

# GREENBUDGETNEWS No. 9 – 9/2004

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## EUROPEAN NEWSLETTER ON ENVIRONMENTAL FISCAL REFORM

Editors:



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## 1. EDITORIAL

### *Dear friends of the ecological tax reform,*

In this edition our topics include the conference on environmentally harmful subsidies in Budapest, the first EU emission trading plans, which were finally approved, and many reports about Green Budget Reform on the EU level, especially Green Budget Reform in Sweden. We would appreciate it very much if you would continue to notify us of people and organisations we could send our newsletter to. You are also more than welcome to send us some articles about the situation in your country concerning environmental taxes,

possibly written in a journalistic style. Please contact us beforehand.

Your Editors

### *Anglo-German Ecotax Conference a Resounding Success*

*[Jacqueline Cottrell, Green Budget Germany]* As many of you have already gathered, our conference “Ecotaxes in Germany and the United Kingdom – A Business View” proved to be a resounding success. It took place in the Hackesche Höfe in Berlin on 25th June of this year and was organised in cooperation with the Heinrich-Böll-

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Foundation and the Anglo-German-Foundation. We were particularly proud to report that the speakers were not only of the highest quality, but also the conference participants: amounting to almost 100 people, they included representatives of several finance ministries and other government departments, the European Union, the United Nations Environment Program, several trade associations and businesses, environmental NGOs and universities from very many different countries – such as Estonia, Hungary, Spain, Japan, Sweden, the Czech Republic and the Netherlands, to name but a few. All this provided for excellent presentations and stimulating and productive discussions.

Following an official welcome, the conference began with a speech from Christos Liolios of the European Commission on the perspectives for the further development of ecological finance reform within the European Union. Liolios contended that the achievement of agreement on EU-wide emissions trading proved that the implementation of ecological financial policy is possible, even if the Council's unanimity rule still precludes the introduction of the Commission's more radical proposals. In addition, he informed the audience of two very positive developments at the Commission.

First, the Commission is currently working on a Communiqué on the relationship between emissions trading and ecological taxation to consider ways in which they may or may not overlap. In the face of opposition to ecotaxes, which is often held to be redundant once emissions trading is implemented, it is very important that the Commission tackles the issue. Notably, conference speakers made clear that trading and ecotaxes are by no means mutually exclusive and that both constitute important elements of a wider climate abatement instrument package. Secondly, Christos Liolios is personally working on a new vehicle taxation proposal to be submitted by the end of the year – also extremely good news since transport is the most rapidly increasing source of GHG emissions in the EU.

During the second session, three British speakers focussed on ecotaxes in the UK. Professor Stephen Smith of University College London focussed on the Climate Change Levy for the question of creating an optimal ecotax and discussed the considerations that must be taken into account when setting the optimum tax rate for CO<sub>2</sub> as well

as the notion of an ideal ecological taxation system as a whole. Significantly, at the end of his speech, he placed particular emphasis on the importance of the future role of ecological taxation as a key element in climate policy, a view echoed by many speakers during the course of the proceedings.

Sir Charles Nicholson of BP, one of the main architects of the EU emissions trading Directive, praised the Climate Change Levy highly, labelling it “a very effective system”. Citing the case of BP plc., where he is senior policy advisor, Nicholson pointed out that reduction of carbon dioxide emissions had enabled BP to save US\$650 billion – calling into question the claims of many in business that ecotax jeopardises competitiveness. Nicholson rejected serious criticism of the levy and emphasised the importance of the learning process in drawing up climate policy instruments and called for the optimisation of future climate policy.

Guy Turner from Enviros Consulting also emphasised the significance of the Climate Change Levy as a climate policy instrument and pointed out that it has a far more extensive penetration of industry than European emissions trading as it is to be introduced in January 2005. Furthermore, he corroborated Charles Nicholson's argument that what is also important in terms of Climate Change Levy is its effect on stimulating and improving awareness of energy-saving issues in business. He also argued that the rate of the present Levy is too low to influence the behaviour of non energy-intensive companies.

During the discussion at the end of the session, Marie Pender of DEFRA (the UK government Department for Environment, Food and Rural Affairs) defended the Climate Change Levy or, more precisely, the Climate Change Agreements – agreements negotiated between business and government in return for exemption from the Climate Change Levy itself. She too emphasised the importance of the learning process, as these policies are totally new and untested when they were introduced. She pointed out that there is a great deal of evidence that seems to indicate that industry has invested several million pounds in energy-saving in order to fulfil the Agreements.

The next session focussed on ecotaxes in Germany. First up was Michael Kohlhaas from the German Institute for Economic Research. He gave

a presentation on special provisions for energy-intensive companies in Germany and examined the theoretical issues surrounding the implementation of special provisions in general, concluding that the most important reasoning behind the implementation of special provisions is actually the need for political acceptance. As other speakers before him, he too emphasised the importance of pursuing the policy of ecological taxation in spite of the introduction of emissions trading, as the former is set to retain a vital role in climate policy.

Dr. Franz-Martin Dübel, managing director of IMAK – the Institute for the Market Development of Alternative Fuels – and a former Ford executive, discussed the concrete experience of the German automobile industry with the ecological tax reform in Germany. Automobile manufacturers, according to Dübel, prefer voluntary commitments to state-managed policies such as the ecotax due a myriad of competition issues. To ensure that policy does not have a disproportionate impact on the industry, he argued, both European-wide coordination and synchronized implementation of measures are absolutely necessary to achieve higher levels of acceptance of climate policy. The importance of EU-wide cooperation and harmonisation proved to be a second theme that was emphasised throughout the day.

Dr. Georg Riegel, managing director of dezem GmbH, concentrated on the issue of energy transparency in business and revealed that there is a great deal of potential for energy-saving in nearly all companies – energy-saving of between 20 and 50 percent, on average. A greater degree of energy transparency within companies, he continued, would enable companies to regard high energy costs as a matter of choice, rather than as simply inevitable. Improving energy transparency as dezem GmbH does, reduces the political cost of ecological taxation, providing swifter progress in the field of climate policy.

The final session focussed on the political aspects of ecological fiscal reform. Sue Doughty MP, shadow Minister of the Environment for the Liberal Democrats and member of the Environmental Audit Committee, gave a speech which was generally very positive in relation to the Climate Change Levy, although she made clear that small and medium-sized enterprises (SMEs) – responsible for 60 percent of all industrial CO<sub>2</sub> emissions

– must become better integrated in the Climate Change Levy and that a simpler system combined with emissions trading regulations (similar to that of Europe) would be more comprehensible. She too placed great emphasis on the importance of EU-wide coordination, such as in relation to the pricing and taxation of transport fuels.

The last speaker of the day was Dr. Reinhard Loske, Vice Chairman of the Green Group in the German Parliament. He pointed out the degree to which the ecotax debate has become polarised in Germany but emphasised, in spite of widespread criticism in the tabloid press, that the ecological tax reform had been a success and, crucially, that its further development and improvement constituted a fundamental element of the coalition agreement between the Greens and the SPD. The new ecological tax reform, he said, should dismantle environmentally damaging subsidies and continue to develop ecological tax reform as a whole – bearing in mind new areas such as VAT – thus leading to the creation of a truly environmentally friendly tax system. In this context, he called the double dividend for the reduction of pensions contributions into question, arguing that it does not directly address the problems associated with current demographic imbalance in Germany.

The subsequent podium discussion was stimulating and of extremely high quality. Guests from new EU member states, who were extremely well represented, were given the opportunity to compare their experience with those of the speakers. Professor Hans-Christoph Binswanger, winner of the FÖS Adam Smith Prize for Environmental Policy 2004, emphasised the importance of the double dividend: without it, there is a risk that ecological taxation might lose its revenue neutrality. Anja von Moltke of UNEP addressed the issue of environmentally damaging subsidies, emphasising the importance of removing them during the further development of the ecotax. Competitiveness issues within and outside the context of the European Union were also discussed, and more and rather less positive prognoses were given for the further development of the Kyoto Protocol in 2012.

Thus, the conference achieved its aim of stimulating the discussion of the future development of the ecological tax reform. It also revealed rather telling differences in the approaches of the two governments to communicating ecotax reform. In

the UK, business seems to have suffered such a serious shock when the first drafts of the Climate Change Levy were published that it could only respond positively to the milder version implemented later – at least in comparison to German business. In Germany, the industry lobby is far more influential and was able to rely on their loud protests having an effect on the reform itself – in spite of their previous voluntary commitments to reduce greenhouse gas emissions. The conference also revealed the positive impact of energy-saving measures on business energy consumption and possible solutions to reduce industrial energy costs by as much as 50 percent.

Thus, we can justifiably regard our first conference as a true success and we are already looking forward to the conferences we plan to organise in the future. We would like to thank all speakers, conference participants and interpreters, the caterers, the Anglo-German Foundation and the Heinrich-Böll-Foundation team for all their help in making the conference run smoothly. It was indeed a resounding success.

Pictures: <http://www.foes-ev.de/3aktuelles/BilderMitgliedervers2004.html>

Presentations, documents (and conference report): <http://www.eco-tax.info/3events/index.html>

## 2. GREEN BUDGET REFORM ON EU-LEVEL

### *Successful conference on environmentally harmful subsidies*

[Zoltán Szabó, CAAG, 09/13/04] On 2<sup>nd</sup> and 3<sup>rd</sup> September 2004, an international conference titled „Environmentally harmful subsidies and ways to eliminate them” was organized in Budapest by the Clean Air Action Group (CAAG), the European Environmental Bureau (EEB), the Hungarian Academy of Sciences and the Environmental Economics Section of the Hungarian Society of Economics. The event was sponsored by the European Commission (PHARE Access) and the Hungarian Ministry of the Environment and Water.

The conference, held in the Hall of the Hungarian Academy of Sciences, fulfilled a pioneering role in Hungary. The Clean Air Action Group has been working for more than a decade to make the green budget reform’s benefits – already advocated by the European Commission, the OECD and the European Environmental Agency – recognized in Hungary as well. This is a time-consuming and arduous task; what we have managed to achieve is that the majority of Hungarian decision-makers already have some sort of idea about this instrument of environmental protection.

However, the conference went much beyond that: it not only dealt with environmental tax reform (eco-taxes), but also discussed a topic which is virtually unknown in Hungary: the review of state subsidies from the aspect of environmental protection. This area – the second pillar of green budget

reforms – has been gaining ever greater recognition in the environmental policies of advanced Western European countries. What is the essence of this approach? Currently, the state is granting subsidies to numerous activities by using public funds; however, these activities often have a considerable damaging impact on the environment. This clearly necessitates a review of the justification of certain state subsidies. In all specific cases where the subsidized activity contributes to increasing the environmental load, the relevant state subsidies should be withdrawn immediately. Theoretically, it is fairly easy to follow this train of thought; however, the practical aspects of the concept are somewhat more complicated, because the subsidies under consideration are often indirect. The companies and sectors concerned do not receive actual funds from the state; they “only” enjoy benefits (lower tax rates are applicable to them, they obtain the necessary infrastructure free of charge, they do not have to pay for the environmental and other damage that they cause, etc.).

The related research report, commissioned by the Hungarian Ministry of Environment and Water, was completed by the time of the conference. This research work aimed at charting the harmful subsidies currently being granted in Hungary. As Károly Kiss, head of the research programme, said in his lecture delivered at the conference, this was a unique effort: up until now, no one in the world has ever attempted to survey an entire national economy from this aspect. A number of research projects have already been performed – primarily in Western countries – but none of them

aimed to provide an overall picture on the subject, embracing all branches of the economy. This Hungarian research programme, the central theme of the conference, has taken the initial steps towards that end.

We may confidently say that, despite the unknown and complicated subject matter, a fair number of participants showed interest and attended the conference. Some 150 persons took part in the two-day event, among them representatives of the Hungarian public administration, trade unions, research institutes, non-governmental organizations, as well as specialists of several renowned international organizations. The only sorrowful element of the conference was that the Hungarian Ministry of Finance, the most competent authority regarding the topic of the event, did not delegate an official representative (although a staff member of the Ministry took part in the conference as a private person); in spite of the enormous potential for public savings attainable through the removal of harmful subsidies. This would be particularly important under current Hungarian circumstances, when the Hungarian Government keeps emphasizing the necessity of taking restrictive measures to handle the problem of the large state finance deficit.

On the other hand, Miklós Persányi, Hungarian Minister of Environment and Water, did accept our invitation to the conference. He spoke highly of the research programme's results and confirmed the Ministry's commitment to the green budget reform. On behalf of the European Commission's Directorate-General on Environment, Manfred Rosenstock summarized the latest EU developments, while Anthony Cox outlined the OECD's relevant activities. Participants of the conference could listen to in-depth accounts about the German, Danish, Polish and Czech efforts made in this field, as well as about the role of the European Environmental Bureau. Gusztáv Báger, Director General of the Hungarian State Audit Office, spoke about the possibilities of the State Audit Office, whereas Sándor Orosz, Deputy Chairman of the Hungarian Parliament's Environmental Protection Committee analyzed the subject's political aspects. The themes dealt with in the individual chapters of the research study – distributed among those attending the event – were expounded on by the research project's collaborating experts.

With this successful conference, the indispensable first step has been made in the intricate and strenuous process of removing environmentally harmful subsidies from the Hungarian economy.

#### ***First EU emission trading plans approved***

*[Environment Daily 1702, 07/07/04 ]* The European Commission on Wednesday gave the green light to five national plans (Naps) for the EU greenhouse gas emission trading scheme, and offered conditional approval to three more. The development marks an important step forward for the scheme, which is due for launch in January.

Denmark, Ireland, the Netherlands, Sweden, and new member state Slovenia have had their Naps fully approved. Austria, Germany and the UK have been given a list of further, mostly minor, changes before approval will be granted.

Meanwhile, the Commission is to send Greece and Italy first warnings of possible court action for failing to submit their Naps for scrutiny. All other EU-15 countries, plus five of the ten new member states, have now sent at least draft plans, the Commission said. Its assessment of these is due in September.

The eight plans approved or partially approved by the Commission have all undergone changes from drafts submitted earlier this year, but almost all minor or technical. A notable exception is the Netherlands, which has cut its emissions allowance cap by 3%. Austria and Ireland have reduced their allowance cap marginally.

The Commission has been under pressure to maintain the scheme's environmental integrity by cracking down on any national over-allocation of allowances. This would favour domestic industry and drive down allowance prices and therefore incentives to cut emissions. Initial evidence suggests that the EU executive has not travelled far in this direction.

According to emission trading news service Point Carbon, the price of emission allowances dropped immediately after the Commission's announcement. The markets particularly noticed that there had been no reduction in German or British allocations, it reported.

Meanwhile, the UK government, which has urged the EU to take a strict line, said it had concerns over the "robustness and transparency of the as-

assessment process". "Given the impact on competitiveness as well as the market implications of any over allocation, this falls short of the robust scrutiny that the UK has called for," said industry minister Patricia Hewitt.

Environmentalists also gave a mixed response. It was positive that the Commission had shown itself willing to demand changes, said Mattias Duwe of Climate action network. But Mr Duwe said he was disappointed not to see more cuts in allocations.

Meanwhile, the Commission is pushing forward with infringement actions aimed at getting all EU states to transpose into national law the directive underpinning the trading scheme. All EU-15 countries except Austria, Germany, France and Sweden are being sent final warnings of court action.

#### ***Firms "sceptical" of climate trading success***

[*Environment Daily 1714, 08/18/04*] Europe's biggest companies are so poorly prepared for the EU emissions trading scheme (ETS) that fewer than half believe the initiative will start on time or deliver the intended emission reductions, according to a new survey by Ernst and Young. Its authors have urged the European Commission to address companies' concerns and provide a clearer regulatory framework.

The management consultants surveyed 204 firms in the seven EU member states with the highest emissions of carbon dioxide (CO<sub>2</sub>): the UK, Germany, France, the Netherlands, Italy, Spain and Poland. Power generators made up half the respondents, 25% were oil and chemicals firms and the remaining quarter from the other sectors covered by the scheme.

Only 47% of the firms believed the ETS would be launched Europe-wide on 1 January next year, as foreseen by EU legislation underpinning the scheme, and only 39% that it would achieve the CO<sub>2</sub> cuts envisaged. Just a third believed that a liquid market for trading allowances would emerge in the first phase from 2005-2007.

Among examples of lack of preparedness found by Ernst and Young were that over two-thirds of the companies polled could not or would not predict the likely cost of a tonne of CO<sub>2</sub> once the market gets underway.

#### ***Challenge to EU emission trade "Trojan horse"***

[*Environment Daily 1707, 07/16/04*] HeidelbergCement has launched legal action against the German government aimed at winning a one-year delay in the EU carbon emission trading scheme. The firm is seeking a ruling from Germany's constitutional court before 1 January when the scheme is due to launch. It has also appealed to the European Commission for a postponement.

According to the German cement maker, the withdrawal of existing emission allowances due to the scheme will commit it permanently to 2000-2 production levels, thus losing 40-50% of its licensed plant capacity.

"With the federal government re-equipping and re-arming this market-economy instrument to make it the Trojan horse of planned-economy production control, there is an imminent danger of cement production moving abroad. This makes no sense for either the economy or the climate," the company said.

HeidelbergCement's action follows threats of similar legal action by German power firm EnBW last month. It emerged in February that Luxembourg-based steelmaker Arcelor had challenged the scheme directly before the European court of justice.

#### ***Passenger car taxation: public consultation on proposals for Community legislation***

[*Press Releases*] The European Commission has launched an online consultation for views from the public and business on reforming EU passenger car taxation systems so as to remove tax obstacles which distort the functioning of the Internal Market. The consultation, which runs until 10 September 2004, is based on a questionnaire which seeks information on the tax problems encountered when passenger cars are moved from one Member State to another and views on four possible options for resolving those problems. The consultation follows the Commission's Communication on passenger car taxation of September 2002 in which the Commission recommended in particular the gradual phasing out of registration taxes and the introduction of a new tax structure linked to CO<sub>2</sub> emissions. The opinions expressed during the present public consultation will be taken into account in a proposal on this subject that the Commission is due to present at the end of

this year. More information, including the questionnaire and a document describing the issues in more detail, is available on the Europe website at:

[http://www.europa.eu.int/comm/taxation\\_customs/taxation/consultations/car\\_taxation\\_en.htm](http://www.europa.eu.int/comm/taxation_customs/taxation/consultations/car_taxation_en.htm)

"It is not acceptable that individual EU citizens and car manufacturers have to face tax obstacles such as double taxation when they move cars from one country to another within the Internal Market", commented Taxation Commissioner Frits Bolkestein. "We want to obtain people's views before making a proposal that would be designed both to address these cross-border car tax problems and to ensure that car taxes are more clearly geared to meeting the Community's environmental objectives."

#### Consultation documents

As a basis for the consultation, the Commission has produced a questionnaire that analyses the current tax obstacles such as double taxation, distortions and inefficiencies that are caused by the existence of twenty five different tax systems for passenger cars within the EU and presents four options for the resolution of these problems. These are:

- do nothing, which would mean that EU Member States would continue to have highly diversified car tax systems and that individuals encountering problems such as double taxation as a result of the interaction of these different systems might have to take their case as far as the European Court of Justice in order to remedy this
- retain existing taxation systems but introduce a system of refund of registration tax so that at least double taxation is prevented when a car is transferred from one Member State to another
- phase out registration tax gradually, since registration tax is the main obstacle to the free movement and transfer of passenger cars within the Internal Market, with the application of a registration tax refund system in the meantime, and introduce a new tax structure linked to CO<sub>2</sub> emissions or

- reduce registration tax to a level that does not exceed 10% of the pre-tax price of the car which would at least tackle the excessive and disproportionate payment of registration tax.

The motor industry and consumer associations which have already been consulted for views support the third option. Their reactions are described in the more descriptive document – the "Extended Impact Assessment" - associated with the questionnaire.

For background information see:

[http://www.europa.eu.int/comm/taxation\\_customs/taxation/vehicles\\_taxation/index.htm](http://www.europa.eu.int/comm/taxation_customs/taxation/vehicles_taxation/index.htm)

and

<http://www.environmentdaily.com/articles/index.cfm?action=article&ref=12821>)

#### *Consultation on proposals for passenger car taxation*

[EUROPA; 09/06/04] The European Commission has launched an online consultation for views from the public and business on reforming EU passenger car taxation systems so as to remove tax obstacles which distort the functioning of the Internal Market. The European Parliament has made up a report on the issue (A5-265/2003) which was adopted in a roll call vote by only 239 votes in favour and 196 against with 39 abstentions). It was mainly the PPE who voted against, because they opposed the "environmental" and "European" approach of the report.

More information, including the questionnaire and a document describing the issues in more detail, is available on the official Europe website at :

[http://www.europa.eu.int/comm/taxation\\_customs/taxation/consultations/car\\_taxion\\_en.htm](http://www.europa.eu.int/comm/taxation_customs/taxation/consultations/car_taxion_en.htm)

#### *Comparing the effectiveness green taxes and voluntary environmental agreements*

[Martin Enevoldsen, *assistant professor in public policy Aarhus University*]

In a new book entitled *The Theory of Environmental Agreements and Taxes: CO<sub>2</sub> Policy Performance in a Comparative Perspective* to be pub-

lished by Edward Elgar in November I have made an attempt to answer some questions that are of central concern to environmental policy-makers.

Although there is a huge demand for accurate analysis of environmental policy outcomes in both the academic and policy-making communities, there is currently very little theoretical research on this issue. The book redresses the balance by constructing a new theoretical framework at the crossroads between economics and political science to account for the effectiveness of environmental governance. Drawing on insights from new institutional economics, environmental economics, collective action theory and social capital theory, the book analyses how policy outcomes are influenced by institutional factors that constrain and empower the target groups of environmental regulation.

In this brief article I will sketch the empirical results that were obtained by applying the theoretical framework to a comparative analysis of CO<sub>2</sub> policy performance. The subject of the analysis is the CO<sub>2</sub> policy strategies that have been pursued during the 1990s in three economically advanced European nation-states – Denmark, Austria and the Netherlands – in order to reduce industrial CO<sub>2</sub> pollution. The countries are interesting because they employed highly different CO<sub>2</sub> policy strategies to tackle the same underlying problem:

- Earmarked CO<sub>2</sub> taxes in Denmark,
- Voluntary energy agreements in the Netherlands,
- Laissez-faire in Austria (information assistance instead of regulatory initiatives)

Moreover, the countries are ‘most similar’ with respect to the basic political institutions (for example, they all rank among the most corporatist countries in the world) and their socio-economic background conditions are not very different. This means that we can expect differences in policy outcomes to be related to differences in policy-strategies, that is, different rules of the game and different policy incentives, rather than structural divergences.

The comparative analysis is carried out in three different steps. It begins with a descriptive quantitative analysis of aggregate Austrian, Danish and Dutch CO<sub>2</sub> policy performance during the period 1980-2000. The main conclusion is that since

1990, when CO<sub>2</sub> policy instruments were first introduced, Denmark has succeeded in reducing structure- and growth-adjusted CO<sub>2</sub> emissions by 23 per cent, more than twice as much as the Netherlands (11 per cent) and Austria (10 per cent). The main reason is that Danish industry has achieved greater improvements in energy-efficiency than the Austrian and Dutch industry. However, Dutch industry also achieved considerable improvements over and above business-as-usual. The improvements in Denmark and the Netherlands are closely aligned with the introduction of respectively earmarked CO<sub>2</sub> taxes and voluntary energy agreements. The other main reason for the superior Danish performance is progress in industrial combined heat and power (CHP), which entailed a radical conversion to natural gas and bio fuels. This is another side effect of the CO<sub>2</sub> taxes, but even more so, the development is a consequence of the earmarked subsidies for environment-friendly CHP generation.

The analysis clearly shows that the Austrian laissez-faire approach has been less effective than the regulatory initiatives in Denmark and the Netherlands, which justifies the conclusion that policies do matter. The next two steps in the analysis restrict the focus to a more detailed comparison of the Danish tax strategy and the Dutch voluntary approach. The question in the second step, which can only be answered by means of econometric analysis, is: how much did each policy instrument contribute to the progress and how much was in fact achieved compared to the business-as-usual scenario? The econometric analyses are based on a combination of dynamic co-integration analysis and structural equations for fuel and electricity shares that are applied to time series data covering the period 1958-2000.

The econometric study shows that the CO<sub>2</sub> taxes have been very effective in reducing overall energy consumption - long-term price elasticity is estimated at minus 0.48 for Denmark – and with respect to simulating conversion to cleaner fuels. The energy price effect is also considerable in the Dutch example, where the price elasticity is estimated at minus 0.29. In other words, despite the limited and regressive nature of Dutch energy taxes, part of the achievements can indeed be traced to this instrument. It is concluded that the effect of the voluntary long-term energy agreements is relatively modest: the agreements have reduced industrial CO<sub>2</sub> emissions by some 1.8–3.4



per cent in the Netherlands compared to the business-as-usual scenario. In comparison, the Danish CO<sub>2</sub> taxes reduced emissions by some 10 per cent over and above what could have been achieved without the taxes. It is moreover concluded that the Danish energy investment and CHP subsidies made a substantial independent contribution of some 5 per cent.

In the third and final step in the comparative studies, the theoretical propositions are tested on the micro-level by means of qualitative interview analysis. The analyses show a surprisingly good fit between relaxed rational actor assumptions and the energy decisions made by industrial firms. The interviews confirm that CO<sub>2</sub> taxes strongly influence energy decisions, although there is, as one would expect, strong opposition to the tax approach among the industrial firms. There are more doubts regarding the effect of the voluntary energy agreements. The dominating perception is that the agreements have not resulted in major departures from the autonomous development, but certain sectors – for example the paper and cardboard industry – attribute considerable progress to the cooperative efforts that have been institutionalized by way of the agreement. The evidence indicates that the cross-sector variation in effectiveness, which reflects different degrees of free-riding among the agreement parties, is conditioned by institutional factors, especially the so-

cial capital relations within the surrounding policy network.

The myth that voluntary approaches can change the profit-oriented preferences of industrial polluters into moral attitudes is forcefully rejected in this CO<sub>2</sub> case study. The overall conclusion is that economic instruments in the form green taxes perform much better in the short and medium term than even well-designed voluntary agreements. Yet, the Dutch energy agreements turn out to be more effective than the laissez-faire policy pursued in Austria, thus indicating that results *can* be achieved on the basis of a well-designed voluntary approach.

The effectiveness of voluntary agreements depends on how they are organized and designed, and on the institutional characteristics of the sector network. The findings indicate that trust-based network relations and social capital accumulation, which again is conditioned by limited competition among the participating firms, are necessary conditions for successful agreements. However, this means that, in contrast to green taxes, voluntary agreements are not universally applicable. They can only be expected to work well in some sectors within some countries where the network conditions happen to be favourable.

### 3. GREEN BUDGET REFORM IN INDIVIDUAL EUROPEAN COUNTRIES

#### *Denmark: Danish taxation of private use of company cars*

[Søren Dyck-Madsen, *The Danish Ecological Council*, 09/12/04] If an employer allows an employee to use a company car for private purposes without paying, this is calculated as a taxable income (free private use of company car).

A few years ago the taxation system required the employee to record all of the trips in company cars and to distinguish between private and company use of the car. The private use of the company car was then taxed.

This system was an administrative hassle – and furthermore gave huge possibilities to avoid tax-

tion by noting all trips as company use. The system was abandoned years ago, and now the very possibility of using the company car privately is taxed. The taxable value of a free company car for private use is therefore fixed based on the value of the car instead of the actual use of the car for private purposes.

The taxable value of the company car is laid down as a percentage of the value of the car, with a minimum value of 160.000 DKK. Up to 2001 the taxable value of a free company car was calculated as 25% of the value of the car that did not exceed 450.000 DKK.

From the tax year 2001 on, the rules were changed again because some (but few) companies offered very expensive cars (e.g. Ferrari's worth more

than 1 million DKK) for the private use of the owners and directors of these companies because this was very favourable for the owners since the tax value stopped at 450.000 DKK. This was exposed in Danish newspapers and Television and forced the Minister of Taxation to change the tax rules for company cars.

So now the taxation income from free company cars is calculated as 25% of the value up to 300.000 DKK and 20% of the rest of the value. There are some possibilities to avoid taxation if you are granted company cars from your employer.

First there have to be a written and signed agreement between the employee and the employer that the car is not to be used for private purposes. If this agreement is in place, and the company car is parked at the company during the weekend, the employee can assume that he will not be taxed.

If the car is parked during the weekend at the employee's home, the tax authorities assumes that there's a possibility for the employee to use the car for private purposes, even when an agreement not to do so is signed with the employer. In this case the employee has to convince the tax authorities the company car is never used for private purposes.

If employees are taxed for the private use of company cars but do have to pay the petrol themselves for private use, there are a few strict rules about how this can be deducted from the tax paid for the possibility to use the company car for private purposes.

The system seems to be working since no big increase in the use of company cars for private purposes seems to have taken place during the last few years.

***Denmark: Will NAP's stop all other tax incentives for energy savings in energy intensive industry?***

*[Søren Dyck-Madsen, The Danish Ecological Council]*

The Danish Ministry for Taxation is at the moment working on a proposal to tackle the so-called "double taxation" for the industries covered by ETS following the adoption of the Danish National Allocation Plan (NAP) for the years 2005-7.

In Denmark a carbon tax scheme for all industries was introduced in 1996. The revenue is earmarked for reducing companies' expenses for labour and for subsidising investments in energy savings. The Danish carbon tax system is therefore revenue-neutral for the industrial sectors as a whole, but it provides benefits for the companies that are energy-efficient and disadvantages to those that have done nothing yet. And the tax system gives huge rebates for energyintensive industries, but only if they enter into an individual agreement with the Danish Energy Agency about energy savings. These agreements actually work.

If the Danish government decides to abolish CO<sub>2</sub> taxation in the energy intensive sectors covered by the ETS next year, some of the most effective energy savings incentives will be eliminated, especially because the CO<sub>2</sub> taxation will be replaced by overgenerous emissions allowances for these industries.

This will also mean that the companies who have taken early action for energy savings will lose their taxation benefits – since all companies covered by the ETS got as many allowances in the NAP as they needed – and a little more.

We therefore advise the Danish government to investigate the current situation for energy savings incentives carefully before any decisions are made about abolishing all carbon taxes in these sectors.

We also stress that it is important to achieve a fair treatment of companies inside and outside the ETS. This does NOT exclude revenue neutral taxation incentives inside the ETS in order to get more energy savings investments to be carried through.

If the government abolishes the carbon tax without tightening the emission allowances of the energy-intensive industries, this will provide more pressure to reduce energy use in the sectors not covered by the ETS or to buy "reductions" abroad to force more insecure short-sighted projects to be done, paid for by the taxpayers. Since Denmark is so far from reaching its Kyoto targets for 2008-12, it seems quite irrational to throw away sound incentives that stimulate economically efficient energy savings at little cost to Danish industry.

***Sweden: Sweden claims to be on track for the climate – but new initiatives are needed***

*[Translated by Søren Dyck-Madsen, The Danish Ecological Council from a press statement from the Swedish EPA 06/30/04]* The climate work of Sweden is on track. The review of the development of Green house gas emission from Sweden and the prognoses for 2010 shows that the Swedish Climate Strategy that has been in force since 2002 has had an impact on emissions from several sectors.

Altogether, emissions are calculated to be somewhat higher than the national target, but lower than the Swedish Kyoto obligation.

Present efforts will lead to a Swedish fulfilment of the international target but not to fulfilment of the national target, as finds a report that the Swedish environmental protection Agency (Naturvårdsverket) and the Swedish energy agency (Energimyndigheten) handed over to the government on June 30th.

**Forecast of increasing emission in the long term**

After 2010, emissions will increase. This prognosis is based on the assumption that Swedish nuclear power plants will be closed after 40 years of operation and mainly replaced by natural gas. The prognosis for developments in the transport sector shows increased emissions, particularly from heavy transport.

**Several sectors lower emissions**

The report also shows that emissions from households, buildings and the waste sector will decrease considerably - including emissions from agriculture. This decrease in emissions is mainly due to the Carbon dioxide tax introduced in 1991. It especially makes itself felt in the district-heating sector but also for the heating of houses and building in general.

When it comes to the transport sector, tax increases on petrol and diesel have had an effect – without them, the increase of emissions from this sector would have been even bigger. The green certificate system for electricity is estimated primarily to have reduces the emissions in the Nordic electricity system by stimulating increased use of electricity produced by renewables.

**Proposals for a revised construction of the intermediate target**

The EU emissions trading system starts in the year 2005. Then it will be difficult and principally illogic to maintain a national emission target that strictly specifies emissions in Sweden. We therefore propose that the national intermediate target for 2008-12 be revised. The revision will then be in line with the Kyoto target and will mean the Swedish climate policy will be adjusted to the new emissions trading system.

**Further proposal**

To reach the goals in the Swedish climate strategy, the following steps are proposed – under the conditions that the allocation of emission allowances in the EU ETS be kept down:

- Differentiated taxation of vehicles according to their CO<sub>2</sub> emissions
- Change of taxation for company cars, so that private users have to pay all fuel costs for the use of the company car to private purposes
- A kilometre charge for trucks beginning in 2008
- Continued subsidies for local climate investing programs in the years 2006-2008
- Continued emphasis on information about efforts to reduce climate change 2006-2008
- Continued work with climate change projects outside Sweden 2005 – 2012

For the sectors covered by the EU emission trading system, we propose that :

- The carbon tax for the energy use from industry be removed
- The carbon tax for heat production plants be kept, but reduced
- The carbon tax for combined heat and power plants be removed – on then assumption that:
- The same allocation principles (inside the EU ETS) be set for biomass and fossil fuels in new combined heat and power plants
- The green certification system for electricity be extended and the quota increased after 2010.

The more generous the allocation of emission allowances, the more powerful enforcement instruments must be.

### The task

The government adopted a national climate strategy in Spring 2002. The target on short terms was that the emission of greenhouse gases from Sweden on the average for the period of 2008-12 should be reduced by 4% relative to 1990 emissions.

Special "controlling stations" have been agreed for 2004 and 2008. If the emission prognoses in these years fail, the target new instruments can be proposed and/or the targets can be revised. The Swedish environmental protection agency and the energy agency has prepared a basis for consideration at "kontrollstation 2004" on behalf of the governmental. This report was handed over to the government on June 30th 2004.

Read the synthesis report:

[http://www.stem.se/WEB/STEMFe01.nsf/V\\_Media00/C42153453CAB5486C1256EC3002DBE75/\\$file/synte\\_s.pdf](http://www.stem.se/WEB/STEMFe01.nsf/V_Media00/C42153453CAB5486C1256EC3002DBE75/$file/synte_s.pdf)

For more information contact: Tom Hedlund, Swedish EPA, phone: +46 (0) 8-698 15 45, <mailto:tom.hedlund@naturvardsverket.se>

Eva Jernbäcker, Swedish EPA, phone: +46 (0) 8-698 12 55, <mailto:eva.jernbacher@naturvardsverket.se>

Thomas Levander, Energy Agency, phone: +45 (0) 18-544 20 32, <mailto:thomas.levander@stem.se>

Karin Sahlin, Energy Agency, phone: +46 (0) 16-544 21 59, <mailto:Karin.sahlin@stem.se>

### **Sweden: Proposals for more than 30 billion Swedish Crowns for green tax change**

[Translated by Søren Dyck-Madsen, The Danish Ecological Council from a press statement from the Swedish EPA 06/30/04] Higher CO<sub>2</sub> tax, fuels tax and increased taxation of high fuel consuming cars are some of the proposals that the Swedish Environmental Protection Agency (Naturvårdsverket) puts forward in its proposal for the government for a continuous green tax reform.

A green tax reform implies a redistribution of taxes, for instance from labour to the environment, says Pelle Magdalinski, project leader at the Swedish EPA. If we don't do anything now, we

will face problems achieving several of the already agreed environmental targets, especially *reduced impact on the climate, no eutrophication and a non-toxic environment*. Therefore it is important to achieve an improved environmental management by introducing, for example, a tax change without increasing the total tax burden.

From 2001 – 2003 some 8 billion Swedish Crowns were tax-changed, primarily by increasing the carbon tax and the energy tax for electricity, **compensating by increasing the basic personal allowances??**. The target for the government is to shift a total of 30 billion Swedish crowns, which will mean another 22 billion by 2010; therefore the government has asked the Swedish EPA to find out which green taxes can be increased. In the present proposal from the EPA, proposals for more than 30 billion SKK are presented.

"The proposals shall be seen as a list from where proposals can be selected, not as a packet solution", says Marcus Carlsson Reich, the Swedish EPA, who has worked with the proposal. "It is also important to point out that a tax change imply the lowering of other taxes, such as on labour. But which taxes that are going to be lowered is a political decision and lays outside the task of the Swedish EPA."

In addition to the twenty-some proposals for new or increased taxes for the environment, even more areas are pointed out, where we are facing difficulties to fulfil the national environmental targets.

"We don't have sufficient knowledge to propose how we shall reach two of the targets: *no eutrophication and non-toxic environment*. Therefore we propose further investigation to find solutions for these areas", says Pelle Magdalinski.

From an environmental point of view, the proposals to reach the environmental targets of *Reduced impact on the climate, Non-toxic environment and No eutrophication* are the most important, since they are the hardest to fulfil. The proposals for the transport sector receive special attention, since the sector has several negative trends that have to be changed. Sweden has a fleet of gas-guzzling cars. Furthermore we see a substantial increase in the heavy transport sector.

Parts of this proposal are also presented in another survey and proposal by the Swedish EPA and the Energy Agency "Kontrollstation 2004 (Climate

Change)", which was sent to the government in late June 2004.

You can read the proposal in full length here (in Swedish only): <http://www.naturvardsverket.se/dokument/press/2004/juni/pdf/gronskatt.pdf>

More information can be found contacting:

Marcus Carlsson Reich: +46 (0) 8-698 85 13, <mailto:marcus.carlssonreich@naturvardsverket.se>

Maria Ohlman: +46 (0) 8-698 10 69, <mailto:maria.ohlman@naturvardsverket.se>

Kristina Erikson: +46 (0) 8-698 10 69, <mailto:kristian.erikson@naturvardsverket.se>

### ***Sweden continues to pursue its green tax shift***

[*Environment Daily 1729, 20/09/04*] Sweden's government on Monday published its budget proposal for 2005 re-confirming its "strategy for transforming Sweden into an ecologically sustainable society". The budget's key environmental feature is a continuation of the country's ambitious green tax shift programme (ED 22/09/03 <http://www.environmentdaily.com/articles/index.cfm?action=article&ref=15142>).

In 2005, the increase in environmental taxes will total about SKr3.3bn (â, -364m). Many of these will fall on road transport, including increases averaging SKr340 and SKr100 in vehicle taxes on petrol-driven and diesel-driven cars respectively. Vehicle taxes on light lorries and light buses will rise by 40%.

Petrol and diesel taxes will be up SKr0.15 and 0.30 per litre respectively. Electricity tax will be SKr0.012 per kilowatt-hour higher. The increases, "lessened by the lower diesel tax for agricultural and forestry use", will be offset by higher basic income tax deductions. In a statement, the finance ministry noted that in 2000 the government had put at SKr30bn the scope for shifting taxes in the period 2001-2010. In budgets for 2001 and 2002 just over SKr7bn had already been shifted. In the term of office 2002-6 a total of SKr12bn will be shifted, it said. Follow-up: Swedish finance ministry <http://www.sweden.gov.se/sb/d/2062>,

and <http://www.sweden.gov.se/sb/d/4173/a/30037>; Swedish press release

environment ministry <http://environment.ministry.se/> and press release

<http://environment.ministry.se/sb/d/4296/a/30061>. Tel for both: +46 8

405 1000.

### ***Germany: German gas power tax break extended***

[*Environment Daily 1706, 21/07/04*] The European Commission has extended a tax exemption enjoyed by high-efficiency new German gas-fired power stations, the country's environment ministry revealed on Monday. It welcomed "part abolition" of a "competitive distortion" with coal or nuclear energy, neither of which pay the relevant taxes.

The ministry named two power station projects that should benefit from the exemption and predicted that others would emerge. Under the exemption, any gas power station with at least 57.5% efficiency commissioned before 10 September 2007 will pay no "mineral oil" tax for five years. The tax break first won EU approval four years ago (ED 22/11/00

<http://www.environmentdaily.com/articles/index.cfm?action=article&ref=8804>).

\* In a related development, the environment ministry on Friday claimed progress for its policy of phasing out nuclear power as it announced approval for decommissioning the Mülheim Kärlich nuclear powerstation.

Mülheim Kärlich stopped operating in 1998. Since the nuclear phase-out policy has been in force another plant - Stade - has stopped operating and should gain a decommissioning permit this autumn. A third - Obrigheim - will go offline next spring, the ministry said, bringing the total number of operating plants down to 17.

### ***Germany: German car makers agree to fit particle filters***

[*Environment Daily 1704, 07/14/04*] Germany's car makers have agreed to equip diesel cars sold in Germany with filters to dramatically reduce emissions of cancer-causing fine particles. Sector group VDA announced the agreement following a meeting on Tuesday with chancellor Gerhard Schröder.

For its part, the government will go ahead with a plan to provide tax incentives of €600 from 2005

for diesel cars with filters. Germany, as well as some other EU countries, are pressing the European Commission to bring forward plans for future Euro-5 EU emission requirements that would make filters mandatory.

VDA said that, with the tax break, it expected one-quarter of all new diesel cars sold in Germany to be fitted with filters by the end of 2006. The proportion should reach 75% by the end of 2007 and 100% by the end of 2008, it added. A VDA spokesperson could not say how much implementing the pledge would cost.

Having repeatedly urged German car makers to install filters, environment minister Jürgen Trittin welcomed their agreement.

\* In a separate development, the German environment ministry on Tuesday announced publication of proposals to transpose the EU electroscrap directive. The legal deadline for transposition passes in August. Under the directive, producer responsibility for takeback and recycling of waste electrical and electronic equipment will take effect EU-wide from August 2005.

#### ***Europe Commission: Commission "will go to court on German deposits"***

[*Environment Daily 1714, 08/18/04*] EU internal market commissioner Frits Bolkestein is determined to take Germany to the European court of justice over its controversial drinks bottle deposits scheme before leaving office, Germany's Handelsblatt newspaper has reported.

Citing sources close to the commissioner, the newspaper said the combative Dutchman had decided to take the next step on the infringement ladder before the current European Commission's mandate expires in October. The Commission issued a final warning to Germany earlier this year.

Asked to comment on the Handelsblatt report on Wednesday, a Commission spokesperson said only that Brussels would decide its next move after receiving Berlin's response to the warning. The deadline for this is 22 August. Meanwhile Germany's environment ministry, which pioneered the scheme, repeated its view that the set-up conformed with EU single market rules, saying it was "relaxed" about the prospect of a court case.

One motive for quick court action could be to spare German commissioner Günter Verheugen

an early embarrassment when he takes over the role of industry policy chief in November. In a re-arrangement of duties Mr Verheugen, who comes from the co-ruling SDP party, will be responsible for applying EU treaty rules on the free movement of goods.

He would thus have to decide whether the Commission should pursue the case; packaging firms have already expressed concern over possible conflicts of interest. **Follow-up:** [European Commission](#), tel: +32 2 299 1111; [Handelsblatt](#) [mailto:[issue@environmentdaily.com](mailto:issue@environmentdaily.com)]

#### ***Germany: Germany rejects EU packaging law complaint***

[*Environment Daily 1716, 08/25/04*] Germany has rejected a European Commission ultimatum over the country's controversial system of mandatory deposits on many one-way drinks containers. The move raises the chances that the EU executive will launch court action against Berlin.

The Commission sent Germany a final warning in April, complaining that the government's failure to ensure a properly functioning return and clearing system was producing trade barriers.

In its 30-page response, seen by Environment Daily, the government dismisses the complaint. It accuses the Commission of accepting without proper review the arguments of industry opponents of the deposits and of ignoring its own arguments.

However, in a potentially important shift of position the government is offering to force the various independent return systems that have sprung up since the deposits was introduced in 2003, known as "island solutions", to cooperate.

Retailers would be required to take back all one-way drinks containers, not only those they sell. As a result Germany would move closer to a functioning nation-wide system even in the continued absence of cooperation from large parts of the drinks and packaging industry.

An EU drinks and packaging industry lobbyist dismissed the compromise proposal as a "trick". Retailers have been forced to take refuge in island systems, Bob Schmitz told Environment Daily. The government was now trying to stop even this escape route, threatening even more costs for

firms that had already invested heavily in the island systems, he claimed.

***Portugal: The use of earmarking within climate change policy***

[Claudia Dias Soares] The 2004 Portuguese Budget Law (31.12.2003) established that the tax rates applied to the fuels shall consider their polluting effect, defining a minimum and a maximum rate for each of the fuels. With this law Portugal transposes the EU Directive on energy taxation n. 2003/96/CE (OJ n. L 283, 31 Oct 2003). The same Budget Law (art. 38/5) establishes an additional levy to the fuel tax (*Imposto sobre Produtos Petrolíferos*, ISP). This additional levy is raised on the amount that results from the application of the fuel tax rate to its tax base. The fuels affected are only gasoline (Euros 0.5 cents/litre) and road diesel (Euros 0.25 cents/litre). The revenue collected is earmarked to the Permanent Reforestation Fund (PRF) with a top limit of 30 million Euros per year.

There is, hence, a weak version of earmarking, as the fund is not only financed by the additional levy, which can also finance the general public budget. In this case revenue earmarking assures a minimum level of resources for a specific expenditure program. Thus, the criticism of inflexibility often associated with earmarking does not apply here. Furthermore, the option taken by the Portuguese regulator expands the use of this technique within environmental policy; more precisely it makes use of it for climate change policy goals.

This example complies with the polluter pays principle and is coherent with the system implemented by the Kyoto Protocol. The earmarking measure establishes a direct link between costs and benefits within the realms of air pollution. Hence, it should be considered a rational political option and involve reduced political costs. The latter potential was not, however, fully explored by the government due to weaknesses in the communication strategy. The political discourse that introduced the measure did not make the afore-mentioned linkage completely transparent for citizens.

All the GHG emissions that are not controlled or absorbed are taken into consideration for the calculation of a signatory party's compliance with its Kyoto Protocol obligations. GHG emissions are caused in great part by road traffic and absorbed

by forests. In Portugal, one of the main factors responsible for air pollution has in fact been the transport sector, and the additional levy is paid by road drivers. Moreover, the Kyoto Protocol allows countries unable to achieve the targets to compensate by buying credits from countries that have underused their emission allowance, by investing in cleaner energy technology abroad or developing projects in forestry or soil conservation. In the Portuguese case, earmarking follows this last option, which based on the idea that it is possible to store carbon in trees, with afforestation, reforestation and forest management as valid climate change policy measures (arts. 3/3 and 4 Kyoto Protocol).

If the country does not comply with its Kyoto Protocol obligations - which for Portugal means to increase its GHG emissions above 27% in the commitment period 2008-2012 (art. 3/1 of the Kyoto Protocol and Council Decision n. 2002/358/CE, 25.04.2002, art. 2 and Annex II) - it will have to buy emission rights in the market. In the Portuguese case, the evolution pattern followed by the national emissions makes such options a realistic scenario (COM(2001) 708 final, p. 26).

This represents further financial costs for the citizens. The distribution of such costs should follow the polluter-pays principle. Thus, an increase in the price of fossil fuels, such as the one caused by the additional fuel tax, is an acceptable way to finance the expected cost. Moreover, the earmarking in the Portuguese case assures that a national interest project, i.e., reforestation, will get financial support in the long term and be protected from political majority changes. This is all the more important as in this field the temporary lack of financial resources might affect seriously the outcome of the investment. And Portugal needs to improve its forestation policy and rethink the financial system used to do it for three main reasons. Lately an important part of the national forests has been hit hard by fires. The significant growth in national GHG emissions makes it necessary to use all the means available in the Kyoto Protocol to mitigate the infringement of the country's obligations. And, third, the high public deficit does not enable a space of manoeuvre for the implementation of new expenditure programs if new sources of revenue are not simultaneously presented.

***United Kingdom: UK parliamentarians urge higher fuel taxes***

[*Environment Daily 1712, 11/08/04*] A committee of British MPs is calling for an increase in duty on road fuels, and the ring-fencing of its revenues to fund public transport and subsidise low-carbon fuels. The latest report from the UK parliament's environmental audit committee says Britain's national climate change strategy is "seriously off course" and claims that as a percentage of total taxes, revenues from environmental taxes are at their lowest since the 1990s. It asks the finance ministry to "look afresh at the scale of the challenges we face". See audit committee report:

<http://www.publications.parliament.uk/pa/cm200304/cmselect/cmenvaud/490/49002.htm>

***Austria: Austria worries over declining refillables***

[*Environment Daily 1701, 07/05/04*] The Austrian environment ministry has warned that its 2000 accord with the drinks industry on boosting recycling of one-way drinks packs and maintaining an appropriate level of refillables may not be working. New figures have shown a 10% decline in refillables' market share since 2000. "It's even possible that the goal of ensuring consumer choice between refillables and one-way drinks packaging is endangered," the ministry said. The government has previously cited the accord as a reason not to introduce Germany-style deposits on one-way drinks containers.

## 4. GREEN BUDGET REFORM WORLDWIDE

***NZ carbon credit tender opens today***

[*PointCarbon; 08/30/04*] The New Zealand Government today opened its second tender round of Projects to Reduce Emissions. A pool of six million emission units put up by the Government. Those that are successful in the tender round will be awarded emissions units against projects that will reduce greenhouse gas emissions during the first commitment period of the Kyoto Protocol, 2008-2012.

"The second tender round in the Projects to Reduce Emissions programme is an example of how the Kyoto Protocol opens up new business opportunities," said the Convenor of the Ministerial Group on Climate Change, Pete Hodgson, in a press release.

The first tender round, held last year, was very successful with four million units being awarded to 15 projects. These included wind farms, hydro-electricity schemes, bio-energy and co-generation schemes. This programme will benefit New Zealand by bringing forward projects and the resultant reductions in greenhouse gas emissions. It offers tangible rewards for projects that take us further towards a clean, green and sustainable energy future."

"From the level of interest expressed at pre-tender briefings, we expect this tender round to be keenly contested. This means we will be able to choose the very best projects for reducing emissions. We also expect to see a high level of innovation in many of the projects," Hodgson announced.

More than 150 representatives of heavy industries, power, oil and waste companies, local authorities, transport companies and smaller technology-based firms attended pre-tender briefings in Auckland, Wellington and Christchurch last week. Tenders close on Friday 15 October 2004 with the first announcements of successful projects announced before Christmas.

***Korea gives renewable-energy tax incentives***

[*Søren Dyck-Madsen, 08/11/04*] The government of South Korea, the world's fourth biggest oil importer, is to give tax incentives to companies to encourage alternative-energy use.

Around 150 government-selected companies operating in the alternative-energy sector will have the interest payments on new credit reduced from 5.25% to 3%, to take effect almost immediately, reported Ethical Corporation.



The government has launched a \$40 million programme to help the development of energy-conservation technologies, such as co-generation. This programme set to run for the next three years and includes a plan to require the corporate sector to use more efficient energy sources in their production facilities by 2008, it said.

According to the Ethical Corporation, the government is also targeting residential energy users. A new campaign will be launched to raise awareness of energy conservation. This drive may include entertainment and other public amenities being required to reduce their electricity drain on the national grid, by, for example, shutting down at certain times of reduced need.

The latest plan follows the initiation of a spending programme last year, which put aside more than \$70 million to support the development of alternative energy sources, including wind and solar energy. This was an increase of 21% on such spending in 2002.

A statement last year from the Seoul government said it wanted to increase its proportion of alternative-energy use in the national economy from 1.4% in 2002 to 5% in 2011, the article said.

### ***How marketable emissions trading in SO<sub>2</sub> actually works in the USA***

*[Richard A. Westin, Professor of Law, University of Kentucky]*

#### **A. Background**

This article is a brief study of the most successful and seasoned of the US emissions trading programs. The article is not exhaustive and borrows heavily from EPA materials.

Emissions trading in SO<sub>2</sub> is a reality in the USA. The federal Clean Air Act ("the Act") imposes a national limit ("cap") on SO<sub>2</sub> emissions each year. The purpose of the article is explain the nuts and bolts of how emission trading works, so the article is limited to the SO<sub>2</sub> program. The Act itself is limited to power plants that generate electricity.

The program is often described as "cap and trade." The concept is to first set a cap, or limit, on emissions per period of time. Emitters covered by the program then receive authorizations to emit in the form of emissions allowances. The sum of the allowances is the cap. In addition, there is a small,

slightly confusing EPA reserve that the EPA auctions off. More on than later.

So, the EPA grants each emitter the right to emit a certain amount of SO<sub>2</sub> in each "compliance period" - basically a year.

Each emitter ("source") can design its own strategy to comply with the overall reduction requirement, including such solutions as the sale or purchase of allowances, installation of pollution controls, and implementation of efficiently measures. The government does not impose particular control requirement, but each source must surrender allowances equal to its actual emissions in order to comply.

Sources must also completely and accurately measure and report all emissions in a timely manner to guarantee that the overall cap is achieved.

The initial EPA cap and trade program reached 260 emitters and 110 sites, mostly coal-burners. Starting in 2000, the program expanded to cover a larger, more diverse population of emitters. Emitters are carefully monitored, so the amount they emit is well known. In fact, it is reported on the Internet. The product is hourly reporting of emissions on a quarterly (3 month) basis.

Every emitter has a special identification number and every allowance has a serial number which is used to track how allowances are used and who owns them.

#### **B. Assigning emissions rights**

Beginning in 2000, national emissions output was limited to 9.2 million tons of SO<sub>2</sub>, down from 17.3 million tons in 1980. The cap declines in the future. Under the present system, coal fired SO<sub>2</sub> emitters that generate electricity are identified and granted a stated limit, known as "allowances." Each allowance equals one ton of SO<sub>2</sub> emission. So, if one were granted 10 allowances, that means one has the right to emit 10 tons of SO<sub>2</sub> in the given period. So, the law assigns each emitter an "allocation" based on the emitter's historic fuel consumption and specific emissions rates before the start of the program.

#### **C. Trading emissions rights**

The basic concept is that an emitter that reduces its SO<sub>2</sub> emissions to its allowance has no rights to trade, because it did not exceed its goal and also does not need to buy rights in order to come into compliance. All the others either over-achieve, in

which case they have rights to sell, or under-achieve, in which case they need to buy rights to stay in compliance.

An overachiever has several choices. It can bank the rights, i.e., keep them for future use,

Transfer the rights to affiliates so it can use them, or Sell the rights. Note that the buyer may be a polluter or an NGO that wants to reduce total emissions by taking the credits out of circulation. Several colleges have done so, for example.

From the inception of the program, the EPA held an auction of rights that it sold out of a "reserve."

The rights represented under 3% of all emissions rights. The purpose was, among other things, to establish early on a rough market price for each allowance, so that emitters would have a "price signal" when deciding whether to buy or sell rights or improve their facilities. In the early years of the program emitters generally bought rights and banked them in anticipation of tighter future standards.

At the end of each year, each emitter must compare annual emissions with allowances, and has a 60-day grace period during which to purchase emissions trading rights. If they do not buy the rights in time, they pay a penalty of \$2,900 per ton (the penalty is adjusted for inflation) of excess emissions. In addition, offenders must in the future surrender allowances they would otherwise earn by the amount of the penalized allowances. This takes away the benefit of simply paying the penalty. The penalty is much higher than the costs of rights at auction. See below.

Sulphur dioxide allowances are freely transferable, but how does one know the right price? The EPA does not sell them although it does act as an auctioneer. The answer is that a market has formed on its own and the EPA has created its own market.

### 1. The EPA auction

Title IV of the Clean Air Act Amendments mandates that EPA hold or sponsor yearly auctions of allowances for a small portion of the total allowances allocated each year. The auctions help ensure that new units have a public source of allowances beyond those allocated initially to existing units. Moreover, the auctions help price information to the allowance market in the early stages of the regulatory program.

Some of the allowances are the EPA's, and others are provided by private holders

Private allowance holders (such as utilities or brokers) also may offer their allowances for sale at the EPA auctions, provided that the allowances are dated for the year in which they are offered, for any previous year, or for 7 years in the future. Authorized account representatives must notify the administrator of the EPA auctions of their intent to sell at least 15 business days prior to the auctions.

The account representatives must specify the number of allowances they are offering and their minimum price requirements.

The auctions are currently conducted for EPA by the Chicago Board of Trade (CBOT). This authorization is made possible by the Clean Air Act Amendments that gave EPA the authority to delegate the administration of the auctions.

Because EPA delegates to CBOT (as opposed to contracting with CBOT) administration of the auctions, CBOT is not compensated by EPA for its services nor allowed to charge fees. CBOT is not allowed to bid for allowances in the auctions nor transfer allowances in the EPA Allowance Tracking System. Only the administrative functions of the auction program have been delegated to CBOT; all other aspects of the auctions remain with EPA, as do all allowance transfer functions.

The auctions began in 1993 and are held annually, usually on the last Monday of March.

Auctions are divided into two segments: (1) a spot allowance auction, in which allowances are sold that can be used in that same year for compliance purposes, and (2) an advance auction for the sale of allowances that will become usable for compliance 7 years after the transaction date, although they can be traded earlier. Bidders must send sealed offers containing information on the number and type (spot or advance) of allowances desired and the purchase price to CBOT, no later than 3 business days prior to the auctions. Each bid must also include a certified check or letter of credit for the total bid cost.

(Other forms of payment may be permitted by EPA upon public notice.)

The auctions sell allowances from the Special Allowance Reserve on the basis of bid price, starting with the highest priced bid and continuing until all

allowances have been sold or the number of bids is exhausted. EPA may not set a minimum price for allowances from the Special Allowance Reserve.

Allowances are sold from the Special Allowance Reserve before allowances offered by private holders are sold. Offered allowances are sold in ascending order, starting with the allowances for which private holders have set the lowest minimum price requirements. Offered allowances are sold until the allowance supply is depleted, bids are used up, or the minimum price for the next set of offered allowances exceeds the purchase price of the next bid.

EPA returns proceeds and unsold allowances from the auctioning of reserve allowances on a pro rata basis to those units from which EPA originally withheld allowances to create the Special Allowance Reserve. Proceeds from the sale of offered allowances are returned to private allowance holders that contributed the allowances to the auctions. EPA likewise returns payment from unsuccessful bids and allowances from unsuccessful offers.

People wishing to participate in the auctions use special forms for the process. They are available online at <http://www.epa.gov/airmarkets/forms/index.html#auctionforms>. One uses a different form depending on whether one is a buyer or a seller.

For 2004, people had to submit their bids to buy allowances to the CBOT by March 16.

Offers to sell allowances had to be provided by March 1. The auction occurred in March 22, applying bids first to EPA-granted allowances from the EPA's reserve, then to privately offered allowances.

(These dates applied for 2004 and will presumably not be identical every year.) Bids and offers

must be on the necessary forms. Only 250,000 EPA reserve allowances in total will be sold at auction, representing 2.8% of all allowances allocated to utilities each year. Other allowances will be sold; those are the ones offered by private sources. Another website explains the bidding process in concrete terms. <http://www.epa.gov/airmarkets/forms/auctions/howtobid>. The results are available from the EPA at <http://www.epa.gov/airmarkets/auctions/2004/04summary.html>. One can see at once that only a few (11) privately held allowances were traded and it seems that several financial organizations traded as speculators. It looks like the average spot allowance was sold for somewhat under \$300.00 and that the longer allowances were much cheaper.

It appears that the work of matching the bids and offers is done by one individual, Eugene Kunda, Ph.D. at the Board of Trade, using a computer with spreadsheet programs.

## 2. Private sales

This is not the only price signal. There is also at least one entity that gives "real time" quotes for <http://www.emissionstrading.com/>. The information at the site is difficult to decipher unless one becomes a paying member. This author saw no reason for doing so. However, information on recent trades would be of great value to a company that expected to exceed its goals and wanted to get cash for them at once by selling them to another emitter, or conceivably to a speculator. Presumably, sales occur throughout the year, but because of the pressure of potential penalties after year-end, it is likely that sales pick up late in the year.

The system is so simple even a law professor can understand it.

## 5. EVENTS

### *13.10.2004, Barcelona, Conference The Emissions Trading And Flexible Mechanisms*

Conference about the Emissions Trading and Flexible Mechanism, Emissions trading directive and exchange of emissions, Policy market, energy taxation, instrument for emissions reduction, Challenges and opportunities. Technological innovation and climate protection.- Clean Development Mechanism, Joint Implementa-

tion, emissions trading and Market regulation, registries and relationship central government-regions on emissions trading

Participants inter alia will be: Ms. Cristina Narbona, environment Minister of Spain, Mr. Anselm Görres, Mr. Kai Schlegelmilch, Mr. Hans-Joachim Ziesing, director DIW- German Institute of Economy and Parliament State Secretary Magareta Wolf.

## 6. LINKS AND PUBLICATIONS

### *Study on the Economic and Environmental Implications of the Use of Environmental Taxes and Charges in the European Union and its Member States*

This study evaluates the economic and environmental implications of the use of environmental taxes and charges by the EU Member States. It thus constitutes a follow-up to the Commission's 1997 communication on Environmental taxes and charges in the Single Market (COM(97) 9).

In particular some studies of taxation on fertilisers and pesticides:

[http://europa.eu.int/comm/environment/enveco/taxation/environmental\\_taxes.htm](http://europa.eu.int/comm/environment/enveco/taxation/environmental_taxes.htm) and

[http://soilman.rug.ac.be/numalec/Report\\_on\\_knowledge\\_gaps.pdf](http://soilman.rug.ac.be/numalec/Report_on_knowledge_gaps.pdf)

### *National Strategies for Sustainable Development: Challenges, Approaches and Innovations in Strategic and Co-ordinated Action*

The 2002 World Summit on Sustainable Development reiterated a call to all countries to "make progress in the formulation and elaboration of national strategies for sustainable development" and also to begin their implementation by 2005. A national sustainable development strategy is not simply a document, but rather it is a continuing and adaptive process of strategic and co-ordinated action:

<http://www.iisd.org/measure/capacity/sdsip.asp> and Sustainable Europe Research Institute News on our work, friends, publications etc:

<http://www.seri.at> and <http://www.gtz.de/rioplus/download>

## 7. READERS' GUIDE AND IMPRINT

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### *Editors List:*

Here you can find all editors' addresses:

Förderverein Ökologische Steuerreform  
Green Budget Germany  
Briennerstr. 44 – D – 80333 München  
Tel.: +49 89 520 113- 13 Fax: - 14  
foes@foes-ev.de  
www.foes-ev.de

Levego Munkacsoport  
Clean Air Action Group  
H-1465 Budapest, Pf. 1676, Hungary  
Phone: +36-1 4110509/-10  
Fax: +36-1 2660150  
levego@levego.hu  
www.levego.hu

The Ecological Council  
Blegdamsvej 4B  
DK - 2200 Copenhagen N  
Phone: +45 33 15 09 77  
Fax: +45 33 15 09 71  
info@ecocouncil.dk  
www.ecocouncil.dk

ÖGUT – Österreichische Gesellschaft  
für Umwelt und Technik  
Austrian Society for Environment and Technology  
Hollandstraße 10/46  
A – 1020 Vienna  
Tel.: +43 1 315 63 93 – 13 Fax: - 22  
office@oegut.at  
www.oegut.at

Final corrections were made by:

Craig Morris, Translation Director at Petite Planète

Energy, Technology, Policy, Finances - Translations for a Small Planet

[lingua@petiteplanete.org](mailto:lingua@petiteplanete.org), <http://www.petiteplanete.org>

Tel.: +49-761-155-5907

Rehlingstr. 6c, 79100 Freiburg, Germany

