

**Louise Dunne, Peter Clinch**

Ireland  
Department of Environmental Studies,  
UCD Richview  
Clonskeagh Drive  
Dublin 14  
Ph: 353-1-2697988  
Fax: 353-1-2837009  
Ireland  
E-mail: Louise.dunne@ucd.ie, Peter.clinch@ucd.ie

**The Perception and Attitude of Business to the Environment  
and Environmental Tax Reform: An Irish Case Study**

**Abstract**

Despite the fact that environmental taxes and Environmental Tax Reform (ETR) are accepted to be policies with desirable environmental and other economic effects, their implementation has been patchy. The most common definition of Environmental Tax Reform (ETR) is the use of the revenue from environmental taxes to reduce distortionary labour taxes. Although the EU, OECD and academic economic literature may be strongly in favour of environmental taxation as a fiscal policy, and politicians may be intellectually convinced of its merits, there have been very few research efforts devoted to understanding the roles and priorities of the public, policy-makers, businesses and other stakeholders. This paper explores the perceptions and attitudes of business to ETR and, more specifically, to energy taxation. It reviews the various policy instruments and instrument mix options to reduce carbon and other emissions. In addition, as it is an important determinant of attitudes to ETR, the attitude of business to the environment generally is examined. The principal methodology is a case study of key businesses in Ireland. Semi-structured interviews were carried out with representatives of the firms at their place of employment. While not necessarily representative of all firms, the results show that, for the firms examined, while they all have internal energy policies, these are driven by financial rather than environmental motivations or the existing policy mix. However, some firms did experience a financial saving directly as a result of compliance with EMAS and integrated pollution control regulation. In addition, most of the environmental awareness of companies comes from compliance with EPA regulations. Raising awareness of environmental issues and problems is generally considered to be a prerequisite of changes or improvements in environmental practice and performance and willingness to accept environmental economic instruments such as taxes and charges. Perhaps surprisingly, companies were relatively more enthusiastic about energy taxes if, rather than recycling to reducing labour, the revenues were used to promote energy efficiency, subsidies for renewable energy and environmental education. However, this result is consistent with the attitudes of the general public.

## Introduction

This paper is based on socio-economic research that seeks to incorporate the aspects of considering climate change and company behaviour that do not always act rationally and as the market would expect. Policy-makers often run into political trouble with environmental initiatives that seem, on the surface, to be acceptable and workable compromises. Business and business lobbies often start out from an inflexible and cynical stand with regard to proposed new environmental measures, presuming that competitiveness and environmental stringency are mutually exclusive. Of course this is not the case, or not always, but getting past this blockage is one of the main challenges for policy makers and international governments. The general public can be equally suspicious, but the approach to convince them is a different one to business.

Typically, we recognise the following broad classes of policy instrument.

1. **Command and control, or regulation**, whereby a standard of environmental performance is set and enforceable by law, and often administered using an integrated pollution control licensing scheme. Regulations mandating minimum insulation standards in new buildings, or requiring that combined heat and power be used in certain circumstances, are of this character.
2. **Direct market based instruments**, whereby a direct price signal is given to polluters that emissions impose a cost on society, and that they will pay a penalty per unit of emission every time they pollute. There are two types of direct market based instruments: *Environmental taxes and charges*, whereby a charge that in theory reflects the marginal external cost being imposed at the optimum point is imposed; *Emissions trading*, whereby typically the total quantity of emissions per unit time is fixed and this 'envelope' allocated to emitters, and they then trade, with the proviso that emitters always hold sufficient permits to 'cover' their emissions.
3. **Indirect market based instruments**, including grants and tax and other subsidies, the removal of subsidies and government regulations that encourage environmental degradation, 'green purchasing' policies by governments and companies, and liability for environmental damages. Special capital write-off provisions relating to pollution abatement equipment (environment enhancing subsidies) and removal of subsidies for peat and coal extraction and use (environmentally perverse subsidies), providing for compensation and clean up by the liable parties in the event that they cause environmental degradation, are of this character.
4. **Direct investment** that facilitates emission reduction - e.g. investment in the electrical grid so that it can 'take' additional windpower, and investment in a gas pipeline interconnector that provides additional natural gas to substitute for more carbon rich fuels - are of this character.
5. **Information** that allows producers and consumers to know and understand the implications of the choices they face. Examples include energy audits and performance labelling that allow buyers of buildings, cars and appliances to know what are the energy performance characteristics of their prospective purchase.
6. **Voluntary or Negotiated Agreements**, whereby a firm or group of firms in a sector commit to meet a particular standard, e.g. carbon emissions per unit of output, typically within a defined period. Such agreements are often encouraged by tax (UK and Denmark) and regulatory (Netherlands) concessions.
7. **Research Development and Demonstration (RD&D)** which can produce new choices that did not exist before, which reduce the costs of meeting standards, or develop entirely new products and processes that change the nature of products and services. The development of combined cycle gas turbines (CCGT) simultaneously reduced emissions and generation costs.

5<sup>th</sup> International Conference on Ethics and Environmental Policies  
BUSINESS STYLES AND SUSTAINABLE DEVELOPMENT  
Kyiv, April 2-6, 2003

**Table 1 Taxonomy of Environmental Policy Instruments**

Instrument	Main Strength	Main Weakness
1. Command and Control (Regulation)	Well established, familiar, few set up costs to implement in developed countries	Potential for regulatory capture, high total costs of compliance
2. Direct Market based instruments		
▪ Taxes and charges	Can reduce total costs of compliance and enhance economy wide performance	Politically difficult to raise charges to 'optimal' level.
▪ Emission trading	Wide coverage, stakeholder acceptability, reduce total costs of compliance and (perhaps) enhance economy wide performance	Free allocation limits economy wide effects and creates transfers from consumers to producers.
3 Indirect Market based Instruments		
▪ 'Green' Grants and subsidies	Highly popular with beneficiaries	Difficult to avoid 'dead weight' losses and high costs relative to benefits at margin.
▪ Removal of environment-ally perverse subsidies.	Simultaneously reduces the burden on tax payers and improves their environment.	Very difficult to achieve because of beneficiary dependence, e.g. coal industry
4. Direct Investment	Very large and continuing impact with large investment.	Issues in unfair competition and 'State aid' in EU context
5. Information	Can be very cost effective, and empowering of consumers	Response limited if not market reality - incentives - choices
6. Voluntary Agreements	High degree of acceptability with some stakeholders	Can have high transactions costs and low credibility with environmental NGOs and others
7. RD&D	Imposes no pain on emitters	Effectiveness doubtful in absence of strong complementary market signal

Command and control has been traditionally used to quite some success, and in fact most of the environmental improvements that have been seen from the 1970's onwards, certainly in Ireland, have been due to EMAS and IPC licensing. However, problems exist in the regulatory approach to environmental problems. As Rosenbaum (1991) states, 'No problem casts a larger shadow over the second environmental era than the continuing failure of environmental institutions and policies to achieve many essential regulatory goals' (p. 301). Tenbrunsel *et al.* (1997) use a psychological perspective to investigate the problems associated with standards without denying their benefits. They investigate the nonregulatory approach espoused by many economists, environmentalists and business executives (Anderson and Leal, 1991). They propose that one of the main sources of the costs of the regulatory system is that legal standards become an independent force, taking on a life of their own, leaving rationality, innovation and societal interest behind. They provide evidence of the suboptimal outcomes that can result from an adherence to standards and suggest that this suboptimality is due to a tendency for standards to direct attention toward the law itself and away from the purpose of the law. As Howard (1994, p.50) states, 'Rules preclude initiative. Regimentation precludes evolution.' Tenbrunsel *et al.* (1997) argue that in many cases, wiser regulation could allow for greater environmental improvement at a lower economic cost than current regulation.

Taxes and charges have been used intermittently up to the early 90's, mostly for revenue raising rather than environmental purposes, but more recently have been introduced in various European countries, with the revenues recycled to reduce other taxes. Trading has had some historical context and success, most notably in the US with sulphur reduction programmes, and carbon trading has just this year been introduced to the EU in an attempt to help member states and the Union as a whole to find a way to meet their Kyoto targets. However, taxes may still play an important for smaller businesses and SME's that cannot be caught in the trading net, and for greenhouse gases and pollutants other than carbon. The interaction of various policies and design of the best mix will be a growing area over the next few years.

**Box 1 Obstacles to Market Based Instruments (MBIs) as part of Environmental Policy Reform:**

- The legacy of legislative history
- The threat that MBIs pose for regulatory capture (whereby those who are regulated spend resources influencing the regulator)
- Inconsistent Government goals and legislation
- 'Picture thinking' about economics which is deeply engrained in the public's and media's minds
- Media obsession with losers, not winners
- Politicians' unwillingness to present the environmental case in a context where, whatever the rhetoric, the environment is simply not a dominant political priority.

Source: Pearce, 2001

### Hybridisation of Instruments

There has been an evolution in the design and use of policy instruments, namely the combining of instruments, designed to achieve environmental and other objectives, including innovation. This hybridisation is especially notable in the growing use of voluntary approaches, whereby a firm bilaterally or in combination with others agrees voluntarily to operate in a specified fashion, or to meet specified environmental targets. The emerging trend is to link exemptions from other sanctions – including environmental taxes – if compliance is achieved voluntarily. Such links have always been there, but the links in the past were often implicit; now they are explicit. The linkage is typically exclusionary, whereby those adhering to the voluntary agreement will be exempt from other demands, as in the case of the benchmarking covenant in the Netherlands. Thus, in this case, Article 10 states that 'The Ministers, binding the State, will see to it that no additional specific measures as to further energy saving or CO<sub>2</sub> reduction shall be taken with regard to the Companies.' Hazewindus (2000) interprets this to mean that no specific energy tax will be levied, no obligatory CO<sub>2</sub> emission ceiling will be set, no additional energy efficiency or CO<sub>2</sub> targets will be established, and no additional energy savings will be demanded, for those party to the covenant.

Albrecht (1999) makes the point that, if carbon and energy taxes alone were to be depended on to achieve Kyoto targets, the tax levels required are likely to be substantially greater than the political and policy processes are likely to find acceptable. And so the idea of using a combination of integrated instruments to achieve objectives is gaining force in theory and application. Specifically, Albrecht examines the potential for combining emissions trading with voluntary agreements, and concludes that both environmental performance and economic efficiency are enhanced, in part because the emissions trading inhibits free riding. Salmons (1999) shows how economic efficiency and environmental performance could be advanced in the context of combining a voluntary agreement and taxation to achieve better energy efficiency and lower greenhouse gas emissions.

### Environmental Tax Reform

It is an accepted concept that a progressive shift in the burden of taxation from employment to energy (environmental tax reform) will create positive effects for the environment and may, under certain circumstances, increase employment. The existing literature on environmental tax reform is primarily concerned with either advocacy or economic analyses of the consequences of its introduction. In practice, however, attempts to shift the burden of taxation from labour to energy have faced two major political barriers. The first has been the resistance of industry (particularly energy-intensive industries). The second has been the resistance of the public to increases in taxes, particularly if they appear to have equity implications in terms of negative impacts on poorer or otherwise disadvantaged segments of society. Some of the literature has addressed these resistance problems, but very little empirical examination has been undertaken.

Although Environmental Tax Reform (ETR) has arisen several times on the political agenda over the past ten years, there has been very little enthusiasm overall in most countries for the concept. ETR has had several champions over the years, and the EU has been encouraging environmental taxation as part of the package of instruments to help reduce greenhouse gas emissions.

## Objectives

This paper focuses specifically on Environmental Tax Reform (ETR) as a policy instrument. Although the EU, OECD and academic economic literature may be strongly in favour of environmental taxation as a fiscal policy, and politicians may be intellectually convinced of its merits, there have been very few research efforts devoted to understanding the roles and priorities and opinions of businesses regarding ETR. This principal objective of this paper is to explore the perceptions and attitudes of business to ETR and, more specifically:

1. To assess the patterns of awareness of ETR policies and environmental taxes generally
2. To gauge the understanding of the intentions behind ETR in terms of environment and employment
3. To assess patterns of support or hostility towards specific environmental taxation policies and the general principles of ETR
4. To identify specific objections to these policies and principles
5. To assess what type of ETR design and other environmental taxes would be regarded most favourably, including alternative recycling of revenue
6. To assess how far that design might compromise effectiveness in meeting environmental, economic and employment objectives.

## Methodology

The business people were chosen on a matrix such that there are representatives from SMEs (Small and Medium Enterprises), large companies and state companies, and different energy users under each of these categories. The methodology employed qualitative data collection techniques. The project methodology is based around the use of interviews to inform the assessment of social responses to ETR policies and the development of improved designs for these policies. Qualitative methods were chosen because these in-depth social research methods are the most appropriate means of uncovering the thinking processes underlying attitudes expressed. Technically, a 'qualitative observation' identifies the presence or absence of something, in contrast to 'quantitative observation,' which involves measuring the degree to which some feature is present (Kirk and Miller, 1986). Qualitative methods were chosen in this study because many of the epistemological assumptions which underlie qualitative methods make them well suited to examine the kind of question this study aims to answer. Specifically, qualitative methods are concerned with processes rather than outcomes (Merrimam, 1988). They are useful for understanding meaning and how individuals make sense of their world and their experiences (Creswell, 1994). Overall, the findings of qualitative studies are descriptive in nature, meaning that an attempt is made to give an accurate reflection of what has been examined (*Ibid.*), rather than testing causal claims.

Semi-structured interviews were conducted, consisting of both closed questions to collect descriptive data, and open-ended questions to elicit the responses and experiences of the participants. All interviews were audio-recorded for verbatim transcription. 8 representatives of business were interviewed. They were chosen with a view to having some representation from energy intensive, labour intensive and neutral industries. Similar interviews were carried out in four other European countries as part of the EU-funded PETRAS<sup>1</sup> project. The company categories were as follows (anonymity was guaranteed so no company names appear):

---

<sup>1</sup> PETRAS EVG1-CT-1999-00004

**Table 2 Business interviews - Type of Business and title of interviewee**

Type	'Good' Environmental Image	'Neutral' Environmental Image	'Negative' Environmental Image
SME	Wind Power <i>Managing Director</i>	Computer Remanufacturers <i>Business Development Director</i>	Printing Ink <i>Environmental Quality Health and Safety and Production Officer</i>
Large	Banking <i>Manager of Central Facilities</i>	Food Processing <i>Environmental Manager</i>	Peat Production <i>Commercial Manager</i>
	High tech <i>Environment, Health and Safety Manager</i>		
State			Crude Oil Refining <i>Chief Environmental Officer &amp; Operations Manager</i>

The interview schedule was developed to elicit responses in relation to the main elements of the research questions. The questions were divided into the following areas.

- (i) Personal background
- (ii) The Company
- (iii) Representation
- (iv) Company attitudes toward environmental issues
- (v) Attitudes towards national / EU environmental policy
- (vi) Oil price increase
- (vii) Attitudes regarding ETR
- (viii) How could acceptance of the ETR generally be improved

The text from the interviews and focus groups was analysed using a software package for qualitative data, QSR NUD\*IST Version 4. This Australian-developed package assists in handling and managing unstructured data using a coding system, which is arranged in a hierarchy. Hypothesis and links can then be investigated efficiently from a significant amount of raw data. As with all qualitative computer software, it does not actually perform analysis, but merely facilitates the researcher by efficiently managing the data and analytic coding scheme.

**Discussion**

Company energy policy seems to depend on whether the company came under the categories legally mandated to have licences and thus energy policies. The awareness of ETR was generally found to be very low, with just some vague knowledge of the recent British changes in this regard. As there is no ETR in Ireland and almost no debate on the subject, it is not surprising that the awareness of it is so low. The general awareness level regarding environmental issues was quite high, but mostly in relation to the day to day environmental issues of the particular company, EPA requirements, IPC licences, etc.

5<sup>th</sup> International Conference on Ethics and Environmental Policies  
BUSINESS STYLES AND SUSTAINABLE DEVELOPMENT  
Kyiv, April 2-6, 2003

**Table 3 Summary of Business Interviews**

	Wind Power	Computer remanufacturers	Printing Ink	Banking	Food Processing	Crude Oil Refining	High tech	Peat Production
<b>Title of rep.</b>	Managing Director	Business Dev. Dir.	Env. Health and Safety	Mgr. Central Facilities	Env. Manager	Chief Eng. Financial Director	Env. Health & Safety Manager	Commercial Manager
<b>Employees</b>	40	42	52	23,000	1000	150	2,700	1800
<b>Energy %</b>	Low	Low	10%	-	2%	3%	-	5-7%
<b>Profitability/Energy prices</b>	-	No	No	No	Yes	Yes	Yes	Yes
<b>Sector org: Energy policy</b>	-	No	No	No	Yes	No	Yes	Yes
<b>Own Energy Policy</b>	No	No	Yes	No	Yes	Yes	No	Yes
<b>National Env. Protection</b>	Legislate, attitudes, planning	Attitudes, prevention, Legislate. Global issue	EPA, education legislate, tax	Awareness Information, audits	Cleaner fuels	Diversity, Wind power, agriculture	Tradeable permits, taxation	V. difficult, fuel type, CHP, traffic, wind, biomass
<b>Opinion of tax</b>	Blunt instrument, probs with big companies	Penalties not a motivation competitiveness	Yes. The only way.	Financial disincentive the most effective	Introduce gradually	Inflationary, wary	The most effective	Depends on objective, no elasticity, equity issues, blunt instrument
<b>OPEC increases</b>	-	No	Yes. Can't pass them on to consumer	Yes. To a minor extent	Yes. Transport of products	Not necc.	Yes	-
<b>ETR philosophy</b>	Good idea	Secondarily refund not an incentive	Good. Involves workers	Equity issues, exemptions	Might be advantageous. Pressure on industry.	PRSI less than energy tax, would hit hard	In principle, good - concerns about admin.	May do better. No impact on consumption.
<b>Alternate recycling</b>	Renewable research	Education	Env. message, community	-	Green energy and promotion, insulation	Energy efficiency, help people reduce CO <sub>2</sub>	-	Building stock, CHPs, energy efficiency

The type of business did seem to have some effect on the knowledge of ETR and environmental taxes generally, with the bigger companies who would be adversely affected keeping a closer eye on what was likely to happen in this regard. The relationship of the companies to their sector organisations did not seem to have any bearing on their views, except for the refining company whose sector organisation lobbies in Brussels against carbon taxes. Interviewees were generally open to the idea of ETR in theory, but cautious about it in relation to their own company. Even companies that would seem to be more labour intensive stated that they would need to look more closely at the figures before they could decide if they would benefit or suffer from such initiatives. The younger company representatives seemed to be more accepting to the ETR ideas presented in the interview.

### *Ameliorating Competitiveness Concerns*

The impact of ETR on competitiveness was of some concern to the focus group participants, businesses and policymakers. In Ireland and the UK, there was a concern that environmental tax reform could lead to job losses rather than gains. At the firm level, competitiveness may be precisely defined as the firm's ability to maintain or increase international or domestic market shares and profitability (Baranzini *et. al.*, 2000). Firms' competitiveness is influenced by 'micro' factors, such as cost structure, product quality, trademark, service and logistical networks, and 'macro' factors, such as exchange rates and trade regimes (Baron, 1997). The impact of a carbon tax is reflected in a firm's cost structure, and is thus only one factor affecting competitiveness. A carbon tax will imply an increase in costs to which a firm may react in different ways, for instance by (Baranzini *et. al.*, 2000):

- Shifting cost increases to consumers via higher prices, depending on market structure
- Minimising the carbon content of the products. This reaction depends on the incentives given by the carbon tax (i.e., the tax rate and the recycling of revenues) and on the energy substitution possibilities in the production process.
- Avoiding paying the tax, by relocating production and emissions in other countries.

Competitiveness impacts will only arise if environmental policy imposes different levels of costs on competing firms. If countries have different policies or regulations are different among domestic firms or firms have different specific carbon intensities or substitution possibilities, then an energy or carbon tax may impose different compliance costs among firms. A carbon/energy tax may result in competitive losses because not all firms can react in a similar way. However, competitive losses are often more apparent and short-term (in the long-term, when capital is replaced, the impacts on costs may decrease according to Baranzini *et al.* (2000)), while competitive advantages may be more difficult to quantify and mainly accrue in the long term. Porter (1990) has claimed that properly designed environmental policies can trigger innovation and production efficiency gains that may lead to an absolute advantage over non-regulated firms. This strengthens the argument in favour of economic instruments like carbon or energy taxes over command-and-control measures (Porter and Van Der Linde, 1995).

There is a large literature on the impact of environmental regulations on competitiveness which we do not summarise here. The bottom line is that the principal concern should be with those industries on the extremes. The most energy-intensive companies are the ones who will be hardest hit, but also tend to be important to the economy and politicians are reluctant to jeopardise their position or employment numbers. These companies also tend to be the loudest voice in the business confederations and sector bodies, with the smaller companies with less extreme opinions forced to support them. Exemptions will reduce the effectiveness of any energy tax, but compromises of this nature may be necessary in the first few years of introduction. However, Böhringer and Rutherford (1997) found that losses associated with exemptions could be substantial even when the share of exempted sectors in overall economic activity and carbon emissions is small. Alternative recycling options, such as wage subsidies to export-and energy-intensive sectors, can give better results in terms of employment and are less costly than tax exemptions. However, removing exemptions could be relatively costly for those sectors that benefited from them. Godal and Holtmark (1998) estimated that removing exemptions in the Norwegian CO<sub>2</sub> tax regime and replacing them by a uniform CO<sub>2</sub> tax on all CO<sub>2</sub> emissions would decrease profits in the emission-intensive industry by 18%.

Different directions in taxing offer possibilities. Taxing resource use or resource and land rents, for instance, offers some potential (Bosquet, 2000). Taxes on resource use are singled out as further candidates for ETR as they induce materials internalisation (first dividend) and have sufficient revenue potential to finance the reduction of other taxes (second dividend).

Voluntary agreement schemes offer some possibilities, such as the very high energy users negotiating some kind of compromise (e.g., installing a CHP plant to reduce energy consumption) and thereby being exempt from (at least some of) the tax. Legislation, targets

and analysis around energy use and energy audits were all mentioned as aids to successful ETR introduction.

#### **Box 2. Examples of European Exemptions**

In the case of the Swedish NOx tax, all of the revenues are refunded to the firms in the sector, thereby mitigating any negative competitiveness effects. Industry in the Netherlands that abstracts its own water pays a lower water abstraction charge than others, and the water supply tax in Denmark does not apply to industry. In the case of the carbon taxes implemented in 8 countries, industry is either exempted, or the rates are very low (Convery, 2001).

#### **Conclusions and Policy recommendations**

The most common definition of Environmental Tax Reform (ETR), which we also adopt here, is the use of the revenue from environmental taxes to reduce distortionary taxes, in particular, taxes on labour. However, this study has shown that there are a number of impediments to implementing such reform due to various social and political responses. Such impediments include mistrust of the government by the public, implausibility of the policy to the general public, unease about the means of hypothecation, information asymmetries, the political system, the structure of government, the macroeconomic environment, the impact on competitiveness, inequity between sectors, regressivity, elasticities and the level of the tax, terminology, and the marketing of ETR. Many of the recommendations are equally relevant to trading or other policy instruments as to ETR.

##### *Terminology*

The terminology used is of great importance with regard to enhancing the acceptability of ETR - taxes have particularly negative connotations. For an ETR policy to be acceptable amongst businesses and the public it is likely that a marketing strategy will be required in order to address the information asymmetries and lack of understanding. Marketing, perhaps, also has negative connotations as it might be seen as selling something that is not wanted. However, for an ETR policy to be acceptable amongst businesses it is likely that a marketing strategy will be required in order to address the information asymmetries and lack of understanding.

##### *Understanding and Information*

The generation of a climate of support is necessary for political success in this arena. Schooling, environmental training for politicians, workshops for the public and community group participation provide opportunities for reducing the 'information gap' (a proportion of the revenue from ETR could be used for such). A study of Mexican companies (Dasgupta, 1999) showed that 'scarcity of information regarding policy requirement' and 'scarcity of resources for training' were perceived as obstacles by some firms. In all firms surveyed in this study, irrespective of size, ownership or sector, difficulties in finding relevant information were reported.

##### *Trust and Government Structure*

A degree of transparency will have to be created such that the public and businesses trust that this change will occur. In France, Ireland and the UK, it was stated by the general public that if revenue distribution was carried out by an independent then this would increase trust. In addition, it might be possible to show the revenue recycled to individuals on their pay slips. This visibility was emphasised from the results of the German empirical work, where ETR has been implemented but there is a lack of comprehension of the labour tax returns.

##### *Economic Climate*

Macroeconomic conditions are likely to influence the acceptability or otherwise of ETR as well as other policy instruments. If the world economy were to move into recession and unemployment to increase in Europe, policies that provide incentives to take on workers are likely to become more attractive to policymakers. However, it is harder to introduce

environmental taxes if people's real earnings are falling. Closely related to macroeconomic conditions are concerns regarding the impact of ETR on competitiveness.

#### *Gradual Introduction*

A gradual phasing in of ETR will help to ease such concerns but it will be necessary to concentrate on the extremes. The most energy intensive companies are the ones who will be hardest hit, but also tend to be important to the economy and politicians are reluctant to jeopardise their position or employment numbers. As pointed out previously, these companies also tend to be the loudest voice in the business confederations and sector bodies. Most businesses seem to feel that a gradual phasing in of any new policy is essential. Businesses were anxious to get as much notice as possible about forthcoming changes that would affect their profit margins in order to have time to implement necessary changes. Gradual introduction gets people and businesses used to the idea and gives them time for debate and question raising before they are suddenly hit with an extra expense. In the case of the general public there is a lot of work to be done to explain the system to the extent that they will be prepared to accept it. The crucial factors for ecological and economic positive effects are primarily predictability, constancy and durability, not the level of tax rates (Schlegelmilch, 2000). With the knowledge that energy taxation will increase constantly and on a long-term basis, businesses, private households and the public administration can already adjust and can incorporate this into their investment and purchasing decisions. In particular with new investments and new purchases, this can lead to the most efficient technologies and equipment available being used.

#### *Exemptions*

In addition, exemptions or transitional relief can be provided to those firms/industries as deemed necessary for economic and/or political reasons although this will always be an area for debate. Exemptions will reduce the effectiveness of any energy tax, but compromises of this nature may be necessary in the first few years of introduction.

#### *Trade Union Support*

Getting the trade unions on board is important to push business opinion in favour of various environmental initiatives. The trade unions were in favour of environmental tax reform before inflationary worries created an atmosphere of conservatism. SME's in particular should have a major interest in lower labour taxes.

#### *Transactions Costs*

Accounting and administration of any system must be as easy and visible as possible.

#### *Alternative Recycling of Revenue*

It is possible that other methods of recycling the revenue--in addition to, or as an alternative to, reduced labour tax--might make ETR more acceptable. It was felt that the overall package would be easier to sell to the business community as a concept if some of the taxes were recycled for helping to improve their energy efficiency, energy use, machinery, technologies, grant-aiding, R&D etc.

#### *Package of Instruments*

Most policy makers and business people agreed that a package of measures, of which ETR and other environmental taxes were one part, should be the eventual outcome of the Irish climate change strategy. Fines were seen as economic instruments that work when enforced. More regulation, legislation, tradable permits, voluntary agreements, joint implementation, CDM mechanisms, enforcement and higher standards were all things that participants seemed to endorse as mechanisms for achieving national environmental protection. Generally, the EPA is a well-respected institution amongst the businesses interviewed and their endorsement would enhance the cooperation of firms who already deal with them in respect of IPC licences, EMAS etc., with ETR initiatives.

## References

- Albrecht, J. 1999. Voluntary Agreements with Emission Trading Options in Climate Policy. Limitations of price-based incentives and the benefits from combining flexible instruments. Paper presented at CAVA-Workshop, The Design and Implementation of Voluntary Approaches - Free Rider and Transactions Costs Issues, Dublin (Ireland), September 9-10, 1999.
- Anderson, T.L. and Leal, D.R. 1991. Free Market Environmentalism. Pacific Research Institute for Public Policy, San Francisco.
- Baranzini, A.B., Goldemberg, J. and Speck, S. 2000. A Future for Carbon Taxes. *Ecological Economics*, 32, 3, p.395-412.
- Baron, R. 1997. Economic/Fiscal Instruments: Competitiveness Issues Related to Carbon/Energy Taxation Policies and Measures for Common Action Working Paper 14, Annex I Expert Group on the UN FCCC.
- Böhringer, C., Rutherford, T.F. 1997. Carbon Taxes with Exemptions in an Open Economy: A General Equilibrium Analysis of the German Tax Initiative. *Journal of Environmental Economic Management*, 32, p.189-203.
- Bosquet, B. 2000. Environmental Tax Reform: Does it Work? A Survey of the Empirical Evidence. *Ecological Economics*, 34,1, p.19-32.
- Convery, F.J. 2001. Lessons for Policy Design and Execution – Environmental Taxation in Europe. Mimeo, Department of Environmental Studies, University College Dublin.
- Creswell, J.E. 1994. Research Design: Qualitative and Quantitative Approaches. Sage Publications, Thousand Oaks.
- Dasgupta, S. 1999. Opportunities for Improving Environmental Compliance in Mexico. World Bank Working Paper Series No. 2245. Washington DC.
- Godal, O. and Holtmark, B. 1998. Distribution of Costs under Different Regulation Schemes in Norway. Working Paper 1998:8, Centre for International Climate and Environmental Research, Oslo.
- Hazewindus, P. 2000. The Integration of Covenants in the Dutch Legal System, CAVA Working Paper No. 2000/2/3, CERNA, Paris.
- Howard, P.K. 1994. The Death of Common Sense. Warner Books, New York.
- Kirk, J. and Miller, M.L. 1986. Reliability and Validity in Qualitative Research. Sage Publications, Beverly Hills.
- Merrimam, S.B. 1988. Case Study Research in Education. A Qualitative Approach. Jossey-Bass, San Francisco.
- Pearce, D.W. 2001. What Have We Learned from the UK's Experience with Market-Based Instruments? In: D. McCoy and S. Scott (Eds.) Green and Bear It? Implementing Market-Based Policies for Ireland's Environment. Proceedings of a Conference held on 10 May 2001. 2001. ESRI, Dublin.
- Porter, M. 1990. The Competitive Advantage of Nations. Macmillan, New York.
- Porter, M. and Van Der Linde, C. 1995. Toward a New Conception of the Environment-Competitiveness Relationship. *Journal of Economic Perspectives*, 9, 4, p.97-118.
- Rosenbaum, W.A. 1991. Environmental Politics and Policy. Congressional Quarterly, Washington DC.
- Salmons, Roger. 1999. Hybrid Negotiated Agreements: Reconciling Conflicting Policy Objectives and Minimising Free-riding. CAVA Working Paper, CERNA, Paris
- Schlegelmilch, K. 2000. The German Experience. Paper presented at the conference Green Tax Reforms in Europe: Principles, Assessments and Perspectives, 10-11 October 2000, Paris.
- Tenbrunsel, A.E., Wade-Benzoni, K.A., Messick, D.M. and Bazerman, M.H. 1997. The Dysfunctional Aspects of Environmental Standards. In M.H. Bazerman, D.M. Messick, A.E. Tenbrunsel and K.A. Wade-

5<sup>th</sup> International Conference on Ethics and Environmental Policies  
BUSINESS STYLES AND SUSTAINABLE DEVELOPMENT  
Kyiv, April 2-6, 2003

---

Benzoni (Eds.) Environment, Ethics and Behavior: The Psychology of Environmental Valuation and Degradation. 1997. The New Lexington Press, San Francisco.