Unofficial translation

Action plan for renewed energy-conservation

Energy conservation and the market

Danish Ministry of Transport and Energy

September 2005

Foreword

This final action plan for renewed energy-conservation is an editorial compilation of the draft action plan presented by the Danish Government in December 2004 and the political agreement between the Government (the Liberal Party and the Conservative Party) and the Social Democrats, the Danish People's Party, the Social Liberal Patry and the Socialist People's Party on future energy-saving initiatives (enclosed as Annex 1).

Modifications resulting from the political agreement have been incorporated in this final version. The text of the agreement has been incorporated essentially unchanged in the relevant places. The text has also been updated so as to reflect the current situation. For example, the text now reflects that the Act on Energy Savings in Buildings has been passed, that new energy requirements in the Building Regulations have been issued and that the circular on improving the energy efficiency of government institutions has entered into force. The status of the plan in relationship to current EU initiatives has also been updated.

Otherwise, no other changes have been made to the substance of this final version of the action plan.

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1. Introduction

Energy is vital to the functioning of modern societies. Annually, consumer spending on energy (excluding transport) totals more than DKK 70 billion. There is a need for ambitious and dynamic energy-conservation efforts. Savings in energy consumption through more efficient energy use contribute to economic growth and industrial development, to the maintenance of a high level of energy supply-security and to resolving global environmental problems, especially climate changes. Ambitious energy-conservation efforts are therefore a central element in an energy strategy that takes long-term challenges seriously.

In recent years, the Government's policy on energy has focused in particular on promoting the liberalisation of energy supply and creating a better framework for competition to the benefit of consumers and companies.

In this action plan for renewed energy-conservation efforts, the Government presents a strategy for a forward-looking, market-based program. The energy conservation effort will support the long-term challenges that Denmark is facing. Increased robustness in energy supply, competitive advantages and export opportunities can contribute to Denmark being better able to benefit from globalisation.

For decades, there has been a targeted and differentiated energy-conservation effort, and significant increased efficiency of energy use has already been achieved. Since 1980, energy consumption has been relatively constant, even though GDP has grown by approximately 50%.

There is still significant potential for energy efficiency and energy conservation. For various reasons, this potential is not always being realised. Hence there is a need for effective energy-conservation efforts that focus on realising the large, profitable conservation potential. This will help to reduce the energy bills of both consumers and enterprises.

The political agreement of 10 June 2005 sets the frameworks for energy-conservation efforts and the principal elements thereof for the years to come. The agreement sets strong frameworks for increased, cost-effective and market-oriented energy-saving efforts focusing on achieving profitable savings that represent a gain for consumers, enterprises and the Danish society.

The parties to the agreement of 10 June 2005 agree that the objective is to achieve a reduction of the overall energy consumption (excluding transport). Increased initiatives are introduced in order to achieve concrete, documentable energy savings corresponding to an average of 7.5 PJ annually during the 2006-2013 period.

A significant part of the increased energy savings will be achieved through savings delivered by the electricity, natural-gas, district-heating and oil network and distribution companies. This must occur within current economic frameworks. Monitoring will be introduced and companies will have a large degree of choice when it comes to the methods adopted.

Intensifying energy conservation efforts focuses particularly on energy consumption in buildings. The main initiatives include strengthened energy requirements in the Building Regulations, a new and improved energy-labelling scheme, enhanced inspection of boilers and ventilation systems and, finally, increased efforts in the public sector.

Energy savings in the public sector is another focal area. The public sector must procure energy-efficient products and implement profitable savings. A circular has been issued on improving the energy efficiency in government institutions. As a result of the political agreement, municipalities and regions must live up to the same requirements as those, which apply to government institutions, regarding energy-efficient procurement and achievement of energy savings, with up to 5 years' payback time.

In addition, a co-ordination committee is set up to ensure cost-effectiveness of the conservation initiatives, including improved joint prioritisation and increased co-operation and co-ordination among all stakeholders. The committee shall also ensure that more focus is given to heat savings.

New initiatives for heat savings in buildings:

- Tightening of the energy requirements in the Building Regulations by 25-30% as of 2006.
- Objective of further tightening the energy requirements by approximately 25% as of 2010.
- For new low-energy buildings, abolishment of the obligation to connect to collective energy supply systems and of the ban on electric heating.
- Setting requirements in the Building Regulations for existing buildings relating to major renovations, change of heat supply, replacement of boilers, windows and roofs.
- Maintain and extend ambitious energy labelling of buildings.
- Network and distribution companies must give higher priority to the achievement of heat savings, for instance by means of more extensive energy labelling. In this context, agreements must be entered into with the construction sector on package- and standard solutions.

Further new initiatives in the energy-conservation efforts:

Commercial enterprises:

- Streamlining the consultancy and campaign effort towards commercial enterprises.
- Promoting the sale of energy services.

The public sector:

- Setting requirements for energy-efficient procurement and implementation of profitable energy conservation projects as well as disclosure of electricity consumption in government institutions.

Corresponding requirements applicable to municipalities and regions.

Appliances and products:

- Upgrading the international effort on energy labelling and on requirements for the efficient use of energy, including for standby use, within the framework of the Eco-Design Directive.
- Promoting transparency of energy consumption and development of advanced energy meters.

Providing information and influencing behaviour:

- Enhancing the information effort on energy conservation.

Research & development and price-elastic consumption:

- Promoting and targeting research, development and market maturation of energy-efficient technologies.

Organisation of energy-conservation efforts

- Electricity-, natural-gas, district-heating and oil network and distribution companies must deliver larger savings within current economic frameworks. Monitoring will be introduced and companies will have a large degree of freedom in the choice of methods. With respect to business/industry, some of the actions taken are to be tendered out.
- A co-ordination committee is set up to ensure cost-effectiveness of the conservation efforts, including improved joint prioritisation and increased co-operation and co-ordination among all stakeholders.

The action plan is a key element in the long-term energy strategy to 2025.

In connection with the action plan, the Danish Energy Authority has drawn up a technical background report that describes in detail the background, preconditions and framework for future conservation efforts. The report can be found - in Danish - on the Danish Energy Authority's website, www.ens.dk

2. Framework and targets for renewed energy-conservation

Long-term challenges

The energy sector has a number of major long-term challenges that make up the overall framework for future energy policy. Increased efficiency in the use of energy is a key element in any energy policy that takes long-term challenges seriously.

Long-term energy policy challenges:

- *Globalisation, growth and business development*. Globalisation creates increased international competition. If Denmark is to flourish and retain the basis for our prosperity, we must compete in terms of innovation, proficiency and high technology. We must promote a competitive framework for workforce development and company growth. Efficient energy markets and increased energy efficiency are key elements in this regard.
- *Maintaining a high level of supply security* and reducing dependency on fossil fuels. Rapidly growing global energy consumption means increasing pressure on resources and prices, while the oil supply will come from fewer and fewer countries.
- *Global environmental problems*, especially climate problems, and entry into force of the Kyoto commitments necessitate major global reductions in emissions of greenhouse gases, especially CO_2, caused by energy use.

The purpose of the Government's *Determined Growth* strategy is to create future-oriented conditions for Danish citizens and enterprises in an increasingly global world. The strategy focuses on efficient utilisation of production factors that reduce costs and thus increase competitiveness and growth.

Energy is an important element in this strategy. Efficient energy markets need to be developed, but we must also concentrate on promoting energy conservation and energy efficiency, which will help to increase the opportunities for growth and employment to the benefit of consumers and enterprises.

In the long term, improving energy efficiency is a significant way of reducing dependency on fossil fuels and reducing vulnerability to increases in the price of energy. This will help to increase long-term energy supply-security. In the short term, energy efficiency, combined with more flexible consumption, can help to reduce the need for investment in new electricity production capacity and the transmission network, and thus increase supply security.

Higher energy efficiency is a key element in meeting international and national environmental requirements. The huge global need to reduce emissions of CO_2 from energy use in particular, as part of the stabilisation of greenhouse gas concentrations, requires a significant increase in energy efficiency in energy production and end use as well as increasing use of renewable energy sources. Within this context, there is a need for further technology development.

Overall, the renewing of energy-conservation efforts will help to meet the challenges that we are facing in the light of globalisation and growth, security of supply and global environmental problems.

Principles for specific energy-conservation initiatives

For various reasons, a number of profitable energy savings are not currently being realised. This is partly due to various forms of barriers, dysfunctional incentive structures and inexpedient markets for energy-efficient products and solutions. The barriers include lack of information and knowledge, disadvantageous financing conditions, etc.

Basic principles for reorientation of energy-conservation efforts:

- *Cost-effectiveness.*
- Promoting *competitiveness* and welfare through *low energy bills* for enterprises and consumers.
- Focussing on *realisation* of large, profitable potential savings with low-cost measures
- Taking a *balanced* approach in relation to the various sectors and energy applications.
- Adopting a market-based approach that promotes *well-functioning and effective markets* for energy-efficient, profitable products and solutions.
- Prioritising of *international*, and especially EU, initiatives.
- Promoting the development of more *energy-efficient products* that can help *business development and exports*, such as through research & development.

Thus, there is a need for new mechanisms and initiatives that can help to ensure *realisation* of the savings so that opportunities are not just mapped or documented but actually *utilised*. Energy conservation must benefit both society and individual energy consumers.

The Government is prioritising market-oriented energy conservation focusing on large, profitable potential savings and on mechanisms that can realise the majority of these savings at low cost. It must be easy for energy consumers to increase the efficiency of their energy use. The markets for the various energy-using products must be transparent with regards to price and quality, and information must be provided to make it easy to choose products that best meet consumer needs.

Allowance-regulation of CO_2 emissions is an example of an initiative that uses market mechanisms to increase the demand for cost-effective energy savings. Expansion of the market for energy services is also an example of a market-based initiative. The sale of energy services such as heating or lighting instead of energy can give vendors incentives to implement energy efficiency and thus make it easier for consumers to reduce energy consumption.

The drive to increase energy efficiency is becoming ever more international. The Government supports this development. An international effort will increase the effect and reduces costs of various initiatives. It will also mean that conditions affecting competition in trade are not subject to the same pressures as occurs with a purely national approach.

Energy conservation efforts can also promote business development and exports. Research, development and market maturation of energy-efficient technologies can help to maintain and expand Danish production and export of energy equipment and know-how.

Overview of EU initiatives to promote energy conservation:

- Energy labelling of appliances and products, which currently covers 8 different types of appliances, primarily household appliances and light sources. The scheme has resulted in large energy savings. The Government will work to expand the labelling scheme to more products and to make it more dynamic.
- Minimum efficiency standards for energy-using products. The Government will work to ensure that the Eco-Design Directive is used as quickly as possible to establish standards for a range of products, including for their standby use.
- Directive on the energy performance of buildings (the Buildings Directive), which contains requirements for calculating the energy consumption of buildings and requirements for energy labelling of buildings and inspection of boilers and ventilation systems. The Government will implement the Directive at an ambitious level.
- Proposed Directive on energy efficiency and energy services (the Energy Services Directive). The proposal includes targets for conservation initiatives by means of the sale of services such as energy services and energy consultancy, etc. The Government will work actively to have the Directive adopted as soon as possible. In this regard, the Government will work to ensure that Parliament's interest in a more ambitious directive, one that includes binding objectives, is part of the upcoming agreement with the European Parliament.
- The Commission's Green Paper on increasing energy efficiency, which was presented in June 2005. The Green Paper suggests that higher priority be given to conservation efforts and describes a range of possible new initiatives. The Government will actively contribute to the debate on the Green Paper and considers it to be essential that the Paper be quickly followed up with concrete initiatives.

Development in energy consumption

Since 1980, total overall energy consumption (excluding transport) has been constant, even though GDP has grown by approximately 50%. This means that energy consumption per GDP unit (the energy intensity) has fallen on average by 1.9% annually.

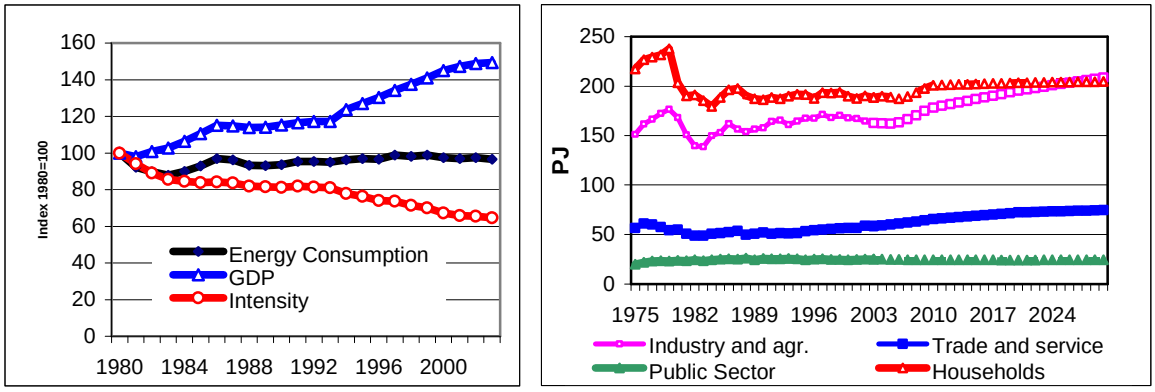

Fig. 1: Historic development in final energy consumption and projection of energy consumption in various sectors.

A new basic projection of energy-consumption development has been drawn up in which no new initiatives are included. It is therefore not a forecast but simply a reference development. According to this projection, energy consumption for the 2003-2010 period will increase on average by more than 1% annually. The growth will then drop leading up to 2030 by approximately 0.5% annually.

It is particularly energy consumption in the production industry and, to some extent, in private trade and service, which increases in the projection. In households, electricity consumption for appliances, etc., increases, whereas energy consumption for heating is relatively constant.

The projection and the assumptions on which it based are described in detail in the Danish Energy Authority's background report on the energy strategy, available - in Danish - on the Authority's website (http://www.ens.dk/graphics/Publikationer/Energipolitik/Fremskrivning_energiforbruget_erhverv_husholdninger.pdf).

Savings potentials

Although significant energy savings have been achieved for several years, there are still major, profitable potential savings. New savings potentials are constantly being made possible as a result of technological development, and although savings are being made, there is, therefore, no substantial reduction in the potential.

Using low-cost measures, the profitable, cost-effective savings potential with today's technology is estimated at the present time to be at least 10% of the energy consumption. If savings are realised when equipment, processes and buildings are being improved, maintained or replaced, it

will be possible to realise attractive cost-effective savings amounting to nearly 25% over the next 10 years, assuming technological development due to i.a. increased research and development,.

Assumptions for potential calculations:

The *socio-economic* potential consists of the economically-profitable savings possibilities. Calculations show that the following private-economy payback times result in socio-economic balance:

Households, etc.	Electricity.	5-3 years
	Heat	4-8 years
Business/Industry	Electricity	4-8 years
	Process energy	8-15 years

When calculating *private economy* savings potentials in the short term, payback times of 0-2 years have been used for business/industry and 0-4 years for other sectors. For space-heating savings, a payback time of 8-10 years is calculated as a result of the long lifetime of the savings. If the savings are financed by mortgage credit loans, they will provide a profit for consumers from day one.

With respect to space heating, the relatively high taxes on energy for heating mean that it can be economically profitable for consumers to implement savings that are not profitable for society. Thus, the private-economy potential in this area is significantly greater than the socio-economic potential. The opposite is true with respect to electricity- and process-energy consumption in business. Enterprises' requirements for very short payback times, combined with a relatively low tax level, mean that the socio-economic savings potential is significantly greater than the private-economy potential.

Table 1: Potential for energy savings in various areas.

End use	Final energy consumption 2003 (PJ)	Socio-economic potential up to 2015		Private-economy potential (%)	
		%	PJ	Currently	Up to 2015
Space heating	217.6	24%	51.3	18%	47%
Industrial processes	66.5	25%	16.5	13%	27%
Lighting	24.0	24%	5.7	19%	60%
Cooling/freezing	15.1	28%	4.3	10%	35%
Electric motors	12.4	15%	1.9	10%	30%
Ventilation	11.9	40%	4.8	13%	38%
Pumping	8.4	35%	2.9	14%	42%
Other	71.3	24%	17.2	11%	33%
Total	**427.2**	**24%**	**104.5**	**16%**	**42%**

Note: The savings potentials show how much can be saved in relation to today's energy consumption, that is, without growth in the energy-service level. Some of the potential will be realised as part the current efficiency improvement and is therefore included in the energy-

consumption projection. Both the socio-economic and private-economy savings potentials are calculated as an average for commercial and household puroses.

With an annual energy bill of more than DKK 70 billion for enterprises and citizens, increased realisation of the energy savings potential will result in significant reductions in annual energy expenditure.

Objectives

In the political agreement of 10 June 2005, the parties state that the objective is that overall energy consumption (excluding transport) must be reduced. With this objective in view, an ambitious goal has been set for energy-conservation efforts. The expectation is that these efforts will more than outweigh the increase in energy consumption (excluding transport) which will result from economic growth, according to the Danish Energy Authority's projections,. The parties are in agreement that the development of energy consumption must be closely monitored. If, in a few years, energy consumption (excluding transport) proves not to develop as expected or if the premises on which the agreement has been made change significantly, the parties will discuss the situation in order to find a solution. If no agreement can be reached, this will amount to a new situation that the parties shall resolve.

With respect to short-term goals for conservation efforts, the European Commission has presented a proposed directive on improving energy efficiency and on energy services. The proposal suggests binding saving-goals for individual Member States amounting to 1% annually for 6 years as of 2006. It refers to a goal for the effect of the various savings initiatives, including also regulations, taxes, etc. The proposal means that fulfilment of the goal will result in energy consumption at the end of the 6 years being 6% lower than it would have been without the conservation efforts.

According to the proposal, it is possible to take into account the effect of savings initiatives implemented since 1991, to the degree that these initiatives still have effect in the period between 2006 and 2012. The proposal also contains a special savings goal of 1.5% annually for the public sector. The goal for the public sector is included in the overall 1% savings goal.

In June 2005, the Member States reached agreement on a compromise proposal that includes an indicative savings goal of 6% over 6 years. The proposal has no independent goal for the public sector. The European Parliament has adopted a series of amendment proposals, including more ambitious and binding objectives.

The Government will actively work to ensure that the directive is adopted as soon as possible. In this context, the Government will work to ensure that the Parliament's interest in a more ambitious directive, one that includes binding objectives, is part of the upcoming agreement with the European Parliament.

Objectives for energy-conservation efforts:

- The goal is that total energy consumption (excluding transport) shall be reduced.
- Increased efforts will be made to achieve concrete, energy savings, which can be documented, corresponding to an average of 7.5 PJ annually during the period 2006-2013.

This savings goal means annual savings approximately 3 times higher than those achieved with current annual efforts. Assuming that the macroeconomic assumptions for the energy-consumption prognoses remain valid, this will result in a total energy consumption (excluding transport) of 430 PJ in 2013.

3. New initiatives

In order to increase realisation of the significant, profitable potential savings, the Government is presenting a new, market-oriented strategy for energy-conservation efforts. This consists of a number of specific initiatives to revise and goal-orient the present official regulations. At the same time, preparations are being made for a new and more efficient organisation of energy-saving efforts. This is described in more detail in Chapter 4.

The structure of future initiatives is based on the desire to set up balanced and yet efficient efforts that, taken together, pay back in the short term. The new initiatives are aimed to a large extent at reducing energy consumption for heating. The efforts in this area are currently limited and there are major, unutilised savings potentials. There is also a range of new initiatives for the public sector, business/industry, appliances, etc. The specific initiatives are described further in this chapter.

New and existing buildings

Nearly 40% of energy consumption is in buildings; the annual energy bill for heating totals more than DKK 30 billion. As part of meeting the long-term challenges, it is therefore important to reduce energy consumption for heating. This is technically feasible.

As one of the key elements in the action plan, the Government is therefore preparing to implement a special initiative to promote energy conservation in new and existing buildings.

New buildings will be standing for the next 50-100 years. It is therefore important that, from the start, they are as energy-efficient as is technically and economically sound. For a new building, the additional investment to reduce energy consumption is relatively low compared to the significant energy savings that can be achieved from operation of the building during its lifetime.

The energy requirements for new buildings have been intensified quite considerably over the last 25 years. And there must be ongoing intensification of the energy requirements for new buildings in accordance with technical and economic possibilities. This includes a need for a long-term plan that allows for time to carry out the necessary research and development and for the industry, the consultants and the business sector to be able to market more efficient components and buildings. Under the EU's Buildings Directive, the energy provisions must be reassessed every five years.

As part of the development of buildings with lower energy consumption than that required by the new energy provisions of the Building Regulations (low-energy buildings), there must be focus on research and development and demonstration. There must also be incentives to establish buildings that are better than those required by the currently applicable requirements.

Future strengthening of requirements for energy consumption will be based on both technological developments and profitability.

Requirements in the Building Regulations regarding maximum heat loss:

- *BR 82: a new building may use approximately10 litres oil/m^2.*
- *BR 95: a new building may use 7.5 litres oil/m^2.*

The future requirements cannot be directly compared with current requirements, but can be converted to

- *New energy requirement 2006: a new building may use 5.5 litres oil/m^2.*
- *New energy requirement 2010: a new building may use 4.2 litres oil/m^2 (milestone).*
- *New energy requirement 2015: a new building may use 3 litres oil/m^2 (milestone).*
- Average net heat consumption in existing buildings today: 14 litres oil/m^2.

For buildings with particularly low energy consumption, district heating or natural-gas supply is not socio-economically or privately profitable. The costs of establishing a water-borne heating system and of connection to the collective systems are relatively high. Exemption from the current obligation to connect to the natural-gas or district-heating systems and abolition of the ban on electric heating will make it more attractive to build low-energy buildings.

The Government considers it to be essential that the requirements in the Building Regulations are complied with. It is therefore necessary to have effective controls in connection with preparation of building permits. In this regard, the energy labelling of new buildings will make a significant contribution.

*With a view to promoting energy conservation in **new buildings**, the Government will:*

- Tighten the energy requirements in the Building Regulations for new buildings by 25-30% as of 2006.
- Aim to further tighten the energy requirements by approximately 25% in 2010 and strengthen them still further in 2015.
- As of 2006, define two classes of low-energy buildings in the new Building Regulations, where buildings consume 25% and 50% less energy respectively than according to the 2006 requirements.
- For low-energy buildings, abolish both the obligation to connect to district-heating and natural-gas systems and the ban on the use of electric heating
- Intensify inspections to ensure compliance with the Building Regulations.

For a long time to come, the presently ***existing buildings*** will make up the major part of the stock of buildings. Energy consumption in existing buildings is very high. After a significant drop in heat consumption at the start of the 1980s, consumption has been fairly constant. There is still significant potential for economically attractive savings. Only a small part of this potential is

being realised today. What is needed is to include energy improvements when carrying out other renovations. Thus, the additional investment in energy conservation will be low and many savings will be profitable.

Therefore, in the future, the Building Regulations will comprise energy-related requirements to be fulfilled in connection with major renovations, etc., of existing buildings and to renovation of specific building componentns. There will be specific energy requirements relating to the replacement of roofs or windows in a facade and to the changing of heat supply and the replacement of oil and gas boilers. These requirements will be profitable for the consumers.

What can be done in ***existing buildings:***

- The average energy consumption in existing buildings is 14 l oil/m^2, nearly 3 times as high as the Building Regulations' new energy requirements applicable as of 2006.
- Re-insulation of ceilings usually has very short payback times (3-6 years) and can often be done without interfering with the building's structures.
- Cavity-wall insulation usually has short payback times (5-10 years).
- For renovations of larger buildings, some of the obvious energy-saving measures include re-insulation of facades and gables, switching to energy-efficient windowpanes and ventilation with heat recovery.
- Replacing an old circulation pump with an energy-saving pump will typically allow a one-family house to save approximately 400 kWh annually. An expenditure of approximately DKK 2,500 is paid back in approximately 4 years. If the pump needs to be replaced in any case, the additional expenditure is marginal. On a national level, this reduction is equivalent to Odense's annual electricity consumption.

Good, effective energy labels for buildings that include specific proposals for profitable savings projects must be the point of departure for increased heat savings. The labels must also include proposals for financing. The energy labelling of a building makes the building's energy standard and savings potential visible. Without this information, it is often difficult to realise energy savings.

With adoption of the Act on Energy Savings in Buildings and its subsequent implementation, the requirements of the EU's Buildings Directive on energy labelling of buildings, etc., are carried out on an ambitious level.

Energy labelling of buildings in connection with sales will be more efficient, thorough and user-friendly, and there will be requirements on energy labelling of rented and new buildings. Buildings over 1000 m^2 will be regularly energy-labelled. Inspection schemes are being introduced for boilers and ventilation systems. Compared to today, there will be a streamlining of the energy-labelling scheme so that the labelling leads to more energy savings.

As part of the streamlining of the energy-labelling scheme, the possibilities are being investigated for integrating energy labelling and status reports, to the greatest possible extent, into a joint scheme.

As an extension of the labelling schemes, there is a need for an additional initiative to increase *realisation* of heat savings in existing buildings. Labelling has been found to be insufficient to ensure that a significant proportion of the proven and economically attractive savings is realised.

One way of promoting the realisation of heat savings is to make it easier for consumers to carry out the energy improvements identified by the energy labelling. It is therefore important that the building industry actively help to market the possibilities for implementing energy savings in buildings, including through standard and package solutions at fixed prices.

It is essential that there exist the right incentives for implementing reasonable and long-term energy savings. The rate structure used by network- and distribution companies plays a crucial role in this regard. High, fixed rates mean lower variable rates and thus reduce the incentives for implementing energy savings.

With a view to promoting ***heat savings in existing buildings****, the Government will:*

- Introduce a requirement specifying that in connection with major renovations in existing buildings, energy improvements specified in the energy label must be implemented.
- Introduce specific requirements in the Building Regulations relating to replacement of roofs, windows in a facade and oil and gas boilers, and to change of heat supply.
- Through legislation, implement a more efficient and user-friendly energy labelling of buildings, which are to be sold or rented.
- Set the validity of energy labels for small buildings at a maximum of 5 years.
- Set the frequency of regular energy labelling of buildings over 1000 m² at a maximum of 5 years.
- Introduce regular energy labelling of all public buildings regardless of size.
- After 3 years, assess on the basis of the experience gained, whether regular labelling of all buildings should be introduced.
- Introduce inspection schemes for oil- and gas boilers and ventilation systems.
- Work to integrate energy-labelling and status reports.
- Investigate the possibilities for reducing fixed rates for district-heating and electricity supply.
- Strengthen stakeholders' efforts to promote the implementation of energy savings, including market influencing, campaigns, etc.

With respect to the political agreement of 10 June 2005, *grid- and distribution companies* must prioritise heat savings. In this context, they must, for example, enter into agreements with the construction sector on package- and standard solutions. Citizens must have access to advice on achieving energy savings, including on financing.

Energy conservation in commercial enterprises

Commercial enertprises have carried out major energy-efficiency improvements in the last 10 years, with the result that energy consumption has remained stable in spite of significant

economic growth. Improved energy efficiency increases competitiveness and reduces vulnerability to rising energy prices.

The basic projection for energy consumption shows a significant increase in consumption in commercial enterprises in the years to come, partly due to significant growth and to the discontinuation of savings initiatives. There is further major potential for increasing energy efficiency. There is therefore a need for continued energy-saving efforts. Enterprises are typically demanding relatively short payback times. At the same time, energy prices for especially large commercial enterprises are low compared to household prices because they do not generally pay energy tax. Thus, there is considerable *economically* attractive potential for saving.

As of 2005, a number of large, energy-intensive enterprises will be covered by the CO_2 allowance scheme. When drawing up the CO_2 allocation plan for 2008-2012, the Government will decide whether the CO_2 allowance scheme is to be expanded to cover more of the large enterprises, including enterprises that currently have the option of reduced CO_2 taxation if they enter into an agreement on energy conservation.

The Minister of Taxation has appointed a committee to analyse the correlation between the energy tax and CO_2 allowance systems and to identify possible solutions to the so-called double regulation problem.

It must be easy for enterprises to implement energy savings. Consultancy and targeted campaigns can be effective means to identify savings possibilities. However, it is essential that the savings opportunities be utilised. Therefore, future efforts must to a greater extent focus on implementation of efficient energy savings.

Sale of energy services, where suppliers of energy or other enterprises undertake to implement and finance energy-conservation projects in exchange for a share in the savings achieved, can contribute to paving the way for the enterprises in implementing energy savings.

In the planning and design phases, and when procuring new systems, systematic energy management and focus on energy efficiency can lead to significant energy savings at low cost. It is therefore important to promote increased application of energy management and energy-conscious planning, design and procurement. In this regard, attention must be paid to the transparency regarding consumption and to opportunities for benchmarking comparable enterprises.

Industry has large amounts of surplus heat that are not being utilised, in spite of the fact that it is possible to make use of the heat either internally within enterprises or in the local district-heating supply. Energy savings can be achieved by utilising surplus heat. A study has been launched of the barriers to utilisation of surplus heat. In this context, possible solutions will be assessed.

In order to increase energy efficiency in ***business/industry****, the Government will:*

- Streamline consultancy and information efforts, including increasing focus on realisation of identified savings. Part of network- and distribution companies' initiatives relative to business/industry will be tendered out.
- Promote the sale of energy services. The initiative towards business/industry will be organised to promote energy services. There will also be a promotional campaign to help stimulate the market.
- Promote the use of energy management, energy-efficient design, energy-efficient procurement and the transparency and benchmarking of energy consumption.
- Promote the utilisation of surplus heat.

Increased energy conservation in the public sector

There is still significant energy-saving potential in the public sector. For example, energy consumption by municipalities and institutions varies widely. The Government is insisting on the need for public administration to be cost-effective so that public money is used prudently.

As a major procurer of energy-efficient products and as a large building administrator, the public sector can help to develop and promote the markets for energy-efficient products and solutions, including through the procurement of energy services.

A recent study shows that there are a number of barriers to energy savings in the municipal sector. These have to do with economic management and organisation, lack of knowledge, and behaviour, among other factors. The municipal reform can help to break down these barriers.

The new requirements for energy labelling of buildings will include a requirement for regular labelling of all public buildings, regardless of size. The energy labels of public buildings must be accessible to the public. Energy consumption be must regularly published on the Internet so that it is possible to conduct benchmarking between institutions. At the same time, suppliers of energy-efficient equipment and providers of energy services will have access to up-to-date information on market opportunities, which in turn will support the realisation of the savings potential.

In connection with the 2005 Finance Act, a political agreement has been entered into on energy-saving measures. The agreement focuses in particular on energy savings in government institutions as a result of the Electricity Saving Trusts' initiative, on new energy requirements for government buildings and on a new circular on energy-efficient procurement in government institutions.

*In order to promote energy conservation in the **public sector**, the Government:*

- Has strengthened its circular on energy efficiency in government institutions so that, as of 2005, the institutions will implement energy-efficient procurement and energy savings with reasonable payback times (up to 5 years) and will disclose actual electricity consumption on the Internet.
- The Minister of Transport and Energy will hold discussions with municipalities and regions on their complience with the requirements on energy-efficient procurement and the implementation of energy savings, with up to 5 years' payback time, as apply to government institutions.
- Will ensure that the public sector leads the way in procuring energy services. Pilot projects, a barrier study and a targeted promotion campaign will be carried out.

Promoting energy-efficient appliances and products

Although significant efforts have been made in recent years to increase the use of energy-efficient appliances, electricity consumption for appliances, etc. is still increasing as a result of more devices and more equipment being used.

There are still large potentials for energy savings, and there is a need to expand and develop the initiative with regards to apparatus categories and effective interventions.

Most appliances have a relatively short lifetime. Significant savings can therefore be achieved quickly if energy-efficient appliances are chosen when old ones are replaced. Such appliances are usually not much more expensive, but can result in significant energy savings and hence economic gains.

Denmark constitutes only a small part of the market for large multi-national producers. Much of the efforts with regards to appliances and products are therefore based on EU regulations. This applies to mandatory energy labelling, for example, which is being expanded to cover more apparatus types, and minimum efficiency standards for the energy consumed by appliances.

Unnecessary electricity and standby consumption:

- In a typical office nearly 40% of the electricity consumption occurs after closing hours.
- In a typical household, appliances on standby consume 10% of the total amount of electricity consumed. This is equivalent to 400-500 kWh or between DKK 600-800 annually.

Standards for minimum apparatus-efficiency and voluntary agreements with producers remove the poorest products from the market and effectively influence market development. The Directive on eco-design, which covers minimum efficiency-standards, will be a viable framework for a strengthened initiative in the EU. At the same time, efforts must be made to extend the EU

labelling scheme – which is an effective means of promoting the sale of energy-efficient products – to more appliances.

As an extension of EU requirements, the Electricity Savings Trust and the electricity grid companies have carried out campaigns and promotional activities to influence the markets and promote the sale of the best products in terms of energy.

Disclosure of consumption can help to influence behaviour and encourage energy-right action. therefore, more advanced meters should be used in the future, allowing for distant meter reading, as well as time related prices and monitoring of the consumption.

In order to promote ***energy-efficient appliances****, the Government will:*

- Maintain and develop the positive initiative to promote well-functioning markets for the various energy-efficient appliances.
- Give international initiatives high priority and work actively with other countries to influence development. On the EU level, the Government will work to ensure that the Eco-Design Directive leads to minimum-efficiency standards for a range of products, particularly with respect to standby use, as quickly as possible.
- Promote transparency of energy consumption. It must be easy to monitor individual consumption and to compare it with the consumption of others, for instance by using advanced meters.

Information, and behaviour modification

Well-functioning markets for energy savings and energy-efficient products require easy access to relevant information. Transparency is therefore a keyword in the future energy-conservation drive. Information on energy consumption and on possible savings must be readily accessible to citizens and enterprises.

It is also essential that the information initiative is co-ordinated and that there is consistency between general and more targeted information and campaign activities. At the same time, as part of the on-going energy conservation effort, general information and behaviour modification must be provided on energy conservation, for instance through educational programs for schools, etc.

In order to ***provide information and influence behaviour****, the Government will:*

- In conjunction with the stakeholders, ensure simplified access to information on energy conservation. The initiative will include the Internet and targeted information.
- Ensure that part of future funding for the promotion of energy conservation is allocated to general information and behaviour modification.
- Promote transparency, including by means of self-checking functions, meters with display functions that continuously show energy consumption for current and previous periods, etc.

Research, development and market maturation

It is essential to focus on research, development and market maturation of energy-efficient technologies and products.

In 2004, in order to ensure a targeted and effective effort, the Danish Energy Authority drew up a research strategy for energy-efficient technologies for 2005-2015. The strategy paves the way for focusing on the use of the funds provided by Energy Research Programme and the Association of Danish Electric Distribution Companies (ELFOR) and will support the action plan's initiative areas.

One of the four objectives in the Government's proposal for the High Technology Foundation is to promote development towards a sustainable, secure and future-oriented energy supply based on new and energy-efficient technologies. Initiative areas must be developed in which nanotechnology and information- and communication technologies can be developed and used in energy-saving technologies.

The Government is also insisting that Danish research be internationally oriented and concentrated in large programmes that provide for stable research environments and innovation.

In the area of ***research and development*** *in efficient energy use, the Government will:*

- Within the framework of funding allocated to the Energy Research Programme and ELFOR, spend at least DKK 0.5 billion from 2005 to 2015 for efficient energy use. Furthermore, research in energy-efficient technologies will be included in the initiatives taken by the High Technology Foundation and the Research Council.
- Give priority to coherent research programmes, including Danish participation in international research and development programmes.

Price-sensitive (flexible) electricity consumption

Although the primary objective with price-sensitive electricity consumption is not to achieve electricity savings, it nevertheless contributes to supply security in the short term and to the evening out of peak loads in electricity consumption.

An initiative for price-sensitive electricity consumption has aspects in common with an initiative for increased energy efficiency. Intelligent appliances that react to prices will also be more energy-efficient. Advanced meters are necessary for price-sensitive electricity consumption, as well as

for providing information on the composition of the electricity consumption with a view to energy efficiency.

Energy efficiency and price-sensitive electricity consumption should therefore be more closely linked, with respect to both consultancy and to the technological design of meters and appliances.

In order to promote the linking of increased energy efficiency and ***price-sensitive electricity consumption****, the Government will:*

- Ensure that consultancy on energy also includes consultancy on price-sensitive electricity consumption.
- Support research, development and demonstration projects in energy-efficient appliances and technologies that can help to promote price-sensitive electricity consumption, including the promotion of advanced meters and intelligent appliances.

4. Future organisation of energy-conservation efforts

It is essential that the promotion of energy conservation be well-organised and that the funds available be used as efficiently as possible.

The point of departure for organising future initiatives is the desire for balanced and yet effective action that pays back in the short term. The target is that enterprises and energy consumers experience that energy saving results in economic gains and a reasonable return on investment that would not otherwise be achieved.

The Government considers it essential that the organisation of the energy conservation drive reflect the priorities set for energy saving. The organisation must support the market-oriented strategy and the initiatives described in the action plan. It is important that the funds made available result in the highest possible profitable savings.

Current organisation

The present organisation covers the following stakeholders:

The ***Danish Energy Authority*** is responsible for official tasks in all aspects of energy conservation. It is responsible not only for legislation and regulation in this area but also for negotiations within the EU, implementation and monitoring of EU directives on labelling and standards, research and development and a number of operational duties, such as in connection with the energy labelling of buildings. Its official duties also include the setting up of a framework for, and the monitoring of, the activities of supply companies and the Electricity Savings Trust. It is responsible for various tasks in connection with the agreement scheme applying to business/industry.

The ***National Agency for Enterprise and Construction*** is responsible for a number of official, energy-related tasks in the construction sector. These duties include the energy provisions of the Building Regulations, regulations on individual metering of electricity, gas, water and heat, and regulations on efficiency in heat-producing systems.

The ***Electricity Savings Trust*** was set up in 1996. Its mandate has primarily to do with electric-heating conversion and the promotion of efficient electrical appliances, etc., in households and in the public sector. As far as electric-heating conversion is concerned, the Trust awards grants and negotiates price agreements, etc. In connection with the promotion of efficient electrical appliances, the Trust conducts campaigns, market influencing, voluntary agreements and transparency of electricity consumption. The Trust has set up an A-club, where public institutions, etc., commit themselves to procure energy-efficient products. The Trust's annual budget is approximately DKK 90 million, raised through a special electricity saving-contribution of 0.6 ore/kWh on the electricity consumption in households and the public sector, etc.

Grid and distribution companies (electricity, gas and heat) are responsible for promoting energy conservation among their consumers. The initiative must be non-commercial and, under

normal circumstances, no grants are awarded for investments, etc. One of the main activities of electricity-grid companies and some gas companies is individual consultancy on potential savings for major customers. Campaigns, information activities, etc., are also carried out. Electricity companies have been working on energy conservation since the early 1990s. The activities of the natural-gas and district-heating companies have only been formalised in the last few years. The expenditure is financed through tariffs and totals around DKK 240 million annually.

Table 2: Overview of current energy-conservation efforts.

Stakeholder	Type of energy	Extent of initiative	
		DKK million	Øre/kWh
Households and the public sector			
Electricity Savings Trust	Electricity	90	0.6
Electricity-grid companies	Electricity	90	0.6
District-heating companies	District heat	40	0.15
Natural-gas companies	Natural gas	9	0.1
Oil companies	Oil	0	
Total for households and the public sector		229	
Business, industry and service			
Electricity-grid companies	Electricity	90	0.5
Natural-gas companies	Natural gas	8	0.07
Oil companies	Oil	0	
Other	Other (coal, coke, etc.)	0	
Total for business/industry		98	
Overall initiative total		327	

At the local level, the 2000 Energy Conservation Act set up a number of ***local energy-conservation committees***. Their task is to co-ordinate the energy-conservation drive locally, including the initiatives that are carried out locally by the electricity-, natural-gas and district-heating companies. The local committees do not have independent budgets.

Overall, the spending on public energy-conservation activities amounts to approximately DKK 330 million annually to promote energy saving; approximately DKK 230 million for households and the public sector and approximately DKK 100 million for business/industry. The expenditure is equivalent to approximately 0.5% of consumers' energy expenditure. Enterprises, the public sector and consumers also make significant contributions (in addition to that shown in the table) towards investments in energy improvements.

The initiative taken by the grid and distribution companies and by the Electricity Savings Trust is currently aimed at making it easier for consumers to identify and implement energy savings.

Actual commercial activities connected with realising energy savings are only carried out to a limited extent, such as with the sale of energy services.

Principles for the future organisation

Compared to future challenges, the current organisation of consumer- and enterprise-targeted energy-conservation activities is, overall, not sufficiently efficient. In conjunction with fulfilment of the savings objective set (at an average of 7.5 PJ annually during the 2006-2013 period), the initiatives taken by stakeholders must be made substantially more efficient.

The central principle for a reorientation of energy-saving efforts must be that they offer enterprises, citizens and society economic gains that would not otherwise be achieved. The efforts must therefore be organised so that the overall costs are paid back over a shorter period of time, and there must be continuous documentation of the results. As shown in Chapter 2, there are still significant, profitable, potential savings.

In general, the energy efficiency activities must be market-oriented, and there must be focus on realising the energy savings identified. There must be focus on development of well-functioning markets for energy-efficient products and solutions. It must be easy for consumers to implement the savings identified, and the players must help with this implementation. At the same time, efforts must be organised so that they promote market-based solutions, including the sale of energy services.

The energy conservation activities are based to a large degree on public regulations. Examples of this are the Building Regulations, the labelling schemes for buildings and appliances and the inspection schemes for boilers and ventilation systems. Initiatives directed at energy consumers must build on these regulations and help to ensure their full effect.

Organisation of these initiatives must motivate stakeholders to achieve savings as economically as possible. Monitoring will be introduced, with a large degree of freedom in the choice of methods.

The conservation effort must be targeted at potential energy-savings that are economically profitable on both a private and social level. The activities must help energy consumers to identify and implement profitable energy savings. Within a few years, consumers can achieve savings larger than the cost of the energy-saving efforts.

The present public effort is very unevenly distributed among the various types of energy. As can be seen from Table 2, the major initiative (øre/kWh) is directed at savings in *electricity consumption*, especially in households and the public sector. By contrast, the initiative directed at *heat savings* is relatively limited. More money is also being spent on energy conservation in households and the public sector than in business/industry. At the same time, there is a part of the energy consumption for which there are no committed energy-saving stakeholders. This applies in particular to the oil consumption. Based on the large savings potential in space heating, the Government is preparing to upgrade the efforts in this area.

A high level of cohesion must be achieved in the conservation activities. Both the Electricity Savings Trust and electricity-grid companies are working on electricity savings in households and in the public sector. Many energy consumers are using more than one type of energy and are therefore covered by several stakeholders' initiatives. An efficiency gain can be achieved through increased co-ordination and cross-sector prioritisation.

Target management and a high degree of freedom regarding choice of methods, combined with the entering into of agreements with the companies, will ensure that efforts are effective, consistent and easy to administer for enterprises and authorities. As of 1 January 2005, the electricity-grid companies' energy-saving activities are included in the enterprises' income frames, which intensifies the need for clear targets for the scope of their activities.

The introduction of tagret management requires that the overall energy efficiency effort be organised so that the effects are continuously calculated and documented. The methods used must be generally recognised, transparent and be regularly published on the Internet by the respective stakeholders.

Energy-conservation efforts must be based on the needs of enterprises and households. Part of initiatives towards commercial enterprises must be tendered out.

This will create competition in the implementation out of the tasks. Evaluation of consultancy in private enterprises indicates that at present the effect is unclear. In addition, there is too little competition in the implementation of the tasks, which are seldom tendered out. The lack of tenders has given rise to criticism, particularly from consultants and major energy consumers, who state that they are not benefitting sufficiently from the advice given, when compared with their contributions.

The initiatives taken by the Electricity Savings Trust and by electricity-grid companies to promote the use of energy-efficient appliances must make it easy and economical for consumers to choose to buy energy-efficient products. The experience gained thus far shows that significant savings can be achieved in this way. With respect to current efforts, there is a need for increased co-operation.

A future initiative to promote electric-heating conversion must be carried out on the basis of specific calculations of whether the conversion is socio-economically attractive.

Local and regional initiatives must be considered in conjunction with national efforts and more fully integrated with them. Within their income frames, electricity grid companies will henceforth be obliged to spend DKK 25 million annually on a wide-ranging savings initiative. Part of the expenditure must be allocated to local consultancy- and promotional efforts.

Local energy-conservation committees' efforts must be made more effective. Overall, the committees have improved co-ordination of their activities but, so far, it has been difficult to identify the specific results of their work. Only to a small extent have they succeeded in

convincing municipalities, business/industry and organisations to commit to the undertaking, and they lack resources and backup.

With respect to achieving a more comprehensive and effective organisation of energy-conservation that ensure fulfilment of the savings objectives set:

- A co-ordination committee is set up to ensure cost-effective conservation efforts, including improved joint prioritisation and increased co-operation and co-ordination among all stakeholders. The committee shall also ensure that more focus is given to heat savings.
- Electricity-, natural-gas, district-heating and oil grid and distribution companies must deliver a considerable part of the increased savings. This has to be achieved within current economic frameworks. Target management will be introduced and the companies will have a large degree of freedom regarding methodology.
- During the autumn of 2005, an agreement will be entered into with electricity-grid, natural-gas, district-heating and oil companies in which the general frameworks will be set for initiatives and methods for calculation of effects.
- Some of the initiatives involving business/industry must be tendered out. The co-ordination committee prepares the basis for a tendering model, which is submitted to the parties to the agreement.
- Grid- and distribution companies must prioritise heat savings. In this context, they must enter into agreements with the construction sector on package- and standard solutions. Citizens must have access to advice on achieving energy savings, including on financing.
- Initiatives taken by local energy-conservation committees must be reoriented and made more effective.
- Suppliers of oil, heat, natural-gas and electricity, as well as other possible stakeholders must work together to clarify the means by which, in the future, an improved basis for the sale of energy services can be established, in accordance with the proposal for a EU directive on increasing energy efficiency and on energy services.

5. Implementation and follow-up plan

The Government considers it essential that the various initiatives in the action plan be introduced as soon as possible. A number of the main initiatives have already been implemented or the related frameworks established. Other initiatives need either further studies and analyses or negotiations with relevant stakeholders. The action plan must also be discussed with the parties to the agreement.

During the spring of 2005, the following new and profitable initiatives were implemented:

- Tightening of the energy provisions in the Building Regulations (requirements for new buildings, low-energy classes, requirements in the event of major renovations, including by replacement of windows, roofs and boilers). The new requirements have been issued and enter into force on 1 January 2006, with a 3-month transition period.

- The Act on Promoting Energy Savings in Buildings was adopted with support from all parliamentary parties by June 2005 and will enter into force on 1 January 2006. Regulations on energy labelling and inspection of boilers and ventilation systems are to be tabled before the Act enters into force.

- A circular on improving energy efficiency and on energy-right procurement by the government entered into force in April 2005.

During the autumn of 2005, an agreement will be entered into with electricity-grid, natural-gas, district-heating and oil companies in which the general frameworks for initiatives and methods for effect calculation will be set.

In this context, the following elements will be taken care of:

- Frameworks for the tendering out of part of the initiatives towards commercial enterprises.

- Entering into agreements with the construction sector on package- and standard solution

- Further development of local energy-conservation committees.

- Strengthening of the overall information on energy conservation in co-operation with the various stakeholders, including the setting up of a website and targeted promotional initiatives.

- Promotion of the use of energy management and energy-efficient design, transparency and benchmarking of energy consumption and promotion of the possibilities for the use of energy services.

- Promotion of transparency of energy consumption, for instance by using advanced energy meters, and advice on price-elastic electricity consumption.

In co-operation with the relevant parties, the following will also be worked on:

- Study of the possibilities for reducing the fixed rates for district heating and electricity supply.

- Discussions with municipalities and regions regarding their compliance with the same requirements for energy efficiency and energy-wise procurement, which apply to government institutions.

- Promotion of the sale of energy services, etc., in public institutions and enterprises. This will include clarification on barriers and proposals for specific initiatives.

- Legislative changes with a view to abolishing both the obligation for low-energy buildings to connect to district heating or natural-gas systems and the ban on the use of electrical heating for low-energy buildings with the view that these can enter force by 1 January 2006.

- Assessment of the possibilities to integrate energy labelling and status reports.

- Increased efforts to promote joint European savings initiatives.

- Promotion of the utilisation of surplus heat.

With respect to the political agreement of 10 June 2005, the Government will present spokespersons of the agreement parties with a status of implementation of the elements of the agreement, as well as of other elements in the action plan. In this context, the nature of the agreement with electricity-grid, natural-gas, district-heating and oil companies will be explained. It will also be explained how the conservation targets will be achieved.

Thereafter, a status for the energy-conservation efforts will be part of an annual energy-conservation report, starting in the autumn of 2006.

There is agreement on continuous monitoring of the savings achieved in order to ensure that all of the parties involved continue to focus on energy-saving initiatives. In 2008, a general assessment of the initiatives and the results achieved will be made in order to ensure that the instruments are appropriate and that the organisation of the initiatives is effective relative to the agreed targets.

Annex 1

10 June 2005

Agreement between the Danish Government (the Liberal Party and the Conservative People's Party) and the Social Democrats, the Danish People's Party, the Social Liberal Party and the Socialist People's Party on future energy-saving initiatives.

This agreement is a follow-up to the political agreement of 29 March 2004 to ensure a reliable energy infrastructure for the future and to the draft Action Plan for renewed energy conservation which the Danish Government presented on 29 December 2004.

The agreement sets the framework for energy-saving initiatives as well as the main elements of those initiatives for the next several years. The agreement establishes a solid framework for increased cost-effective and market-oriented energy-saving initiatives, which focus on achieving viable savings to the benefit of consumers, enterprises and Danish society.

There is a need for ambitious and dynamic energy-saving initiatives. Savings in energy consumption by increasing the efficiency of energy use contribute to growth and business development, to the maintenance of a high degree of security of supply and to addressing global environmental problems, in particular climate changes. The agreement is therefore a central element in an energy strategy which takes the long-term challenges seriously.

The Parties agree on the objective that the overall energy consumption (exclusive of transport) must be reduced. The target agreed to for energy-saving initiatives is ambitious and has been set with this objective in mind. It is expected that energy-saving initiatives will more than offset the increase in energy consumption (exclusive of transport), which has been indicated by economic growth and by the Danish Energy Authority's projections. The Parties agree that the development of energy consumption shall be monitored closely. If, in a few years, energy consumption (exclusive of transport) turns out not to develop as expected, or if the assumptions for entering into this agreement change significantly, the Parties will discuss the situation with a view to finding a solution. If no agreement can be reached, then a new situation will exist, with which the Parties will have to deal.

Against this background, the Parties agree on the following additions to the Government's draft action plan for renewed energy conservation.

1. Increased initiatives will be taken to achieve concrete energy savings, which can be documented, corresponding to an annual average of 7.5 PJ during the period of 2006-2013. The savings target set with this agreement is approx. 3 times higher than the current annual savings. On the condition that the macroeconomic assumptions for the forecast of

energy consumption remain valid, the result will be a total energy consumption (exclusive of transport) of 430 PJ in 2013.

The parties agree to monitor continuously the development of the savings achieved with a view to ensuring a continued focus on these initiatives among all parties involved. In 2008, a comprehensive review shall be made of the initiatives and the results achieved with a view to ensuring that the instruments are sufficient and that the initiatives have been efficiently organised relative to the agreed target.

2. The increased savings shall to a large extent be achieved by means of greater savings delivered by the grid and distribution companies in the electricity, natural-gas, district-heating and oil sectors. This shall be achieved within the existing economic framework. Target management shall be introduced and the companies shall be given a high degree of freedom regarding methodology.

   This shall be implemented in the autumn 2005, through an agreement with the electricity-grid, natural-gas, district-heating and oil companies. The agreement will set the general framework for the initiatives and the methods of calculating the effects.

   In relation to *commercial entreprises*, a part of the activities shall be tendered out. The Co-ordination Committee (cf. point 3) will prepare the basis for a model for the calls for tender. The model will be submitted to the Parties to this agreement.

3. A Co-ordination Committee shall be established to ensure that the saving initiatives shall be cost-effective. The committee shall ensure better joint prioritising and increased co-operation and co-ordination among all players. The committee shall also ensure that more focus is placed on heat savings.

4. Well-designed, effective energy labelling for buildings - with concrete suggestions for viable savings projects - shall be the point of departure for increased heat savings. The labels shall also include financing proposals.

5. In order to promote realisation of heat savings, the Government shall in connection with the implementation of L 136 on energy savings in buildings:
   - set the frequency of regular labelling of large buildings at a maximum of 5 years;
   - set the validity of energy labels for small buildings at a maximum of 5 years;
   - ensure regular labelling of all public buildings regardless of size; and
   - after 3 years, consider whether, on the basis of the experience gained, all buildings shall be regularly labelled.

6. Furthermore, grid and distribution companies shall prioritise heat savings. As a part of these initiatives, they shall i.a. enter into agreements with the building sector on package and standard solutions. Arrangements shall be made so that citizens have a place to contact for advice on realisation, including also advice on financing.

7. The Minister of Transport and Energy will initiate negotiations with municipalities and regions with a view for them to comply with the same requirements for energy-effective purchase and energy savings, with up to 5 years' payback time, as state institutions.

8. At the EU level, pressure shall be applied so that the Eco-design directive as soon as possible is implemented in specifying standards for a range of products, particularly for standby consumption.

Other elements in the Government's draft action plan, which are not affected by the above changes, will be implemented as described in the draft.

In continuation of this agreement, the Government will submit the final Action Plan for renewed energy conservation in the very near future.

In November 2005, the Government will submit a status on the implementation of the elements in this agreement and of the other elements in the Action Plan to the Parties of this agreement. The status will report on the agreement made with the electricity-grid, natural-gas, district-heating and oil companies as well as on the ways that the energy-saving target will be achieved.

A status of the energy saving initiatives shall be given in the annual energy saving reports, starting in the autumn 2006.