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ENERGY AND EMISSIONS

1.1. EU CO2 Emission Prices Hit New Record High

13 April 2006, Planet Ark

European carbon dioxide emission prices briefly jumped to new record highs on Wednesday, boosted by surging oil prices and strong German power markets.

Carbon quotas for December 2007 delivery climbed to 31 euros a tonne, although they eased to 30.25 euros at the close, down 10 cents from Wednesday's finish but still around historic highs.

The gains are feeding through into higher wholesale power prices and are set to be passed on to consumers via further increases in industrial and residential electricity bills, which have already risen sharply over the last year.

Carbon dioxide prices have climbed about five fold since the launch last year of the European Union's emission trading scheme, the centrepiece of the bloc's efforts to reduce greenhouse gas pollution and curb global warming.

High oil prices will trigger gains in European gas prices, encouraging power producers to burn more coal and increasing their demand for CO2 quotas as coal is much dirtier than gas.

Dry weather in Europe is reducing carbon-free hydropower output and prompting generators, especially in Spain, to burn more fossil fuel.

"Water shortages and high pressure across Europe are expected to curtail clean energy generation," Deutsche Bank said in a recent energy report.

"We expect this will place significant upward pressure on European emission and German power prices."

Deutsche has forecast emission prices could rise towards 40 euros over the coming year.

British energy shares gain: Shares in UK power producer British Energy rose 1.8 percent, a leading FTSE 100 gainer in a broadly lower market, on the high carbon prices.

British Energy, which generates most of its power through nuclear plants, does not have the same exposure to rising costs caused by CO2 prices as its coal and gas focused rivals.

UK forward wholesale electricity prices rose sharply, especially summer contracts.

Summer 07 gained 40 pence to 46.40 pounds a megawatt hour while the following summer firmed 80 pence to 48.35/48.50 pounds.

European gas prices are indexed to oil, so gains in crude markets feed through into gas prices, although with a lag of between six and nine months.

Oil hovered near a record high on Wednesday, boosted by uncertainty over supplies from major exporters Iran and Nigeria.

German power prices for 2007 hit record highs on Tuesday. Traders say the strong German prices encourage utilities to sell forward electricity and buy the carbon quotas they need to cover their production.

Germany is Europe's top carbon polluter. Power stations pump out 80 percent of the country's CO2 emissions, making its utilities important players in the CO2 market.

Story by Margaret Orgill

1.2. Germany publishes cornerstones of second phase NAP

12 April 2006, Point Carbon

Germany will allocate 495.5 million tonnes per year under its provisional second phase allocation plan, compared to 499 million tonnes in the first trading period, it emerged today.

However, while the volume appears to be only a slight cut from the first period, the inclusion of installations such as crackers means the comparable volume is 485 million tonnes, a cut of 14 million tonnes (2.8 per cent) from the first phase.

Industrial emitters will receive 98.75 per cent of their required volumes, according to a paper obtained from the federal environment ministry which summarises the main points of the plan, while utilities will receive 85 per cent. Small emitters with up to 25,000 tonnes of CO2 per year will be allocated all necessary certificates.

Minister Sigmar Gabriel explained that industrial emitters were exposed to international competition and thus not able to pass on costs for additional EUAs on to their customers. Also, they were hardly able to reduce emissions further because the largest part was process-related. On the other hand, German power producers enjoyed only limited competition and had profited from major windfall profits.

The reserve will be considerably larger than to date - instead of the current three million tonnes per year, it will be 10 million tonnes.

Another two million tonnes per year will be used for what the ministry calls "re-financing of system costs." That relates mainly to costs that the state-owned bank KfW might have from acquiring additional certificates on the market and introducing it into the system, as the government is not allowed to do so directly.

Facilities will be allowed to cover up to 12 per cent of their allocation volume through participation in flexible mechanism projects, which amounts to 60 million tonnes per year.

New plants will receive the full amount of certificates needed for 14 years - provided that they meet strict benchmarks, the ministry said. This would create a major incentive to invest in new and modern plants.

The number of special allocation rules will be dramatically reduced, the paper says. The option rule, under which facilities could apply for certificates on the basis of production forecasts rather than historic emissions, has been scrapped. It caused major disturbances in the first round of allocations and led to a much higher demand than anticipated.

The plan is open for public consultation after which amendments may be made and the plan will then go to the EC for approval before 30 June.

1.3. China actively responds to climate change challenge

http://english.people.com.cn/200602/17/eng20060217_243650.html

The year 2005 has marked the hottest year in the past 100 years with an average global temperature of 14.6 degree Celsius, 0.04 degree higher than the previous hottest year of 1998.

Although it's hard to predict what climate will be like in 100 years, scientists have discovered more evidence that over the past 50 years, global climate tended to become warmer and warmer. And the change has great to do with the increasing greenhouse emissions such as carbon dioxide, caused by the use of fossil fuels. Thus climate change is indeed an issue and needs great efforts to deal with.

China has responded positively to the challenge by taking a series of measures.

To slow down the pace of climate change and reduce the carbon dioxide emission, the United Nations (UN) has drafted the UN Framework Convention on Climate Change and passed the Kyoto Protocol a year ago. According to the Kyoto Protocol, by 2010, all the developed countries should reduce their greenhouse gas emissions by 5.2 percent on the basis of 1990. China has signed the protocol, but as a developing country, when China should shoulder this responsibility will be discussed in 2012.

China responds positively to the challenge: Professor Zou Ji from Renmin University of China, also a participant in the UN climate change talks, said as a responsible country, China has actively participated in slowing down the mounting greenhouse emissions.

The Chinese government has formulated and implemented a sustainable development strategy and the National People's Congress (NPC), China's top legislative body, has passed a law on renewable energy on Feb. 28 2005, 12 days after the Kyoto Protocol taking effect. China has tried its best to promote new energy and renewable energy, improve energy use efficiency and supply mix.

Statistics show that by 2000, over 40 thousand hydropower plants have been established in over 1500 counties across China, with an annual power generation of 80 billion kwh. In addition to wind power, solar and geothermal energy and methane are also used and explored in the vast rural areas.

After the 1980s, China's State Council and local governments have drafted a series of energy conservation policies such as energy-saving standards, labels and certification systems.

China has paid special attention to energy-saving and reducing cost in heavy industry such as iron and steel. From 1990 to 2000, the output of iron and steel doubled, but the energy cost only increased by 34 percent. However, the challenge is still huge. Over the past five years, the amount of sulfur dioxide released to air has increased to 24 million tons from less than 20 million tons. This not only polluted air, but also caused acid rain. People's health and environment are both under threat.

China is drafting a national plan to deal with climate change.

Turn the challenge into opportunities: Environmental experts have called on the public to pay attention to climate change and turn the challenge into opportunities. To face the severe challenge, Zou Ji said public awareness must be raised.

"Only when the public is aware of the threat of climate change, can they take action to deal with it."

Luo Yong, deputy director of the National Climate Center (NCC) under the State Meteorological Administration, said it is imperative to promote the concept of climate change for the whole society including various circles and individuals to realize the impact brought about by climate change and act positively to slow down the pace of the change.

Liu Hongbin, director of Climate Change Division of the NCC said everyone can play a part in slowing down the pace of climate change by using less air-conditioning, energy-saving and reducing damage to vegetation.

By People's Daily Online

CLIMATE IMPACTS

2.1. Climate change will cause tens of thousands of species extinctions, says study

15 April 2006, Canadian Press

Dennis Bueckert

Climate change will cause the extinction of tens of thousands of species in coming decades, says a study in the scientific journal Conservation Biology.

The study predicts a disastrous thinning of life in the world's biodiversity "hotspots" - places like the tropical Andes or the Caribbean basin, which contain a disproportionate wealth of species. The authors estimate that 39 to 43 per cent of species in these regions - 56,000 plant species and 3,700 vertebrates - would likely disappear with a doubling of carbon dioxide from pre-industrial levels.

"These (hotspots) are the crown jewels of the planet's biodiversity," lead author Jay Malcolm of the University of Toronto said in an interview Tuesday.

"Unless we get our act together soon we're looking at committing ourselves to this kind of thing."

Malcolm said the hotspots tend to be found on high mountains, near the edges of continents or on islands, leaving species with few options for migration.

For example, mountain species can seek cooler temperatures by going to higher altitudes, but as they climb the land area diminishes. Land species at the ocean's edge have nowhere to go.

Until recently a CO2 doubling was projected to occur around the end of this century, but many scientists now believe it will happen faster since greenhouse emissions are rising faster than expected. Carbon dioxide, the main greenhouse gas, is produced by the burning of fossil fuels. It is transparent to incoming solar radiation but prevents the radiation from bouncing back into space, causing a heat trap.

Malcolm said there is a big margin of uncertainty in the study's predictions, but the need to protect the atmosphere is obvious.

"The atmosphere is our bread and butter, and here we are doing an experiment with it Not a good idea. You don't realize what services nature provides in terms of clean air, water, soil, waste removal.

"If you start playing with that and you have this potential unravelling, then . . . we're hard pressed to have much of an idea of what will happen."

Faisal Moola, a scientist with the David Suzuki Foundation which helped fund the report, said Canada is home to many species not found elsewhere, especially in the Rockies, the Queen Charlotte Islands and the Far North.

"Because those animals and plants are found nowhere else on the planet, we have a global responsibility to be sure those don't disappear due to climate change," he said.

"What this study shows is we have to reduce greenhouse emissions. We have to change from energy sources that damage the environment to those that don't."

The Conservative government has not yet stated a clear climate change policy.

2.2. 3 degrees: Chief scientist warns bigger rise in world's temperature will put 400 million at risk

15 April 2006, <http://news.independent.co.uk/environment/article357783.ece>

By Andrew Grice, Political Editor

The world's temperature is on course to rise by more than three degrees Centigrade despite efforts to combat global warming, Britain's chief scientist has warned.

Sir David King issued a stark wake-up call that climate change could cause devastating consequences such as famine and drought for hundreds of millions of people unless the world's politicians take more urgent action.

Britain and the rest of the European Union have signed up to a goal of limiting the temperature rise to two degrees. In his strongest warning yet on the issue, Sir David suggested the EU limit will be exceeded.

According to computer-modelled predictions for the Government, a three-degree rise in temperatures could put 400 million more people at risk of hunger; leave between one and three billion more people at risk of water stress; cause cereal crop yields to fall by between 20 and 400 million tons; and destroy half the world's nature reserves.

Environmentalists warned that Greenland's ice cap could melt, raising sea levels by six metres. In Britain, the main threat would come from flooding and "coastal attack" as sea levels rose.

In a BBC interview yesterday, Sir David said it was essential that the world began to make the necessary changes now. "We don't have to succumb to a state of despondency where we say that there is nothing we can do so let's just carry on living as per usual. It is very important to understand that we can manage the risks to our population - and around the world," he said. "What we are talking about here is something that will play through over decades - we are talking 100 years or so. We need to begin that process of investment. It is going to be a major challenge for the developing countries. There are no certainties here. If you ask me where do we feel the temperature is likely to end up if we move to a level of carbon dioxide of 550 parts per million - which is roughly twice the pre-industrial level and the level at which we would be optimistically hoping we could settle - the temperature rise could well be in excess of three degrees Centigrade. And yet we are saying 550 parts per million in the atmosphere is probably the best we can achieve through global agreement."

Tony Blair appears resigned to not securing a "Kyoto mark 2" agreement under which countries would set firm targets to cut greenhouse gas emissions, which is opposed by the Bush administration, India and China. But he is trying to win international agreement on a goal of stabilising temperatures and carbon emissions at current levels when the Kyoto agreement expires in 2012, mainly through cleaner energy technology.

Sir David made a thinly veiled attack on President Bush's approach after his chief climate adviser James Connaughton said recently he did not believe anyone could forecast a safe carbon dioxide level and that cutting greenhouse gas emissions could harm the world economy. Sir David said politicians who believed they could simply rely on new technologies to produce cleaner fuels should start listening to the scientists. "There is a difference between optimism and head in the sand," he said.

But the Government's critics accused Sir David of being defeatist. Tony Juniper, director of Friends of the Earth, said: "It is technologically possible to significantly reduce our emissions and deliver two degrees [Centigrade]. Professor King should be pressing for Government policies to deliver on this rather than accepting the current lack of political will and talking of three degrees as an inevitability.

"The best thing Tony Blair could do is to bring in the climate change law called for in The Big Ask campaign which would enable the UK to show the world that it is possible to reduce emissions by delivering on our targets at home."

Peter Ainsworth, the shadow Environment Secretary, said: "Sir David King's pessimism on climate change is disturbing. All credible scientific evidence, including his own, clearly implies that a rise in global temperature of over two degrees Centigrade would threaten to unleash rapid and catastrophic climate change, leading to economic and social disaster. The world's poorest people would be hit first and hardest. With effective political action at international, national and local levels, we can not only avert this disaster, but also create lasting prosperity based on clean, new technologies. Defeatism can only pave the way to a miserable future."

Tony Grayling, associate director of the Institute for Public Policy Research, said: "We are not bound to get to three degrees. Even with technology we have got, we can stay within two degrees." He urged the Government to set a target of cutting its carbon dioxide emissions by 90 per cent by 2050. It has pledged to reduce them by 60 per cent by 2050 but admitted last month it would miss its goal of cutting them by 20 per cent of 1990 levels by 2010.

Seas rise: 2100, and the world's temperature has risen by 3C. The ice cap covering Greenland is in retreat, eventually adding 7 metres to sea levels, and the west Antarctic ice sheet starts melting. Arctic summer sea ice disappears, killing the polar bear. You can sail to the North Pole. Coastal urban populations in Africa and Asia are at risk.

Rainforest retreats: The Amazon breaks down as rainfall decreases, causing the forest to collapse into savannah. It deals a devastating blow to global biodiversity - the basin is home to millions of species of wildlife - and the earth's ability to recycle carbon emissions. The ocean and the soil become net carbon contributors, further speeding global warming.

Weather worsens: Climate increasingly volatile as warming adds energy to weather systems. Events of the past decade foreshadow floods (Bangladesh, India), drought (east Africa), hurricanes and cyclones (Mozambique, Nicaragua and Honduras), forest fires (the Mediterranean, Alaska and Russia) and insect plagues (Canada) that wrack the globe.

Drought spreads: Africa's Great Lakes shrivel; Malawi's wetlands dry up and acute water shortages threaten fishing and farming livelihoods (40 per cent of its GDP). Worldwide, 3bn people face severe "water stress", with possible water wars in Central Asia and Africa. Mass migration out of North Africa. By 2100, Peru faces drought as its glaciers melt.

Ecosystems collapse: A fifth of the world's surface has changed significantly, from melting Arctic tundra to vanishing cloud forest in Queensland, Australia (exterminating the native Golden Bowerbird, above). A 3.7C rise would kill or critically endanger 40 per cent of Africa's mammals. Up to 38 per cent of Europe's birds and 20 per cent of its plants are extinct or at risk.

Famine grows: Snow melts earlier in the year so water sources dry before crops finish growing in areas such as the Sierra Nevada and northern India, left. Up to 400 million people at risk of hunger as 400 million tons of cereal crops are lost, with Africa hit worst. Crop yields fall for the first time since the agricultural revolution in Europe, Russia and America.

What if...

55 Percentage of the world's population would be exposed to dengue fever - up from 30 per cent in 1990. Insect-borne diseases like dengue and malaria, which already claim 1.3m lives a year, would spread away from the equator towards the poles.

3bn Population at risk of water shortages as rising temperatures dry surface water and reduce rainfall.

54 Percentage of mammals that will die in South Africa (worst-case scenario). Up to 40 per cent of the country's birds, 70 per cent of butterflies and 45 per cent of reptiles will also be extinct or critically endangered.

1/2 Nature reserves that will no longer be able to fulfil their conservation objectives, due to dying species or habitats.

-10c British temperature drop during wintertime, once global warming reaches the point where it disrupts Atlantic Ocean currents and switches off the Gulf Stream, which currently warms our island. The North Atlantic marine ecosystem could also collapse when half the plankton die. It is not known exactly what the "tipping point" temperature for this is, but 3C would be close.

CONFERENCES

3.1. Berlin Conference on the Human Dimensions of Global Environmental Change

The Berlin Conference Steering Committee and its partners invite papers for this year's "Berlin Conference on the Human Dimensions of Global Environmental Change". The 2006 conference will be the sixth event in the series of annual Berlin Conferences.

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