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ARTICLE



A greener shade of black? Statoil, the Norwegian government and climate change, 1990—2005

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ABSTRACT

This article explores the political interplay between Norway's national oil company Statoil and its government during a period when a truly global debate over climate emerged. The article sheds light on how the climate issue concerned the relationship between a Nordic state and its most important state-controlled enterprise, and exposes how Statoil responded to increasing calls for decarbonization while being privileged in climate policy-making processes. Furthermore, the article explores the origin and shortcomings of the puzzling argument about Norway's 'environment-friendly' oil and gas, and discusses how this argument helped enable Statoil and the rest of the industry to continue with business as usual despite growing social demands for the oil industry to step up its climate efforts.

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Introduction

In November 1996, Norway's newly appointed minister of energy Grete Faremo held her first press conference as the head of Norway's energy policy. Faremo was ambitious, declaring that the Norwegian state's income from oil and gas should not only save the welfare state from a forthcoming age wave with fewer employed citizens but also 'provide significant contributions to a sustainable global development, in a world where a growing population needed more energy, and the environmental challenges [were] enormous'.¹

Faremo's stint in the ministry was short-lived, but the message she conveyed was not. Taking shape during the early years of Norwegian climate policy, the argument about the ability of Norwegian oil and gas to contribute to sustainable global development became a political-industrial mantra advocated with great force by industry representatives, petroleum bureaucrats and policy makers alike. According to the argument, Norway had a duty to produce and export fossil fuels because Norway 'produce[d] petroleum in a more environment-friendly way than any other country'.² In fact, it was argued, more activity on the Norwegian continental shelf would be an 'environmental advantage' to the world.³ Subsequent governments across the political spectrum maintained that it was a political goal to unite the role of major energy producer with the role of 'pioneer in environmental issues'.⁴ To achieve this, a comprehensive cooperation between the authorities and the oil industry was needed.

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With this as a starting point, this article explores the political interplay between the national oil company Statoil and its government owner during a period when a truly global debate over climate emerged and the public demand for protective political response to climate change increased. Focusing primarily on Statoil, the article investigates the national oil company's motivation for, and commitment to, climate initiatives. How did Statoil view Norwegian climate policy, and how committed was the company to reduce greenhouse gas (GHG) emissions? How did Statoil express its opinions on oil and climate, and what role did the company play in the endeavour to promote Norwegian oil and gas as 'environment-friendly'? Did Statoil reflect climate strategy trends in the international oil industry, or did it represent something different?

In its attempt to answer these questions, this article is much indebted to work by scholars who have tackled such questions in an international context. Newell and Paterson demonstrate how oil companies in the 1990s were able to secure their interests in state policies on global warming because of capitalist societies' systematic dependence on economic growth.⁵ Kolk and Levy show how regulatory context, socio-cultural factors, market position and internal organizational factors decided Western oil companies' approach to emission reductions and investments in renewables, whereas Van den Hove et al. find a big discrepancy between Western oil companies' discourse and action and their tendency to favour profitable climate strategies.⁶ Sluyterman's study of Shell paints a somewhat more nuanced picture and provides examples of early steps taken to reduce pollution despite heavy costs, while Boon presents an overall analysis of the global oil industry's reaction to the dilemma between increased demand for fossil fuel production and growing calls for decarbonization.⁷ Drawing on these studies of private oil companies, the current article seeks to provide new insight into how a national oil company owned by a state with particularly ambitious sustainability targets addressed climate change.

Building on policy documents, Statoil's corporate archive, newspaper articles and interviews with key figures, the article demonstrates the variety and entanglements of global climate change in a local context and sheds light on some of the reasons for the slow response to global warming. The first section presents some of the main features in the history of the oil industry's approach to climate change since 1970 and places Norwegian climate policy and Statoil in this context. The second section discusses the disputed carbon tax and explores Statoil's response to this and other international and national climate policy developments in the early 1990s. The third section critically examines the propositions and shortcomings of the argument about Norway's environment-friendly oil. The fourth section discusses Statoil's development of technological solutions and its cooperation with the authorities in the mid-1990s, while the fifth section discusses the period after the ratification of the Kyoto Protocol in 1997. Throughout the article, two key premises inform the analysis. First, a vital oil industry was a prerequisite for a well-functioning Norwegian economy with extensive welfare schemes. Norwegian policy makers thus faced a difficult dilemma when they sought to protect this industry while reducing GHG emissions. Second, as discussed by Jones, corporate greening was an overall Western world trend from the 1990s onwards and did not only apply to the oil industry.⁸ Finally, although this is not a comparative analysis in the strictest sense, the article will include contextual descriptions of other Western oil companies, such as Statoil's Norwegian competitor Hydro and the European companies BP and Shell, which Statoil was close to both in terms of business culture and professional connections.⁹

Oil industry and climate change – a brief retrospective glance

Already in the 1970s, the major international oil companies were aware of impending climate change caused by emissions of greenhouse gases deriving from petroleum production. There were scientific uncertainties about how exactly such emissions would affect nature and human life, but by 1980 Anglo-Dutch Shell and American Exxon had privately predicted that their products would cause significant global damage in the near future.¹⁰ At this time, key figures in the Norwegian oil industry had the same insights as Shell and Exxon, namely that the balance of probabilities suggested that increasing greenhouse gas emissions from oil production and use constituted an enormous future problem. One example of this was a talk given in 1980 by Finn Lied, the chair of the Statoil board, at a seminar about Norway's energy supply towards the year 2000. Lied, who had also been the minister of industry during the establishment of Statoil in 1971–72, stressed the 'social cost' of the 'CO₂ problem'. His main concern, however, was not the effects that increasing carbon dioxide levels would have on nature and human life but what it meant for the oil industry's future prospects. 'Luckily', Lied concluded, the emissions problem was 'a very long-term problem that no one really dared to begin think about'.¹¹

When Lied gave this talk, global concern for environmental issues had increased steadily for almost two decades. In 1972, the United Nations Conference on the Human Environment was held in Stockholm and the Club of Rome published its famous report *The Limits to Growth*, which suggested that human beings were pushing the limits of physical resources and ecological systems. In Western societies, environmental movements engaged politically, aiming to make governments use legislation and regulation to control polluting businesses.¹² In Norway, the environmental movement developed a unique outlet for populist ecopolitics and became acknowledged as the largest and most radical in the Nordic region. As such, Norway was a relatively early mover in environmental debates and passed its first Nature Conservation Act in 1970. A Ministry of the Environment was established in 1972 and a Norwegian Pollution Authority in 1974.¹³ However, in comparison with other countries reckoned as environmental pioneers, such as Sweden, Japan and the United States, Norway's development of environmental legislation was relatively slow.¹⁴

Before the mid-1970s, Norway saw little discussion about the connection between oil and environmental degradation, although some key policy documents briefly acknowledged the issue.¹⁵ This changed around 1974, when a white paper described crude oil's impact on marine life, and the majority in the Norwegian parliament switched from supporting the fastest possible exploration for oil north of the 62nd parallel to claiming that implications for the environment needed to be investigated before further expansion took place.¹⁶ At this time, Statoil was in its infancy and had no operatorships. The company's understanding of environmental protection was concerned with its immediate surroundings and focused on avoidance of marine oil spills and 'end-of-pipe' leaks. An examination of its English-language annual reports from the 1970s shows that the expression 'environmental protection' was used only once during the decade. This occurred in 1975 when Statoil, motivated by the political developments outlined above, established a technically oriented Safety, Environmental Protection, and Quality Control Department, which treated environmental protection as a minor part of the safety concept.¹⁷

However, after the first uncontrolled North Sea well blowout, which occurred at Phillips Petroleum's Bravo platform in the Norwegian sector in 1977, Norwegian authorities introduced a set of strict safety and environmental regulations for all companies on the Norwegian continental shelf.¹⁸ When EHS (Environment, Health and Safety) appeared as a new management concept in the early 1980s, many oil companies, including Statoil, implemented an increasing number of voluntary practical measures of environmental protection and safety, although without consideration of GHG emissions. Yet, as in other industries, the great shift in terms of enterprises' ability to provide environmental solutions did not occur among oil companies before the late 1980s and early 1990s, when 'climate change' appeared on the international agenda.¹⁹

The landmark 1987 report on sustainable development from the UN World Commission on Environment and Development (WCED) proposed new forms of cooperation between the private and public spheres to reach the interconnected goals of social equity, economic growth and a healthy environment. The petroleum industry was called upon in particular because of its substantial impact on the environment and resources of countries, as well as on the global commons.²⁰ When the UN established the Intergovernmental Panel on Climate Change (IPCC) in 1988, the idea about humankind's distinctive fingerprint on global warming gained more ground. Environmental organizations, public opinion and politicians in a number of countries increasingly demanded that oil companies go further to meet environmental requirements and help curb greenhouse gas emissions. Obviously, all oil companies would be severely affected by regulatory measures to limit such emissions and eventually be presented with a survival problem. As argued by Rowlands, fossil fuel producers found climate change more problematic than previous environmental problems since it was not a question of conducting business differently but rather of 'dissipating' business. An oil company's willingness to take action on climate change depended on its ability to adapt radically to a new reality without extensive losses.²¹

When the oil companies slowly began to move towards a greater acceptance of the climate change reality in the 1990s, there were significant variations in how they chose to deal with the issue. Whereas some companies, such as the American members of the climate change neglecting Global Climate Coalition (Exxon, Phillips Petroleum, Amoco, Texaco), actively lobbied against research indicating that climate change was human-induced and opposed regulations to mitigate global warming, most European companies gradually recognized that global environmental issues would increasingly be shaping the energy markets of the 1990s.²² Compared to the American companies in particular, both Statoil and its primary Norwegian competitor Hydro were more open to admitting the connection between fossil fuel-related emissions and global warming. Nonetheless, recognition did not immediately lead to action.

Harald Norvik, Statoil's CEO, got his first 'eye-opener' on climate problems at a seminar in 1988. A German professor invited into the Norwegian woods by the energy giant Ruhrgas lectured on how increasing GHG levels in the atmosphere would lead to rising sea levels and extreme weather conditions.²³ Norvik realized that the consequences of increasing GHG levels were among Norwegian oil companies' most significant future challenges. How could Statoil get around the fact that it was a direct contributor to this problem? In 1991, Norvik told his staff, '[W]e know that we run a business that also contributes to pollution. We therefore do not want to present ourselves as idealistic environmentalists, but as a responsible and environmentally conscious company.'²⁴ This

resembled in broad outline how the European companies Shell and BP reasoned, and also how the older fertilizer and aluminium company Hydro, which since the mid-1960s had an oil and gas division, approached environmental issues around 1990. Due to emissions from its aluminium manufacture, Hydro had been under great pressure from environmental NGOs in the 1980s. As this damaged its reputation, the company endeavoured to resolve its emission problems, something that merited international recognition. Managing Director Torvild Aakvag's appointment as chair of the International Chamber of Commerce (ICC)'s commission on environment in 1990 illustrates Hydro's position as a company that treated environmental issues seriously, albeit not specifically in its oil and gas division.²⁵

Like Hydro, Statoil participated in international industry networks centred on the environment. In 1991, Norvik joined 199 other business leaders to sign the ICC's first Business Charter on Sustainable Development, a follow up of the WCED report.²⁶ The charter intended to improve firms' environmental management while hindering governmental over-legislation. In 1995, Statoil and several other oil companies were among the first members of the World Business Council for Sustainable Development (WBCSD). Statoil participated in several WBCSD working groups, whose discussions on sustainability influenced management thinking. However, as the ICC and WBCSD's purpose was business self-regulation, their environmental management principles were rather vague and subjective.²⁷ Hence, while Statoil gradually widened its perspective on global climate problems, the company increased its production on the Norwegian continental shelf, where the less climate-oriented 1980s had opened up for widespread development activity. Since most Norwegian oil executives and policy makers believed it was better to extract the oil and set aside income and revenues than leave it in the ground, the big question was how to align this with a new, offensive environmental stance.²⁸

A policy to tackle climate change

The launch of the WCED report in 1987 had marked a shift in Norway's environmental stance. As the commission's chairperson happened to be the Norwegian Prime Minister Gro Harlem Brundtland, a new ambitious environmental policy took form. As Brundtland in 1989 declared that Norway would be an early mover for sustainable development, her government became the first in the world to set a concrete national CO₂ stabilization target, aiming for the 1989 level by 2000. Shortly after, Brundtland's third cabinet imposed a special CO₂ tax on all oil products. Speaking to the industry at the international Environment Northern Seas Conference (sic.) in Stavanger in 1991, the prime minister stressed the danger of global warming:

We cannot postpone dealing with global warming. We have enough scientific evidence about causes and probable effects to know that the costs of not acting will be very high and that a further delay of action will increase these costs even more.²⁹

Brundtland requested better interaction between governments and markets and encouraged the oil industry to be 'actively and positively involved in developing and implementing new and durable solutions'.³⁰ Her environmental political strategy represented a shift away from ecology to climatology, something that appealed to what Anker describes as the 'technocratic tradition' within Brundtland's own Labour Party. The prime minister

called for a shift in the world economy but was looking for technological and economic solutions to achieve this. She maintained a cost-benefit perspective as she gradually mobilized a regime for carbon capture and storage (CSS), tradable carbon emission credits and clean development mechanisms.³¹

On her side, she had a climate policy network consisting mostly of economists with experience from oil and energy economics who worked in the Ministry of Finance, Statistics Norway (SSB) and research institutes such as the Centre for International Climate and Energy Research Oslo (CICERO), launched by the Brundtland government in 1990. Particularly the scientific expertise at CICERO influenced Norwegian climate policy from the mid-1990s onwards. An important figure in this network was Prime Minister Brundtland's former state secretary, Ted Hanisch, who functioned in a triple role as Director of CICERO, observer in the Norwegian delegation to the international climate negotiations and Norway's representative to the political branch of the UN's climate panel, IPCC. Another central figure was former vice chief executive of Statoil, Henrik Ager-Hanssen, who became the first chairperson of the CICERO board. These transitions between roles illustrates the general phenomenon of revolving doors, which Norwegian oil history contains many examples of. The transition of high-level personnel between roles as legislators and regulators, on the one hand, and members of the industries affected by the legislation and regulation, on the other, was common and created an environment of mutual understanding, also within climate policy. Furthermore, the researchers who were headhunted to CICERO, and who constituted the core expertise on climate policy in Norway from the mid-1990s onwards, had previous experience with petroleum economics. The oil industry engaged with this scientific expertise and created a channel through which it could influence Norwegian climate policy from the inside. The climate policy was thus continuously under the influence of prevailing industry views on energy and oil recovery. Gradually a comprehensive climate policy platform favouring cost-effectiveness, international emissions trading and terms favourable to the oil industry took shape.³²

The disputed carbon tax

As demonstrated by Skjærseth and Skodvin, oil companies' different climate strategies are decided on the basis of a combination of domestic political context and company features. Of these, the domestic political context is the principal factor.³³ While one might think that the Norwegian oil industry's influence on climate policy would keep the oil companies content and their strategies in line with public policy, there were in fact clear frictions between the government and Statoil. The major issue in the early 1990s was the introduction of the carbon tax in 1991. This implied a tax levied on all combustion of gas, oil and diesel in petroleum operations on the continental shelf and on releases of CO₂ and natural gas.³⁴ Outwardly, Statoil accepted the tax and supported the Norwegian government's new, ambitious environmental policy because this was in line with the company's intention to be a responsible and environmentally conscious company, but both internally and in meetings with government and other industry representatives, top management disputed the tax and the policy.³⁵ Whilst recognizing that most environmental problems were 'global in nature' and that the Norwegian oil industry, through a 'wise and competence-based cooperation' with the authorities, should be 'at the

forefront of addressing the environmental concerns', Statoil's CEO Harald Norvik simultaneously underlined the dangers of too high ambitions and too much regulation.³⁶ The authorities' job, he argued, was to not only protect the environment but also help ensure that the Norwegian oil industry remained competitive. The carbon tax could be a major competitive drawback for the Norwegian oil industry if foreign companies relocated to countries with lower tax rates. Moreover, the need to invest heavily and systematic in international markets, which the company had started to plan for, could drain surplus capital.³⁷

This view was supported by other companies such as Norsk Hydro, which despite its relatively proactive environmental profile, argued that the carbon tax should be reversed and that Norway should stop acting 'as a [climate] missionary in the international arena'.³⁸ This position met political protest from the governing Labour Party. In Parliament, Minister of the Environment Thorbjørn Berntsen criticized Hydro and Statoil for inappropriately lobbying with the aim of undermining the government's efforts to stabilize CO₂ emissions.³⁹ Nevertheless, Hydro and Statoil gradually gained political support for the view that 'Norway's economic interests must be central in international climate negotiations'.⁴⁰ From the early 1990s both companies supported an emissions trading system that would enable an overall increase in Norwegian power production and reduce climate emissions at the same time. This was in line with the thinking among the economists in the Ministry of Finance, Statistics Norway and CICERO, and with Brundtland's pragmatic approach.⁴¹

Self-imposed reduction targets and other environmental strategies

Despite the dissatisfaction with the carbon tax, Statoil understood the importance of appearing to be proactive in terms of curbing production emissions. Social demands for climate policy were increasing not only in Norway but also in many other European countries, and governments were following suit. Hence, Norvik declared that Statoil would reduce carbon emissions from its new offshore installations by 40% in the early 1990s.⁴² This was a somewhat vague but still relatively proactive statement in the context of petroleum. Statoil's reduction targets and emissions reporting were not extensive and systematic at this point, but the company attempted to comply with new emission ceilings set by Norwegian authorities. Under the motto 'greener attitude', Statoil's board reported in 1992 that 'intensive efforts' were being made to further reduce emissions and that the company had published its first overall environmental report. It was no coincidence that this report was published a year after the introduction of the carbon tax, and the same year as the organization of the UN Rio Earth Summit where the UN's Framework Convention on Climate Change (UNFCCC) was signed by 154 states. Global environmental concerns had reached both international and Norwegian politics and made it clear that the role of business in environmental concerns figured high on the agenda. Boon points out that ever since the UNFCCC entered into force in 1994, the oil industry has professed market-based and voluntary solutions to climate change mitigation rather than direct restrictions.⁴³ This was a position Statoil supported, which also largely resembled the position the Norwegian climate negotiators advocated internationally. Whilst the Norwegian government did not oppose binding emission cuts and expected the oil companies to accept government regulation, it also pushed for market-

based solutions and emission trading systems that allowed Norway to increase its total power production and emissions. This alignment of commercial and political views, which largely sprang from close ties and occasionally revolving doors between government, bureaucracy and oil industry in Norway, made Statoil and other oil companies fundamentally privileged in climate negotiations and climate policy-making processes.⁴⁴

During the first half of the 1990s, Statoil's self-imposed GHG emission reduction targets became more precise. Norvik's promise of a 40% emissions reduction from new installations was converted to an aim of a 15% reduction in CO₂ emissions from existing offshore installations, and a 20% reduction on new installations by 1996. Statoil also managed to reduce Halon emissions from its offshore installations by about 70% compared with 1991, reduce its end-of-pipe gas leakages and cut much of its gas flaring offshore.⁴⁵ Onshore, Statoil worked actively to reduce its CO₂ and NO_x emissions to air from its refineries. However, there were no specific reduction targets for refinery emissions, even though CO₂ emissions from the refinery at Mongstad were higher than corresponding emissions from the Statfjord and Gullfaks facilities offshore.⁴⁶

Moreover, Statoil introduced a more comprehensive environmental management system. This included incorporating environmental responsibility in business plans and actions, producing separate reports on the environment and appointing the company's first environment director. Additionally, Statoil began to develop new technology for carbon capture and storage.⁴⁷ In August 1993, the new environment director explained to the press that Statoil spent tens of millions on environmental protection every year and that this deserved more attention. In its overall business strategy towards year 2000, Statoil defined itself as an oil and gas company that produced 'light [crude] oil' and 'clean gas'.⁴⁸ These were products that would 'contribute to a cleaner environment than coal consumption, nuclear power and other alternatives'.⁴⁹ Statoil admitted that global warming made it necessary to prepare for potentially dramatic changes in the future that could diminish oil and gas production, but the company was nevertheless cautious in its view on investments in renewables. The prevailing view in Statoil, as in most other oil companies, was that the environment could not be saved at any cost, but at the right price.⁵⁰

The right price

The Norwegian oil industry continued to fight against the carbon tax. In 1993, the Norwegian oil companies Saga Petroleum, Norsk Hydro and Statoil had paid NOK 68, 150 and 270 million, respectively, in carbon tax. In 1994, the tax was estimated to cost the industry NOK 2.6 billion, more than the annual budget of the Ministry of the Environment. The Norwegian Oil Industry Association maintained that the tax was an inhibiting factor for the Norwegian continental shelf's competitive position and wanted to discuss alternative environmental measures. According to the association, the tax had no real effect because it was cheaper to pay the tax than to make older production platforms more environmentally friendly.⁵¹

The association's campaign against the tax led it into a clinch with Minister of Trade and Energy Jens Stoltenberg from the Labour Party, who strongly favoured a political model where Norway taxed the emissions from its petroleum sector while working to develop an international emissions trading system that would allow Norway to purchase emissions allowances abroad. With a degree in economics, Stoltenberg was a politician

who generally understood and sympathized with the oil industry and had a cost-benefit, technocratic approach to climate policy, defended the carbon tax and maintained that it worked according to its purpose. In fact, one could see a sharp decline in emissions per unit produced although Norwegian oil and gas production as a whole had increased by 24% over the past three years.⁵²

However, Statistics Norway and the Norwegian Pollution Control Authority's overviews of Norwegian emissions to air in the early 1990s revealed that emissions from the North Sea increased because the total offshore activity did the same. Was the industry losing on the swings what it gained in the roundabouts?⁵³ The answer to this question is probably yes. Statoil and the other companies' contributions to decarbonization, broadly understood as 'the eradication of anthropogenic CO₂ emissions', on the Norwegian continental shelf were minimal in the first half of the 1990s.⁵⁴ At the same time, on an international level there were companies that were much more reluctant to acknowledge and act on the fact that the oil industry was inextricably linked to prospective climate change. The most prominent of these was American ExxonMobil, which continued to oppose climate change mitigations until the mid-2000s.⁵⁵ Most of the big European oil companies acknowledged the correlation between GHG emissions and global warming, even as they warned that policies to reduce greenhouse gases could divert economic resources from more pressing needs, thus jeopardizing national economies and hindering future development.⁵⁶

Common to the European oil companies was their preference for pragmatic within-capitalism solutions. This included contemporary, mainstream green economy models, which saw economic growth as part of the solution to reduce environmental consequences of human activity.⁵⁷ It was a goal to hinder governments in 'over-legislating' and strengthen the commercial sector's voice in debates on environmental management. There is little doubt that the oil industry at large, including the European companies, 'emphasized the lack of convincing evidence [for climate change], in order to prevent passage of costly regulations', as argued by Sluyterman.⁵⁸ All over the world, fossil fuel producers found creative ways to evade the climate truth.

The paradox of 'environment-friendly' oil

In Norway, a peculiar political-industrial narrative about environment-friendly oil and gas evolved. Although the Norwegian government was showcasing Norway as a climate frontrunner, it owned Statoil and shared the company's interests in promoting the Norwegian oil industry's efficient and environment-friendly ways of producing 'light oil' and 'clean gas'.⁵⁹ Providing the oil industry with political legitimacy could conceal climate problems related to continued growth in a sector crucial to Norwegian economy and welfare.

A major problem was the national CO₂ stabilization target from 1989. This target could not be reached if CO₂ emissions from the oil industry continued as before. But planned construction of new gas facilities and onshore gas-based power stations made it difficult to reduce emissions. The industry was not willing to stop the plans, and neither were the Norwegian authorities, who saw the clear economic benefits of the gas facilities.⁶⁰ While the Brundtland government, with help from the scientific experts in CICERO, tested out different strategies to work around the problem, four former prime ministers from

different political parties declared that the political focus on environmental protection came too late and that Norway's oil production both had been and continued to be too high.⁶¹ Brundtland's political archenemy, the Conservative Willoch, even maintained that there was a 'contradiction between words and action that weaken[ed] Norwegian credibility. [...] The high rate of [petroleum] development is questionable in economic and ecological terms. It is in clear conflict with the goal that our descendants should have the same opportunities as ourselves.'⁶²

However, it is easy to be wise after the fact. None of these prime ministers did much to reduce Norwegian oil and gas production during their tenures in the 1970s and 1980s. But they did not try to showcase Norway as a climate frontrunner either. The Brundtland government's attempt to do this while also securing continued growth in the oil industry was a balancing act. Research and experience indicated that environmental policies and regulations were having profound effects on the oil industry's approach to climate change, but decreasing production to obtain emission reductions was unthinkable. Accordingly, in 1995, the government ended up abandoning its national stabilization target of keeping emissions at the 1989 level. This made Norway the first country in the world to dismiss an adopted climate target, something that clearly illustrates the oil industry's privilege in climate policy-making, and the difficulties of combining an offensive climate policy with an oil dependent economy. The target was replaced by a carbon credit system where the government assigned itself emission allowances from oil and gas production on the grounds that the export of Norwegian oil and gas could probably replace both the use of coal in other countries and oil production in countries with larger emissions from 'dirtier' oil.⁶³ The government was helped by both Hydro and Statoil, which invested heavily in gas and claimed there was a great demand for Norwegian gas 'as an environment-friendly alternative'.⁶⁴

Since 1990, Norwegian emissions per produced unit had been reduced by 28% due to a sharp reduction in gas flaring, increased focus on environmental issues, and more efficient use of energy. Nevertheless, production was expanding, and around 23% of Norwegian CO₂ emissions still came from petroleum activities. Overall, the total emissions from the Norwegian continental shelf were increasing.⁶⁵ Shortly after having abandoned the 1989 stabilization target, the government began to argue that Norway had to allow high emissions offshore because this was better for the global environment. Rather than cutting at home, efficient climate policy for Norway was to help develop an international emissions trading system.

However, this argument had some shortcomings. As only the total CO₂ emissions from all countries are relevant for the climate, the argument only works if there is an annual limit to the world's total oil and gas production, all countries cooperate to reduce CO₂ emissions, and no countries counteract this rule by maintaining or increasing their production of oil and gas.⁶⁶ This scenario was not realistic, neither in the mid-1990s nor in the near future. There was no comprehensive international climate agreement in the mid-1990s and no international law that could force countries to participate in such an agreement. Moreover, although the forecasts of the effects of future CO₂ emissions from fossil energy use were disputed, it was widely recognized that the world's total use of fossil energy produced incredible amounts of CO₂ (23.8 billion tonnes in 1996) and that these emissions were probably detrimental to humanity. Oil and gas contributed to about 60% of this figure, and the contribution of the industrialized countries to worldwide

emissions was over-proportionally large.⁶⁷ The essential message in IPCC's report *The Science of Climate Change* from 1995 was that carbon dioxide remained the most important contributor to anthropogenic forcing of climate change.⁶⁸

With less than 0.1% of the world's population, Norway accounted for a sizable though nonetheless relatively small percentage of the world's oil production (4% in 1995) and an even smaller percentage of its CO₂ emissions (0.17% in 1995). Although this was not much compared to many other oil-producing countries, a Norwegian willingness to discuss and potentially reduce its fossil fuel production at home could potentially have had a strong global signal effect, a precedent-setting potential, which would have been in line with the Brundtland government's ambition to lead by example by implementing a progressive environmental policy.⁶⁹ But initiating a discussion about capping extraction and restricting the stocks of resources available for exploration was unimaginable for the government.⁷⁰

Policy makers and industry representatives argued that a reduction in Norwegian production would be counteracted by increased oil production in countries with no, or a less strict, climate policy. Furthermore, unilateral cuts could create incentives for free-riding by other countries or regions so that global emissions may be reduced less than the amount the first country or region cut back.⁷¹ Although scientific experts, particularly economists, also in the 1990s disagreed about the validity of this theory, Norwegian policy makers and industry representatives used it to defend continued production in Norway and avoid discussion about a potential downscaling.⁷² Instead of scaling down, Norway would continue to work for an international emissions trading system. Emissions stemming directly from petroleum activities would be reduced through technological improvement and close cooperation between the authorities and the industry.

Technological solutions – Statoil's pioneering CCS project

From 1996 onwards, a debate about gasworks and the possibilities and limitations of technological solutions to reduce GHG emissions gained momentum in Norway. This debate would go on for years and become a lasting dividing line in domestic politics. Finding itself as the bone of contention, Statoil continued to invest heavily in oil and gas production while devoting more time and resources to communicate its climate initiatives. The company was particularly proud of the amount of CO₂ it prevented from being emitted through its new carbon capture and storage projects.⁷³

In the oil industry, the alternative to emitting CO₂ to the atmosphere was to inject it into the ground. The technology needed for this procedure had been well known for several years since oil companies had injected limited quantities of CO₂ into oil wells to enhance oil recovery. Yet it was uncertain whether large amounts of CO₂ would in fact remain in the ground. Triggered by the introduction of the Norwegian carbon tax and realizing it would be cheaper to capture and store CO₂ than pay this tax, Statoil nevertheless began to plan injection of CO₂ in the North Sea. In 1996, the world's first commercial-scale storage project began at the Sleipner field. Since then, Sleipner has been the world's longest-running industrial-scale CO₂ storage project, and so far it remains the only example of underground CO₂ storage arising as a direct response to environmental regulation.⁷⁴

Although it is obvious that the Sleipner project aimed primarily to reduce costs and improve efficiency – licensees at Sleipner would have paid NOK 1 million a day in CO₂ tax if all the CO₂ from the field was emitted to the atmosphere – Statoil toned down the business calculation aspect and emphasized its interest in reducing the environmental impact. For reputational reasons, it was essential for Statoil to present the highly expensive project as a company-driven innovation and investment that placed Statoil at the technological forefront of climate change mitigation. Reinjecting gas into a subsea rock formation was technically challenging, and Statoil developed new and more advanced technology for which it rightly became renowned in the industry and in research environments.⁷⁵ The enthusiasm spread to the media, with some Norwegian newspapers claiming that the global problem of CO₂ emissions could be ‘resolved by 2000 with Norwegian technology’.⁷⁶

Statoil’s decision to combat emissions through technological solutions reflects a pattern typical of oil companies. Historically, the oil industry’s approach to climate change has been characterized by a strong belief in the ability of technological solutions to reduce emissions, which in turn reflects a broader trend of voluntary corporate action to implement sustainability principles from 1990 onwards.⁷⁷ As pointed out by Boon, oil companies have tended to focus on initiatives that have allowed them to continue with business as usual. Developing carbon capture and storage (CCS) technologies was one such element.⁷⁸ The CCS project at the Sleipner field facilitated Statoil’s business-as-usual approach in the sense that it did not restrict fossil fuel production or consumption but gave a rebate on Statoil’s carbon tax. This climate strategy was logical from a business perspective since reduced production would eventually imply the end of Statoil as long as the company did not reinvent itself as a commercial, profitable renewables company. In the 1990s there was little prospect that this would happen. Statoil’s investments in clean energy technologies such as wind, bio pellets and biofuel (rape methyl ester, bioethanol, biogas) were too modest to be profitable or reckoned as a significant contribution to decarbonization.⁷⁹

But it was highly uncertain whether CO₂ removal from oil and gas production had any positive effect on limiting climate change as long as the consumption and burning of fossil fuels continued as before. Already in 1998, research indicated that carbon capture and storage initiatives like Sleipner were unlikely to play more than a small part in carbon abatement.⁸⁰ It was not enough that the oil industry lowered emissions from its own operations. Only about 15% of the industry’s carbon intensity, meaning grams of carbon dioxide released per megajoule of energy produced, came from production, refining and the energy delivered to those operations by other companies. The rest came from consumption of oil and gas. Furthermore, the technologies of the 1990s were not good enough to make significant contributions. Albeit technologically innovative, initiatives such as the Sleipner CCS project would not suffice to mitigate global warming. In fact, they could make things worse because they contributed to temperature increases by allowing a sustained or increased use of fossil fuels. Besides, the amount of CO₂ Statoil managed to capture and store at Sleipner was only a small share of its total production emissions.⁸¹

Although one might argue that not all these objections were widely recognized in the 1990s, it was known that the effect of carbon capture and storage underground was

limited, not only because the main share of emissions from oil and gas came from consumption, but also because of practical limitations. This could be for example the effects of increased storage pressure on fluid properties at reservoir conditions, specific conditions of the rock matrix and the depositional environment of the geological formations.⁸² Because of these limitations, Statoil needed additional strategies to prove its climate responsibility. Some market-based, voluntary approaches stood out.

An influential industry

Since Statoil invested heavily in various gas facilities that would produce enormous amounts of GHG emissions and exceed national emission ceilings, it strongly favoured the development of an international emissions trading system that would allow Norway to purchase carbon credits abroad, rather than a system that involved some kind of reduced production.⁸³ Already in 1990, Hydro had launched the idea of a quota exchange between Norway and coal-producing EU countries in order to allow an overall increase in Norwegian power production, particularly gas.⁸⁴ In 1991, Statoil followed suit and suggested that Statoil's planned Snøhvit gas facility in the Barents Sea should be a testing ground for emission trading between Norway and Italy, where gas from Snøhvit would be used to produce electricity. Commonly known as 'Norway's biggest polluter', Snøhvit was expected to increase national CO₂ emissions by between 6 and 8%.⁸⁵ For Statoil, the emission trading idea was particularly interesting because signals from the government indicated that the offshore sector could be allowed to participate in such trading as a substitute for the existing carbon tax.

While the governing Labour Party, bureaucrats, and economic experts in the Ministry of Finance and CICERO wanted to implement as much emissions trading and other cross-border emission reduction measures as possible, other actors disagreed.⁸⁶ Could Norway really allow Statoil and other companies to construct new, polluting gas facilities with CO₂ emissions that would increase national emissions by alarming amounts? The Christian Democratic Party, the Liberal Party and the Socialist Left Party were unsure it was a good idea. Environmental NGOs such as the Bellona Foundation, Nature and Youth, the Future in Our Hands, the Norwegian Society for the Conservation of Nature, and Greenpeace Norway protested strongly against Snøhvit and the ensuing increase in Norwegian CO₂ emissions. The NGOs found it unacceptable that the installation, if constructed, should somehow be exempted from the carbon tax.

For Statoil, the problem was that the carbon tax would increase the extra annual expenses on CO₂ emissions from Snøhvit by more than NOK 300 million. Since this cost would most likely prevent international companies from investing in the project, Statoil's CEO Norvik presented Prime Minister Brundtland with an ultimatum: Exempt Snøhvit from the tax, or the project would be stopped.⁸⁷ For the governing Labour Party, this was a dilemma. New gas facilities meant regional industrial development and thousands of employment opportunities. On the other hand, national CO₂ emissions would skyrocket. Since functioning international agreements on emissions cuts did not yet exist, the government needed the use of national CO₂ taxes to control national emissions. In fact, the government even considered expanding them.

This was a development the Statoil management disliked. As the gasworks/tax debate continued with no solution in sight, Norvik decided to move forward in

another arena to signal proactivity in terms of climate change mitigation.⁸⁸ Partly motivated by a new white paper on Norwegian climate policy from 1995, which had inspired discussions about pilot agreements on emission restrictions between the authorities and Norwegian aluminium and cement companies, the CEO suggested the establishment of a new committee. The authorities picked up the idea, and the so-called Miljøsoke committee was born. The committee was organized on the pattern of Norsok, 'the Norwegian shelf's competitive position', which had been introduced in 1993 as a cooperation between the authorities, the operators and the supply industry to cut costs and improve competitiveness on the Norwegian continental shelf.⁸⁹ Miljøsoke's aim was to improve environmental results on Norway's continental shelf, while simultaneously strengthening the offshore sector's profitability. On the table for discussion were emissions and discharges to air and water as well as their restriction through the use of regulations, financial instruments, voluntary agreements and emission ceilings.⁹⁰ Despite limited international experience with voluntary agreements on emission restrictions (with the only comparable case being the Netherlands, where societal demands for climate change mitigation were high), Norvik was willing to try.⁹¹

From Statoil's side, Miljøsoke was an attempt to meet the authorities' efforts to reduce national emissions, while simultaneously forestalling and hindering over-regulation. Besides, Miljøsoke could be positive for Statoil's environmental reputation and organizational learning. Being ahead of the government in terms of regulation could also be cost-saving in the long run. In a wider economic perspective, the Miljøsoke idea expressed an appropriation of sustainable development by conventional political economy, one of many pragmatic within-capitalism solutions countering the problem of global warming and climate change.⁹² Miljøsoke worked for Statoil in the sense that it helped shelve the political idea about increased taxes on emissions from Norwegian industry, in favour of the idea of voluntary emission reduction agreements.⁹³ Moreover, Miljøsoke did not discuss the pace of oil and gas recovery and the total emissions from the Norwegian continental shelf, but concentrated on GHG emission per produced unit as a criterion of success.⁹⁴

For Statoil, Miljøsoke was a comfortable forum and an example of how an oil company could work to get its positions heard and adopted by the authorities. The committee became an important arena for disseminating knowledge about challenges related to the environment and climate and for pointing out potential solutions to these challenges. But it also became a platform the oil industry could use to transmit its message about the need to continue with business as usual. While Miljøsoke succeeded in fulfilling its mandate, which was to make sure that the Norwegian continental shelf continued to be an exponent of competitive, 'environment-friendly' oil and gas production, it failed to materialize any of its proposed environmental and climate solutions to a significant extent.⁹⁵ Thus, it was not until the signing of the Kyoto Protocol in 1997 that a climate strategy turning point manifested itself in Statoil and other European oil companies.

Kyoto and beyond – walk the walk or talk the talk?

The Kyoto Protocol ushered in a period of climate-friendly rhetoric and the adoption of new climate strategies in several European oil companies.⁹⁶ British BP and Anglo-Dutch Shell took the first radical steps to redefine their images. The two giants endorsed Kyoto, published their first separate reports on sustainability and made sure that their American subsidiaries resigned from the climate change–neglecting Global Climate Coalition. BP was the most proactive, while Shell broadly followed BP's strategy, though with a lower public profile.⁹⁷ In 1999 BP pledged to reduce its CO₂ emissions by 10% before 2010, and in 2000 the company spent about 200 million dollars on a massive advertising campaign to rebrand itself as a green oil company. Shell did not go as far as BP in terms of green rebranding but decided to make greater use of lower carbon fuels, build a commercial renewables business and cut 10% of its greenhouse gas emissions from local operations by 2002.⁹⁸

For Statoil, which at this point had become one of the world's largest net sellers of crude oil, BP's and Shell's path became the one to follow. Statoil endorsed Kyoto and concentrated its climate strategy around the same three elements as the other leading European companies: support for the reduction of greenhouse gases, commitment to lower emissions from its own operations, and reorientation of its business to develop clean energy technology and provide cleaner fuels.⁹⁹ When endorsing Kyoto, Statoil set an internal goal of reducing CO₂ emissions from its plants by 30% over a decade. This was going to be achieved through an extensive technology programme carried out in cooperation with EU's research programmes and the Norwegian Research Council, aiming to reduce emissions at an overall cost of NOK 600 million. If implemented successfully, the programme would reduce Statoil's emissions by two million tonnes of CO₂ per year.¹⁰⁰ However, already in 1999 Statoil's internal investigations discovered that it would be impossible to reach the 30% reduction target based on business as usual and current technology, without incurring 'quite unreasonable costs'. The emission reduction goals needed revision. Either they had to be radically downscaled, or else technological development had to accelerate radically.

At this point, the Norwegian government had raised the carbon tax, something that further embittered the debate between the oil companies and the government. Once again, the issue of CO₂ emissions from gasworks and other gas facilities created most tension. After years of debate, a vote of no confidence on the issue of not allowing gas plants to be constructed without CO₂ removing technology led to the resignation of Norway's centrist government in 2000. The year after, the disputed Snøhvit facility was finally approved by a divided Norwegian parliament. The premise was a change in the petroleum tax system that provided Statoil with extra subsidies to cover the carbon tax. Ten years after Norvik's ultimatum to Prime Minister Brundtland, Statoil's demand prevailed. But Statoil still needed to reduce emissions from its operations. The company's hope was that the government would allow companies to use the Kyoto mechanisms and open for more CO₂ reduction outside Norwegian borders.¹⁰¹

Although the goal was to continue with business as usual, Statoil began to refer to itself as an energy company rather than an oil and gas company. This caused resentment among environmentalists, who claimed that Statoil was just window dressing its usual business. When CEO Harald Norvik resigned after a budget overrun in 1999, the

outspoken leader of Green Warriors of Norway, Kurt Oddekalv, took the opportunity to describe Norvik's ten-year-long tenure as 'an era filled with abuse of power and almost total [environmental] irresponsibility'.¹⁰² This critique was brushed aside by Statoil, which continued to improve its sustainability profile under the new CEO Olav Fjell. In 2002, Statoil published its first separate report on sustainable development, arguing that it had a natural pre-disposition for sustainability due to Norway's high environmental and social standards. It was obvious, according to Statoil, that oil and gas from Norway represented a greener shade of black.¹⁰³

However, sustainability reporting was voluntary and based on individual criteria that gave the companies great freedom to present and evaluate themselves. Although the 2000s saw some initiatives aiming to make emissions reporting more comparable, such as the Carbon Disclosure Project (CDP) and the World Business Council on Sustainable Development's Greenhouse Gas Protocol, the lack of common, international carbon disclosure rules made it hard for outsiders to actually track and benchmark the companies' postulated progress.¹⁰⁴ A study by Frynas revealed that Statoil in 2006 reported in detail on gas flaring and energy consumption, but lacked detailed reporting on key environmental fields such as environmental monitoring, greenhouse gas emissions and discharges of hydrocarbon to water.¹⁰⁵ To what degree Statoil was actually walking the climate walk in the 1990s and early 2000s, and not only talking the climate talk, is thus a matter of discussion.

Conclusion

This article has explored the political interplay between Norway's national oil company Statoil and its government owner during a period when a truly global debate over climate emerged. The focus has been on Statoil's reactions to international political developments and general trends within Western corporate greening, its responses to Norwegian climate policy and its sensitivity to trends in the international oil industry, particularly among the companies with business cultures Statoil considered similar to its own. The findings demonstrate that Statoil acknowledged the problem of human-induced climate change in the early 1990s, primarily motivated by business calculations of current and future profits based on anticipations of future climate requirements from the Norwegian authorities. Furthermore, international influences and business networks contributed to the company's gradual recognition that GHG emissions from oil production and consumption increased global warming. In Norway, societal demands and political decisions, such as the introduction of the carbon tax, led Statoil to make plans to reduce the GHG emissions from its operations. Like its competitor Hydro and the rest of the Norwegian oil industry, Statoil warned against the consequences of the tax but did not outright oppose government regulation. Direct opposition was difficult as it was Statoil's government owner that had the regulatory responsibility for petroleum activities, but company management found subtler ways of voicing its opinion. As such, Statoil's reactions in the early phase of the climate issue were related both to regulatory measures, norms concerning its relations to the government and to general trends among European oil companies which to a certain extent mirrored general contemporary Western trends of corporate greening.

Later in the 1990s, Statoil invested in the development of clean energy technology in the form of carbon capture and storage, with the Sleipner CCS project as a pioneering initiative. Like other European oil companies, Statoil endorsed the Kyoto Protocol in 1997, introduced self-imposed greenhouse gas emission reduction targets and began systematic sustainability reporting. Throughout the period, the company's preferred climate strategy was to develop an emission trading system for the oil industry. Like other oil companies, Statoil supported climate strategies that in some way allowed it to continue with business as usual. Particular to Statoil, however, was its government owner's dual role as sustainability frontrunner on the one hand, and protector of the petroleum sector and pragmatic climate negotiator on the other. This led to the introduction of a particularly ambitious environmental policy, which made all companies on the Norwegian continental shelf subjects to stricter tax regimes and lower emission levels than companies elsewhere. At the same time, the government and the economists it took advice from agreed with oil industry representatives that Norway's position in international climate negotiations should favour market-based solutions to climate change, implying support for carbon pricing, international emissions trading and no reduction in Norway's oil and gas production. This arrangement made it easy for Statoil to adapt to some climate measures while mostly continuing with business as usual. Statoil concentrated on responding to the call for decarbonization through a combination of voluntary schemes of emissions reductions, increased production of natural gas (to replace the use of coal and oil), development of carbon capture and storage (CCS) technologies and support for the development of an emissions trading system. From a climate perspective, these were not particularly effective measures. Yet both Statoil itself, the Norwegian government and career bureaucrats portrayed Statoil and the rest of the Norwegian oil industry as 'greener' than similar industry elsewhere.

Notes

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5. Newell and Paterson, 'A Climate for Business', 5.
6. Kolk and Levy, 'Winds of Change', 9; Van den Hove et al., 'The Oil Industry and Climate Change', 16–17.
7. Boon, 'A Climate of Change', 101–125; Sluyterman, 'Royal Dutch Shell', 203–226.
8. Jones, *Profits and Sustainability*, 8–9.
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16. Andersen, *Parlamentets natur*, 104–5; Report to the Storting no. 25 (1973–74).
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20. WCED, *Our Common Future*, 23, 76.
21. Rowlands, *The Politics of Global Atmospheric Change*, 137.
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26. Norvik speech, Environment Northern Seas. International Conference and Exhibition. Stavanger, 26–30 August 1991, Eaf-0026, Pa 1339 – Statoil ASA, Regional State Archives Stavanger.
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28. Nilsen, 'En felles plattform', 4, 241.
29. 'Brundtland Key Note Speech', Eaf-0026, Pa 1339 – Statoil ASA, Regional State Archives Stavanger.
30. *Ibid.*
31. Anker, 'A Pioneer Country', 29–41.
32. Nilsen, 'En felles plattform', 127–129, 135, 240, 246.
33. Skjærseth and Skodvin, 'Climate Change and the Oil Industry', 45, 60.
34. Norwegian Petroleum Directorate 1990, *Act 21 December 1990 no 72*.
35. Norvik, 'Future Challenges'.
36. *Ibid.*
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39. 'Miljøvernministeren kritiserer Statoil', *NTB*, 11 April 1991.
40. See above 38. 1991.
41. Lie, *Oljerikdommer og internasjonal ekspansjon*, 350; Nilsen, 'En felles plattform', 133–136, 148.
42. Norvik, speech ENS, 26–30 August 1991, Eaf-0026, Pa 1339 – Statoil ASA, Regional State Archives in Stavanger.
43. Boon, 'A Climate of Change', 107.
44. Nilsen, 'En felles plattform', 136–148.
45. Although the reduction in Halon emissions was significant, it was nothing compared to Statoil's CO₂ emissions. Whereas total offshore Halon emissions were 2.35 tonnes in 1992, offshore CO₂ emissions totalled up to 2.54 million tonnes. 'Statoils miljørapport for 1992', Eaf 0002, Pa 1339 – Statoil ASA, Regional State Archives Stavanger, 9.
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47. Harald Norvik, 'Contribution in Panel Discussion', Eaf-0026, Pa 1339 – Statoil ASA, Regional State Archives in Stavanger; 'Miljøsaker i Statoilkonsernet'; 'Statoils miljørapport for 1992'.
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56. Sluyterman, 'Royal Dutch Shell', 220–223.
57. Wilhite, *The Political Economy*, 63–66, 76.
58. Sluyterman, 'Royal Dutch Shell', 222.
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