

## Emissions Daily

Tuesday, July 26, 2005

### U.S. companies report 372-mil mt of CO<sub>2</sub> reduction projects in 2003

Washington, DC—US emissions reductions efforts in 2003 saw a total of 2,188 projects to reduce emissions by 372-mil mt, according to data from the U.S. Energy Information Administration (EIA)

The reported reductions for the projects included 268-mil mt CO<sub>2</sub> equivalent of direct reductions, 81-mil mt of indirect reductions, 7-mil mt of reductions from carbon sequestration, and 16-mil mt of unspecified reductions. Total US greenhouse gas emissions in 2003 are estimated at 6.93-bil mt of CO<sub>2</sub> equivalent.

The number of entities reporting to the program has grown by 117% from its inception in 1994, when 108 entities reported. The 2,188 projects reported for 2003 represent an increase of 245% over the 634 projects reported in 1994 and a 7% increase from the final tally of 2,055 projects reported for 2002.

Electric power sector companies accounted for 1,485 (68%) of the projects reported for 2003. Also reporting were alternative energy providers (446 projects), industrial concerns (245

projects), and agriculture and forestry organizations (3 projects). Organizations in other sectors (government, commercial, and residential) submitted reports on 9 projects.

Most of the projects reported for 2003 affected energy supply or use, the EIA said. The electric power sector reported 514 projects that were related to the generation, transmission, or distribution of electricity. Another 450 were related to energy end use, 76 were transportation projects, and 21 were cogeneration projects.

Other projects reduced emissions of methane from waste treatment and disposal facilities (467 projects), from oil and natural gas systems and coal mines (43 projects, many of which included the displacement of fossil fuels through the use of methane as a fuel), and from agricultural activities (4 projects).

Other projects (109) included the reuse of fly ash in concrete and materials recycling, which reduce emissions in part by reducing energy consumption. The largest reductions were

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### European CO<sub>2</sub> rules seen hurting U.S. businesses, says trade group

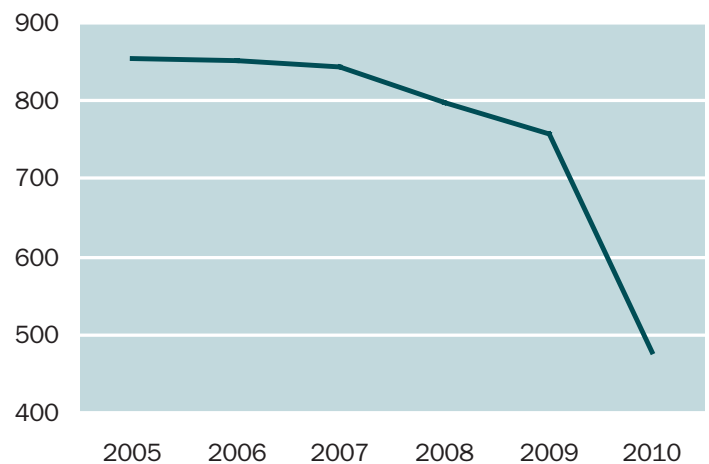
Washington, DC—Regulations and standards originating in Europe are affecting U.S. businesses in what one critic terms “regulation without representation.”

That is the conclusion of Lawrence Kogan, director of the Princeton, N.J.-based Institute for Trade, Standards and Sustainable Development, who says a number of environmental, health and safety standards are based on “an evolving international legal norm” known as “the precautionary principle,” which he calls a “non-scientific, ‘better safe than sorry’ risk-averse philosophy of regulation.”

European regulators have adopted the approach, and want to impose it on the United States, Kogan says in a just-released paper. He adds that these “hazard based” regulations are

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U.S. SO<sub>2</sub> forward price curve (\$/st)



Source: Platts

#### Platts key emissions assessments

Daily  
CO<sub>2</sub> 2005  
EUA



€19.825  
Up  
0.225

Daily  
SO<sub>2</sub> 2005  
Assessment



\$855.00  
Up  
5.00

Daily  
NO<sub>x</sub> 2005  
Assessment



\$2,500  
Up  
88

CO<sub>2</sub>

## AEA, airline groups launch emissions containment policy

London—The Association of European Airlines, in partnership with five other international bodies, has unveiled a new emissions containment policy, which details how greenhouse-gas emissions of the industry have been, and can be, controlled whilst allowing for sustainable market development.

Explaining the policy, AEA secretary general Ulrich Schulte-Strathaus said: “When linking aviation with climate change, there exists a misconception that a given increase in traffic will produce an identical increase in carbon dioxide emissions. This is simply not the case”.

Schulte-Strathaus said the new policy has four elements: firstly, manufacturers of aircraft and engines have, for decades, been able to continually develop more efficient technologies and clean manufacturing processes. The aviation industry is currently working towards halving CO<sub>2</sub> production and aircraft noise (per unit of production) by 2020 and an 80% reduction in other emissions;

Secondly, a Single European Sky, as endorsed by the European Union, could deliver a reduction of CO<sub>2</sub> per production unit of up to 12%, Schulte-Strathaus said. Further improvements could be realised by reduction of airport congestion.

### European CO<sub>2</sub> market report

EU emissions trading started the week on a quiet note, with relatively modest volume and price movement recorded throughout the day. A lack of significant movement in related markets meant there was little direction apparent in the EU Allowance market, and sources called the day's activity a “non-event”.

2005 EUAs opened the day trading at €19.60, in line with Friday's close, and moved up steadily to peak in the morning session at €20.10. After midday, levels began to drift in what has become the daily pattern for EUA trade. Sources reported the market spent a lot of the afternoon session trading around €20.00, and then into the €19.00s.

As the day came to a close, sources reported the final over the counter trade at €19.80 for 2005 EUAs; though the European Climate Exchange traded back up to €19.95 at the close. Sources called the closing bid-offer at €19.80-19.95.

2006 and 2007 EUAs saw different fortunes Monday. The '05-'06 spread was traded several times, including a 100,000 EUA clip at 18 euro cents. A further 50,000 EUAs were traded at a 20 euro cent differential, while sources also reported a legged spread trade at around 15 euro cents. Generally, though, sources pegged the value of the '05-'06 at close to 20 euro cents.

The '05-'07 spread did not trade all day, and price ideas were few and far between. Sources said that given the lack of interest, the notional '05-'07 market would be around 40 euro cents in value.

### European exchange data, Jul 25 (€/mt)

	Settlement (€/unit)	Volume
<b>ECX/IPE</b>		
<b>Futures</b>		
CFI Q4 05 (Jul 22)	19.60	396,000
CFI Q4 06	19.85	120,000
CFI Q4 07	20.10	140,000
CFI Dec 2008	20.25	na
<b>Nord Pool</b>		
<b>Forwards</b>		
EUA Dec 05	19.90	10,000
EUA Dec 06	20.10	na
EUA Dec 07	20.35	na
<b>EEX</b>		
<b>Spot Auction</b>		
EUA Dec 05	19.50	6,500
<b>Powernext</b>		
Spot	na	na

Thirdly, just as the way cars are driven and maintained can significantly affect their efficiency, so with aircraft. Operators recognise the importance of best practice, while regulators should do all they can to promote and encourage it. Finally, the

Some traders reported early bid-offer talk in the spread at 35-62 euro cents.

Trading volumes for the day were modest by comparison with recent days: a total of around 835,000 EUAs were reported traded on all platforms.

### Platts daily CO<sub>2</sub> assessments, Jul 25 (€/mt)

Delivery	Assessment	Midpoint	Change
EUA 2005	19.800-19.850	19.825	0.225
EUA 2006	20.000-20.050	20.025	0.255
EUA 2007	20.200-20.250	20.225	0.275

#### Monthly Cumulative Index

EUA 2005	Jul-05	25.352 *	-0.346
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*Forward market daily assessments: The low end of the range reflects prices for larger parcels, while the upper end reflects prices for smaller parcels. The typical size range is 5,000 to 50,000mt.*

*Monthly Cumulative Index: A volume-weighted average of trades done during the month is updated daily. The index requires more than five trades totaling more than 100,000mt involving at least four counterparties. In the absence of sufficient trade, the monthly average of daily assessments will be used and the index will be marked with an asterisk (\*).*

associations are evaluating market-based options, in particular, the trading of emission rights – currently being debated by the European Union as an option for inclusion in the EU Emissions Trading Scheme in 2012.

Schulte-Strathaus said “The aviation sector has been able to decouple emissions growth from traffic growth. Fuel consumption is expected to increase only by 3% in the next years, whereas traffic will grow by at least 4%.”

“The way to deal with emissions is not to stifle economic growth – certainly not if this merely reduces the competitiveness of European airlines. We are proactively seeking ways of minimising the environmental impact whilst not artificially and negatively impacting growth. Ultimately, we want to develop a template which can be adopted globally, because the environmental problems are global.”

## TUV Sud Germany’s first official CDM project credits issuer

TUV Sud has become Germany’s first official certificate issuers for Clean Development Mechanism projects, the independent auditor said Monday. The decision to permit TUV to issue Certified Emission Reductions was made by the executive committee of the Clean Development Mechanism in Bonn.

This accreditation means that TUV Industries Service can apply for official registration of CDM projects with the executive board. Only after registration is complete and the project is complete can companies offer certificates from the projects in the emissions market place.

TUV said its experts had considered more than 40 projects from wind, solar and waste sectors even before the company was accredited.

CDM is one of the market instruments of the Kyoto Protocol and enables companies to carry out their emissions reduction projects in developing countries. Certificates generated in those countries can be used in the EU Emissions Trading Scheme. Under Kyoto, industrialized nations obliged themselves to cut GHG emissions by 5.2% by 2012 compared with 1990 levels.

At the same time, TUV has accredited the first emissions reduction project in China, which will reduce 514,000 mt of carbon dioxide emissions by 2014, the company said.

The project, consisting of 22 wind turbines in Inner Mongolia with a total capacity of 25.8MW, has been brought to validation with CDM executive board by TUV.

The Certificates of Emissions Reduction are to be sold to the Dutch government, said TUV.

## U.S. CO<sub>2</sub> reductions... from page 1

reported for projects that improved the performance of nuclear power plants.

The non-energy-related projects reported fell into two major categories: sequestration of carbon, usually in forests (460

projects); and recycling, reuse, or destruction of halogenated substances, such as hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF<sub>6</sub>) (44 projects).

For 2003, total emission reductions from electric power and cogeneration projects included 158-mil mt from direct sources and 18-mil mt from indirect sources. A total of 257 projects that reduced the carbon content of fuels used to generate electricity were reported, with emission reductions totaling 147-mil mt from direct sources and 13-mil mt from indirect sources.

Emission reductions for increased energy efficiency in generation, transmission, and distribution included 16-mil mt from direct sources and 4-mil mt from indirect sources. Another 50 electric power and cogeneration projects were also reported, with reported emission reductions from unspecified sources that totaled 11-mil mt.

For 2003, 375 energy end use and transportation projects were reported on Form EIA-1605, with total reported emission reductions of 25 million metric tons carbon dioxide equivalent from direct sources and 10 million metric tons from indirect sources.

Nearly all (93%) of the energy end-use reductions were reported for stationary-source applications, such as building shell improvements, lighting and lighting control, appliance improvement or replacement, and heating, ventilation and air conditioning (HVAC) improvements.

Much smaller reductions were reported for the 66 transportation projects, including 2.5-mil mt from direct sources and 100,000 mt from indirect sources.

There were 446 carbon sequestration projects reported, with

### Platts US daily assessments, Jul 25 (\$/st)

	Bid	Offer	Assessment	Change	€/mt
<b>SO<sub>2</sub></b>					
2005	845.00	865.00	855.00	5.00	705.45
2006	841.00	863.00	852.00	7.00	702.97
2007	832.00	855.00	843.00	8.00	695.54
2008	787.00	809.00	798.00	13.00	658.42
2009	746.00	768.00	757.00	7.00	624.59
2010	465.00	491.00	478.00	31.00	394.39
<b>NO<sub>x</sub></b>					
2004	2,050	2,100	2,075	50	1,712.05
2005	2,466	2,533	2,500	88	2,062.71
2006	2,633	2,708	2,675	69	2,207.10
2007	2,590	2,650	2,633	121	2,172.44

*For methodology, visit <http://www.emissions.platts.com>.*

### Daily emissions price comparisons, Jul 25

	\$	£	¥
EUA 2005 assessment	24.03	13.78	2212
	€	£	¥
US SO <sub>2</sub> assessment	705.45	490.77	95413
US NO <sub>x</sub> assessment	1712.05	1191.05	231559

total reported sequestration of 8-mil mt. Most of the reported reductions resulted from afforestation, reforestation, urban forestry, forest management, and forest preservation efforts.

Emission reductions for the 470 methane and nitrous oxide abatement projects reported for 2003 included 69-mil mt from direct sources and 40-mil mt from indirect sources.

The three most frequently reported sources of methane reductions were municipal waste landfills (412 projects), natural gas systems (28 projects), and coal mines (13 projects). In addition to reducing methane emissions, projects that involved the recovery and use of methane for energy also reduced carbon dioxide emissions by displacing fossil fuels, such as oil and coal, which have higher carbon contents and thus produce more carbon dioxide when burned.

Another 44 methane or nitrous oxide reduction projects were reported on Form EIA-1605EZ for 2003, with reported reductions of methane or nitrous oxide emissions that totaled 4-mil mt.

A total of 66 projects were submitted that reported reductions in emissions of HFCs, PFCs, and SF6. Reductions reported for these projects included 6.1-mil mt from direct sources and 2.4-mil mt from indirect sources. The largest reported reductions were direct reductions of perfluoromethane (a type of PFC) (3-mil mt), SF6 (2.6-mil mt), and perfluoroethane (a type of PFC) (600,000 mt).

### CO<sub>2</sub> rules ... from page 1

becoming increasingly popular in the United States. His paper, "How Europe's New Regulatory Protectionism Imperils American Free Enterprise," was released by the institute Friday and is to be posted soon by the Washington Legal Foundation.

The US rules Kogan alludes to as "hazard based" include state regulations covering carbon emissions as well as state laws requiring greenhouse gas registries. The most threatening of these, he says, is the Regional Greenhouse Gas Initiative (RGGI), in which nine Northeastern states plan to impose a carbon cap-

### Generating fuel cost comparisons, Europe (Jul 25)

Fuel	/MWh	Plus CO <sub>2</sub>	Total /MWh	Profit/Loss		
				in £	in €	in \$
<b>UK Baseload (£)</b>						
<b>Gas</b>						
Next month	23.59	5.30	28.89	6.66	9.58	11.59
Next Q	38.22		43.52	5.08	7.30	8.84
<b>Coal</b>						
Next month	15.14	13.99	29.12	6.43	9.24	11.19
Next Q	15.24		29.22	19.38	27.88	33.76
<b>NW Europe (€) Baseload</b>						
<b>Gas</b>						
Next month	29.82	6.87	36.69	€ 11.06	£ 7.69	\$ 13.41
Next Q	36.28		43.15	€ 4.85	£ 3.37	\$ 5.88
<b>Coal</b>						
Next month	21.76	20.12	41.88	€ 5.87	£ 4.08	\$ 7.11
Next Q	21.90		42.02	€ 5.98	£ 4.15	\$ 7.24
<b>NW Europe/UK Peak load</b>						
<b>Fuel Oil 1%S</b>				<b>NWE €</b>		<b>UK £</b>
Next month	0.00	15.08	15.08	49.42	31.97	
Next Q	0.00		15.08	51.20	49.42	
<b>Fuel Oil 3.5%S</b>				<b>NWE €</b>		<b>UK £</b>
Next month	0.00		15.08	49.42	31.97	
Next Q	0.00		15.08	51.20	49.42	
<b>Gasoil 0.2%S</b>				<b>NWE €</b>		<b>UK £</b>
Next month	109.55		124.63	-60.13	-44.17	
Next Q	112.97		128.04	-61.77	-29.09	

*Note: Based on typical kg CO<sub>2</sub>/mmBtu rates of 101.5 for coal, 55 for natural gas, and 72.5 for oil; and on generating efficiencies of 49% for UK gas plant, 54% for western Europe gas plant, 34% for all coal plant, and 32% for all oil-fired plant. Benchmark coal and distillates are priced at ARA. Details of methodology at [www.platts.com](http://www.platts.com)*

### Generating fuel cost comparisons, US (Jul 25)

Fuel	\$/MWh	Plus SO <sub>2</sub> Allowances	Plus NO <sub>x</sub> Allowances	Plus Both Allowances		P/L, No Allowances		P/L, With SO <sub>2</sub> ,NO <sub>x</sub>	
				\$	€	\$	€	\$	€
<b>Cincinnati</b>									
Coal	25.44	32.44	32.79	39.79	32.83	78.08	64.42	63.73	52.59
Gas	60.57					42.95	35.44		
<b>Atlanta</b>									
Coal	26.24	32.53	33.59	39.88	32.90	58.80	48.51	45.16	37.26
Gas	60.76					24.28	20.03		
<b>Kansas City</b>									
Coal	12.03	15.38	19.38	22.73	18.75	64.99	53.62	54.29	44.79
Gas	55.85					21.17	17.47		

*Note: Based on typical heat rates of 9,800 Btu/kWh for coal generation and 7,800 Btu/kWh for natural gas generation; no NO<sub>x</sub> controls on coal stations resulting in 0.6 lb/mmBtu NO<sub>x</sub>; benchmark coals meeting specifications for NYMEX look-alike and CSX-Big Sandy/Kanawha Central Appalachian coals, barged to Cincinnati and railed to Atlanta, respectively, and Powder River Basin 8800 coal railed to Kansas City. For details, see methodology at [platts.com](http://platts.com).*

and-trade system on power plants as early as the fall of 2005.

Kogan says RGGI “will have no measurable scientific and environmental impact on global warming—i.e., it is merely a political and symbolic undertaking.” But it will effectively tax power imported into the RGGI region, and will raise rates to consumers. He adds that RGGI is meant to be a model for other parts of the country, and a “RGGI clone” is being developed to cover California, Oregon and Washington.

“Consequently, RGGI could potentially serve as a template for the enactment of other regionally based regulatory agreements among US states that are modeled after other (non-climate related) precautionary-principle-based EU regulations,” Kogan states.

State attorneys general have also filed lawsuits, “hoping to move climate change policy from the elected branches to the courts,” because “neither the Congress nor the administration has chosen to address climate change issues in the manner advocated by European leaders and trans-Atlantic environmental groups,” he adds.

Kogan favors the approach of Senator Chuck Hagel (R-Nebraska) in the pending energy bill, which would provide loans and tax benefits for projects that reduce greenhouse gas intensity. These would provide environmental benefits “without jeopardizing the American free market enterprise and legal systems and the American comparative advantage in international trade,” the paper states.

## IN BRIEF

■ The introduction of European trading in carbon dioxide emissions has not given any particular support to the expansion of renewable energy sources, German economic institute DIW said. The DIW said if emissions trading were to fulfil its goals of reducing overall emissions, then subsequent National Allocation Plans would be tighter, and this might affect the efficiency of the renewables law. The institute said in its latest report that further support for renewables must be made with a view to both climate protection and for techno-political reasons. “The renewables law of 2004 is the right instrument for that,” said

## Forex indicators, Jul 25

Country	Currency	€	\$
Czech	Koruna	30.232	25.103
Estonia	Kroon	15.646	12.986
Hungary	Forint	245.122	203.466
Japan	Yen	134.468	111.625
Latvia	Lats	0.702	0.583
Lithuania	Litas	3.452	2.865
Norway	Kroner	7.914	6.568
Poland	Zloty	4.106	3.408
Slovakia	Koruna	38.956	32.326
Slovenia	Tolar	239.547	198.803
Sweden	Kronor	9.412	7.812
UK	Pound	0.690	0.573
US	Dollar	1.204	1.000

the DIW. DIW said renewables needed support even if emissions trading grows in importance in Europe. If current subsidies for power generated by renewable sources is continued, German can meet its aim of renewables generating 12.5% of total power by 2010. Renewables generated 9.3% or 55.8TWh of power in 2004, but green power sources only have a share of 3.6% in primary energy consumption.

■ Germany's opposition FDP party wants to see European carbon dioxide emissions cut by 30% between 2012-2020, according to its election manifesto for the September 18 general election. The FDP is a former coalition partner of the current main opposition party CDU. “The answer to the avoidance of climatic catastrophes for us lies in international, common action on climate protection,” said the party in the manifesto. “We need a fair distribution of the burden on a European level,” added the party. The FDP furthermore said that it wanted to see all flexible instruments of the Kyoto Protocol used to maximum effect. The party said German companies should build more solar panels in countries other than Germany as that would bring more power per invested euro, and hence have a greater impact. “We want German investors to have the possibility to carry out joint implementation projects with sectors which are not party of emission trading, for example renovation of old buildings,” concluded the party.