

**Benelux: Common Position Paper**  
**EU Energy Conference**  
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*“Our aim is for our energy supplies to be among Europe's most sustainable and efficient within the next 10 to 15 years.”<sup>1</sup>* – Prime Minister Jan Peter Balkenende – March 2007.

This paper outlines the prospects for the current Benelux energy policy and the EU wide implications. Secondly this paper gives an overview of the position of the Benelux regarding the formation of an EU wide Energy Treaty.

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<sup>1</sup> [http://www.government.nl/Government/Policy\\_statement](http://www.government.nl/Government/Policy_statement)

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# Natural Gas

## Introduction

In March 2006 the European Commission published a Green Paper entitled 'A European Strategy for Sustainable, Competitive and Secure Energy'. Within this framework a diversified mix of energy sources plays an essential role with the purpose of increasing the security of energy supply. As a significant producer and exporter of natural gas the Netherlands are an important factor in meeting the goal of decreasing the energy import dependency of the European Union (EU). Compared to the Netherlands, Belgium and Luxembourg depend to a much larger extent on energy imports. Both countries cover their gas demands mainly from imports from the Netherlands as well as from Norway and Algeria. Within the Benelux countries the Netherlands are predominant with regard to gas production, trade and infrastructure. This is why the main focus of this paper is on the Dutch gas market and its influence on a European energy policy.

## Legislation, Market Structure and Unbundling

There are about 30 gas distribution companies in the Netherlands. These companies are the owners and operators of the local distribution networks and in nearly all cases their shares are held by municipalities.

Due to the unbundling and liberalisation third parties are entitled to construct own pipelines. Regulation third-party access (TPA) is also applied in regional distribution networks. The Dutch TPA tariffs are non-discriminatory (the same for domestic and foreign network users) and they are one of the lowest within the European Union. This increases competition on the gas market and makes the market open to other countries.

## Domestic Supplies

The Netherlands are the second largest producer of natural gas in the European Union. According to BP Energy Statistics proved reserves were 1.45 trillion cubic metre at the end of 2005 and natural gas production has increased by 15% in 2004 compared to the previous year. In 2004 natural gas accounted for 92% of domestic energy production in the Netherlands. Furthermore, the country is a net exporter of natural gas and the overall energy import dependency rate is below EU-25 (excluding Bulgaria and Romania) average. Belgium and Luxembourg do not produce any natural gas, but import it mainly from Norway, the Netherlands and Algeria.

The Netherlands have the highest gas penetration in the world, accounting for 45% of the primary energy supply in 2004, followed by oil with 38% and solid fuels with 11%. In Belgium oil and natural gas dominate the primary energy supply as well. The share of natural gas increased significantly since 1990 up to a level of 27% in 2004. Due to the introduction of a new gas-fired power plant in 2002 the consumption of natural gas has dramatically increased in Luxembourg.

However, a gradual depletion of the largest natural gas fields in the Northeast of the Netherlands - the Groningen fields - and a declining small field production mainly in the North Sea as well as

increasing market liberalisation make it essential to review Dutch upstream gas policy. Onshore natural gas production (mainly the Groningen field) accounts for almost two-thirds of total production, whereas smaller fields can be found to a large extent offshore. Public electricity generation and heat production accounts for 40% of total gas demand in the Netherlands. In 2002 one-third of the final consumption of gas was used in the industrial sector.

## **Policies**

### **1. Security of supply**

Before the year 2000 the Dutch government announced that it would not undertake any efforts to ensure the long-term security of supply at the national level after 2007, because the country expected that the European Union would cope with this issue. Due to the reorganisation of the Dutch gas market structure, the security of gas supply became a major issue in Dutch energy policies. Nevertheless, the Dutch government is still highly interested in a European approach of addressing the energy security issue, because it believes that energy security can be best achieved by close international cooperation and good international investment climate.

#### **a. Swing and storage capacity**

But security of supply does not only refer to international gas networks and pipelines, but also to the domestic level. Supply interruptions have to be avoided and the safety and quality of the transmission and distribution network is essential to guarantee a long-term reliability of gas supply. Flexibility at the gas production phase enhances the security of supply. The Groningen field as the biggest natural gas reserve in the Netherlands allows new and usually smaller discoveries to be brought onto production due to the swing capabilities of the Groningen field.

Also, the Dutch government is aware of storage capacities for strategic security of gas supply reasons and therefore, it promotes the investment in new storage as well, especially needed in the industrial sector. For the electricity sector gas-fired power plants can be also used to balance variations in the supply chain. This makes natural gas to an important factor in the stabilization and reliability of a common European network.

In order to slow down the depletion rate of the Groningen field the Dutch government promoted the import of gas, because the production from small gas fields reached its peak with the result of faster depletion of the large Groningen field. An increase in small field production and higher import rates can help to prolong the swing capacity of the Groningen field. This contributes positively to the security of supply not only in the Netherlands but also at EU level.

#### **b. Infrastructure**

The national gas transmission network as well as international connections are managed by the State owned company VN Gasunie. For a European wide gas network it is important to know that Norwegian gas to Belgium and France, and United Kingdom (UK) gas to Germany is transported through the Dutch grid, which gives it a strategic significance for other European countries as well.

Another pipeline from the Netherlands to the UK is planned in order to deliver Dutch gas to the UK. To sum up, the Netherlands are not only a key producer and thus, exporter of natural gas in the EU, but they are also an important transit country for natural gas among EU member states.

After the production capacity of the Groningen gas field has declined it was decided to inject natural gas under high pressure into underground storages in order to guarantee a short-time security of supply in winter. The promotion of Dutch gas storages has also a strategic relevance for the European Union and its member states, because it increases the overall storage capacity in the EU, which has to be taken into account for a common energy policy.

### **c. Prices**

Natural gas prices for small consumers were set by the Dutch regulator until the full market opening in July 2004. By contrast large consumer prices are set freely following the market value principle. This means that the price of gas is according to the prices of alternative fuels for each consumer group. Basically, this is a linkage of the gas to the oil price. Natural gas prices in the Netherlands for industrial consumers are in the mid-range of IEA countries and for households among the highest.

### **d. Investment**

An increase in gas imports can maintain Groningen's swing capacity. However, this requires additional investments in transmission infrastructure and especially in international connections, because these cross border pipelines are already congested due to high transit rates. The infrastructure could be expanded by promoting it on a European level, because it is in the interest of all member states to maintain the swing capability of the Groningen field and to increase the transit capacity of the pipelines. Further investment is needed for new storage capacities as this has benefits for the entire gas network in the European Union. Moreover, small fields, which can be mainly found offshore, require high amounts of investment in order to exploit them and thus, counter balance the depletion of the Groningen field.

## **2. Sustainability**

With regard to another long-term target of energy policy -the sustainable use of energy resources -it becomes clear that natural gas plays an important role especially for the transition period from a fossil fuel based to a renewable energy based economy. Carbon dioxide (CO<sub>2</sub>) emissions of natural gas are only half of those of lignite. Besides the general increase in energy demand in the EU, the European Commission expects in particular for the "clean" fossil fuel natural gas that its share will increase from less than 20% in the EU in 2000 up to 37% in 2020. Natural gas, especially from the Netherlands as a main producer, will be a key energy source in the European Union in the future.

# Coal and Nuclear

## Historical Perspective (Nuclear)

**The Netherlands:** The original nuclear power plant was built in the Netherlands in 1968 at Dodewaard, followed shortly by the opening of the power plant at Borssele. Throughout the 1970's there was debate and decisions being made by the Dutch government and parliament about a possible expansion of the nuclear programme. However after the Chernobyl disaster in 1986 all decisions were suspended. Instead the Netherlands has been focusing on research programmes primarily looking at nuclear safety and radioactive waste<sup>2</sup>. In 1997 Dodewaard was deactivated seven years early<sup>3</sup>.

**Belgium:** The first nuclear power plant was built in Belgium in 1962 called the **BR3 PWR** prototype plant in Mol. Belgium has gradually built up the number of power plants throughout the last half of the 20<sup>th</sup> century and now has seven fully operational ones. Since 1988 the government has halted any plans for further plants but it has allowed the energy companies to upgrade them thus increasing their operational output. This, having been said, makes Belgium's nuclear power plants among the 'best performers in the world'.

**Luxembourg:** Has no nuclear energy policy.

## The Netherlands Nuclear Energy, Current Situation

There has been a lot of political turbulence around the Borssele plant during the last ten years. The Borssele reactor was due to shut down in 1997, much earlier than its design lifetime of 2013. The government decided to extend the reactor's operating licence, but limited the extension to 2004. However, the new Balkenende government 2002 reversed this decision and decided that the plant will stay in operation during its economic and safety lifespan. Now nobody knows when Borssele is exactly scheduled to shut down. Balkenende's government considers nuclear energy as a viable option for the future, especially in view of increased environmental concerns, but no further construction of new nuclear plants is foreseen in the future. The basic legislation on nuclear activities is the Nuclear Energy Act supplemented by decrees. Licences for nuclear facilities are granted jointly by the Minister of Housing, Spatial Planning and the Environment (VROM), the Minister of Economic Affairs and the Minister of Social Affairs and Employment and, when relevant, some other ministers. Together, these ministers form the competent licensing authorities as defined by the Nuclear Energy Act.

Currently 3.5 TW/h of electricity is produced by the nuclear power plant in Borssele accounting for 4% of the Netherlands domestic energy production.

In 2007 a coalition agreement between the major Dutch parties (CDA, PvdA, and Christen Unie) stated that in this government there would be no new nuclear power stations built. However in the structural plans drawn up about the future of Dutch energy production sites will be allocated for the possibility of building a new plant. The current government however, does not believe that Nuclear

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<sup>2</sup> [http://www-pub.iaea.org/MTCD/publications/PDF/cnpp2003/CNPP\\_Webpage/PDF/2002/Documents/Documents/Netherlands%202002.pdf](http://www-pub.iaea.org/MTCD/publications/PDF/cnpp2003/CNPP_Webpage/PDF/2002/Documents/Documents/Netherlands%202002.pdf)

<sup>3</sup> <http://www.kcd.nl/index1.html>

energy will contribute anything significant in the long run. The current government has adopted the ‘Schoon and Zuinig’ (Clean and Efficient) policy for the future of Dutch energy production:

- 30% reduction of greenhouse gas emissions by 2020 using 1990 as the base year;
- 20% of energy will be produced by renewable energy sources by 2020;
- 2% more energy efficient ever year.

The policy makes it clear that if the Dutch follow a rigid stance and adopt the abovementioned targets then Nuclear Energy will not play a role in the future in the Netherlands. The main argument is that the energy efficiency and renewable capability targets still need to be reached. Therefore nuclear energy would only contribute to reducing the emission of greenhouse gases and not the second or third point therefore not being an economical long term solution for the Dutch energy market.

### **Belgian Nuclear Energy, Current Situation**

“The responsibility for nuclear policy within the Belgian government rests with the Public Service for Economy, SME, Self-employed and Energy. In January 2003, the National Assembly passed a law codifying the national policy of Belgium to phase out nuclear energy for commercial electricity production. The law specified a prohibition on the construction of new nuclear power plants and a limit on the operational period of existing plants to 40 years. The phase-out can only be overridden by new legislation or by a government decision based on a recommendation from the federal Gas and Electricity Regulatory Commission (CREG) that Belgium’s energy supply is threatened by the closure of the plant(s). The current plans will lead to the closure of three plants by 2015 with the remaining four plants closed by 2025”<sup>4</sup>.

### **Current Coal Situation**

#### ***The Netherlands:***

Coal is no longer mined in the Netherlands since the 1970’s although it has been argued that there are still several billion tonnes of the resource left. Six energy companies operate the Dutch coal fired power stations. ‘About 70% of coal used was steam coal for power generation and the remaining was mainly coking coal; 28% of electricity was generated from coal in 2002. The government estimates coal demand to continue approximately at the current level until 2010 and slightly increase thereafter’<sup>5</sup>. As Coal is no longer mined locally it comes from a wide range of sources. ‘Coking coal comes mainly from Canada, Australia, the US and Venezuela and steam coal from South Africa, Colombia, Indonesia, the US and Australia’<sup>6</sup>. Currently around 70% of electricity in the Dutch energy market is supplied by fossil fuels.

#### ***Belgium:***

Since early on in the 21<sup>st</sup> century the Belgian energy sector is no longer supplied by coal power.

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<sup>4</sup> Bullet references referring to the Belgian nuclear situation have been taken from OECD/IEA, 2004 Report on Belgium 2004, p.174

<sup>5</sup> IEA, Energy Review 2004, NL p. 64

<sup>6</sup> IEA, Energy Review 2004, NL p. 65

# Electricity

## Introduction

The medium term prospects of the EU electricity market are not very favourable. Due to rising demand a power gap may be imminent within the next few years. This will result in a supply side gap and thus severe power shortages during peak demand. Since this is an EU wide problem solutions cannot be found in importing electricity from neighbouring countries. There has to be an EU wide drastic increase in the construction of new electricity plants. This will require clear regulatory government policy choices and proper diversification policies. The basis of this EU electricity policy should be to provide a balance between **sustainability**, **security**, and **affordability**.

## The Benelux role: excess supply and swing capacity

The Benelux has a specific role to play with regards to the power gap problem. This is firstly due to the presence of significant supplies of natural gas in the Netherlands. Secondly the geographic location of the Netherlands plays an important role. The Benelux role as a transportation hub for Northwest Europe, means that it is an ideal location for flexibility and diversification of energy imports. Also the Netherlands plays an essential role as the natural gas hub for Northern Europe. By 2009 the Netherlands will be one of the few EU countries that is a net exporter of electricity.

Moreover due to the presence of significant gas powered electricity plants the Benelux can play a role as swing producer of electricity. This potential as swing producer of electricity is strengthened due to the specificities of the Groningen gas field (see chapter on gas).

In order to make optimal use of the potential that the Benelux has to offer to the EU two common EU policies have to be pressed, unbundling and interconnection.

### 1. Unbundling

Optimal use of excess supply and swing capacity can only be attained under a liberalized energy climate. The Benelux is one of the front runners in promoting full legal and physical unbundling of the electricity sector and has already taken steps in this direction on the national level.

### 2. Interconnection

Interconnection is essential to energy security and the risks of a supply side gap during peak demand. This should be an EU wide objective. Specifically interesting for the Benelux would be improvements to the underdeveloped interconnection between the Benelux and Germany. The common Benelux, French, German initiative to provide a common platform (CASC-CWE) for the transport system operators (TSO's) is a step in the right direction.



# Renewable Energy

## Europe

Within the European framework of promoting and developing alternatives to fossil fuels and diminishing the energy dependency on suppliers and transit countries, renewable energy sources can be considered as a key to secure a sustainable and carbon free energy supply in Europe. It has been recognized that there is a big potential of renewable energies in all Member States of the EU. Energy policies aim at combating climate change while building up a competitive and advanced renewable energy industry in Europe. However, it has to be acknowledged that there is not one approach for all of Europe, because geographic conditions are not the same everywhere. Therefore, different policy measures and technological solutions are required.

## Renewable Energy Policies

The Netherlands are in favour of a renewable trading system for green power certificates in order to secure that large scale producers can sell energy to countries with less fortunate geographical conditions. Even though this plan is criticised by Member States such as Spain and Germany, it allows all countries in the European Union to fulfill the European renewable energy targets and combat climate change successfully.

Furthermore, a promotion scheme that encourages the industry to produce renewable energy - electricity, heating and cooling, and biofuels - must be in place. A common solution is desirable, but if not practically possible, each country should encourage as much production of renewables as possible. The Netherlands is willing to take over a leading role in promoting and developing renewables in Europe.

Feed-in tariffs for renewable electricity production are seen as the most viable and effective subsidy scheme in the Netherlands. For until 2005 tax exemptions were given to producers of green energy, but the system proved to be inefficient. Further developments have to be made in this field.

## Renewable Energy Sources

Renewable energies make up a modest part of current energy production, but ambitions for future use are high. Approximately 3 % of current electricity production is from renewable energy sources. Another 7 % is imported from other countries. This explains why the Netherlands are highly in favour of a Europe wide trading scheme.

Bio-energy is the most important renewable energy source in the Netherlands. Three times more energy is produced from biomass than from the second most important energy source, namely wind power. The most significant contribution is from waste incineration and natural biomass.

Wind power is a success story in the Netherlands. Many onshore and offshore wind parks are planned at the moment, but local regulations make the construction difficult. This has to be changed in the future.

Hydropower is limited due to geographical conditions, thus the contribution is very modest.

Solar energy production is becoming increasingly popular. Some cities have success experiences subsidizing private households, hereby encouraging introduction of more panels with regard to photovoltaics. However, solarthermal installations are not widely used in the Netherlands.

Effort is being put into making energy efficient buildings. This includes choosing better insulations and powering them with either photovoltaics or other renewable energy sources (c.f. chapter Energy Efficiency).

# Energy security

## Introduction

The energy supply crisis between Russia and the Ukraine of 2006 has highlighted Europe's growing dependency on external sources of energy. Therefore, energy security currently ranks high on the international political agenda. Energy security, together with sustainability and competitiveness, are the three objectives of *The Energy Policy for Europe (EPE)*, adopted in 2007 by the European Council. The Netherlands expressed its broad concurrence with this proposal of the European Council, and will remain active in the discussion to contribute implementing the actions agreed and launching new initiatives.

## Policy

The Dutch energy policy has an ongoing long-term objective: to effect a transition to a sustainable energy system which is less dependent on oil and gas, secures energy supply, and causes fewer emissions, so that the long-term objectives of climate and air pollution will be achieved. In the medium-term, the Dutch government sees energy as a vital factor of production and aims for a secure energy supply in Europe and the Netherlands. This objective is of course interrelated with the other two objectives.

### 1. Flexibility of own reserves

The Netherlands will be the only EU country during the coming decades with substantial gas reserves, but Dutch gas reserves will get exhausted. The Netherlands is already heavily dependent for oil on other countries and since dependency on gas imports will also rise rapidly, the Dutch vulnerability is growing. Continuous investment in industry and infrastructure will be needed to ensure that the Netherlands continue to be an energy hub in the longer term. The remaining Dutch reserves, the storage capacity of empty gasfields, and the special flexibility of the Groningen gasfield will play a crucial role here.

### 2. Strong EU energy policy

Besides, the Netherlands should work at enhancing energy security both at European/multilateral and bilateral level; a 'both/and' approach. At the multilateral level this means first and foremost that Europe needs a stronger energy policy, both internally and externally. Within the European Union, completion of the internal market is needed. Regarding external policy, it is only through a European framework that we can speak and negotiate on equal terms with major energy market players. Energy needs a more prominent place in the EU's external policy. However, the bilateral approach remains important in matters where national competence prevails. In these situations, the Netherlands will promote European coordination and seeks to cooperate with like-minded countries, as in the current cooperation on electricity matters in North-Western Europe.

#### a. Relations with producer and consumer countries:

According to the Netherlands, the European Union should also reformulate its relationship with Russia on the basis of ‘equality’, ‘mutual understanding’, and ‘reciprocity’. Also on bilateral level, it is important for the Netherlands to maintain its good relations with producer countries. Where possible, the Netherlands would like to expand the areas of interest including issues relating to broader economic and social development. The Netherlands is presently a player in the energy sector by virtue of its gas reserves and its know-how in the field of gas transport and storage (Gasunie), Shell, the port of Rotterdam, and innovation. It therefore has opportunities to enter into international partnerships further strengthening its position.

The Netherlands also believes that the cooperation with the major consumer countries – US, China, India – should be stepped up. Consumer countries have a shared interest in efficient markets, free trade, investment, and stability in producer countries. Energy policy should be developed in the EU’s strategic partnerships with China, India, and Japan.

#### **b. Safety and security of transport**

Transport routes for oil and gas form a vulnerable element in the security of the Dutch/European energy supply. Transport security is in the common interest of producer, consumer, and transit countries. The Netherlands could use its special expertise to support regional security units and the coastguard services of high-risk countries, as is already happening in Indonesia, for example. The Netherlands is willing and prepared to contribute to the military protection of international transport routes, both over land and over water, if necessary.

Besides, there should be invested in infrastructure to ensure the security of energy supply. This is also important for the Netherlands in remaining an energy hub. In this light, the Dutch government applauds the start of LNG terminals and Dutch participation in the North European Gas Pipeline.

## Energy efficiency

In the Netherlands, Energy efficiency is not only seen as a complementary, but just as an important way of combating climate change as renewable Energies. The overall target is to reduce the energy consumption by 2 percent pr year (Ministry of Housing, Spatial Planning and the Environment 2007, 1).

The measures taken vary, from taxes on products and consumption in general, which is deemed energy inefficient, to campaigns making people more aware of their energy habits. This is particularly seen in the traffic sector where road-pricing is a suggested solution (although not yet implemented) alongside initiatives encouraging people to chose other, more efficient, means of transport than their car (ibid, 36).

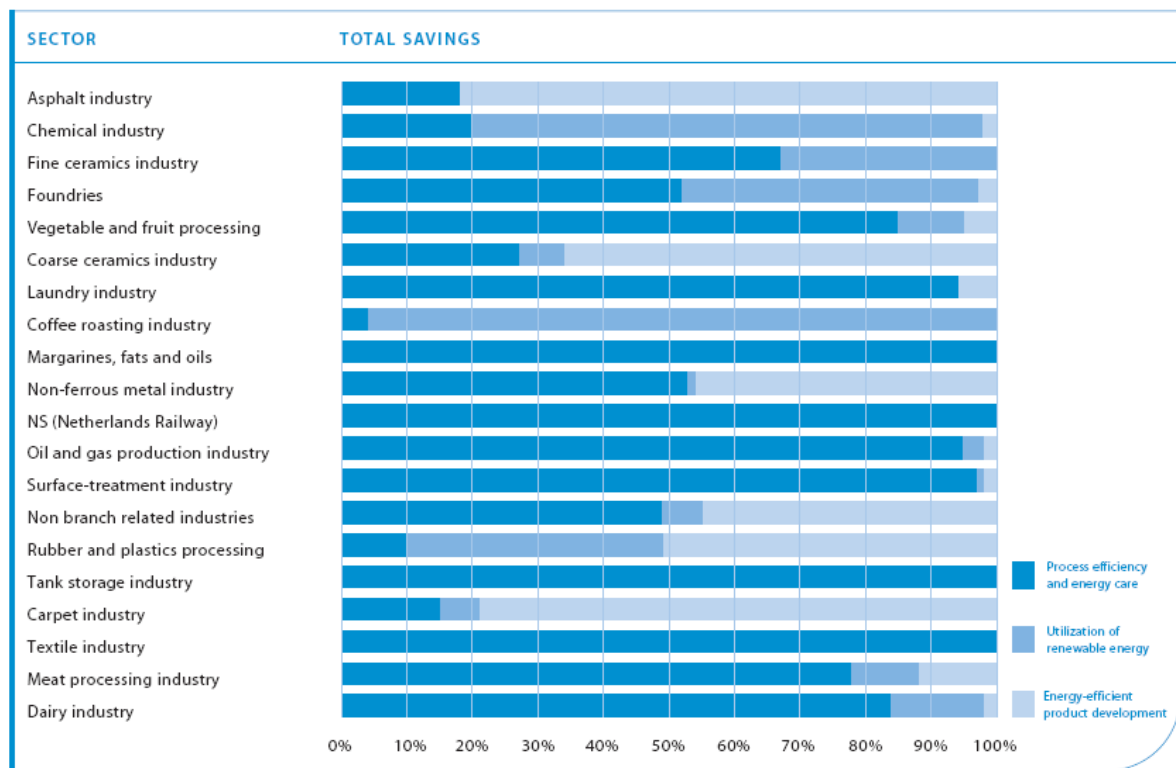
Furthermore the initiatives taken in Holland shall be seen in connection wit a larger effort made both in Europe and globally, promoting more efficient use of energy. I.e. it is suggested that common European standards should be imposed on all consumer products – from cars to everyday household products. Many of the initiatives do however require broader EU legislation, hence a big effort is put into lobbying at the moment to maintain and develop high and ambitious standards for energy efficiency in the EU (ibid 55).

Besides setting ambitious political goals for efficiency, one of the most important ways to achieve this goal is through voluntary cooperation between government and business. These so-called long-term agreements have been in place since the beginning of the 1990's and require the involved companies to take several actions in order to secure energy efficiency:

- Every four years, each company have to draw up an energy conservation plan, describing the goals they are working to reach, as well as the measures taken to meet them.
- Participate in a scoreboard/evaluation programme, where all processes of the company's energy consumption are evaluated. Significant progress should be shown already within two years.
- Companies are required to look for ways of integrating renewable energy in their energy consumption.
- The involved companies evaluate themselves through an annual progress report.

Overall the, the different business sectors are evaluated on their use of energy in three terms: Process efficiency, use of renewable energy and development of energy-efficient products. How much each of this categories comprised of the total savings is show in figure 1:

Figure 1: Savings pr initiative



(Senternovem 2005, 15)

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