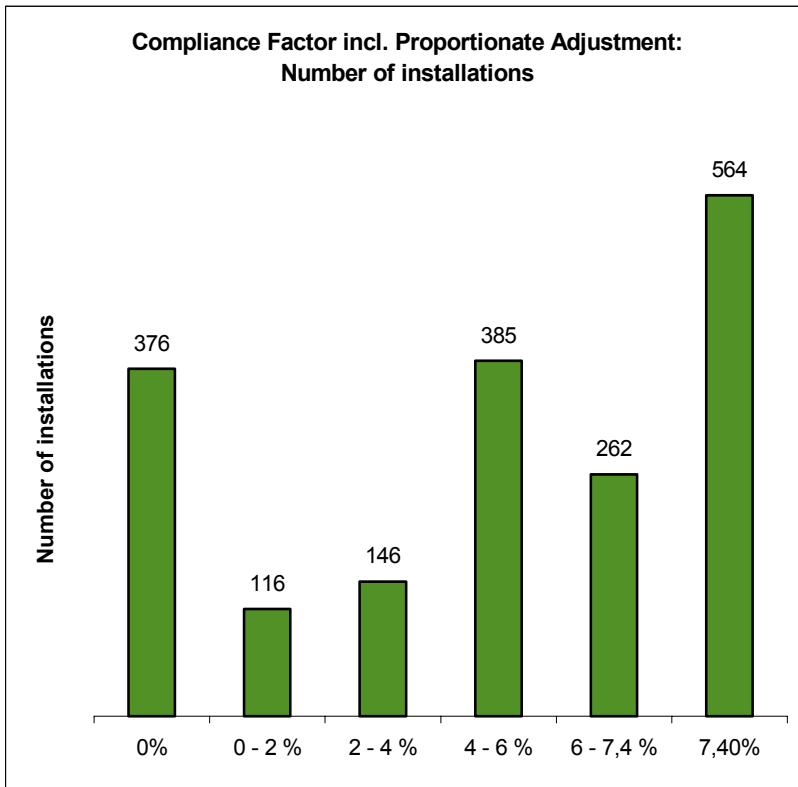


Figure 14:

About a quarter of installations received allowances with a reduction of less than 2 %, two thirds with a reduction of more than 4 %

### Use of Option Rule by Existing Installations

Existing installations could optionally apply for allowances as if they were new entrants. In this case the basis was a proven prognosis on production as well as an emissions value that an installation of the like kind would have by use of best available techniques. 521 existing installations chose this option.

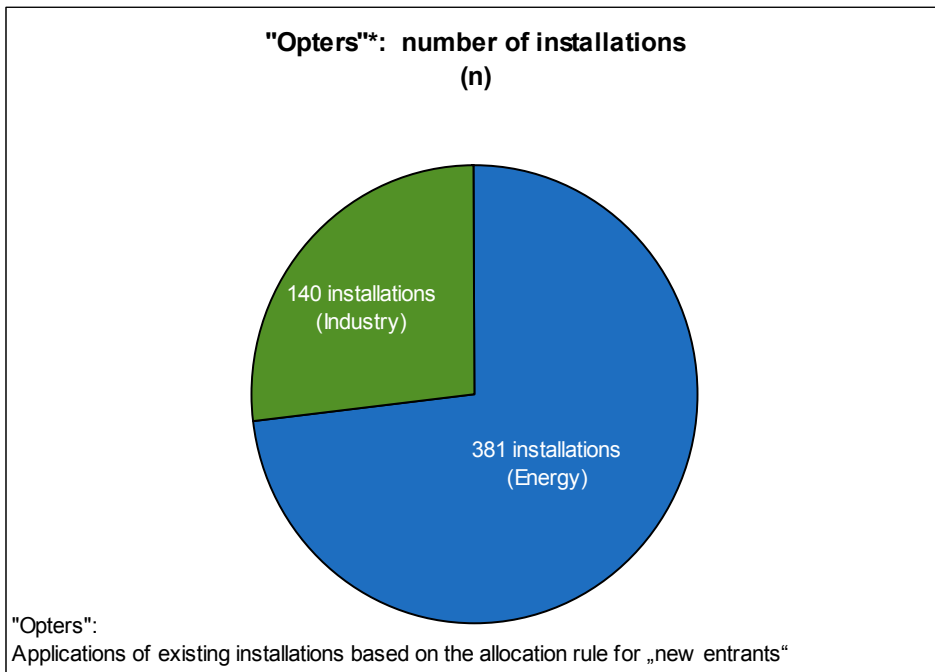


Figure 15:  
381 installations or 31 % of all installations of the energy sector chose the option rule. In the industry it were 140 installations or 23 %

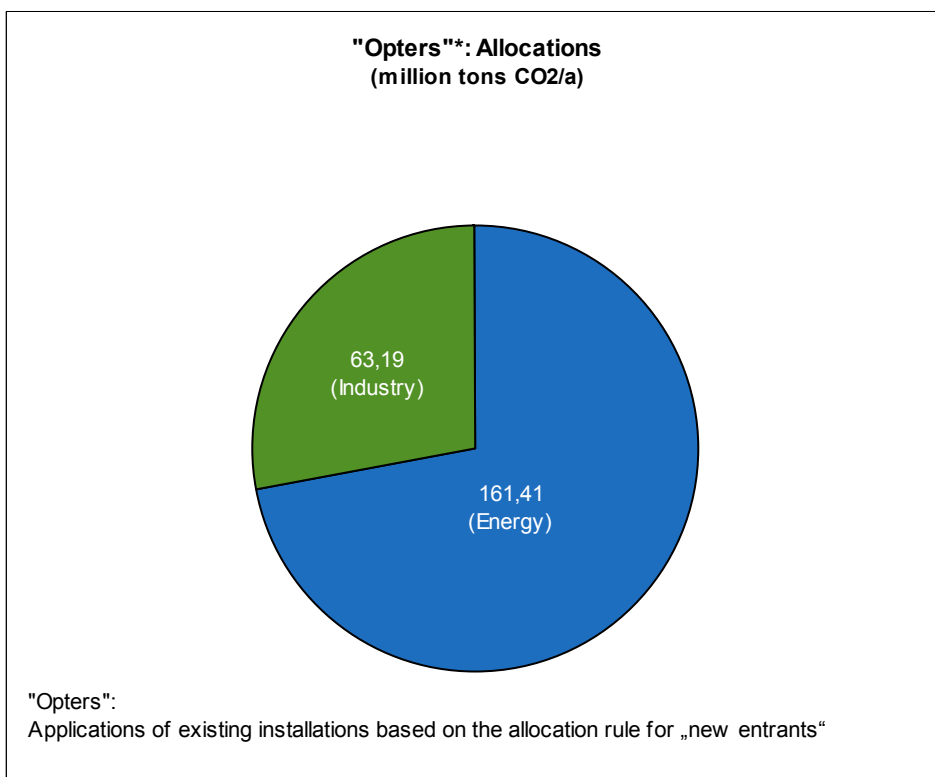


Figure 16:  
161.4 million allowances were issued to installations of the energy sector according to the option rule, for the industry it were 63.1 million. In relation to the total allocation to the energy sector about 14 % were allocated according to § 7 (12), with regard to the total allocation to the industry sector this is a share of c. 20 %

## Allocations for New Entrants and Installations with Extended Capacities

A total of 143 installations have been commissioned since 01.01.2003 or extended their capacities. Of course, they could only partly taken into account in the 2003 voluntary data ascertainment. In 29 cases the installations are completely new. This group holds an emissions budget of 14 million allowances for the entire commitment period. 114 installations have been allocated for their extended capacities; this amounts to a total of 50 million allowances.

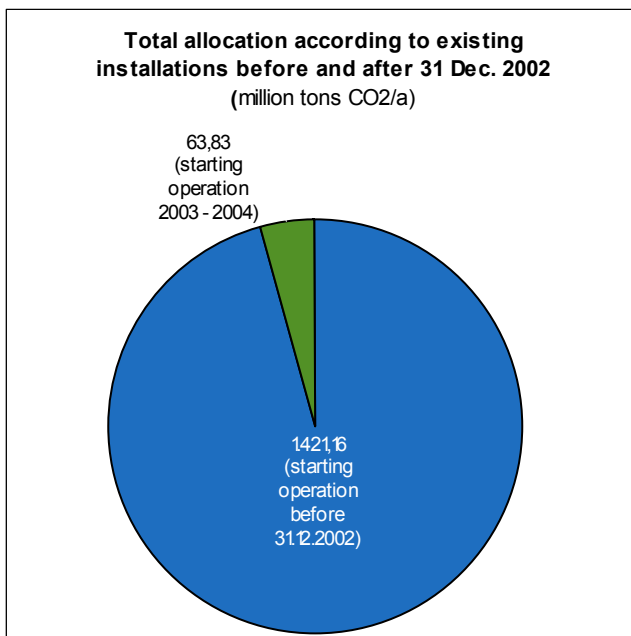


Figure 17:

63.83 million allowances were allocated to installations, which were commissioned after 01.01.2003 or extended their capacities

## Use of “Hardship Provisions”

The allocation law ZuG 2007 includes special rules to compensate for economic burdens. With these rules DEHSt reviewed the individual circumstances, which supposedly lead to an economic hardship for the company if allocated according to emissions of the basis period 2000 to 2002. If granted the applications received an additional allocation for compensation.

Hardship provision	granted	additional allocation
§ 7 (10) ZuG 2007	25	1,255,026 tons
§ 7 (11) ZuG 2007	6	1,137,106 tons

## 7. LESSONS LEARNT

On January 1, 2005 the European Emissions Trading Scheme starts. Shortly any natural and legal person can open an account within the national Emissions Trading Registry. The German Emissions Trading Authority (DEHSt) will closely observe all further developments of the emissions trading. Additional analyses and evaluations of the allocation process are to come. Not least, the second commitment period from 2008 needs to be prepared. Besides the deliberations on harmonising and improving the ETS there will also be a stronger emphasis on internationalisation. The practical knowledge of this first allocation process of the new currency “allowances” in Germany will be the cornerstone for further developments.