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# A Joint Norwegian-Swedish Market of Green Certificates

Anne Therese Gullberg





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**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](mailto:admin@cicero.uio.no)  
Nett: [www.cicero.uio.no](http://www.cicero.uio.no)

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](mailto:admin@cicero.uio.no)  
Web: [www.cicero.uio.no](http://www.cicero.uio.no)



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<b>Sammendrag:</b> Innmatingsstariffer og grønne sertifikater er to viktige virkemidler for å øke investeringene i fornybar energi i Europa. Norge og Sverige etablerte et felles marked for grønne sertifikater fra 1. januar 2012. Dette arbeidsnotatet redegjør for den parlamentariske og offentlige debatten i Norge om grønne sertifikater – fra debatten startet i 1999 til en avtale med Sverige var klar ti år senere – i september 2009.	<b>Abstract:</b> Two competing types of policies dominate as European countries implement enhanced investments in renewable energy: Feed-in tariffs and green certificates. Norway and Sweden established a joint market of green certificates from January 1 <sup>st</sup> 2012. This working paper accounts for the parliamentary and public debate in Norway on green certificates from the very start in 1999 to the agreement with Sweden was reached ten years later in September 2009.
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# 1 Introduction


Two competing types of policies dominate as European countries implement enhanced investments in renewable energy: Feed-in tariffs (FITs) and green certificates systems (GCS). In Europe, green certificates dominated in the early 2000s, while FITs have emerged as the most important renewable energy support system today (Bergek and Jacobsson 2010; European Commission 2008; Toke 2011).

Klein et al. define feed-in tariffs as a system which “allows electricity generators to sell RES-E [renewable electricity] at a fixed tariff for a determined period of time. Alternatively, the feed-in tariff can be paid in the form of an additional premium on top of the electricity market price” (2007: 7). Hence, the main principle of a feed-in tariff scheme is to offer guaranteed prices for fixed periods of time for renewable electricity (Couture and Gagnon 2010: 955). The periods typically vary between 10 and 30 years (Klein et al. 2007: 14). In addition, FITs often imply guaranteed access to the electricity grid (Ringel 2006; Klein et al. 2007). In green certificate schemes, “renewable electricity is sold in the usual electricity market at market prices, but these sales are complemented by certificate trading in a separate market for green certificates” (Bergek and Jacobsson 2010: 1256).

A Norwegian green certificate scheme (GCS) was first discussed in ministerial documents in 1999 (NMPE 1999), and in 2003 the Norwegian Parliament asked the centre-right minority coalition government headed by Prime Minister Kjell Magne Bondevik (the Bondevik II government) to initiate a proposal for a joint Norwegian-Swedish market of green certificates (NP 2003a).

After a lengthy policy-making process, the negotiations between Norway and Sweden stranded in February 2006, soon after a change of government in Norway. Instead, the newly elected red-green majority headed by Prime Minister Jens Stoltenberg (the Stoltenberg II government) decided to introduce a Norwegian variant of a feed-in tariff system. The centre-right opposition parties were strongly opposed to this feed-in tariff system, and would rather have preferred to resume the negotiations about a GCS with Sweden. When the Norwegian Parliament negotiated a cross-partisan compromise on Norwegian climate policy in January 2008, the centre-right opposition rekindled the GCS discussion and insisted that the compromise included new rounds of GCS negotiations with Sweden. This time, the negotiations were successful. In the fall of 2008, the Stoltenberg II government finally reached an understanding with Sweden. In September 2009, the two countries reached a final agreement, and in June 2011 the Norwegian Parliament adopted the green certificate scheme. The joint Norwegian-Swedish market of green certificates finally entered into force in January 2012.

This working paper accounts for the lengthy policy-making process – from the first discussions in 1999 to the final agreement with Sweden was reached in 2009. It focuses



particularly on the parliamentary debate on green certificates, and discusses to what extent Norwegian decision-makers took the development in the EU into account in their discussions of a renewable energy support scheme.

The working paper is based on an analysis of written data: Official documents such as white papers, legislative proposals, positions of the parliamentary Standing Committee on Energy and Environment, and parliamentary debates, but also party programmes and declarations of government.


## 2 1999: Green electricity

The Norwegian Ministry of Petroleum and Energy (NMPE) laid the premises for the debate concerning a GCS with its 1999 white paper on energy policy, pointing to the possibility for Norway to join an international system for green electricity (NMPE 1999). This report to the Parliament is the first time the idea of green certificates is mentioned in ministerial documents in Norway – although in vague terms: “The possibility of selling green electricity is discussed in several countries” (NMPE 1999, section 4.7.3 “Green electricity”). A market of green certificates was together with emissions trading and taxes mentioned as the options available to assure that electricity prices also reflect environmental costs.

In February 2000, the majority of the MPs in the Standing Committee on Energy and Environment in its remarks to the governmental white paper on energy policy highlighted the potential of “a system for setting a price on environmental costs in the production of electric power” (NP 2000a: 37). The parliamentary majority did, however, not propose a market of green certificates, but rather an emissions trading system for greenhouse gas emissions (NP 2000a: 37). The parliamentary debate on this white paper was totally dominated by the dispute over domestic use of natural gas. The governmental parties of the Bondevik I government - the Centre Party, the Liberal Party and the Christian Democratic Party - were together with the Socialist Left Party opposed to construction of gas-fired power plants in Norway. The parliamentary majority - Labour, the Conservatives and the Progress Party - supported a change in the Pollution Control Act to allow for construction of domestic gas-fired power plants. The Bondevik I government resigned on this issue. Hence, the issue of green certificates fell in the shadow of domestic gas-fired power plants.

Later the same year, in December 2000, the parliamentary majority (all parties except the Progress Party) asked the Stoltenberg I government to consider a system of green certificates – “adjusted to Norwegian and Nordic conditions” (NP 2000c: 16). This was considered as a victory by the environmental organisation Bellona, which had been lobbying on the issue (Bellona 2000). Boasson (2011), however, finds that this decision was primarily a victory for lobbying efforts by the largest utility company in Norway (Statkraft) – although a victory shared by the environmental organisations.

In the fall of 2001, the Ministry of Petroleum and Energy followed up the parliamentary decision by initiating a project that specifically looked at the use of green certificates in meeting the energy policy goals of Norway. The Minister of Petroleum and Energy, Einar Steensnæs, representing the Christian Democratic Party in the newly elected Bondevik II government, announced that the project assessing the possibility of a market of green certificates in Norway would be finalised in January 2002 (Steensnæs 2001). The Minister of Petroleum and Energy was well-aware of the development in the EU; with more ambitious support programs for renewable energy development. In a speech in November 2001, he referred to the renewable directive (EC 2001/77) which recently was adopted by the EU. The directive included certification of renewable energy production, and he also emphasized that



“several countries in Europe are about to assess, or have already established, national systems for tradable certificates of electricity based on renewable energy” (Steensnæs 2001).



### 3 2002: The vision of an international market of green certificates


In November 2002, the Bondevik II government presented a white paper on domestic use of natural gas. The white paper included an assessment of a Norwegian market of green certificates (NMPE 2002). This is a central official document on green certificates, although the main focus of the white paper is natural gas.

The Ministry of Petroleum and Energy was highly critical of a Norwegian market of green certificates and concluded that it did not support this proposal. A national market would, according to the white paper, not be a viable option due to lacking liquidity in the market, greater price fluctuations, and lack foresight for market actors. Moreover, a national market of green certificates could lead to uncertainty, since the Norwegian Parliament recently had decided to establish Enova as the main policy instrument in this policy field (NMPE 2002). Enova was established as a public enterprise “to contribute to environmentally sound and rational use and production of energy, relying on financial instruments and incentives to stimulate market actors and mechanisms to achieve national energy policy goals” (Enova 2011). It was considered by the Ministry of Petroleum and Energy as the main policy instrument in this field:

“Ministry of Petroleum and Energy does not support a national market of green certificates. Ministry of Petroleum and Energy will rather continue the existing policy to reach the aims on restructuring energy use and energy consumption – based on support from the Energy Fund and Enova SF” (NMPE 2002: 107).

However, the white paper presented by the Ministry of Petroleum and Energy was favourable toward establishing an international market for green certificates and concluded that Norway should participate in such a market. An international market was expected to lead to efficiency gains and price stability. It also referred to the European Commission’s ambitions to contribute to an international market of green certificates:

“The Commission’s aim was to contribute to the establishment of an international market of green certificates. This aim was abolished early in the process...Still, several countries have established, or are about to establish national markets of green certificates. It might be an in-built dynamic in the directive which implies that this process in the long run will lead to an international market of green certificates” (NMPE 2002: 107).



Moreover, the Ministry of Petroleum and Energy refers to the development in several European countries – which were about to establish national markets of green certificates to reach the EU’s goal for renewable energy production based on the EU directive (EC/2001/77) from 2001:

“There are several European countries which have introduced – or are planning to introduce - a market of green certificates. Belgium, the Netherlands, Italy, the United Kingdom, Sweden and Austria have decided to introduce markets of green certificates” (NMPE 2002: 112).

A Nordic market was also considered a viable option according to the report, but hinged on the development in Denmark, Finland and Sweden who were all members of the EU. The Ministry of Petroleum and Energy concluded that “it is the cooperation through the EU membership which will be decisive for the development in Denmark, Finland and Sweden” (NMPE 2002: 108). The Ministry also emphasised the importance of engaging in a dialogue with the European Commission before taking part in an international GCS (NMPE 2002).

In spite of the recommendation of the Ministry of Energy and Petroleum, the parliamentary majority asked the Bondevik II government to submit a proposal for a market of green certificates, preferably a joint Norwegian-Swedish market of green certificates, as fast as possible, and at the latest during the spring session in 2004 (NP 2003a). The recommendation of the Standing Committee on Energy and the Environment is the first official document where the specific idea of a joint Norwegian-Swedish market is mentioned (NP 2003a). The Labour Party would have preferred to set the start-up date of the GCS to January 1, 2005, but did not get support in the Standing Committee on Energy and the Environmental (NP 2003a). The decision was welcomed not only by the environmental movement, but also by industrial actors and the energy sector (Bellona 2003).

## 4 2003-2005: Towards a joint Norwegian-Swedish market

The Bondevik II government started working towards a joint Norwegian-Swedish market of green certificates and was actively engaged in discussions with the Swedish government. During a debate in March 2003 there had been overwhelming consensus and support in the Norwegian Parliament to move forward with a joint GCS for Norway and Sweden – a GCS which potentially could be linked to a larger international market to spur renewable energy development.


In a parliamentary debate on energy security in May 2004, three opposition parties, the Labour Party, the Socialist Left Party, and the Centre Party, expressed concern for delay of the GCS. The Labour Party had originally proposed to set January 1, 2005 as the start-up date of the GCS, but the Bondevik II government planned for a start date on January 1, 2006. In contrast to the Members of Parliament (MPs) of the red-green opposition parties, the MPs representing the centre-right governmental parties stood by their timeline and emphasised the importance of following a normal decision-making procedure to create a robust and predictable market place.

The Standing Committee on Energy and Environment, on the other hand, was concerned about electricity related building projects that met the qualifications to be included in a GCS, but which began construction before the GCS was in place, and emphasized the importance of including these projects in a future GCS (NP 2004: 15).

In August 2004, the Ministry of Petroleum and Energy announced that a legislative proposal would be submitted to Parliament during the spring session in 2005. The aim was a joint Norwegian-Swedish market of green certificates from January 1, 2006. The Ministry referred to the development in other European countries:

“Most European countries have support schemes for renewable electricity. Feed-in tariffs and markets of green certificates are common. Among others, Germany and Spain have introduced feed-in tariffs, and inter alia Sweden and England have established markets of green certificates” (NMPE 2004a: 49).

In addition to a chapter on the Swedish market of green certificates, this white paper gave a short summary of the systems of green certificates in England and Wales, Australia and Texas. Pointing to the EU electricity directive (European Commission 2001), the report of the Ministry of Petroleum and Energy concluded that the development of a market of green certificates had to take into account the future “Community approach” - in other words the joint efforts by the EU member states to develop a joint energy and renewable energy policy. “One possible option is that the Commission initiates a mandatory EU market of green certificates. This might ease the way towards an international market of green certificates” (NMPE 2004: 65). Also this white paper had its main focus on natural gas – rather than green certificates.



In November 2004, the Ministry of Petroleum and Energy submitted a draft legislative proposal to a public hearing (NMPE 2004b: 2004c). The deadline was set to February 2005.

In March 2005, the red-green opposition parties in Parliament criticized the Bondvik II government for the one-year delay of the GCS (NP 2005). The red-green opposition parties had, as mentioned above, hoped to see a Norwegian-Swedish market of green certificates enter into force by January 1, 2005. However, the Ministry of Petroleum and Energy was still planning on introducing a legislative proposal in the spring of 2005, with the intention of introducing a Norwegian GCS from January 2006. From a Swedish standpoint, there was some uncertainty as to whether the market would be ready before January 2007. A joint Norwegian-Swedish GCS was therefore supposed to enter into force by January 1, 2007. However, the legislative proposal was not introduced, as originally announced, during the spring session of 2005.

After the general election in September 2005, the Socialist Left, the Labour and the Centre Party formed a red-green majority government headed by Jens Stoltenberg (the Stoltenberg II government). The government decided to push for a joint market of green certificates with Sweden. According to the governmental declaration, the “Soria Moria” statement, the government was to “establish a market of green certificates for renewable energy, and mini and micro hydropower. If a market of green certificates is not possible to establish, other policy instruments are to be considered” (NG 2005). Small hydropower was in other words to be excluded from the renewable energy support scheme.

## 5 The negotiations fail

In February 2006, Prime Minister Jens Stoltenberg announced that the negotiations with Sweden regarding a joint certificate market had failed. He emphasised that despite the ambition laid out in the “Soria Moria” statement of the red-green government about a green certificate scheme, other renewable energy alternatives had to be evaluated since an agreement with Sweden could not be reached.

The reason for the unsuccessful outcome was, according to Prime Minister Stoltenberg, grounded in projections showing unacceptable price increases for Norwegian consumers as a result of the proposed GCS, where Norwegians might end up paying twice the amount paid in Sweden to finance the development of renewable energy (Stoltenberg 2006). The Stoltenberg I government also feared that not only would electricity prices in Norway rise substantially, but much of the investment in new energy sources would occur in Sweden. The Stoltenberg I government stated it would continue to push for more renewable energy, but would instead provide more funding to Enova and the Energy Fund to ensure increased development of renewables such as wind power and district heating (Stoltenberg 2006).

## 6 2006: The Stoltenberg II government proposes feed-in tariffs

As the negotiations with Sweden had failed, the red-green government was committed, according to the governmental declaration, to consider other policy instruments. Hence, in November 2006, the Stoltenberg II government instead proposed an alternative renewable energy support scheme. The support scheme had:

“clear similarities with feed-in tariffs, which is the most common support scheme for renewable electricity in Europe. Of 25 EU countries, 15 countries have established different forms of feed in-tariff systems. This includes Denmark, Germany, Spain, Netherlands and Greece.” (NMPE 2006: 4).

The target of the support scheme was 30TWh new renewable energy production by 2016 – compared to 2001. The target was to be reached through the following tariffs: 0,04 NOK per kWh of hydropower, 0,08 NOK per kWh of wind power and 0,10 NOK per kWh of bio energy and other “immature” technologies (NMPE 2006).

A parliamentary debate on the proposed FITs took place in the Norwegian Parliament in March 2007, and was characterized by continued disappointment and questioning of the Stoltenberg II government’s reasoning for abandoning the negotiations with Sweden for a joint GCS.

## 7 A new round of negotiations

The opposition parties continued to push for new negotiations with Sweden immediately after the negotiations failed. Already in May 2006 the opposition parties proposed in Parliament to resume the negotiations with Sweden. The aim was a joint Norwegian-Swedish market of green certificates from January 1, 2007. The starting point of the opposition's proposal was the November 2004 legislative proposal by the Bondevik II government. The centre-right minority of the Standing Committee on Energy and Environment emphasized the following advantages of a market of green certificates: It is "technology neutral and market based, and assures that it is the most effective projects that are implemented" (NP 2006: 3). The centre-right minority also emphasised the advantage of a level playing-field.

In the parliamentary debate following the opposition's proposal, an MP representing the Christian Democratic Party referred to Norway's obligations according to the EU renewable energy directive (EC2001/77) – and emphasizing that a joint Norwegian-Swedish GCS would be an effective tool to achieve the aim of 90 per cent renewable electricity by 2010 (NP 2006: 2258).

After the election in 2005, the roles of the parties had shifted: The red-green parties which had criticized the centre-right Bondevik II government for the delay from 2003 to 2005, were now heavily criticized by the centre-right opposition parties for not being able to negotiate a joint Norwegian-Swedish green certificate scheme. However, the proposal of resuming the negotiations with Sweden did not get support from the red-green governmental parties – and hence, the parliamentary majority (NP 2006).

The opposition parties continued to push for resuming the negotiations with Sweden, and after a heated debate during 2007, it was finally agreed upon to recommence the discussions regarding the joint GCS in January 2008. The opposition parties were strongly against the feed-in tariff support scheme proposed by the red-green government, and when the Norwegian Parliament negotiated a cross-partisan compromise on Norwegian climate policy in January 2008, they insisted on a new round of negotiations: "The parties agree that Norway is to resume the negotiations with Sweden about green certificates." (NG 2008: 6). The initial deadline for finalising the discussions was set to July 1, 2008.

In the fall of 2008, the Norwegian Government finally had reached an understanding with Sweden concerning the joint GCS, with the idea of finalizing the remaining details by October 1, 2009. During the opening of the 154th Parliament in the fall of 2009, the Government officially announced that Norway and Sweden would enter into a joint market starting in 2012.


## 8 The development in Europe- from visions of a joint European market of green certificates to feed in tariff predominance

As the decision to start a new round of negotiations with Sweden instead of accepting a feed-in tariff system seems puzzling because the policies in most other European countries had undergone a diametrically opposite development in the same time period. When the Norwegian Parliament in March 2003 asked the government to initiate a joint Norwegian-Swedish market of green certificates, Sweden was one of many countries that already had decided to establish a market of green certificates. Belgium, the Netherlands, Italy, the United Kingdom and Austria were also about to introduce markets of green certificates. Moreover, the European Commission had expressed a clear preference for a market of green certificates instead of feed-in tariffs. According to Fouquet and Johansson, the European Commission already in 1999 assessed FITs as “non-competitive and not to be considered further for a harmonised mechanism in Europe” (cited in Fouquet and Johansson 2008: 4081). The development was, according to the European Commission, inevitably heading towards a trade and competition-based scheme (Fouquet and Johansson 2008: 4081).

However, by the time the Norwegian Parliament decided to resume the discussion about a joint Norwegian-Swedish green certificates market in 2008, the situation in the EU had changed: now 18 European Union (EU) member states had introduced feed-in tariffs, while only seven member states had introduced a green certificate system (European Commission 2008).

Already in 2005, the Commission found that feed-in tariff systems were most effective. In 2008, the Commission concluded that “well-adapted feed in tariff regimes are generally the most efficient and effective support schemes for promoting renewable electricity” (European Commission 2008: 3). More specifically, the Commission found that: “Comparing the two main types of support schemes, namely quota obligations and feed-in tariffs, historic observations from EU Member States suggest that feed-in tariffs achieve greater renewable energy penetration, and do so at lower costs for consumers” (European Commission 2008: 8). At this point it was evident that feed-in tariffs had been a success in Germany, Spain and many other EU member states. Furthermore, the Commission’s efforts to establish a pan-European market of green certificates seemed to be unsuccessful. Although the Commission still was in favour of a pan-European market of green certificates, several major member states were opposed (Nilsson et al. 2009; Toke 2008). In contrast to the first time the Norwegian Parliament proposed a market of green certificates in 2003, it was now feed-in tariffs which were the dominating renewable energy support scheme in Europe.





So, how did Norwegian decision-makers relate to the development in Europe? In December 2000, the parliamentary majority referred to the development in the EU where a market of green certificates. Both bureaucrats and politicians seemed to be well aware of the development in Europe.

Similarly, the European Commission's view of an inevitable development towards a trade and competition-based scheme was referred to in a Norwegian governmental white paper from 2002. As quoted above, the Ministry of Petroleum and Energy assumed: "It might be an in-built dynamic in the directive which implies that this process in the long run will lead to an international market of green certificates" (NMPE 2002: 107).

Furthermore, the white paper presented by the Ministry of Petroleum and Energy in August 2004 referred to the development in Europe. Both feed in-tariffs and green certificate schemes were mentioned in the white paper as common renewable energy support schemes in Europe. The European perspective was, however, absent from the parliamentary debate on the white paper in March 2005. The focus was now solely on how Norway was to establish a joint market with Sweden. In May 2006, the proposal of a green certificate scheme was for the first time in a parliamentary debate coupled with the EU renewable energy directive (EC2001/77). But the parliamentary debate was still totally dominated by a domestic and Norwegian-Swedish perspective.

The Standing Committee on Energy and Environment submitted its remarks on the renewable energy white paper in March 2007. The focus was still domestic. The committee members emphasized the vulnerable energy situation in Norway – as hydropower is very vulnerable to low precipitation. The committee was therefore concerned about energy security, and considered new renewable energy production to be an important tool to increase Norway's energy production and hence, energy security. The committee members from all parties except the Progress Party also emphasized the important role of renewable energy on a track towards a low emission energy future. The same committee members referred to the increase of renewable energy support systems in Europe – but did not refer explicitly to feed-in tariffs or green certificate schemes.

The only clear mention of the then newly adopted 20 per cent renewable energy target adopted by the European Council in a parliamentary debate in March 2007 was made by a Progress Party MP. But except from this comment, the parliamentary debate had a heavily domestic focus. The MPs representing the red-green governmental parties did, for example, not refer to the effectiveness of feed in-tariffs in Europe when trying to defend the red-green government's proposal.

To summarize: The EU and its member states had only a miniscule role in the parliamentary debate on establishing a renewable energy support scheme. The focus was overwhelmingly on Norwegian conditions and a possible joint certificate scheme with Sweden.



## 9 Conclusion

This working paper has accounted for debates in the Norwegian parliament on green certificates from the very start in 1999 to the agreement with Sweden was reached ten years later in September 2009. It finds that the parliamentary support for a Norwegian-Swedish market of green certificates has been strong, also during the last few years when feed-in tariffs dominate as the preferred policy instrument in most other European countries.

The working paper also finds that the green certificate scheme was not very high on the agenda until 2006. In the first part of the 2000s, the green certificate scheme was included in governmental white papers focusing on other topics – such as domestic use of natural gas – and the parliamentary debates reflected this. Green certificates were often barely mentioned in the parliamentary debates. From 2006, when the Stoltenberg II government decided to end the negotiations with Sweden, the green certificate scheme moved to the top of the political agenda.

# 10 Appendix: Norwegian Parties and Governments, 1997-2013

## **Parties:**

The Socialist Left Party (SV)

The Labour Party (Ap)

The Centre Party (Sp)

The Liberal Party (V)

The Christian Democratic Party (KrF)

The Conservative Party (H)

The Progress Party (FrP)

## **Governments (mandates in parenthesis)**

Bondevik I, 1997–2000: Coalition of KrF (Prime Minister), Sp, V, minority (42).

Stoltenberg I, 2000–2001: Ap, minority (65).

Bondevik II, 2001–2005: Coalition of KrF (Prime Minister), H, V, minority (62).

Stoltenberg II, 2005–2009: Coalition of Ap (Prime Minister), Sp, SV, majority (87).


Stoltenberg II, 2009- present: Coalition of Ap (Prime Minister), Sp, SV, majority (86).

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CICERO (Center for International Climate and Environmental Research - Oslo) was established by the Norwegian government in 1990 as a policy research foundation associated with the University of Oslo. CICERO's research and information helps to keep the Norwegian public informed about developments in climate change and climate policy.

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CICERO (Center for International Climate and Environmental Research - Oslo)

P.O.Box 1129 Blindern, N-0318 Oslo, Norway

Visiting address: CIENS, Gaustadalléen 21, 0349 Oslo

Telephone: +47 22 85 87 50 Fax: +47 22 85 87 51

E-mail: [admin@cicero.uio.no](mailto:admin@cicero.uio.no) [www.cicero.uio.no](http://www.cicero.uio.no)