

Extending the EU system of tradeable emission rights (EU ETS) by including terrestrial traffic

**bvek side event at CoP 14
12 December 2008**

bvek Bundesverband
Emissionshandel
und Klimaschutz

Structure

- ① The importance of extending EU ETS**
- ② The development of existing EU ETS**
- ③ bvek proposal of how to include terrestrial traffic**
- ④ What this would mean for car drivers**

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Why is extending EU ETS so important?

- The goal of rational environmental policies is to achieve a certain environmental quality as effectively and efficiently as possible, i.e. it should be:
 - Environmentally targeted
 - Have the lowest possible macroeconomic costs!
- Environmental economists have long been arguing that the best approach is a:
 - System of tradeable rights to use the environment!

Why is extending EU ETS so important?

- System of tradeable emission rights:
 - Economic efficiency is based on the use of specific cost differences of measures for emissions reduction!
 - Differences result from specific characteristics relating to the
 - Type
 - Location
 - Time and duration of a measure!

Why is extending EU ETS so important?

- **System of tradeable emission rights:**

- **Cost differences due to the locations of measures:**

- **Example: Wind or solar power generation**

Even assuming the **same** absolute plant costs & **same** local conditions for wind or sunlight

differences in the specific CO₂-emissions of the displaced national / regional (public) power grid

lead to different amounts of avoided CO₂ & thus to differing specific CO₂-abatement costs!

Why is extending EU ETS so important?

- **System of tradeable emission rights:**

- **Cost differences due to the timing / duration of a measure:**

- Costs are **continually** changing in a market economy depending on supply and demand!

- New technical options can arise!

Shifts in the cost relations of measures can mean that at differing times differing measures are more economical!

Why is extending EU ETS so important?

- **System of tradeable emission rights:**
 - Via the **search function of the market** the system finds out not only the publicly known cheap reduction measures but also the **publicly unknown!**
 - By stipulating via the market price of the emission allowances to realise only the cheapest measures to achieve the reduction target the system produces the lowest possible macroeconomic costs!

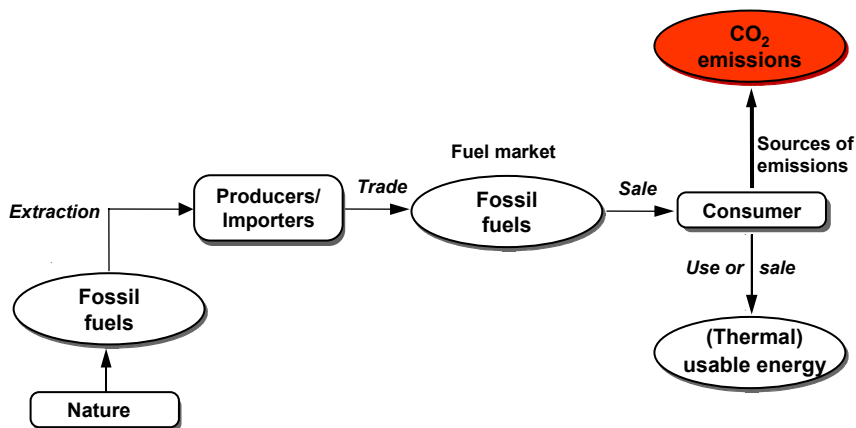
Why is extending EU ETS so important?

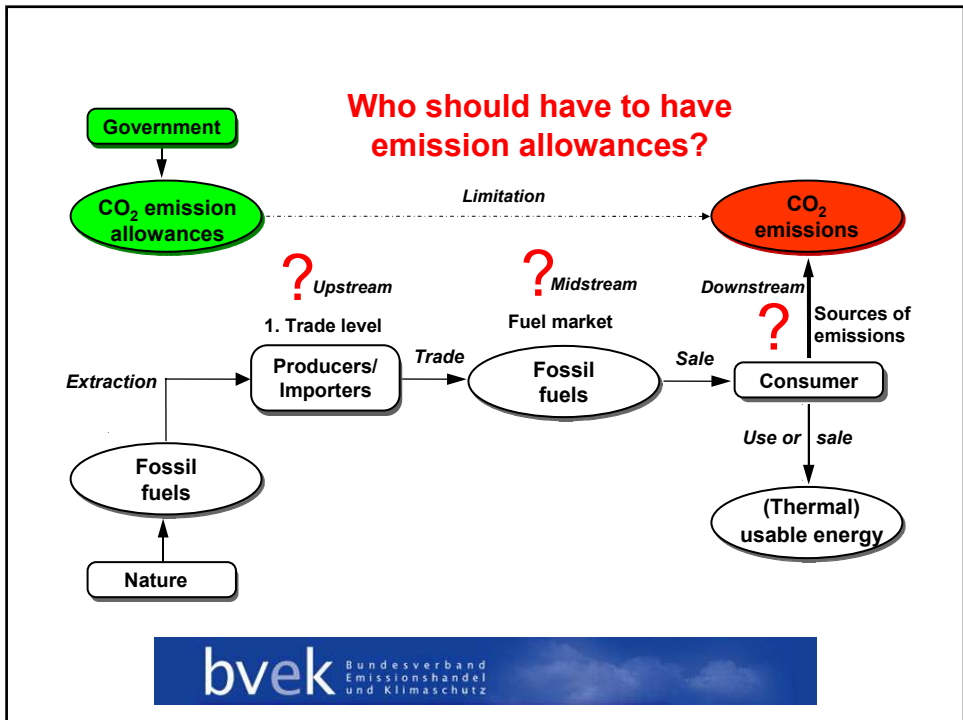
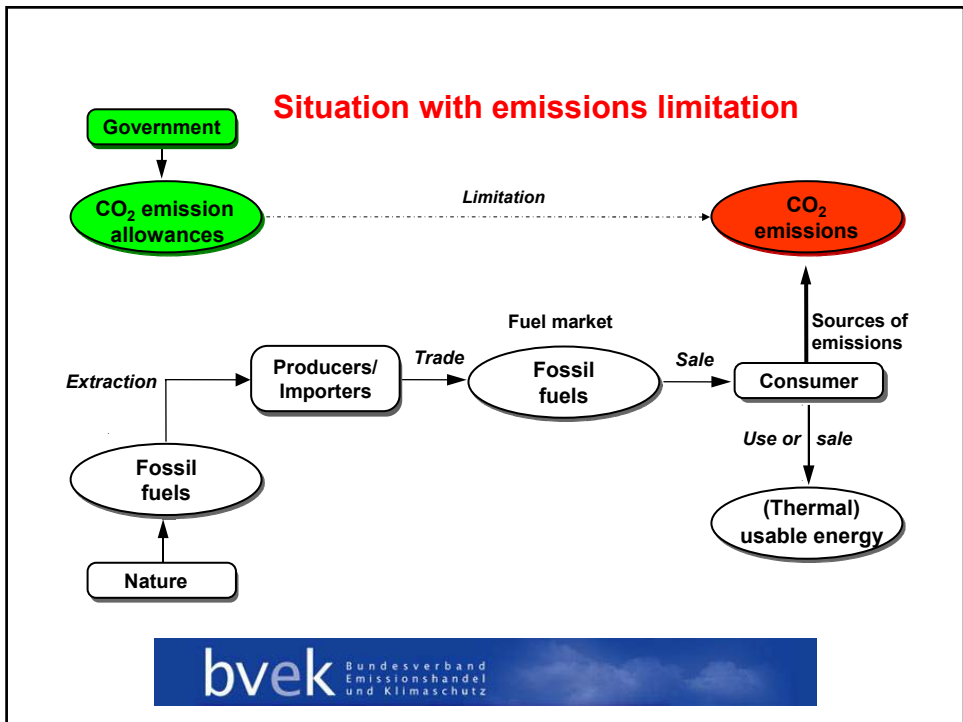
- **The greater the cost differences within the boundaries of the system then the larger is the potential saving or the potential for additional emission reductions for the same cost!**
- **The smaller the specific costs differences then the lower these potentials will be!**
- **Extreme case: No cost differences = No savings or potential for improvements!**

Why is extending EU ETS so important?

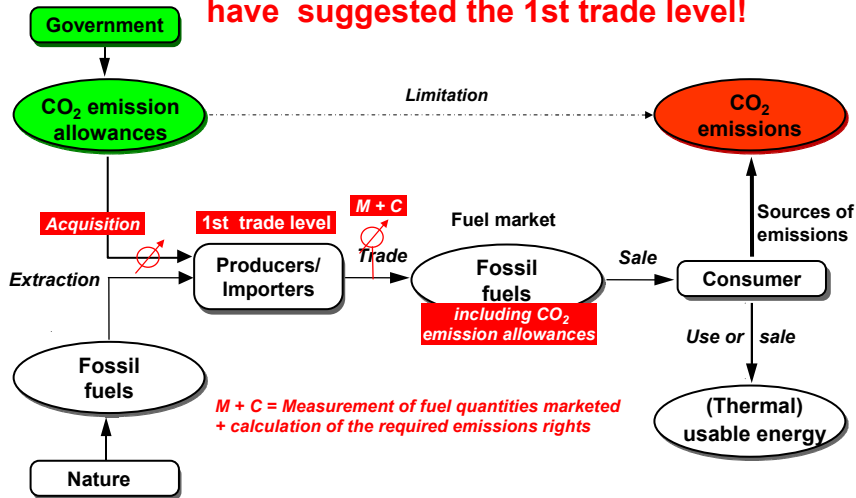
- But because of the magnitude of the task to reduce GHG emissions we need not only the environmental potential of the instrument – guarantying the cap – but also the full economic potential!
- Otherwise we will not gain and keep the support of the public and the citizens of our countries!

Situation in the past (until 2004)





Almost all environmental economists (including SRU*) have suggested the 1st trade level!



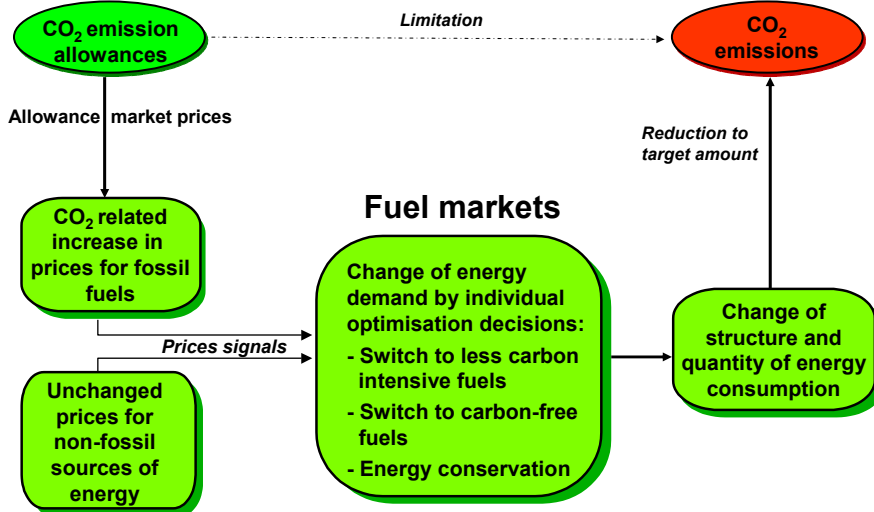
*SRU= German Advisory Counsel on the Environment

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Advantages of the “1st trade level” approach

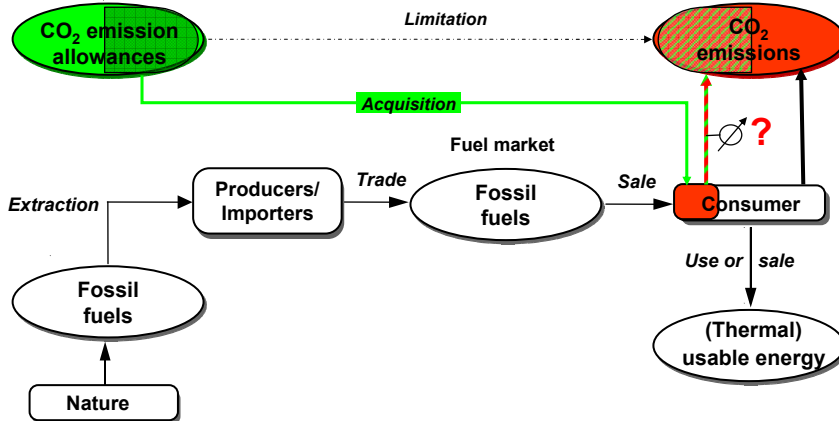
1. Sufficient for competition, but acceptable number of market participants (Germany: 120-150; EU: approx. 1000)
 - a) existing market structures, reporting obligations and methods of supervision can all be used!
 - b) minimum adaptation costs for market participants and minimum extra supervisory work for authorities!
2. All emissions sources are included - also small and mobile sources!
 - a) No distribution conflicts, no special regulations and no special taxes or duties for sectors not included necessary!
 - b) Leads to lowest marginal avoidance costs
= macroeconomic optimum!

Effects of the emissions reduction



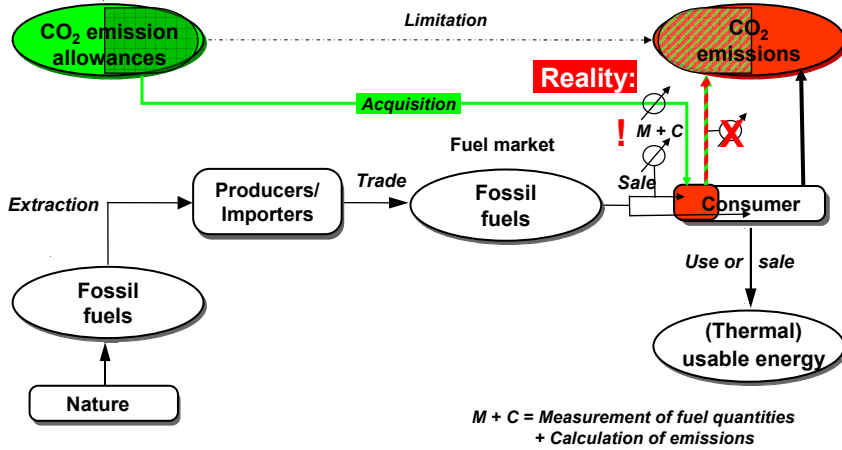
Current EU-ETS is a downstream-(part-)system; only for large, stationary sources!

Official justification: Measurement and control effort



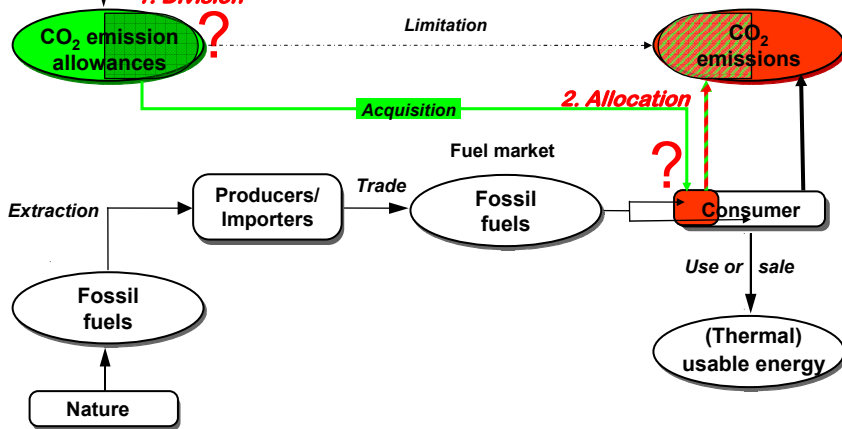
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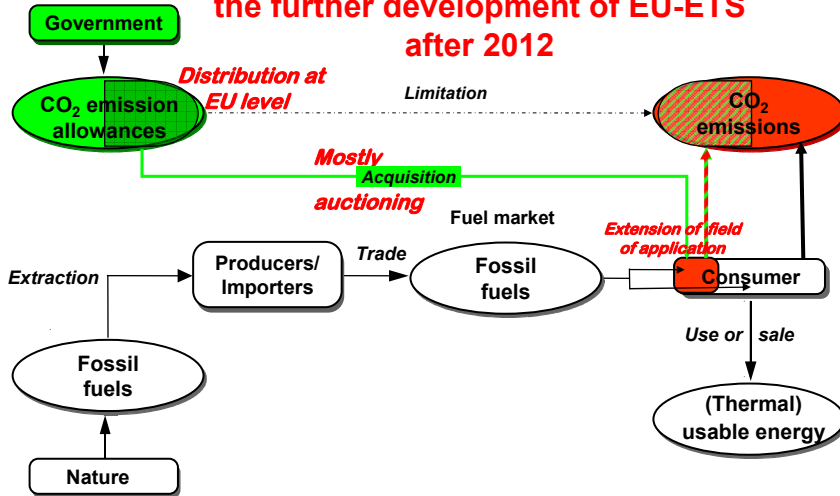


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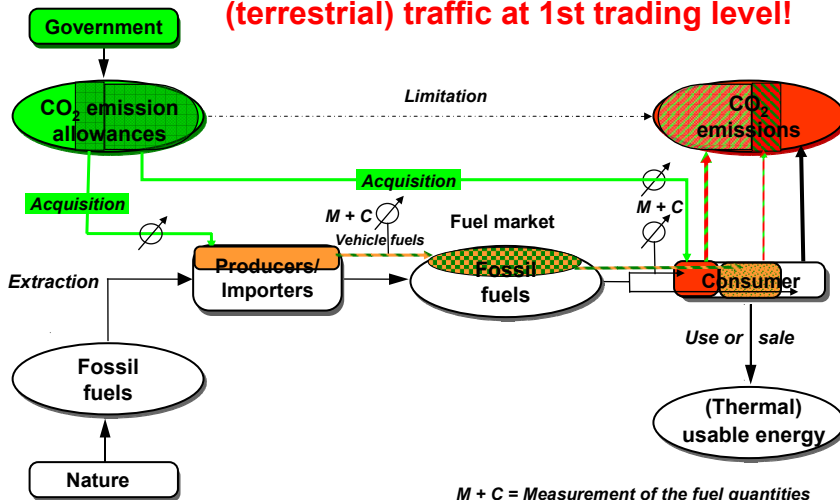
Main problems:



Proposals of the European Commission for the further development of EU-ETS after 2012



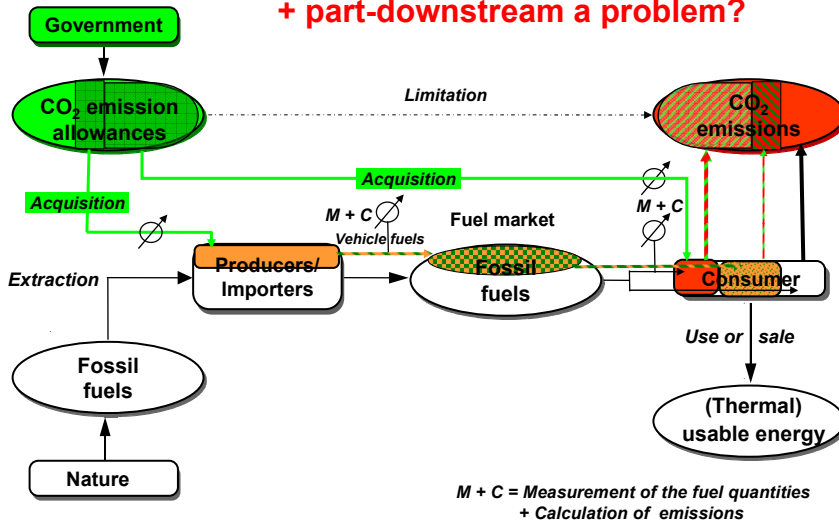
bvek proposal: Extending EU-ETS to include (terrestrial) traffic at 1st trading level!



*M + C = Measurement of the fuel quantities
+ Calculation of emissions*

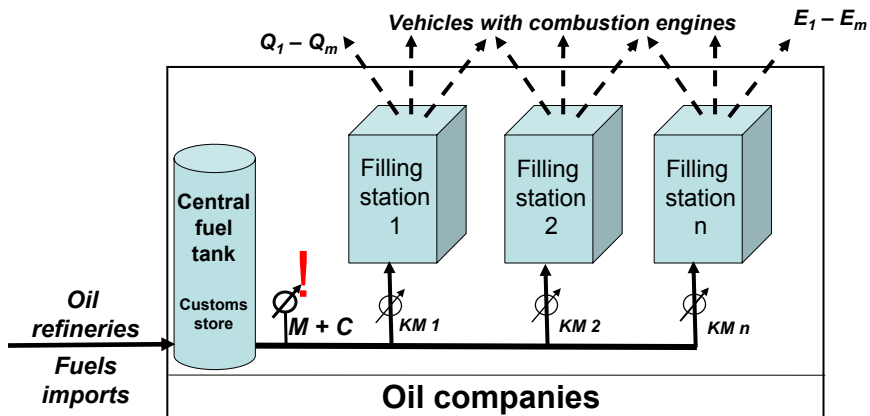


Is the juxtaposition of part-upstream + part-downstream a problem?



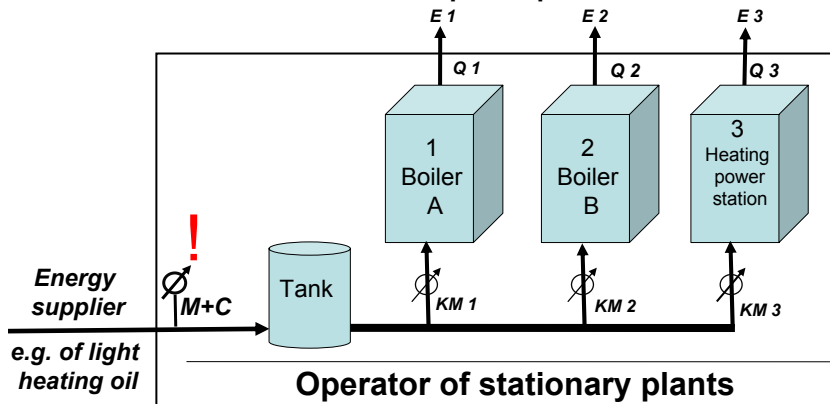
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- Fuel is brought onto the market by operators of central fuel storage tanks (large, stationary plants) near refineries or ports.



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- Fuel is brought onto the market by operators of central fuel storage tanks (large, stationary plants) near refineries or ports.
- As operators of these tanks mineral oil companies can therefore be treated as normal plant operators!



Monitoring + reporting traffic emissions

- Since the operations of the mineral oil companies are already subject to state control for tax purposes (e.g. by customs' authorities), virtually no additional administrative personnel is involved.



Monitoring + reporting traffic emissions

Vor dem Ausfüllen bitte Hinweise beachten und Zifferenfonds antreten oder ausfüllen

1. Anmeldeform (Name, Anschrift, gut 8-10 Zeilen, Normadressen) Unternehmensnummer für zollamtliche Zwecke **2008**

Beauftragter
Telefon

Hauptzollamt

Energiesteueranmeldung ohne Heizstoffe, Erdgas und Kohle

für den Zeitraum in die

2. Registrierungszeichen

3. Lastschrift-Zahnradnummer

4. Steuererklärung

Ich melde die in Spalte 3 angegebenen Energieerzeugnisse zur Versteuerung an.

Ich beantrage die Erstattung von der Energiesteuer nach

§ 48 EnergieStG in Spalte 4 (Steuerbefreiung beim Verbringen aus dem Steuergebiet)

§ 47 EnergieStG in Spalte 5 (Steuerbefreiung für Aufnahme in Betriebe und für weiteren Zweck)

§ 48 EnergieStG in Spalte 6 (Steuerbefreiung der Umschlagungen von Gemeinschaften mit anderen Staaten)

§ 49 EnergieStG in Spalte 7 (Steuerbefreiung für Seefahrt und Fliegerei)

§ 50 EnergieStG in Spalte 8 (Steuerbefreiung für Braunkohle und Holzprodukte)

Die Mengen, für die eine Steueranmeldung nach § 50 Abs. 1 Satz 1 Nr. 1 und 2 EnergieStG beantragt wird, dienen nicht der Erfüllung einer Verpflichtung nach § 37a Abs. 1 Satz 1 und 2 in Verbindung mit § 37a Abs. 3 des Bundesemissionshandelsgesetzes.

§ 52 EnergieStG in Spalte 9 (Steuerbefreiung für die Luft- und Luftfahrt)

5. Bei Erstattung bitte ich den Betrag auf das nachfolgende Konto zu überweisen:

Kontonummer	Bankangabe
bei Kreditinstitut	

6. Ich versichere, dass ich die Angaben nach bestem Wissen und Gewissen vollständig und richtig gemacht habe und dass die Mengenangaben mit den für steuerliche Zwecke geführten Aufzeichnungen übereinstimmen.

Anlagen

Sie können anrechnen

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Monitoring + reporting traffic emissions

1	2	3	4					9	10	11	
			Steuersatz EUR für	Versteuerung	§ 46 EnergieStG	§ 47 EnergieStG	§ 48 EnergieStG				§ 49 EnergieStG
2	Benzine, Schwefelgehalt mehr als 10 mg/kg, ausgenommen Energieerzeugnisse nach Zeile 4, § 2 Abs. 1 Nr. 1a EnergieStG	1.000,1									
3	Benzine, Schwefelgehalt höchstens 10 mg/kg, ausgenommen Energieerzeugnisse nach Zeile 5, § 2 Abs. 1 Nr. 1b EnergieStG	669,80									
4	Energieerzeugnisse nach § 50 Abs. 5 Nr. 3 EnergieStG (E85), Schwefelgehalt mehr als 10 mg/kg, § 2 Abs. 4 I V. m. § 2 Abs. 1 Nr. 1a EnergieStG	654,50									
5	Energieerzeugnisse nach § 50 Abs. 5 Nr. 3 EnergieStG (E85), Schwefelgehalt höchstens 10 mg/kg, § 2 Abs. 4 I V. m. § 2 Abs. 1 Nr. 1b EnergieStG	669,80									
6	Flugbenzin, § 2 Abs. 1 Nr. 2 EnergieStG	654,50									
7	Flugturbinenkraftstoff (maximal), § 2 Abs. 1 Nr. 3 EnergieStG	721,00									
8	Mittelschwere Öle (siehe Formsch.), § 2 Abs. 1 Nr. 3 EnergieStG	654,50									
9											
10	Gasöle, Schwefelgehalt mehr als 10 mg/kg, § 2 Abs. 1 Nr. 4a EnergieStG	470,40									
11	Gasöle, Schwefelgehalt höchstens 10 mg/kg, § 2 Abs. 1 Nr. 4b EnergieStG	470,40									
12	Pflanzenöle, unvermischt, § 2 Abs. 4 I V. m. § 2 Abs. 1 Nr. 4b EnergieStG	470,40									
13	Fettsäuremethylester (FAME), unvermischt, § 2 Abs. 4 I V. m. § 2 Abs. 1 Nr. 4b EnergieStG	470,40									

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Monitoring + reporting traffic emissions

EUROPÄISCHE GEMEINSCHAFT VERBRAUCHSTEUERPFLICHTIGE WAREN		BEGLEITENDES VERWALTUNGSDOKUMENT		
Ausfertigung für den Verwahrer	1 Hersteller	2 Verbrauchsnummer des Herstellers	3 Rezipientennummer	
		4 Verbrauchsnummer des Empfänger	5 Rezipientennummer	
		6 Rechnungsdatum		
	7 Empfänger	8 Zuständige Behörde am Abgangsort		
	7a Ort der Lieferung	10 Sicherheitsleistung		
	8 Befristung	12 Abgabepfad	13 Nachnahmepfad	
	11 Sonstige Angaben zur Befristung	14 Steuerliche Beweispflicht		
	15 Abgabepfad	16 Steuerzeichen	17 Adressatenschein	
	18a Zähler, Anzahl und Art der Perioden, Messwert, Einheit	18b Verbrauchs (in t/kWh)	20a Menge	21a Folgebereich (Jg.)
			22a Folgebereich (Jg.)	
18b Zähler, Anzahl und Art der Perioden, Messwert, Einheit	18c Verbrauchs (in t/kWh)	20b Menge	21b Folgebereich (Jg.)	
		22b Folgebereich (Jg.)		
18c Zähler, Anzahl und Art der Perioden, Messwert, Einheit	18d Verbrauchs (in t/kWh)	20c Menge	21c Folgebereich (Jg.)	
		22c Folgebereich (Jg.)		
23 Nachtragsgegenstände (Mehrwert und Spätkauf, keine Steuerzahl und Steuerzeichen)				

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Monitoring + reporting of traffic emissions

- Since the operations of mineral oil companies are already controlled by the government for tax purposes (in Germany by the customs authorities) hardly any new personnel would be required.
- The only additional task for the authorities would be:
To determine the total of the quantities of vehicle fuels sold multiplied by the emissions factors of the fuels
+ Passing on the results to the national emissions register for the ETS.
- The mineral oil companies would be obliged to hold accounts with the national emissions registers + to surrender the necessary quantity of emissions allowances!

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Determining the emissions rights budgets of the transport sector

- The first step of all NAPs II consisted of dividing the national Kyoto budgets or EU Burden Sharing Budgets for emissions rights to ETS sector + non-ETS sectors.
- Non-ETS budgets also contain estimates of emissions for the transport sector.
- Therefore the emissions for the transport sector for the second period are already politically determined!
- The EU Commission proposal for “effort sharing” for 2013 to 2020 also contains targets for the transport sector.
- Emissions targets are quasi-budgets for the transport sector.
- The budget of emissions allowances for EU-ETS could be determined as the previous ETS budget + transport sector target amounts.



Joint auctioning of emissions rights

- Since the mineral oil companies can easily factor in the costs for the acquisition of emissions allowances, then according to the European Commissions criteria for the allowances' allocation in the 3rd period there could be a complete auctioning of the transport allowances from 2013.
- The emissions allowances of the traffic sector could be auctioned together with the other emissions allowances without any problems.



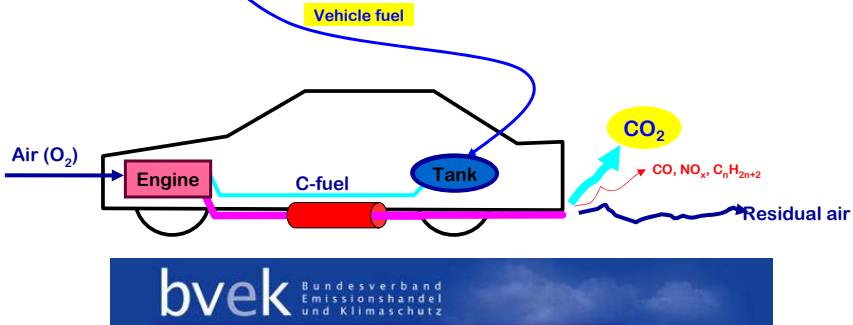
When should traffic be included?

- In principle the system allows the extension in any year!
- Optimal would be with the year **2013!**
 - Simultaneously with all the other changes starting with the 3rd period.
 - Would be more or less at the same time when the other ETS covering the transport sector (USA, Australia, New Zealand) will start!
- Doubtful but not impossible if this could be achieved within the legal procedures of the EU (election of new Commission and Parliament in 2009).

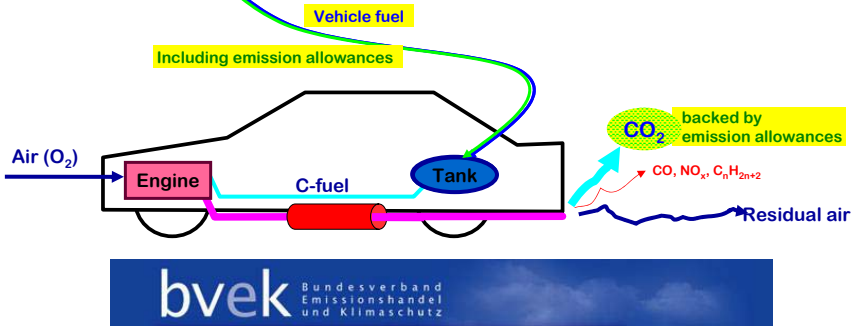
What would this mean for car drivers?



Current situation:



After including traffic in EU ETS:



Invoice 12.12.2008:

XYZ Filling Station

Erich Tankmann
Berliner Str. 2013, 10101 Berlin

Filling Station No.: 00000000xyz
Tax No. Station : 13/456/xyzxyz
Tax No. Company: 01 234 56789
Receipt number : 1234/005/00001 12.12.2008 11:15

Payment by credit card
000004 Petrol 45,20 EUR A
*PP 01 41,09 I 1,10 EUR/I *

000027 3 Wash and paint care 10,95 EUR A

Total amount 56,15 EUR

Typ	net	tax	total
A: 19,00%	47,18	8,97	56,15

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000004 Petrol 45,20 EUR A
*PP 01 41,09 I 1,10 EUR/I *

000104 Emission allowances 3,38 EUR C
* for 41,09 I EF= 2,35 kg CO₂/l = 96,56 kg CO₂
and 35 EUR/Allowance for 1000 kg CO₂

000027 3 Wash and paint care 10,95 EUR A

Total amount 59,53 EUR

Typ	net	tax	total
A: 19,00%	47,18	8,97	56,15
C: 0,00%	3,38	0,00	3,38

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Summary:

- The inclusion of terrestrial traffic in the EU-ETS would be very simple. The combination of both upstream and downstream approaches would not cause any problems!
- The additional administrative costs would be low!
- Vehicle owners can see their individual CO₂-emissions on the filling station invoice and the cost to them and can adjust their conduct accordingly!
- The absolute emissions of the traffic sector would be capped!
- No further regulation of the traffic sector would be necessary, at least not from the climate change protection point of view!



Thank you for Your Attention!

Jürgen Hacker

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