

A Norwegian System for Tradable GHG Permits - Background and Challenges

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Introduction

In October 1998 the Norwegian Government appointed a Commission of experts to outline a Norwegian domestic system for greenhouse gas emissions trading based on the commitments in the Kyoto Protocol. As member of the Commission I would like to present its background, and point out some main challenges for its work. The Commission consists of researchers, one legal expert, NGO representatives and experts from five ministries. The mandate given by the Government requires the Commission to outline a system which at least includes the process industry that is currently exempt from the CO₂ tax. However, the inclusion of other sectors and sources should also be considered.

It is too early to say how far we can reach in recommending a detailed and concrete system design. Our aim is, however, to present as detailed an outline as possible within the given time frame which is the end of this year. Today I will offer you more questions than answers.

One of the elements of our mandate is that an emission trading system should be developed in active dialogue with the social partners. To achieve this, a reference group is established with members from labour and industry organizations, main environmental NGOs, research institutes and public institutions. The Commission has already had the first meeting with the Reference group as a whole, where the members were invited to present their general views on the forthcoming emission trading system, and highlight important issues for their organizations. The reference group will first and foremost ensure that the Commission is

made aware of the different interests among the stakeholders. I envisage a further dialogue with the group both as individuals and as a whole.

Background

New measures will have to be introduced in order to meet the Norwegian commitment in the Kyoto-protocol, which is 1 % increase in greenhouse gas emissions compared to 1990- levels. Our emissions had grown about 8 % by 1997 and are projected to grow about 20 % by 2010. The Norwegian emission profile as reflected in the inventory is special compared to many other industrialised countries. In 1990 CO₂ accounted for only about 64 % of total greenhouse gas emissions. Renewable energy sources (hydropower) supply 70 % of stationary energy use, including all electricity. The potential for greenhouse gas emissions reduction in the energy sector is therefore limited. The shares of emissions from the petroleum sector (25% of the CO₂) and industrial processes (20% of the CO₂) are considerably larger than in other industrialised countries.

Taxes

The main policy instrument to reduce greenhouse gas emissions in Norway has been taxation. Other important policy instruments are voluntary agreements and licensing. Norway has had CO₂ taxes since 1991. Today these cover about 65 % of the total CO₂ emissions at varying rates up to 50 USD per tonne CO₂, the main exemptions being process and some energy related emissions from heavy industry.

The revenues from CO₂-taxes in Norway are about 1 billion USD in 1999. This could illustrate the order of magnitude of the value of the market for domestic emissions trading, depending on coverage and quota price.

On 1 January 1999 a tax on final disposal of waste was introduced, partly motivated by the need to reduce methane emissions from landfills.

New measures

In spring 1998 the Norwegian Government presented to the Parliament a white paper on Norwegian follow up of Kyoto and a green paper on Green Taxes. The two documents were

interconnected. The Government proposed to extend the CO₂-tax to sectors that are currently exempted.

The Parliament only approved to a limited extent the government's proposals. The taxes were extended to fuels used in air traffic, domestic shipping and supply ships at a tax rate of \$ 13,5 per tonne CO₂-emissions. Major industrial sectors such as metal smelting-, cement- and petrochemical industries and gas-fired power plants as well as natural gas used in the transport sector, will still be exempt from the CO₂ tax.

As an alternative to extend the tax base the Parliament asked the Government to draw up a proposal for a domestic emission trading system for greenhouse gases.

Challenges from the mandate

The mandate given by the Parliament was rather detailed. I would especially like to highlight four main challenges for the Commission to discuss.

The coverage of the trading system

To address the mandate properly the Commission will have to outline both a narrow and a broad system; as well as the corresponding effects. There is no doubt, however, that both the industry and research institutes recommend a broad system including as many sectors as possible. This position may for some stakeholders be coloured by the burden of the present CO₂-taxation and an expectation of substantial grandfathering and/or relatively low quota prices.

A study put forward by ECON, a Norwegian consultants company, concludes that over 80 % of Norwegian greenhouse gas emissions could be covered by a trading system, excluding only emissions from agriculture, landfills and some other minor sources.

It will be of vital importance to the system to use methodologies that reflect the emissions from the relevant legal entities that will participate in the market, and that reflects effects of measures taken in terms of emissions reductions. Further, it must be possible to verify the emissions at the necessary certainty level at an acceptable cost. These issues are in many cases far from trivial.

Even if a broad system is agreed upon, we expect that there will be some emissions that will not be covered by the trading system. The mandate requires the Commission to consider how a trading system coupled with other regulations will function.

Initial allocation of quotas

As far as I can foresee the initial allocation of permits will be the most challenging issue for the Commission and later for the politicians. The question of auctioned versus free quotas is mainly a political matter. The Commission's task is first and foremost to outline consequences of selecting the various forms of allocation mechanisms. We are for example required to discuss methods of allocation that do not discriminate against companies or branches that already have taken measures to reduce emissions or against new entrants. The mandate, however, states that new entrants will have to base their emissions on quotas bought through the national trading system or by use of the flexible mechanisms.

Different methods for free allocation of emission quotas will have to be discussed, for example based on historical emissions in one specific the average for a longer period, grandfathering, «standard» emissions resulting from applying some sort of BAT in different sectors etc. Grandfathering has, however, been accused for contributing to maintain a certain industry structure that is not necessarily economically sound or environmentally sustainable. Questions related to the allocation of quotas over time will also have to be addressed. It also has to be discussed how to phase in the system; whether or not a domestic trading system for some or all sectors should be in force before the Kyoto commitment period. A period of phasing in the system prior to the first commitment period raises a number of separate questions.

The initial allocation of quotas could also have implications for how the quotas should be taxed. Free quotas should probably be taxed differently than auctioned ones.

Given Norway's point of departure, the state revenues will probably decrease if we replace the present CO₂ taxes with an emission trading system, even if only the industries that are presently exempted from CO₂ taxes are given quotas free and the rest have to buy them. This is so because the current CO₂ tax in most sectors is higher than the expected international

quota price. The Commission will leave it to the government to consider how to cover the eventual loss of state revenue.

Compatibility with the Kyoto mechanisms

A challenge for everyone involved in designing trading systems for the future is to ensure that the domestic systems will be compatible with the use of the Kyoto mechanisms, including an international trading system. The mandate also highlights this question.

In this respect, it is important to distinguish between the government level, which is responsible for meeting the commitments under the Kyoto-protocol, and the emitters, which will only have «commitments» to the Norwegian authorities. It will therefore be necessary for the government to set out rules or guidelines for how private Norwegian firms may use the Kyoto mechanisms and give appropriate incentives. Since we do not know the results of the international process leading up to the establishment of rules for the mechanisms, it will be of importance to design a system that is sufficiently robust to be compatible with various sets of rules.

Reporting, verification and legal issues

It is of great importance to design transparent and legitimate procedures for reporting and verification of emission data. This is not least important for emitters and investors to have confidence to the system. The mandate implies that the Commission has to present a rather detailed proposal on legislation. The legal provisions should regulate the initial allocation of quotas, trade in the second-hand market, control of emission and sanctions in case of non-compliance. The system also has to be compatible with international trade regulations and legislation on competition in the EU/EEA area.

Further work

Some of the approaches the Commission has been asked to address are of a nature that requires external assistance from researchers and consultants. We have therefore established six external projects on the following issues:

- Legal aspects
- How auctions should be organised
- Relationship between auctions and second hand market

- Effects of free vs. auctioned emission quotas
- Effects on industry and other sectors
- Tax aspects

Preliminary results from the external projects will be presented for the Commission in April, and the reports will be delivered within June 30. For practical purposes the consultants will write in Norwegian, but we expect that much of the material will be available in English during the process.

The Commission has a tight time schedule. The report is requested to be delivered to the Ministry of Environment by January 1, 2000. So far the Commission has had four meetings. We are planning to discuss all the relevant issues before the summer and concentrate on the more detailed and tricky matters during the autumn.

I know that there is a lot of work on designing domestic trading systems going on in many of the countries represented at this meeting. It is my hope that we can join forces and take advantages of each other's work.