

CICERO Working Paper 2009:04

Taxing greenhouse gas emissions: The case of the energy intensive and petroleum industries in Norway.

Anne Therese Gullberg

September 2009

CICERO

Center for International Climate
and Environmental Research
P.O. Box 1129 Blindern
N-0318 Oslo, Norway
Phone: +47 22 85 87 50
Fax: +47 22 85 87 51
E-mail: admin@cicero.uio.no
Web: www.cicero.uio.no

CICERO Senter for klimaforskning

P.B. 1129 Blindern, 0318 Oslo
Telefon: 22 85 87 50
Faks: 22 85 87 51
E-post: admin@cicero.uio.no
Nett: www.cicero.uio.no

Tittel:	Title: Taxing greenhouse gas emissions: The case of the energy intensive and petroleum industries in Norway
Forfatter(e):	Author(s): Anne Therese Gullberg CICERO 14 pages
Finansieringskilde:	Financed by: The Norwegian Research Council, project number 185343/S30.
Prosjekt:	Project: Multiple instruments and the design and implementation of effective energy and climate policy
Prosjektleder:	Project manager: Tora Skodvin
Kvalitetsansvarlig:	Quality manager: Tora Skodvin
Nøkkelord:	Keywords:
Sammendrag:.	Abstract: Two decades of Norwegian climate policy illustrate that while policy ambitions tend to be high, policy adoption and implementation capacity tend to be low. In 1989, the Norwegian Parliament adopted a decision to stabilise Norway's greenhouse gas (GHG) emissions at 1990 levels by 2000. Since then, emissions reduction targets have been strengthened. Nevertheless, 20 years hence, Norwegian GHG emissions in 2008 had increased by more than 8 per cent since 1990 (SSB 2009) and Norway still has not succeeded in adopting adequate policy measures to actually implement the 20-year old stabilisation goal. The working paper focuses on two important interest groups in Norwegian climate policy: The energy intensive industries and the petroleum industry. The focus of this paper is the Norwegian climate policy debate since the early 1990s. I provide an empirical account of the policy process that has taken place since the CO2 tax was introduced in 1990 until the Norwegian parliament adopted the EU ETS directive in 2007.

Språk: **Language of report: Engelsk**

Rapporten kan bestilles fra:
CICERO Senter for klimaforskning
P.B. 1129 Blindern
0318 Oslo

The report may be ordered from:
CICERO (Center for International Climate and Environmental Research – Oslo)
PO Box 1129 Blindern
0318 Oslo, NORWAY

Eller lastes ned fra:
<http://www.cicero.uio.no>

Or be downloaded from:
<http://www.cicero.uio.no>

Contents

1	Introduction	1
2	The energy intensive and petroleum industries: Organisational features.....	1
3	The political battle over the CO ₂ -tax	2
3.1	THE CO ₂ -TAX IS INTRODUCED	3
3.2	THE GREEN TAX COMMISSION 1996	5
3.3	THE 1998 BONDEVIK I-PROPOSAL: CO ₂ -TAX ON ENERGY INTENSIVE INDUSTRY	5
4	Towards a Norwegian emissions trading scheme	7
4.1	THE PROPOSAL OF THE QUOTA COMMISSION.....	7
4.2	THE STOLTENBERG I GOVERNMENT'S WHITE PAPER IN 2001	8
4.3	THE BONDEVIK II GOVERNMENT'S WHITE PAPER IN 2002.....	9
4.4	BONDEVIK II'S LEGISLATIVE PROPOSAL IN 2004	10
4.5	TOWARDS NORWEGIAN PARTICIPATION IN THE EU EMISSIONS TRADING SYSTEM.....	11
5	Conclusion.....	12

Acknowledgements

Thanks to Tora Skodvin for comments.

1 Introduction

Two decades of Norwegian climate policy illustrate that while policy ambitions tend to be high, policy adoption and implementation capacity tend to be low. In 1989, the Norwegian Parliament adopted a decision to stabilise Norway's greenhouse gas (GHG) emissions at 1990 levels by 2000. Since then, emissions reduction targets have been strengthened. Nevertheless, 20 years hence, Norwegian GHG emissions in 2008 had increased by more than 8 per cent since 1990 (SSB 2009) and Norway still has not succeeded in adopting adequate policy measures to actually implement the 20-year old stabilisation goal.

In 1990, GHG emissions from the mainland and petroleum industries together accounted for more than 50% of Norwegian GHG emissions. Since 1990, emissions from energy-intensive industries have decreased even if these industries largely have been exempted from GHG regulations. Similarly, emissions from the petroleum sector have increased in this period, even if the petroleum sector is the sector that is most heavily taxed by the CO₂ tax adopted in 1991. Even if climate policy measures may have contributed to reduce the growth in Norwegian GHG emissions, the emissions profile of these sectors since 1990 may be interpreted to indicate that the climate policy instruments that actually have been implemented are fiscal rather than environmental in nature and have had little impact on Norwegian GHG emissions.

The focus of this paper is the Norwegian climate policy debate since the early 1990s. I provide an empirical account of the policy process that has taken place since the CO₂ tax was introduced in 1990 until the Norwegian parliament adopted the EU ETS directive in 2007. This narrative is supplemented with an account of the actions and strategies of the energy-intensive and petroleum industries to influence the decision-making process.

In section 2 I give a brief overview of the organisational features of the two target groups. Section 3 focuses on the debate associated with the introduction of the CO₂ tax, while section 4 focuses on the decision-making process associated with the introduction of emissions trading in Norway. Section 5 concludes.

2 The energy intensive and petroleum industries: Organisational features

In the 1990s the process industry was organised in the Federation of Norwegian Process Industries (PIL). PIL was established in 1992 after the metallurgical industry association merged with other energy-intensive industry associations (Espeli, 1999: 193). PIL organised about 700 companies from 14 industries with 14.000 employees, and represented a wide range of energy intensive industries including mining, pharmaceuticals, glass and ceramics, recycling, chemicals, metallurgy, downstream petroleum, plastics, cement, and wood processing. PIL was an important actor with contacts in the major political parties of Norway (Kasa and Malvik 2000). In 2006 PIL and the Federation of Norwegian Manufacturing Industries (TBL) established The Federation of Norwegian Industries (Norwegian Industries).

Taxing greenhouse gas emission: The case of the energy intensive industries and the petroleum industry in Norway

Norwegian Industries represents 2.000 companies with 110.000 employees (Norwegian Industries 2009a).

The petroleum industry has been organised in the Norwegian Oil Industry Association (OLF) since 1989. OLF organises oil and supplier companies engaged in exploration and production of oil and gas on the Norwegian Continental Shelf (OLF 2009a). OLF represents 47 oil and gas companies and 58 supplier companies with 29.000 employees (OLF 2009b).

OLF and Norwegian Industries are both members of the Confederation of Norwegian Business and Industry (NHO). NHO is the largest business association in Norway. The organisation is engaged in a broad set of policy issues, including climate policy. NHO is member of the European umbrella organisation Business Europe. Norwegian Industries comprises approximately 25 per cent of NHO and is by far the largest sectoral federation within NHO (Norwegian Industries 2009a).

3 The political battle over the CO₂-tax

The CO₂-tax has been the main policy instrument in Norwegian climate policy since the beginning of the 1990s. In 2007, the CO₂-tax covered 52 per cent of Norway's total greenhouse gas emissions, and 68 per cent of Norway's total CO₂-emissions (Ministry of the Environment 2007: 47)¹. Hence, one third of Norway's total CO₂-emissions were exempted from the CO₂-tax.

Table 1 CO₂-tax rates for 2007

	NOK per l/Sm ³ /kg	NOK per tonne CO ₂
Petrol	0,80	345
Mineral oil	0,54	
– light oil, diesel		203
– heavy oil		172
Mineral oil, reduced rate	0,28	
– light oil, diesel		105
– heavy oil		89
Inland/onshore use of gas		
– natural gas	0,47	201
– LPG	0,60	200
Continental shelf	0,80	
– light oil, diesel		300
– heavy oil		255
– natural gas		342

Source: Ministry of the Environment 2007: 47.

¹ - St.meld. nr. 34 (2006-2007)

Taxing greenhouse gas emission: The case of the energy intensive industries and the petroleum industry in Norway

The CO₂-tax is, however, varying greatly. Table 1 shows that the petroleum industry paid between NOK 255 and NOK 342 per tonne CO₂ on emissions from the continental shelf in 2007. Also emissions from petrol are highly taxed, while emissions from inland use of gas are taxed by NOK 200 per tonne CO₂. In contrast, producers of aluminium, cement, lime, glass, ceramics, iron and steel (energy intensive industries) pay less than NOK 10 per tonne CO₂-equivalents in 2006 (SSB 2009).

3.1 The CO₂-tax is introduced

In 1990 the Syse Government, a centre-right minority coalition consisting of the Conservative Party, the Norwegian Christian Democratic Party and the Centre Party, proposed a CO₂-tax covering mineral oil and gasoline (Kasa 2000: 107). The same year the Brundtland Government, a one-party minority government established by the Labour Party, proposed to extend the CO₂-tax to also cover CO₂-emissions from coal, petrol and petroleum production on the Norwegian continental shelf (Ministry of Finance 1990).²

Table 2a Party representation in the Norwegian parliament 1989-2009. The number of mandates in Parliament.

Party	1989-1993	1993-1997	1997-2001	2001-2005	2005-2009
The Progress Party (FrP)	21	6	20	24	38
The Conservatives (H)	37	28	22	38	23
Labour (Ap)	62	67	65	43	61
Centre Party (Sp)	11	31	11	10	11
The Norwegian Christian Democratic Party (KrF)	14	13	25	22	11
The Liberal Party (V)		1	6	2	10
Socialist Left Party (SV)	18	13	9	23	15
Others	2	6	7	3	
	165	165	165	165	169

² Ot.prp. nr. 17 (1990-1991)

Table 2b Norwegian governments from 1989-2009. The number of mandates in Parliament.

Governments	1989-1993	1993-1997	1997-2001	2001-2005	2005-2009
Syse 1989-1990 H, KrF, Sp	62				
Brundtland 1990-1996 Ap	62	67			
Jagland 1996-1997 Ap		67			
Bondevik I 1997-2000 KrF, Sp, V			42		
Stoltenberg I 2000-2001 Ap			65		
Bondevik II 2001-2005 H, KrF, V				62	
Stoltenberg II 2005-2009 Ap, Sp, SV					87

The energy intensive industries opposed the proposal and argued that a CO₂-tax would lead to a significant loss of jobs without having any environmental effect at all (Nilsen 2000: 108). Their argument was heard, and this industry was exempted from the tax that was adopted in 1990 and implemented in 1991 (Bang 2004; Kasa and Malvik 2000; Nilsen 2001). The exemption was given in spite of the fact that the energy intensive and export oriented industries in Norway were responsible for 40 per cent of the CO₂ emissions at the time the tax was introduced (Alfsen 1999). These industries' membership in policy networks that included key government bodies contributes to explain their influence in this case (Kasa 2000; Kasa and Malvik).

In contrast, the petroleum industry did not succeed in preventing the imposition of the CO₂-tax in 1990. It is a common view that this failure was due to lack of lobbying in the early phase of the policy making process (Bang 2004; Kasa and Malvik 2000; Nilsen 2000; Reitan 1998). However, OLF was founded in 1989 and has been a very active participant in climate politics since its establishment. Moreover, the petroleum industry was part of another important policy network that included key governmental bodies such as the Ministry of Petroleum and Energy and the Ministry of Trade and Industry.

Since 1990, there have been several attempts to extend the CO₂-tax to sectors not covered by the initial tax.

3.2 The Green Tax Commission 1996

In 1996 the Green Tax Commission was about to propose a CO₂-tax on emissions from the energy intensive industries (Kasa 2000; Kasa and Malvik 2000).

However, when the NHO representative in the Commission realised that the majority of the Commission's members supported an extension of the CO₂-tax, she leaked the proposal to the media (Kasa and Malvik 2000). The proposal was stopped before it was submitted. Later it turned out that Gro Harlem Brundtland, the Prime Minister representing Labour, had instructed the members of the Commission representing Ministry of Finance and Ministry of the Environment to vote against a CO₂-tax on emissions from the energy intensive industries (Kasa 2000).

Compared to the proposed CO₂-tax for other sectors, energy intensive industries were offered a *reduced* tax rate of NOK50 per tonne CO₂. Nevertheless, the energy intensive industries strongly opposed the proposal and once again PIL succeeded in avoiding the tax. In this decision, PIL and NHO demonstrated that they had attentive contacts at the very highest political level.

3.3 The 1998 Bondevik I-proposal: CO₂-tax on energy intensive industry

The report of the Green Tax Commission was submitted to the Ministry of Finance in June 1996, and was followed up by a governmental white paper two years later. In April 1998, the Bondevik I Government, a minority coalition consisting of the Norwegian Christian Democratic Party, the Centre Party and the Liberal Party, proposed to extend the CO₂-tax by including the energy intensive industries in the CO₂-tax regime (Ministry of Finance 1998).³ While the Green Tax Commission proposed a CO₂-tax on emissions from energy-intensive industries at NOK 50 per tonne CO₂, the Bondevik I government proposed a somewhat higher tax at NOK 100 per tonne CO₂. Since the Green Tax Commission's proposal Norway had signed the Kyoto Protocol to the United Nations Framework Convention on Climate Change (UNFCCC), adopted at the third meeting of the Conference of the Parties (COP) to the climate convention in Kyoto in 1997, and the Bondevik I Government argued that the tax proposed by the Green Tax Commission was too low to implement Norway's international emissions reduction commitment (Ministry of Finance 1998). While the tax rate was increased, it was nevertheless lower than, for instance, the tax on petrol (NOK 365 in 1996), light mineral oil (NOK 160 in 1996) and off shore oil production (NOK 320 in 1996). Moreover, the Bondevik I Government did not only propose a *reduced* tax, it also proposed to *compensate* the energy intensive industries until the Kyoto Protocol entered into force. The compensation covered taxes on emissions from coal used for processes in the metallurgical industries and was supposed to be gradually reduced from the year the Kyoto Protocol was ratified. The compensation arrangement was set to expire in 2010 (Ministry of Finance 1998).

The proposal also included a CO₂-tax on mineral oil products. Hence, the following new sectors were to be covered by the tax: aviation, national shipping of goods, fisheries, the supply fleet, pulp and paper and fish meal industries. The proposal also included a reduced

³ St.prp. nr. 54 (1997-1998).

Taxing greenhouse gas emission: The case of the energy intensive industries and the petroleum industry in Norway

CO₂-tax on coal and coke in the sectors of cement and leca production and coal and coke for process purposes. Hence, the on-shore industries – including the energy intensive industries - were to be taxed.

NHO, including OLF and PIL, participated in the formal hearing process prior to the introduction of the proposal. NHO and PIL were clearly against the proposed CO₂-tax until an international climate change agreement was reached and other countries also introduced a CO₂-tax. They emphasised that a unilateral CO₂-tax would imply costs that in effect forced the industry to move their activity to countries without similar regulations. Thus, they argued, while a unilateral CO₂-tax would have significant economic and societal effects, it would have no environmental effects. Given that the Bondevik I Government indeed proposed both a reduced tax rate and compensation for energy intensive industries, the industries succeeded in extracting regulatory concessions. Still, this was unacceptable to the energy intensive industry and when the proposal was introduced, NHO and PIL launched a lobbying campaign directed at the Norwegian Parliament:

While the energy intensive industries could no longer prevent the green tax issue from becoming a parliamentary issue, they still controlled important power resources that could be employed in the parliamentary contest. The industries launched a vigorous lobbying campaign against political parties and their Parliament members (Kasa 2000: 114).

In addition to NHO, PIL lobbied with local and regional branches of the trade union (Kasa 2000: 114). They directed their lobbying activities at the three largest political parties in the Parliament; the Labour Party (largest), “the anti-tax right-wing Progress Party” (second largest) and the Conservative Party (third largest) (*ibid.*).

PIL’s counter-proposal to the CO₂-tax was the establishment of a Norwegian emissions trading scheme with free emissions allowances to the energy intensive industries.

This implicit subsidy had several advantages for the emission-intensive industry. A free or cheap quota for CO₂-emissions would be more permanent than a direct subsidy to cover tax expenses, and it would not emerge as an explicit subsidy in public budgets. The costs would instead be carried permanently by other economic sectors, which would have to pay higher prices for their quotas (Kasa 2000: 115).

PIL’s proposal got support (Kasa 2000), and in June 1998 the Bondevik I proposal was rejected by a majority of the Norwegian Parliament (i.e., the Labour Party, the Conservative Party and the Progress Party). Instead the Parliament decided to appoint an expert committee on a national emissions trading scheme. The committee – “the Quota Commission” - was appointed in September 1998. With this outcome of the Bondevik I proposal, the energy intensive industries had avoided the CO₂-tax yet again.

4 Towards a Norwegian emissions trading scheme

The Kyoto protocol allows parties to make use of three ‘flexible mechanisms’: Joint implementation (JI); the Clean Development Mechanism (CDM) and Emission Trading (ET). The aim is flexible and cost effective greenhouse gas emissions abatement. Emission trading establishes a price on emissions permits and allows countries to trade permits. Countries with abatement costs that are lower than the permit price become sellers in this market, whereas countries whose abatement costs are higher than the permit price become buyers.

Bang et al. argue that the introduction of emissions trading in Norway was inspired by “pre-Kyoto proposals originating in the US” (2007: 291). From 1995 to 1997, business organisations and the energy intensive industries advocated voluntary agreements as an alternative to the CO₂-tax (Bang et al. 2007). However, with the adoption of the ‘flexible mechanisms’ incorporated in the Kyoto Protocol, they changed their strategy: Now they were advocating emissions trading as an alternative to the CO₂-tax. In contrast to a tax scheme, emissions trading “allowed them to substitute expensive domestic mitigation measures with cheaper emissions reductions abroad” (Bang 2004: 210). But, as discussed above, the energy intensive industries also advocated a *domestic* emissions trading scheme as a counter-proposal to the CO-tax (Kasa 2000; Kasa and Malvik 2000).

Jens Stoltenberg, the leader of the Standing Committee on Energy and Environment in the Norwegian Parliament in 1998 and also a deputy leader of the Labour Party, was among the initiators of the emissions trading proposal (Dagens Næringsliv 1998). Stoltenberg had, as former state secretary of the Ministry of the Environment, already in the early 1990s advocated an emissions trading scheme. So, whether PIL in 1998 supported Stoltenberg’s proposal from the early 1990s, or whether Stoltenberg and the Labour Party supported PIL’s proposal is unclear.

4.1 *The proposal of The Quota Commission*

The Quota Commission submitted its proposal for a national emissions trading scheme in December 1999 (NOU 2000:1a). The mandate of the Commission included the following conditions: The emissions trading scheme should at least cover the sectors not covered by the CO₂-tax. This included the energy intensive industries. The sectors covered by the emissions trading scheme should reduce their emissions by approximately 30 per cent compared to 1990 levels. The Commission was also mandated to assess a system where 70 per cent of the emissions permits were allocated for free, while 30 per cent of the permits were auctioned.

Four aspects of the emissions trading scheme were thus important: First, how much of the Norwegian greenhouse gas emissions that were to be covered by the emissions trading scheme. Second, the emissions reduction targets for the sectors covered by the scheme. Third, the method of allocation of emissions allowances. Fourth, when emissions trading should commence, particularly whether the emissions trading scheme should be launched in 2008 or earlier.

The Commission recommended that an emission trading scheme should be as broad as possible and proposed that the scheme should cover 90 per cent of Norway’s total greenhouse

gas emissions. However, the commission submitted a divided position on the allocation method. All the members agreed that “in principle the quotas should be sold”, but the members were split on the allocation method in practice. The majority argued that all sectors covered by the system should “pay full market price for emission quotas in line with the polluter pays principle. Free quotas should not be allocated to any industrial sector. The majority believes that the benefits achieved by allocating free quotas are disproportionately small in relation to the increased costs which would be imposed on the rest of the economy” (NOU 2000:1b). In contrast a majority consisting of two members (among them a representative for the oil company Statoil) were “of the opinion that free quotas represent a necessary flexibility as a temporary measure until other countries introduce similar emission costs.” (NOU 2000:1b). Hence, they focused on the “level playing ground” argument also emphasised by business organisations in the EU. Another minority, consisting of three representatives for the ministries, defined this question as a political one which they delegated to the politicians (NOU 2000:1b).

A number of public and non-public actors participated in the preceding hearing process. Both NHO, OLF and PIL attended hearings, and they had coordinated their positions. The three business and industry organisations all supported an emission trading scheme – and a broadest possible one. However, they did not support The Quota Commission on the question of allocation method. They opposed “unilateral auctioning of all Norwegian permits” (NOU 2000:1a).⁴

With regard to timing, moreover, NHO opposed emissions trading before 2008 when the first Kyoto period would start. It argued that a national emissions trading scheme before 2008 would not be in line with the principle of a level playing field.

OLF also advocated emissions trading – nationally as well as internationally (NOU 2000:1). OLF accepted that the petroleum industry would have to pay for emissions allowances on the condition that emissions trading would replace the CO₂-tax (ibid). The emissions allowances were expected to be less costly than the CO₂-tax paid by the petroleum industry.

4.2 The Stoltenberg I Government’s white paper in 2001

The Quota Commission’s recommendations were largely followed up by the Stoltenberg I Government in June 2001 (Ministry of the Environment 2001).⁵ This was a one-party minority government established by the Labour Party.

With regard to coverage, the Stoltenberg I Government proposed a Norwegian ETS covering 80 per cent of the emissions from 2008. The emissions were to be reduced by 30 percent compared to emissions in 1990 by 2012. The basic principle for allocation of permits should be auctioning, but the Stoltenberg I Government also proposed to allocate some free emissions allowances based on historical emissions. According to the proposal, the sectors already covered by the CO₂-tax were to continue to pay the CO₂-tax in the pre-Kyoto period (before emissions trading commenced). The government would initiate negotiations on voluntary agreements with the sectors not covered by the CO₂-tax, in practice the energy

⁴ Author’s translation.

⁵ St.meld. nr. 54 (2000-2001).

intensive industries. According to Bang et al. (2004: 291), this proposal was “the result of fierce lobbying on the part of industry”.

NHO advocated voluntary emissions trading in the pre-Kyoto period. More specifically, NHO proposed that sectors covered by the CO₂-tax should be allowed to choose whether they would continue to pay this tax, or join a voluntary emissions trading scheme. This proposal was in line with the view of the petroleum industry – which paid a more than NOK 300 per tonne CO₂, and hence, would benefit greatly from an emissions trading scheme where the emissions allowances were expected to be far less expensive than the CO₂-tax.

At the same time there was a growing debate about a European Emissions Trading Scheme (EU ETS). The Stoltenberg I Government referred to the EU Commission’s consultative Green Paper on Emissions Trading from March 2000, and signalled interest in cooperating with the EU and the Nordic countries on emissions trading (Ministry of the Environment 2001: 13).

In 2003, the EU Commission’s Green Paper on Emissions Trading was followed up by Directive 2003/87/EC in which a scheme for greenhouse gas emissions trading within the EU was established. The EU ETS became the cornerstone of EU’s efforts to reduce its greenhouse gas emissions. According to Markussen and Svendsen (2005) four main issues were discussed before the EU ETS was adopted: 1) Target groups, i.e., the sectors to be covered by the scheme, 2) allocation method: auctioning versus free emissions allowances based on historical emissions, 3) mix with other instruments: while emissions trading was considered as domestic action in the EU, project-based emissions reductions and links to other emissions trading systems were treated as use of the flexible mechanisms of the Kyoto Protocol, and hence, as supplementary to domestic action, and 4) compliance: mainly focused on the penalty size in the case of non-compliance. Christiansen and Wettestad argue that the question of mandatory or voluntary participation in the first trading period from 2005-2007 was the most contentious issue (2003:13).

4.3 *The Bondevik II Government’s white paper in 2002*

After the 2001 election, a new centre-right minority coalition government was established. The Bondevik II Government consisted of the Christian Democratic Party, the Liberal Party and the Conservative Party. This government presented a supplementary report to the Stoltenberg I Government’s white paper to the Norwegian Parliament in March 2002 (Ministry of the Environment 2002a).⁶ The white paper mainly supported the Stoltenberg I position, with one important exception: The pre-Kyoto period.

In contrast to the Stoltenberg I proposal, the Bondevik II Government proposed a national emissions trading scheme from 2005 to 2007 for the sectors not covered by the CO₂-tax. This preliminary emission trading scheme was an alternative to the voluntary approach proposed by the Stoltenberg I Government (Ministry of the Environment 2002a: 4).

⁶ St.meld. nr. 14 (2001-2002).

According to the Bondevik II proposal, the sectors covered by the emissions trading scheme were to reduce their emissions by 20 per cent compared to 1990 levels by 2012. The emissions allowances were to be allocated for free based on historical emissions.

At this time the EU was preparing an emissions trading scheme to take effect from 2005. However, the Bondevik II Government did not want to wait for the EU emissions trading scheme, and proposed instead a Norwegian ETS. This Norwegian ETS would be adapted to the Norwegian emissions profile and policy measures (i.e., the Norwegian CO₂-tax). Hence, the Norwegian ETS would cover sectors that, until then, had not been regulated, and would not cover emissions from the continental shelf and the transport sector, which were regulated through the CO₂ tax.

However, the white paper stated that the government would actively seek to influence the EU decision-making process, and Børge Brende, the Minister of the Environment, was lobbying in Brussels in 2002. Brende emphasised first, the importance of having the possibility to include more sectors than the EU proposal included, and second, the possibility of auctioning the allowances. Covering 1/3 of the total greenhouse gas emissions in the EU, and only 20-30 per cent of the total Norwegian emissions, the EU proposal was weaker than the Bondevik II proposal. The EU planned to allocate emissions allowances for free in the first phase of the EU ETS from 2005 to 2007 (Ministry of the Environment 2002b).

PIL opposed the Bondevik I proposal to introduce an emissions trading scheme from 2005 to 2007. PIL would rather negotiate a new voluntary agreement, in line with the Stoltenberg I proposal from 2001. PIL argued that its members had already reduced their emissions considerably compared to 1990. For example, in 2002 the aluminium industry had reduced its emissions by 50 per cent, which was well beyond the 30 per cent reduction target suggested by the Parliament in their mandate for the Quota Commission. Moreover, PIL argued that the emissions trading scheme would be more expensive and bureaucratic than a voluntary agreement (Aftenposten 2002).

4.4 *Bondevik II's legislative proposal in 2004*

In March 2004, Børge Brende, the environment minister, announced that the Ministry had adopted a voluntary agreement with PIL. Energy intensive industries not included in the Norwegian ETS were to reduce their emissions voluntarily instead of being included in the pre-Kyoto Norwegian ETS. The decision implied that Norway would adapt its emissions trading scheme to the EU ETS, which covered electricity (and heat) production, iron and steel, oil and gas, building materials (cement, glass, ceramics and bricks) and pulp and paper.

Although the Bondevik II Government had hoped to include more sectors in the Norwegian ETS, the legislative proposal was adjusted to the EU ETS which was adopted by the EU in 2003. Hence, the Norwegian ETS from 2005 to 2007 included only 10 per cent of the total Norwegian greenhouse gas emissions, while the Norwegian ETS from 2008 to 2012 included about 27 per cent of the total emissions.

In December 2004 the Norwegian Parliament passed a law based on a legislative proposal from the Ministry of the Environment establishing a national emission trading scheme for the periods 2005 to 2007 and 2008 to 2012 (Ministry of the Environment 2004).⁷

OLF was particularly concerned with the possibility of voluntary participation in the Norwegian ETS from 2005. Looking ahead, OLF also pointed to the principle that no emissions should be subjected to more than one policy instrument and argued that installations covered by the (Norwegian) ETS from 2008, should not also be subjected to the CO₂-tax (OLF 2004). The organisation argued that all cost-effective emissions reductions were already implemented in the off-shore sector because of the high CO₂-tax. Therefore, OLF preferred emissions trading and the clean development mechanism as the best instruments to achieve further emission reductions in the future (OLF 2004).

In Parliament, a majority of the Standing Committee on Energy and the Environment, consisting of the Members of Parliament from the Labour Party, the Conservative Party, and the Christian Democratic Party, argued that the Government should negotiate a bilateral agreement with the EU to ensure compatibility between the Norwegian and the EU emissions trading systems (Standing Committee on Energy and the Environment 2004: 7).

This “first edition” of the Norwegian ETS thus only covered 10-11 per cent of Norway’s total emissions. CO₂ emissions from energy use, and in some cases process emissions, were included in the scheme. 51 installations were given permits. These installations were found in the following sectors: Combustion installations above 20 MW (all in all 36), including district heating using natural gas (8), gas based electricity plants (2), pulp and paper using natural gas (6), fish meal and fish oil using natural gas (7), petrochemical, including crackers (4), gas processing and terminals (4) and others (5). Moreover, the scheme included refineries (2), steel production (1), cement plants (2) and other production facilities based on minerals (10).

The method of allocation was adjusted in accordance with the EU rules, which implied free allocation of emissions allowances based on historical emissions. The baseline used for permit allocation was 95 per cent of the average 1998-2001 emissions, unless the applicant could document changes in the nature and scope of its activities.

4.5 Towards Norwegian participation in the EU emissions trading system

In March 2006, the Stoltenberg II Government decided to accept incorporation of the EU Emissions Trading Directive in the EEA agreement (Ministry of the Environment 2006). The amendments to the Norwegian emissions-trading law to adapt it to the EU ETS were passed by Parliament in June 2007.

⁷ Ot.prp. nr. 13 (2004-2005), Innst. O. nr. 33 (2004-2005), beslutning. O. nr. 25 (2004-2005) Lov om kvoteplikt og handel med kvoter for utslipp av klimagasser (klimakvoteloven). All documents available online: <http://www.stortinget.no/no/Saker-og-publikasjoner/Saker/Sak/?p=30758>

This change implied that offshore oil and gas and pulp and paper were included in the trading scheme from 2008, along with the sectors already covered in the period 2005-2007. Hence, from 2008 the emissions trading scheme covers about 40 per cent of Norwegian emissions of greenhouse gases.

With regard to allocation method, the petroleum sector was not granted any free quotas. The onshore industry was granted 87 per cent of its permits for free, while emissions from industrial processes were granted 100 per cent free allocation. The allocation of free emissions allowances is based on emissions in the period from 1998 to 2001.

Norwegian Industries was not only an advocate of a Norwegian emissions trading system, the organisation was also a proponent for Norwegian participation in the EU ETS, which constituted one of the conditions for the voluntary agreement that was negotiated in 2003-2004 (Norsk Industri 2009b). Moreover, the energy intensive industries succeeded in getting free emissions allowances for emissions from industrial processes. However, in contrast to the industry's position, the allocation of emissions allowances was based on *historical* emissions - the industry's emissions from 1998 to 2001.

In 2009, the Norwegian ETS was finally incorporated in the EU ETS. This was in accordance with the original position of NHO and PIL/Norwegian Industries. Also OLF has been an eager proponent of Norwegian participation in the EU ETS. In 2004 OLF, *inter alia*, argued that Norway should implement the EU ETS directive – not negotiate a special agreement (OLF 2004). While the oil industry succeeded in being included in the Norwegian ETS, it did not get any free emissions allowances and it has to pay the difference between the costs of the emissions allowances and the former CO₂-tax.

5 Conclusion

Even if the Norwegian Parliament adopted a CO₂ stabilisation target as early as 1989, Norwegian GHG emissions have continued to grow. In 2008, Norwegian GHG emissions were more than 8 per cent higher than in 1990 (SSB 2009) and Norway still lacks adequate policy measures to implement the 20-year old stabilisation goal.

With a main focus on the decision-making processes associated with the introduction of the CO₂ tax in 1990 and emissions trading in 2005, the paper provides an empirical account of major climate policy debates and decisions the last 20 years. Discussing the strategies the energy-intensive and petroleum industries have used to influence the decision-making process, the account shows that the energy-intensive industries have been very successful in their campaign against CO₂ regulations for their sectors. Through the 1990s they were repeatedly exempted from taxation. After emissions trading surfaced on the climate policy agenda, the energy-intensive industries were exempted from the basic principle of auctioning of emissions permits and were granted their emissions permits for free. In contrast, the petroleum industry has paid a high CO₂-tax since the early 1990s, and has even continued to pay this tax after the industry was included in an emissions trading scheme. Nevertheless, emissions from the energy-intensive industries have decreased by 27 per cent compared to 1990, whereas GHG emissions from the petroleum industry have increased by 90 per cent during this period. In this sense, it seems reasonable to characterise Norwegian climate policies during the last couple of decades as policies of failed ambitions.

Literature

- Alfsen, K. 1999. "Flexible instruments in climate policy." *CICERO Policy Note* 1999:1.
- Aftenposten 2002. PIL kritiserer Brende for symbolpolitikk. 06.05.2002.
- Bang, Guri 2004. "Sources of influence in climate change policymaking: A comparative analysis of Norway, Germany and the United States." Ph.D. dissertation. Department of Political Science. University of Oslo.
- Bruvoll, A. and H.M. Dalen (2008): Lag på lag i norsk klima- og energipolitikk, *Økonomiske Analyser*, 5/2008, Statistics Norway.
- Christiansen, A.C. and J. Wettestad 2003. "The EU as a frontrunner on greenhouse gas emissions trading: how did it happen and will the EU succeed?", in *Climate Policy* 1: 3-18.
- Dagens Næringsliv 1998. Vil gi industri kvoter for CO2. 17.04.1998.
- Espeli, Harald 1999. *Lobbyvirksomhet på Stortinget*. Oslo: Tano. Aschehoug.
- Godal, O. (1998), *Metallindustrien i Norge: Økonomi, sysselsetting og utslipp av klimagasser*, Oslo: Center for International Climate and Environmental Research, CICERO Policy Note 1998:2.
- Godal, O. and B. Holtsmark (1998), *Distribution of Emission Costs Under Different Regulation Schemes in Norway*, Oslo: Center for International Climate and Environmental Research, CICERO Working Paper 1998:8.
- Kasa, S. 2000. Policy networks as barriers to green tax reform. The case of CO2-taxes in Norway. *Environmental Politics*, 9: 4, 104-122.
- Kasa, S. (2000): Explaining emission tax exemptions for heavy industries: A comparison of Norway, Denmark and the Netherlands. CICERO Policy Note 2000:03. Oslo: CICERO.
- Kasa, S. and H. Malvik 2000. Makt, miljøpolitikk, organiserte industriinteresser og partistrategier: En analyse av de politiske barrierene mot en utvidelse av CO2-avgiften i Norge. *Tidsskrift for Samfunnsforskning* 3:295-323.
- Markussen, P. and Svendsen, G.T. (2005) Industry Lobbying and the Political Economy of GHG Trade in the European Union. *Energy Policy*, 33 No. 2, pp. 245-255.
- Michaelowa, A. 2000. "The strength of different economic interests in shaping EU climate policy", in *Energy and Environment*, 11 (3): 277-292.
- Ministry of Finance 1990. Lov om avgift på utslipp av CO2 i petroleumsvirksomhet på kontinentalsokkelen m.v. Ot.prp. nr. 17, innst. O. nr. 19, besl. O. nr. 24-25 for 1990-91.
- Ministry of the Environment 2001. Norsk klimapolitikk. St.meld. nr. 54 (2000-2001). Available on: <http://www.regjeringen.no/nb/dep/md/dok/regpubl/stmeld/20002001/stmeld-nr-54-2000-2001-.html?id=195302>. Accessed 18.06.09.
- Ministry of the Environment 2002a. Tilleggsmelding til St.meld. nr. 54 (2000-2001) Norsk klimapolitikk. St. meld. 15 2001-2002. <http://www.regjeringen.no/nb/dep/md/dok/regpubl/stmeld/20012002/stmeld-nr-15-2001-2002-.html?id=195459>. Accessed 18.06.09.
- Ministry of the Environment 2002b. Proposal for a Directive on a Greenhouse Gas Emission Allowance Trading Scheme Com (2001) 581 Final. Letter to Commissioner for the Environment. Available on: http://www.regjeringen.no/nb/dokumentarkiv/Regjeringen-Bondevik-II/md/421122/421123/232550/proposal_for_a_directive_on_a_greenhouse.html?id=232571. Accessed 10.08.2009.
- Ministry of the Environment 2004. Ot.prp. 13. (2004-2005) Om lov om kvoteplikt og handel med kvoter for utslipp av klimagasser (klimakvoteloven). Available on: <http://www.regjeringen.no/nb/dep/md/dok/regpubl/otprp/20042005/otprp-nr-13-2004-2005-.html?id=394303>. Accessed 02.09.2009.

Taxing greenhouse gas emission: The case of the energy intensive industries and the petroleum industry in Norway

- Ministry of the Environment 2006. Press release 24/03/06: The Norwegian Government accepts to include the EU Emissions Trading Directive in the EEA agreement. Available on: <http://www.regjeringen.no/en/dep/md/press-centre/Press-releases/2006/Norway-accept-EU-Emissions-Trading-Directive.html?id=419857#>. Accessed 22.06.09.
- Ministry of the Environment 2007. Norsk klimapolitikk. St.meld. nr. 34 2006-2007. Available on: <http://www.regjeringen.no/nb/dep/md/dok/regpubl/stmeld/2006-2007/Stmeld-nr-34-2006-2007.html?id=473411>. Accessed 18.06.09.
- Ministry of Finance 1998. Grønne skatter. St.prp. nr. 54 (1997-1998). Available on: <http://www.regjeringen.no/nb/dep/fin/dok/regpubl/stprp/19971998/stprp-nr-54-1997-98.html?id=136918&showdetailedtableofcontents=true>. Accessed 19.06.09.
- Nilsen, Yngve 2000. *En felles plattform?: Norsk oljeindustri og klimadebatten i Norge fram til 1998*. Dissertation (dr.art). Oslo: TIK. University of Oslo. Unipub.
- Norwegian Industries 2009a. Kort om Norsk Industri. Available on: <http://www.norskindustri.no/om-norsk-industri/kort-om-norsk-industri-article3058-73.html>. Accessed 04.06.09.
- Norwegian Industries 2009b. Norge endelig tilknyttet EUs kvotehandel. Available on: <http://www.norskindustri.no/klima-energi/norge-endelig-tilknyttet-eus-kvotehandel-article3158-549.html>. Accessed 04.06.09.
- NOU 2000:1a. Et kvotesystem for klimagasser. Available on: <http://www.regjeringen.no/nb/dep/md/dok/nou-er/2000/nou-2000-1.html?id=142331>. Accessed 06.08.2009.
- NOU 2000:1b. Summary in English: A Quota System for Greenhouse gases. Available on: <http://www.regjeringen.no/nb/dep/md/dok/nou-er/2000/nou-2000-1-summary-in-english.html?id=485275>. Accessed 06.08.2009.
- OLF 2004. – Norge bør implementere EUs kvotedirektiv. Available on: <http://www.olf.no/aktuelt/norge-boer-implementere-eus-kvotehandelsdirektiv-article1034-198.html>. Accessed 04.06.09.
- OLF 2009a. OLF. The Norwegian Oil Industry Association. Available on: <http://www.olf.no/about-olf/olf-the-norwegian-oil-industry-association-article2910-292.html>. Accessed 04.06.09.
- OLF 2009b. Våre medlemsbedrifter. Available on: <http://www.olf.no/medlemskap/vaare-medlemsbedrifter-article1850-241.html>. Accessed 18.06.09.
- SSB 2008. Norske klimagassutslipp 1990-2007. Norske utslipp av klimagasser – lite i verden, mye på hver av oss. Available on: <http://www.ssb.no/spp/utg/200804/03/>. Accessed 22.06.09.
- SSB 2009. Utslipp av klimagasser 1990-2008. Available at <http://www.ssb.no/emner/01/04/10/klimagassn/> Accessed: 22.09.09.
- Standing Committee on Energy and the Environment 2004. Innst. O. nr. 33. (2004-2005). Innstilling til odelstinget fra energi- og miljøkomiteen om lov om kvoteplikt and handel med kvoter for utslipp fra klimagasser (klimakvoteloven). Available on: <http://www.stortinget.no/no/Saker-og-publikasjoner/Publikasjoner/Innstillinger/Odelstinget/2004-2005/inno-200405-033/1/#a1>. Accessed 02.09.2009.
- UNFCCC 2009. The Mechanisms under the Kyoto Protocol: Emissions Trading, the Clean Development Mechanism and Joint Implementation. Available on: http://unfccc.int/kyoto_protocol/mechanisms/items/1673.php. Accessed 08.06.09.