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THE GREAT EMISSIONS RIGHTS GIVE-AWAY

Permits worth €170 billion to burn fossil fuels have been given away to 11,500 of the EU's biggest polluters. This has inflated their profits and enabled them to out-compete cleaner, less energy-hungry firms. If, instead, emissions permits had been given to every EU resident, we could each have been better off by around €280 a year.

When restrictions on releasing greenhouse gases become really severe, emissions permits will be worth far, far more. Action is necessary now for two reasons. One is to ensure that, in future, the permits benefit the people of Europe rather than big polluting firms. The second is to develop an attractive working model for a global climate treaty.

What would you think if petrol was rationed but only those with the biggest cars were given coupons to buy it? It wouldn't seem very fair, would it? Well, the emissions trading system (ETS) put in place by the EU to slow the pace of climate change is even less fair than that. It aims to limit the number of tonnes of carbon dioxide the EU releases into the atmosphere each year from burning coal, oil and gas by restricting the number of permits that are available for those releases. Unbelievably, though, permits to release CO₂ are only being given to some large energy-users. Others, and smaller users, are not issued with permits. However, the big energy users who do get them are allowed to charge their customers the market price for all the permits they use to make their products even though they got those permits free. A Dutch study¹ has shown that electricity companies in four countries have already increased their prices to make their customers pay the current price of the permits the generators were given for nothing to use in producing their power.

The ETS has been running since January 2005 and a revised version is planned for the five years from 2008 to 2012. However a much more fundamental revision is needed than is currently envisaged in EU policy circles and this will only come about if European public opinion is alerted to the grave inadequacies of the current scheme. Institutions and vested interests are being built up around a set of unjust, inadequate, administratively-complicated and expensive arrangements which actively discriminate against a switch to renewable energy. There is a very real danger that, unless action is taken now, these arrangements will become entrenched.

What's wrong with the ETS?

1. **It is inadequate:** The scheme covers just under 11,500 large energy users. These include electric power generation companies, cement, glass, brick and tile manufacturers, pulp and paper mills

How the figures work out

Permits for 6572 million tonnes of carbon dioxide emissions have been allocated to big energy users by governments for the three years of the first phase of the EU emissions trading scheme. At the price ruling in February 2006 when this leaflet went to press, these permits were worth €27 per tonne, making the whole distribution worth €170 billion.

These permits cover only about 45% of the EU's emissions. If the whole amount, 4,795 million tonnes a year, was allocated to the EU's population of 456 million people, and the price of €27 per tonne still applied, each person would be able to sell their annual 10.5 tonne entitlement for €283.

and other combustion plants with over 20MW capacity. However, these account for only 45% of the EU's total CO₂ emissions. The scheme does not cover the emissions from households and from road, sea and air transport. Households consume 27% of all the energy used in the EU. The transport sector uses about the same but is growing rapidly, particularly in aviation where fuel use is expanding at 7.7% a year. This rate will lead to a doubling of aviation consumption in just under ten years. It is therefore scarcely surprising that, despite the ETS, most EU countries are having problems keeping their emissions below the level they have promised to observe to ensure the EU's compliance with its undertakings under the Kyoto Protocol.

2. **It is unfair:** Or, in business jargon, it distorts competition. Since all firms use energy, those firms which use enough fossil energy to qualify for the free emissions permits gain a big advantage over those which do not. For example, an aluminium smelter that

German Government to Investigate Legality of Power Price Increases

Rising gas and electricity prices in Germany are not just hurting domestic consumers. Many firms now feel their survival is threatened. The 6th February 2006 issue of the newsmagazine *Der Spiegel* carried an interview with the head of the Federal German government's Cartel Office, Ulf Böge. This is an excerpt:

SPIEGEL: *Vattenfall and the other big electricity suppliers are putting up the bills on the one hand and on the other hand hardly know what to do with their fat profits. Is that appropriate?*

BÖGE: *Not really. Though the Cartel Office has nothing against profit, we have to examine whether there has been an abuse of market power within the terms of cartel law. Vattenfall says that the rise in the wholesale energy price is due to the cost of the CO₂ certificates traded on the Leipzig energy bourse.*

SPIEGEL: *...which is, in turn, also dominated by a very small number of market actors.*

BÖGE: *A whole series of complaints have been made about that. We have made contact with the financial supervisory authorities and are taking proceedings. The companies concerned have until the end of the month to come back to us to explain themselves. After that we will decide if the rise in the price of electricity blamed on the CO₂ certificates was legal.*

In effect, Böge is trying to close the stable door after the horse has bolted. Long before it did, many financial analysts and economists predicted that the horse would bolt and that giving away permits would increase power prices. Here is an extract from a commentary² for investors issued in September 2003 – that is, 15 months before the ETS began – by the Swiss bank UBS:

It headed its piece

Windfalls all around?

The advent of emission trading in the EU will have profound effects on the electricity markets. We believe the following changes will take place:

- *Our analysis shows carbon emission trading leading to very significant increases in wholesale power prices in the medium term in every EU country.*
- *Even if allowances are issued free of charge, generators will require extra income to offset the opportunity cost of selling a valuable emission allowance.*
- *Prices for industrial and commercial customers will increase in each European country. Retail prices may also increase, depending on the degree of integration of each company and the form of retail price regulation.*
- *Higher gas demand due to increased utilisation of combined cycle gas turbine [for electricity generation] is likely to lead to higher gas prices and snowball into even greater increases in power prices.*

All things being equal, we expect the increase in utilities' revenues to exceed the rise in costs, creating a potential windfall for utilities. Unfortunately, this is largely at the expense of substantial price increases for consumers.

generates its own electricity is given permits to cover the emissions from the fuel its uses. A smelter buying its electricity from the grid has to pay extra for its power because the electricity generators supplying the grid will pass on the market value of their permits in higher prices. Moreover, the smelter getting the subsidy produces metal which it sells in competition with other materials which require much less energy to make but whose prices have increased because of the extra cost of the electricity used in their production.

Another source of unfairness is that if the firms getting permits can find a way to cut their emissions, they can sell the permits they no longer need to other firms which cannot manage on their allowance because they are expanding or, perhaps, because they are switching from expensive but clean natural gas to cheaper but dirtier coal.

This feature of the scheme is required to give permit recipients an incentive to cut their emissions. However, it can also give them an additional advantage over their competitors who do not get permits. For example, every tonne of ordinary cement produced releases just under one tonne of carbon dioxide into the atmosphere.

Consequently, if you are a cement manufacturer and can find a way of making cement with reduced CO₂ emissions, you can sell your saved emissions for around about €25 per tonne of CO₂ saved.

This is a significant amount, considering that the ex factory price of cement is around €75 per tonne. In Ireland, one cement manufacturer, Ecocem, makes its cement from blast furnace slag. Because its emissions per tonne are one sixteenth of those of a conventional producer, the company does not qualify for any CO₂ permits. However, when Ecocem buys its raw material in mainland Europe it is competing with cement manufacturers who do have permits and who, by mixing the ground slag with their normal product, can sell a permit for every tonne of slag they buy.

"Given that the raw material costs less than €25 per tonne, this puts us at an enormous disadvantage against the traditional cement manufacturers. It distorts competition" an Ecocem spokesperson told Feasta.

3. **It creates uncertainty:** No-one knows yet exactly what allocation firms will get from 2008 onwards. "I have an uncomfortable feeling that we might be singled out for a hefty cut in emissions permits when the next allocation plan emerges," David Porter, chief executive of the Association of Electricity Producers, was reported³ as saying in early 2006. This uncertainty gives firms no basis to plan. Indeed, the total British allocation for the 2005-2008 period was still uncertain in February 2006 because the previous year the British government had submitted a new national allocation plan with updated emissions projections, asking for another 20 million permits. The EC refused to consider it so the British went to the EU court which ordered the Commission to look at it again.
4. **It imposes unnecessary costs on the public.** Because firms can charge for using permits in their production processes that they were given free, the scheme enables them to make profits at the expense of their customers. Even if those customers are not members of the public, the price rises will be passed on to the next business in the chain and, in the end, the consumer will have to pay. Other ways of running an emissions trading scheme could have avoided this problem by compensating the public for the increased costs.
5. **It is arbitrary, administratively cumbersome and causes unnecessary work and expense for both fuel users and the government.** It is almost impossible to understand why the ETS was set up to work at the 'downstream' point it does. Emissions permit schemes can be imposed either 'upstream', at the point at which a handful of suppliers sell oil, coal and gas into the economy or 'downstream' on millions of final energy users. In 1999 the EU was considering an upstream scheme that would have used the existing excise tax administration and involved a few dozen fuel producers

and importers. This would have been extraordinarily easy to administer but the Council of Ministers decided to adopt a part way downstream scheme where the 'river is wider'.

The decision to go downstream inevitably made the scheme arbitrary because a decision had to be made about how big an energy user had to be to come within the scheme and which activities were to be left out. Moreover, considerable work and costs are involved verifying how much energy each company uses – a cost carried by European consumers and taxpayers. Once that is done, governments have to prepare National Allocation Plans, setting out how many permits each company will get. They send this to Brussels for approval. As late as February 2006, over a year after trading began, some countries had still not had their Plans approved, an indication of what a bureaucratic nightmare they are for both governments and the Commission.

Why did the Council of Ministers take the odd decision to go part-way downstream? We don't know for sure but it is rumoured that the reason is that it gave more work to financial centres such as Frankfurt and the City of London. Part-way downstream was also more attractive to big, politically-powerful energy users because it put the ownership of valuable emissions rights into their hands, potentially for many years. A London consultancy, Enviro, said in a report⁴ in late 2005 that it expected the price of permits to rise to €100/tonne. This would make a company's allocation very valuable indeed although it is not all profit for permit recipients since they have to have highly-paid people on their staffs to handle their permit trading.

All the expense and work necessitated by the ETS's arbitrariness and complications are waste for which the public has to pay. As John Fitz Gerald, a senior economist at the Irish Economic and Social Research Institute, wrote: "..... the benefits for the financial sector and the City of London will simply reflect a significant transactions cost burden that will ultimately be paid by the consumers of Europe as a result of the costs in actually operating the market. The verification of the scheme will also involve a firm-by-firm audit to ensure compliance, further adding to costs. Compared to an across the board carbon tax, or an emission scheme imposed on producers or importers of primary energy (upstream), the costs of compliance of the current scheme applied at the level of individual firms will be significant. This is because of the need to verify each plant's behaviour. For this reason the Consultation Group on Greenhouse Gas Emissions Trading, set up by the [Irish] Department of the Environment, recommended in 1999 against operating a trading scheme at the level of such downstream firms, preferring an upstream scheme involving very few firms that currently pay excise tax on most of their imports and which would have made use of the existing excise tax administration."

- 6. It gives rights to own, buy and sell a public asset to a small group of companies.** The atmosphere is the common property of us all and the right to use it as a dump for the gases given off when fossil fuels burn belongs equally to us all. Now that we know we

Who should own the revenue generated from the trade in permits? The answer is usually "governments", since it is governments that create permits through joint action in the first place, and it is governments that receive payments for permits sold. But from a commons point of view, it is undoubtedly humanity that holds the biosphere in trust: all citizens equally share in the trusteeship of a commonly-inherited patrimony. It follows from this line of thought that the revenue gained from issuing user rights belongs to all citizens; neither corporations nor governments are, as a matter of course, entitled to appropriate the sky rent.

Hermann E. Ott and Wolfgang Sachs, Ethical Aspects of Emissions Trading, Wuppertal Institute, Germany, September 2000.

have overused our right to dump, we need to share the rights to emit the limited amount of gases we can safely release equally amongst us all. Rights to this limited resource should not be given to companies – they should buy those rights from each one of us. The danger with the EU-ETS is that, if there is no outcry, each company's emissions allocation will eventually become something it is legally entitled to receive year after year and which is recorded as an asset on its balance sheet. Common property will have been privatised by stealth.

- 7. It encourages companies to keep polluting plants open.** All member states apart from the Netherlands withdraw permits from companies if they close dirty plants. This creates an incentive, equal to the value of the permits, to keep dirty plants open. If companies continued to receive permits after closure, the incentive would disappear but it isn't obvious how long the companies should continue to get them. An issue of fairness would arise if companies received permits with a market value for years after an activity had ceased.

- 8. It makes it easier to build more fossil-fuel power plants rather than develop renewable energy sources.** This is because, although wind farms benefit from the higher electricity prices that result

from the permit scheme, so do the promoters of, say, new gas-fired power stations, because they are given the permits they require to buy their fuel. This effectively reduces the costs of constructing their new power stations "For a new combined cycle gas turbine electricity generator, the subsidy in the period 2005-2012 could amount to at least 50% of the capital cost of the new plant" John Fitz Gerald says⁵. The Dutch study⁶ mentioned earlier confirms Professor Fitz Gerald's analysis: "A free allocation of emission allowances to new investments in generation capacity implies a lump-sum subsidy to the fixed costs of particularly fossil-fuel power production, leading to negative or perverse capacity and production outcomes from an environmental or social efficiency point of view." It suggests that the best way to counteract this is not to give new fossil generators their permits free. However, this would be unacceptable to most governments as it would impede the development of new competition in the electricity market.

- 9. It is wide open to corruption.** Under the ETS, it is up to the government of each member state to set the limit on its emissions. This allows governments to set lax targets to avoid penalising their domestic economies and also to minimise the number of permits their country might have to buy in from other EU members. This happened⁷. Only Germany and Slovenia did not allocate more than they currently emit and Finland, Lithuania, Luxembourg and Slovakia allocated more than 25% more than their recent emissions. Moreover, as the ETS also allows governments to decide how many permits each energy user covered by the scheme should get, civil servants can easily assign a company rather more permits than it is likely to use. This would be equivalent to giving the company cash and it would be surprising if some companies have not already offered financial or other inducements to officials to ensure that they get a generous

allocation. Another easy form of corruption would be for ministers to order their department not to enforce the ETS stringently by, perhaps, underestimating a company's emissions so that it needs to buy less permits or has more to sell. And if government departments don't underestimate emissions on their minister's orders, individual companies might bribe the officials to do so.

10. It sets nation against nation. Up to 2012, the ETS should be able to avoid major conflicts between the participants. This is because the original fifteen countries of the EU will use it as a tool to keep their emissions within the limits they agreed with each other when they worked out how to meet their collective Kyoto Protocol commitment to a 7% reduction on their 1990 emissions level while the ten accession states will use it to meet the individual reduction commitments they took on under the Protocol. Indeed, the arrival of the accession states will make it easier for the EU as a whole to hit its emissions target because many of the Communist-era plants were very energy-inefficient and those countries' emissions have dropped as the plants have been closed or re-fitted. In short, the greater energy efficiency in the accession states means that the price of permits is less than it would have been if they had not joined the EU.

But what happens in the post-Kyoto period? How will the EU's new, and much harder-to-meet emissions target be divided up amongst all 25 countries then? The difficulties over relatively small sums of money in the EU budget in late 2005 should be taken as a warning, especially as far more will be at stake for each country when it comes to agreeing its share of the EU's total emissions commitment from 2012 onwards. Moreover, these difficulties will increase as stiffer and stiffer climate targets need to be met.

Certainly, the unfairness inherent in allocating permits according to what a country or a company used in the past (grandfathering) will matter a lot more in future. Because each country has different circumstances it can be expected to try to make a special case for itself – for example, countries in northern Europe will say they need to burn more fuel to stay warm and countries in southern Europe will argue they need to stay cool and pump water for droughts. There is ultimately no way to resolve comparisons of unlike circumstances with unlike circumstances and it would be better, we believe, to avoid the conflicts such comparisons would cause by giving the same number of permits to all EU citizens. Then if Germany uses more energy per person, its fossil energy producers and importers can buy their permits from poorer, less energy-intensive member states with euros earned from the sale of Germany's energy-intensive exports. The German government would no longer need to negotiate on its industrialists behalf. The market could work things out.

11. It puts no effective limit on the number of permits that a country can import from outside the EU. Under the Kyoto Protocol, these permits can come from Joint Implementation (JI) projects which cut emissions in developed countries and from Clean Development Mechanism (CDM) projects in developing ones. However, although the Protocol says that use of such credits must be "supplemental" to domestic efforts to cut emissions, lawyers doubt⁸ whether the

Parcelling out shares of the global atmospheric commons to be exchanged among trading partners appears to be strikingly similar to the enclosure of the communal forests in 18th century Europe. Just as the enclosures put into place both property rights and forest protection, denying access to the common people, the assignment of emissions permits ensures protection by granting property rights, eliminating unregulated use by any player involved.

Hermann E. Ott and Wolfgang Sachs, Ethical Aspects of Emissions Trading, Wuppertal Institute, Germany, September 2000.

Commission can limit member states' use of such permits under the EU ETS. Ireland in particular is hoping to offset recent rapid increase in emissions by buying CDM permits from abroad rather than restricting the country's energy use.

12. It was introduced without any public debate. We have been unable to trace any newspaper or television coverage of the choices involved in setting up the system during the period in which it would have been possible for the plans to have been changed. The system was debated in the European Parliament on 10 October, 2002 but this was not reported in *The Irish Times*, *The Times of London*, *The Guardian*, *The Daily Telegraph*, *The Financial Times* or *The Economist*. The debate itself seems to have been very brief⁹. Many MEPs may not have understood the issues because the policymakers' summary¹⁰ of the official briefing paper *Evaluation of Alternative Initial Allocation Mechanisms in a European Union Greenhouse Gas Emissions Allowance Trading Scheme* limited itself to discussing which sectors of the economy should be covered by the scheme, how many permits should be given free and

what should happen to the revenue from those permits that were sold. The real issue – who owned the rights for which the permits were being issued – was not discussed. Nor was the question of whether it was sensible to operate part-way downstream. In any case, even if the vote had been against the Commission's proposals, the Parliament has so little influence that it is almost certain that the scheme would have gone ahead.

There has been almost no debate on the design of the ETS and the ownership of the rights since then. Although the ETS directive calls on governments to inform the public and to accept comments from it, this only applies to details such as which firms are to get what quantity of permits under the national allocation plans, not the wider issues. The consultations governments have carried out have amounted to little more than industrial vested interests stating their cases for increased allocations to civil servants. There has been no serious public scrutiny of the development of national allocation plans although in Britain and Ireland the companies' written submissions can be inspected on the web. Climate Action Network Europe, an NGO, has concluded that the process was not open and transparent in most member states. "Few Member States held two rounds of consultations. In many cases, only representatives of industry were consulted in the drafting process or special arrangements were made for the involvement of industry, such as the setting up of closed working groups or roundtables..... Many questions regarding the crafting of allocation methodologies and data reliability cloud the assessment of the development of the NAPs for 2005-7, and there are few examples of sufficient levels of transparency and wide public involvement" it says.

What's right with the ETS?

Just about the only thing that can be said in favour of the EU's emissions trading scheme is that it involves emissions trading. This might seem a strange thing to say as many people are against the whole idea of trading in emissions because any form of trading is impossible without establishing property rights over the goods to be traded and giving

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EUROPEAN UNION EMISSIONS TRADING SCHEME

10.5tonnes CO²

If this emissions entitlement certificate is presented at a bank or post office before the expiry date printed below, it can be exchanged for the buying price of the weight of emissions shown above on the day it is presented.

Please take a passport, driving license or some other form of photographic identification with you when you go to cash your entitlement.

EXPIRY DATE: July 31st, 2009

Any entitlement certificates not presented before their expiry date will reduce the EU's total emissions for the year.

Mr. John Tyndall

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This is how an EU resident's emissions permit might look if permits were issued on an annual basis. The weight of carbon dioxide shown assumes that children get permits too, but practical considerations are likely to dictate that only adults receive a share. Illustration by Per Håkan Nilsson

property rights over the atmosphere seems the ultimate privatisation. In fact, however, if handled correctly, emissions trading would lead to the ultimate mutualisation.

The core problem with the ETS is that rights to emit are being given to companies which have been emitting for years in proportion to their current emissions. These gifts are saying, in effect, "Your government recognises that you are emitting and that you have the right to continue to do so free of cost". If the companies had been asked to pay their government for the right to emit, it would have been a clear recognition that the right was not their property but belonged to the public, on whose behalf the government was acting. So the ETS is clearly a step towards the privatisation of common rights in the atmosphere and should be rejected in its present form. However, if the annual permits were auctioned on behalf of the public, or if, every year, everyone in the EU was given permits for their share of the permissible emissions and allowed to sell them, that would confirm entitlements to the use of the atmosphere as a collective right. In fact, the annual sums paid by those purchasing each year's crop of emissions permits would amount to a rent. The companies would never own the atmosphere but just pay a fee for the temporary right to use it.

Given the right arrangements, emissions trading is good because it allows emissions to be reduced at least cost. The only alternative to emissions trading would be a bureaucratic procedure under which energy users were told to get their emissions down by a set amount by a certain date. There would be many problems with this. One would be enforcement – a corps of inspectors would have to be employed to see that each user's target was met. Another would be how a company whose market was expanding would cope: would it only be able to expand its output if it could cut its emissions per unit of output by more than the government target? Then there would be the lumpiness problem – how do you achieve, say, a 10% reduction if the only improvement that you can afford to make to your factory will only give you 5%? Do you close down? Or pay the fine? And how would domestic emissions be tackled? Would every household be given a target? And how would that target be enforced?

Using the market to bring about emissions reductions is much simpler and more effective. It is also less arbitrary provided everyone starts out on a reasonably equal footing. In any emissions trading system, the price of the emissions permits will get passed on to the consumer in the price of goods. Fossil-energy-intensive goods will tend to rise in price by more than the price of low-energy ones. These price changes signal to people to switch their purchasing patterns towards relatively cheaper, lower energy products, which is just what we want to happen because their production

involves lower emissions. Firms get choices too. If my company finds it very difficult to cut its fuel use, then it can continue to emit at the present level. The government won't step in but my firm will have to pay more and more for its energy because of the rising cost of emissions permits. If the business can't pass those higher costs on, it will run into losses and have to close. Overall, the system is very efficient because it pays people to reduce their emissions and the cheapest emissions cuts are made first. Each firm and each person make their own decisions about what they are going to do. The state stays out of the picture.

So what does Feasta propose?

Feasta believes that the EU ETS should be reformed and that national allocation plans giving rights to less than half of the EU's emissions to favoured big polluters should be scrapped at the end of 2007. Instead, from 2008 onwards, permits covering all the emissions allowed in any year under the EU's Kyoto commitment should be divided up on an equal per capita basis and distributed to every EU resident¹¹. When each of us got our permits, we would take them to the bank or post office and sell them at the current market rate, exactly as if the permits were a foreign currency.

The banks and post offices would then sell the permits on to companies importing fossil fuels into the EU and those producing them here. Importers would be required to hand over to Customs enough permits to cover the eventual emissions from the fuel in a shipment whenever one came in. Oil, gas and coal producers in the EU would be monitored by inspectors who would collect permits for the emissions that their output would produce when burned. All very simple. No need to involve any energy users, large or small, further downstream.

You might say that the system would be simpler still if, rather than each person getting his or her allocation of permits and selling them themselves, the government sold them on their behalf. You might equally say that running a democracy would be simpler if, rather than giving each person the right to vote, the government decided who was to sit in Parliament on their behalf. The key point is that, if the right to emit is a human right, then each human, and not his or her government, has a right to get the emissions permit and then to do what they wish with it. They could sell it, of course, but they could also decide to let it lapse, thus sparing the planet of the emissions it represented. If the state auctioned all the permits, people wouldn't have that option. You don't own something unless you can dispose of it as you will. And you can't dispose of something if the state sells it for you.

Just as we would expect any government to abuse the right to appoint our MPs, if we did agree to let the state handle permit sales, we would expect that after a few years, it would fail to pass the money on. "It seems silly to send you this money and then to collect it back in tax" is the sort of thing the party in power would say. "We'll save the expense of sending permits out and cut taxes by the appropriate amount". And so our human right would have gone and become a state right instead.

It is going to be difficult to get governments to accept that the right to emit is a human right and we, the people, are all entitled, personally, to an equal share of the annual income from renting that right to fossil energy users. The British government has said it wants to auction the UK's allocation of permits in the post 2012 period, and, obviously if it does so, it will claim to be using the revenue on its citizens' behalf. However, it is highly unlikely ever to concede that the permits it sells do not belong to it but to every UK resident.

It might seem a fine point we are labouring here. Does it really matter in an EU country whether the government sells the permits and takes less tax or whether the people sell the permits and pay more to the government? Our view is that it does matter and that it matters a lot. There are two reasons for this. One is the problem we identified with the EU ETS – how is the EU to decide how to distribute amongst its

members the limited amount of emissions it agrees with the rest of the world under a post-Kyoto deal? Is every member state going to have to achieve the same percentage reduction from its actual 2010 emissions unless it buys in permits from a member-state which has over-achieved that target or, alternatively, gets them from a Clean Development Mechanism project in a developing country? Would requiring the same percentage reduction from everyone be fair, bearing in mind the wide differences in national living standards? Would a standard reduction be readily agreed, or, failing that, would some countries agree to take fewer permits so that others could have more? And would it always be possible to reach a reasonably amicable settlement as the restrictions on emissions grew tighter and tighter?

The second reason it is important to get the emissions-rights-belong-to-the-people-and-the-permits-should-go-to-them principle established now is because, in designing an emissions trading system for 25 or more countries (the EU could have 28 members by 2012) we would be missing an opportunity if we did not ensure that it could be extended to the rest of the world. So, while it might be all right to allow an EU government to sell its citizens' permits and use the revenue because the level of corruption is low, the same cannot be said for dozens of other countries around the world. If their governments are given emissions permits to sell

Other similar approaches

Feasta is by no means alone in arguing that the right to emit greenhouse gases should be distributed on an equal-per-capita basis. The Global Commons Institute in London, which developed the well-known Contraction and Convergence approach to limiting climate change, has been saying for at least twelve years that the nations of the world should – after a transition period – share out the limited global capacity to emit according to the size of their populations. However, GCI has never suggested that the emissions permits so allocated should actually be divided up and passed on to each individual. C&C leaves it to governments to do whatever they think best with the permits. In other words, for GCI, the right to emit is a national not a personal right. See www.gci.org.uk

Another well-known British proposal divides emissions permits between the government and the people. This is Dr. David Fleming's Domestic Tradable Quotas, or DTQs, which he renamed TEQs (for Tradable Energy Quotas) in 2005 to make their purpose clearer. In this scheme, governments give whatever proportion of national greenhouse emissions is due to the public's direct purchases of fuel and electricity – about 40% in the UK – to their adult populations in the form of carbon units, each unit representing 1Kg of carbon dioxide. The recipients then spend their carbon units (which could be kept in a special carbon account and spent using a debit card) in addition to cash whenever they buy fossil fuel and electricity. If people have unused units, they can sell them, or if they run out they can buy more. The remainder of the emission permits would be auctioned by a government agency to all other purchasers of fossil energy and electricity. See www.dtqs.org

Four points should be made about this proposal. First, the right to emit is not considered to be a human right. It is, instead, a national asset which a government agency either auctions to businesses or gives away to the people. Secondly, TEQs require every energy purchaser to pay over carbon units for every energy purchase. It is therefore very much a downstream system, with all that entails in terms of administrative costs. A recent report[†] on the feasibility of TEQs estimated that there would have to be 48,000,000 individual carbon accounts in the UK, one for each adult. There would have to be

several million business accounts too. Thirdly, many people are concerned about the civil liberties implications of having all their energy transactions on a central state register. Fourthly, the fact that a state agency would auction the bulk of the permits to the business sector would inevitably increase consumer prices when businesses passed the cost on. The general public would not receive any payments to offset the higher prices but Fleming argues that the money collected by the agency would not be a tax as it would be spent by the agency immediately to enable businesses and the public to reduce their fossil fuel use as quickly and painlessly as possible.

Fleming thinks that many people would make it a matter of pride to live within their TEQ allowance rather than simply buying more units. "People's minds will be focused directly on saving energy, rather than on the indirect question of how to allocate their household budgets" he says. "It can be expected that, faced with a sharply defined incentive to reduce fossil fuel consumption, consumers will devise ways of doing so as efficiently as they can." If this could be shown to be likely to happen and there were prospects that people might change their energy behaviour in ways that price changes alone could not achieve, a TEQ-type system in which all the carbon units went to individuals as a right would be worth considering despite its high administrative costs.

A third proposal is close to the Feasta position. It comes from the Sky Trust in the United States and is based on these principles:

- The sky belongs to all of us equally.
- The sky does not belong to private corporations or to the government.
- Pollution must be limited to what the sky can safely absorb.
- Once limits are set, companies should pay for pollution permits. The money they pay should go into a trust.
- The trust should pay equal dividends to all citizens.

The proposed trust would handle the sales of the permits rather than allowing the US government to auction them to insure that all the money paid for them went back to citizens. "Without a trust, sky income could be mingled with taxes, or go to large corporations, and citizens might never see it again" the Sky Trust's website (www.uskytrust.org) says.

[†] Domestic Tradable Quotas: A policy instrument for reducing greenhouse gas emissions from energy use, Richard Starkey & Kevin Anderson, Tyndall Centre for Climate Change research, December 2005.

on their citizens' behalf, most of the proceeds are likely to head for Switzerland. It is going to be hard enough to see that permits actually get to each person, just as it is hard enough to see that everyone gets the right to vote, but if the international community becomes aware of widespread theft it can suspend the issue of further permits until the country falls into line. We cannot have a system in Europe that allows governments to sell their citizens' permits and expect to be able to ban such a system in the corrupt parts of the world.

Moreover, even if 28 countries could share out their international post-Kyoto emissions commitment harmoniously, it is a lot to expect the 189 nations involved in the UNFCCC process to do so too. It would be much easier to reach an international agreement on emissions sharing if each person in the world was to receive an equal share of what is available rather than having their governments arguing over appropriate national allocations. This argument is set out in more detail in another Feasta leaflet, *Energy Rationing and the Oil Price Crisis* which can be downloaded from <http://www.feasta.org/documents/energy/November2005.pdf>

Member State	CO ₂ allowances in million tonnes	Share of EU allowances	Share of EU population	Installations covered	Registry operational
Germany	1,497	22.80%	17.9%	1,849	Yes
UK	736	11.20%	13.1%	1,078	Yes
Poland	717.3	10.90%	8.5%	1,166	No
Italy	697.5	10.60%	12.6%	1,240	No
Spain	523.3	8.00%	8.5%	819	Yes
France	469.5	7.10%	12.0%	1,172	Yes
Czech Rep.	292.8	4.40%	2.2%	435	Yes
Netherlands	285.9	4.30%	3.5%	333	Yes
Greece	223.2	3.40%	2.3%	141	No
Belgium	188.8	2.90%	2.2%	363	Yes
Finland	136.5	2.10%	1.1%	535	Yes
Portugal	114.5	1.70%	2.2%	239	Yes
Austria	99	1.50%	1.7%	205	Yes
Denmark	100.5	1.50%	1.1%	378	Yes
Hungary	93.8	1.40%	2.2%	261	No
Slovak Rep.	91.5	1.40%	1.1%	209	No
Sweden	68.7	1.10%	2.0%	499	Yes
Ireland	67	1.00%	0.9%	143	Yes
Estonia	56.85	0.90%	1.1%	43	Yes
Lithuania	36.8	0.60%	0.9%	93	Yes
Slovenia	26.3	0.40%	0.4%	98	Yes
Cyprus	16.98	0.30%	0.2%	13	No
Latvia	13.7	0.20%	0.4%	95	Yes
Luxembourg	10.07	0.20%	0.09%	19	No
Malta	8.83	0.10%	0.09%	2	No
Total	6,572.40	100.00%	100.00%	1,428	

This is how emissions permits have been shared out between the EU's member states. Because rights are based on existing emissions, some countries are getting more than the size of their population would indicate. Two of the countries with the highest levels of emissions did not have their systems properly in place at least until well into 2005.

Endnotes

1. Energy Research Centre of the Netherlands (ECN) report "CO₂ Price Dynamics: The Implications of EU Emissions Trading for the Price of Electricity" can be downloaded from <http://www.ecn.nl/docs/library/report/2005/c05081.pdf>
2. ETS: Bonanza or Bust? UBS, September 2003, can be downloaded from http://www.unepfi.org/fileadmin/documents/materiality1/emissions_trading_eu_ubs_2004.pdf
3. Carbon Market Europe, February 10, 2006
4. <http://www.enviros.com/index.cfm?fuseaction=13.1&id=71>
5. 'An Expensive Way to Combat Global Warming: Reform Needed in the EU Emissions Trading Regime', special article in the ESRI's *Quarterly Economic Commentary*, April, 2004. Can be downloaded from http://www.esri.ie/pdf/OEC0404_FitzGerald.pdf
6. ECN Report (see endnote one) page 95
7. 'Allowance Allocation in the European emissions trading system: a commentary' Michael Grubb, Christian Azar and U. Martin Persson, *Climate Policy* 5, 2005. See also 'Analysis of the National Allocation Plans for the EU Emissions Trading Scheme', Ecofys, London, August 2004. Downloadable from http://www.ecofys.co.uk/uk/publications/documents/Interim_Report_NAP_Evaluation_180804.pdf
8. *Carbon Market Europe*, February 10, 2006
9. <http://www.europarl.eu.int/omk/sipade3?PUBREF=-//EP//TEXT%2BPRESS%2BDN-20021010-1%2B0%2BDOC%2BXML%2BV0//EN&LEVEL=2&NAV=S>
10. http://europa.eu.int/comm/environment/climat/pdf/allocation_psum.pdf
11. The distribution might be just be to those aged 18 and above. This is a minor detail that can be settled later rather than one of principle.

The advantages of the Feasta emissions proposal

In comparison with the present EU system, the Feasta proposal:

- 1. Is adequate:** It would limit 100% rather than just 45% of EU emissions.
- 1. Is fair:** Every company would be in the same position. No firm would get an allocation and others not.
- 2. Removes uncertainty.** Firms would not have to worry about the size of their allocation. Only the price of an emissions permit would be uncertain, as it is with the present system. The price would vary with the strength of the EU economy but firms could be sure that the cost of permits would tend to go up and they could plan accordingly.
- 3. Compensates the public for higher prices.** The cost of all goods would go up under the Feasta proposal by just as much as they are doing under the present EU system. However, the Feasta proposal means that everyone gets an extra income from the sale of their permits to cover these higher prices and, if they use less energy than the EU average, they will come out with a net gain.
- 4. Is administratively straightforward, is cheap to operate and has no arbitrary elements.** Rather than attempting to measure emissions, it measures the quantity of fossil fuels sold. Very few firms would have to deal in permits. There would be no cut-off points between energy users, with some involved in the emissions trading scheme and others not.
- 5. Confirms the right to use the atmosphere as a common resource** by making fossil energy producers and importers pay everyone a rent to use it as a dump for the emissions their fuels will release.
- 6. Does not subsidise the construction of fossil-fuel-fired installations** by giving the operators valuable permits free.
- 7. Encourages operators to close their dirtiest plants as soon as possible.** Once the system is in place, operators will know that the cost of permits can only get higher and that there is no point in

hanging on to energy inefficient plants to qualify for an allocation of free but saleable permits.

- 8. Has little scope for corruption.** Governments are not called upon to decide which firms should get permits and how many of them, or to enforce emissions regulations. Even the distribution of permits to individuals provides little room for fraud as EU residents would protest if they did not get their entitlement.
- 9. Does not involve nation arguing with nation over how many permits each should get.** Each member state would know that all its residents were getting the same number of permits as every other EU resident.
- 10. Offers a good working prototype of a whole-world emissions trading system.** If before 2012, 28 countries are sharing an emissions trading system that is working well and ensuring that, as the price of emission permits gets higher and higher, their citizens are getting an income to compensate, it would make getting an international climate agreement much easier.
- 11. Would have widespread public support.** Not only would the system put money into people's pockets to counterbalance their higher costs, it would help protect the poorest from energy poverty.

We expect that those campaigning for their emissions rights will be told that it is now too late to change the EU system. As a result, the only way that the Feasta proposals could ever come into effect would be if they attracted widespread support and a massive outcry developed against the present system.

The big advantage of having a system that people strongly support is that they are likely to call for fewer and fewer emissions permits to be issued annually because this would not only slow the pace of climate change but also put up the price of each tonne of greenhouse gas. As a result, although their personal emissions allowance would be lower, their income from the sale of their permits would probably rise. No other system can give people the feeling that, as emissions restrictions tighten, they will at least get some personal compensation.

Why the right to burn fossil fuels is so important.....and why the price of emission rights will go sky high

The right to use fossil fuels is very valuable because of the increase in output it enables people to achieve. Indeed, this is one of the reasons why some system of sharing that right is necessary as circumstances could easily arise in which those using energy enhanced their productivity so much that they could undercut less energy intensive producers and drive them out of business. A positive feedback could start with high energy use generating incomes high enough for businesses to increase their purchases of fossil fuels and thus increase their output further, while other would-be energy users were unable to afford to buy any energy at all.

The energy in a kilogram of oil is equivalent to the output of about 24 working days or just under 200 hours of human work. That makes a day's human work equal to about 40 grams of oil, a couple of desert-spoons full. Another way of looking at it is that a 40 litre fill-up at a petrol station is the equivalent of about four years of human manual work.

Put another way, if an averagely fit person pedalled a generator, they could light a 70 watt bulb through their efforts. This means that, for every hour that they spent in continuous physical labour, they could achieve 3,600 x 70 Joules of work. (A watt is a joule per second – so a 'watt hour' is calculated from the number of seconds in the hour, which is 3,600.) 3,600 seconds x 70 Joules is 252,000 J per hour, the amount the average worker could achieve.

At the end of 2005, the British labour force was working 923.4 million hours every week. Thus, were all these people doing physical labour without tea breaks – lifting, wheel barrowing, digging, fetching and canying – then, every week, they could potentially be achieving work that could be measured at 252,000 x 923.4 million Joules of energy. This comes to 232,696,800 million Joules and it represents the power that the British economy might fancifully expect from British workers as physical effort every week. Let's be

generous and allow people four weeks' holiday every year, as they would need it. This allows us to calculate that, over a 48 week working year the British labour force might then achieve 11,169,446,400 million Joules every year. (i.e. 232,696,800 million Joules per week x 48 weeks). This is roughly 0.1EJ. (1Exajoule or 1EJ = 1,000,000,000,000,000 Joules).

To get this 0.1EJ in perspective it is useful to compare it to a 'ball park figure' for the total primary energy supply of the UK which is just over 10Exajoules a year and the final energy supply of about 7EJ. (3EJ primary energy is dissipated as waste heat turning fossil fuels into electrical power and in energy intensive industries like iron and steel).

A human-muscle-power-based economy would therefore be between seventy and a hundred times less productive than the present fossil-fuel powered one.