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Examples of climate laws

Report

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CE Delft

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Summary

A coalition of 30 Dutch environmental- and development organizations presented a Climate Law in May 2008. In this report, climate laws in two neighbor countries (the United Kingdom and Germany) were researched to determine whether the Dutch climate policy can benefit from the introduction of similar climate laws. The United Kingdom has the UK Climate Change Bill, an overall climate bill. Germany has the Integrated Energy and Climate Programme.

Climate Change Bill (UK)
The Climate Change Bill is an overall bill for mitigation and adaption. It requires 80% CO_2 reduction in 2050 and to set carbon budgets each five year. An important advantage is that the Bill makes climate policy less dependent on Government principles and economic situations.

According to the Climate Change Committee, the main advantage of the Climate Change Bill is that it requires the Government to make policy plans for emission reduction every five years. This will give an enormous impulse to climate policy. It gives the Government reason to implement strong effective climate measures and new trading systems for non-ETS sectors. Thanks to the Bill the independent 'Committee on Climate Change' will be set up. This Committee has to research on both mitigation and adaptation subjects, and has to make recommendations to the Government.

The present climate program in the Netherlands ('Schoon en Zuinig') has a focus on voluntariness. In the future this will probably change, if this strategy turns out to be ineffective. In comparison with the Dutch climate policies the Climate Change Bill is much stronger because of the legal basis. The Climate Change Bill forces each government to make policy plans regularly and to take the advice of an independent Committee on Climate Change into account. It creates much more political possibilities to implement (sometimes unpopular) effective measures to mitigate or adapt to climate change.

Another advantage of the Bill in comparison with Dutch policy is that there is a long-term goal (80% in 2050) that cannot be changed. The Dutch Government did not set a long-term climate goal. There is a goal for the middle term; in 2020 the CO_2 emission should be 30% lower than in 1990 in the Netherlands. This goal was assessed by the present government, and is not legally bounded. A next government can decide to abandon this goal.

Integrated Energy and Climate Programme (Germany)
In 2007 Germany adopted the Integrated Energy and Climate Programme that consists of several acts and ordinances. The goal is to achieve 40% emission reduction by 2020 compared to the 1990 level, but this is not laid down in any law. Two measures that were adopted in Germany and might be useful for Dutch policy are the Renewable Energy Sources Act (EEG) and the Renewable Energies Heat Act (EEWärmeG).

Aim of the EEG is to increase the share of renewable electricity by giving priority to the purchase and transmission of renewable electricity and by providing a fee (feed-in tariff) for this electricity paid for by consumers. In 2008 the SDE (Stimulating Renewable Energy Production) came into force in the Netherlands. Under the SDE a feed-in premium (paid for from the national budget) is provided for renewable electricity.
When comparing the German EEG to the Dutch SDE, it seems that the German policy is superior for the following reasons:

- The Dutch Government has to pay the feed-in subsidy from the national budget and this encourages political interference in the total available budget and the level of the subsidy. It is therefore likely that the German system provides a more stable climate for investment than the SDE.
- In Germany the 'Polluter Pays Principle' is followed.
- Dutch grid operators are not obliged to purchase and transmit renewable energy with priority like in Germany.

In 2009 the Heat Act (EEWärmeG) will come into force in Germany. The aim is to increase the share of heat demand from renewable sources to 14% in 2020. To achieve this, owners of newly constructed buildings muse cover a certain percentage of their heat demand by renewable sources. In the Netherlands, the working program 'Schoon en Zuinig' ('Clean and Efficient') describes measures to raise the share of renewable energies in the Netherlands from 2 to 20% in 2020. The proposed policies in the housing sector include tightening the EPC (Energy Performance Coefficient) for new houses from the current 0.8 to 0.6 in 2011. While this will improve the energy efficiency of buildings, there are no specific policies to increase the share of renewables in the heat demand. Therefore, it might be beneficial to adopt a Dutch Heat Act. This Heat Act could take the form of a fee paid by producers and importers of heating fuels and given to producers of heat from renewable sources, similar to the EEG described before. Or it could be similar to the German Heat Act, obliging owners who install or replace a heating system to meet a certain proportion of their heat demand by renewable energies.

1 Introduction

1.1 Background

A coalition of 30 Dutch environmental- and development organizations presented in May last year a Climate Law. Milieudefensie is one of the environmental organizations of this coalition and main campaigner for the Climate Law. By order of Milieudefensie, CE Delft has researched climate laws in two neighbor countries (the United Kingdom and Germany) to determine whether the Dutch climate policy can benefit from the introduction of similar climate laws. The United Kingdom has the UK Climate Change Bill, an overall climate bill. Germany has the energy saving and climate protection package that contains many elements including the Renewable Energy Sources Act (EEG) and the Renewable Energies Heat Act (EEWärmeG).

1.2 Aim of the study

The aim of this report is to describe the main characteristics of the climate laws and policies in the United Kingdom and Germany. Our analysis covers such elements like goals, mechanisms, enforcement and status. Description and a preliminary evaluation of these climate laws and existing measures in neighboring countries can provide a valuable input to the debate about accentuating the Dutch climate policy.

1.3 Structure of the study

The study is divided into three parts. Chapter 2 describes the UK climate change bill, chapter 3 describes the German package. Summary and concluding remarks will be given in chapter 4.

2 Climate Change Bill (UK)

2.1 History

In March 2007 the UK Government introduced a draft Climate Change Bill. The Bill completed its passage through the House of Lords in March 2008. The Climate Change Bill is initiated by the non-governmental organization 'Friends of the Earth' via a campaign 'The Big Ask'. The campaign consisted of actions like a first draft bill, a parliamentary petition and the Big Ask Live Concert in London.

The aim of the climate bill is that the net UK carbon account should be at least 80% lower than the 1990 baseline in 2050. This includes both the ETS and the non-ETS sectors. Recently, the parliament has made key decisions to include aviation and shipping emissions within the landmark climate change bill[1]. The move followed a campaign by environmentalists and some pressure of the Labour Party.
On 28 October 2008 the bill was given a third reading[2] and was adopted with 463 votes against 3 in the House of Commons. At the moment Britain is the first country in the world that has a legal framework for reducing carbon emissions. The main advantage of this bill is that there is a legally binding reduction goal for the long-term. Furthermore, the bill obliges the Government to define a strategy *how* to achieve these goals.

2.2 Structure of the Bill

The Climate Change Bill concentrates on both mitigation and adaptation. It requires a target for the year 2050 for the reduction of greenhouse gas emissions (part 1) and establishes a Committee on Climate Change (part 2). The bill also stimulates trading schemes for the purpose of limiting greenhouse gas emissions or removing greenhouse gases from the atmosphere (part 3). The bill requires making provisions about adaptation to climate change (part 4); and lists some other provisions which relate to the reduction of domestic waste and the Renewable Transport Fuel Obligation (part 5).

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1 A new clause is added to the bill which places a duty on the Committee on Climate Change to advise the Secretary of State on the consequences of treating climate emissions from international aviation and shipping as emissions from sources in the UK. Furthermore, the Secretary of State and the Committee on Climate Change need to take the emissions from international aviation and shipping into account when setting the future budgets.

2 The third reading is the last required reading of a bill before the vote on the final passage.

2.3 Part 1: Carbon Target and Budgeting

The main issue of this part of the Bill is the duty of the Secretary of State to reduce the net UK carbon account for the year 2050 to at least 80% below the level of net UK emissions of greenhouse gases in 1990. These emissions must include the UK part of the emissions from international aviation and shipping. Emission reductions purchased overseas may be counted towards the UK's Targets, consistent with the UK's international obligations. This possibility is not limited in the Bill.

It also requires the Secretary of State to set 'carbon budgets' representing UK emissions for five year periods beginning with the period 2008-2012. For each carbon budget the Secretary of State has to assess indicative annual ranges, for the net emissions per year. It requires that each carbon budget is set in a way that is consistent with the Government's target to reduce emissions by between 26 and 32% by 2020, against 1990 levels. This approach is more flexible than annual targets would be. The Secretary of State may decide to carry back part of the carbon budget for a budgetary period to the preceding budgetary period. However, the amount carried back may not exceed 1% of the carbon budget for the later period.

To realize 80% reduction in greenhouse gases, the Bill formulates the duty to prepare proposals and policies to meet the carbon budgets for the current and future budgetary periods. The Secretary of State must explain in a report the implications of these proposals and policies with regard to the greenhouse gas reduction in each period and how these measures affect different sectors of the economy.

It is the duty of the Secretary of State to monitor the levels of the UK emissions, UK emission removals and net UK emissions of greenhouse gases in each year. The 'UK removals', in relation to greenhouse gases, means removals of these gases from the atmosphere due to land use, land-use change or forestry activities in the United Kingdom. The higher these removals, the lower the necessary emission reductions.

2.4 Part 2: The Committee on Climate Change

A key part of the Bill is the duty to establish The Committee on Climate Change, which will independently assess how the UK can achieve its emissions reductions goals for 2020 and 2050. In addition, the Committee has to report annually on the progress being made with the greenhouse gases reduction, the further progress which is needed, and whether the budgets are likely to be met. Furthermore, when requested by a national authority, the Committee must provide assistance and information on matters like statistics relating to greenhouse gases, how much effort should be made in the UK and overseas, how much effort should be made via the trading schemes versus the rest of the economy and the adaptation to climate change. In making its recommendations, the Committee on Climate Change must balance a range of economic, social and environmental factors.

The Bill proposes that the statutory Committee comprises a Chair and 5-8 members, who will be supported by a standing secretariat of staff. A 'shadow' Committee was set up to advice on the draft Bill. The Committee will be turned into the official body when the Bill is definitive. Since 22 February 2008, the shadow Committee's members are: the Scientists Sir Brian Hoskins and Lord Robert May, a technology expert Professor Jim Skea, and the economists Dr Sam Fankhauser and Professor Michael Grubb. The Chair is Lord Adair Turner.

On 1 December the first report of the Committee has been made public[3]. This report includes the Committee's view on the 5-year goals and how these goals will be met. Furthermore, a limit on emission reductions purchased overseas is recommended. The Government is not obliged to follow these recommendations, but probably will do this. A summary of this report is given in annex B.
In a new amendment to the Bill the Government has a *duty* to limit the overseas emission reductions counted towards each carbon budget. The limits will be set in secondary legislation and based on the advice of the Committee on Climate Change.

2.5 Part 3: Trading Schemes

The Bill can be used to introduce new trading schemes for the non-ETS sectors, via secondary legislation. An example of a UK trading system that is under preparation is the Carbon Reduction Commitment (see text box). Before making regulations under this Part, a national authority must obtain advice of the Committee on Climate Change, and consult the entities likely to be affected by the regulations. The activities to which trading schemes may apply involve, in particular:

- Consumption of energy.
- Use of materials which production involved energy use.
- Disposal other than recycling of materials which production involved energy use.
- Production or supply of anything which subsequent use directly causes or contributes to greenhouse gas emissions.

Carbon Reduction Commitment (CRC)
The new emissions trading scheme in the UK is called the Carbon Reduction Commitment and will be used to carbon emissions reduction in the service sector, public sector and other less energy-intensive industries. The CRC will be a mandatory emissions trading scheme, targeting emissions which do not fall under the EU ETS. All organizations that have an electricity use greater than 6,000 megawatt-hours (MWh) per year are included in CRC.

Probably the regulation will be in force in October 2009. During a planned introductory phase, due to start in April 2010, all allowances will be sold at a fixed price. From April 2013, allowances will be allocated through auctions with a diminishing number of credits available over time. Participants will also potentially be able to buy EU ETS allowances to comply with their emissions cap - this would be a buy-only link to effectively create a price ceiling for credits in the CRC.

[3] www.theccc.org.uk.

2.6 Part 4: Impact of and adaptation to climate change

It is the duty of the Secretary of State to assess the risks for the United Kingdom of the current and predicted impact of climate change, and to report the Parliament about this every five years. On these risks, the Committee has to advise the Secretary of State six months before the publication of the report.

Soon after this report the Secretary of State will be required to publish a program setting out how the UK will address these likely impacts. This program should contribute to sustainable development. Every two years, the Committee has to report the progress made with the objectives, the proposals and the policies set out in the program.

The Bill also introduces powers for the Government to require public bodies and companies providing public services to carry out their own risk assessment and make plans to address those risks.

2.7 Part 5: Other measures to reduce emissions

This part of the Bill gives some other powers to reduce greenhouse gases.

2.8 Enforcement

In this bill the Government is the party responsible for meeting the climate goals. So initially, the enforcement applies to the Government and not to the stakeholders. In principle every stakeholder can take the Government to court when the carbon account for a budgetary period exceeds the carbon budget. But the accuser has to prove that the Government did not make enough effort to meet the climate goals. This is not easy, according to 'Friends of the Earth'. They experienced that with an other act called 'The warm homes and energy conservation act 2000'. Poorly insulated homes require people to burn much fossil fuels to keep warm. The law required the Government to do everything 'reasonably practicable' to eliminate fuel poverty by 2016. Friends of the Earth in cooperation with the organization 'Help the Aged' took the Government to court over their failure to tackle fuel poverty. In October 2008, the High Court has ruled that the Government has not broken the law by failing to keep homes warm, despite allowing the number of households in fuel poverty to reach the highest level in ten years[4]. Friends of the Earth learned from this case and proposed the duty to monitor and to make progress reports every year. Besides that, there is an independent Committee on Climate Change that will advice the Government on the policy measures. The legal case will be much stronger when de Government neglects their advices and when the progress reports show that the goals are not being met. Penalties are expected to be social embarrassment for the Government, that they have to redevelop their climate policy and that they have to pay the legal costs.

[4] http://press.helptheaged.org.uk/_press/Releases/_items/_Government+fuel+poverty+failure+escapes+legal+reprimand.htm.

David Kennedy (chief executive officer of Secretariat to the CCC) also thinks that political embarrassment is the main sanction. Especially now: climate change is high on the public agenda, so the Government would do everything in its power to meet the goals.

2.9 Effectiveness

A potential conflict could arise between the goals in the Climate Change Bill, applying to both ETS and non-ETS sectors, and the EU target for the ETS sectors[5]. David Kennedy does not think this conflict will arise, since the EU targets are also quite strict for the UK. Furthermore, applying the Bill to only non-ETS sectors would not eliminate the problem, because non-ETS sectors are also included in European legislature. According to David Kennedy, the Climate Bill is more about *how* to meet the goals then about the goals itself. The Bill will make sure that the Government defines 5-yearly carbon budgets and implements measures and policies to meet the target.

[5] For example when the Climate Change Bill prescribes a stringent target, while the EU target for the ETS sectors is not so stringent. This would mean that a very large burden would fall on the non-ETS sectors.

3 Germany's Integrated Energy and Climate Program

3.1 Background

In August 2007 the Cabinet of Germany adopted an energy and climate program that had 29 key elements. In December 2007 the Cabinet adopted a package of 14 acts and ordinances, and in May 2008, a second package containing further legislative proposals was passed.

The goal is to achieve 40% emission reduction by 2020 as compared to the 1990 level if the European Union reduces its emissions by 30% in the same period. By 2050, emissions in Germany should be 80% lower than in 1990. Around 35% of this reduction is to be achieved through the Integrated Energy and Climate Program. This is a voluntary goal; there are no sanctions for the Government if it fails to reach these targets.
Specific goals include:

- Double energy productivity in 2020 as compared with the level of 1990.
- Increase the share of renewables in the electricity sector from the current 12% to 25-30%, in the heat sector from 6 to 14%, and in fuel production from 6 to 17%.
- Increase the share of electricity from heat-power co-generation by 25% by 2020.

3.2 Measures

The first package of measures that was adopted in December 2007 consists of 14 legislative proposals. These proposals mostly amend already existing acts and ordinances.

1 *Amendment to the Combined Heat and Power Act*
The Combined Heat and Power Act, that promotes the construction of new plants, is amended to double the share of high-efficiency CHP plants in electricity production from 12 to 25%.
Status: in effect from 2009.

2 *Amendment to the Energy Industry Act (EnWG) on liberalizing metering*
Promoting new electricity metering methods and demand-related, time-variables tariffs by liberalizing metering.
Status: adopted measure makes smart metering optional, not mandated.

3 *Draft amendment to the Energy Saving Ordinance (EnEV)*
To increase the energy efficiency of new buildings, energy standards are tightened by on average 30% from 2009 and a further 30% from 2012.
Status: adopted on 18 June 2008.

4 *Clean power plants*
Amending the 37th Ordinance on the Implementation of the 'Federal Immission Control Act' (BImSchV) to lay down more stringent standards for nitrogen oxide emissions of new power plants.
Status: adopted.

5 *Guidelines on the procurement of energy-efficient products and services*
Status: adopted.

6 *Amendment to the Renewable Energy Sources Act (EEG)*
Remuneration of wind energy is increased to raise the share of electricity from renewable sources from 13% to 25-30% in 2020.
Status: adopted on 18 June 2008, in effect from 2009.

7 *Renewable Energies Heat Act (EEWärmeG)*
Obligations to use renewable energies in new buildings are established to increase the share of renewable energies in heat provision to 14% in 2020. Furthermore, funding for the support program for existing buildings are increased.
Status: adopted on 18 June 2008, in effect from 2009.

8 *Amendment to the Gas Grid Access Ordinance*
In order to make it possible to raise the share of biogas to 10% in 2030.

9 *Amendment to the Biofuel Quota Act*
To raise the share of biofuels to 20% by volume by 2020.
Status: not adopted.

10 *Sustainability Ordinance*
This ordinance ensures compliance with minimum requirements for sustainable management of agricultural land and the conservation of natural habitats. Furthermore, the complete chain must show a certain greenhouse gas emission reduction.
Status: -

11 *Fuel Quality Ordinance*
Amending the Fuel Quality Ordinance to increase the blending limit of bioethanol in petrol fuels from 5 to 10% (volume) and of biodiesel in diesel fuels from 5% to 7% (volume).
Status: not adopted.

12 *Hydrogenation Ordinance*
Biogenic oils that are hydrogenated together with mineral based oils are approved.
Status: -

13 *Reform of vehicle tax to a pollutant and CO_2 basis*
Currently the vehicle tax is differentiated based on pollutant-emission standards. This proposal would add a revenue-neutral differentiation based on CO_2 emissions for new cars. Old cars would face a moderate increase in tax rates to avoid placing new cars at a disadvantage.
Status: postponed indefinitely.

14 *Chemicals Climate Protection Ordinance*
Reducing the emissions of fluorinated greenhouse gases from mobile and stationary cooling installations by provisions on leakage prevention and on recovery of the refrigerants.
Status: -

The second package that was adopted in June 2008 consists of seven acts and ordinances. Four of these are already covered by the list above and three further proposals were discussed.

1 *Draft amendment to the Energy Saving Ordinance*
  Status: adopted on 18 June 2008.
2 *Reform of vehicle tax on a pollutant and CO_2 basis*
  Status: postponed indefinitely.
3 *Amendment to the Energy Industry Act to support expansion of the electricity grid*
  Status: adopted on 18 June 2008.
4 *Amendment to the Passenger Car Energy Consumption Labeling Ordinance.*
  Introducing a consumer-friendly labeling.
  Status: not adopted.
5 *Amendment to Heating Cost Ordinance*
  In the future, 70% of the heating costs in apartment buildings have to be split according to consumption (instead of evenly distributing over all apartments).
  Status: adopted on 18 June 2008.
6 *Amendment to the HGV Toll Ordinance*
  A greater differentiation of the toll for lorries by emission class (Euro standards). Currently, the difference between the lowest and highest fare is 50% and this will be increased to 100%.
  Status: adopted 18 June 2008.
7 *Ordinance on electricity and gas meters*
  The ordinance specifies the requirements for the introduction of smart metering to make energy consumption more transparent for consumers and make it possible for providers to offer more variable prices.
  Status: adopted measure makes smart metering optional, not mandated.

3.3 Renewable Energy Sources Act (EEG)

In 1991, the Electricity Feed-In Act was introduced. This law obliged grid operators to pay 80% of the electricity retail prices as feed-in tariffs for electricity generated with renewable energy sources. There were several problems with this Act:

- Some grid operators were at a competitive disadvantage because they were forced to pay more feed-in prices than other operators.
- Falling electricity prices led to lower feed-in prices for electricity from renewable sources.

In March 2000 the Act on Granting Priority to Renewable Energy Sources was adopted, replacing the Electricity Feed-In Act.

Aim of the EEG is to increase the use of renewable energies. This is done by:

- Giving priority to the connection of installations for renewable electricity generation.
- Giving priority to the purchase and transmission of this renewable electricity.

- Providing a fee for this electricity paid by the grid operators. This fee depends on the energy source, size of the installation and date of commissioning (the later the date of operation, the lower the tariff).

Two important and new features of the EEG:

1 Degression of tariffs to support technology learning. Each year, newly built installations will receive a lower tariff: 1-6.5% lower than the previous year. Because of this, producers will have an incentive to reduce production costs and thus efficiency is stimulated. Degression of tariffs also stimulates producers to build their installations as early as possible.
2 Stepped nature of tariffs. The tariffs reflect the different technologies and are based on the generation costs of each plant (for example for wind energy the tariffs depend on the local wind yield). This way, the tariffs mirror the cost curve of the technology, which reduces the producer profit.

In 2004 the EEG was amended to increase the share of renewable energies to at least 12.5% in 2010 and 20% in 2020. The amendment includes a more differentiated fee structure, takes efficiency better into account, lowers the payment rate for wind energy on land and pays more attention to nature conservation.

In June 2008, the EEG was amended again. It was decided that from 2009 onwards, the remuneration of wind energy in on- and off-shore installations and for repowering projects is increased. Since the last amendment in 2004 the steel and copper prices have doubled or even trebled and so wind turbine producers are faced with higher costs. Unfortunately no agreement could be reached on defining dynamic tariffs based on producer prices. If the prices for steel and copper will continue to rise, this could lead to more amendments in the tariffs for wind energy in the future. Goal is to increase the share of renewable energy electricity from 13% now, to 30% in 2020. The wind energy target for 2020 is 45,000 MW installed capacity onshore and 10,000 MW offshore.

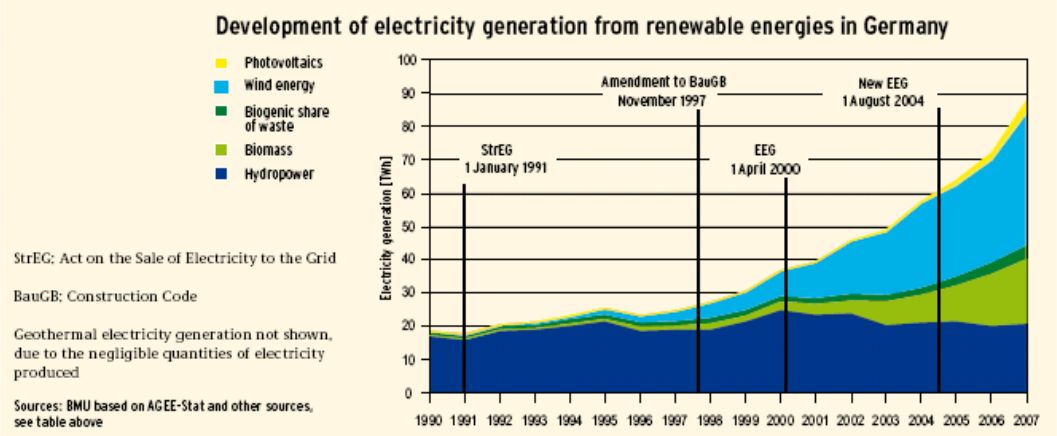
3.3.1 Enforcement measures

Grid operators have an obligation to give immediate priority to connecting installations for renewable electricity generation and to purchasing and transmitting all the electricity available from these installations. The Act further prescribes the tariffs that grid operators must pay for the electricity from hydropower, landfill gas, sewage treatment and mine gas, biomass, geothermal and wind energy and solar radiation. The guaranteed payment period is 20 years and for hydropower 15 or 30 years. The extra costs for electricity from renewable sources are paid by all electricity consumers and amount to approximately € 3 per month per household or € 0,11 per kWh.

3.3.2 Effectiveness

The share of renewable energy in total electricity generation has more than doubled since the EEG entered into force, from 6.3% in 2000 to 14.2% in 2007. Wind energy has the greatest contribution (6.4%), followed by hydropower (3.4%). Photovoltaics account for 0.6% of the gross electricity consumption. While this share may seem low, solar power has increased by 60% since 2006 and by almost 500% since 2004. The EEG reduced CO_2 emissions by 57 million tonnes in 2007. Figure 1 shows the development electricity from renewable energies from 1990 to 2007.

Figure 1 Development of electricity from renewables in Germany



Source: BMU, 2008b.

The success of the EEG depends on:

- The fact that grid operators have an obligation to purchase renewable energy with priority.
- The feed-in tariffs for renewable energy. These tariff rates make it profitable to produce renewable energy or, in other words, reflect the costs of producing energy from that source. Furthermore, in Germany, the feed-in tariffs are guaranteed for 20 years, providing a stable climate for investment.

Two reports (IEA, 2008 and EC, 2005) find that for wind energy, the countries that are most effective use feed-in tariffs like Germany instead of the green certificate systems[6].

The European Commission report (2005) on wind energy also notes that Germany is one of the countries with the most effective system.

[6] Consumers buy a certain number of green certificates from renewable energy producers based on a fixed percentage of their total electricity consumption.

3.3.3 Comparison with Dutch policy

In the Netherlands, the SDE (stimulating renewable energy production) came into force in 2008, replacing the MEP (environmental quality electricity production). Under the SDE a feed-in premium is paid for every kWh of renewable electricity, based on the production costs. The difference between the production costs and the (average) electricity price is paid to producers for a period of 12-15 years.

The Dutch SDE policy differs from the German EEG on several points (ECN, 2008):

1 Germany has feed-in *tariffs*; the renewable electricity producer sells his electricity to the grid operator according to a predetermined tariff. In the Netherlands we have a feed-in *subsidy*; the producer sells his electricity on the market and receives a premium, which depends on the electricity price.
2 In Germany, consumers pay for the higher tariff for renewable electricity. In the Netherlands, the Government pays the premium from her national budget.
3 In the Netherlands there is no degression of tariffs to support technology learning yet as there is in Germany.
4 The Netherlands has a ceiling on the total premium paid to renewable energy producers. In Germany consumers pay for renewable electricity production and therefore has no ceiling.
5 Dutch grid operators have no obligation to purchase renewable energy, while in Germany they have to with priority.

The German EEG policy is superior to the Dutch SDE, for the following reasons:

- The Dutch Government has to pay the subsidy from the national budget and this encourages political interference in the total available budget and the level of the subsidy. It is therefore likely that the German system provides a more stable climate for investment than the SDE.
- In Germany the 'polluter-pays' principle is followed.
- The fact that Dutch grid operators are not obliged to purchase renewable energy with priority.

3.4 Renewable Energies Heat Act (EEWärmeG)

In June 2008 the Renewable Energies Heat Act (or Heat Act) was adopted and will come into force on 1 January 2009. The Heat Act stipulates that in 2020 at least 14% of Germany's heat must come from renewable sources (from 6.6% now). To achieve this:

- Owners of all buildings constructed after 1 January 2009 must use renewable energies or take alternative measures (improve insulation, use heat from district heating). The Heat Act also stipulates technological requirements.
- The Government will increase the funds available for the existing market incentive program.
- The Act makes extension of heat grids easier.

The breakdown of heat demand[7] to be covered by the specific renewable sources should be the following:

- Solar radiation: at least 15%.
- Biogas: at least 30%.
- All others (bio-oil, geothermal energy, ambient heat): at least 50%.

The possible alternative measures include:

- The use of waste heat (must cover at least 50% of heat demand).
- The use of heat from combined heat and power plants (CHP) (must cover at least 50% of heat demand).
- Improved building insulation (building's thermal performance should be 15% better than required under the Energy Saving Ordinance).
- Connection to a local or district heating grid, providing that the grid uses a significant proportion of renewable energies or draws at least 50% of its from CHP plants or waste heat.

Owners who can neither use renewables nor take alternative measures are exempt from the obligation. A combination of different renewable energies and alternative measures is also possible.

The market incentive programme financially support building owners. Only those who do more than they are obliged to do under the Heat Act are eligible for support. For example, house owners who use innovative technologies that are very efficient or have very low emissions can receive financial support. Funding to the market incentive programme is increased to € 500 million per year.

3.4.1 Enforcement measures

The owners of newly constructed buildings are obliged to proof their compliance with the Heat Act. In order to proof this, technical experts have to issue a certificate. If the Heat Act is violated (for example if building owners fail to provide this proof), a fine of up to € 50,000 has to be paid.

3.4.2 Effectiveness

Heat generation accounts for more than half of total energy consumption in Germany. Today, around 6.6% of heat demand comes from renewable energies.
The Heat Act has not yet entered into force, so a theoretical discussion of the effectiveness of the Act is listed below.

Bürger et al. (2008a) compared three types of policies that support renewable energies in the heat market. The three types of policies are:

1 Fiscal instruments: for example government grants, whereby renewable energies are subsidized from tax revenue.
2 Purchase, sale and remuneration obligations: for example the Bonus Model. Producers of heat from renewable sources receive additional remuneration, which is paid by the producers and importers of heating fuels. It is very similar to the EEG (see also the previous section) and imposes an obligation to

[7] Average heat demand for heating and hot water supply, calculated with the methods defined in the annexes of the Energy Saving Ordinance.

purchase renewable energy. Transaction facilitators are needed to pool the different households that apply for funding.

3 Use obligations: every building owner who installs or replaces a heating system must meet a meet a certain proportion of the annual space and water heating demands by renewable energies. It could be made possible to allow building owners to pay a substitute levy instead of fulfilling their obligation.

These three instruments are compared with respect to their ecological, economic and operational efficiency. The Bonus Model is found to be the best instrument, since it is cost-effective and advances the necessary long-term infrastructural changes. Furthermore, it enables a stable investment climate by legally guaranteeing bonuses for renewable heat.

The Heat Act has the most similarities with use obligations. Bürger et al. (2008a) note that this instrument has big disadvantages in the long run. For one, the total system will not be optimized, since the respective buildings will only meet the legal requirement. Structural adjustments like the construction of local heat networks - indispensable for the use of geothermal energy - are not encouraged by this instrument. Use obligations also fail to provide a boost for technological developments.

Table 1 Assessment of the two schemes

	Use obligation model	Bonus model
Establishment of stable and dependable investment conditions	+	+
Long-term efficiency	○	++
Total transaction costs	○	+
Acceptance	+	-
Promotion of technological development	-	+
Compliance with ‘polluter pays’ principle	+	++

Legend:
++ - very good result.
+ - good result.
○ – medium result.
- - bad result.
Source: Bürger et al., 2008b.

Another feature of the Heat Act that makes it less effective is the fact that it is only imposed on *new* buildings. The decline in construction activity (in Europe) means that the potential impact is minimal.

Bürger et al. (2008b) notes that to make the Heat Act more effective the following needs to be adjusted:

- Apply the Act to all owners who replace their heating system, in order to extend the obligation to existing buildings.
- Include a substitute levy in case the obligation is not fulfilled. The money raised could be used to promote larger renewable heating systems in connection with heat networks.

3.4.3 Comparison with Dutch policy

The working program 'Schoon en Zuinig' ('Clean and Efficient') describes measures to raise the share of renewable energies in the Netherlands from 2% to 20% in 2020. Below we will discuss the proposed measures for the housing sector.

The proposed policies in the housing sector include measures for existing and newly constructed houses.
For the existing buildings the ambition is quite high, for example making 500,000 houses 20-30% more energy efficient in 2011. ECN (2007) thinks that it will be quite difficult to achieve the ambitions, because the program mostly depends on voluntary measures[8]. While there are some financial measures like a subsidy scheme to stimulate renewable energies in existing buildings (solar boilers, heat pump), this will not be enough to achieve a substantial increase in renewables in the heat demand. According to ECN (2007) a substantial effort is needed in the existing housing sector and they question whether the measures in 'Schoon & Zuinig' will be enough.
For new houses, the EPC (Energy Performance Coefficient) will be tightened from the current 0.8 to 0.6 in 2011[9]. While this will improve the energy efficiency of buildings, there are no specific policies to increase the share of renewables in the heat demand. Therefore, it might be beneficial to adopt a Dutch Heat Act, perhaps based on the Bonus model described above, to raise the share of renewables in the heat demand of new buildings.

[8] For example, agreements with housing corporations to improve the energy efficiency of rental houses.
[9] The lower the EPC, the more energy efficient the building.

4 Conclusions

In this chapter we will draw conclusions from the climate policies in Germany and the United Kingdom for the Dutch situation. The CO_2 tax in Norway is not included, since this was not a very effective measure.

4.1 Lessons to be learn from the UK

The Climate Change Bill is an overall bill for mitigation and adaption. It requires 80% CO_2 reduction in 2050 and to set carbon budgets each five year. An important advantage is that the Bill makes climate policy less dependent on government principles and economic situations.

According to the Climate Change Committee, the main advantage of the Bill is that it requires the Government to make policy plans for emission reduction every five years. This will give an enormous impulse to climate policy. It gives the Government reason to implement strong effective climate measures and new trading systems for non-ETS sectors. Thanks to the Bill the independent 'Committee on Climate Change' will be set up. This Committee has to research on both mitigation and adaptation subjects, and has to make recommendations to the Government.

The present climate program in the Netherlands ('Schoon en Zuinig') has a focus on voluntariness. In the future this will probably change, if this strategy turns out to be ineffective. In comparison with the Dutch climate policies the Climate Change Bill is much stronger because of the legal basis. The Climate Change Bill forces each government to make policy plans regularly and to take the advice of an independent Committee on Climate Change into account. It creates much more political possibilities to implement (sometimes unpopular) effective measures to mitigate or adapt to climate change.

Another advantage of the Bill in comparison with Dutch policy is that there is a long-term goal (80% in 2050) that cannot be changed. The Dutch Government did not set a long-term climate goal. There is a goal for the middle term; in 2020 the CO_2 emission should be 30% lower than in 1990 in the Netherlands. This goal was assessed by the present government, and is not legally bounded. A next government can decide to abandon this goal.

4.2 Lessons to be learn from Germany

In 2007 Germany adopted the Integrated Energy and Climate Program that consist of several acts and ordinances. The goal is to achieve 40% emission reduction by 2020 compared to the 1990 level, but this is not laid down in any law. Two measures that were adopted in Germany and might be useful for Dutch policy are the Renewable Energy Sources Act (EEG) and the Renewable Energies Heat Act (EEWärmeG).

4.2.1 Comparison EEG with SDE

Aim of the EEG is to increase the share of renewable electricity by giving priority to the purchase and transmission of renewable electricity and by providing a fee (feed-in tariff) for this electricity paid for by consumers. In 2008 the SDE (Stimulating Renewable Energy Production) came into force in the Netherlands. Under the SDE a feed-in premium (paid for from the national budget) is provided for renewable electricity.
When comparing the German EEG to the Dutch SDE, it seems that the German policy is superior for the following reasons:

- The Dutch Government has to pay the feed-in subsidy from the national budget and this encourages political interference in the total available budget and the level of the subsidy. It is therefore likely that the German system provides a more stable climate for investment than the SDE.
- In Germany the 'Polluter Pays Principle' is followed.
- Dutch grid operators are not obliged to purchase and transmit renewable energy with priority like in Germany.

4.2.2 Comparison EEWärmeG and 'Schoon en Zuinig'

In 2009 the Heat Act (EEWärmeG) will come into force in Germany. The aim is to increase the share of heat demand from renewable sources to 14% in 2020. To achieve this, owners of newly constructed buildings muse cover a certain percentage of their heat demand by renewable sources. In the Netherlands, the working program 'Schoon en Zuinig' (Clean and Efficient) describes measures to raise the share of renewable energies in the Netherlands from 2 to 20% in 2020. The proposed policies in the housing sector include tightening the EPC (Energy Performance Coefficient) for new houses from the current 0.8 to 0.6 in 2011. While this will improve the energy efficiency of buildings, there are no specific policies to increase the share of renewables in the heat demand. Therefore, it might be beneficial to adopt a Dutch Heat Act. This Heat Act could take the form of a fee paid by producers and importers of heating fuels and given to producers of heat from renewable sources, similar to the EEG described before. Or it could be similar to the German Heat Act, obliging owners who install or replace a heating system to meet a certain proportion of their heat demand by renewable energies.

4.2.3 Conclusions from Germany

To make Dutch policy more effective in reducing CO_2 emissions, some lessons can be learned from Germany:

1 Replacing the SDE with feed-in tariffs like Germany and giving priority to the purchase and transmission of renewable electricity.
2 Implementing specific policies to raise the share of renewables in heat demand, for example providing a remuneration for producers of heat from renewable sources (feed-in tariffs for renewable heat) or obliging building owners to meet a certain share of their heat demand by renewable energies.

4.3 Overall conclusions

While there are targets in a European context to reduce climate emissions, a climate bill could help in setting a long-term goal (for example 80% reduction in 2050) and in making sure this goal is met. For example, in the UK the Government has to set 5-yearly carbon budgets and explain how she will achieve these budgets. For other European countries with a reduction goal in 2020 the question how this goal will be met still has to be answered.

Advantages of the UK Climate Change Bill are:
- It introduces an emission trading system for the non-ETS sectors.
- It has a long-term goal of 80% emission reduction in 2050.
- It forces governments to make 5-yearly carbon budgets and implement measures to reach these budgets in order to achieve the long-term goal.
- It establishes the Committee on Climate Change that will independently assess how the UK can achieve its emission reduction goals.

There are no specific sanctions mentioned in the Bill when the Government fails to achieve its target, but probably political embarrassment will be a big enough punishment and otherwise third parties could take the Government to court.

In Germany there is no overall climate bill, but a collection of acts and ordinances that have the aim of reducing CO_2 emissions. The goal is to reduce climate emissions by 40% in 2020, but this is not laid down in any law. However, the Netherlands could learn from the German experience of stimulating renewable electricity. Providing feed-in tariffs for electricity from renewable sources and obliging grid operators to purchase and transmit this renewable electricity are two important factors that helped making the EEG a success. Also, to achieve it goals, the Netherlands will need specific policies to increase the share of renewables in its heat demand. It could take the German Heat Act as an example, even though this Act only applies to new buildings and therefore has a limited scope.

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Examples of climate laws

Annexes

Report

Delft, December 2008

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A Other examples of climate laws

A.1 Ireland's Climate Protection Bill 2007

Goal

By the year 2050, Irish greenhouse gas emissions are reduced by at least 60% from the level of emissions in 1990. In 2010, gross greenhouse gas emissions do not exceed 70.33 million ton CO_2 eq. Each year from 2010 to 2050 a target figure is specified, based on a minimum of 3% emission reduction per year.

Mechanisms

The Minister is responsible for publishing annual GHG emissions budget reports, which contains information on the current climate emissions and a strategy to achieve the emission reduction for the following year. A Commission on Climate Change is established which oversees the application and enforcement of the Act.

Enforcement

If emissions exceed the target for that year, the report has to include reasons for this overruning and a revision of the strategy for the subsequent years. If emissions exceed the target figure by more than 10%, the Minister will face a Motion of no confidence before both Houses.

Status

The bill was published by Friends of the Earth, but will probably be rejected.

A.2 Scotland's Climate Change Bill

Goal

An 80% emission reduction by 2050.

Mechanisms

Multi-year budgets are used (probably five-year budgets like the UK) with annual reporting. To achieve an 80% reduction by 2050, emissions need to be reduced by more than 3% per year. The Committee on Climate Change, established by the UK Climate Change Bill, will also report to the Scottish Parliament.

Enforcement

If a target is not met, the Scottish Ministers will have to report to Parliament and explain how they expect to get on track again. This requirement, together with a robust reporting framework will – according to the Scottish Government – ensure that the Scottish Ministers are fully accountable.

Status
The Scottish Government expects to introduce a draft of the Climate Change Bill to Parliament before the end of 2008.

A.3 France 'Loi de programme fixant les orientations de la politique energetique' ('POPE', a legal act setting French energy policy)

Goal
France supports the goal of 50% reduction of GHG emissions worldwide by 2050. An indicative target for France is reaching on average 3% reduction annually. Energy intensity is to be lowered by 2015 by 2% annually and between 2015 and 2030 by 2.5% annually. By 2010, 10% of energy production in France should come from renewable energy sources.

Mechanisms
The Government sets the goals of climate policy in climate plans which should be updated every two years.

Status
The law was adopted on 13 July 2005, updated on 20 February 2006.

Remarks
In 2004, the Government has adopted a 'Climate plan'. The plan includes measures to increase 5 times the use of biofuels by 2010 and to introduce tax allowances up to 40% for clean appliances such as boilers, solar water heaters and air conditioning systems.

A.4 California Global Warming Solutions Act of 2006 (AB 32)

Goal
To reduce California's GHG emissions to the level of 1990 by the year 2020. In real terms, this means reducing GHGs 30% from business-as-usual emission levels projected for 2020 or approximately 10% from today's levels. The long-term goal, as stated by the Governor, would be to achieve 80% reduction in GHG emissions by 2050.

Mechanisms
The state board of California shall adopt limits and emission reduction measures by regulation to achieve the maximum technologically feasible and cost-effective reductions in GHG emissions, which will become operative from 2012. An important mechanism is a Climate Change Scoping Plan which has to be updated every 5 years.

Enforcement
Part 6 of the Act is devoted to enforcement and control. The state board shall monitor compliance and enforce any rule, regulation, emission limit, etc. Violations will be prosecuted under specific penalty provisions.

Status
The law was approved by the Governor of California on 27 September 2006. In June 2008, the California Air Resources Board issued a draft Climate Change Scoping Plan. Key elements of the Draft Scoping Plan are: reliance on the existing energy efficiency programmes, expanding California's renewable energy portfolio to 33%, development of California cap-and-trade programme, targeted fees (including a possible carbon tax).

Remarks
Final Scoping Plan will be adopted later this year.

A.5 California's Vehicle Global Warming Law (Assembly Bill 1493)

Goal
A 23% reduction in greenhouse gas emissions for new vehicles in 2012 and 30% emission reduction for new vehicles in 2016.

Mechanisms
The Assembly Bill directs California's Air Resource Board (ARB) to adopt regulations that require car producers to reduce climate emissions from new passenger cars and light trucks. These stringent standards are phased in between 2009 and 2016.

Enforcement
Auto producers are required to achieve prescribed emission reductions for their passenger vehicle fleet each year. They can choose to implement any combination of technology across their fleet. These technologies decrease the emissions from operating the vehicle, from operating the air-conditioning system or they decrease upstream emissions associated with the fuel use of the vehicle.

Status
The Bill was signed into law in 2002. In 2004, the ARB adopted regulations to ensure that the maximum feasible and cost-effective options are met of reducing greenhouse gas emissions by passenger vehicles. In 2005 the regulation cleared a final legislative review and was filed with the Secretary of the State. It became effective in 2006. Unfortunately, the regulation still faces federal and state court challenges by auto producers and Californian car dealers.

A.6 Switzerland's Federal Law on the Reduction of CO_2

Goal

An CO_2 emission reduction of 10% by 2010 compared to 1990. CO_2 emissions of heating fuels must be cut by 15% and emissions of motor fuels should be reduced by 8%.

Mechanisms

The CO_2 act came into force in 2000 and gives precedence to voluntary measures on the part of companies and individuals. If emission reduction targets are not reached, regulatory measures (a CO_2 tax) could be introduced in 2005. Key voluntary measures include industry agreements, whereby companies commit to verifiable CO_2 emission cuts in return for a CO_2 tax exemption.

Enforcement

The CO_2 act obliges the Government to take regulatory measures when voluntary measures are not enough to reach the target. Up to now, the Government has only implemented a CO_2 tax on stationary fuels (combustibles), excluding transportation fuels.

Status

In January 2008, a CO_2 tax (CHF 12/ton CO_2) on combustibles was introduced. If annual emission targets are not met, the tax will be increased (to CHF 36/ton). Large companies and consumer groups can be exempted from the CO_2 fee if they restrict their CO_2 emissions to a certain level.
In 2005, under the climate centime scheme, a legally non-binding fee was introduced on motor fuels. It was decided that if this fee does not have the desired effect by 2007, the Government could levy a CO_2 tax on motor fuels. Even though Switzerland is out of track to reach the target, this carbon tax on petrol and diesel is delayed.

In February 2008, the Government stated that it wants to reduce emissions with 20% by 2020 (from 19990 levels). Measures to reach this goal could include a climate incentive tax.

A.7 Canada's Climate Change Accountability Act (Bill C-377)

Goal

The long-term target is a greenhouse gas emission reduction of 80% by 2050 from 1990 levels. As a medium-term target, GHG emissions need to be cut 25% by 2020 compared to 1990. Within six months after the Act comes into force, the Minister will prepare interim greenhouse gas emissions targets for the years 2015, 2020, 2025, 2030, 2035, 2040 and 2045.

Mechanisms
On or before May 31 of each year, the Minister will set out the measures taken by the Government to reach the targets and the associated emission reductions that are expected from each of these measures. The Commissioner of the Environment and Sustainable Development will review this statement of the Minister.

Enforcement
No special enforcement measures are listed in the Act, but it is mentioned that every person who contravenes a regulation in the Act is guilty of an offence and is liable to a fine or to imprisonment.

Status
The Canadian House of Commons passed the climate act (with 148 in favour and 116 against) in June 2008. It was moved by the leader of the opposition New Democratic Party and supported by two other opposition parties. However, the ruling party, Canada's Conservative Party, said it would not implement the opposition bill. Under the rules of the House of Commons a private member's bill cannot propose the spending of public money, which would mean that the bill will not be implemented unless the Conservatives - who stated on record that they will ignore the Climate Change Accountability Act - change its mind.

A.8 Finland's Climate Law

Goal
Reducing the greenhouse gas emissions by 5% each year.

Status
In September 2008 the Finnish Government agreed to consider the draft climate law. 45 of the country's 200 MPs are supporting the draft law.

A.9 Denmark's district heating

Goal
In 2004, district heating supplies almost 60% of the space and water heating in Denmark. Even though this has never been the target of the Danish Government, its energy policy has been important in the growth of district heating.

Mechanisms
Denmark passed its first heat supply law in 1979. This law enabled municipalities to dedicate certain areas to district heating and made it mandatory for households to connect to district heating.
In the mid-1980s tax incentives on fuel for electricity plants were introduced. Less fuel tax needed to be paid if they used CHP (combined heat and power).

Status

As of July 2002, the electricity production subsidy for most decentralised CHP was reduced. This is compensated by a lower heat tax.

Since 2005 decentralised CHP are able to produce heat without electricity, when, for example, the electricity market price is low.

B Summary of the CCC's report

B.1 Introduction

The first report by the Committee on Climate Change (CCC) called 'Building a low-carbon economy – the UK's contribution to tackling climate change' was released on December the 1st 2008.
This report includes the Committee's view on the 5-year goals and how these goals will be met. Furthermore, a limit on emission reductions purchased overseas is recommended. Below, the main conclusions from the CCC's report are listed.

B.2 The 2050 target

By 2050, Kyoto greenhouse gas emissions of the UK should be reduced by 80% compared to the 1990 level (or 77% compared to the 2005 level). This target includes emissions from international aviation and shipping. The majority of this reduction needs to be achieved by domestic action.
To achieve this long-term cut in GHG emissions, several technologies (in power, buildings and industry, transport) are needed.
For decarbonisation of the power sector the following technologies can be used:

- Renewable generation. Wind energy, for example, could be a major source of electricity (30% by 2020).
- Nuclear power. Nuclear power is cost competitive with fossil fuels. The Committee admits that there are risks associated with long-term nuclear waste storage, but notes that it cannot conclude whether these risks are acceptable or not.
- CCS (Carbon Capture and Storage). CCS needs to be developed rapidly; it is essential to invest in projects that employ CCS technologies in large-scale installations now.

In total, power sector emissions reduction of 40% below the 1990 level is achievable by 2020.
Emissions reductions in buildings and industry can be achieved through:

- Energy efficiency improvement (use of more efficient appliances, wall insulation). This is especially important in the period to 2020.
- The introduction of new technologies (storage heating, the use of sustainable biomass, CCS in cement and steel).

Transport sector decarbonisation is possible by:

- Increasing the carbon efficiency of vehicles.
- Introducing new technologies like electric cars, hydrogen vehicles.
- Increasing the use of biofuels.

Meeting the 2050 target is possible with acceptable costs in the order of 1-2% of GDP in 2050.

B.3 Carbon budgets

Carbon budgets set a ceiling on GHG emissions for 5-year periods. In the report, three carbon budgets (for 2008-2012, 2013-2017 and 2018-2022) are proposed.
The EU has agreed to cut its GHG emissions by 20% in 2020 relative to 1990 and by 30% if there is a global agreement to reduce emissions. Two sets of carbon budgets are therefore given: one if a global deal is reached ('intended') and one before a global deal is reached ('interim'). The Committee estimates that for the 20% EU target, the UK is required to reduce its emissions by 29% in 2020 relative to 1990. For the 30% target, it is estimated that the UK. would have to reduce its emissions by 40%. See also Table 1.
International shipping and aviation should not be part of the budget, since there still are unresolved issues how to allocate these emissions to nations. Instead it is proposed to report annually on the progress of reducing emissions from international shipping and aviation.

Table 1 Moving from the EU target to UK targets (percentage reduction 1990-2020)

EU overall target	**20%**	**30%**
EU overall target excl. aviation	22%	32%
UK's likely share excl. aviation	34%	42%
Correction for LULUCF and domestic aviation	29%	40%

Source: CCC analysis.

Table 2 shows how the EU target would be split in UK targets for the ETS and non-ETS sectors.

Table 2 Emission reduction 2005-2020 (in percentages) for the UK

EU overall target	**20%**	**30%**
ETS (UK)	29%	44%
Non-ETS (UK)	16%	22%
Whole economy	22%	32%

Source: CCC analysis.

The EU framework also includes legally binding trajectories from 2013 for the ETS and non-ETS targets for 2020. Each Member State is required to approach the targets through a straight line trajectory from 2013 until 2020. The Committee sees no advantages in setting a trajectory for emission reduction that is more ambitious than this EU framework.

Three scenarios for emission reduction are presented:
- The Current Ambition scenario, dominated by energy efficiency improvement in buildings and decarbonisation of the power sector.
- The Extended Ambition scenario, which also includes lifestyle changes, increasing use of renewable heat and improved fuel efficiency in vehicles.
- The Stretch scenario, which also includes wall insulation and speed limiting.

For the non-ETS sectors, the Extended Ambition scenario is enough to reach the 20% GHG target in 2020, but not enough for the 30% target. However, with the Stretch scenario the 30% target can be reached.
For the ETS-sectors, the Stretch scenario would be enough to meet the 20% target, but the 30% target cannot be met with domestic action alone.

The Committee urges the Government not to purchase offset credits (like CDM) to achieve it's interim budget. In the transition period from the interim to the intended budgets, the Government is allowed to buy offset credits. The Committee proposes that the maximum use of credits purchased overseas in the non-ETS sectors should be no more than the extra needed effort to move from the Interim to the Intended budget in the non-ETS sectors.
The amount of CDM credits that companies are allowed to purchase under EU ETS is appropriate according to the Committee. Further restricting the use of credits in EU ETS is therefore not needed.
It is the recommendation that in the interim case, less than 10% of the emission reduction should be purchased overseas and in the intended case, less than 20%.

Note
UK's target to reduce it's emissions by 20% in 2010 relative to 1990 will not be met. Based on the calculations by the Committee, emissions in 2010 will be 14% below the 1990 level.